PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF DAY CARE CENTER AT DISTRICT 2 AREA VII (CLUSTER 2)

Project number: 21-00177

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.

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Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC - Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

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 QUEZON CITY GOVERNMENT AND AWARDS COMMITTEE FOR INFRASTRACTU



BIDS AND AWARDS COMMITTEE FOR INFRASTRACTURE & CONSULTANCY

2nd floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

November 15, 2021

Invitation to Bid

No	Project No.	Project Name	Location	Amount	Durati on Cal. Days	Office	Source Fund
Bui	ildings – S	Small B					
1	21- 00156	Proposed Construction of Hand Washing Facility and Rehabilitation of Waterline System at Krus Na Ligas Elementary School (Simon Building)	Krus Na Ligas	1,136,052.36	60	Engineering Department	Special Education Fund
2	21- 00157	Proposed Construction of Hand Washing Facility at Payatas C Elementary School	Payatas	1,278,401.32	60	Engineering Department	Special Education Fund
3	21- 00158	Proposed Construction of Hand Washing Facility at Main Building of Balara High School	Pansol	1,282,912.05	60	Engineering Department	Special Education Fund
4	21- 00159	Proposed Rehabilitation of Day Care Center at District 3 / Area XIII and XIV	Claro, Silangan & East Kamias	1,458,079.64	45	Engineering Department	Engineering - SB No. 1
5	21- 00160	Proposed Construction of Hand Washing Facility and Rehabilitation of Waterline System at Ramon Magsaysay High School Belmonte Building)	Pinagkaisahan	1,731,551.85	90	Engineering Department	Special Education Fund
6	21- 00161	Proposed Construction of Hand Washing Facility and Rehabilitation of Waterline at Bagong Pag-Asa Elementary School (SB Building)	Bagong Pag- Asa	1,801,334.79	60	Engineering Department	Special Education Fund
7	21- 00162	Proposed Rehabilitation of Milagrosa Daycare Center and Livelihood Center	Milagrosa	2,198,687.07	75	Engineering Department	Engineering - SB No. 1
8	21- 00163	Proposed Construction of Hand Washing Facility and Rehabilitation of Comfort Rooms and Waterline System at Aguinaldo Elementary School (Estrada Building)	San Roque	2,296,791.86	120	Engineering Department	Special Education Fund
9	21- 00164	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 2 Area VII (Cluster 5)	Payatas	2,871,590.18	60	Engineering Department	Engineering - SB No. 1
10	21- 00165	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 3 / Area XV	Matandang Balara & Pansol	3,027,863.77	60	Engineering Department	Engineering - SB No. 1

11	21- 00166	Proposed Construction of Hand Washing Facility and Rehabilitation of Comfort Rooms and Waterline System at Maligaya Elementary School (Vargas Building)	Pasong Putik	3,565,679.65	90	Engineering Department	Special Education Fund
12	21- 00167	Proposed Construction of Hand Washing Facility and Rehabilitation of Comfort Rooms and Waterline System at San Francisco High School (SB Building)	Ramon Magsaysay	4,900,074.64	60	Engineering Department	Special Educution Fund
13	21- 00168	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 3 / Area XVI and XVIII	Villa Maria Clara, Bagumbuhay, Bayanihan, Escopa 3, Marilag	5,527,209.52	90	Engineering Department	Engineering - SB No. i
14	21- 00169	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 4 / Area XIX	Kamuning. Obrero, Paligsahan, Roxas & South Triangle	7,108,186.57	60	Engineering Department	Engineering - SB No. 1
15	21- 00170	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 4 / Area XXIII	Old Capitol Site, San Vicente & U.P. Campus	8,767,692.58	90	Engineering Department	Engineering - SB No. 1
16	21- 00171	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 4 / Area XXIV	Central, Krus Na Ligas & Pinyahan	8,801,647.54	60	Engineering Department	Engineering - SB No. 1
17	21- 00172	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 2 Area VII (Cluster 1)	Bagong Silangan	8,899,769.12	90	Engineering Department	Engineering - SB No. 1
18	21- 00173	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 4 / Area XX	Horseshoe, Immaculate Concepcion, Kaunlaran, Pinagkaisahan & San Martin De Porres	9,342,308.35	60	Engineering Department	Engineering - SB No. 1
19	21- 00174	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 2 Area VII (Cluster 4)	Holy Spirit	9,513,555.66	90	Engineering Department	Engineering - SB No. 1
20	21- 00175	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 4 / Area XXII	Tatalon, Don Manuel, Doña Aurora, Doña Imelda, Doña Josefa, San Isidro Galas, Santol & Sto. Niño	11,988,174.41	90	Engineering Department	Engineering - SB No. 1
21	21- 00176	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 2 Area VII (Cluster 3)	Balonbato & Sangandaan	14,755,919.20	90	Engineering Department	Engineering - SB No. 1

22	21- 00177	Proposed Construction of Hand Washing Facility and Rehabilitation of Day Care Center at District 2 Area VII (Cluster 2)	Batasan Hills	17,576,527.83	90	Engineering Department	Engineering - SB No. 1
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- The QUEZON CITY LOCAL GOVERNMENT, through funding source of various years
 intends to apply the sum stated above being the Approved Budget for the Contract (ABC) to
 payments under the contract for the above stated Projects. Bids received in excess of the ABC
 shall be automatically rejected at bid opening.
- The QUEZON CITY LOCAL GOVERNMENT now invites bids for the above Procurement Project. Completion of the Works is required as stated above. 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).
- Bidding will be conducted through open competitive bidding procedures using nondiscretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
- Interested bidders may obtain further information from QUEZON CITY LOCAL GOVERNMENT – BAC Secretariat and inspect the Bidding Documents at the address given below weekdays from 8:00 am. – 5:00 p.m.
- 5. A complete set of Bidding Documents may be acquired by interested bidders on 16 November 2021 (Tuesday) from given address and website/s below and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB. The Procuring Entity shall allow the bidder to present its proof of payment for the fees presented in person.

STANDARD RATES:

Approved Budget for the Contract	Maximum Cost of Bidding Documents (in Philippine Peso)
More than 1 Million up to 5 Million	5,000.00
More than 5 Million up to 10 Million	10,000.00
More than 10 Million up to 50 Million	25,000.00
More than 50 Million up to 500 Million	50,000.00
More than 500 Million	75,000.00
	# DATE (100 DECEMBER 100 DECEMB

The following are the requirements for purchase of Bidding Documents;

- PhilGEPS Registration Certificate (Platinum 3 Pages)
- Document Request List (DRL)
- 3. Authorization to purchase bidding documents
 - 3.1 Secretary's Certificate (for corporation)
 - 3.2 Special Power of Attorney (for sole proprietorship)
- 4. Notarized Joint Venture Agreement (if applicable)
- 5. Letter of Intent

It must be duly received by the BAC Secretariat at 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound on or before November 23, 2021 - 5:00PM.

 The QC-BAC-INFRASTRUCTURE & CONSULTANCY will hold a Pre-Bid Conference¹ on November 24, 2021 at 10:00 AM at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound or we encourage the prospective bidders to join through our Virtual Conference (ZOOM APP) which shall be open to prospective bidders.

Virtual Conference (ZOOM APP)

Meeting ID: 854 9489 0133

Password: 273320

- Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before December 6, 2021 – 9:00AM. Late bids shall not be accepted.
- All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 16.
- Bid opening shall be on December 6, 2021 10:00 AM at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

Virtual Conference (ZOOM APP)

Meeting ID: 810 3646 5257

Password: 201522

- 10. The Quezon City Local Government 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:

ATTY, DOMINIC B. GARCIA

OIC, Procurement Department 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound Elliptical Road, Barangay Central Diliman, Quezon City. Tel. No. (02)8988-4242 loc. 8506/8710

Email Add: bacinfra.procurement@quezoncity.gov.ph

Website: www.quezoncity.gov.ph

You may visit the following websites:

For downloading of Bidding Documents: https://quezoncity.gov.ph/public-notices/procurement/

By:

ATTY. MARK DALE DIAMOND P. PERRAL Chairman, BAC-Lefra and Consultancy

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.

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, Quezon City Government invites Bids for the PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF DAY CARE CENTER AT DISTRICT 2 AREA VII (CLUSTER 2), with Project Identification Number 21-00177.

[Note: The Project Identification Number is assigned by the Procuring Entity based on its own coding scheme and is not the same as the PhilGEPS reference number, which is generated after the posting of the bid opportunity on the PhilGEPS website.]

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 2021 in the amount of Seventeen Million Five Hundred Seventy-Six Thousand Five Hundred Twenty-Seven Pesos & 83/100 Ctvs. (P 17,576,527.83).
- 2.2. The source of funding is:
 - a. 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 and either at its physical address on November 24, 2021, 10:00 A.M. at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound and/or we encourage the prospective bidders to join through our Virtual Conference (ZOOM APP) Meeting ID: 854 9489 0133 Password: 273320

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.

- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security in no case shall exceed One Hundred Twenty (120) calendar days from the date of opening of bids, unless duly extended by the bidder upon the request of the Head of the Procuring Entity (HoPE) of the Quezon City Local Government. 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 5 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

ITB Clause					
5.2		s purpose, similar con ategories of work.	ntracts shall refer to con	tracts which have the same	
7.1	Subcontracting is not allowed.				
10.3	No additional contractor license or permit is required				
	In addi	tion, eligible bidders	shall qualify or compl	y with the following:	
	1. Bidd	ers with valid Philipp	oine Contractors Accred	litation Board (PCAB)	
	Туре	e			
	В	Building - Small B			
10.4	The m following	<u>-</u>	rience requirements fo	or key personnel are the	
				SHING FACILITY AND DAY CARE CENTER	
	Qnty.	Key Personnel	General Experience	Relevant Experience	
	1	Project Engineer	3 years	3 years	
	1	Safety Officer	3 years	3 years	
	1	Foreman	3 years	3 years	
	7	Skilled Worker	3 years	3 years	
	1	Driver	3 years	3 years	
	7	Laborer	1 year	3 months	
			CTION OF HANDWA OF KALAYAAN B D	SHING FACILITY AND AY CARE CENTER	
	Qnty.	Key Personnel	General Experience	Relevant Experience	
	1	Project Engineer	3 years	3 years	
	1	Safety Officer	3 years	3 years	
	1	Foreman	3 years	3 years	

7	Skilled Worker	3 years	3 years			
1	Driver	3 years	3 years			
7	Laborer	1 year	3 months			
PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF LUZVIMINDA DAY CARE CENTER						
Qnty.	Key Personnel	General Experience	Relevant Experience			
1	Project Engineer	3 years	3 years			
1	Safety Officer	3 years	3 years			
1	Foreman	3 years	3 years			
7	Skilled Worker	3 years	3 years			
1	Driver	3 years	3 years			
7	Laborer	1 year	3 months			
		CTION OF HANDWA OF POOK PAG-ASA I	SHING FACILITY AND DAY CARE CENTER			
Qnty.	Key Personnel	General Experience	Relevant Experience			
1	Project Engineer	3 years	3 years			
1	Safety Officer	3 years	3 years			
1	Foreman	3 years	3 years			
5	Skilled Worker	3 years	3 years			
1	Driver	3 years	3 years			
5	Laborer	1 year	3 months			
	PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF TALANAY DAY CARE CENTER					
Qnty.	Key Personnel	General Experience	Relevant Experience			
1	Project Engineer	3 years	3 years			
Ī						

3 years

3 years

1

Safety Officer

1	Foreman	3 years	3 years
5	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
5	Laborer	1 year	3 months
PRO		ITATION OF FREED DAY CARE CENTER	OM PARK III AND IV
Qnty.	Key Personnel	General Experience	Relevant Experience
1	Project Engineer	3 years	3 years
1	Safety Officer	3 years	3 years
1	Foreman	3 years	3 years
6	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
6	Laborer	1 year	3 months
PROP	OSED REHABILIT	TATION OF CONSTI CENTER	ΓUTIONAL DAY CARE
Qnty.	Key Personnel	General Experience	Relevant Experience
1	Project Engineer	3 years	3 years
1	Safety Officer	3 years	3 years
1	Foreman	3 years	3 years
5	Skilled Worker	3 years	3 years
1	Driver	3 years	3 years
5	Laborer	1 year	3 months
PRO	POSED REHABILI	ITATION OF JASMIN	DAY CARE CENTER
Qnty.	Key Personnel	General Experience	Relevant Experience
1	Project Engineer	3 years	3 years

	1 Safety Officer	3 years	3 years
	1 Foreman	3 years	3 years
	7 Skilled Worker	3 years	3 years
	1 Driver	3 years	3 years
	7 Laborer	1 year	3 months
	In addition, the bidder notarized stating that the for the project until its con	foregoing personnel shall	perform work exclusive
10.5	The minimum major equip		-
	PROPOSED CONSTRU REHABILITATION O	CTION OF HANDWAS OF FREEDOM PARK 5	
	Equipment	Capacity	Number of Units
	Elf Truck		1
	Elf Truck Scaffolding		1 as needed
	Scaffolding		1 as needed as needed
			as needed as needed as needed
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRU	CTION OF HANDWAS I OF KALAYAAN B DA	as needed as needed SHING FACILITY ANI
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRU		as needed as needed SHING FACILITY ANI AY CARE CENTER
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRU REHABILITATION	N OF KALAYAAN B DA	as needed as needed SHING FACILITY ANI AY CARE CENTER
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRUCTOR REHABILITATION Equipment Elf Truck	N OF KALAYAAN B DA	as needed as needed SHING FACILITY AND AY CARE CENTER Number of Units
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRU REHABILITATION Equipment	N OF KALAYAAN B DA	as needed as needed SHING FACILITY AND AY CARE CENTER Number of Units
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRU- REHABILITATION Equipment Elf Truck Scaffolding	N OF KALAYAAN B DA	as needed as needed SHING FACILITY AND AY CARE CENTER Number of Units 1 as needed
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRUREHABILITATION Equipment Elf Truck Scaffolding Power Tools Minor Tools PROPOSED CONSTRU	NOF KALAYAAN B DA Capacity	as needed as needed SHING FACILITY ANI AY CARE CENTER Number of Units 1 as needed as needed as needed
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRUREHABILITATION Equipment Elf Truck Scaffolding Power Tools Minor Tools PROPOSED CONSTRU	OF KALAYAAN B DA Capacity CTION OF HANDWAS	as needed as needed SHING FACILITY ANI AY CARE CENTER Number of Units 1 as needed as needed as needed
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRU REHABILITATION Equipment Elf Truck Scaffolding Power Tools Minor Tools PROPOSED CONSTRU REHABILITATION Equipment	OF KALAYAAN B DA Capacity CTION OF HANDWAS OF LUZVIMINDA DA	as needed as needed SHING FACILITY ANI AY CARE CENTER Number of Units 1 as needed as needed as needed AS needed SHING FACILITY ANI AY CARE CENTER Number of Units
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRUCE REHABILITATION Equipment Elf Truck Scaffolding Power Tools Minor Tools PROPOSED CONSTRUCE REHABILITATION Equipment Elf Truck	OF KALAYAAN B DA Capacity CTION OF HANDWAS OF LUZVIMINDA DA	as needed as needed SHING FACILITY AND AY CARE CENTER Number of Units 1 as needed as needed as needed AY CARE CENTER Number of Units Y CARE CENTER Number of Units
	Scaffolding Power Tools Minor Tools PROPOSED CONSTRU REHABILITATION Equipment Elf Truck Scaffolding Power Tools Minor Tools PROPOSED CONSTRU REHABILITATION Equipment	OF KALAYAAN B DA Capacity CTION OF HANDWAS OF LUZVIMINDA DA	as needed as needed SHING FACILITY ANI AY CARE CENTER Number of Units 1 as needed as needed as needed SHING FACILITY ANI AY CARE CENTER Number of Units

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF POOK PAG-ASA DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck1Scaffoldingas neededPower Toolsas neededMinor Toolsas needed

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF TALANAY DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED REHABILITATION OF FREEDOM PARK III AND IV DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED REHABILITATION OF CONSTITUTIONAL DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER

Equipment Capacity Number of Units

Elf Truck 1
Scaffolding as needed
Power Tools as needed
Minor Tools as needed

	In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing equipment shall be used exclusively for the project until its completion. Please see attached bid forms.
12	[Insert Value Engineering clause if allowed.]
15.1	The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts:
	a) The amount of not less than Php 351,530.56 or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or
	b) The amount of not less than Php 878,826.39 or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.
19.2	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20	No additional requirement.
21	Additional Contract Documents relevant to the Project as required: 1. Construction Schedule and S-curve, 2. Manpower Schedule, 3. Construction Methods, 4. Equipment Utilization Schedule, 5. PERT/CPM or other acceptable tools of project scheduling, shall be included in the submission of Technical Proposal.

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	Completion of work shall be within 90 calendar days
4.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor upon receipt of 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.
13	The amount of the advance payment is no more that fifteen percent (15%) of the Contract Price subject to approval by the HOPE and compliance with the conditions under RA 9184 and its IRR.
14	No further instructions.
15.1	The date by which operating and maintenance manuals are required is thirty (30) days The date by which "as built" drawings are required as part of final payment
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is ten (10%) percent of the contract price.

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.



Republic of the Philippines Quezon City

CITY ENGINEERING DEPARTMENT



Cox Center Building B, Obezon City Hall Compound, Elliphical Road Olliman, Central 1100 Quezon City Trunk Ano: +63 2 8988 4242

TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE:

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF FREEDOM PARK 5 DAY CARE CENTER \nearrow

LOCATION:

BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY/

GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost erising therefrom.
- b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards end codes.
- h. Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- i. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-lime supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.

- Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- iv Temporary enclosure shall be provided within the construction site with adequate quard lights, railings and proper signages.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauledout and disposed property.
- Adequate construction safety and health protection shall be provided at all times during the
 execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties
 - The medical room shall be provided in waterproof, it could be a building of room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
 - iv. Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the edjacent property shall be provided to avoid unloward incidents / accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

- A All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B Removal / demolition of existing structures shall be done in accordance to selety procedures.

III. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORK

- a Detivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.
- c. Meteriels

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150).
- ii. Water used in mixing concrete shall be clean and free from other injurious emounts of pile, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel
- iii. Fine aggregates shall be beech or over sand conforming to ASTM C33. "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.
- iv. Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bers or between reinforcing bars and forms.

d. Proportioning and Mixing

 Proportioning and mixing of concrete shall conform to the requirements for Item 405 of the standard specification with the following proportions:

Cement . Sand . Gravel

- Class "A" 1 : 2 : 3
 Class "B" 1 : 2 : 4
 Class "C" 1 : 2 %
- Concrete mixture to be used for concrete shall conform with the structural requirements.
- Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

e. Forms

- General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to Insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained ngidly in correct position. Forms shall be sufficiently tight to prevent loss or morter from the concrete. Forms shall be waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material.
- iii. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and eiring shall be started as soon as the surface is sufficiently hard to permit it without further damage.

f. Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from toose, flaky rust and scale, oil grease, day and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete

g Conveying and Placing Concrete:

- i. Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to grevent segregation and where specifically authorized.
- ii. Ptacing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- w. Consolidation of Concrete concrete shall be consolidated with the sid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set, and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and lamping and vibrators shall not be used.
- Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and stabs, where the congestion of steel near the lorms makes placing difficult, a layer of morter of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

n Curing

- i General All concrete shall be moist cured for a period not less than seven (7) consecutive days by an approved method or combination applicable to local conditions.
- ii. Moret Curing The surface of the concrete shall be kept continuously wet by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing

i Finishing

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement morter, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii. Concrete Stabs on Fill. The concrete stabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

B. MASONRY WORKS

 Masonry Units (CHB): 100mm thick for all interior walls and 150mm thick for all exterior walls unless otherwise indicated. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.

Where full theight wells are constructed with concrete hotlow blocks, these shall extend up to the bottom of beam or sleb unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or esideemed required to assure a stebilized wall due to height & other considerations.

b Sand

S-1, washed, clean and greenish in color.

c. Mortan

One part "Portland" cement and two parts sand and water but not more than three parts sand and water.

d. Plaster bond:

Apply plaster bond to all wall area.

C. METAL WORKS

Description

Metat works shall conform to the approved plans and to the Standard Specifications.

Reference Standards.

Comply with the latest eather of the following as applicable, unless otherwise specified or modified.

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). 1978
 Specification for the Design, Fabrication and Erection of Structural Steel for Burklings. Code of Standard Practice for Steel Buildings and Bridges.
 Specification for Architecturally Exposed Structural Steel.
- AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2,068; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern If In conflict with AISC)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joists using ASTM A-325-76s Bofts
- STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual, Vol. 2; Systems and Specifications.

c. Source Quality Control

Errors of Shop Drawings, fabrication, correct fitting and alignment of the various metal items or component members shall be the responsibility of the Contractor. However, the Contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the Contractor of his responsibility to furnish materials and workmanship in accordance with the Contract Documents.

d. Product Delivery, Handling and Storage

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

f. Field Quality Control

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

g. Materials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- a) STEEL AND IRON: If not specified otherwise, use standard milfinished structural steel shapes or bar iron incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- b) BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- c) SCREWS: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

h. Fabrication.

By mechanics skilled in the trade and in accordance with the manufacturer's directions, Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuts.

Measurements

Before fabrication, provide necessary field measurements and verify all measurements.

i. Metal Surfaces

Shall be clean and free from all scale, flake, rust, and rust pliting: well-formed and finished to shape and size, with sharp lines, angles and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush divets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided; when used, heads shall be countersunk, screwed up tight and threads nicked to prevent toosening.

k. Construction

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m. Submittals

Shop Drawings, Submit along with catalogue, cuts, templates and erection. and Installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

Delivery and Storage

Protect from corrosion, deformation and other types of damage. Store items In an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

Welding

Use welding electrode E70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where tack welding is permitted. Do not lack weld exposed to connections.) Grind smooth visible weld in finished installation.

p. Metal Purlins

Metal purlins shall be of high grade galvenized steel with minimum tensile. strength of 275 MPA, 1.4mm in thickness.

D. ROOFING WORKS

- a. The roof shall be covered with Ga. 24 pre-painted G.I. nb-type roofing sheets as shown on the plans. The roofing shall be secured to the purions with min. 2 1/3 max. 3" long Tek screws. Ridge rolls hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rlb-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roafing sheets.
- All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wait. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners

ARCHITECTURAL WORKS IV.

A. WALLS AND FLOOR FINISHES

- 600mm x 600mm Nonskid Ceramic Tiles including tile adhesive
- 50mm concrete Topping with Plain Cement Finish
- c. 50mm Concrete Topping for Tiles
- 300mm x 600mm Ceramic Wall Tiles
- e. Unital partition including stainless steel support and accessories
 f. Plastering Guide/ Grooves

B. CEILING FINISHES

- a. 12mm thk Gypsum Board including framing and accessories
- 12mm thk Moisture Resistant Gypeum Board on lightweight aluminum frames
- Rubbed Contrete

C. DOORS & WINDOWS

a. Follow as per approved plan and specifications.

D. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works
- d All applications and methods used shall strictly follow the Manufacturer's instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly deaned, puttled, sandpapered, rubbed and polished, masonry wall shall be treated with Neutralizer
- f All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- g. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper

V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Supply, installation and testing of the following.
 - 8.1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - B.2 Weter service connections including but not limited to water meters. Rost valves. Any and all other works involve in providing the complete operation of the water supply system.
 - 8.3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, littings, valves, cleanout, drains, etc. Complete and operational
 - B.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the tayout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or

- indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weekening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost
- M. All sanitary fittings and pipework shall be deaned after installation and keep them in a new condition
- N All installed pipelines shall be flushed through with water, radded when necessary to ensure clearance of debris
- Cleaning and flushing shall be carried out in sections as the installation becomes completed
- P The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducte are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Senitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m, of water higher than the test section and wait for 15 mm, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS.

- 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed, faster inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having junediction, the rules, regulations and requirements of the utility companies (as applicable).
- B Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes
- D Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F PANELBOARDS

- F.1 Februcale and test panel boards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - £ 2.1 Rated for environmental conditions at installed location.
 - i Indoor Dry and Clean Locations: NEMA 250, Type 1
 - ii. Outdoor Locations: NEMA 250, Type 3R.
 - Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - iv Other Wet or Damp Indoor Locations, NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dut, and Dripping.
 Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front: Secured to box with concealed frim clamps. For surface-mounted fronts, match box dimensions, for flush-mounted fronts, overlap box
 - F.2.3 Hinged Front Cover: Entire front trim hinged to box and with standard door within hanged trim cover.
 - F.2.4 Skirt for Surface-Mounted Panel boards. Same gage and finish as panel board front with flanges for attachment to panel board, wall, and ceiling or floor.
 - F 2.5 Gutter Extension and Barner: Same gage and finish as panel board enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - F 2.6 Finishes:
 - i Panels and Trim: Steel and galvenized steel, factory finished immediately after cleaning and pretreating with manufecturer's

- standard two-coat, baked-on finish consisting of prime coal and thermosetting topcoat.
- ii. Back Boxes: Galvanized steel Sams finish as panels and frim
- iii. Fungus Proofing: Permanent fungscidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside penel board door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
 - F 4 1 Material: Hard-drawn copper, 98 percent conductivity.
 - F.4.2 Equipment Ground Bus. Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - F.4.3 Neutral Bus 100 percent of phase bus 4. Extra-Capacity Neutral Bus Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear toads.

JONATHAN RAYNALD T. ESPINO Planning and Programming Division

JOCELYN & NAONG N Prenning and Programming Division



Republic of the Philippines Ouezon City

CITY ENGINEERING DEPARTMENT



Civic Center Building B, Quezon City Half Compound, Efliptical Road
Dilimen, Central 1100 Quezon City
Trunk line: +63 2 8988 4242

TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE:

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND

REHABILITATION OF KALAYAAN B DAY CARE CENTED!

LOCATION:

BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY,

GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- b Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shalf be conducted to validate the scope of works. No extra
 compensation and extension of time shall be given due to negligence or inadvertence.
- 1. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable menner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removel and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades m a thorough, substantial, workmanlike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- Temporary Facilities and Utilities
 - All fecilities shall be near the job sits, where necessary and shall conform to the best standard for the required types.

- ii Temporary fecilities shall be provided and maintained including sanitary facilities and first aid stations
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided within the construction site with adequate guard lights, realings and proper signages.
- Temporary roedways shall be constructed and maintained to sustain loads to be carned on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished. hautedout and disposed properly.
- k Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
 - ii. The medical room shall be provided in waterproof, it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - iii. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
 - Additional safety precautions shall be provided in the observance of pendemic.
 Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be epplied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B Removal / demolrison of existing structures shall be done in accordance to safety procedures.

III. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORK

- a. Delivery, Storage, and Handling: All meterials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.
- c. Materiels

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150).
- Water used in mixing concrete shall be clean and free from other injurious amounts
 of oils, acids, alkalme, organic materials or other substances that may be
 deleterious to concrete or steel
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33. "Specification for Concrete Aggregates". Sano particle shall be course, sharp, clean free from salt, dust, loam, duit and all foreign matters.
- Coarse aggregates shall be either natural grave) or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

d. Proportioning and Mixing.

Proportioning and mixing of concrete shall conform to the requirements for Item.
 405 of the standard specification with the following proportions:

Cement , Sand , Gravel ,

- Class "A" 1 . 2 . 3
- Class "B" 1 : 2 : 4
- Class "C" 1:2 ¼
- Concrete mixture to be used for concrete shall conferm with the structural requirements.
- iii Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

e. Farms

- i. General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from ptecement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or morter from the concrete. Forms shall be '%' waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of mortar, the grout or other foreign material.
- iii: Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repair's of surface imperfections shall be formed at once and siring shall be started as soon as the surface is sufficiently hard to permit it without further damage.

Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement property. All reinforcement, when placed shall be free from loose, flaky rust and scale, oil gresse, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

g. Conveying and Placing Concrete:

- Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients.
 There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- Placing concrete shall be worked readity into the comers and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum tateral movement specified.
- iii. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- iv Corsolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. Placing Concrete through reinforcement In placing concrete through reinforcement care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement-send retios as used in concrete shall be first deposited to cover the surfaces.

h. Curang

- General All concrete shall be moist cured for a period not less than seven (7)
 consecutive days by an approved method or combination applicable to local
 conditions
- Moist Curing The surface of the concrete shall be kept continuously wet by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spreying or intermittent hosing.

t. Emishina

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- iii. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when inducated.

B. MASONRY WORKS

 Masonry Units (CHB): 100mm thick for all interior walls and 150mm thick for all exterior walls unless otherwise indicated. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.

Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & tintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

b. Sand:

S-1, washed, clean and greenish in color

c. Mortan:

One part "Portland" cament and two parts sand and water but not more than three parts sand and water.

d. Plaster bond:

Apply plaster bond to all wall area

C. METAL WORKS

a. Description

Metal works shalf conform to the approved plans and to the Standard Specifications.

Reference Stendards

Comply with the latest edition of the following as applicable, unless otherwise specified or modified.

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 1978: Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Code of Standard Practice for Steel Buildings and Bridges; Specification for Architecturally Exposed Structural Steel
- AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2:068; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern if in conflict with AISC)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joists using ASTM A-325-76s Bolts.
- STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual, Vol. 2, Systems and Specifications.

c. Source Quality Control

Errors of Shop Drawings, fabrication, correct fitting and alignment of the various metal items or component members shall be the responsibility of the Contractor. However, the Contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the Contractor of his responsibility to furnish materials and workmenship in accordance with the Contract Documents.

d. Product Delivery, Handling and Storage

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

f. Field Quality Control

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

g. Melerials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- a) STEEL AND IRON: If not specified otherwise, use standard millfinished structural steel shapes or bar iron incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- b) BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- sCREW\$: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

h. Fabrication.

By mechanics skilled in the trade and in accordance with the manufacturer's directions, Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of edequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and duts.

Measurements

Before fabrication, provide necessary field measurements and verify all measurements

j. Metal Surfaces

Shell be clean and free from all scale, flake, rust, and rust pitting; well-formed and finished to shape and size, with sharp lines, angles and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or botts where they can be avoided: when used, heads shall be countersunk, screwed up tight and threads nicked to prevent toosening.

k Construction

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m. Submittals

Shop Drawings, Submit along with catalogue, cuts, templates and erection and installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

Delivery and \$torage

Protect from corrosion, deformation and other types of damage. Store items in an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

Welding

Use welding electrode E70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where lack welding is permitted. Do not tack weld exposed to connections.) Grind smooth visible weld in finished installation.

Metal Purlins

Metal purlins shall be of high grade galvanized steel with minimum tensile. strength of 275 MPA, 1.4mm in thickness.

D. ROOFING WORKS

- The roof shall be covered with Ga. 24 pre-painted G.t. rib-type roofing sheets as shown on the plans. The roofing shall be secured to the purlins with min. 2 1/2" max. 3' long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those. compatible with the Ga. 24 pre-painted G.I rib-type roofing sheets. They shall tap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing. to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

IV. ARCHITECTURAL WORKS

A. WALLS AND FLOOR FINISHES.

- a. 500mm x 500mm Nonskid Ceramic Tiles including tile adhesive
 50mm concrete Topping with Plain Cement Finish
- c. 50mm Concrete Topping for Tites
- d. 300mm x 600mm Ceramic Wall Tites.
- e. Urinal partition including stainless steel support and accessories
- f. Plastering Guide/ Grooves

B. CEILING FINISHES

- a. 12mm this Gypsum Board including framing and accessories.
- 12mm the Moisture Resistant Gypsum Board on lightweight atuminum frames
- Rubbed Concrete

C. DOORS & WINDOWS

Follow as per approved plan and specifications.

D. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, sluminum, glass, finishes and other works.
- d All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.
- All surfaces including mesonry wall shall be thoroughly cleaned, putted, sandpapered, rubbed and polished; mesonry wall shall be treated with Neutralizer
- All exposed finish hardware, lighting fixtures and eccessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- g. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

V. SANITARY / PLUMBING WORKS

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Supply, installation and testing of the following:
 - 8.1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - 8.2 Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - B.3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - B.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings pipes, fittings, valves, cleanout, drains, etc. Complete and operational
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E Install equipment in strict accordance with manufacturers written recommendations.
- Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertein that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the tayout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or

- indicated in the drewings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination
 and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to accertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and as far as practicable they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during menufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydrautic test on the comptete plumbing systems and the drainage system to show that it is functioning satisfactority within the requirements of this Specification and tocal regulations.
- Q The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walts and ducts are closed. Also test shall be carried out prior to false ceitings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V Testing of drainage systems shall be carried out in sections by dividing the system horizontalty. Each section shall comprise pipework and filting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z Install lateral bracing with pipe hangers and supports to grevent swaying.
- AA. Install burkting attachments within concrete stabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS

- 2-1/2 (ON 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed, fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME 831,9 for building services piping.

VI. ELECTRICAL WORKS

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- 6 Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the move stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a tabel shall be attached to all devices tested. The tabel shall provide the name of the testing company, the date the tests were completed, and the mitials of the person who performed the tests.

F. PANELBOARDS

- F.1 Fabricate and test panel boards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 15073 and 15074 "Hangers and Supports for Etectrical Systems and Vibration and Seismic controls for Etectrical Systems" respectively.
- F.2 Enclosures Flush, Surface, Flush- and surface-mounted cabinets.
 - F.2.1 Rated for environmental conditions at anstalled location.
 - Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - ii Outdoor Locations: NEMA 250, Type 3R
 - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - iv Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dirt, and Dropping Noncompaive Liquids: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front Secured to box with concealed frim clamps. For surface-mounted fronts, match box dimensions: for flush-mounted fronts, overlap box.
 - F.2.3 Hinged Front Gover Entire front trim hinged to box and with standard door within hinged trim cover.
 - F 2.4 Skirt for Surface-Mounted Penel boards: Seme gage end finish as parell board front with flanges for attachment to panel board, walf, and ceiling or floor
 - F.2.5 Gutter Extension and Barrier: Same gage and finish as panel board anclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - F.26 Finishes
 - i Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and prefreating with manufacturer's

- stendard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
- Back Boxes: Galvanized steel Same finish as panels and trim.
- Fungus Proofing Permanent fungioidal treatment for overcurrent protective devices and other components.
- F 2.7 Directory Card. Inside panel board door, mounted in transparent card holder metal frame with transparent protective cover
- F.3 Incoming Mains Location: Top or Bottom
- F.4 Phase, Neutral, and Ground Buses:
 - F.4.1 Material: Hard-drawn copper 98 percent conductivity
 - F.4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors, bonded to box.
 - F.4.3 Neutral Bus. 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

CARMINA KAY A. PURAGGANAN Planning and Programming Division

Planning and Programming Division



Republic of the Philippines Quezon City

CITY ENGINEERING DEPARTMENT



Cwx Center Building B, Quezon City Hall Compound, Elliptical Road Diliman, Central 1100 Quezon City Trunk line: +63.2 8988 4242

TECHNICAL SPECIFICATIONS QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE:

PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND

REHABILITATION OF LUZVIMINDA DAY CARE CENTER 🗡

LOCATION:

BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

I. GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- Drawings, specifications codes and standards are minimum requirements. Where requirements differ the more stringent apply
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g All equipment and installations shall meet or exceed minimum requirements of the standards and codes
- h. Mobilization and Demobilization (if applicable)
 - i. Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmantike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.

j. Temporary Facilities and Utilities

 All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.

- Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- iii Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- rv Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauledout and disposed properly
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
 - ii. The medical room shall be provided in waterproof; it could be a building or room designated and used exclusively for the purpose and have a floor erea of at least 15 square meters and a glazed window area of at least 2 square meters.
 - rii. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent focations suitable notices in the site.
 - iv Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjecent property shall be provided to avoid untoward incidents / accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

- A All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B. Removal / demolition of existing structures shall be done in accordance to safety procedures.

iii. civil / structural works

A. CONCRETE WORK

- a. Delivery, Storage, and Handling. All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.
- c. Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150).
- it. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, ecids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.
- iv. Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast not larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

d. Proportioning and Mixing.

i Proportioning and mixing of concrete shall conform to the requirements for Item 405 of the standard specification with the following proportions.

Cement : Send : Gravel

- Class "A" 1 : 2 : 3
- Class 'B' 1 : 2 : 4
- Class "C" 1 : 2 %:
- iii Concrete mixture to be used for concrete shall conform with the structural requirements.
- iii Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes effer the cement has been added to the aggregates.

e. Forms

- i General Forms shalt be used whatever necessary to confine the concrete and shape it to the required lines or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly an correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be Will waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of morter, the grout or other foreign material.
- ili Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

f. Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil grease, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete

g Conveying and Placing Concrete:

- Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients.
 There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- II. Placing concrete shall be worked readily into the comers and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii. Time Interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- iv Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand specing and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand specing and temping and vibrators shall not be used.
- v Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult is layer of mortar of the same cement-send retios as used in concrete shall be first deposited to cover the surfaces.

为 Curing

- General All concrete shall be moist cured for a period not less than seven (7)
 consecutive days by an approved method or combination applicable to local
 conditions.
- Morst Curing The surface of the concrete shall be kept continuously wat by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing.

i. Finishing

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cament mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii. Concrete Stabs on Fill. The concrete stabs on fill shall be laid on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

B. MASONRY WORKS

a Masonry Units (CMB): 100mm thick for all interior walls and 150mm thick for all exterior walls unless otherwise indicated. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.

Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

b Sand:

\$-1, washed, clean and greenish in color.

c. Morter:

One part "Portland" cement and two parts sand and water but not more than three parts sand and water.

d Plaster bond:

Apply plaster bond to all wall area.

C. METAL WORKS

Description

Metal works shall conform to the approved plans and to the Standard Specifications.

Reference Standards

Comply with the latest edition of the following as applicable, unless otherwise specified or modified.

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 1978. Specification for the Design, Februation and Erection of Structural Steel for Buildings Code of Standard Practice for Steel Buildings and Bridges; Specification for Architecturally Exposed Structural Steel.
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Source Quality Control

Errors of Shop Drawings, fabrication, correct fitting and alignment of the various metal items or component members shall be the responsibility of the Contractor. However, the Contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the Contractor of his responsibility to furnish materials and workmanship in accordance with the Contract Documents.

d. Product Delivery, Handling and Storage

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

f. Field Quality Control

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

g Materials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- STEEL AND IRON: If not specified otherwise, use standard milifinished structural steel shapes or bar iron incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- b) BOLTS, NUTS, STUDS AND RIVETS; ASTM A 307 & A 325
- c) SCREWS: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

h. Fabrication

By mechanics skilled in the trade and in accordance with the manufacturer's directions, Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and note.

Measurements

Before fabrication, provide necessary field measurements and varify all measurements.

Metal Surfaces

Shell be clean and free from all scale, flake, rust, and rust pitting; well-formed and finished to shape and size, with sharp lines, angles and smooth surface. Shearing and punching shall leave clean true lines and surfaces Weld or rivel permanent connections. Weld and flush rivels shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided: when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

k. Construction

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m. Submittats

Shop Drawings. Submit along with catalogue, cuts, templates and erection and installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

Delivery and Storage

Protect from corrosion, deformation and other types of damage, Store Items in an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

Welding

Use welding electrode E70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where lack welding is permitted. Do not lack weld exposed to connections.) Grind smooth visible weld in finished installation.

p. Metal Purlins

Metal purios shall be of high grade galvanized steel with minimum tensile strength of 275 MPA, 1.4mm in thickness.

D. ROOFING WORKS

- a. The roof shall be covered with Ga. 24 pre-painted G,I. rib-type roofing sheets as shown on the plane. The roofing shall be secured to the purins with min. 2 ½" max. 3" long. Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rib-type roofing sheets. They shall lep the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- b. All roofing sheets adjacent to concrete hotlow block and other masonry walts such as property line firewells, shall be provided with Gauge 26 pre-painted plain G.t. Flashing to extend to the top and over to the other side of the wall. All festeners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

W. ARCHITECTURAL WORKS

A. WALLS AND FLOOR FINISHES

- 600mm x 600mm Nonskid Ceramic Tiles including tile adhesive.
- 50mm concrete Topping with Plain Cement Finish
- 50mm Concrete Topping for Tiles
- d. 300mm x 600mm Ceremic Wall Tites
- Urinal partition including stainless steel support and accessories
- f. Plastering Guide/ Grooves

B. CEILING FINISHES

- a 12mm thk Gypsum Board including framing and accessories
- 12mm thk Moisture Resistant Gypsum Board on lightweight aluminum frames
- Rubbed Concrete

C. DOORS & WINDOWS

a. Follow as per approved plan and specifications

D. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified meterial.
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors walls, aluminum, glass linishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications
- All surfaces including masonry wall shall be thoroughly cleaned, putried, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- f. All exposed firmsh hardware, lighting fixtures and accessones, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- All other surfaces endangered by stains and paint marks should be taped and covered with craft paper

V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
 - B 1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, plping, water meters, valves, bibbs, insulation, all eccessories required for complete and operational of the system.
 - B.2 Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - B.3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittats, shop drawings, piges, fittings, valves, cleanout drains, etc. Complete and operational.
 - B.4 Storm drainage system complete in ell respect including but not limited to connection to existing storm drainage submittels, shop drawings, pipes, fittings, valves, cleanout drains, stc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradeamen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or

- indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and menufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure disarrance of debris.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfectorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydrautic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving egency.
- U. Oramage pipe shall be tested by filling the pipe with 3m of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V Testing of drainage systems shall be carried out in sections by dividing the system horizontally Each section shall comprise pipework and litting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA Instalt building attachments within concrete stabs or attach to structural steel. Instalt additional attachments at concentrated loads, including valves, flanges, and straners, NPS.

- 2-1/2 (DN 65) and larger and at changes in direction of piging. Install concrete inserts before concrete is placed; (astern inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Instell hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe stopes and to not exceed maximum pipe deflections atlowed by ASME 831.9 for building services piping.

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. Atl equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F. PANELBOARDS

- F.1 Fabricale and test panel boards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.
- F.2 Englosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - F 2.1 Reted for environmental conditions at installed location.
 - Indoor Dry and Clean Locations: NEMA 250 Type 1
 - ii Outdoor Locations: NEMA 250, Type 3R.
 - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - iv. Other Wet or Damp Indoor Locations NEMA 250, Type 4
 - Indeer Locations Subject to Dust, Falling Oirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front. Secured to box with concealed frim clamps. For surface-mounted fronts, match box dimensions, for flush-mounted fronts, overlap box
 - F.2.3 Hanged Front Cover: Entire front Inm hanged to box and with standard door within hanged Inm cover
 - F 2.4 Skirt for Surface-Mounted Panel boards: Same gage and finish as panel board front with flanges for attachment to panel board, wall, and ceiling or floor.
 - F.2.5 Gutter Extension and Barrier Same gage and finish as panel board enclosure; integral with enclosure body. Arrange to Isolate individual panel sections.

F.2.6 Finishes:

 Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturers

- standard two-coat, baked-on finish consisting of prime coat and thermosetting topocat
- ii. Back Boxes: Galvanized sleet Same finish as panets and trim.
- Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card. Inside panel board door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location: Top or Bottom.
- F 4 Phase, Neutral, and Ground Buses:
 - F.4.1 Material Hard-drawn copper, 98 percent conductivity
 - F.4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - F.4.3 Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus. Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

CARMINA KAY FURAGGANAN Planning and Programming Division

JOCECYN A. NAONG Planning and Programming Division



Republic of the Philippines Quezon City

CITY ENGINEERING DEPARTMENT



Civic Center Building 8, Quezon City Hall Compound, Elliptical Road Billman, Central 7100 Quezon City Trunk line: +63 2 8988 4242

TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED CONSTRUCTION OF HANDWASHING FACILITY AND REHABILITATION OF POOK PAG-ASA DAY CARE CENTER /

LOCATION: BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grace of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes
- Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and retated costs for transportation of personnel, equipment, and operating supplies to the site, establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii Demotritization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- i Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman, Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- j Temporary Facilities and Utilities
 - All factities shall be near the job site, where necessary and shall conform to the best standard for the required types.

- Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- iv Temporary enclosure shalf be provided within the construction site with adequate guard lights, railings and proper signages.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period
- Upon completion of the work, the temporary facilities shall be demotished, hauledout end disposed properly
- Adequate construction safety and health protection shall be provided at all times during the
 execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
 - ii. The medical room shall be provided in waterproof: it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glezed window area of at least 2 square meters.
 - iii. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
 - Additional safety precautions shall be provided in the observance of pandemic Protocols set-forth by the government shall be strictly followed
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents
- m Final cleaning of the work shall be employed prior to the final inspection for certification of tinal acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

IL SITE WORKS

- A. All grades, lines, levets and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- Removal / demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the ptens. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.
- D All backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted wetting, tamping and rolling.

III. CIVIL / \$TRUCTURAL WORKS

A. CONCRETE WORK

a Delivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used: Packages or materials showing evidence of water or other damage shall be rejected. b. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting Items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150)
- ii. Water used in mixing concrete shall be clean and free from other injurious amounts of pils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates" Sand particle shall be course, sharp, clean free from salt, dust, foam, dut and all foreign matters.
- 27. Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

d. Proportroning and Mixing

Proportioning and mixing of concrete shall conform to the requirements for flem.
 405 of the standard specification with the following proportions:

Cement Sand Gravel

- Class 'A' 1:2:3
 Class 'B' 1:2:4
 Class 'C' 1:2½
- Concrete mixture to be used for concrete shall conform with the structural requirements.
- iii. Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes.
 after the coment has been edded to the aggregates.

e Forms

- I. General Forms shall be used whatever necessary to confine the concrete and shape it to the required tines, or to insure the concrete of contamination with materials caving from adjacent, excevated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently hight to prevent loss or mortar from the concrete. Forms shall be 'x' waterproof plywood and form lumber.
- ii Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of mortar, the grout or other foreign material.
- iii. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

f. Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement property. All reinforcement, when placed, shall be free from loose, flaky

rust and scale, oil greese, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and lies. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

g Conveying and Placing Concrete:

- i Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- Placing concrete shall be worked readily into the comers and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- ni Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 50 complete revolution of the machine mixer.
- Iv. Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cament-sand ratios as used in concrete shall be first deposited to cover the surfaces.

h. Curing

- i General All concrete shell be moist cured for a period not less then seven (7) consecutive days by an approved method or combination applicable to local conditions.
- ii Moist Curing The surface of the concrete shall be kept continuously wat by covering with buriap plastic or other approved materials (horoughly saturated with water and keeping the covering spraying or intermittent hosing

r. Finishing

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii. Concrete Slabs on FIII. The concrete slabs on fill shall be leid on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated

B. MASONRY WORKS

Masonry Units (CHB):

100mm thick for all interior walls and 150mm thick for all exterior walls unless otherwise indicated

Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required,

Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide sufferer columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

b. Send;

S-1 washed, clean and greenish in color

c. Mortar.

