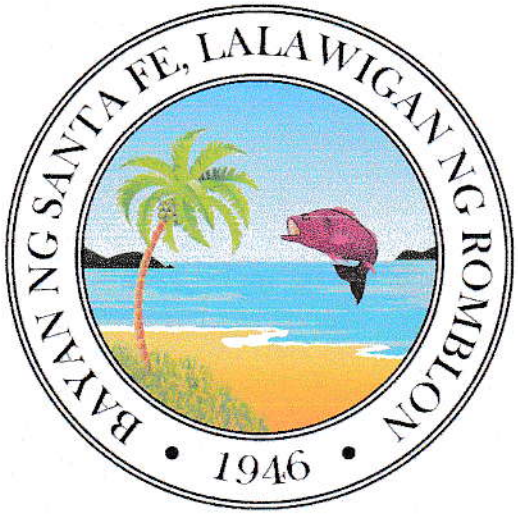
PHILIPPINE BIDDING DOCUMENTS



CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION (GUINBIRAYAN)

Government of the Republic of the Philippines

Sixth Edition
July 2020

Preface

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

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

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

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

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

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

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

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

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

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

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

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

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

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

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

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

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

d. Any important bid evaluation criteria.

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

Republic of the Philippines
Province of Romblon
MUNICIPALITY OF SANTA FE
-o0o-

THE BIDS AND AWARDS COMMITTEE

Invitation to Bid for the CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION (GUINBIRAYAN)

1. The ***Municipal Government of Santa Fe, Romblon*** through the ***DOH Fund 2022*** intends to apply the sum of ***One Million Pesos (P 1,000,000.00)*** being the Approved Budget for the Contract (ABC) to payments under the contract for ***Construction/Improvement of Barangay Health Station (Guinbirayan) (ITB No. 2023-0090***). Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The ***Municipal Government of Santa Fe, Romblon*** now invites bids for the above Procurement Project. Completion of the Works is required within ***74 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 non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

4. Interested bidders may obtain further information from ***Municipal Government of Santa Fe, Romblon*** and inspect the Bidding Documents at the address given below during working days from ***8:00 a.m. to 5:00 p.m***.

5. A complete set of Bidding Documents may be acquired by interested bidders on *December 12, 2023 to January 4, 2024* from the given address and website 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 ***One Thousand Pesos (P1,000.00)***. The Procuring Entity shall allow the bidder to present its proof of payment for the fees *to be presented in person or through electronic means.*

6. The ***Municipal Government of Santa Fe, Romblon*** will hold a Pre-Bid Conference[1] on ***December 20, 2023 at 10:00 A.M.*** at the ***Municipal Hall, Poblacion, Santa Fe, Romblon***, which shall be open to prospective bidders.

[1] May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a pre-bid conference.

7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below on or before ***January 4, 2024 at 9:00 A.M.*** 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 16.

9. Bid opening shall be on ***January 4, 2024 at 9:00 A.M.*** at the given address below. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

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

11. For further information, please refer to:

    ENGR. CHARLIE T. ANDRES, JR.
    Municipal Agriculturist/LGU-BAC Chairperson
    Municipality of Santa Fe
    Province of Romblon
    Telephone No. ***0927-863-5875***
    Email Address: ***stafebac2023@gmail.com***

12. You may visit the following websites:

    For downloading of Bidding Documents: ***http://www.staferomblon.gov.ph***

CHARLIE T. ANDRES, JR.
LGU-BAC Chairperson

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

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

1. Scope of Bid

The Procuring Entity, ***Municipal Government of Santa Fe, Romblon*** invites Bids for the ***Construction/Improvement of Barangay Health Station (Guinbirayan)***, with Project Identification Number ***ITB No. 2023-0090***.

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 ***DOH Fund 2022*** in the amount of ***One Million Pesos (P 1,000,000.00)***.

2.2. The source of funding is:

a. NGA, the General Appropriations Act or Special Appropriations.

b. LGUs, the Annual or Supplemental Budget, as approved by the Sanggunian.

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:

a. Subcontracting is not allowed.

7.1. *[If Procuring Entity has determined that subcontracting is allowed during the bidding , state:]* The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criterial stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.

7.2. *[If subcontracting is allowed during the contract implementation stage, state:]* The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

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

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time at the ***Municipal Hall, Poblacion, Santa Fe, Romblon.***

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

10.3. A valid special PCAB License in case of Joint Ventures, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.

10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of

the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

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

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

11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

14.2. *Payment of the contract price shall be made in:*

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 *one hundred twenty (120) calendars days from the bid opening.* Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

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

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

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

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

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

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

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

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

Bid Data Sheet

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: "Construction of Buildings"</td></tr>
<tr><td>7.1</td><td>[Specify the portions of Works and the maximum percentage allowed to be subcontracted, which shall not be significant or material components of the Project as determined by the Procuring Entity.]</td></tr>
<tr><td>10.3</td><td>[Specify if another Contractor license or permit is required.]</td></tr>
<tr><td>10.4</td><td>The key personnel must meet the required minimum years of experience set below:
<table>
<tr><th>Key Personnel</th><th>General Experience</th><th>Relevant Experience</th></tr>
<tr><td>1. Project Manager</td><td>3 years</td><td>3 years</td></tr>
<tr><td>2. Project Engineer</td><td>3 years</td><td>3 years</td></tr>
<tr><td>3. Materials Engineer</td><td>3 years</td><td>3 years</td></tr>
<tr><td>4. Foreman</td><td>3 years</td><td>3 years</td></tr>
<tr><td>5. Construction Safety and Health Officer</td><td>3 years</td><td>3 years</td></tr>
</table>
The Key Personnel should meet the number of years' work experience as stated above.</td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following: N/A</td></tr>
<tr><td>12</td><td>[Insert Value Engineering clause if allowed.]</td></tr>
<tr><td>15.1</td><td>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:

a. The amount of not less than Twenty Thousand Pesos (20,000.00), if 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 Fifty Thousand Pesos (50,000.00) if bid security is in Surety Bond.</td></tr>
<tr><td>19.2</td><td>Partial bids are not allowed.</td></tr>
<tr><td>20</td><td>Additional Requirements to be submitted by the Bidder with the Lowest Calculated Bid within 5 calendar days from receipt of the notice from the BAC:

1. BIR Certificate of Registration
2. Latest Income and Business Tax Returns filed and paid through the BIR Electronic Filing and Payment System (eFPS)
3. Registration Certificate from SEC for Corporation, DTI for Sole Proprietorship or CDA for Cooperatives</td></tr>
</table>

	4.Valid and Current Mayor's Permit from Place of Business 5. Tax Clearance per E.O. 398, s. 2005, as finally reviewed and approved by the BIR
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity: 1. Construction Schedule and S-Curve 2. Manpower Schedule 3. Construction Methods 4. Equipment Utilization Schedule 5. Construction Safety and Health Program Approved by the DOLE 6. PERT-CPM or other acceptable tools of project scheduling. 7. Certificate or Affidavit of Site Inspection 8. Contractor's All Risk Insurance (CARI) 9. Authority of the Signing Official

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

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

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

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

1. Scope of Contract

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

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

2. Sectional Completion of Works

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

3. Possession of Site

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

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

4. The Contractor's Obligations

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

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

5. Performance Security

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

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

6. Site Investigation Reports

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

7. Warranty

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

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

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

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

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

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

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

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

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

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

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

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

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

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

Special Conditions of Contract

GCC Clause	
2	*The **Intended Completion Date** is **Seventy Four (74) Calendar Days***
4.1	*The **Start Date** is upon receipt date stated in the Notice to Proceed*
6	The site investigation reports are: *[list here the required site investigation reports.]*
7.2	*[Select one, delete the other.]* *[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. *[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:]* Five (5) years. *[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]* Two (2) years.
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within *ten (10)* 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 _____.
13	The amount of the advance payment is *15% of the total contract amount.*
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The date by which operating and maintenance manuals are required is *[date].* The date by which "as built" drawings are required is *upon completion of the project.*
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 *[amount in local currency].*

Section VI. Specifications

Notes on Specifications

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

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

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

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

Sample Clause: Equivalency of Standards and Codes

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

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

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

Specifications

A. GENERAL REQUIREMENTS

TS-1 General

1.1 Provision

1.2 **Drawings and Specification**

Drawings and specification are intended to complement each other, so that of anything is shown on the drawings, but not mentioned in the specifications, or vice versa, it is to be furnished and built as though specifically set forth in both. If any discrepancies occur in the drawings or specification, the same shall be referred to the Engineers assigned in the project before proceeding with the work. The Engineer's decision on such discrepancies shall be final provided that the said discrepancies will not incur any additional amount and will not sacrifice the structural integrity of the project.

1.3 Large scale drawings shall have preference over smaller scale drawings and figured dimensions shall have preference over scaled dimensions.

1.4 The Engineer may, during the progress of the work furnish additional drawings, specifications and instructions as may be necessary, for the proper and adequate implementation of the work. In this case, the Contractor shall make his work conform to all such drawings, specifications and instruction. Such drawings specifications and instruction shall be deemed to the part of the Contract Documents.

1.5 Minor Change The Engineer shall have also authority to direct minor changes in the work provided that there will be no adjustment in the contract cost and the contract schedule. Such changes shall be binding on the Owner and the Contractor.

1.6 Applicable Standard and Codes The following terms listed or referred herein or indicated in the drawings are to be used for reference and latest edition of the publication to the date of these specifications shall apply.

ASTM - American Society for Testing and Materials
ACI - American Concrete Institute
AISC - American Institute of Steel Construction
ANSI - American National Standard Institute
CRSI - Concrete Reinforcing Steel Institute
AWS - American Welding Society
ASSHTO - American Association of State Highway and Transportation Office

1.7 The Contractor may use local standards and codes equivalent to those referred in this Technical Specifications.

PS - National Standard
NBC - National Building Code of the Philippines
NSC - National Structural Code of the Philippines
PCP - Plumbing Code of the Philippines
PEC - Philippine Electrical Code

TS-2 **Construction Schedule and Execution Plan**
The Contractor shall prepare and submit to the Engineer for reference a construction schedule and day to day activity plans of implementation. The contractor shall also submit the list/names of his labor force with their designations.

TS-3 **Permit**
The Contractor shall, prior to the start of work, ensure that the needed building permit is being process or approve by municipality concerned.

TS-4 **As-Built Drawings and Construction Log Book**
The Contractor shall prepare and submit the as-built plans of the project he is undertaking including the construction logbook used in the implementation prior to the release of the final payment.

TS-5 **Construction Photograph**
The contractor shall prepare and submit all require photographs of progress and completion ofconstruction.

TS-6 **Sampling and Testing**
Sampling and testing of materials shall be done by and at the expense of the contractor. All tests required shall be performed at the approved laboratories. The materials represented by the sample shall not be considered acceptable until the required tests have been performed and the results have been found to conform with the requirements of the plans and specifications.

TS-7 **Soil Investigation and Testing**
The Contractor shall, prior to start of work conduct soil investigation and testing to determine the allowable bearing capacity. At least two (2) boreholes with a minimum depth of 15.0 meters each shall be done. The specimen shall be tested at the approved laboratories. The Contractor shall furnish the Engineer a copy of the result of the soil testing. If the soil investigation and testing is found unnecessary, the provisional sum in the bill of quantities shall automatically be deducted from the contract price.

B. **MASONRY**

TS-8 General
The scope of work covers the furnishing of all labor, equipment and materials for the erection of walls made of non load bearing, 100mm and/or 150mm thick concrete hollow blocks.

TS-9 **Materials**
9.1 All materials supplied under the Contract shall conform to the requirements

of the Philippine Standard Association and the National Structural Code of the Philippines, Volume 1.

9.2 Recommended strength of CHB for both external and internal use of the building shall not be less than 450 psi.

9.3 Portland cement mortar for laying concrete hollow blocks shall consist of one (1) part Portland cement, and three (3) parts sand.

9.4 Mortar materials shall accurately measure by volume and thoroughly mixed until evenly distributed throughout the batch. Unless otherwise approved by the Engineer, mixing by batch shall be by mechanical mixer of not less than two (2) minutes per batch.

9.5 Masonry materials shall be handled with care to prevent chipping and breakage. Masonry units shall be stacked on platform and covered or stored in any other approved manner that will protect these materials from contact with the soil and exposure to the weather. Cement shall be stored off the ground under water tight cover and away from sweating walls and other damp surfaces until ready for use. Damage or deteriorated materials shall be removed from the premises.

9.6 All steel reinforcement for masonry works shall be in accordance with the approved plan and details as shown in the drawings.

TS-10 **Methods of Construction**

10.1 All masonry units shall be laid plumbed, levelled and accurately spaced. Wall intersection shall be toothed alternately. End of walls shall be in vertical line.

10.2 All masonry units shall be wetted before layicng. The blocks shall be laid in mortar bedding and such a way that no cracks are formed between the blocks and the mortar at the time the block is placed.

10.3 The blocks shall be adjusted to its final position while mortar is still soft and plastic to insure a good bond.

10.4 The position of the concrete block shall not be shifted after the mortar has stiffened.

10.5 All horizontal and vertical joints must be filled solid with 3/8-inch (9.5mm) thick mortar unless otherwise specified or detailed on the drawings. Any patching necessary to fill the joints should be completed.

10.6 All vertical masonry wall reinforcement shall be anchored to concrete wall

footing and roof beam. Likewise horizontal reinforcement should be anchored to column bars and should be tied where it meets any vertical masonry wall reinforcement.

10.7 Filling of CHB shall be carried out in stages not exceeding 3 courses at a time and the concrete properly compacted without disturbing the block-work.

10.8 The filler concrete shall be stopped at a level about thirty six (36) mm (1 ½) below the top of the blocks laid when filling on concreting is to be stopped for more than one (1) hour.

10.9 All the completion of the work, all excess mortar on masonry surfaces and mortar spilled on floor slabs shall be removed.

C. METAL WORKS

TS-11 General

11.1 Steel truss work includes furnishing all materials, tools and equipments and performs labor services required to complete fabrication and erection of all structural steel and miscellaneous steel like structural steel trusses, purlins, structural steel frames and connection system.

11.2 The contractor shall be responsible for the accurate location of all steel work including items used to attach materials to other parts of the work based on plans.

11.3 The contractor shall see to it that any and all items of work which are to be built into works of other trades are installed at the proper time
11.4 The contractor shall notify the Engineer if the steel work shall be fabricated in a shop other than the site, so that arrangements in the inspection of the delivered materials and in the fabrication of the steel work.

11.5 Complete and detail fabricator tolerances and erection including details of all connections and anchorage shall be approved by the Engineer.

TS-12 Materials

12.1 All materials and workmanship should conform to the requirements of the American Institute of Steel Construction (AISC), "Specification for Design, Fabricator and Erection of structural Steel for Buildings", as amended to date or as may be specifically modified by the drawings.

12.2 All mild steel angles, flat bars, square bars, channels, U, and other sections. C purlins that may be used shall be with stiffened flange for built-up, rigid frame roof beam.
12.3 All standard structural grade level rods with turnbuckles shall be used if applicable.

12.4 All structural steel plates and shapes shall conform to ASTM Designation A36 with a specified yield point of 36,000 psi.
12.5 Sizes, shape and design of all mild steel sheets or plates shall be as indicated in the drawings.
12.6 All welding electrode shall conform to E60 series of ASTM Specifications zA-233 and AWS Specifications A5.0 and A5.5
12.7 All bolts to be used shall conform to the specifications for low carbon steel.
12.8 All red lead paint shall be "Boysen" or its approved equivalent.