One part "Portland" cement and two parts sand and water but not more than three parts sand and water

d. Plaster bond.

Apply plaster bond to all wall area.

C. METAL WORKS

Description

Metal works shall conform to the approved plans and to the Standard Specifications.

Reference Standards

Comply with the latest edition of the following as applicable, unless otherwise specified or modified.

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 1978
 Specification for the Design, Fabrication and Erection of Structural Steel
 for Buildings. Code of Standard Practice for Steel Buildings and Bridges.
 Specification for Architecturally Exposed Structural Steel.
- AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2.068, Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern if in conflict with AISC)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joints using ASTM A-325-76s Bolts.
- STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual Vol. 2; Systems and Specifications.

Source Quality Control

Errors of Shop Drawings, fabrication, correct fitting and alignment of the various metal items or component members shall be the responsibility of the Contractor. However, the Contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the Contractor of his

responsibility to furnish materials and workmanship in accordance with the Contract Documents.

d Product Delivery, Handling and Storage

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

Field Quality Control

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

g. Materials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- a) STEEL AND IRON: If not specified otherwise, use standard millfinished structural steel shapes or bar iron incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- b) BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- c) SCREWS: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

h. Fabrication

By mechanics skilled in the trade and in accordance with the manufacturer's directions, Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuts.

Measurements

Before fabrication, provide necessary field measurements and verify all measurements.

j. Metal Surfaces

Shall be clean and free from all scale. flake, rust, and rust pitting; wellformed and finished to shape and size, with sharp lines, angles and smooth
surface. Shearing and punching shall leave clean true lines and surfaces.
Weld or rivet permanent connections. Weld and flush rivets shall be used
and finished flush smooth on surfaces that will be exposed after installation.
Do not use screws or bolts where they can be avoided: when used, heads
shall be countersunk, screwed up light and threads nicked to prevent
loosening.

Construction

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m. Submittals

Shop Drawings. Submit along with catalogue, cuts, templates and erection and installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

n. Delivery and Storage

Protect from corresion, deformation and other types of damage. Store items in an enclosed ansa free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

o. Welding

Use welding electrode E70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where tack welding is permitted. Do not tack weld exposed to connections.) Grind smooth visible weld in finished installation

p. Metal Purilins

Metal purlins shall be of high grade galvanized steel with minimum tensile strength of 275 MPA, 1.4mm in thickness.

D. ROOFING WORKS

- a. The roof shall be covered with Ga. 24 pre-painted G.f. rib-type rooting sheets as shown on the plans. The rooting shall be secured to the purlins with min. 2 ½° max 3° long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.f. rib-type roofing sheets. They shall be riveled to the rooting sheets at lisast 250mm. The ridge rolls, hip rolls and valleys shall be riveled to the rooting sheets.
- All roofing sheets edjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the confugations of the roofing sheets to prevent water from standing around the fasteners.

IV. ARCHITECTURAL WORKS

A. WALLS AND FLOOR FINISHES

- 600mm x 600mm Honskid Homogeneous Tites including tile adhesive.
- 400mm x 400mm Honskid Homogeneous Tiles Including tile adhesive.
- c. 400mm x 400mm Homogeneous Walt Tiles

B. CEILING FINISHES

6mm thk Fiber Cement Board including framing and accessories

C. DOORS & WINDOWS

Follow as per approved plan and specifications.

D. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, fir ishes and other works.
- All applications and methods used shall strictly follow the Manufecturer's Instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- f. All exposed finish hardware, lighting features and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- g. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

V. SANITARY / PLUMBING WORKS

- A. Comply with the curren applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
 - B.1 Potable water supply system complete in all respects including but not limited to submittale, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - B 2 Water service connections including but not illmited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - B 3 Soit waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - B 4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work
- Install equipment in stript accordance with manufacturers written recommendations.
- Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing which requires any redesign of the system, drawings showing the layout of the equipmen, and such redesign as required therefore shall be prepared by the

Contractor at his own expenses. Where such approved deviation necessitates a different quantily and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and instell any such additional materials and equipment's required by the system at no additional cost.

- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessones shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sandary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The lest pump shall be littled with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the meximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Brainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and filting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEt 7
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units
- Install lateral bracing with pipe hangers and supports to prevent swaying.

- AA Install building attachments within concrete stabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed, fastern inserts to forms and install reinforcing bars through openings at top of inserts.
- BB Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC Install hangers and supports to provide indicated pipe stopes and to not exceed maximum pipe deflections allowed by ASME 831.9 for building services piping.

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes
- D Execute work in strict accordance with the best practices of the trades in a thorough substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The tabel shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F PANELBOARDS

- F.1 Fabricate and test panel boards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - F.2.1 Rated for environmental conditions at installed location.
 - Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - Outdoor Locations: NEMA 250 Type 3R.
 - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - Other Wet or Damp Indoor Locations. NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dirt, and Dopping Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts overled box.
 - F.2.3 Hinged Front Cover. Entire front trim hinged to box and with standard door within hinged trim cover.
 - F.2.4 Skyrt for Surface-Mounted Panel boards. Same gage and finish as panel board front with flanges for attachment to penel board, wall, and ceiling or floor.
 - F.2.5 Gutter Extension and Berrier: Same gage and finish as panel board enclosure, integral with enclosure body. Arrange to isolate individual panel sections.
 - F.2.6 Finishes.

- Panels and Trim. Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
- ii. Back Boxes: Galvanized steel Same finish as panels and trim.
- iii Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside panel board door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
 - F 4.1 Metenal: Hard-drawn copper, 98 percent conductivity.
 - F 4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors, bonded to box.
 - F 4.3 Neutral Bus 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

VII. MECHANICAL WORKS (IF APPLICABLE)

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Drawings, specifications, codes and standards are minimum requirements. Where
 requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

JONATHAN RAYNALD T. ESPINO Planning and Programming Division. JOCPLYN & NAONG
Planning and Programming Division



LOCATION:

Replublika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5^m, 5^m, 7^m Floors, QC Civic Center Building 'B' Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE :

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF TALANAY DAY CARE CENTER

BRGY. BATASAN HILLS, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

GENERAL REQUIREMENTS

- A Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- B. Orswings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- D Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- E. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- F. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes
- H. Mobilization and Demobilization (if applicable)
 - Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly removal and site clean-up of offices and other facilities assembled on the site specifically for this contract
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types
 - Temporary facilities shall be provided and mainteined including sanitary facilities and first eid stations

- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided around the construction site with adequate guard lights, railings and proper signage.
- 5 Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauled-out and disposed properly
- K. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property
 - A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties.
 - 2 The medical room shall be provided with waterproofing; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations and suitable notices in the site
 - Additional safety precautions shall be provided in the event of a pandemic. Protocols set forth by the government shall be strictly followed.
 - 5. Personal Protective Equipment (PPE) shall consist of safety helmet/hard fiat, safety reflectorized vest, safety insulated gloves, dust mask, safety shoes, safety goggles, and safety herness. Every skilled and unskilled worker, and the project foreman shall be provided PPE by the Contractor, Consideration of quantity shall be made for the Project Engineer, Materials Engineer, Safety Officer/Practitioner (as required) and project driver.
 - 6 Construction safety materials shall consist of safety net fire extinguisher and safety signage and posters.
- L. Necessary protections to the adjacent property shall be provided to avoid unloward incidents / accidents.
- M. Final cleaning of the work shall be employed prior to the final inspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.
- B. This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old pavements, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract.

Removal and/or demolition of existing structures shall be done in accordance to safety procedures.

III. CIVIL / STRUCTURAL WORKS

A. METAL FABRICATION

1. Materials.

- Steel and from if not specified otherwise, use standard mill-finished structural steel shapes or bar from in compliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for buildings.
- Bolts, Nuts, Stude and Rivets. ASTM A 307 and A 325.
- Screws, Fed. Spec FF-\$-85, Fed. Spec FF-\$-92, and Fed. Spec. FF-\$-111.
- d. Metal Purtins. High grade galvanized steel with minimum tensile strength of 275 MPa, 1.4mm in thickness or approved equal

Fabrication:

By mechanics skilled in the trade and in accordance with the manufacturer's directions. Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuts.

Metal Surfaces:

Surfaces shall be clean and free from all scale, flake, rust and rust pitting wellformed and finished to shape and size, with sharp lines, angle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivel permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screwe or bolts where they can be avoided; when used, heads shall be countersurik, screwed uptight and threads nicked to prevent loosening.

Construction:

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

5 Welding:

Use welding electrode £70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where tack welding is permitted. Do not tack weld exposed to connections). Grind smooth visible weld in linished installation.

B. ROOFING WORKS

- 1. The roof shall be covered with Ga. 24 pre-painted G I inb-type roofing sheets as shown on the plans. The roofing shall be secured to the purlina with min. 2 ½" max. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. no-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ndge rolls, hip rolls and valleys shall be niveted to the roofing sheets.
- 2. The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purions with min. 2 ½" max. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those competible with the 6mm thick solid polycarbonate sheets. They shall tap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the cooling sheets.
- 3. All rooting sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All tasteners shall be placed.

at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

IV. ARCHITECTURAL WORKS

A. WALL FINISHES AND PARTITIONING

1 Double-Walt Fiber Cement Board Drywall on Metal Studs. Wall panel shall be two (2) 6 mm thick fiber cement toards, properly cut and prepared for installation and shall conform to the requirements of the Plans.

Metal Studs. Wall framing shall consist of 0.6 mm thick aluminum metal studs and aluminum metal tracks.

Fasteners and Connection detail. All construction and connections shall be secured with rivets, screws and drive pins, and shall conform to local and standard codes. Connections shall also be secured with gypsum putty and gypsum tape.

B. FABRICATED MATERIALS

Follow the specifications as per plan.

V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to aubmittals, shop drawings, piping water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - 3 Soll waste and vent system complete in all respect including but not similed to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes. fittings, valves, cleanout, drains, etc. Complete and operational.
- C Workmanship and installation methods shall conform to the best modern practice. Employ skalled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or

- indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contemnation or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and as fer as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All samilary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- Q Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydrautic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactority within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walts and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be re-tested at during the pipework test than that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional fests required by the end-user and/or approving agency.
- U Drainage pipe shall be tested by filling the pipe with 3m of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SE: 7.
- Y Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent swaying.

- AA. Install building attechments within concrete stabs or attach to structural stabl. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed, fasten inserts to forms and Install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

VI. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

- 1. This item shall consist of the furnishing and installation of the complete conduit work, consisting of electrical conduits, conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes; conduit fittings, such as couplings, looknuts and bushings and other electrical materials needed to complete the conduit roughing-in work of this project.
- All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.
- 3 All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer.
- 4 The work to be done under this division of specifications consists of the fabrication furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.
- All lighting fixtures and temps are as specified and fisted on lighting fixture schedule.
- All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires, ground rods, clamps, connectors, ground wells and ground wire taps as shown in the approved design.
- All auxiliary systems such as telephone and intercom system, time clock system, fire alarm system and public address/nurse's call/paging system installations shall be done in accordance with the approved design.
- 8 Upon completion of the electrical construction work, the contractor shall provide all test equipment and personnel and to submit written copies of all test results.
- 9 The contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The contractor shall guarantee that the electrical systems are free from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

B. WIRES AND WIRING DEVICES

- 1 This Item shall consist of the furnishing and installation of all wires and wiring devices consisting of electric wires and cables, wall switches, convenience receptacles, heavy duty receptacles and other devices shown on the approved Plans but not mentioned in these specifications.
- Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be

- insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.
- Conductors or wires shall not be drawn in conduits until after the cement piaster is thy
 and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing
 wires into conduits, sufficient slack shall be allowed to permit easy connections for
 fodures, switches, receptacles and other winnig devices without the use of additional
 solices.
- 4. All conductors of convenience outlets and lighting branch circuit homerums shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm but all homeruns to panel board more than 30 maters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.
- All wires of 14mm and larger in size shall be connected to panels and apparatus by
 means of approved type lugs or connectors of the solderless type, sufficiently large
 enough to enclose all strands of the conductors and securely fastened. They shall not
 loosen under vibration or normal strain.
- All joints, taps and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber arid PVC tapes in a manner which will make their insulation as that of the conductor.
- B. All wall switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with ell four edges in continuous contact with finished wall surfaces without the use of coiled were or smillar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be pasketed.
- When more than one switch or device is indicated in a single location, gang plate shall be used.

C. POWER LOAD CENTER, SWITCHGEAR AND PANEL BOARDS

- 1 This Item shall consist of the furnishing and installation of the power load center unit substation or low voltage switchgear arid distribution panel boards at the location shown or the approved Plans complete with transformer circuit breakers, cabinets and all accessories, completely wired and ready for service.
- 2 All materiels shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.
- Power Load Center Unit Substation. The Contractor shall furnish and install an indoortype Power Load Center Unit Substation at the location shown on the approved Plans if required. If shall be totally metal-enclosed, dead front and shall consist of the following coordinated component parts:
 - High Voltage Primary Section. High voltage primary incoming line section consisting of the following parts and related accessories.
 - b.One (1) Avr-lifed Interrupter Switch, 2-position (open-close) installed in a suitable av filled metal enclosure and shall have sufficient interrupting capacity to carry the ejectrical load. It shall be provided with key interlock with the cubicte for the power fuses to prevent access to the fuses unless the switch is open.
 - c. Three (3)-power fuses mounted in separate compartments within the switch housing and accessible by a hinged door
 - d One 1) set of high voltage potheads or 3-conductor cables or three single conductor cables.

e. Lightning arresters shall be installed at the high voltage cut/icle if required.

Items (i) and (ii) above could be substituted with a power circuit breaker with the correct rating and capacity.

b. Transformer Section. The transformer section shall consist of a power transformer with ratings and capacities as shown on the plans. it shall be oil liquid-filled nonflammable type and designed in accordance with the latest applicable standards.

The transformer shall be provided with four (4) approximately 2 1/2 % rated KVA taps on the primary winding in most cases one (1) above and three (3) below rated primary voltage and shall be changed by means of externally gang-operated manual tap changer only when the transformer is de-energized. Tap changing under load is acceptable if transformer has been so designed.

The following accessories shall be provided with the transformer, namely drain valve, sampling device, filling connection, oil liquid level gauge, ground pad, top filter press connection, lifting lugs, diagrammatic nameplate, relief valve, thermometer and other necessary related accessories

The high-voltage and low-voltage bushings and transition flenge shall be properly coordinated for held connection to the incoming line section and low voltage switchboard section, respectively

- c. Low Voltage Switchboard Section. The low-voltage switchboard shall be standard modular-unitized units, metal-built, dead front, safety type construction and shall consist of the following:
 - a Switchboard Housing. The housing shall be heavy gauge steel sheet, deed front type, gray enamel finish complete with frame supports, steel bracings, steel sheet panel boards, removable rear plates, copper busbars, and all other necessary accessories to insure sufficient mechanical strength and safety. It shall be provided with grounding botts and clamps.
 - b Secondary Metering Section. The secondary metering section shall consist of one (1) ammeter, AC, indicating type; one (1) volumeter, AC, indicating type, one (1) ammeter transfer switch for 3-phase; one (1) volumeter transfer switch for 3-phase; and current transformers of suitable rating and capacity.

The above-mentioned instruments shall be installed in one compartment above the mein breaker and shall be complete with all necessary accessories completely wired, ready for use

c. Main Circuit Breaker. The main circuit breaker shall be draw-out type, manually or electrically operated as required with ratings and capacity as shown on the approved Plans.

The main breaker shall include insulated control switch if electrically operated, manual trip button, magnetic tripping devices, adjustable time overcurrent protection and instantaneous short circuit trip and all necessary accessories to insure safe and efficient operation.

d Feeder Circuit Breakers. There shall be as many feeder breakers as are shown on the single tine diagram or schematic riser diagram and schedule of loads and computations on the plans. The circuit breakers shall be drawn out or molded case as required. The circuit breakers shall each have sufficient interrupting capacity and shall be manually operated complete with trip devices and all necessary accessories to insure safe and efficient operation. The number, ratings, capacities of the feeder branch circuit breakers shall be as shown on the approved Plans.

Circuit breakers shall each he of the indicating type, providing 'ON' - "OFF and "TRIP" positions of the operating handles and shall each be provided with nameptate for branch circuit designation. The circuit breaker shall be so designed that an overload or short on one pole automatically causes all poles to open.

- d. Low Voltage Switchgear (For projects requiring low-voltage switchgear only). The Contractor shall furnish and install a low-voltage switchgear at the location shown on the plans. It shall be natal-clad, dead front, free standing, safety type construction and shall have copper busbars of sufficient size, braced to resist allowable root mean square (RMS) symmetrical short circuit stresses, and all necessary accessories. The low-voltage switchgear shall consist of the switchgear housing, secondary metering, main breaker and feeder branch circuit.
- Grounding System. All non-current carrying metallic parts like conduits, dabinets and equipment frames shall be properly grounded in accordance with the Philippine Electrical Code, latest edition.

The size of the ground rods and ground wires shall be as shown on the approved. Plans. The ground resistance shall not be more than 5 ohms.

f Panel boards and Cabinets. Panel boards shall conform to the schedule of panel boards as shown on the approved Plans with respect to supply characteristics, rating of main lugs or main circuit breaker, number and ratings and capacities of brench circuit breakers

Panel boards shall consist of a fectory completed: dead front assembly mounted in an enclosing flush type cabinet consisting of code gauge galvanized sheet Meet box with trim and door. Each door shall be provided with catch lock and two (2) keys. Panel boards shall be provided with directones and shall be printed to indicate load served by each circuit.

Panel board cabinets and trims shall be suitable for the type of mounting shown on the approved Plans. The inside and outside of panel board cabinets and trims shall be factory painted with one rust-proofing primer coat and two finish shop coats of pearl gray ename!

Main and branch circuit breakers for panel boards shall have the rating, capacity and number of poles as shown on the approved Plans. Breakers shall be thermal magnetic type. Multiple breaker shall he of the common trip type having a single operating handle. For 50-ampere breaker or less, it may consist of single-pole breaker permanently assembled at the factory into a multi-pole unit

4 The Contractor shall install the Power Load Center Unit Substation or Low-Voltage Switchgeer and Penel boards at the locations shown on the approved Plans.

Standard panels and cabinets shall be used and assembled on the job. All panels shall be of dead front construction furnished with trims for flush or surface mounting as required.

- D. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- E Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- F. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- G. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- H When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

PANEL BOARDS

Fabricate and test panel boards according to IEEE 344 to withstand seismic forces
defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for
Electrical Systems and Vibration and Selsmic controls for Electrical Systems"
respectively.

- Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - Rated for environmental conditions at installed location.
 - Indoor Dry and Clean Locations: NEMA, Type 1.
 - ii. Outdoor Locations: NEMA, Type 3R.
 - lir. Kitchen and Wash-Down Areas. NEMA, Type 4X, stamless steet.
 - Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA, Type 12.
 - Outdoor Locations Subject to Dust, Falling Dirt, and Oripping Noncorrosive Liquids: NEMA, Type 5R
 - Front: Secured to box with concealed frim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box
 - Hinged Front Cover. Entire front thin funged to box and with standard door within hinged trim cover.
 - d. Skirt for Surface-Mounted Panel boards: Same gauge and finish as panel board front with flanges for attachment to panel board, wall, and celling or floor
 - Gutter Extension and Barner. Same gage and firmsh as panel board enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - f. Finishes.
 - Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
 - ii. Back Boxes: Galvanized steet Same finish as panels and trim.
 - Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
 - g. Directory Card: Inside panel board door, mounted in transparent card holder metal frame with transparent protective cover.
- Incoming Mains Location: Top or Bottom.
- 4. Phase, Neutral, and Ground Buses:
 - Material: Hard-drawn copper, 98 percent conductivity.
 - Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box
 - c. Neutral Bus: 100 percent of phase bus 4 Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

VIL MECHANICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable)
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. Att equipment and Installations shall meet or exceed minimum requirements of the Standards and Codes

- •
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

JONATHAN RAYNALD T. ESPINO Playing and Programming Division

JOCELTN & NAONG

Planting and Programming Division



Republic of the Philippines Quezon City

CITY ENGINEERING DEPARTMENT



Civic Center Building B, Quezon City Hall Compound, Elliptical Road Delman, Control 1100 Quezon City Trunk line: +63 2 8988 4242

TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE:

PROPOSED REHABILITATION OF FREEDOM PARK IN & IV

DAY CARE CENTER /

LOCATION:

BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

I. GENERAL REQUIREMENTS

- a Compty with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost ansing therefrom.
- b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed et intervals of not more than one month. The photographs shall be sufficient in number and location to record the exect progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- h. Mobilization and Demobilization (if applicable)
 - i. Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- i Execute work in strict accordance with the best practices of the traces in a thorough, substantial, workmanlike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- j. Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types

- ii Temporary facilities shall be provided and maintained including senitary facilities and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauledout and disposed property.
- Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and properly
 - A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
 - The medical room shall be provided in waterproof; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - iii. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
 - Additional salety precautions shall be provided in the observance of pandemic.
 Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents / ecodents.
- Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

H. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B. Removal / demolition of existing atructures shall be done in accordance to safety procedures

III. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORK

- a Delivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.
- c Materials

- Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C = 150).
- li. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkatine, organic materials or other substances that may be deletenous to concrete or steel.
- ill Fine aggregates shall be beach or river sand conforming to ASTM C33. "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.
- iv Coerse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor targer than three fourths (3/4) of the minimum clear specing between reinforcing bars or between reinforcing bars and forms.

d. Proportioning and Mixing.

Proportioning and mixing of concrete shall conform to the requirements for item.
 405 of the standard specification with the following proportions:

Cement : Sand : Gravel

- Class "A" 1 : 2 : 3
 Class "B" 1 : 2 : 4
 Class "C" 1 : 2 ½
- Concrete mixture to be used for concrete shell conform with the structural requirements.
- jii. Mixing concrete shall be mechine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

e. Forms

- i. General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidity in correct position. Forms shall be sufficiently tight to prevent loss or morter from the concrete. Forms shall be ¼" waterproof plywood and form lumber.
- ii. Cleaning of Forms before placing the concrete, the contact surfaces of the formed half be cleaned of encrustations of morter, the grout or other foreign material.
- ia. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

f. Placing Reinforcement

Steel reinforcement shall be provided as indicated, together with all necessary write tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil grease clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

g. Conveying and Placing Concrete:

- Conveying concrete shell be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- ii. Placing concrete shall be worked readily into the comers and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- iv. Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced install set, and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of morter of the same cament-sand ratios as used in concrete shall be first deposited to cover the surfaces.

h. Curing

- General All concrete shall be moist cured for a period not less than seven (7)
 consecutive days by an approved method or combination applicable to local
 conditions.
- ii. Moist Curing The surface of the concrete shall be kept continuously wet by covering with burtap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing

Finishing

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of the overlaying slab except when Indicated

B. MASONRY WORKS

 a. Masonry Units (CHB): 100mm thick for all intenor walls and 150mm thick for all exterior walls unless otherwise indicated. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.

Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to essure a stabilized wall due to height & other considerations.

b. Sand:

S-1, washed, clean and greenish in color.

c. Mortar:

One part 'Portland' cement and two parts sand and water but not more than three parts sand and water.

d. Plaster bond:

Apply plaster bond to all wall area.

C. METAL WORKS

a. Description

Metal works shall conform to the approved plans and to the Standard Specifications.

b Reference Standards

Comply with the letest edition of the following as applicable, unless otherwise specified or modified.

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). 1978
 Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Code of Standard Practice for Steel Buildings and Bridges.
 Specification for Architecturally Exposed Structural Steel.
- AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2.068; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern if in conflict with AISC)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joists using ASTM A-325-76s Bolts.
- STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual Vol. 2: Systems and Specifications.

c. Source Quality Control

Errors of Shop Drawings, fabrication, correct fitting and alignment of the various metal items or component members shall be the responsibility of the Contractor. However, the Contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the Contractor of his responsibility to furnish materials and workmanship in accordance with the Contract Documents.

d. Product Delivery, Handling and Storage

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

f. Field Quality Control

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

g Materials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- a) STEEL AND IRON: If not specified otherwise, use standard millfinished structural steel shapes or bar iron incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- b) BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- sCREWS: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

h. Febrication

By mechanics skilled in the trade and in accordance with the manufacturer's directions, Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuts.

Measurements

Before fabrication, provide necessary field measurements and verify all measurements.

i. Metal Surfaces

Shall be clean and free from all scale, flake, rust, and rust pitting; well-formed and finished to shape and size, with sharp lines, angles and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided; when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

k. Construction.

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated Joints exposed to weather shall be formed to exclude water.

Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m Submittels

Shop Drawings. Submit along with catalogue, cuts, templates and erection. and installation details, indicating thickness, type, grade, lype of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

Delivery and Storage

Protect from corrosion, deformation and other types of damage. Store items in an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

Welding

Use walding electrode E70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where lack welding is permitted. Do not lack weld exposed to connections.) Grind smooth visible weld in finished installation.

p. Metal Purlins

Metal purios shall be of high grade galvanized steel with minimum tensile. strength of 275 MPA, 1.4mm in thickness.

D. ROOFING WORKS:

- a. The roof shall be covered with Ga. 24 pre-painted GT rib-type roofing sheets as shown on the plans. The roofing shall be secured to the puriors with min. 2 % max. 3º long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.t. rib-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the rooting sheets.
- All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the comugations of the roofing sheets to prevent water from standing around the festeners.

ARCHITECTURAL WORKS IV.

A. WALLS AND FLOOR FINISHES

- a. 600mm x 600mm Nonskid Ceremic Tiles including tile adhesive.
- 50mm concrete Topping with Plain Cement Finish
- 50mm Concrete Topping for Tiles
- d. 300mm x 600mm Ceramic Wall Tiles
- Urinal partition including stainless steel support and accessories
- f. Plastening Guide/ Grooves

B. CEILING FINISHES

- a. 12mm this Gypsum Board including framing and accessories
- 12mm the Moisture Resistant Gypsum Board on lightweight aluminum frames
- Rubbed Concrete

C. DOORS & WINDOWS

Follow as per approved plan and specifications.

D. PAINTING WORKS

- All primers: thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, alumenum, glass, finishes and other works.
- d. All applications and methods used shall strictly follow the Manufacturer's instructions and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, putiled, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- f. All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- g All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

V. SANITARY / PLUMBING WORKS

- A Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having junediction, the rules, regulations and regularements of the utility companies (as applicable).
- Supply, installation and testing of the following:
 - B.1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation all accessories required for complete and operational of the system.
 - B 2 Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - B.3 Soit waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout drains, etc. Complete and operational.
 - B.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work
- E Install equipment in stnct accordance with manufacturers written recommendations.
- Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and reptacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the tayout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or

- indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination
 and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All senitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure dearance of debris.
- Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P The Contractor shalt carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in watts and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m, of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Dramage pressure pipe shall be hydraulic tested at minimum pressure 50 psi
- X. Hanger's and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS

- 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules regulations and requirements of the utility companies (as applicable).
- B. Drawings, specifications, codes and standards are minimum requirements. Whate requirements differ the more stringent apply
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial workmanlike manner by competent workman.
- When the tests and inspections have been completed, a label shall be attached to all devices tested. The tabel shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F PANELBOARDS

- F.1 Fabricate and test panel boards according to IEEE 344 to withstand seismic forces defined in Dryision 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.
- F.2 Enclosures Flush, Surface, Flush- and surface-mounted cabinets.
 - F 2 1 Rated for environmental conditions at installed location
 - Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - Outdoor Locations: NEMA 250, Type 3R.
 - iii Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stamless steet.
 - Other Wet or Demp Indoor Locations: NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dirt. and Dripping Noncorrosive Liquids: NEMA 250, Type 5 or Type 12
 - F.2.2 Front. Secured to box with concealed frim clamps. For surface-mounted fronts, match box dimensions, for flush-mounted fronts, overlap box.
 - F 2.3 Hinged Front Cover: Entire front frim hinged to box and with standard 6007 within hinged trim cover
 - F.2.4 Skirt for Surface-Mounted Panel boards: Same gage and finish as panel board from with flanges for attachment to panel board, wall, and ceiling or floor.
 - F 2.5 Gutter Extension and Barrier: Same gage and finish as panel board enclosure: integral with enclosure body. Arrange to isolate individual panel sections.
 - F.2.6 Finishes:
 - Penels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's

standard two-coat, beked-on finish consisting of prime cost and thermosetting topcoat.

- ii. Back Boxes: Galvanized steel Same finish as panels and frim.
- Fungus Proofing Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card. Inside panel board door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
 - F.4.1 Material: Hard-drawn copper, 98 percent conductivity.
 - F 4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - F 4.3 Neutral Bus 100 percent of phase bus 4 Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL histed as suitable for nonlinear loads.

JONATHAN RAYNALD T. ESPINO Planning and Programming Division JOCECYN W NAONG | Planning and Programming Division



Reptublika ng Pitipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT

5TH, 6TH, 7TM Floors, QC Civic Center Building *B* Telephone Nos. 8988-4242 Local 8538



PROJECT TITLE : LOCATION :

PROPOSED REHABILITATION OF CONSTITUTIONAL DAY CARE CENTER

BRGY, BATASAN HILLS, DISTRICT 2, QUEZON CITY

TECHNICAL SPECIFICATIONS

I. GENERAL REQUIREMENTS

- A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost ansing therefrom
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply
- C. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- D. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- E. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or madvertence.
- F. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- H Mobilization and Demobilization (if applicable)
 - 1. Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - 2 Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- J. Temporary Facilities and Utilities
 - All facilities shall be near the job site, where necessary and shell conform to the best standard for the required types.
 - Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

- 3 Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- Temporery enclosure shall be provided around the construction site with adequate guard lights, railings and proper signage.
- Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demolished, hauted-out and disposed properly
- K. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties.
 - 2 The medical room shall be provided with waterproofing; it could be a building of room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - 3 The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations and suitable notices in the site.
 - Additional safety precautions shall be provided in the event of a pendemic. Protocols
 set forth by the government shall be strictly followed.
 - 5 Personal Protective Equipment (PPE) shall consist of safety helimet/hard hat, safety reflectorized vest, safety insulated gloves, dust mask, safety shoes, safety goggles, and safety harness. Every skilled and unskilled worker, and the project foreman shall be provided PPE by the Contractor Consideration of quantity shall be made for the Project Engineer, Materials Engineer, Safety Officer/Practitioner (as required) and project driver
 - Construction safety materials shall consist of safety net, fire extinguisher and safety signage and posters.
- L. Necessary protections to the adjacent property shall be provided to avoid unloward uncidents / accidents.
- M. Final cleaning of the work shall be employed prior to the final inspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

- A. All grades, lines, levels end dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.
- B. This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings fences, structures, old payements, abandoned pipe lines and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract
 - Removal and/or demolition of existing structures shall be done in accordance to safety procedures
- C. All excevations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.

The Contractor shall notify the Engineer sufficiently in advance of the beginning of any excavation so that cross-sectional elevations and measurements may be taken on the undisturbed ground. The natural ground adjacent to the structure shall not be disturbed without permission of the Engineer

Trenches or foundation pits for structures or structure footings shall be excavated to the lines and grades or elevations shown on the Plans or as staked by the Engineer. They shall be of sufficient size to permit the placing of structures or structure footings of the full width and length shown. The elevations of the bottome of footings, as shown on the Plans, shall be considered as approximate only and the Engineer may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary, to secure a satisfactory foundation.

Boulders, logs, and other objectionable materials encountered in excavation shall be removed.

After each excavation is completed, the Contractor shall notify the Engineer to that effect and no footing, bedding material or pipe culvert shall be placed until the Engineer has approved the depth of excavation and the character of the foundation material

D. All excavated materials, so far as suitable, shall be utilized as backfill. The surplus materials shall be disposed of in such menner as not to obstruct the stream or otherwise impair the efficiency or appearance of the structure. No excaveted materials shall be deposited at any time so as to endanger the partly linished structure.

All backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted by wetting, tamping and rolling.

- E. Soil Poisoning. There are two methods usually adopted in soll poisoning which are as follows:
 - Cordoning. This method is usually adopted when there is no visible evidence of termite infestation. Trenches in concentric circles, squares or rectangles are dug 150mm to 220mm wide and at least one mater apart and applied with Liquid Termicide Concentrate working solution at the rate of 8 liters per linear meter.
 - Drenching. When soil show termite infestation, this method shall be applied. The building area shall be literoughly drenched with Liquid Termicide Concentrate working solution at the rate of 24 liters per square meter.

III. CIVIL / STRUCTURAL WORKS

A. METAL FABRICATION

1. Materials:

- Steel and from If not specified otherwise, use standard mitt-finished structural steel shapes or bar iron in compliance with AISC Specifications for Design. Febrication and Erection of Structural Steel for buildings.
- Bolts, Nuts, Studs and Rivets. ASTM A 307 and A 325.
- c. Screws, Fed. Spec FF-S-85, Fed. Spec FF-S-92, and Fed. Spec, FF-S-111.
- d. Metal Purlins. High grade galvanized steel with minimum tensile strength of 275 MPs, 1.4mm in thickness or approved equal

Fabrication:

By mechanics skilled in the trade and in accordance with the manufacturer's directions. Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuts.

3 Metal Surfaces

Surfaces shall be clean and free from all scale, flake, rust and rust pitting, wellformed and finished to shape and size, with sharp lines, angle and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivel permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. On not use screws or bolls. where they can be avoided; when used, heads shall be countersunk, screwed uptight and threads nicked to prevent loosening

Construction:

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

Welding:

Use welding electrode £70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of confact (except where tack welding is permitted. Do not tack weld exposed to connections). Grind smooth visible weld in finished installation.

8. ROOFING WORKS

- The roof shall be covered with Ga. 24 pre-painted G.I rib-type roofing sheets as shown on the plans. The roofing shall be secured to the purios with min. 2 ½" max.
 long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rib-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- 2. The roof shall be covered with 5mm thick Rio-type polycarbonate sheets as shown on the plants. The roofing shall be secured to the purtins with min. 2 ½ max. 3' long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveled to the roofing sheets.
- 3. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-pointed plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

IV. ARCHITECTURAL WORKS

A. WALL FINISHES AND PARTITIONING

Double-Wall Fiber Cement Board Drywall on Metal Studs. Wall panel shall be two.
 6 mm thick fiber cement boards, properly cut and prepared for installation and shall conform to the requirements of the Plans.

Metal Studs. Wall framing shall consist of 0.6 mm thick aluminum metal stude and aluminum metal tracks

Fasteners and Connection detail. All construction and connections shall be secured with rivets, screws and drive pins, and shall conform to local and standard codes. Connections shall also be secured with gypsum putty and gypsum lape.

B. FABRICATED NATERIALS

Follow the specifications as per plan.

V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:

- Potable water supply system complete in all respects including but not fimited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
- Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
- Soil wasta and vent system complete in all respect including but not limited to connection to existing sewer, submilta's, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational
- Storm drainage system complete in all respect including but not limited to correction
 to existing storm drainage, submittals, shop drawings, pipes, fittings, valves,
 cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall escertain that facilities for proper maintenance, repair and replacement are provided.
- Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing which requires any redesign of the system, drawings showing the tayout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transm, or on site whilst in storage or during erection shall be rejected and replaced without extra cost
- M. All senitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. Clearang and flushing shall be carried out in sections as the Installation becomes completed.
- P. The Contractor shall carry out hydrautic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorsly within the requirements of this Specification and local regulations

- Q The Contractor shall provide suitable test pumps and errange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- Testing epparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test than that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Orainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and war for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psr.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity toads and stresses within limits and under conditions indicated according to ASCE/SEL7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expension joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe trangers and supports to prevent swaying.
- AA Install building attachments within concrete slabs or attach to structural steet. Install additional attachments at concentrated loads, including valves, flenges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed, faster inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31 9 for building services piping.

VI. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

- This item shall consist of the furnishing and installation of the complete conduit work, consisting of electrical conduits, conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes; conduit fittings, such as couplings, locknuts and bushings and other electrical materials needed to complete the conduit roughingin work of this project.
- All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.
- All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duty licensed Electrical Engineer.
- 4 The work to be done under this division of specifications consists of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the

subject premises and all work materials incidental to the proper completion of the installation except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.

- 5 Alt lighting fixtures and tamps are as specified and listed on lighting fixture schedule.
- All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires, ground rods ctamps, connectors, ground wells and ground wire taps as shown in the approved design.
- All auxiliary systems such as telephone and intercom system, time clock system, fire aterm system and public address/nurse's call/paging system installations shall be done in accordance with the approved design.
- 9 Upon completion of the electrical construction work, the contractor shall provide all test equipment and personnel and to submit written copies of all test results.
- 9. The contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The contractor shall guarantee that the electrical systems are free from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

B. WIRES AND WIRING DEVICES.

- This Item shall consist of the furnishing and installation of all wires and wiring devices
 consisting of electric wires and cables, wall switches, convenience receptacles, heavy
 duty receptacles and other devices shown on the approved Plans but not mentioned
 in these specifications.
- 2. Wires and cables shall be of the approved type meeting all the requirements of the Philippine Etectrical Code and bearing the Philippine Standard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.
- Conductors or wires shall not be drawn in conduits until after the cament plaster is dry
 and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing
 wires into conduits, sufficient stack shall be allowed to permit easy connections for
 fixtures, switches, receptacles and other wining devices without the use of additional
 splices.
- 4. All conductors of convenience outlets and lighting branch circuit homeruns shall be wred with a minimum of 3.5 mm in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm but all homeruns to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.
- 5. All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.
- 6. All joints, taps and splices on wires larger than 14 mm shall be made of suitable soldeness connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.
- 7. No spilles or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with hubber and PVC tapes in a manner which will make their angulation as that of the conductor.
- 8. All wall switches and receptactes shall be fitted with standard Bakelife face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coded wire or similar.

- devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.
- When more than one switch or device is indicated in a single location, gang plate shall be used

C. POWER LOAD CENTER, SWITCHGEAR AND PANEL BOARDS.

- †. This item shall consist of the furnishing and installation of the power load center unit substation or low voltage switchgeer and distribution panel boards at the location shown or the approved Plans complete with transformer, circuit breakers, cabinets and all accessories, completely wired and ready for service.
- All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark
- Power Load Center Unit Substation. The Contractor shall furnish end install an indoortype Power Load Center Unit Substation at the location shown on the approved Plans if required. It shall be totally metal-enclosed, dead front and shall consist of the following coordinated component parts.
 - a. High Voltage Primary Section. High voltage primary incoming line section consisting of the following parts and related accessories:
 - b.One (1) Arr-filled Interrupter Switch, 2-position (open-close) installed in a suitable air filled metal enclosure and shall have sufficient interrupting capacity to carry the electrical load. If shall be provided with key interlock with the cubicle for the power fuses to prevent access to the fuses unless the switch is open.
 - c Three (3)-power fuses mounted in separate compartments within the switch housing and accessible by a hinged door.
 - d.One 1) set of high voltage potheads or 3-conductor cables or three single conductor cables.
 - e. Lightning arresters shall be installed at the high voltage cubicle if required.

Items (i) and (ii) above could be substituted with a power circuit breaker with the correct rating and capacity.

b. Transformer Section. The transformer section shall consist of a power transformer with ratings and capacities as shown on the plans—it shall be oil liquid-filled nonflammable type and designed in accordance with the latest applicable standards.

The transformer shall be provided with four (4) approximately 2 1/2 % rated KVA taps on the primary winding in most cases one (1) above and three (3) below rated primary voltage and shall be changed by means of externally gang-operated manual tap changer only when the transformer is de-energized. Tap changing under load is acceptable if transformer has been so designed.

The following accessones shall be provided with the transformer namely: drain valve, sampling device, filling connection, oil liquid level gauge, ground paid, top filter press connection, lifting augs, diagrammatic nameplate, relief valve, thermometer and other necessary related accessones.

The high-voltage and low-voltage bushings and transition flange shall be properly coordinated for field connection to the incoming line section and low voltage switchboard section respectively.

- c Low Voltage Switchboard Section. The low-voltage switchboard shall be standard modular-unitized units, metal-built, dead front, safety type construction and shall consist of the following:
 - a. Switchboard Housing. The housing shall be heavy gauge steel sheet, dead from type, gray enamel finish complete with frame supports, steel bracings, steel sheet panel boards removable rear plates, copper busbars, and all other

necessary accessories to insure sufficient mechanical strength and safety. It shall be provided with grounding botts and clamps.

b Secondary Metering Section. The secondary metering section shall consist of one (1) ammeter, AC, indicating type, one (1) voltmeter, AC, indicating type, one (1) ammeter transfer switch for 3-phase, one (1) voltmeter transfer switch for 3-phase; and current transformers of suitable rating and capacity.

The above-mentioned instruments shall be installed in one compartment above the main breaker and shall be complete with all necessary accessories completely wired, ready for use.

c. Main Circuit Breaker. The main circuit breaker shall be draw-out type, manually or electrically operated as required with ratings and capacity as shown on the approved Plans.

The main breaker shall include insulated control switch if electrically operated, manual trip button, magnetic tripping devices, adjustable time overcurrent protection and instentaneous short circuit trip and all necessary accessories to insure safe and efficient operation.

d. Feeder Circuit Breakers. There shall be as many feeder breakers as are shown on the single line diagram or schematic riser diagram and schedule of loads and computations on the plans. The circuit breakers shall be drawn out or molded case as required. The circuit breakers shall each have sufficient interrupting capacity and shall be manually operated complete with trip devices and all necessary accessories to insure safe and efficient operation. The number, ratings, capacities of the feeder branch circuit breakers shall be as shown on the approved Plans.

Circuit breakers shall each he of the indicating type, providing 'ON' - "OFF and "TRIP" positions of the operating handles and shall each be provided with nameplate for branch circuit designation. The circuit breaker shall be so designed that an overload or short on one pole automatically causes all poles to open.

- d Low Voltage Switchgear (For projects requiring low-voltage switchgear only). The Contractor shall furnish and install a low-voltage switchgear at the location shown on the plans. It shall be natal-clad, dead front, free standing, safety type construction and shall have copper busbars of sufficient size, braced to resist allowable root mean square (RMS) symmetrical short circuit stresses, and all necessary accessories. The low-voltage switchgear shall consist of the switchgear housing, secondary metering, main breaker and feeder branch circuit.
- e. Grounding System. All non-current carrying metallic parts like conduits, cabinets and equipment frames shall be properly grounded in accordance with the Philippine Electrical Code, latest edition.

The size of the ground rods and ground wires shall be as shown on the approved. Plans. The ground resistance shall not be more than 5 ohms.

f. Panel boards and Cabinets. Panel boards shall conform to the achedule of panel boards as shown on the approved Plans with respect to supply characteristics, rating of main lugs or main circuit breaker, number and ratings and capacities of branch circuit breakers.

Parsel boards shall consist of a factory completed: dead front assembly mounted in an enclosing flush type cabinet consisting of code gauge galvanized sheet steel box with trim and door. Each door shall be provided with catch lock and two (2) keys. Panel boards shall be provided with directories and shall be printed to indicate load served by each circuit.

Panel board cabinets and trims shall be suitable for the type of mounting shown on the approved Plans. The inside and outside of panel board cabinets and trims shall be factory painted with one rust-proofing primer coat and two finish shop coats of pearl gray ename! paint.

Main and branch circuit breakers for panel boards shall have the rating, capacity and number of poles as shown on the approved Plans. Breakers shall be thermal magnetic type. Multiple breaker shall be of the common trip type having a single operating handle— For 50-ampere breaker or less, it may consist of single-pole breaker permanently assembled at the factory into a multi-pole unit.

 The Contractor shall install the Power Load Center Unit Substation or Low-Voltage Switchgeer and Panel boards at the locations shown on the approved Plans.

Standard panels and cabinets shall be used and assembled on the job. All panels shall be of dead front construction furnished with trims for flush or surface mounting as required.