TS-13 Installation and Methods of Construction
13.1 All welding technique, the appearance and quality of welds mad and methods shall be based to the requirements of the Standard Code for Welding in Building Construction for the American Welding Society (AWS) as adapted by the Department of Public Works and Highways.
13.2 All surfaces to be welded shall be free from loose scale, slag, rust, grease, paint and any other foregoing material except that mild scale which withstands vigorous wire brushing may remain. Joint surfaces shall be free from fins and tears.
13.3 All cut edge shall be subject to substantial stress to have weld metals deposited of them be free from gouges and must be removed grinding.
13.4 Never exceed the separation between laying surfaces of lap joints and butt joints on a backing structure by 1.58mm (1/16 inch).
13.5 Bring the fit of joints at contact surfaces which are not completely sealed by welds, close enough to exclude water painting.
13.6 Distortion and shrinkage in all joining parts of structure or built-up members must be avoided. If possible, avoid high residual stress in the closing welds of a rigid assemble and all welds in compression elements.
13.7 In the fabrication of cover plated beams and build-up members, all shop splices in each component part before such component part shall be welded t the other parts of the member splicing not more than three sub-sections.
13.8 Exposed surfaces of welds shall be reasonably smooth and uniform and shall project not more than 1.58 mm (1/16 inch) above the surfaces joined. No finishing or grinding shall be required except when clearances or fit of other items is required in the drawings.
13.9 All structural members of single rolled shape and built-up members fabricated riveting or welding, unless otherwise specified, be straight within the tolerances allowed by ASTN Specification A6.
13.10 Fabrication shall be performed with special care and necessary straightening to maintain the structural condition of the structures.
13.11 Clean all steel work specified for painting by hand or other methods approved by the Engineer.
13.12 Do not paint any steel work that is to be encased in concrete. Clean all

greased or with solvent cleaners. Removed dirt and foreign materials thorough sweeping with a fiber brush. Contact surfaces shall be cleaned but not painted.
13.13 Machine finished surfaces shall be protected against corrosion by a rust-inhibiting coating that can easily be removed prior to erection or which has characteristics that make removal unnecessary to erection.
13.14 The contractor shall use special care in unloading, handling and erecting all the steel to avoid, banding, twisting or otherwise distorting the steel members. The erector shall handle the materials in such a way as to minimize the damage to the shop-coated of paint. The contractor shall plan and execute the erection in such a way so that the close fit and neat appearance of the joints and the structure, as a whole, will not be impaired. If temporary braces or erection clips are employed, care shall be taken to avoid any unsightliness upon removal. Tack welds shall be ground smooth and holes shall be filled with weld metal or Contractor shall submit to the Engineer the sequence of erection for approval.
13.15 The frame of the steel roof framing shall be carried up true and plumb and temporary bracing shall be introduced wherever necessary to take care of loads to which the structure may be subjected, including equipment and the operation of the same. Such bracing shall be left in place as long as may be required for safety. Wherever piles of materials, erection equipments or other loads are varied during erection proper provisions shall be made to take care of stresses resulting from such loads.
13.16 No riveting, permanent bolting or permanent welding shall be done until the structure has stiffened with resulting stresses and properly aligned.
13.17 Any shop paint on surfaces adjacent to joints to be field welded shall be wire brushed, to reduce the paint film to a minimum.
13.18 Structural steel truss members shall be aligned, plumbed straight in fabrication, welding and installation.
13.19 The structural steel shall be fabricated, handled and crated as per specifications and conformity with the American Institute of Steel Construction (AISC) Specification for the design, fabrication and erection of the structure steel for buildings.
13.20 After erection, all unpainted areas including any marred or damaged surfaces shall receive one coat of same inhibitory painting.

D. WOOD WORKS

TS-14 General

14.1 The works consist in furnishing all materials, plant, labor, equipment and all other items specified in the drawings and in the specifications. It also includes all operations necessary for the completions of all carpentry works.

14.2 Lumber shall be of the approved quality, of the respective kinds required for the work, well seasoned, thoroughly dry, straight and free from large, loose

or unsound knots, saps, shakes, or other imperfections which may affect its strength, durability and appearance.
14.3 Framing lumber (if applicable) including trusses, rafters, purlins, and girts shall be of the rough dimension shown on the drawings). Any planned lumber supplied shall have a finish size than the rough dimensions specified on the drawings.
14.4 All cutting, faming, fitting and other rough lumbers necessary for the accommodation and completion of the work shall be provided.
TS-15 Protection and Storage
15.1 Shall be protected and kept under cover both in transit and at the job site, and shall be carefully in piled off the ground and be insured of proper drainage, ventilation, and protection from the weather.
15.2 All surface wood framework and other wood members coming in contact with or embedded in concrete shall be painte4d with two (2) coat of asphalt applied hot or coal tar.
15.3 The contractor shall protect all finish woodwork from injury after it has been set in place until the completion and final acceptance of work.

TS-16 Substitution of Lumber

Any lumber intended to be used may be substituted if the substitute belongs to the same group of the kinds specified. However, a deducted may be considered if the unit cost of the substitute is lower than that of the unit cost as stated in the contract. Any substitution must be subject to the approval of the Engineer.

TS-17 Materials

17.1 When the type and kind of materials of lumber for this purpose is not specified in the drawings and details the following shall be used:
a. Guijo or Apitong – for all door jambs, window jambs, headers and transom bars; wood plates and all other wood coming in contact with concrete or masonry.
b. Tanguile or Red Lauan - for all ceiling framing, studding and partitions (applicable to project using lumber)
c. Plywood – shall be 6 mm (1/4 inch) thick for all ceiling, marine type for eaves while ordinary type for inside ceiling. If applicable, 19 mm (3/4 inch) thick shall be used for cabinet and its doors.

TS-18 Methods of Construction

18.1 All framing and other rough carpentry shall be fitted closely and care4fully to the required lines and levels, and shall be secured in place in a rigid substantial manner.
18.2 Door jambs indicated on the drawings, in contact with concrete shall be anchored using 4-inch common wire nails spaced not more than 200 apart, all around the contact surface.

18.3 Fastening, except where bolts are shown on the drawings shall be common wire nails.

18.4 Nails shall be of the proper size, and care shall be taken so as not split the wood members.
18.5 All dimensions shall be verified on the site before fabricating joinery items. All joints shall be accurately and cleanly formed to conform to the required details. All items of work shown on the drawing shall be done by the Contractor in accordance with good workmanship practice and in accordance with the best reasonable interpretation of the plans and related specification. Use Wellwood or other approved water-resistant glue for assembly of materials
and other joinery.

E. THERMAL AND MOISTURE PROTECTION

TS-19 General

This includes the supply all labor, plant, materials, equipment, and other facilities required to complete all roofing work as shown on the drawings and specified herein. Work shall be done by trained and experienced workmen who are completely familiar with the materials and the recommended methods of installation.

TS-20 Materials

20.1 GA. 26, corrugated, manufacturer pre-painted long span G.I. Roofing shall be used and all bended accessories such as ridge rolls, end flashing, side flashings and corner flashings shall be GA. 24. Preformed pre-painted G.I. materials and delivered to site free form any damages.
20.2 Cement from concreting works, chemical solutions, paint, welding sparks, nails and iron tools should not be allowed to drop on, extend to or rust away at the roof since removal or scraping of materials later could damage the roof's coating, roof traffic should be minimized. When crossing the roof area, walking should be conducted along roof frame locations, along overlaps or on wooden planks laid over the roof panels.

TS-21 Methods of Construction

21.1 Roofing sheets shall laid and shoulder start opposite the direction of the prevailing monsoon winds, lay and install the first panel with the female rib (side edge without over-bend) facing the area to be roofed. Overlap the male rib (side edge with over-bend) of the next panel on the female rib of the previous panel. Roofing sheets can be fastened by means of stove bolt with aluminum rubber washers or teks screw with rubber washer. Manufacturers' specification maybe acceptable to as directed by the Engineer.
21.2 Roof mounting strip/connector or tight frame shall be FB2.3 x 30 galvanized steel sheet and shall be fastened to the purlins by full weld or water head teks screw or as directed by the Engineer. Ridge rolls and other flashings shall be attached to the roofing sheets by means of rivets or screw.

F. DOORS AND WINDOWS

TS-22 General

22.1 The work includes the furnishing of materials, equipment, methods and in

performing all operation for all wood doors and windows, complete in accordance with the plans and this specification.

a. All lumbers for door and window frames shall be kiln-dried and approved grade lumber as specified in the technical specifications. All doors and windows shall be of the type done in accordance with the details as shown on the drawings. Refer to the schedule of doors and windows.

b. The Contractor shall be responsible for the proper execution and exactness of dimensions. Shop drawings shall be presented by the Contractor to the Engineer for review and checking prior to production.

TS-23 Storage and Protection

Wood doors, windows and frames shall be protected against damage and dampness. The horns on doors and window frames should be only at the time of installation. Doors and windows shall be stored under cover in a well-ventilated building where they will not be exposed to extreme changes of humidity.

TS-24 Materials

24.1 Frames shall be of the design, size and thickness indicated on the drawings. Wood and window frames in masonry or concrete walls shall be nailed as indicated on the drawings.

24.2 Door hardware and accessories shall be of the design band patterns that will prevent the infiltration of water through its operating parts.

24.3 Flushed Type Door studs shall be of tanguile. Kiln-dried. Use 6mm (1/4") thick marine plywood covering on both sides of door, and shall be of commercial standard. Design and details shall be as indicated in the drawings.

24.5 Hinged door shall be hung plumb, and fitted accurately allowing three (3) mm clearance at the jambs. Use four (4) butt hinges for each panel or hinged door as shown in the drawings.

24.6 Movable jalousie shall be lever type aluminum frame mechanism. Type and brand shall be subject to the approval of the Consultant. Glass blades for jalousie shall not be less than 6mm (1/4") thick. Glass shall be correctly cut to its net dimension on sides and both ends and shall be free from foam, cracks, deformation and other defects. Edges of the glass shall be well chamfered and other performance as maybe directed by the Engineer.

TS-25 Hardware

25.1 General

a. The work includes all rough hardware, required for the completion of the work ,including nails, bolts, screw, etc. , and shall provide and fit in place all finishing hardware hereinafte4r specified put in the proper manner with screws to match the finishes.

All hardware shall be installed in a neat, acceptable manner, following manufacturer's instruction. Except as indicated or specified otherwise, fasteners furnished with the hardware shall be used to fasten hardware in place. After

installation, protect hardware from paint, stain, blemishes and other damage until acceptance of the work. All hardware shall be adjusted
properly and checked in the presence of the Engineer and hinges, lock and other items shall be operating properly. After all hardware is checked, keys shall be tagged, identified and delivered to the Engineer. All errors in cutting and fitting, and all damage to adjoining work
shall be corrected, repaired and finished as directed by the Engineer.

G. FINISHES

TS-26 Plastering

26.1 General

The work includes the furnishing of materials, equipment, method and the labor necessary to complete all plastering in accordance with the drawings and specified herein.

26.2 Materials

All materials specified herein shall be subject to the specification of manufacturers and to the approval of the Engineer.

a. Portland Cement shall conform to ASTM C-150, Type 1.

b. Sand shall be hard well washed, clean and free form deleterious materials conforming to ASTM C-40.

c. Lime shall be hydrated lime with the requirement that calcium oxide (CaO) and the magnesium oxide (MgO) shall not exceed eight (8) percent by weight calculated.

d. Water shall be potable, clean and free form organic matter, acids and alkalis.

26.3 Delivery and Storage Manufactured materials shall be delivered in the original unbroken packages and containers
bearing the name and brand of the manufacturer. Cement materials shall be kept away for the sweating walls and damp surfaces until ready for use. Damage or deteriorated materials shall be removed from the premises.

26.4 Mixture

Plaster shall be the thoroughly mixed with the proper amount of water until uniform in color consistency. Tampering will not permit and all plaster that has begun to stiffen shall be discarded. Cement mortar shall be a three (3) coat application. Each coat shall be proportional as follows: one (1) part Portland Cement, three (3) parts sand and one fifth part lime putty.

26.5 Methods of Construction

a. Surfaces to receive plaster shall be cleaned of all loose particles, dust, cracks and other foreign matter. Before the plastering work is starter, masonry surfaces shall be wetted thoroughly with fog, spray of clean water to produce a uniformly moist condition. Corner beads, screeds and other accessories shall be check carefully for alignment before work is started.

b. The coat shall be applied with sufficient pressure to fill the grooves in hollow blocks or concrete to prevent air pockets and secure a good bond. The coat shall

be lightly scratch and broom. Each coat of cement plaster shall be kept moist for four (4) hour after application and then allowed to dry.
c. Finish and final coat shall not be applied until the first coat has seasoned for 7 days.
Just before the application of the finish coat, the first shall again be evenly moistened with a fog coat; the first shall be floated first to a true and even surface the toweled in a manner that will force the sand particles down into the plaster. Plastered surfaces shall be smooth and free from rough areas, toweled marks, checks and blemishes. Thickness of plaster shall be 9mm (3/8") on vertical concrete and on masonry.
d. On wall finishing, exterior and interior finishes shall be plain cement plaster finish or whatever is specified on the drawing.
e. Toilet wall finishes shall be vitrified glazed ceramic tiles wainscoting. (Refer to ceramic tile work for detailed information).
f. Plastering work shall be finished level, square and true within a tolerance of 5 millimetre in 4.8 meters without cracks, wakes, blisters, pits, projections and other imperfections. Plaster work shall be formed carefully around corners, contours and well-up to screeds. Care shall be taken to prevent sagging and drooping of applications. There shall be no visible junction marks, in the finish coat where one day's work adjoins the other.
g. Upon completion of the building and when directed, all loose, cracked, damaged, or defective plastering shall be cut out and re-plastered in a satisfactory and approved manner. All pointing and patching of plastered surfaces, and plaster work abutting of adjoining any other finish work, shall be done in neat and acceptable manner. Plaster droppings shall be removed from all surfaces. Exposed plastered surfaces shall be left in a clean unblemished condition ready to receive paint or\ other finish. Protective covering shall be removed from floors and other surfaces, and all rubbish and debris shall be removed from the building.

TS-27 Materials

27.1 General

Tile work shall not be started until all installation for plumbing and electrical work has been completed and tested.

27.2 Materials

Manufactured materials shall be delivered in the manufacturer's original unbroken packages or containers that are labelled plainly with the names and brands.
a. Floor tiles at toilets shall be unglazed vitrified ceramic tile, 300mm x 300mm x 6.4mm (12" x 12" x ¼") per piece of tile manufactured by approved brand.
b. Wall tiles and counter shall be glazed vitrified ceramic tiles, 300mm x 300mm x 6.4mm (12" x 12" x ¼") per piece of tile manufactured by approved brand.
c. Trimmers and moldings shall be bright mat glazed to fill the sizes and match with the finish of the wall tiles.

d. Washing counter tiles or science laboratory shall be 300mm x 300mm vitrified glazed tiles and shall be acid resistant manufactured by approved brand.

27.3 Construction Methods

a. Wall tiles shall cover walls and partitions to nominal height as indicated on the drawings. Finish of wall and wainscot tiles shall be uniform for all toilet rooms.

b. Mortar for setting wall tile and floor tiles shall consists of one (1) part Portland cement, 1-1/4 part lime putty and three (3) parts sand by volume.

c. All tile bathes to be thoroughly mixed before placing to balance out any manufacturer's variation in color and texture.

d. Glazed wall tile shall be thoroughly soaked in clean water before being set.

e. Tiles shall be firmly secured in placed. Joints shall be well filled, lines kept straight

and true, and finished surfaces brought to a true plane. Setting beds of floor tiles shall be thick enough to bring the tops of the tiles to the finish slope or levels indicated. Wall filled tiles shall be set with horizontal and vertical straight line joints, except as indicated otherwise, intersection and returns shall be perfectly formed. Cutting and drilling of tiles shall be neatly done without damaging the surfaces of the Tiles.