- D. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable)
- E. Drawings, specifications codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- F. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- G. Execute work in strict accordance with the best practices of the trades in a thorough substantial workmankle manner by competent workman.
- H. When the tests and inspections have been completed, a label shall be estached to all devices tested. The tabel shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

! PANEL BOARDS

- Fabricate and test panel boards according to IEEE 344 to withstand seismic forces
 defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for
 Electrical Systems and Vibration and Seismic controls for Electrical Systems"
 respectively.
- Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - Rated for environmental conditions at installed location.
 - Indoor Bry and Clean Locations: NEMA, Type 1
 - ii. Quidoor Locations: NEMA, Type 3R.
 - Kitchen and Wash-Down Areas: NEMA, Type 4X, stainless steet.
 - iv Indoor Locations Subject to Dust, Falling Dirt, and Oripping Noncorrosive Liquids: NEMA, Type 12
 - Outdoor Locations Subject to Dust, Falting Dirt, and Dripping Noncorresive Liquids: NEMA, Type 5R.
 - Front. Secured to box with concealed trim clamps. For surface-mounted fronts, metch box dimensions; for flush-mounted fronts, overlap box.
 - Hinged Front Cover. Entire front trim hinged to box and with standard door within hinged trim cover.
 - d. Skirt for Surface-Mounted Panel boards: Same gauge and finish as panel board front with flanges for attachment to panel board, wall, and calling or floor
 - Gutter Extension and Barrier Şame gage and finish as panel board enclosure; integral with enclosure body - Arrange to isolate individual penel sections.
 - f. Finishes:

- Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with menufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
- Back Boxes Getvanized steel Same finish as panels and trim.
- iii Fungus Proofing. Permanent fungicidal treatment for overcurrent protective devices and other components
- g Directory Card; Inside panel board door, mounted in transparent card holder metal frame with transparent protective cover.
- Incoming Mains Location: Top or Bottom.
- Phase, Neutral, and Ground Buses.
 - Material: Hard-drawn copper, 98 percent conductivity.
 - b Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; banded to box.
 - Neutral Bus. 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

VII. MECHANICAL WORKS

- A. Compty with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C All equipment and installations shall meet or exceed nunimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

JOHOTHAN RAYNALD T. ESPINO Planning and Programming Division

Planning and Programming Division



Republic of the Philippines Quezon (ity

CITY ENGINEERING DEPARTMENT



Civic Center Building 8, Quezon City Half Compound, Elliptical Read Dillman, Central 1100 Quezon City ₹runk line: +63 2 8988 4242

TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT

PROJECT TITLE: PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER

LOCATION: BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

I. GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- Drawings, specifications, codes and standards are minimum requirements. Where
 requirements differ, the more stringent apply.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- Site verification / inspection shall be conducted to validate the scope of works. No extracompensation and extension of time shall be given due to negligence or inadvertence.
- f The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- Mobilization and Demobilization (if applicable)
 - i. Mobilization shall include all activities and related costs for transportation of personnal, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanirke menner by competent workmen. Provide a competent, expensenced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- i Temporary Facilities and Utilities.
 - All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.

- II. Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.
- Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- iv Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
- v. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- Upon completion of the work, the temporary facilities shall be demotished, hautedout and disposed properly.
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - A fully trained Medical Aide shall be employed permanently on the site who shall be empaged solely from medical duties.
 - The medical room shall be provided in waterproof; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - iii. The togation of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site
 - Additional safety precautions shall be provided in the observance of pandemic.
 Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjacent property shall be provided to avoid unloward snodents / accidents.
- Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- Removal / demolition of existing structures shall be done in accordance to safety procedures.

III. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORK

- a. Delivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.
- c. Materials

- Cement for concrete shell conform to the requirements of specifications for Portland Cement (ASTM C - 150).
- ii. Water used in mixing concrete shall be clean and free from other injurious amounts of pils acids, alkaline, organic materials or other substances that may be deleterious to concrete or steet.
- iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loam, duit and all foreign matters.
- iv. Coarse aggregates shall be either natural gravet or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be targer than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor targer than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

d. Proportioning and Mixing.

 Proportioning and mixing of concrete shall conform to the requirements for Item 405 of the standard specification with the following proportions:

Cement : Sand : Gravel

- Class "A" 1 : 2 : 3
 Class "B" 1 : 2 : 4
 Class "C" 1 : 2 ½
- ii Concrete mixture to be used for concrete shall conform with the structural requirements.
- iii Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates

e. Forms

- General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with meterials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be %" waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfeces of the formed half be cleaned of encrustations of morter, the grout or other foreign material.
- iii Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil grease, clay and other coaling and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

g. Conveying and Placing Concrete

- i. Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
- ii. Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
- iii. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
- iv. Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
- v. Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

b. Cunng

- j General All concrete shall be moist cured for a period not less than seven (7) consecutive days by an approved method or combination applicable to local conditions.
- Moist Curing The surface of the concrete shall be kept continuously well by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or information hosing.

i Finishing

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- iii. Concrete Stabs on Filt. The concrete stabs on fill shall be laid on a prepared foundation consisting of sub-grade and granular fill with thickness equal to the thickness of the overlaying stab except when indicated.

B. MASONRY WORKS

 Masonry Units (CHB): 100mm thick for all interior walls and 150mm thick for all exterior walls unless etherwise indicated. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.

Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

b. Sand.

S-1, washed, clean and greenish in color.

c. Mortar:

One part 'Portland' cement and two parts sand and water but not more than three parts sand and water

d. Plaster bond:

Apply plaster bond to all wall area.

C. METAL WORKS

a. Description

Metal works shall conform to the approved plans and to the Standard Specifications.

b. Reference Standards

Comply with the latest edition of the following as applicable, unless otherwise specified or modified.

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 1978: Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Code of Standard Practice for Steel Buildings and Bridges; Specification for Architecturally Exposed Structural Steel.
- AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2,068; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern if an conflict with AISC)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ). Specification for Structural Joists using ASTM A-325-769 Bolts.
- STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice. Painting Manual, Vol. 2; Systems and Specifications.

Source Quality Control

Errors of Shop Drawings, fabrication, correct fitting and alignment of the various metal items or component members shall be the responsibility of the Contractor. However, the Contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the Contractor of his responsibility to furnish materials and workmanship in accordance with the Contract Documents.

d. Product Delivery, Handling and Storage

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

f. Field Quality Control

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

g Materials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- a) STEEL AND IRON: If not specified otherwise, use standard mill-finished structural steel shapes or bar from incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- b) BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- c) SCREWS; Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111

h. Fabrication

By mechanics skilled in the trade and in accordance with the manufacturer's directions, Metalwork shall be fabricated to allow for expansion and contraction of meterials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with botts and nuts

i. Measurements

Before fabrication, provide necessary field measurements and verify all measurements.

j. Metal Surfaces

Shall be clean and free from all scale, flake, rust, and rust pitting; well-formed and finished to shape and size, with sharp lines, angles and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided: when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

k. Construction

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m. Submittals

Shop Drawings. Submit along with catalogue, cuts, templates and erection and installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

Delivery and Storage

Protect from corrosion, deformation and other types of damage. Store items in an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

Welding

Use welding electrode E70xx and perform welding, welding inspection and corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected perts. Weld continuously along the entire area of contact (except where tack welding is permitted. Do not lack weld exposed to connections.) Grind smooth visible weld in finished installation.

p. Metal Purlins

Metal purios shall be of high grade galvanized steel with minimum tensile strength of 275 MPA, 1.4mm in thickness.

D. ROOFING WORKS

- a. The roof shall be covered with Ga. 24 pxe-painted G.I. rib-type roofing sheets as shown on the plans. The roofing shall be secured to the purlins with min. 2 ½ max 3" long Tek acrews. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rib-type roofing sheets. They shall be riveted to the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- b. Alt roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.I. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the consignations of the roofing sheets to prevent water from standing around the fasteners.

IV. ARCHITECTURAL WORKS

A. WALLS AND FLOOR FINISHES

- a. 600mm x 600mm Nonskid Homogeneous Tiles including file adhesive
- 50mm concrete Topping with Plain Cement Finish
- 50mm Concrete Topping for Tites
- d. 400mm x 400mm Ceremic Wall Tiles
- Urinal partition including stantess stool support and accessories
- f Plastering Guide/ Grooves

B. CEILING FINISHES

a. 12mm this Fiber Cament Board including framing and accessories

C. DOORS & WINDOWS

Follow as per approved plan and specifications.

D. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
- Application shall be as per paint Manufacturer's specification and recommendation.
- c. Provide all drop cloth and other covering requists for protection of floors, walls, aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications
- All surfaces including mesonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- All exposed finish hardware, lighting fixtures and accessones, glass and the like shall be edequately protected so that these are not stained with paint and other painting materials prior to painting works.
- g All other surfaces endangered by stains and paint marks should be taped and covered with craft paper

V. SANITARY / PLUMBING WORKS

- A. Compty with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable)
- B Supply, igstallation and testing of the following:
 - B 1 Potable water supply system complete in all respects including but not limited to submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - B.2 Water service connections including but not limited to water meters, float valves. Any and all other works involve in providing the complete operation of the water supply system.
 - B 3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
 - B.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittats, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be sultable for the space allocated for the accommodation of such plant and equipment, taking anto account the requirement of access for maintenance purposes.
- 6 In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or

- indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost
- M All senitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All mstalled pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. Cleaning and flushing shall be comied out in sections as the installation becomes completed
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.
- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Senitery Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m of water higher than the test section and wait for 15 mm. then check for leakage at every joints
- V Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- VV. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 ρsi
- X. Hangers and supports for plumbling piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEL?
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Install lateral bracing with pipe hangers and supports to prevent awaying.
- AA, Instell, building attechments within concrete slabs or attach to structural steel. Install additional attechments at concentrated loads, including valves, flanges, and strainers, NPS.

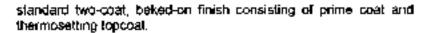
- 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed faster inserts to forms and install reinforcing bars through openings at top of inserts.
- BB Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected aquipment
- CC. Install hangers and supports to provide indicated pipe alopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the suthority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- Drawings, specifications, codes and standards are minimum requirements. Where
 requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workman.
- When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F. PANELBOARDS

- F.1 Fabricate and test panel boards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively
- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets
 - F.2.1 Rated for environmental conditions at installed location.
 - Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - Outdoor Locations: NEMA 250, Type 3R.
 - Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - Other Well or Damp Indoor Locations. NEMA 250, Type 4.
 - Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids. NEMA 250, Type 5 or Type 12
 - F.2.2 Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
 - F.2.3 Hinged Front Cover. Entire front trim hinged to box and with standard door within hinged trim cover
 - F 2.4 Skirt for Surface-Mounted Panel boards: Same gage and finish as panel board front with flanges for attachment to panel board, wall, and deiling or floor.
 - F.2.5 Gutter Extension and Barrier Same gage and finish as panel board enclosure; integral with enclosure body. Arrange to isolate indivioual panel sections.
 - F.2.6 Finishes
 - Panels and Trim: Steel and galvenized steel, factory finished immediately after deaning and pretreating with manufacturer's

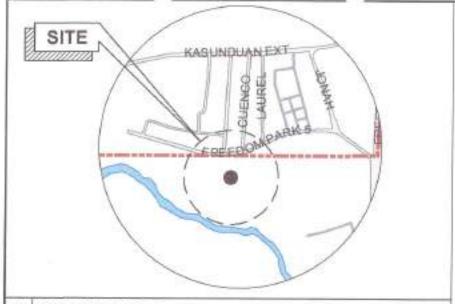


- is. Back Boxes: Galvanized steel Same finish as panels and trim.
- Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
- F.2.7 Directory Card: Inside panel board door, mounted in transparent card holder metal frame with transparent protective cover
- F.3 Incoming Mains Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses.
 - F.4.1 Material: Hard-drawn copper, 98 percent conductivity.
 - F.4.2 Equipment Ground Bus Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - F.4.3 Neutral Bus: 160 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

JONATHAN RAYNALD T. ESPINO Planning and Programming Division JOCELTN ADNAONG | Planning and Pubgramming Division

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.]



1 LOCATION MAP

SCALE: N78

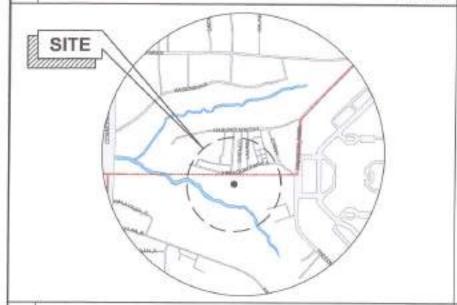




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Republike ng Pilipinar Langsod ng Queum CITY ENGINEERING DEPARTMENT PRODUCT TITLE -

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF FREEDOM PARK & DAY CARE CENTER

LOCATION BATASSAN HELE DISTRICT 2, GLEZONOTY

DITE: 8.0.550)
DIRECHENING TO

COMMEN : CA

ENOR. LEO SI DEL ROSANDO

ELEMENTED BY

ENOR, SADEAN R. VERXOSA AR.

SCOONERSENS APPROVAL

APPROVED BY

HON, MA, JOSEF WA G, BELMONTE

CITY HAVES - QUESTIN STY

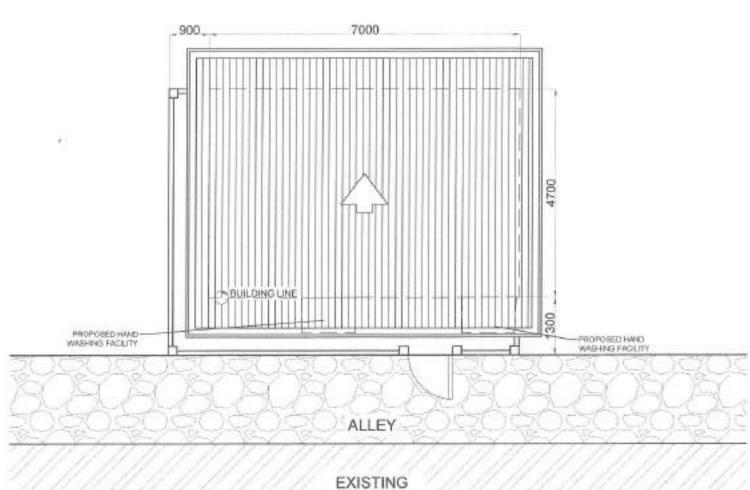
WEST CONTEST

EL-04 PROPOSCO POWER LAYOUT

DIRETHO

VICTATION MAP LOCATION MAP SITE DEVISION MENTIFICAÇ

AR-1 01 17



EXISTING RESIDENTIAL BUILDINGS

1 SITE DEVELOPMENT PLAN

SCALE: 19001 9-601 MI

NUTROS TERMS



Republika ng Pilipines Luagurd ng Queson CITY ENGINEERING DEPARTMENT

MOJECT TITLE:	DERMONT: \$5
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND	OWIE: DIAZON
REHABILITATION OF FREEDOM PARK 5 DAY CARE CENTER	овонни Л
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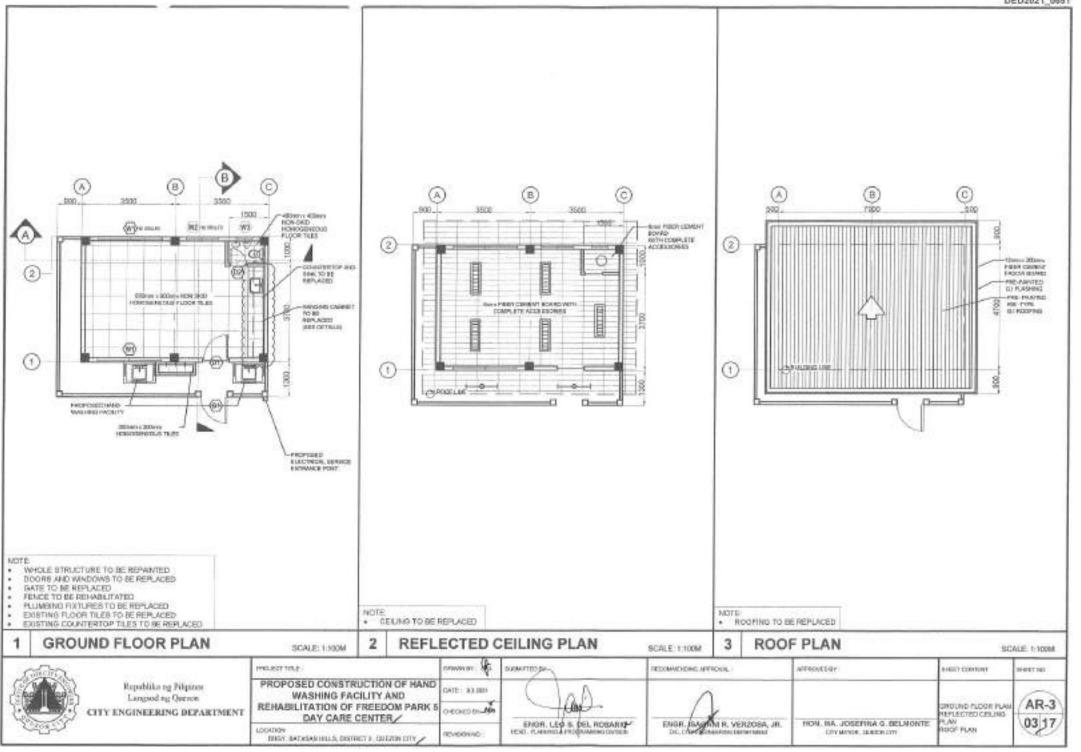
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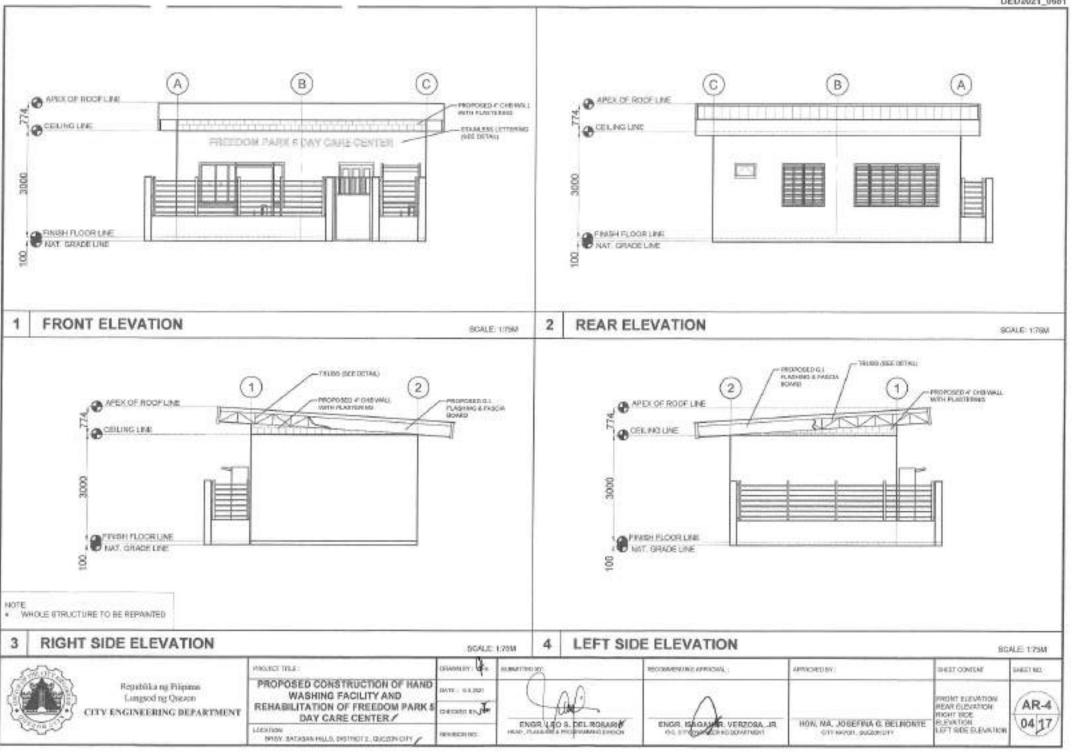
ANDRESS APPROVAL

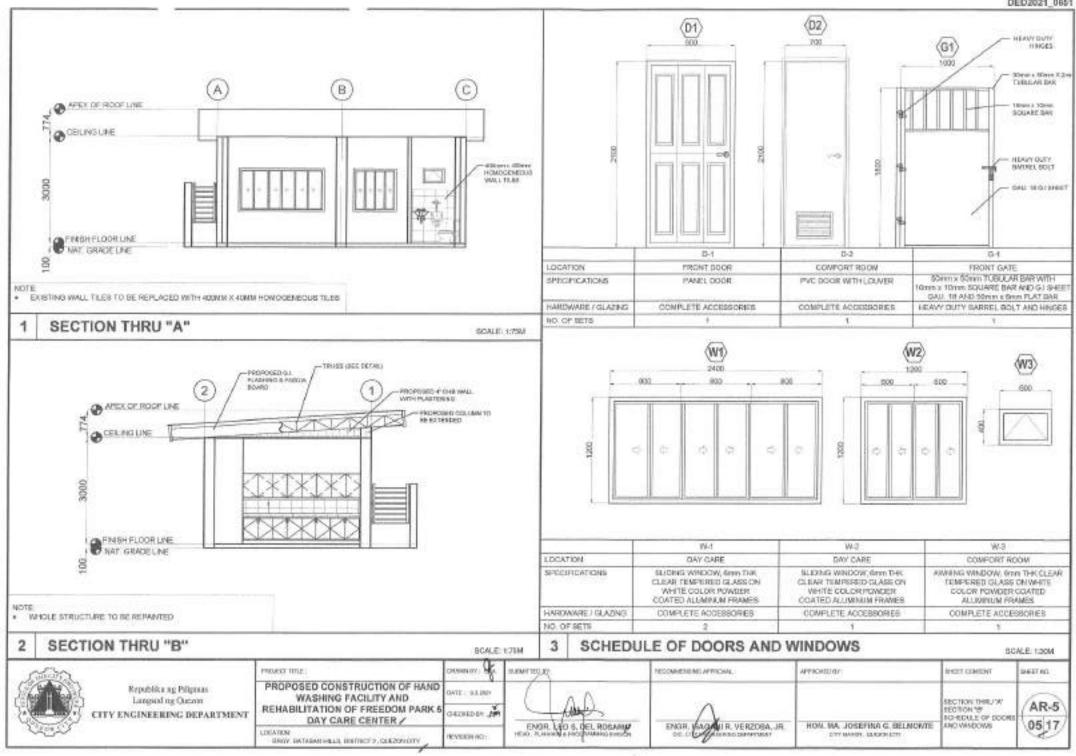
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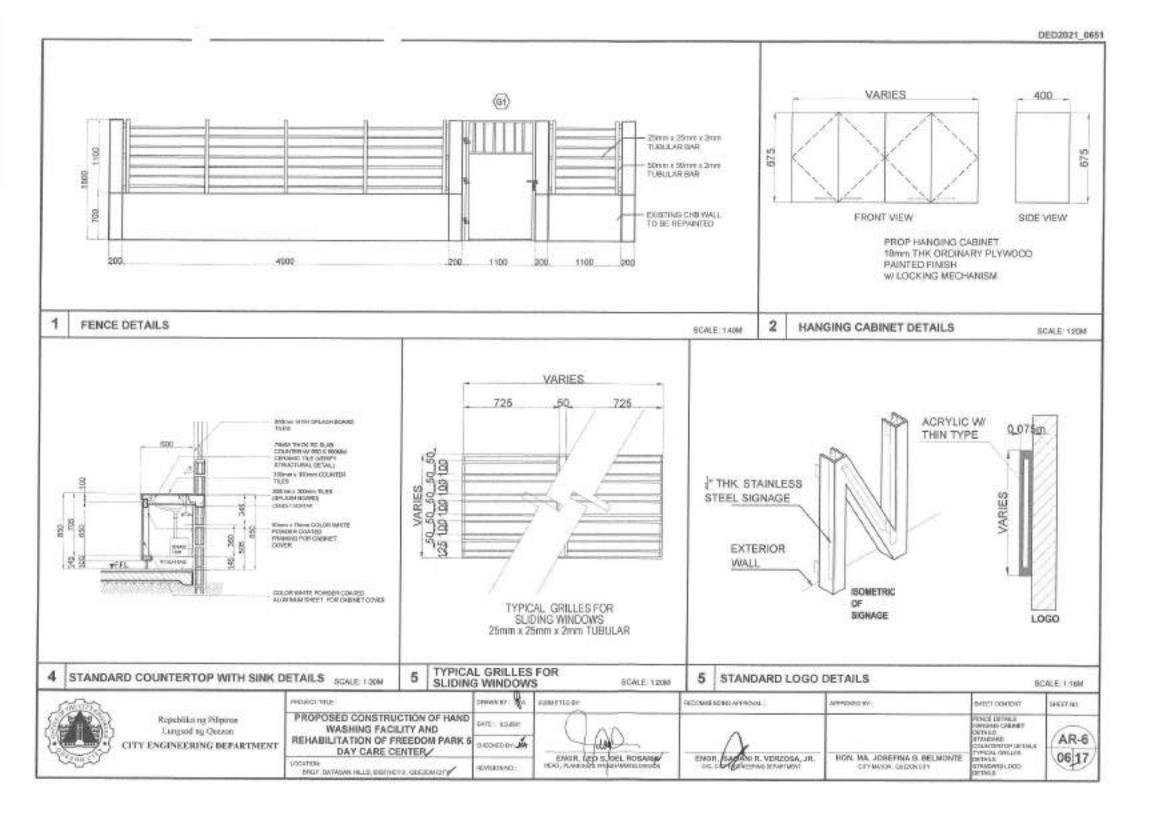
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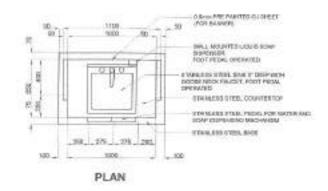
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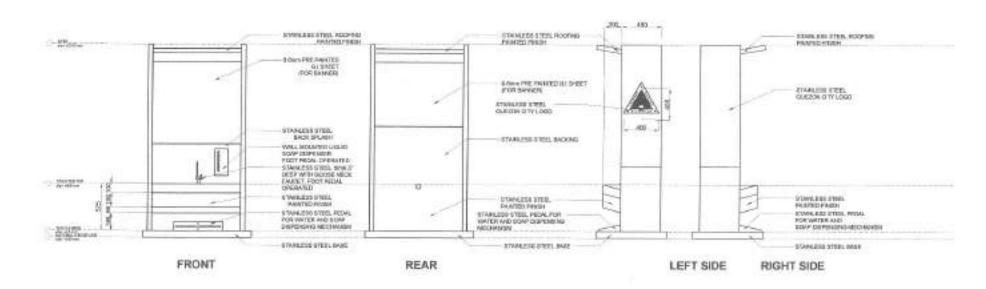