TS-28 Floor Hardener

28.1 Properties

Floor Hardener is produced from highly graded granite/quarts aggregates and special chemical additives to provide extremely abrasion resistant surfaces protect the surface from gas, oil and chemical attack and provide non skid, anti-slip properties. Surfaces treated with floor hardener are capable of withstanding high point impacts and stresses.

38.2 Applications

For indoor and outdoor use, Floor Hardener is pre-mixed with Portland cement ex-factory. Surface armoring is achieved by spreading evenly on freshly screeded concrete as follows:

o Light Traffic : 3 kg/sqm o Medium Traffic : 4 kg/sqm o Heavy Traffic : 5 kg/sqm

Typical Method of Application:

1. Follow good concreting practice when laying base slab.
2. Smooth and close the surface of concrete with wood float to ensure an even and dense surface. Remove any excess water or laitance from the surface of the slab using a soft broom.
3. Spread aggregate and cement mix in two equal stages evenly over the surface of the concrete. The first application is made as soon as the floor is firm enough so that the aggregates do not sink.
4. Wood float or trowel to compact the first layer.
5. Spread the second layer approximately 1 or 2 hours after the first application.
6. Smooth lightly with a steel trowel taking extra care to ensure that the aggregates are not embedded under the substrate surface.

7. When firm, steel trowel again to bring the surface to a perfect finish again making
sure that the aggregates are not buried beneath the surface.
8. To produce a non-slip finish, trowel in a sweeping circular motion to produce slight ridges.

TS-29 Painting

29.1 General

The work under this section of this specification shall include the furnishing of all materials, labor, tools and other facilities necessary to complete all painting of all surfaces throughout the interior and exterior of the building except as otherwise specified. Before paint application, the contractor shall inspect all surfaces to be painted and all defects shall be remedied. For concrete surfaces all dirty matter shall be removed by scrubbing affecte4d surfaces with a solution of muriatic acid and water (add a half to pint of acid to a gallon of water), and rinse with a clear water to allow to dry thoroughly. All nail holes, cracks or open joints shall be puttied, caulked, or grouted.

29.2 Materials

a. All paint materials shall be delivered to the jobsite in original containers with seals unbroken and labels intact. Materials that are damage during delivery shall be replace by the contractor at his own expense. With the exception of ready-mixed materials in original containers, all mixing shall be done at the jobsite.
b. All paints shall be applied in accordance with the manufacturer's printed instructions.
c. All materials called for under this section of specifications shall be as manufactured by "Boysen" or approved equal.

29.3 Color and Samples

a. Color coordinates and samples shall be submitted by the Contractor to the engineer to review and approval. No painting shall be done without first securing prior approval of submitted color samples, schedule and coordinates.
b. Tinting or matching of colors shall be done under the supervision of the Engineer. If required, each color and finish shall be prepared in advance, with the materials specifications for the approval of the Engineer. "Off color selected" shall be understood of all colors specified therein.

29.4 Paint Application and Methods

a. All concrete and masonry and other surfaces shall be in a condition necessary to receive satisfactory paint finish. All nail holes, cracks or open joints shall be puttied, calked, or grouted. Putty, when necessary shall be applied with a knife after a prime coats have been applied.
b. Scrape off loose mortar surface contaminants, then steel brush to removed chalk, dust, dirt, and surface deposits.
c. All concrete masonry surface must be thoroughly neutralized either by brush or spray with a solution four (4) pounds of zinc sulphate to each gallon of water. Treated surface shall be treated with litmus paper to ascertain that alkalinity is

removed, otherwise a second washing with the solution shall be applied. After drying, all crystals on the neutralized surface must be brushed off before applying the priming coat.
d. All mill work and other wood works where painting is required shall be sandpapered brush, to remove dust, before application of the primer. Resulting voids mails holes, cracks shall be filled with approved putty. Touch up all knots, pitch streaks and sappy spots with approved sealer.
e. Scrape off rust from the surface with steel brush and sweep to remove dust, dirt and all surface contaminants. Oil and grease adhering to the surface may be removed by washing affecte4d surface with soap and wate4r. Holes shall be patched-up with soldering lead.
f. No exterior painting shall be done in rainy, damp weather or until surfaces are thoroughly dry. No interior painting or finishing shall be permitted until building has been thoroughly dried-out.
g. Finish shall be applied only over the preceding coats which are hard and dry. Finish shall be evenly and smoothly applied in thin but covering coats, and shall be free from runs, sags or crawlings.
h. The use of heavy brush is required. Paints shall be thoroughly stirred so as to have the pigment evenly is supervision while paint is being applied. Except where other is noted or specified, all paint shall be applied in three (3) coats.
Wood surfaces:
i. Painted doors, jambs, cabinets, shelves (semi-gloss finish)
1_{st} coat – lacquer primer surface
2_{nd} coat – lacquer primer surface
3_{rd} coat – semi-gloss lacquer surface
ii. Plain painted surfaces such as walls, partitions and ceilings
1_{st} coat – interior sealer and primer
2_{nd} and 3_{rd} coat – flat wall enamel
i. Exterior concrete wall and cement plaster – all exterior concrete shall be painted except as otherwise specified on the drawings.
i. 1_{st} coat –acrytex primer;
ii 2_{nd} and 3_{rd} coat – acrytex topcoat (semi-gloss)
29.5 Cleaning
Upon completion of the work the Contractor shall remove from the building all used materials, debris, and all paint spots on the floor, washing of window glass, hardware fixture, etc. All work performed under this section shall be left clean and acceptable to the Engineer.
29.6 Guarantee
The Contractor shall guarantee his work for a period of one (1) year, when using the materials specified by the Engineer. The Contractor shall repair all defects due to faulty material or workmanship caused by him without any additional compensation for the period specified.

TS-30 Miscellaneous

30.1 General

The work under this section of specification shall include the furnishing of all materials, labor, tools, and other facilities necessary to complete production and installation of the sign and signboards as indicated herein.

30.2 Materials

The materials for the building name plate shall be stainless steel metal sheet 1.587mm (1/16") thick or its commercial gauge equivalent and shall bear the inscriptions stated per attached sketch. The name plate shall be anchored by an expansion bolt directly to the concrete as directed by the Engineer. The size, dimension and material type shall be subject to the approval of the Owner upon presentation of samples.

The materials for the toilet signs shall be of acrylic plastic sheets 4.762mm (3/16") thick or its commercial thickness equivalent and shall bear the sign/inscriptions stated as per sketch. The size and dimension shall be as subject to the approval of the Engineer.

H. MECHANICAL WORKS (PLUMBING)

TS-31 General

31.1 The Contractor shall furnish all labor, materials and equipment necessary to complete and make functional the sanitary, drainage and water supply system. The Owner shall provide necessary drilling of water well and shall yield substantial quantity/volume of water needed to have a functional water supply system to project site either in rainy or dry seasons. The Owner shall likewise arrange/secure consent/approval of tapping to existing water line if necessary or requested by authorities concerned.

31.2 All works shall comply with the provisions of the Philippine National Plumbing Code, MWSS regulations, DPWH guidelines and all other codes and ordinances other local authorities having jurisdiction over the project.

31.3 "Roughing-in" for all pipes and fixtures shall be carried along with the building construction. Correct location for the pipes shall be kept in the walls and floor as specified in the plans.

TS-32 Materials

32.1 All materials must bear the trademarks reference of the manufacturers. The Contractor shall furnish the Engineer with the original and copies certified of origin of materials to be used.

32.2 Soil, wasted, Vent Pipes and Fittings shall be made of unplasticized polyvinyl chloride (UPVC) Schedule 40 or whatever indicated in the drawing and shall be manufactured by "Neltex" or it's approved equivalent in property certificated by Bureau of Product Standard.

32.3 Water pipes and fittings shall be made of galvanized iron pipes (6.1) – schedule 40 or whatever indicated in the drawings and shall be approved equal in property certificated by Bureau of Product Standard. Water pipes requiring installation of PVC or as indicated in the drawings shall use "Modex Blue" or approved equivalent.

32.4 Cleanouts shall be the same as pipe diameter, installed in connection with UPVC hubs and spigot pipes consist of a long sweep quarter extended as indicated in the drawings. An extra heavy cast brass ferrule with countersink trap screw cover caulked into hub if the fittings shall be flushed with the floor.
32.5 Floor drains shall be nickel or chrome plated or approved equal, local manufactured.
32.6 Gate valves shall be brass or bronze solid wedge type with screwed ends, or its equivalent as approved by the Engineer.
32.7 Hose bib shall be brass with male inlet threads hexagonal shoulders and hose connection. Hose bib and faucet shall be of the approved type, locally manufactured.
32.8 Plumbing fixtures and equipment shall be properly identified to illustrate the quality and design of fixture that will be required. All fixtures shall have supply line with cut-off valves having chromium finish and shall be as manufactured by Philippine Standards as follows.
32.9 Water closet shall be of floor mounted tank type complete with all fittings. Color shall be in White (For handicapped only)
32.10 Lavatory shall be complete with necessary fittings. Color is white.
32.11 Laboratory sink shall be 100mm thick R.C. slab with glazed ceramic tiles.
32.12 Provide traps at every plumbing fixture and other equipment requiring connection to the drainage system.
32.13 Lavatory Counters and Cabinets shall be 100mm thick R.C. slab with glazed ceramic tiles counter top.
32.14 Adapters shall be used to join pipes, fittings of different types and sizes and different combination approved by the Engineer.

TS-33 Methods of Construction

33.1 All work shall be done by skilled worker only under the supervision of a master plumber. Contractor shall perform the work in accordance with good workman like practice to the satisfaction and approval of the Engineer.
33.2 On completion of the sanitary, drainage and water supply system and plumbing work and upon delivery of the building, the Contractor shall submit the "as-built" drawings of all the plumbing system layouts as actually installed in the building for future reference.

TS-34 Testing

34.1 Materials shall be subjected to such standard tests as may be required to ascertain their fitness, and the complete plumbing system shall be tested by anyone of the following methods.
34.2 The water shall be applied to the plumbing system in it's entirely or in sections. If applied to the entire system, all openings in the piping system shall be tightly closed except the highest opening and the entire system filled with water to the pint of overflow. All dead ends shall be relieved of air during the process whether the test is by section or it entirely. If the system is tested by sections, each opening of section shall be filled with water.

34.3 The air test shall be made by attaching the air compressor or test apparatus to any suitable opening, and closing all other openings of the system, then forcing air into the system until there is a uniform pressure sufficient to balance a column of mercury 0.13 meter in height or 44kg/m. on the entire system. This pressure shall be maintained for ten (10) minutes without any show of loss in the pressure.

TS-35 Disinfection

The entire water distribution shall be thoroughly, flushed and disinfected with a solution containing not less than fifty (50) part per million (50 ppm) of available chloride. The chlorinating materials shall be either liquid chloride or calcium in the system for a period of sixteen (16) hours, during which all valves and faucets shall be opened and closed several times. After disinfection, the solution shall be flushed from the system with clean water until the residual chorine content is not greater than 0.2 parts per million.

TS-36 Cleaning and Painting

All exposed metal surfaces shall be rid of grease dirt or other foreign materials. Chrome or nickel-plated piping, fittings and trimmings shall be polished upon completion. All equipment, pipes, valves and fittings shall be cleaned of greased and sludge.

a. Any damages to the building finish or furnishing due to the Contractor's failure to properly clean the piping system shall be repaired by the Contractor at his expense.

b. All exterior surfaces of piping to be installed in or through concrete, tile floors and underground shall be given one coat of acid-resisting paint with a bituminous base.

c. At the completion of all work the fixtures, fittings, accessories and other materials shall be thoroughly cleaned and delivered in a condition to the satisfaction of the Engineer.

TS-37 Maintenance

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

I. ELECTICAL WORKS

TS-38 General

38.1 The work include furnishing, delivery and installation of all materials, equipment and labor, necessary for the complete execution of all the Electrical Work as shown on the drawings and as specified herein. All installation shall conform to the requirements of the latest edition of the Philippine Electrical Code (PEC) and the rules and regulations of local and national authorities concerned with the enforcement of the electrical laws and the requirements of the local power company.

38.2 The Contractor shall also provide necessary grounding, if requested by the

local electrical cooperatives/power sources in cases of the line to ground connection/ facilities.

TS-39 Materials

39.1 All materials shall be new and of high quality which shall conform to this specification and other applicable standards.

39.2 All electrical materials shall meet the requirements and shall bear inspection label whenever standards have been established. Before any materials are ordered, the Contractor shall submit to the Engineer for the approval a complete list of manufacturer's name, address, descriptive data, trade name of items, etc. which the Contractor proposes to use or install.

a. Wires

All wires shall be copper, soft drawn and annealed, and of ninety eight (98) percent conductivity, they shall be smooth and true and of cylindrical form and shall be within one (1) percent of the actual size called for.

Wires for lighting system shall be thermoplastic installed for 600 Volts unless otherwise noted on the drawings or specified herein.

All wires shall comply with the requirements of the Underwriter's Laboratories, the A.S.T.M. and I.P.C.E.A. as they apply to the particular usage. For lighting system no wire smaller than 2.0 mm sq. shall be used.

b. Plate and receptacles

Type of color of receptacles outlet plates shall be as selected by the Engineer. All switches and receptacles plates shall be of ivory plastic cover or as directed by the Engineer.

c. Panel Board

Lighting panel convenience outlet and other electrical runs, shall be equipped with circuit breakers as indicated in the plans. Branch circuit breaker shall be plug-in type, while main circuit breaker shall be bolt-on type. Circuit breaker shall be enclosed on hinged metal box or cabinet to suit the size and rating to prevent the entrance of water and tampering by unauthorized persons.

d. Junction and Pull Boxes

Junction and pull boxes, of acceptable gauge steel, shall be provided as indicated or as required for facilitating the pulling of wires and cables. Pull boxes in finish places shall be located and installed with the permission and to the satisfaction of the Engineer. Splices and taps in any system shall be made only in junction boxes.

e. Wall Switches

Wall switches shall be rated 5 amperes with voltage rating as required and shall be tumbler operation and the color plating and appearance of wall plate shall be as selected by the Engineer.

f. Electrical Fixtures

All fluorescent shall be equipped with 40 watts fluorescent lamp with HPF ballast or approved equivalent.

g. Raceways

Rigid non-metallic conduit (PVC) shall be used on all installations embedded in concrete and concealed in wood ceilings or walls inside the building only. Rigid non-metallic conduit may be buried directly in earth provided the depth shall not be less than 457 mm (18"). Bends in conduits shall be so made that the conduit won't be injured and that the internal diameter of the conduit will not be effectively reduce. A complete run of conduit shall not contain more than the equivalent of four quarter bends including those located immediately at the outlet of fitting. Whenever necessary a pull box shall be provided as directed. No conduit shall be used in any system smaller than 15mm (1/2") electrical trade size. All conduits for underground electrical installations shall be rigid steel conduit(RSC) encased in 0.10 x 1.10M concrete.

TS-40 Location of Wiring and Outlet

40.1 The location of outlets shown on diagrammatic wiring plans be considered as approximate and it shall be responsibility of the Contractor, before installation of outlet boxes, to study, verify and obtain precise information from all pertinent drawing, for exact location of all outlets and wiring. If so directed by the Engineer, the Contractor shall make any necessary adjustment of his work to fit conditions for recessed fixtures and for outlets occurring in glazed tile, block, wood paneling or other finish material, in order that all boxes may register flushed with finish. Local switches which are shown near doors as shall be located at the strike side of the doors as finally hung, regardless of swing shown on the drawings as maybe directed by the Engineer.