1 SINGLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE: 1:30M



2 ELEVATIONS

BGALE 100M



Republika og Pilipinas Langsid og Okkom CITY ENGINEERING DEPARTMENY PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF FREEDOM PARK 5
DAY CARE CENTER

DAMENTON DE SCHMITTERDON

DATE: 82.5001

DECRES 20.46

ENDR CPD 8. DEL ROBANGO

PRINCERROL

PRINCERROL

TRADO, PLANSON PRODUMENTO BURGE

ENGR. R. VERZORA, JR. O.C. CTY MAJORITHM CONTROL OF THE PROPERTY OF THE PROPER

RECOMMENDED APPROVAL

HON, MA. JOSEF PIA G. BELMONTE

STILL FURN.
LETT MAKER, GLECONCEP

ARRIGHOUSEY:

BARLE NON PORTABLE PARTY STALL FLAR SLEWFORM 07,17

WHITE COVERS

GENERAL. SON STRUCTURE SECTIONS TO PROSE DETAILS AND THE TOTAL DISMENSION CONDITIONS OF NOTES AND PROPERTY OF NOTES AND PROPERTY OF THE TOTAL SECTION OF THE TOTAL CONDITIONS. CONTRACTOR OF WITH IMPORTOR AND PLACE CONCINENT OF ALL LITERATURES FOR THE CONTRACT A PRINCIPAL VIEW PLANTAGE OF THE PRINCIPAL WORKS TO SEEK THE DOWNER. BET HANDS HER RETRICKS CONTINUED FOR SOMEWIFE HIS WIZERS DIG TO BE STREAMS & CONDIETE If SHALL BETTAL CONTINUED IN EXPENSION OF TO PRINCIPLATE ON THE GLADE BACKING OF THE STRUCTURE HOLD SHALL COME THAT THE SHALL COME THAT THE SHALL SHALL COME THAT THE SHALL SH IN CASE OF BUILDING ARRANGE PROVING WITH THE TATION OF CRICOR STURING THERE DISCOURTES, THE ACTION OF THE PROPERTY WAS ASSOCIATED BY GUILD REVENUE. CONCRETE A REINFORCEMENT ILL DETERMENT FOR MONTH SHEET SHEET, CONTORNING THE LIKELY BELIEVED. 2 ALL COCCRETE WHILL TRYD, OF A SEQUENCE WHEN CAP CONSIDER FACTOR FOR AN ENGLISH. and the production of the second second second and second LOCATION втивноти RMA DES OF ACCEPTIGATED 4. SUREN SPACE. 300076 pt 800per Tie Cliental tares, recovers. Address. BASIL FORTBUCK E. REMIS CRUMME 40075 (8 854ya) letus (Team) TAVESTIC DIS BBI PS-ST 20 See To Dive! UBUS CONCEPTS E. ALL PRESENTED SEED SHALL CONFIDENCE PROSPORAGE UP-FOR CHINA AND SMALES SAYS AND SPACE HT FOR SUIGE HIS JAKUB HARD. IL MAINTHAN ARMADISTONERS TO LEAST SEPARATORISM STATE AND ARMADISTONERS. COMPARED SCHOOLS DANCED VARIABLE CHOOSE WASHINGTON WITH 940019965 WILLIAMSE PRINT SERVICE COLUMN BUCCS SHALL RESIDENCE MEET THE PERHAPO SHALLAN IN DESIDENCE AND ADDRESS. WITHING ETTING FOR THE STREET AND ADDRESS OF THE PERMAPONIES AND THE PERMAPONIES. WITHING SHALL STREET AND ADDRESS OF THE PERMAPONIES. T ALL MIDNAR DISTRIBUTES AND OTHER HISTORIA SHALL BE RECEIVED FOR SINCE AND STORAGE AND STORAGE OF CONCESSION OF THE PROPERTY AND ADMINISTRATION OF CONCESSION OF THE PROPERTY IL CONTRACTOR SHALL NOT ENGINEEDED DE DALS SECOLUMISTOS DI MINI MALE ANDIA DOLPHISMO. ARCHEO AND ARREST HIT ARE REQUIRED IN THE ARCHITOCADA, OUTSTROVE, MO RECORDER SOMMORE If AL, CONCRETE THALL BE RETHING THE AMBIEN BY SOURCE (CONCRETE THIS PRINCIPAL ATTER FOLDOWINGS THE USE OF WETCHYNGY THO STAVING CORNEL CONTROL OR OTHER IS STREETING OF FURBILISH WITHINGS. CONCRETE FOLHORSON SUSPERIOR SCHOOL STATE WHEN ACCUTATION, LONG SANG MYCHAEL PRESTAL COLUMBIANCE

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I WELFAG PROS. ALL MELTINE RODE SPALE NE BEG STHE RESTROYS CONSYST SOCIOTEMENT

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GENERAL NOTES

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ROOF FRAMING TO BE REPLACED.

SCALE 1:00M

SHEET COSTON

Republika ng Pilipinas Lungsoding Queson CITY ENGINEERING DEPARTMENT SCALE: NES

PROJECT TYLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF FREEDOM PARK 5 DAY CARE CENTER ,

DAME - 0315001 CHEROD IN JAN

SCHWITTED BY-

ENGR. LED S. DEL ROSARIO

ENOR ISAGLAMI R. VERZOSA, JR. O IL CHICKERS OF THE T

RECOMMENS AND APPROVAL

BOOM PRIMARY PLAN HON, MA. JOSEFINA G. DELMONTE

OTHER STATES

APPROCHED BY

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7000 900 50mm x 100mm x 2mm C PURLINS 12mm Ø SAG ROD 8 02 br O. BUILDING LINE 900

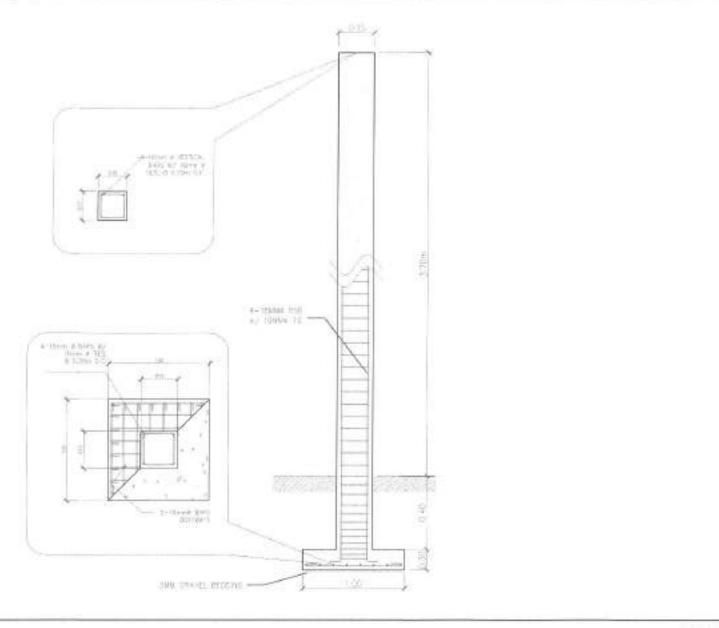
ROOF FRAMING PLAN

NEVEKNI NO

SAME IN:

LEESTICAL BRIDY BACASAMHILLS, DISTRICT E. QUEZONOITY,

NOTE:



SERVICE ENTRANCE DETAILS

SCALE NTS

SHEETING.



Republika ng Pilipinas Langsod ng Quesan CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF FREEDOM PARK 5
DAY CARE CENTER

BROY BYOKENHALS, DISTRET 5 - DISCONDEY



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ENGR ISBORIER VERZOBA JR

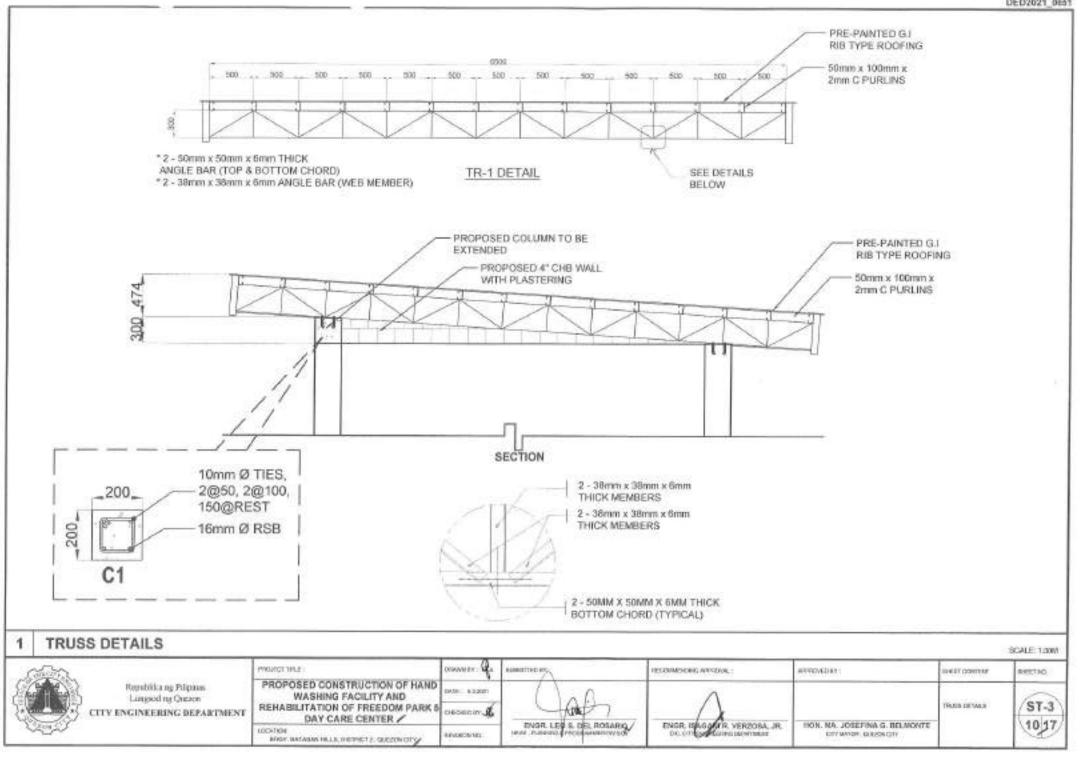
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HON, NA, JOSEFINA G, BELINONTE

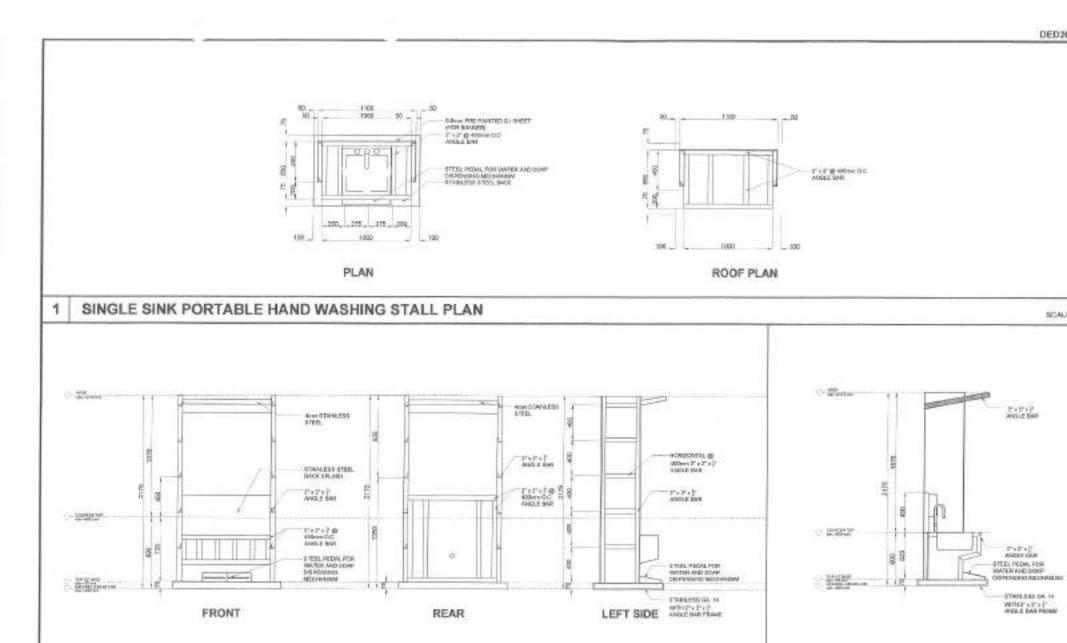
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DIRECT CONTENC



\$30AUE: 1:90M



ELEVATIONS TYPICAL SECTION 3 SCALE: 130M SCALE: 100W PROJECT TELE DESIGNATION : SUBMITTED BY: DECORMENDING ARRESTMA REPROVED BY DESTRUCTION SHEET NO PROPOSED CONSTRUCTION OF HAND Republiks on Pilipinar HODER STAN STREET, SPIK POPPORES. WASHING FACILITY AND Langsoding Queson HAVE SHEET ST-4 REHABILITATION OF FREEDOM PARK 5 CITY ENGINEERING DEPARTMENT CHECKETTAY: 344 ELEVATIONS TYPICAL SECTIONS DAY CARE CENTER 11 17 ENOR LED B. DEL ROSANO HON, MA. JOSEPHIA G. BELMONTE ENOR BARDAR VERZOSA JR. uncirios. REVISIONIES CTY MYTOR, GUESSAGTY DRICK SAFASAN HILLS, DISTRICT E. BASSON CITY

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3700

300

I All plurating works and materials indicated looks shall be compliced to the provinces of the latest addorsal. Mationed Planting Certs, the rules and regulations of total authorities occoursed, the rules protragalations of load allity companies and the provisions of the land dominger when and whose application

2 The plants og layers is only eterpremients; pipers, clear-pairs and object valves shall be concepted as reaching possible. It is exclusionated to stone the actual denominate of the pipes and follows to the classing but of the paper. and fortune shall be installed as set where indicated. Any education will consider execution to studios with

If the plurating contentor shall varify all existing utilities at the also and after conducts the work with other trader.

4 Pipes shall not be entereded in structural workers unless planning specified as above.)

If Minimum is type for compacted season limit alters by YK and for desir laws challes Pile.

6 Proprieted plants inguitation which construe with the social location, depth and invest elevation of all conting operabilities.

T Competition of furtimes to pipels and fittings shall be secondary scoresularitina's spanfestions.

8 NF fact disting about the control indicatedly.

\$ A I chann out Service shall be flook-ecoursed to wall and shall be possibled with polarized cover caps. Do not could floor since outs record at Area on grade and another seven not a stant to heafte.

10 W protegrand (II), pipe in direct context with sell shall be provided with two (2) count of protective for covering active agreed with jute doft-fromoglity emilied in tax or eached.

11 Provids year plant, and year pipe from real of sout iron particle neighbor required.

12.46 cast in a payer shall be of approved quality and Gi. paper for water distribution innovative Schedule-GLLS.

"DiProvide gale veloce to all redot supply limit to federal.

TATALTIAL WOOD Store shall be provided with proper to add an other expressed.

15 At individual boundary to Sidules or group of Salares and in equipments shad be provided with all characters or organic restrict page extensions of directions in share:

R = 464 ren for 18 ren st and larger

R < SSE recritor SI con Bland scraller

18 Af hors blake, strail by 19 mm in (34° III) unions ethowers indicated.

17 I med paper of septic costs in 102 were higher. Note the paper paper within in 29 were higher than the cultury paper.

15 All alumbing works and resource of nonethectors shall be under the direct a puryless of an all to and because Waster Plantier or Registered Derliny Engineer. Any discrepancies Found is plan shall be self-ed to the sum-operator.

	NUMBER OF STREET

BOOF ERABI

WATER-OLDSET LINESONY



GENERAL NOTES & LEGENDS

Rogeblika ng Pilipine Lungsod ng Queann CITY ENGINEERING DEPARTMENT PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF FREEDOM PARK \$ DAY CARE CENTER!

DISAMPA BROY, BATASAH HELE, DISTRICT E, QUEZON GTY

EXISTING GROUND FLOOR PLAN 2

RECONNENDING APPROVIL:

DRAWNON SUBMITHER BY DATE: N. J. 2009

CHECKEDOV: A

NEWSON NO.

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ENGR. LEG S. DEL ROSARO

8GALE: 150M MATRICO TARRO SERVING.

> PL-01 12 17

BANK YELL WE'VE GROOM INDEED AND ADDRESS. ENGR. HAMMER VERZOSA, JR. HOM, MA. JOSEFINA G. BELMONTE O.G. DOVE DONE ATTENDED DRIVETERING CITY MUSCAL QUESTINION

ARPROVIDED BY:

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t/a	someorus	11.55
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18 18-43	WYDWETER.	
940	EHENVER SHARE	-
CE.	ORTER SMIRN	
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8	WESTAN	

- ALL FLETTREAL MORES SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATGET EDITION OF THE PHILIPPINE ELECTRICAL CODE. THE LAWS AND CROMANCES OF THE LOCAL CODE EMPORCHO AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE, UTILITY COMPANY
- THE CONTRACTOR SHALL SECURE ALL PERSISTS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL TURNESH THE OWNER THROUGH THE CROSSESS. FINAL CONTRICATES OF ELECTRICAL HISPECTION AND MPROVAL PROMITMENTS GOVERNMENT AUTHORITIES FOR COMPLETION OF WORLD
- ALL EVERTORS BRANCH DIFFORD SHALL BE INC CONDUCTS WHO FOR EXPONED INITIAL LATION DIVID, BE EAST ON HIS GUMP SHIPE BY CONDUCT CLAMPS SHIPE. PRE-MILIMETERS
- 4. PLAL BOXOS SHALL BE PROVIDED BY THE CONTRACTOR WHERE YER RECEISANT TO FACILITATE WING PLALASE EVEN IF THESE ARE NOT ADMINISTRATION THE PLANT. BOWN OF ALL PULLBOXES SHALL SE COMPUTED BASED ON THE CODE REQUIREMENTS INSPIRED SHAWNESS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION, LOCATION OF PULLBOXES SHALL BE APPROVED BY THE ARCHITECTEN GREER AND MUST BE REFLECTED ON THE "ASJULT" PLAY.
- ALL POWER OUTLETS: AND SWITCHES SHALL BE GROUNDING TYPE WITH PARALLEL'S LITS FOR 230 V.
- PROVIDE SHOUND FAULT CURRENT INTERRUPTER CRICKLY SYDWEST FORLDADS WARRED STOTON THE PLAN.
- ALL RETALLIC CONDUITS, CALINITS AND BOMPHENT BHALL BE PROPERLY GROUNDED AND BOMDED.
- A. UNLESS OTHERWISE NOTHER, MODISTING HEIGHT FOR INALL BIOLINIES DEVICES SHALL BE AS POLICIONS.

RECEPTACLE OUTLET ... SHOWN AFF .. 158MM ABOVE NORKING DOUNTUR.

LIGHTONG SWITCH - THEIR MAY ANY

PANEL BOARD - 1000 HBX AFF

- II. REFER TO MECHANICAL PLUMBNO AND FRE PROTECTION DRAWINGS FOR SATINGS AND LOCATION OF EQUIPMENT AS WELL AS THE RECONFROL SEQUENCES. AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- 10. ALL UNITERIALS TO BE USED SHALL BE OF THE BOST QUALITY, SPAND NEW AS SPECIFIED.
- 11. THE CRAWINGS AND SPECE KNATIONS ARE INTO DED TO PARESENT GENERAL LYBOUT AND SPOAD OUTLINGUES REPTION OF THE PROJECT BUT DO MOY NECESSARILY INDICADED CRIMING ACTUAL LOCATIONS, LEVEL AND DISTRICES OF THE EQUIPMENT. THE CONTRACTORIS HEREBY REQUIRED TO MAKE MUCH. ADJUSTMENT AT THE JUSTICE AS LOCATION, DISTANCES AND LEVELS WEE BOWERNED BY ACTUAL FIELD CONSTITUNG
- 12. ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATION IS SHALL BE DISCUSSED TO THE ATTEMPOR OF THE PROMETE FOR IT, WAS DISCREPANCY
- 13 ALL DONTRIO AND CONVENENCE OUTLET CRICUTS SHALL BE 3.5 SQ. MM. THINNI-J COPPER OVER UNLESS DTHERM HE NOTED, MINIMUM MOS OF WHICE SHALL BE 3.5.80 MM COPPRENIES ALL INPER AND CABLES SHALL BECOLOR CODES AS FOLLOWS:

LIME TO BED

LINE 2-YELLOW

HENTINAL-WHITE

DEFINITION OF GREEN

BOXES, WIRE, DUTTERS ENDLOSURE THALL BE FAIRBURGATED FROM STOR, WITH THOUSESS AS FOLLOWS

MAJORIUM WIDTH OF THE WIDEST SUPPLACE STEEL.