40.2 All wiring and lighting fixture shall be installed as specified and at location shown on plans.

40.3 Mounting heights of devices shall be detailed as follows if not specified on the drawing or as may be directed by the Engineer.

a. Light Switches 1.40 m above finish floor

b. Convenience Outlet 0.30 m above finish floor

c. Panel Board 1.70 m above finish floor

TS-41 Testing

41.1 The entire installation shall be free from improper grounds and from short circuits. These tests shall be made in the presence of the Engineer. Panel board shall be tested with mains connected to the feeder, branches connected and switches closed, all fixture in place and permanently connected, lamps removed or omitted from the sockets and all wall switches closed. Each individual power feeder shall be tested with the power equipment connected for proper and intended operation. In no case shall the insulation resistance be less than that allowed by the Regulations for Electrical Equipment of Buildings. Failure shall be connected in a manner satisfactory to the Engineer.

41.2 It shall be the responsibility of the Contractor to test all system of the entire electrical installation in the presence of the Engineer, for proper operational condition. This condition shall apply to the power and lighting installation, where sequence operation is required, the Contractor shall test for proper sequence

and he shall leave the entire electrical installation in satisfactory working condition.

TS-42 Guarantee

The Contractor shall guarantee that the electrical systems are free from improper grounds and defective materials for a period of one (1) year from date of acceptance of the work. Any defects, appearing within the aforesaid period shall be remedied by the Contractor at his own expense.

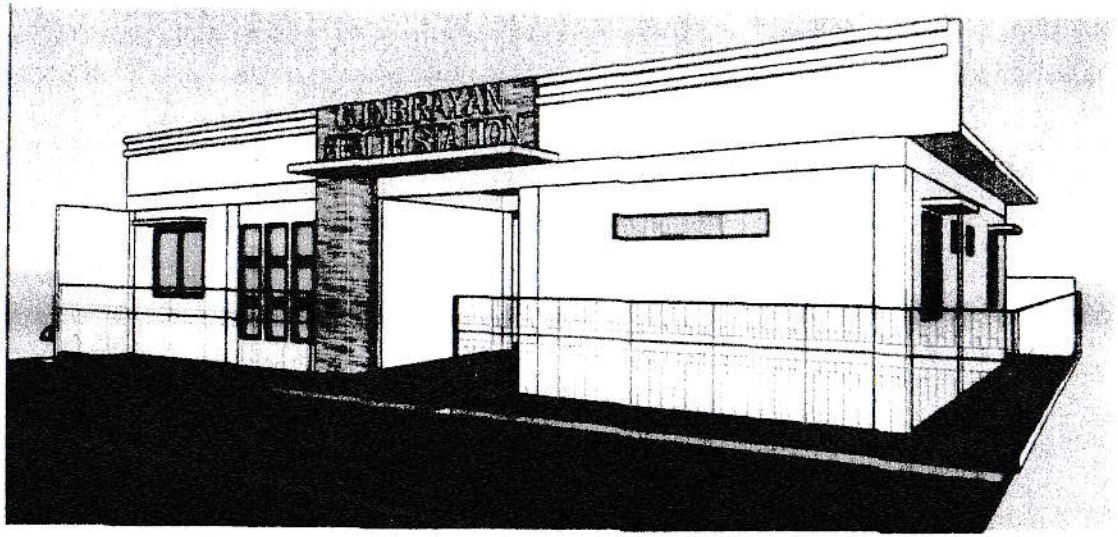
TS-43 Workmanship

43.1 The work throughout shall be executed in the best and most approved manner under the direction and to the satisfaction of the Engineer, who will jointly interpret the meaning of the Drawings and specification and shall reject any work and materials which, in his judgment, are not in full accordance therewith.

43.2 The Contractor shall have on file for ready access and reference, as set of drawing indicating all work as actually installed incorporating in same all charges and additions. Upon
completion of the Contract, the Contractor shall prepare a set of drawings indicated there on the electrical work as actually and finally installed; these drawings shall be turned over to the
Engineer.

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.]



PERSPECTIVE

VICINITY MAP
NTS

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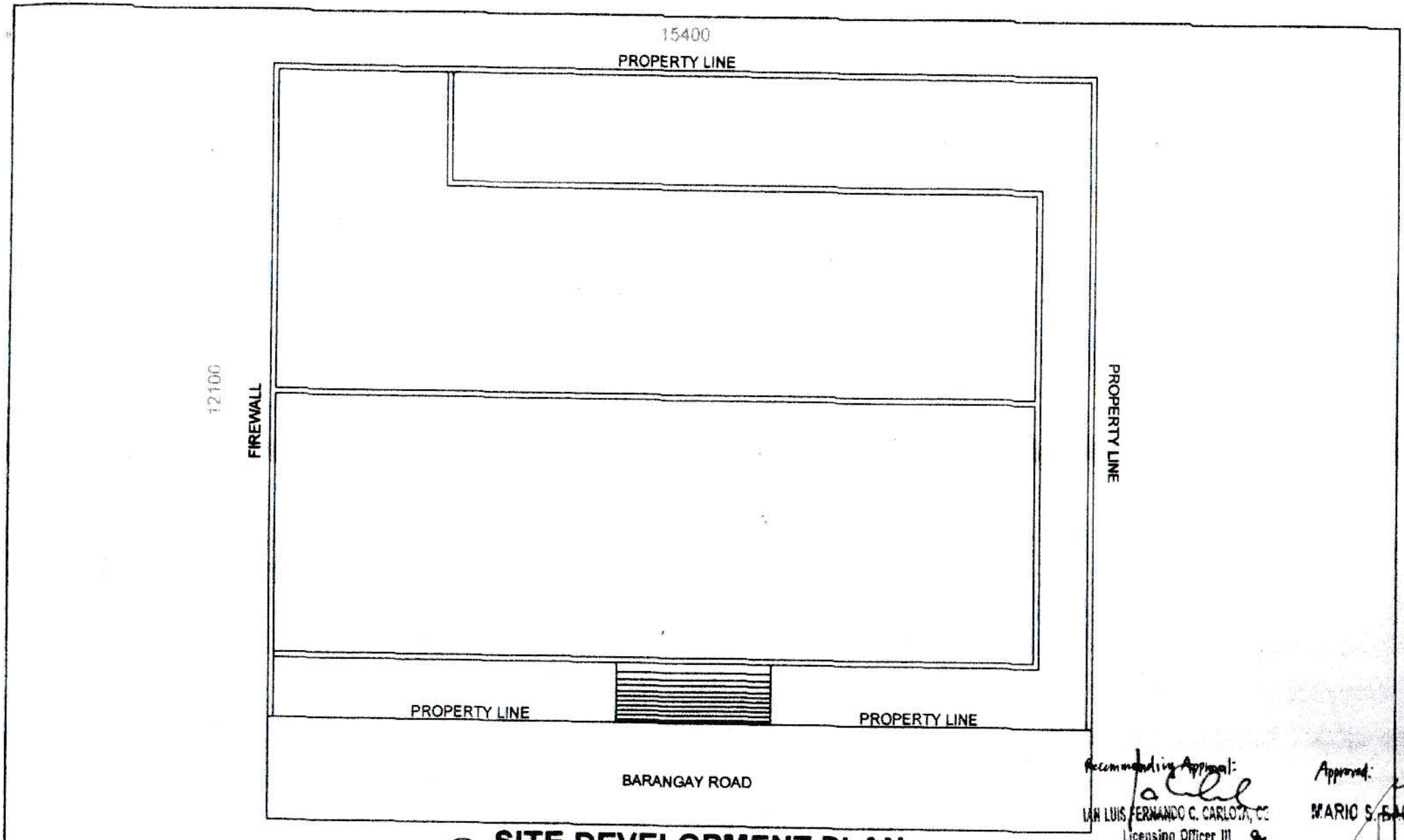
OFFICE OF THE MUNICIPAL ENGINEER
SANTA FE, ROMBLON
10-C-23

Recommending Approval:
IAN LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approved:
MARIO S. BAQUILOD
DIRECTOR

REPUBLIC OF THE PHILIPPINES PROVINCE OF ROMBLON MUNICIPALITY OF SANTA FE	REPUBLIC OF THE PHILIPPINES MUNICIPALITY OF STA. FE OFFICE OF THE MUNICIPAL ENGINEER DESIGN & PLANNING	PREPARED BY: ENGR. [illegible] F. GALIN ENGINEERING ASSISTANT II	CHECKED/REVIEWED BY: ENGR. RAYMOND M. MAYOR MUNICIPAL ENGINEER	REC. APPROVAL: DR. JANET CAWALING MUNICIPAL HEALTH OFFICER	APPROVED BY: ELSIE D. VISCA MUNICIPAL MAYOR	PROJECT TITLE / LOCATION: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. GUINBRAYAN, SANTA FE, ROMBLON	SHEET No.



SITE DEVELOPMENT PLAN

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Recommending Approval:

IAN LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approved:

MARIO S. FAQUIL

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MUNICIPALITY OF SANTA FE

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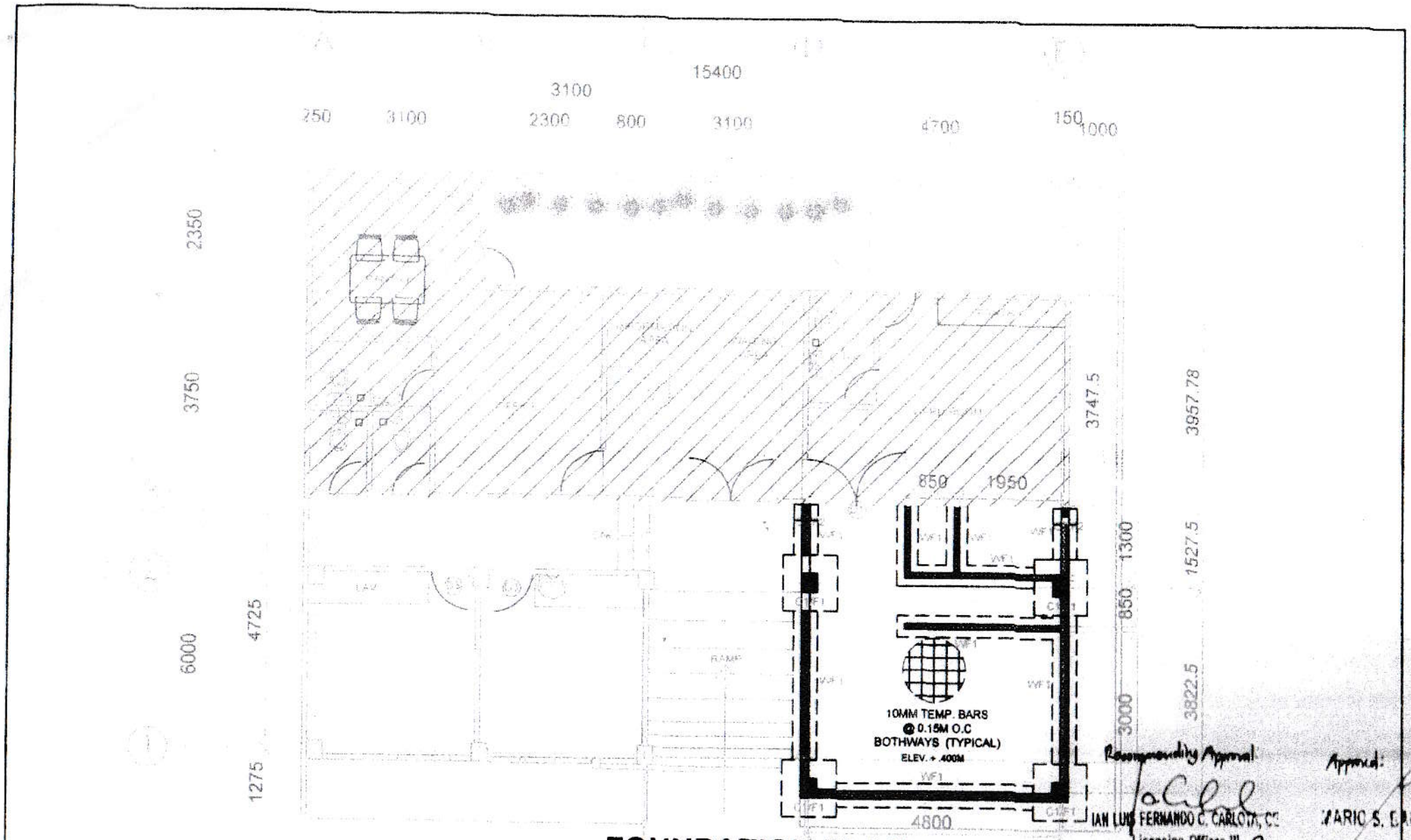
MUNICIPALITY OF STA. FE
OFFICE OF THE MUNICIPAL ENGINEER
DESIGN & PLANNING

PREPARED BY:	CHECKED/REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE / LOCATION	SHEET No.
ENGR. DESSER F. GALIN ENGINEERING ASSISTANT II	ENGR. RAYMOND B. MAYOR MUNICIPAL ENGINEER	DR. JANICE CAWALING MUNICIPAL HEALTH OFFICER	ELSIE D. VISCA MUNICIPAL MAYOR	CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. GUINSIRAYAN, SANTA FE, ROMBLON	



FOUNDATION PLAN

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Recommending Approval

IAN LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approved:

MARIO S. [illegible]

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MUNICIPALITY OF STA. FE
OFFICE OF THE MUNICIPAL ENGINEER
DESIGN & PLANNING

PREPARED BY: ENGR. DEBON F. GALIN, ENGINEERING ASSISTANT II

CHECKED/REVIEWED BY: ENGR. RAYMOND [illegible], MUNICIPAL ENGINEER

REC. APPROVAL: DR. JA[illegible] CAWALING, MUNICIPAL HEALTH OFFICER

APPROVED BY: ELBIE D. VISCA, MUNICIPAL MAYOR

PROJECT/S TITLE/S: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION

BRGY. QUINIRAYAN, SANTA FE, ROMBLON

SHEET NO.

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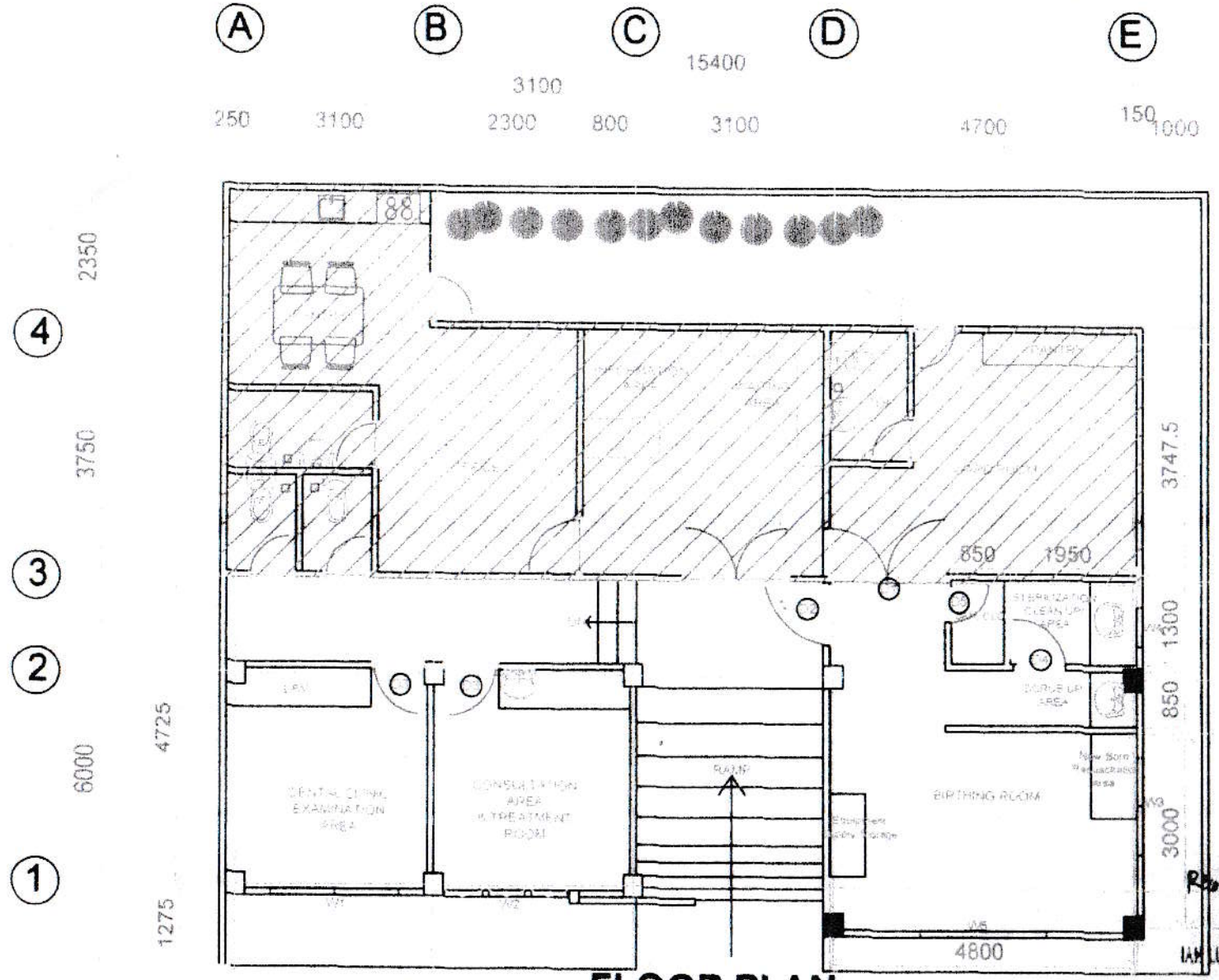

FLOOR PLAN

NTS

* NOTE:
KINDLY FOLLOW ORIENTATION OF DOORS BASED ON THE APPROVED PTC.

Recommending Approval:

IAM LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approved:

MARIC S. BAQUIL
-DI

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CERTIFIED

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CMT III – RECO

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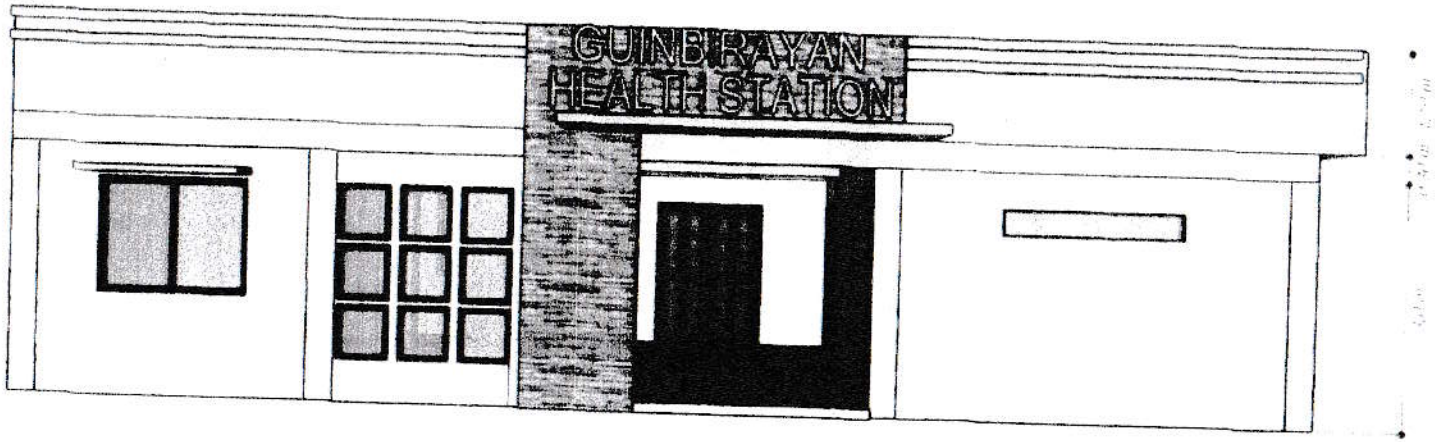
DESIGN & PLANNING

PREPARED BY:	CHECKED/REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE / LOCATION:
ENGR. DESON F. GALIN ENGINEERING ASSISTANT II	ENGR. RAYMOND M. MAYOR MUNICIPAL ENGINEER	DR. JANET P. CAWALING MUNICIPAL HEALTH OFFICER	ELSIE D. VISCA MUNICIPAL MAYOR	CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. GUINOBATAN, SANTA FE, ROMBLON



FRONT ELEVATION
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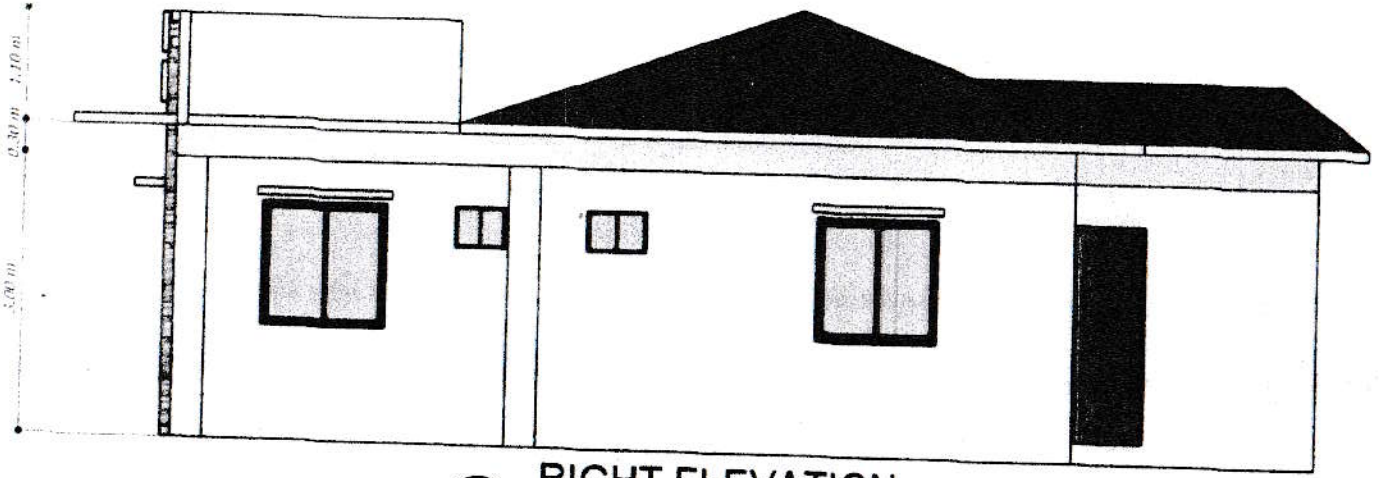


RIGHT ELEVATION
NTS

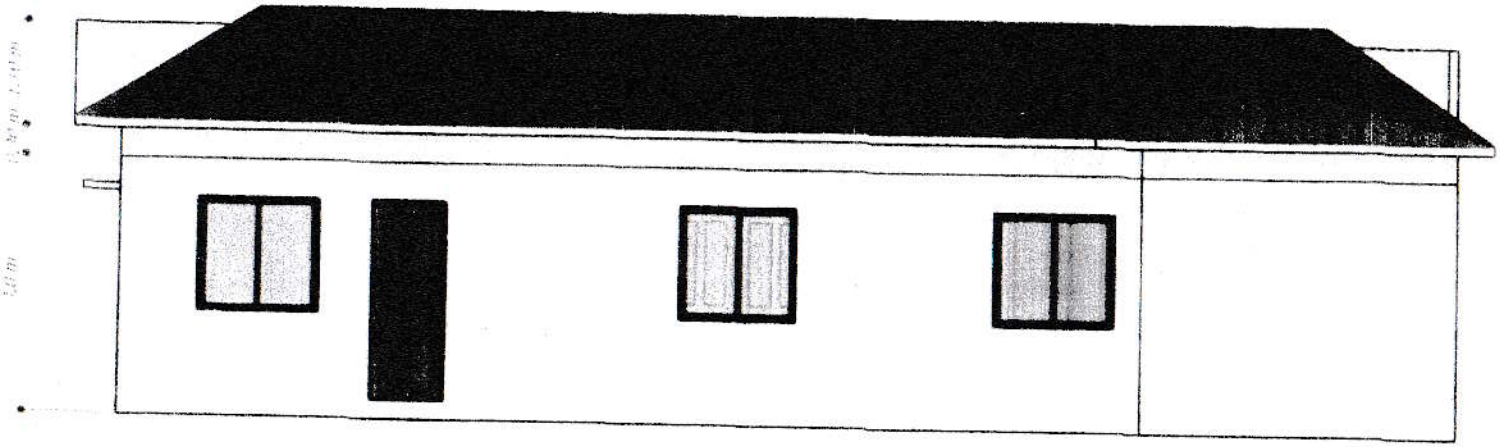
Recommending Approval:

IAN LUIS FERNANDO C. CARLO
Licensing Officer III

Approved:

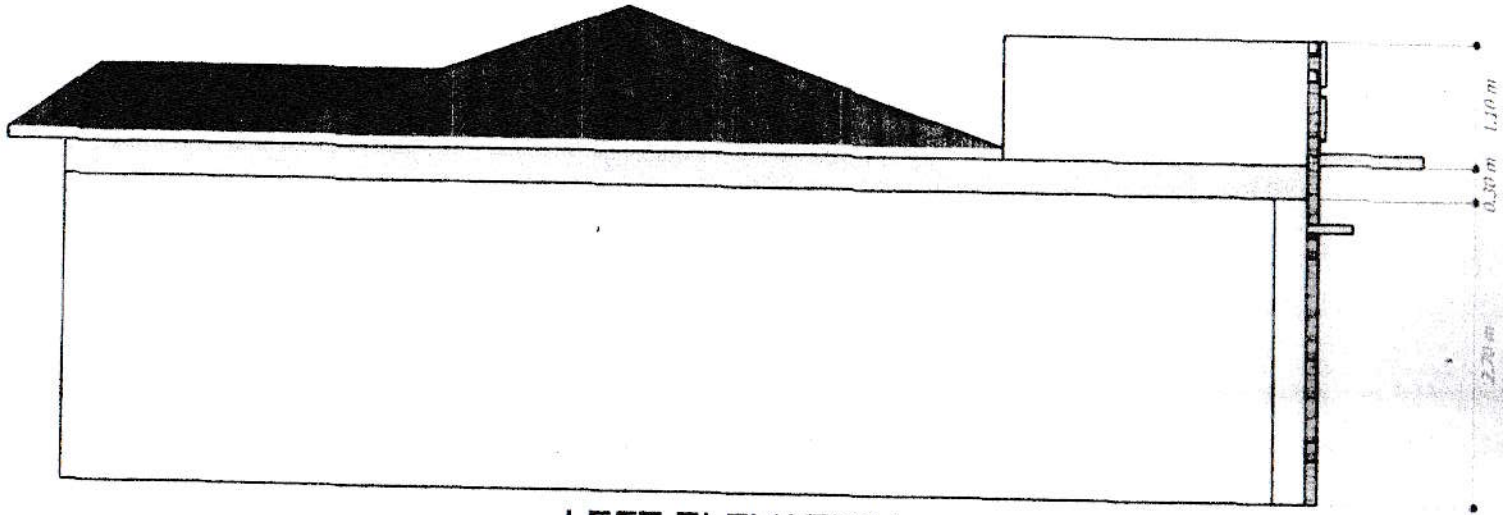
MARIO S. DAGUIOG JR.

REPUBLIC OF THE PHILIPPINES PROVINCE OF ROMBLON MUNICIPALITY OF SANTA FE	REPUBLIC OF THE PHILIPPINES MUNICIPALITY OF STA. FE OFFICE OF THE MUNICIPAL ENGINEER DESIGN & PLANNING	PREPARED BY: ENGR. DESON F. GALIN ENGINEERING ASSISTANT II	CHECKED/VERIFIED BY: ENGR. RAYMOND B. MAYOR MUNICIPAL ENGINEER	REC. APPROVAL: DR. JANE P. CAWALING MUNICIPAL HEALTH OFFICER	APPROVED BY: ELSIE D. VISCA MUNICIPAL MAYOR	PROJECT TITLE / LOCATION: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. GUINBRAYAN, SANTA FE, ROMBLON	SHEET No.



REAR ELEVATION

NTS



LEFT ELEVATION

NTS

Recommending Appr

IAH LUIS FERNANDO C. CA
Licensing Officer

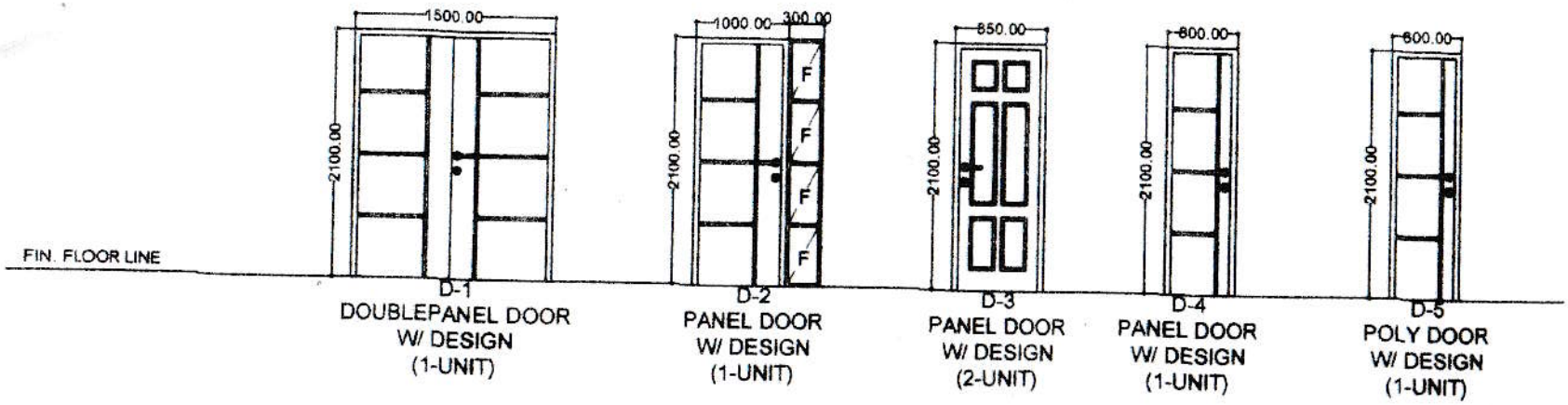
Appvd:

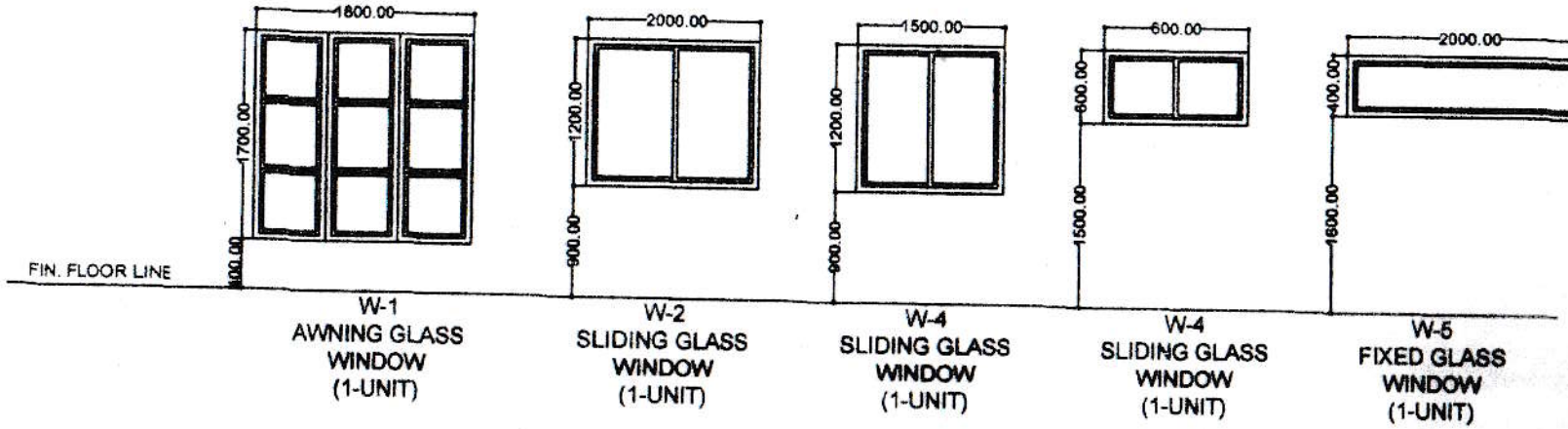
MARIC S. SADUL
DIRE

REPUBLIC OF THE PHILIPPINES PROVINCE OF ROMBLON MUNICIPALITY OF SANTA FE	REPUBLIC OF THE PHILIPPINES MUNICIPALITY OF STA. FE OFFICE OF THE MUNICIPAL ENGINEER DESIGN & PLANNING	PREPARED BY: ENGR. DESON F. GALIN ENGINEERING ASSISTANT II	CHECKED/REVIEWED BY: ENGR. RAYMOND M. MAYOR MUNICIPAL ENGINEER	REC. APPROVAL: DR. JANE C. CAWALING MUNICIPAL HEALTH OFFICER	APPROVED BY: ELSIE D. VISCA MUNICIPAL MAYOR	PROJECT TITLE / LOCATION: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. GUINSIRAYAN, SANTA FE, ROMBLON	SHEET No.