LELTO INCLUDING 453.40 MM GA, 88 PARKTED WITH METAL PRIMER (PICKS AND TOPOGAT. OVER 162 AR MM BUT NOT CNEST 45F 30 GA 14 PAINTED WITH METAL PRIMER EPGRY AND TOPCOME DVEN 467.38 MM BUT NOT DVSN 760 KBI BA 12 PAINTED WITH METAL PRIMER EPOXY AND TOPODAT DUEN TERMS GA 16 PANTED WITH METAL PRIMER EPOXY AND TORGOST

- 15. ALI SLECTRICAL RICARD HEREIN BHALL BE EXECUTED BY EXPENSIVED MENUMBER THE DRIDGE SUPPRISON OF A FULL-THE LICENSED ELECTRICAL ENGINEER AND ADDLY ACCREDITED ELECTRICAL CONTRACTOR BY PCAS, WICH'S SHALL BE REATLY PLACED, SECURELY PASTERED AND PROPERLY FRIGHT
- 14. TYPE OF BERNICE ENTRANCE SHALL BE SINGLE-PHASE. TWO-MPLEYLUG GROUND. SCHERTZ, 250VAC MINIMAL
- 17. CONDUSTS WEND CASE SHALL THORSE SE WORD THAN THE EDWANNEST OF FOUR CHARGES BROKE BLANCK HAN ALL COMPLET WINDS SHALL SE FIELD MADE BY USERS INCRAULE BENDERS, BRIGHTH RENDING RADIUS WUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- IS LIFEN COMPLETION OF ELECTRICAL CONSTRUCTION WARK INSULATION RESISTANCE TEXT AND PLACETOWALTY TEST IN-FALL SEPERFORMED BY THE CONTRACTOR INCLUSIVE OF THE RISTALLATION TO BE REPORTED IN CETAL II ON FORMS AFFROMED BY THE QUICZON OITY ENGINEERING DEPARTMENT. REPRESENTATIVE. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS ISSUEL NOT BE MORE THANS OWNS COMMUNICATION ON OLUMBRIC RESISTANCE SHALL NUT EXCEED 2 OHMS.

GENERAL NOTES



PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF FREEDOM PARK 5

DAY CARE CENTER, BARWEAY BATASAN HILLS, DISTRICT 2, QUEZON CITY MENT HERE

MEVSION IO.

SHOOMS NOT THAT WAS READING

Lighting/Power Panel Circuit Hotterun Littity Service Moter 12 Circuit Breaker Grounding

100mm x 100mm Calling Mounted Exhaust Fan

Cirbit Fan with Selector Switch

LEGENDS AND SYMBOLS

One Gang Switch

Two Gang Switch

Duplex Convenience Outlet

150mmØ LED Pinlight

Duplitix Convenience Outlet (Elev. 0+002,2m)

1200mm x 300mm LEO tube in Troffer Forture

1200mm x 300mm LED tube in Box Type Fixture

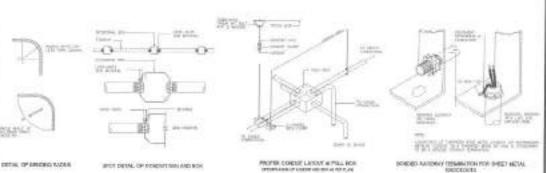
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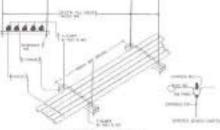
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TWEET TWO COURSE ARRANGEMENT

3 CONNECTION DETAIL

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9/8	MITTED-B)	1	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
		AND)			GENERAL NOTES LEGENOS AND BYMBOX	EL-01
	ENGR.	LED S. DEL ROSARIO	ENGR. ISAGANI DEVERZOSA, JR.	HON, MA, JOSEFINA G. BELMONTE	Committee of the commit	14 17

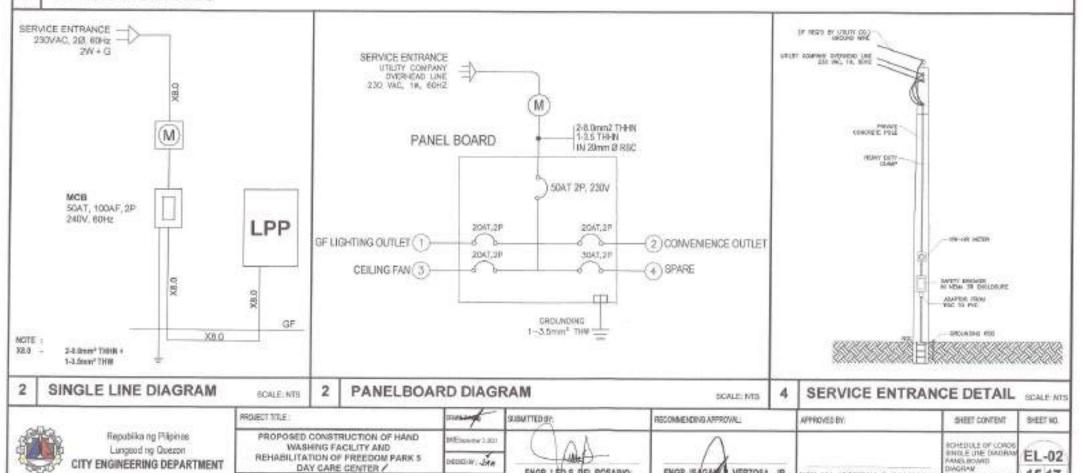
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SERVICE ENTRANCE

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1 SCHEDULE OF LOADS



ENGR, LED S. DEL ROSARIO

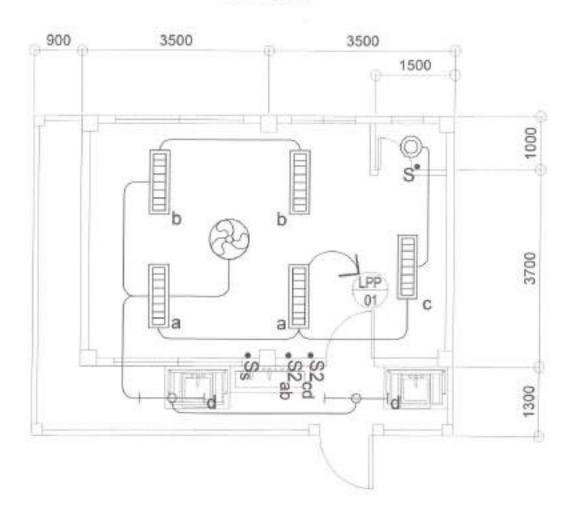
REVISION NO. 1

BARAYONY BATASAN HILLE, DISTRICT & QUEZON CITY,

ENGR. IS AGAIN N. VERZOSA , JR.

HON, MAJOSEFINA G. BELMONTE

FREEDOM PARK 5 DED2021_0651



1 PROPOSED LIGHTING LAYOUT

SCALE: 150M

SHEET CONTENT

Republike ng Pilipinas Lungsori ng Quezoni CITY ENGINEERING DEPARTMENT

PROP	DISED CONSTRUCTION OF HAND
	WASHING FACILITY AND
REHAB	ILITATION OF FREEDOM PARK 5
	DAY CARE CENTER /

CHANT PA	SUBMITTED BY:
DIFference (301	1700
CHEDITORY: JAK	THE PARTY OF THE P
REVISION NO	ENGR. LIPO S. DEL ROSARIJO

I	\wedge
l	ENGR. ISAGGAI'R. VERZOSA, JR.

RECOMMENDING APPROVAL

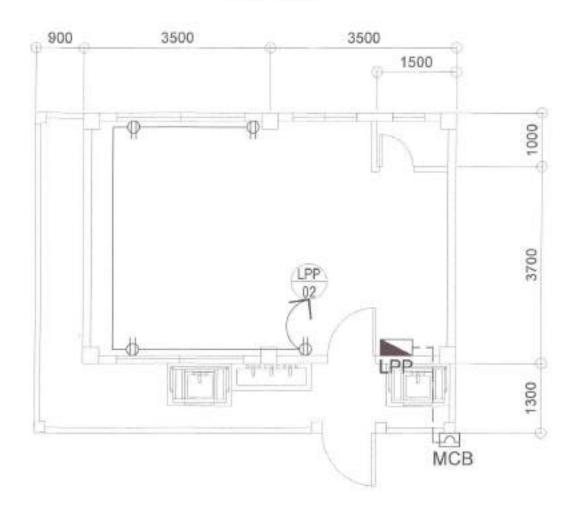
	PROPOSED DOMINO LAYOU?
HON, MA JOSEFINA G. BELMONTE	

APPROVED BY:

EL-03 16 17

SHEET NO.

FREEDOM PARK 5 DED2021_0651



1 PROPOSED POWER LAYOUT

SCALE: 150M

SHEET NO.

SHEET CONTENT

Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

ROUBOT TITLE:
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND
REHABILITATION OF FREEDOM PARK \$
DAY CARE CENTER

BARNIGAY BATASAN HILLS , DISTRICT 2, QUEZON CITY

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AL WESON	y district
	ENGR. LEÓIS, DEL ROSAL

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ENGR ISAGANI R. VERZOSA , JR
sub-fire to contract or contracts

RECOMMENDING APPROVAL:

	PROPOSED LAVOUT
HON, MA JOSEFINA G. BELMONTE	

APPROVED BY

EL-04 17 17

- 1 All plureting works and materials individual boson shall be semplared to the provisions of the latest addonal Return Planting Calls, the sales and regulations of local authorities concerned. An national regulations of local utility companies and the previous of the land powhose amended when applicable
- 4 This pounting by u.r. is only diagramments, yours, chargons and shoot, ration statility respected as much as: coupling it is not introduced to chose the section discussions of the property and findament on the drawing facility to be accessed. and fatures about to irrelated as and above industrial Any removable self-requesty open mondation with ottoor breaken.
- 3 The plumbing communior chall visitly all existing utilities at the site and shall condition the work at frother trains.
- 4. Pipes shall not be arrivabled in structural transfers actions otherwise specified in all resolu-
- Sillatories, objector boscontif series love shall be 1% and for dear less shall be 5%
- \$ Proposed practing utilizes shall posture with the actual boston, depty and beant elevation shall not by appearables.
- 3 Cossection of Riviers to pipes and Pflings shall be assuring to variable over-body specifications.
- EAS Soor drains at shall be noted indeposally
- 8.46 is earlier short for that reported to earlier shall be placeful with priviled contrasts. Do extend from several at lines on goods and source areas not subject to traffic.
- 19 All Liddery and G.J. prost in street contact with any shall be provided with two (2) costs of protective for covering and employed with jute clash thoroughly sureed in the or explain.
- 19 Provide view stack and rest plan from and elicant has person weight as required
- 12 All soci intergrees shall be of approved quality and GH paper for water shallow here shall be Stinated 40 U.S. that their weight
- 13 Provide gato valvos in art restar supply lines to finituse.
- 14 AT tox eater true shall be provided with graper treatable where exposed.
- 19 All individual (numerous to Autorias or group of Richman anality equipments shall be provided with an inheritancian pagest entical pipe orientates of distintorie in show
- H = 400 area for 10 ser s Ω assolveger
- H = 360 syn for 12 size & sectionally
- 16 All home billion shall be 19 mm 8 (NF III) a stand-dhamma indicated.
- TT helet place of weeks; both in 50 eyes Higher than the alphanosips which is 30 eyes higher than the indistripes.
- 16.18 plant-ingranity and transact of contraduce shad be under the direct expension of an Arthurst Gay Company Mileter Prumper or Registered Sentony Engineer. Any discrepancies found in pose what be notified to be sense-proces.

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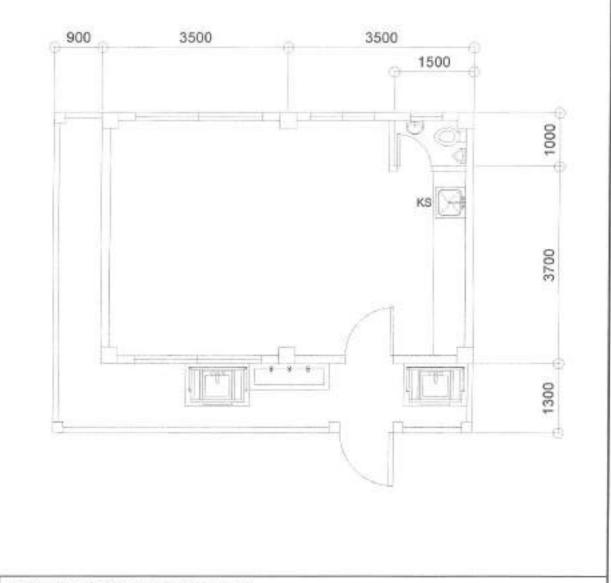
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- REPORTED DIRECTION OF FLOW

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FROJECT TITLE !

LOCKTON



GENERAL NOTES & LEGENDS

Lungsod ng Quezon

EXISTING GROUND FLOOR PLAN 2

SUBMITTED BY DW15 - 0.12601

ENGR. MARKATA R. VERZOSA, JR. OC COVERNERS SERVERMENT

DECORRENDACIA PREVIAL

APPROVED BY:

HON, MA. JOSEFINA G. BELMONTE

OTT WHOM, QUESTRUTT

SHOE ARREST MODINES.

выег сомног

STREET, STREET

PL-01 12 17

SCALE YOUN

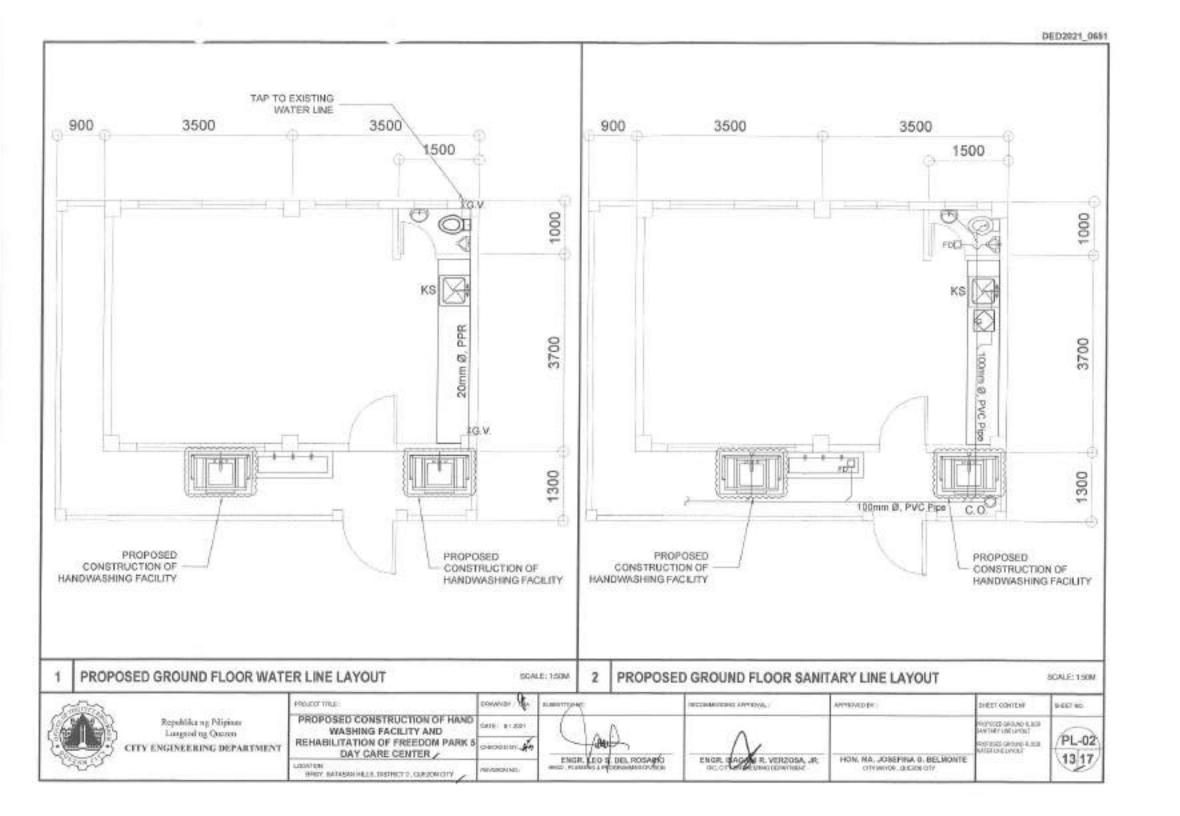
HEET NO.

Ripublika ng Pilipinas CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF FREEDOM PARK 5 CHECKED BY JA DAY CARE CENTER!

CRIPOWAR GROW BATABANHALIS DISTRICT Y, GUERRICOTY,

ENGR. LEG B. DEL ROSARIO



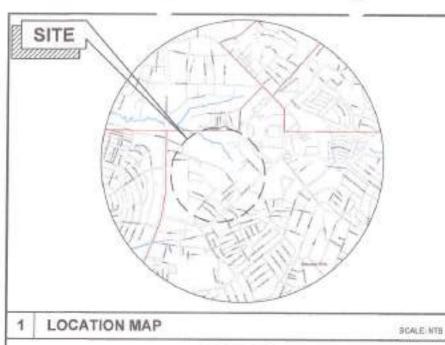


TABLE OF CONTENTS

ARCHITECTURAL ART DOORSMIN SECRETARIES. AND INCOME TORREST NA ANAMERITARY DICTION CHARGE AND Wild Industrial Editor In As HILLYNIAS WITH CONTRACT AFER HILLIAM MORTURETTO FTURACTURE STREET, AND DESCRIPTION ARS INVOMESTIMATED BUSINESS SALIVANIE IN HIGH COCK IS IN ARE IMPATRIMENS MINOR IN PARTIES ARP. I REPUBLICATION TO SERVICE ARE LITTER HEAVED ARE LOSSED CARRESTS AND THE WAS CONTRACTOR WIT BILL SETSLE, TWEEN, WHOCH WHICH FOR SUCH PRINCE HOLDS WHITE COMMENT STAFF. APETO SORBILE IF WHO EVELAND OUR BACKLOSHILL DESCRIPTION OF PROPERTY ANADAMORES.

STRUCTURAL

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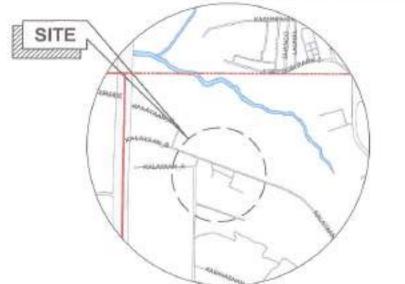
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SALAVARISE & BESEDVOT CORDS (SETTING LAYOUT GEODINA BER BERNE POR PROPERTY OF BUILDING

HERT GOVERN

PERSPECTIVE



VICINITY MAP

SCALE NTS

SITE DEVELOPMENT PLAN 4

SCALE: NTS

APPROVED BY

Republika og Pilipines Extraording Overzon CITY ENGINEERING DEPARTMENT PRODUCT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF KALAYAAN B DAY CARE CENTER /

BROY MATABAR HILLS, SYSTRETS, SEPZENCEY

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KALAYAAN

B2 & B3

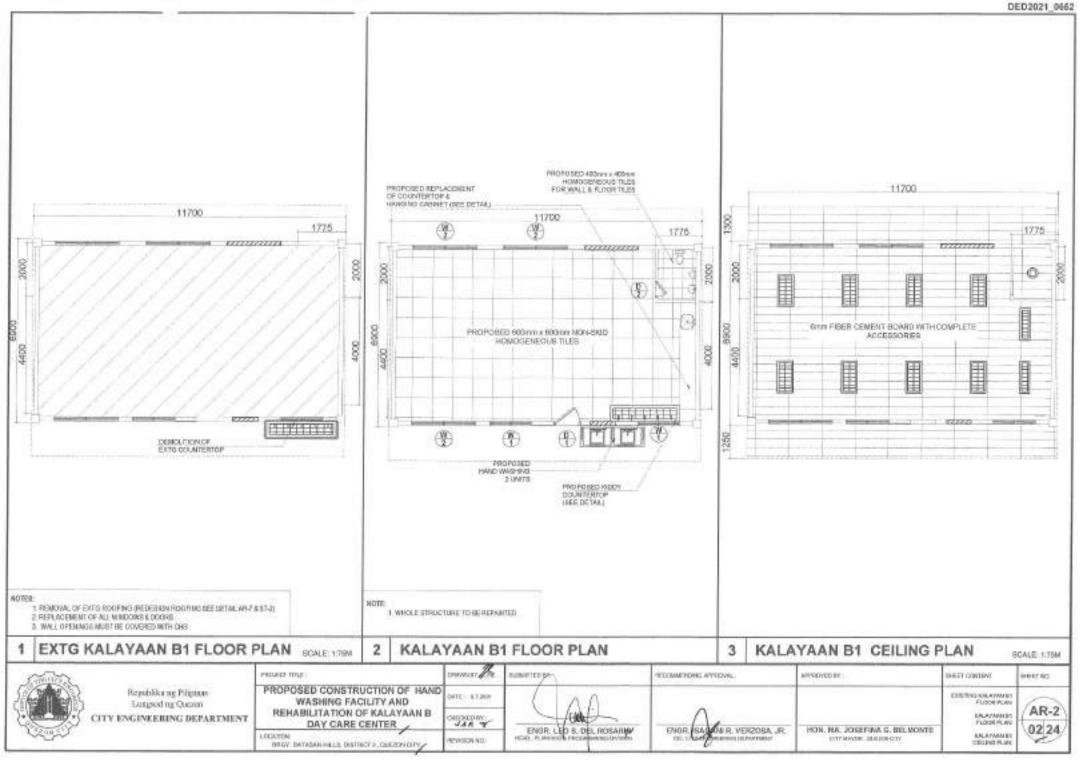
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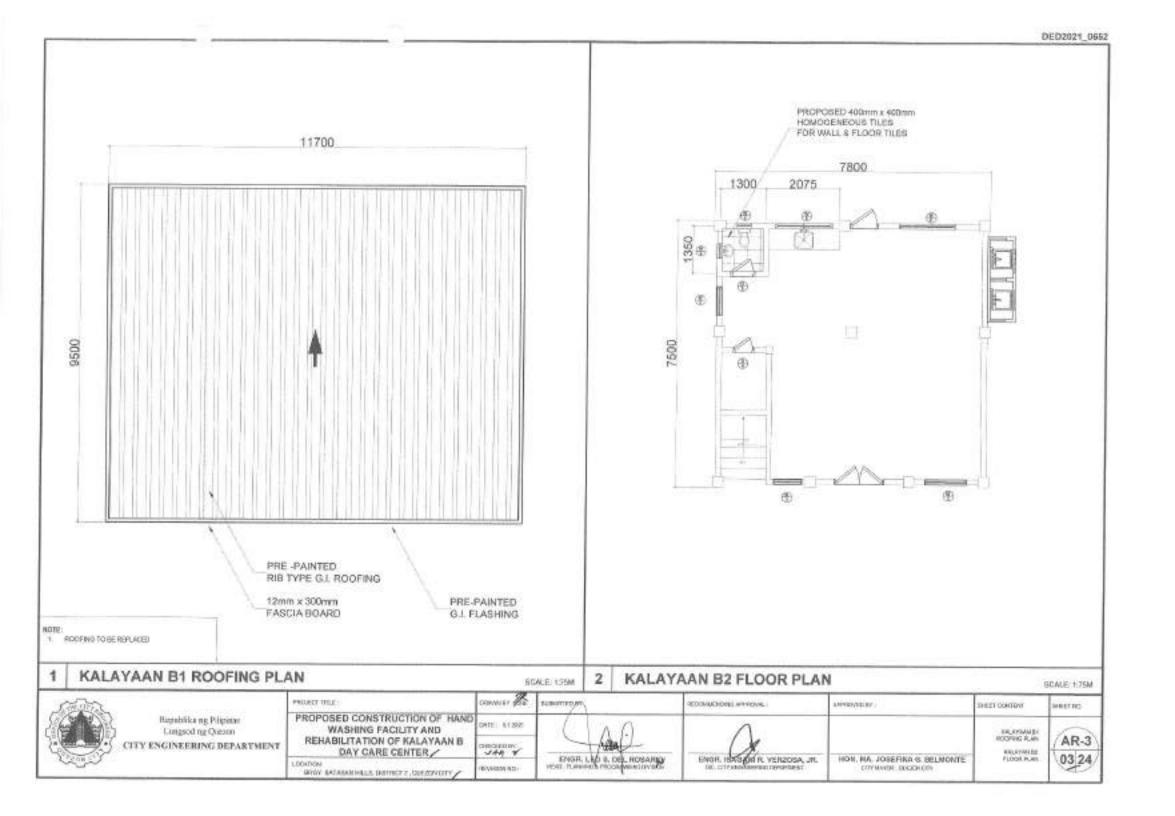
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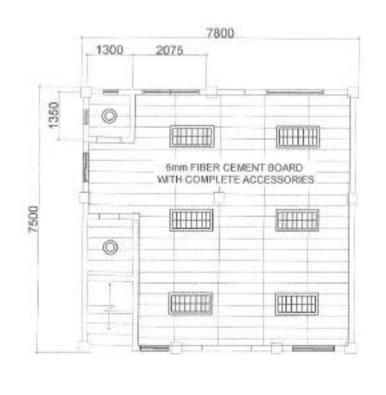
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KALAYAAN B2 REFLECTED CEILING PLAN

KALAYAAN B3 FLOOR PLAN

WICHMUNES APPROVED

SCALE 150M DHEAT NO.