DOH CH
CERTIFIE

RICARDO
CMT III - RECO





Recommending Approval:

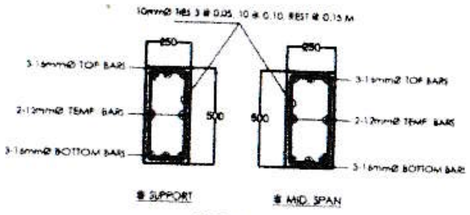
IAN LUIS FERNANDO C. CARLOS
Licensing Officer III

Approved:

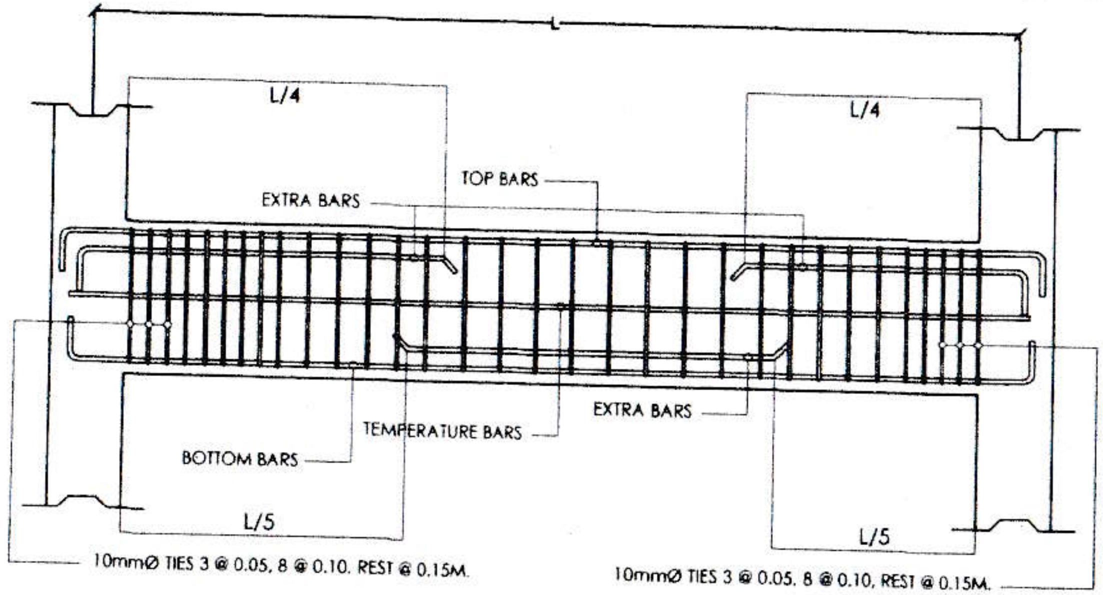
MARIO S. SAQUILGO,
-Director

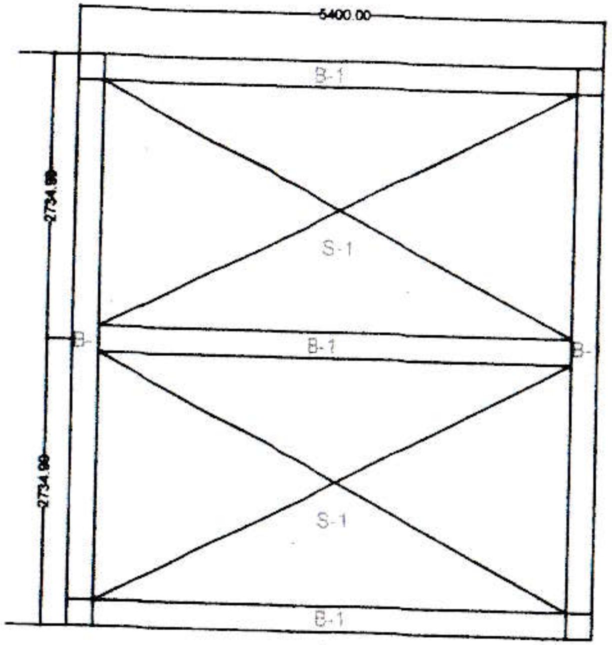
CERTIFIED

REPUBLIC OF THE PHILIPPINES PROVINCE OF ROMBLON MUNICIPALITY OF SANTA FE	REPUBLIC OF THE PHILIPPINES MUNICIPALITY OF STA. FE OFFICE OF THE MUNICIPAL ENGINEER DESIGN & PLANNING	PREPARED BY: ENGR. DIXON F. GALIN ENGINEERING ASSISTANT V	CHECKED/REVIEWED BY: ENGR. RAYMOND M. MAYOR MUNICIPAL ENGINEER	REC. APPROVAL: DR. JANET CAWALING MUNICIPAL HEALTH OFFICER	APPROVED BY: ELBIE D. VISCA MUNICIPAL MAYOR	PROJECT TITLE / LOCATION: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. GUINBIRAYAN, SANTA FE, ROMBLON



SECTION





FLOOR FRAMING PLAN

NTS

SCHEDULE OF BEAMS

BEAM MARK	DIMENSION		LONGITUDINAL REBARS							WEB BAR (FACE BAR)	STIRRUPS	
	WIDTH (mm)	HEIGHT (mm)	BAR Ø (mm)	LEFT EDGE		MIDSPAN		RIGHT EDGE			BAR Ø (mm)	SPACING (mm)
				TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM			
B-1	250	500	16	3	3	3	3	3	3	2-Ø12mm	2L-Ø10mm	1@50, 10@100, Rest @ 200

SCHEDULE OF SLABS

SLAB MARK	THICKNESS (mm)	BAR POSITION	LONGITUDINAL REBARS						REMARKS
			SHORT SPAN (mm)			LONG SPAN (mm)			
			CONTINUOUS EDGE	MIDSPAN	DISCONTINUOUS EDGE	CONTINUOUS EDGE	MIDSPAN	DISCONTINUOUS EDGE	
B-1	100	TOP	200	200	200	200	200	200	1- WAY
		BOTTOM	200	200	200	200	200	200	

Recommending:
IAN LUIS FERNAN...
Licensing...

Approved:
MARIO S. SAQUILO...

DO-RIR...
CERTIFIED...

REPUBLIC OF THE PHILIPPINES
PROVINCE OF ROMBLON
MUNICIPALITY OF SANTA FE

REPUBLIC OF THE PHILIPPINES
MUNICIPALITY OF STA. FE
OFFICE OF THE MUNICIPAL ENGINEER
DESIGN & PLANNING

PREPARED BY:
ENGR. DEBSON F. GALIN
ENGINEERING ASSISTANT II

CHECKED/REVIEWED BY:
ENGR. RAYMOND M. MAYOR
MUNICIPAL ENGINEER

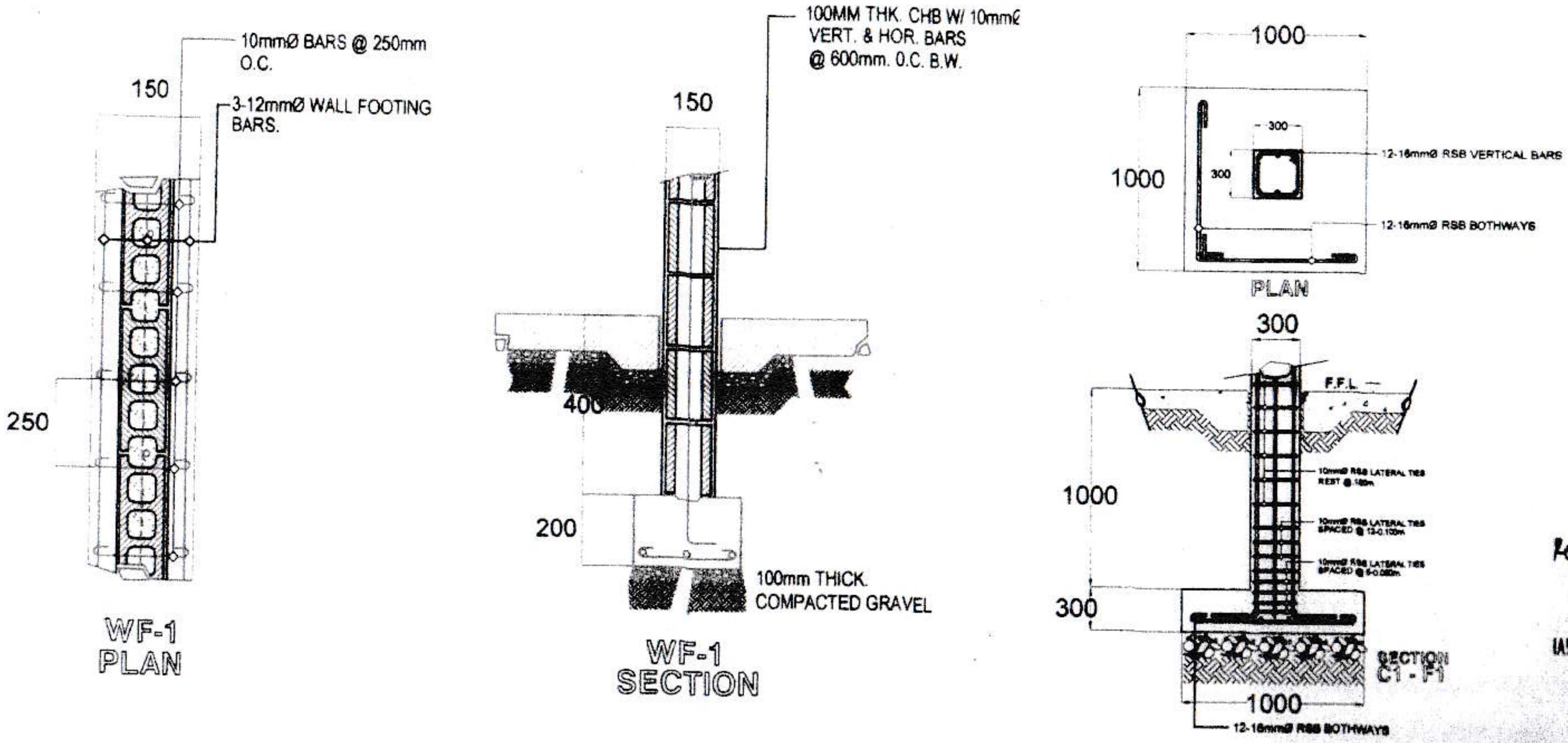
REC. APPROVAL:
DR. JANET F. CAWALING
MUNICIPAL HEALTH OFFICER

APPROVED BY:
EDDIE D. VISCA
MUNICIPAL MAYOR

PROJECT TITLE / LOCATION:
CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION
BRGY. GUINBIRAYAN, SANTA FE, ROMBLON

SHEET No.

RICARDO...
CMT III - RECO...



Recommending Approval:

IAN LUIS FERNANDO C.
Licensing Offi

Approved:

MARIO S. BAQUILOD

DOH CHD CERTIFIED

RICARDO
CMT III - RECO

REPUBLIC OF THE PHILIPPINES PROVINCE OF ROMBLON MUNICIPALITY OF SANTA FE	REPUBLIC OF THE PHILIPPINES MUNICIPALITY OF STA. FE OFFICE OF THE MUNICIPAL ENGINEER DESIGN & PLANNING	PREPARED BY: ENGR. GEBON F. GALIN, ENGINEERING ASSISTANT I	CHECKED/REVIEWED BY: ENGR. RAYMOND MAYOR, MUNICIPAL ENGINEER	REC. APPROVAL: DR. JANE GAWALING, MUNICIPAL HEALTH OFFICER	APPROVED BY: ELSIE D. VISCA, MUNICIPAL MAYOR	PROJECT TITLE / LOCATION: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION, BRGY. GUINBIRAYAN, SANTA FE, ROMBLON

I. STRUCTURAL DESIGN CRITERIA

CODES AND STANDARDS

1. GOVERNING CODES

ACI 318M BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, UNIFORM BUILDING CODE, 1998 NATIONAL STRUCTURAL BUILDING CODE OF THE PHILIPPINES [illegible]

2. GOVERNING STANDARDS

ASTM [illegible] BUILDING CODE REQUIREMENTS FOR STRUCTURAL STEEL

ASTM A[illegible] STEEL SHEET, CARBON, COLD ROLLED, STRUCTURAL QUALITY

ASTM A[illegible] DEFORMED AND PLAIN STEEL BARS FOR CONCRETE REINFORCEMENT

ASTM C33 CONCRETE AGGREGATES

ASTM C39 METHOD OF TEST FOR COMPRESSIVE STRENGTH OF MOLDED CONCRETE CYLINDERS

ASTM C150 PORTLAND CEMENT

[illegible] SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS BY AMERICAN IRON AND STEEL INSTITUTE

DESIGN LOADS

1. DEAD LOADS

PLAIN CONCRETE	24 KN/CU.M
CEILING FIXTURES, ETC.	0.25 KPa
CHB WALLS 6" THK	2.87 KPa
CHB WALLS 4" THK	1.60 KPa
METAL ROOFING G.A. 26	0.10 KPa
STEEL PURLINS	0.10 KPa
SOIL (SELF WEIGHT)	18 KN/CU.M
WATER (SELF WEIGHT)	9.81 KN/CU.M
STEEL (SELF WEIGHT)	77 KN/CU.M
TOPPING FINISH	0.50 KPa

2. LIVE LOADS

ROOF LIVE LOAD (30 DEGREES SLOPE)
TRIBUTARY LOADED AREA (SQ.M.)

0 TO 20	0.80 KPa
21 TO 60	0.70 KPa
OVER 60	0.60 KPa

3. WIND LOADS

MAX. WIND PRESSURE	50 [illegible]
ROOFS	
LEEWARD ROOF	0.50 (SUCTION)
WINDWARD ROOF	1.00 [illegible] 0.50 (PRESSURE)

4. SEISMIC LOAD

[illegible]

5. SOIL PROPERTIES

ASSUMED SOIL BEARING CAPACITY [illegible]

II. CONSTRUCTION NOTES

GENERAL

1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL, ELECTRICAL, SANITARY, PLUMBING AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE WHICH SHALL INCLUDE THE LOCATION AND DIMENSIONS OF OPENINGS, GROOVES, REGLETS, PIPE SLEEVES, CONDUITS, EMBEDDED OR ATTACHED ITEMS TO CONCRET, ETC.
3. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT NEW AND EXISTING CONSTRUCTION. THIS SHALL INCLUDE BUT NOT TO BE LIMITED TO BRACING AND SHORING FOR LOAD IMPOSED DURING CONSTRUCTION.
4. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS.
5. GENERAL NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED.
6. ALL DIMENSIONS ARE IN MILIMETERS UNLESS OTHERWISE NOTED.

NOTES ON CONCRETE

1. NO HAND MIXING IS ALLOWED EXCEPT IN CASE OF EMERGENCY SUCH AS MIXER [illegible]
2. NO CONCRETE SHALL BE PLACED ON FILLED GROUND UNTIL THE OWNER OR HIS REPRESENTATIVE HAS APPROVED AND THAT WORKS HAVE PASSED THE STANDARD COMPACTION OF THE SUBGRADE.
3. CONCRETE SHALL NOT BE ALLOWED TO DROP INTO THE PLACE FOR HEIGHT EXCEEDING THE POINT TO 1.20 METERS.
4. SCHEDULE OF INSPECTION REQUEST FOR CONCRETE POURING AND LOCATION SHALL BE AT LEAST (5) DAYS PRIOR TO DATE OF POURING APPROVAL. NO CONCRETE SHALL BE POURED PRIOR TO APPROVAL OF THE OWNER OR HIS REPRESENTATIVE.
5. USE CLEAN SAND, WATER AND AGGREGATES FREE FROM ORGANIC AND OTHER DELETERIOUS MATTER. SAND FROM SALT WATER IS NOT ALLOWED.
6. PROVIDE SAMPLING OF COMPRESSION STRENGTH WITH ACCORDANCE WITH SPECIFICATION.
   6 CYLINDER (3 PCS - 7 DAYS AND 3 PCS - 28 DAYS).
   TEST SHOULD BE MADE EACH 75 CU.M. OF CONCRETE [illegible] LESS THAN ONE (1) SET FOR EACH DAY POUR.
7. SLUMP REQUIRED:

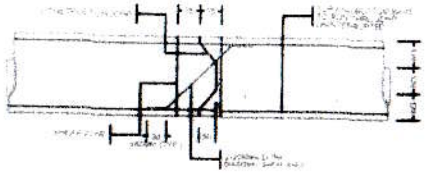
A. FOUNDATION	± 2" TO 4"
B. SLAB, BEAMS, [illegible] BEAMS	± 3" TO 5"
C. COLUMN	± 3" TO 5"
D. PAVEMENT	± 2" TO 3"
E. HEAVY MASS CONCRETE	± [illegible] TO 3"

8. CONCRETE STRENGTH REQUIRED
   A. COLUMNS, BEAMS, SLAB, STAIR, FOOTING, TIE BEAM = 3000 PSI
   B. SLAB ON GRADE, WALL FOOTING, LINTEL BEAM = 2500 PSI
9. WET CURING OF CONCRETE SHALL BE CONTINUOUS FOR MINIMUM OF SEVEN (7) DAYS AFTER POURING.

NOTES ON REINFORCEMENTS

1. REBARS REQUIRED

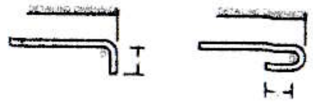
A. FOR 12MM DIAMETER OR UNDER = GRADE 33 (230) MPa
B. FOR 16MM DIAMETER OR ABOVE = GRADE 40 (275) MPa



AT BEAM (LOCATION WITHIN THIRD SPAN)

TYP. BEAM CONST. JOINT DETAIL

NOT TO SCALE

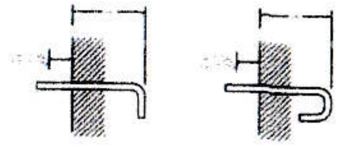


90° HOOK 180° HOOK

BAR SIZE (MM)	D (MM)	180° (MM)	90° (MM)
10 ø	60	86	126
12 ø	72	66	145
16 ø	96	65	195
20 ø	120	80	240
25 ø	150	100	300

STANDARD HOOK DIMENSIONS

NOT TO SCALE

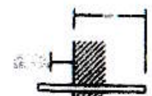


90° HOOK 180° HOOK

BAR SIZE (MM)	[illegible] (MM)	
	TOP BARS	OTHER
10 ø	185	150
12 ø	205	158
16 ø	270	204
20 ø	385	258
25 ø	420	475

MIN. DEVELOPMENT LENGTHS

NOT TO SCALE



STRAIGHT BAR

BAR SIZE (MM)	ldh (MM)	
	TOP BARS	OTHER
10 ø	300	300
12 ø	300	300
16 ø	400	306
20 ø	498	380
25 ø	958	736

MIN. DEVELOPMENT LENGTH

NOT TO SCALE

Recommending Approval:

IAN LUIS FERNANDO C. [illegible]
Licensing Office[illegible]

Approved:

MARIO S. SAQ[illegible]
DIR[illegible]

DOH CH[illegible]
CERTIFIE[illegible]

REPUBLIC OF THE PHILIPPINES PROVINCE OF ROMBLON MUNICIPALITY OF SANTA FE	REPUBLIC OF THE PHILIPPINES MUNICIPALITY OF STA. FE OFFICE OF THE MUNICIPAL ENGINEER DESIGN & PLANNING	PREPARED BY: ENGR. DEBON F. GALIN, ENGINEERING ASSISTANT I	CHECKED/REVIEWED BY: ENGR. RAYMOND [illegible] MAYOR, MUNICIPAL ENGINEER	REC. APPROVAL: DR. JANE [illegible]AWALING, MUNICIPAL HEALTH OFFICER	APPROVED BY: ELSIE D. VISCA, MUNICIPAL MAYOR	PROJECT TITLE / LOCATION: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION, BRGY. GUINBIRAYAN, SANTA FE, ROMBLON	SHEET NO. RICARDO T[illegible] CMT I[illegible] RECO[illegible]

CLEAN WATER LINE LAYOUT

NTS

Recommending Approval:

ENGR. LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approval:

MARIO S. SAQUILOD
DIRECTOR

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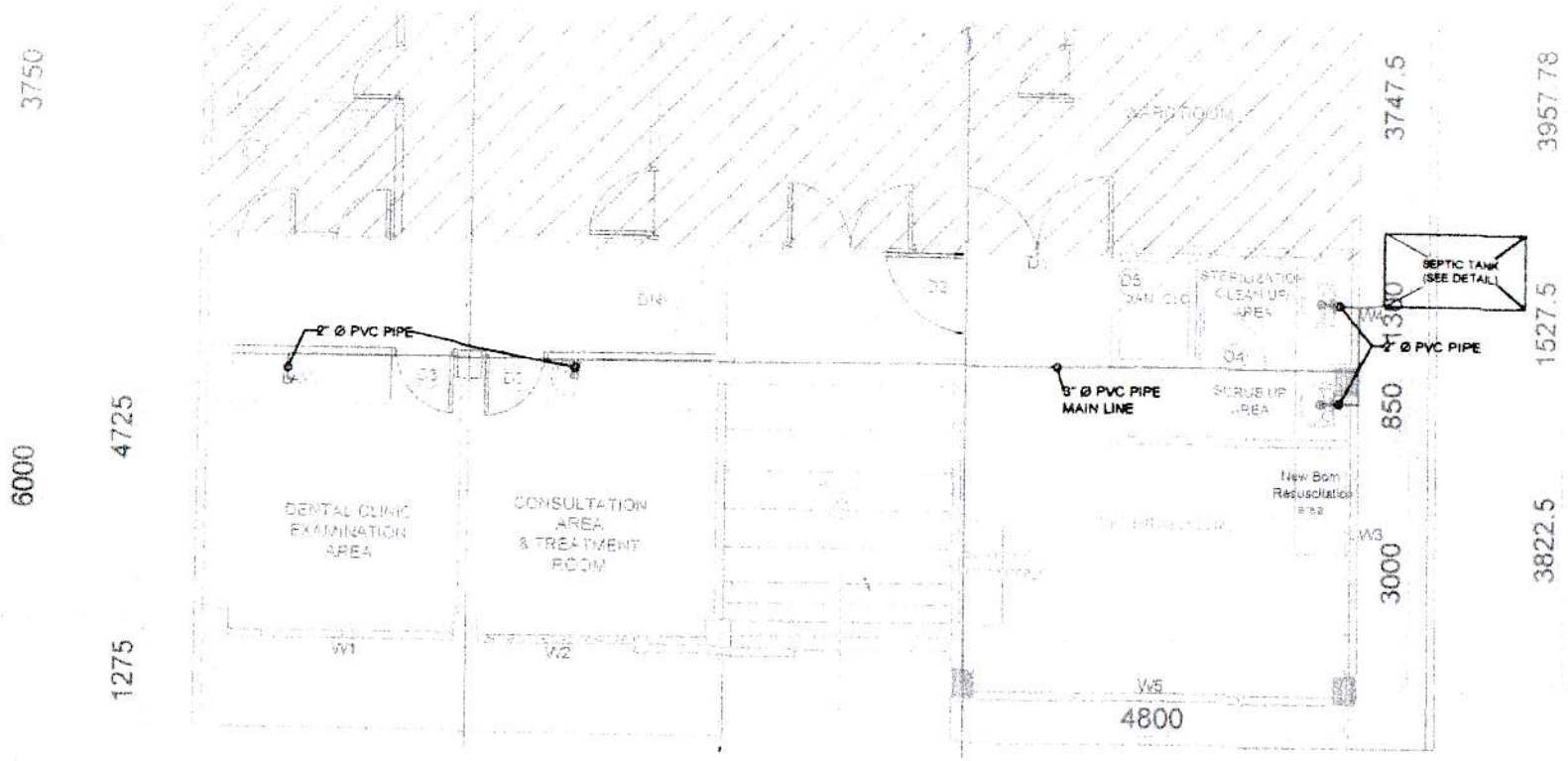


SEWER LINE LAYOUT

NTS

Recommending Approval:

IAN LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approved:

MARIO S. SAQUILOD,

REPUBLIC OF THE PHILIPPINES
PROVINCE OF ROMBLON
MUNICIPALITY OF SANTA FE

REPUBLIC OF THE PHILIPPINES
MUNICIPALITY OF STA. FE
OFFICE OF THE MUNICIPAL ENGINEER
DESIGN & PLANNING

PREPARED BY:
ENGR. DESON F. GALIN
ENGINEERING ASSISTANT II

CHECKED/REVIEWED BY:
ENGR. RAYMOND R. MAYOR
MUNICIPAL ENGINEER

REC. APPROVAL:
DR. JANE [illegible]
MUNICIPAL HEALTH OFFICER

APPROVED BY:
ELSIE D. VIBAR
MUNICIPAL MAYOR

PROJECT TITLE / LOCATION:
CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION
[illegible] STA. FE, ROMBLON

SHEET No.

PARTICULAR SPECIFICATION

1. POWER RECEIVING SYSTEM
   1.1 VOLTAGES AND LEAD-IN METHODS (WORKS BY THE OWNER)
   --- AERIAL UNDERGROUND

2. ELECTRICAL SYSTEM
   2.1 FREQUENCY 60 HRZ
   2.2 LIGHTING AND POWWER LINE
   SINGLE-PHASE 2-WIRE AC 220V

3. ELECTRICAL LIGHTING
   3.1 WIRING METHOD
   --- METAL CONDUIT
   --- RIGID VINYL TUBE600V IV
   --- WR
   --- WF
   --- 600V CV
   --- HIV
   --- FIRE PROOF CABLE
   --- BASED ON LOCAL SPECIFICATIONS

   3.2 DISTRIBUTION PANEL
   TYPE: WALL MOUNT TYPE IN PRINCIPLE BUT SEMIFLUSH MOUNT TYPE ACCORDING TO THE CONDITIONS OF INSTALLATIONS.

   STRUCTURE: IN PRINCIPLETHE FRONT PANEL SHALL BE EASY TO OPEN PROVIDED WITH LOCK SET AND ISOLATION TESTS MUST BE POSSIBLE WITHOUT RENOVING THE FRONT PANEL. IF SINGLE POLE BREAKERS ARE USED FOR BRANCHES LINES, SECTION SWITCH MUST BE PROVIDED AT EACH CIRCUIT.

   MATERIAL AND FINISH: STEEL PLATE MELAMINE BAKED FINISH WITH SPECIFIED COLOR, FRONT PANEL AND PROVIDED AT EACH CIRCUIT.

   3.3 RECEPTACLES
   RECEPTACLE: GANG RECEPTACLE
   SINGLE RECEPTACLE
   COVER PLATE: METAL/RESIN

4. LIGHTING FIXTURE
   4.1 GENERAL
   THE SHOP DRAWING OF EACH FIXTURE MUST BE PREPARED IN ACCORDANCE WITH THE DRAWING AND SHALL BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO THE FABRICATION AND INSTALLATION.

   IF READY MADE FIXTURE ARE SIMILAR TO THOSE SHOWN IN THE DRAWINGS, THEY CAN BE USED UPON APPROVAL OF THE SAMPLE BY THE OWNER OR REPRESENTATIVE.

   SLIGHT MODIFICATION OF THE DESIGN OF THE FIXTURE MAY BE MADE WITHIN THE RANGE OF THE CONTRACTED AMOUNT. HEAVY FIXTURE SHALL BE SUSPENDED WITH INSERTS AND SUSPENSION BOLTS FROM THE SLAB.

   4.2 STRUCTURE, MATERIAL AND FINISH
   THE METALLIC PARTS OF THE MATERIAL SHALL BE THICK ENOUGH FOR GOOD APPEARANCE AND STRUCTURAL STRENGTH.

   THE EFFECT OF ILLUMINATION MUST BE TAKEN INTO ACCOUNT FOR THE COVERS AND GLOBES OF THE FIXTURE AND THEY SHALL NOT DISTART OR DROP DUE TO HEAT.

   4.3 FLOURESCENT LAMPS
   ALL THE FIXTURE MUST BE PROVIDED WITH WIRE CONNECTION TERMINALS. THE FIXTURE WHICH ARE TO BE REGULATED BY THE BUILDING STANDARDS ACT SHALL BE GIVEN SPECIAL CONSIDERATION SO AS NOT TO VIOLATE THE ACTS AND REGULATIONS.

   FLOURESCENT LAMPS OF 20 WATTS OR MORE (EXCEPT FOR CIRCULAR LAMPS) SHALL BE OF HIGH POWER FACTOR TYPE AND THOSE OF 40 WATTS OR MORE SHALL BE OF RAPID START TYPE.

   NOTE: IN SITES WHERE IS NO SUPPLY OF ELECRICITY (NOT ENERGIZED), LIGHTING FIXTURE SHALL NOT BE SUPPLIED AND INSTALLED, HOWEVER, GUIDES, WIRES, CONDUITS, SWITCHES, CONVINIENCE OUTLETS AND CORRESPONDING PLATES SHALL BE INSTALLED.

LEGEND:

Symbol	Description
	LIGHTING FIXTURE (FL 40W X 1)
•	SWITCH (1 FACE)
	OUTLET SOCKET
	CEILING FAN (FOR OUTLET PROVISION ONLY)
	TO PANEL BOARD
	INCOMING ELECTRIC
	UNDERGROUND WIRING
	SERVICE ENTRANCE CAP
	PANEL BOARD

Recommending Approval:

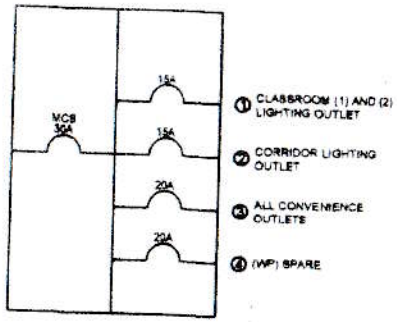
IAN LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

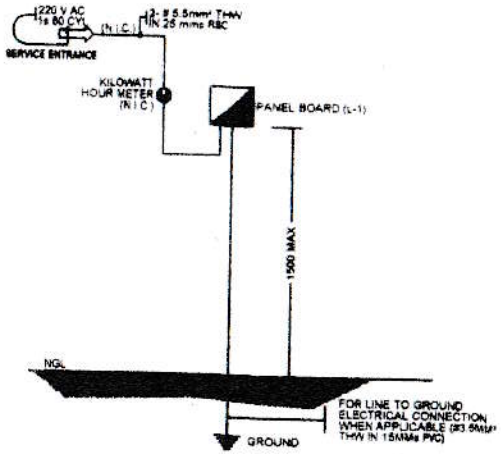
Approved:

MARIO S. SAQUILOD,
DIRECTOR

CERTIFIED

REPUBLIC OF THE PHILIPPINES PROVINCE OF ROMBLON MUNICIPALITY OF SANTA FE	REPUBLIC OF THE PHILIPPINES MUNICIPALITY OF STA. FE OFFICE OF THE MUNICIPAL ENGINEER DESIGN & PLANNING	PREPARED BY: ENGR. DEXON F. GALIN ENGINEERING ASSISTANT II	CHECKED/REVIEWED BY: ENGR. RAYMOND M. MAYOR MUNICIPAL ENGINEER	REC. APPROVAL: DR. JAN CAWALING MUNICIPAL HEALTH OFFICER	APPROVED BY: ELSIE D. VISCA MUNICIPAL MAYOR	PROJECT TITLE / LOCATION: CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION	SHEET No.





RISER DIAGRAM
NOT TO SCALE

PANEL BOARD (L-1)

2 E-01 SINGLE LINE DIAGRAM

SCALE 1:150MTS

SCHEDULE OF LOADS

CKT NO.	DESCRIPTION	VOLTS	VOLTS-AMPERE	AMPERE	SIZE OF WIRE	SIZE OF CONDUIT	CB RATING
1	LIGHTING OUTLET 8 - 40W (1) AND (2) LIGHTING OUTLET 2 - 100 W TOILETS	220	640	2.90	2 - # 3.5mm² THW	15 mms PVC	15A
2	LIGHTING OUTLET 2 - 100 W CORRIDOR	220	200	0.90	2 - # 3.5mm² THW	15 mms PVC	15A
3	CONVINIENCE OUTLET 2 - 200 W (1) AND (2) CEILING FAN OUTLET 2 - 200 W (1) AND (2)	220	800	3.64	2 - # 3.5mm² THW	15 mms PVC	20A
4	SPARE	220	748	3.39	2 - # 3.5mm² THW	15 mms PVC	20A
	MAIN FEEDER	220	2388	10.84	2 - # 5.5mm² THW	25 mms PVC	30A

COMPUTATION:

AMP. TOTAL COMPUTED LOAD = VOLT AMP./VOLT x 100% D.F. = $^{2388}/_{220}$ = 10.84

USE 2 # 5.5mm² THW IN 25 mms RSC CAPACITY 30 AMP

Recommending Approval:

IAN LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approved

K'ARIO S. SAQUILGO
-DIRE

REPUBLIC OF THE PHILIPPINES
PROVINCE OF ROMBLON
MUNICIPALITY OF SANTA FE

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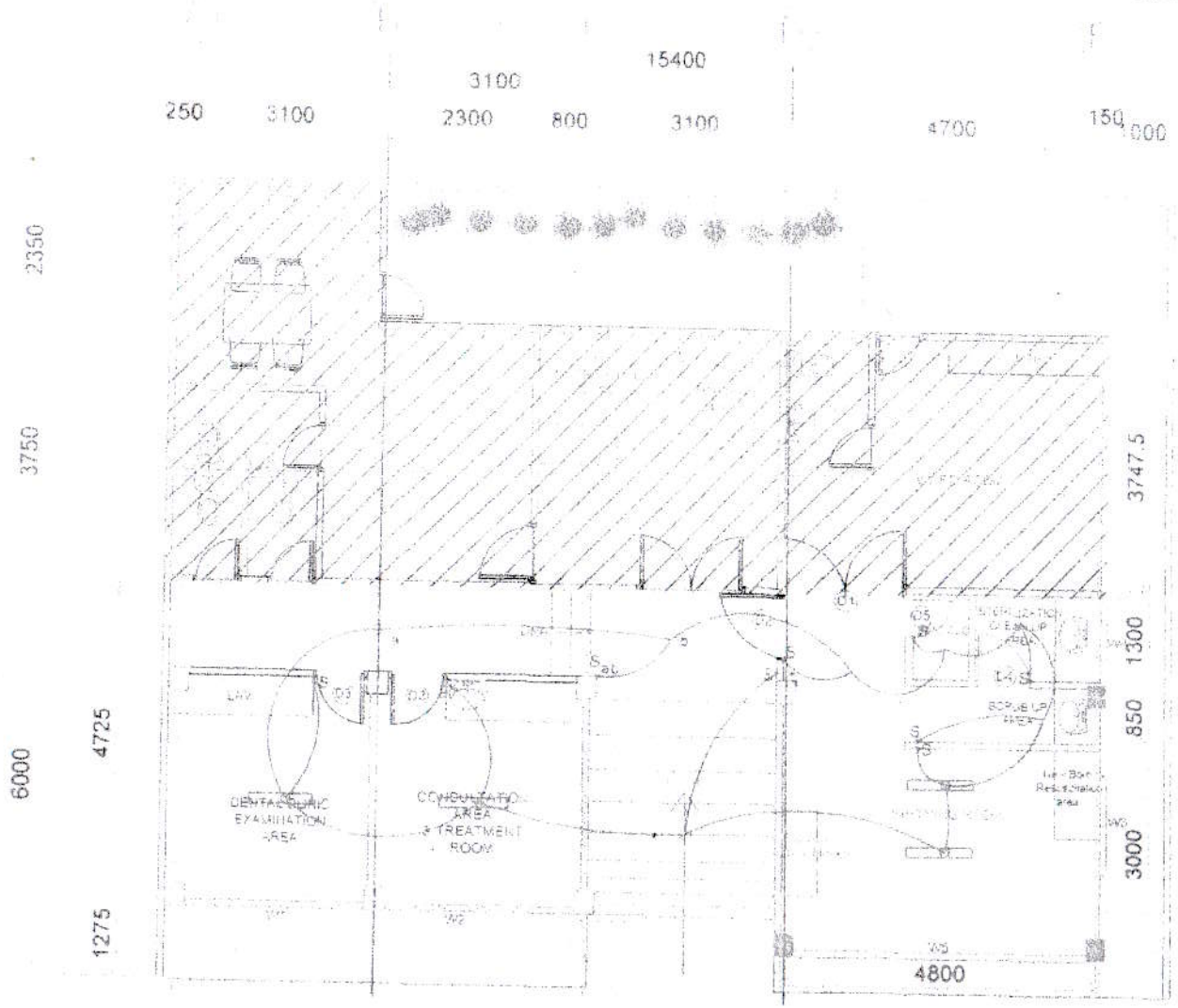
MUNICIPALITY OF STA. FE
OFFICE OF THE MUNICIPAL ENGINEER
DESIGN & PLANNING

PREPARED BY:	CHECKED/REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE / LOCATION:	
ENGR. DIXON F. GALIN ENGINEERING ASSISTANT II	ENGR. RAYMOND M. MAYOR MUNICIPAL ENGINEER	DR. JANICE CAWALING MUNICIPAL HEALTH OFFICER	ELSIE D. VISCA MUNICIPAL MAYOR	CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. DUNGBAYAN, SANTA FE, ROMBLON	



LIGHTING LAYOUT

NTS

Recommending Approval:

IAN LUIS BERNARDO C. CARLOTA, CE
Licensing Officer III

Approved:

K'ARLO S. SAQUILOD
DIRE

REPUBLIC OF THE PHILIPPINES
PROVINCE OF ROMBLON
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REPUBLIC OF THE PHILIPPINES
MUNICIPALITY OF STA. FE
OFFICE OF THE MUNICIPAL ENGINEER
DESIGN & PLANNING

PREPARED BY:
ENGR. DEBON F. GALIN
ENGINEERING ASSISTANT II

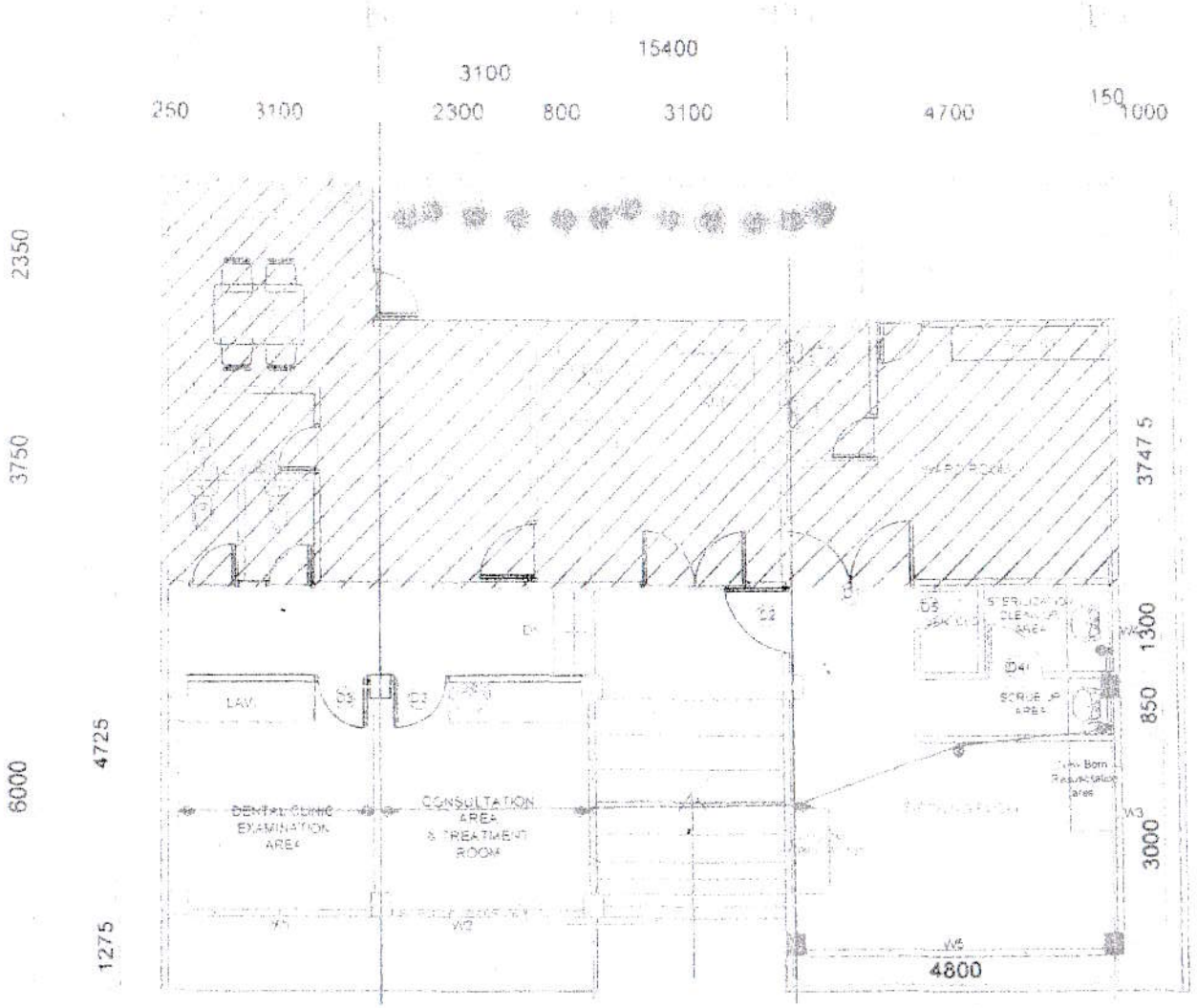
CHECKED/REVIEWED BY:
ENGR. RAYMOND M. MAYOR
MUNICIPAL ENGINEER

REC. APPROVAL:
DR. JANE D. CAWALING
MUNICIPAL HEALTH OFFICER

APPROVED BY:
ELSIE D. VISCA
MUNICIPAL MAYOR

PROJECT TITLE / LOCATION:
CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION
BRGY. GUINBIRAYAN, SANTA FE, ROMBLON

SHEET NO.



POWER LAYOUT

NTS

Recommending Approval:

IAN LUIS FERNANDO C. CARLOTA, CE
Licensing Officer III

Approved:

MARIO S. SAQUILOD,
CIRE

REPUBLIC OF THE PHILIPPINES
PROVINCE OF ROMBLON
MUNICIPALITY OF SANTA FE

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ENGR. DEBON F. GALIN ENGINEERING ASSISTANT II	ENGR. RAYMOND M. MAYOR MUNICIPAL ENGINEER	DR. JANET P. CAWALING MUNICIPAL HEALTH OFFICER	ELSIE D. VISCA MUNICIPAL MAYOR	CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION BRGY. QUINBRAYAN, SANTA FE, ROMBLON	

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

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

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

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

Daywork Schedule

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

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

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

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Procuring Entity's Representative's).

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

Signature Box

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

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

BILL OF QUANTITIES

Project Name: ***CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION (GUINBIRAYAN)***

Location: ***Guinbirayan, Santa Fe, Romblon***

Item No.	Description	Quantity	Unit	Unit Cost (Pesos)	Total Cost (Pesos)
I	**Demolition Works**	1	lot		
II	**Form & False Works**	1	lot		
III	**Rebar Works**	1	lot		
IV	**Masonry Works**	1	lot		
V	**Concrete Works**	1	lot		
VI	**Doors & windows**	1	lot		
VII	**Painting Works**	1	lot		
VIII	**Tile Works**	1	lot		
IX	**Electrical Works**	1	lot		
X	**Plumbing Works**	1	lot		

Total Amount in Figures: P_____

Total Amount in Words: _____

_____

Submitted by:

_____ _____

Name and Signature of Bidder's Authorized Representative Date

Postion: _____

Name of Bidder: _____

SUMMARY OF BID PRICE

Project Name: ***CONSTRUCTION/IMPROVEMENT OF BARANGAY HEALTH STATION (GUINBIRAYAN)***

Location: ***Guinbirayan, Santa Fe, Romblon***

Item No.	Description	Total Cost
I	**Demolition Works**	
II	**Form & False Works**	
III	**Rebar Works**	
IV	**Masonry Works**	
V	**Concrete Works**	
VI	**Doors & windows**	
VII	**Painting Works**	
VIII	**Tile Works**	
IX	**Electrical Works**	
X	**Plumbing Works**	

Total Amount in Figures: P _____

Total Amount in Words: _____

_____

Name _____ in the capacity as _____

Signed _____ Date _____

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

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

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

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

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

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

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

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

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).

(i)

Class "B" Documents

☐ (j) 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

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

Other documentary requirements under RA No. 9184

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

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

☐ (n) Cash Flow by Quarter.


Republic of the Philippines
gppb
Government Procurement Policy Board