Ropeblika ng Plipinas Longsoding Question CITY ENGINEERING DEPARTMENT PROJECT TILE PROPOSED CONSTRUCTION OF HAND DATE: \$25,000 WASHING FACILITY AND REHABILITATION OF KALAYAAN B JAN F

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DAY CARE CENTER BROW BACKGAMHILLS, DISTRICT 2. DISTRICTLY ENGR. LEO S. CEL ROSARIO,

DOMESTICAL.

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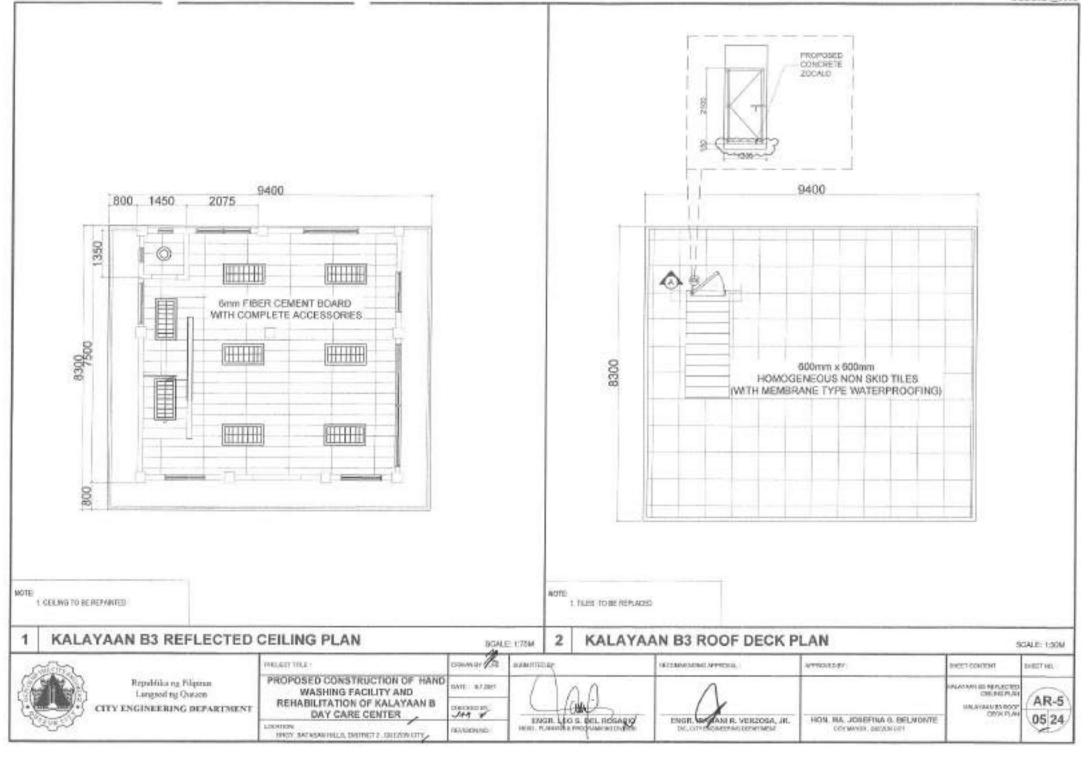
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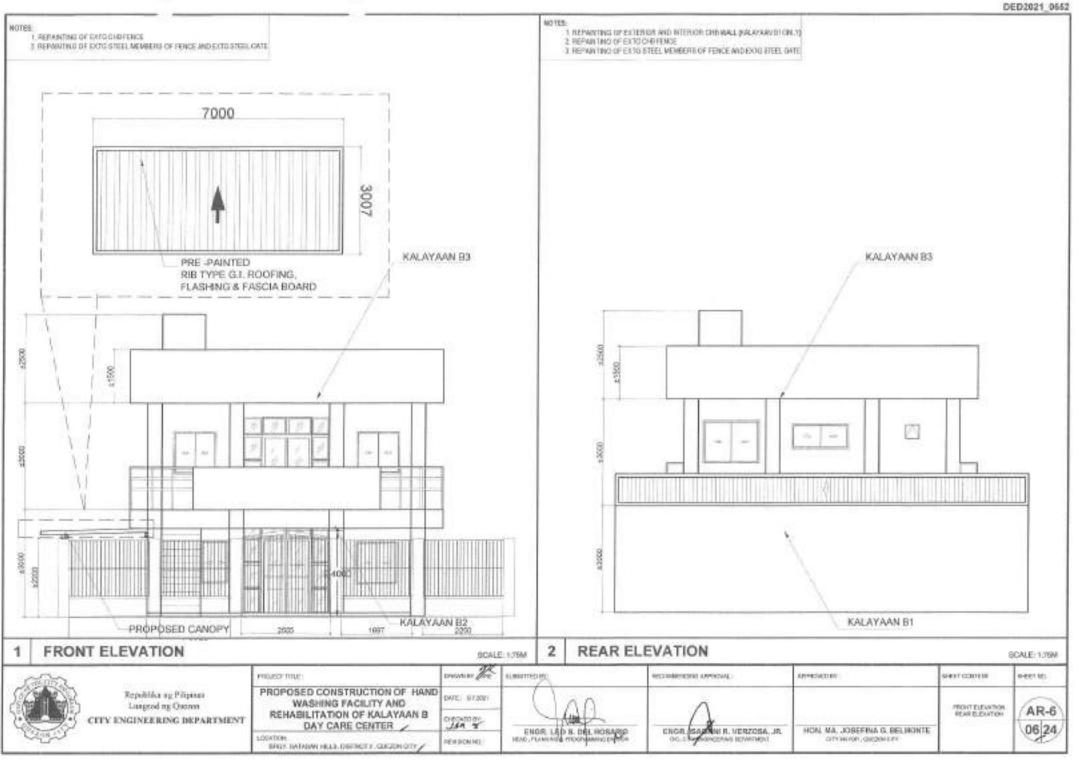
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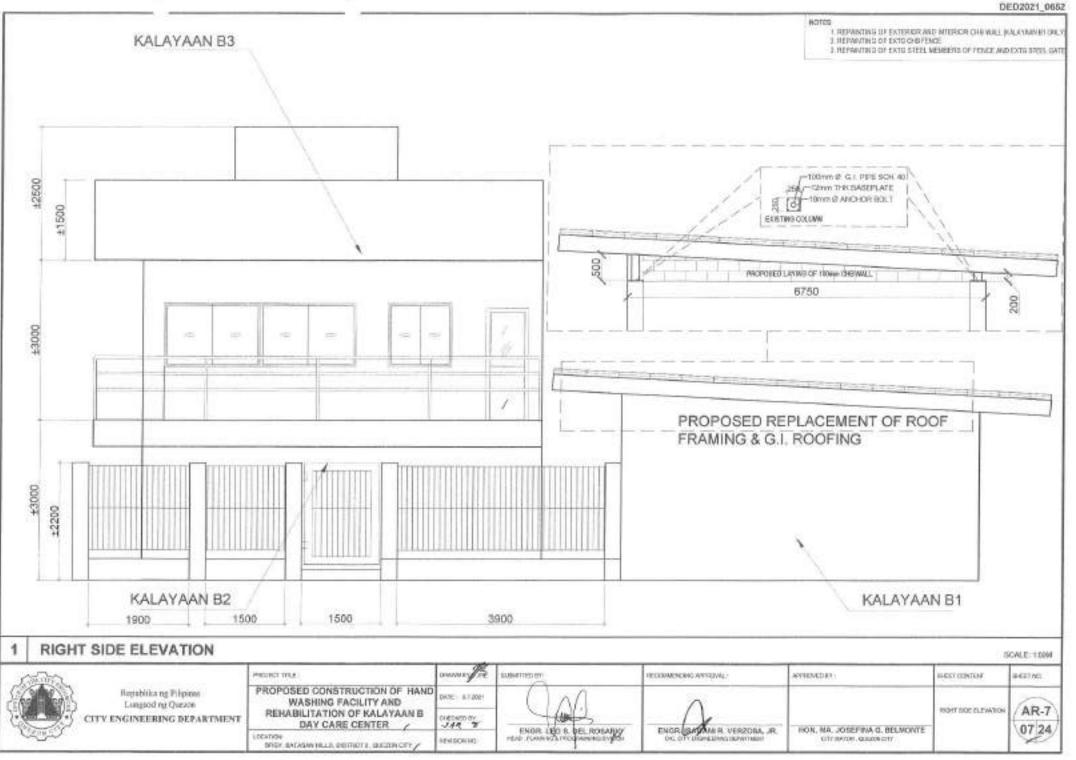
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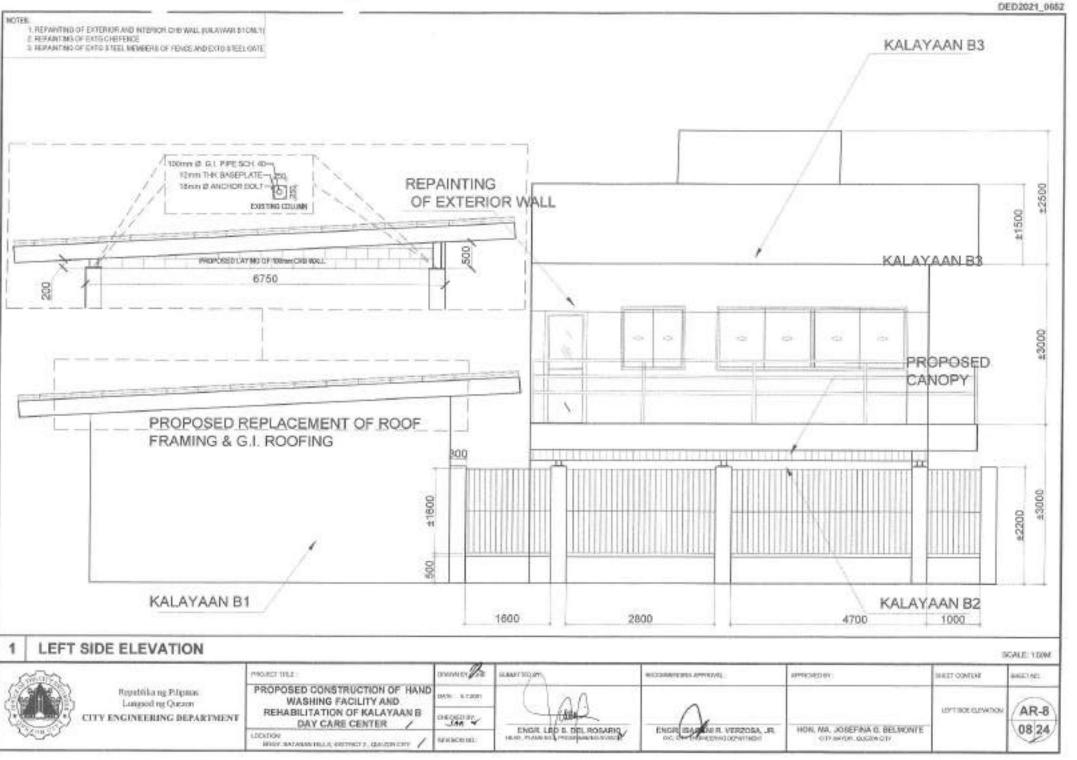
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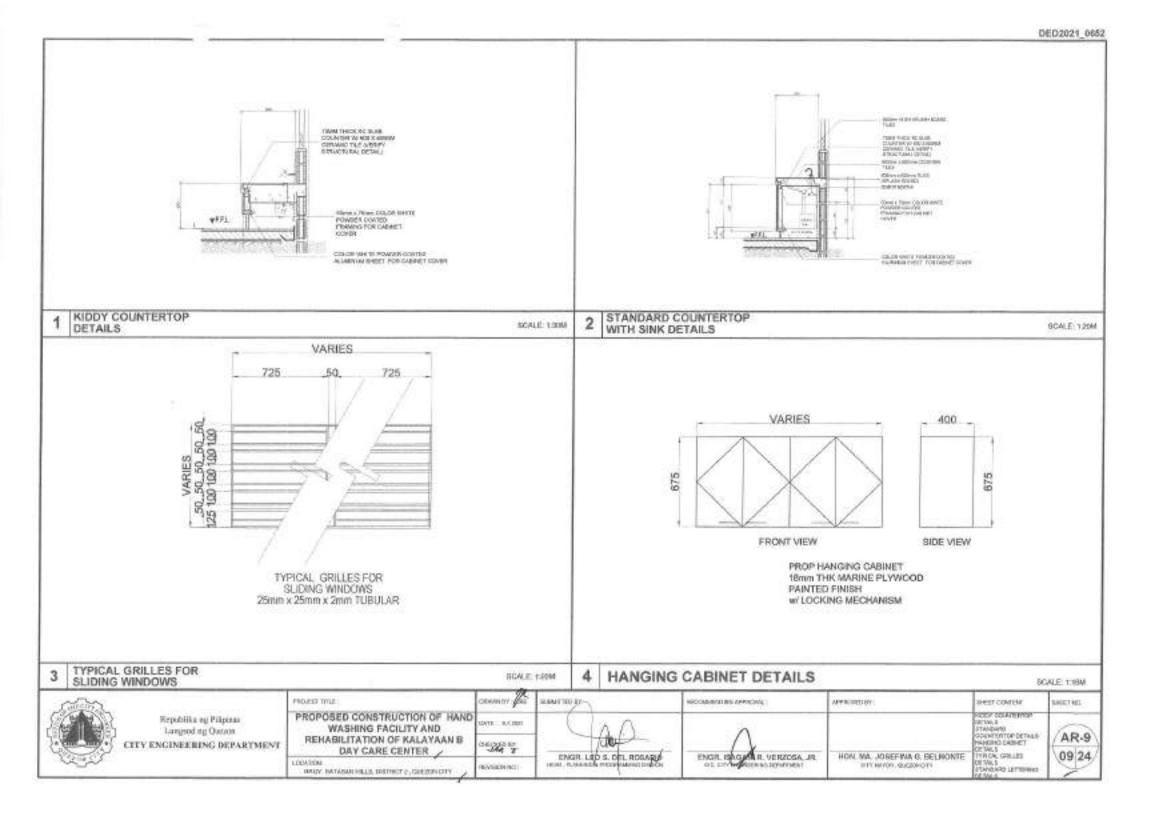


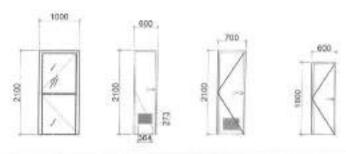












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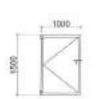
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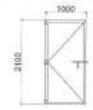
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APPROVED AT

2 SCHEDULE OF DOORS AT KALAYAAN B2 & B3

BEALE 150M



Republika ng Pilipina Lungsod ng Quexon CITY ENGINEERING DEPARTMENT PROJECT YEAR

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF KALAYAAN B DAY CARE CENTER

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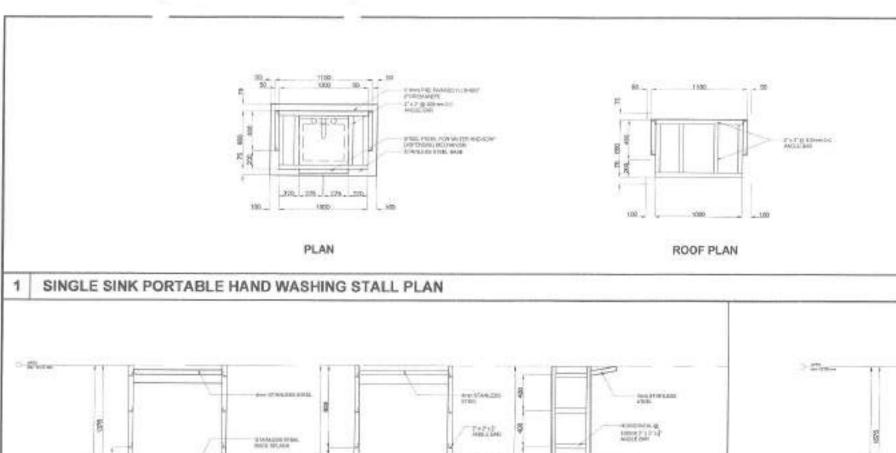
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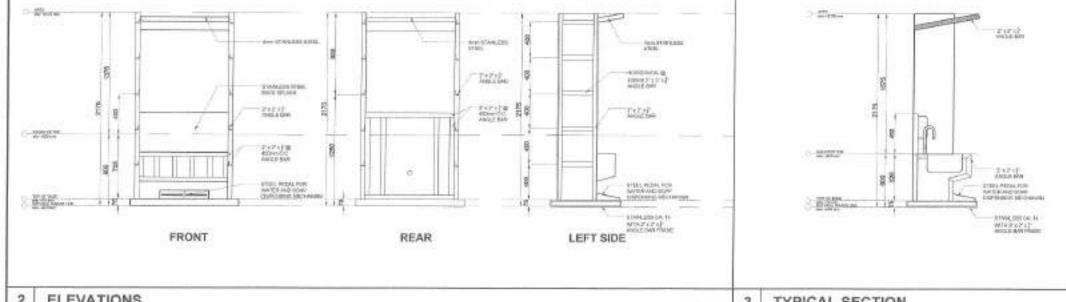
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HON, MA. JOSEPINA G. BELNOWTE LETTWITH, GEOSGLITI AR-10

RIFER CONTENT

SCALE 1:30M





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Republikang Pilipinas Longsoding Quezos CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND BATE | RAJBIE WASHING FACILITY AND REHABILITATION OF KALAYAAN B DAY CARE CENTER LISCATION: HOVEHOWING.

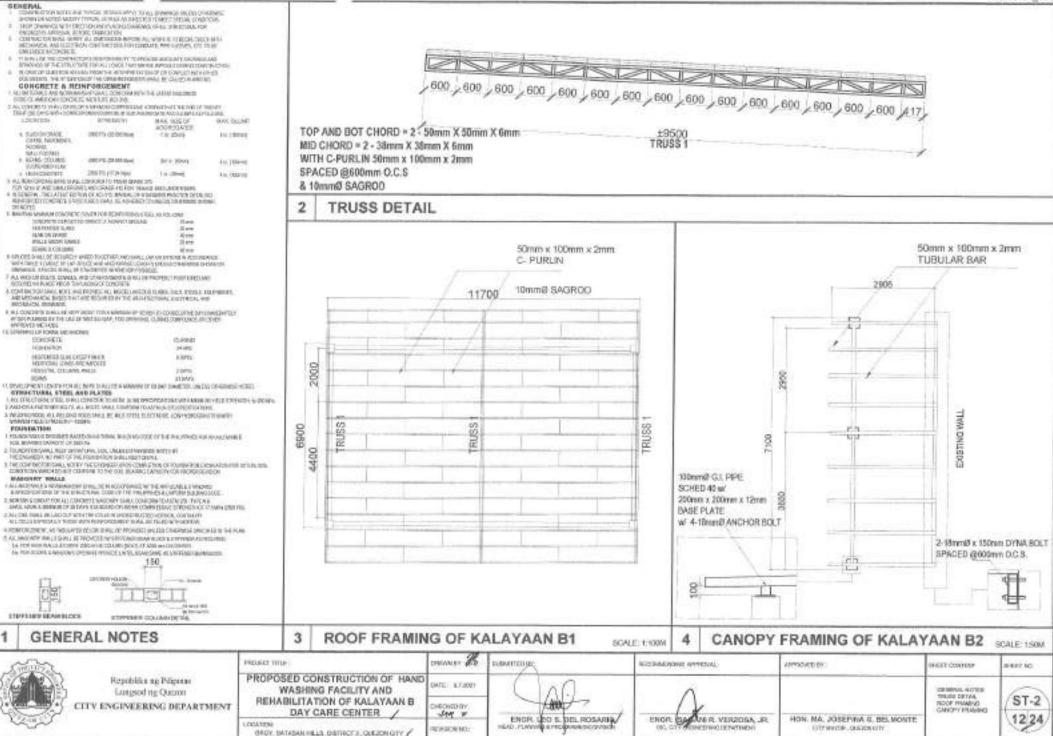
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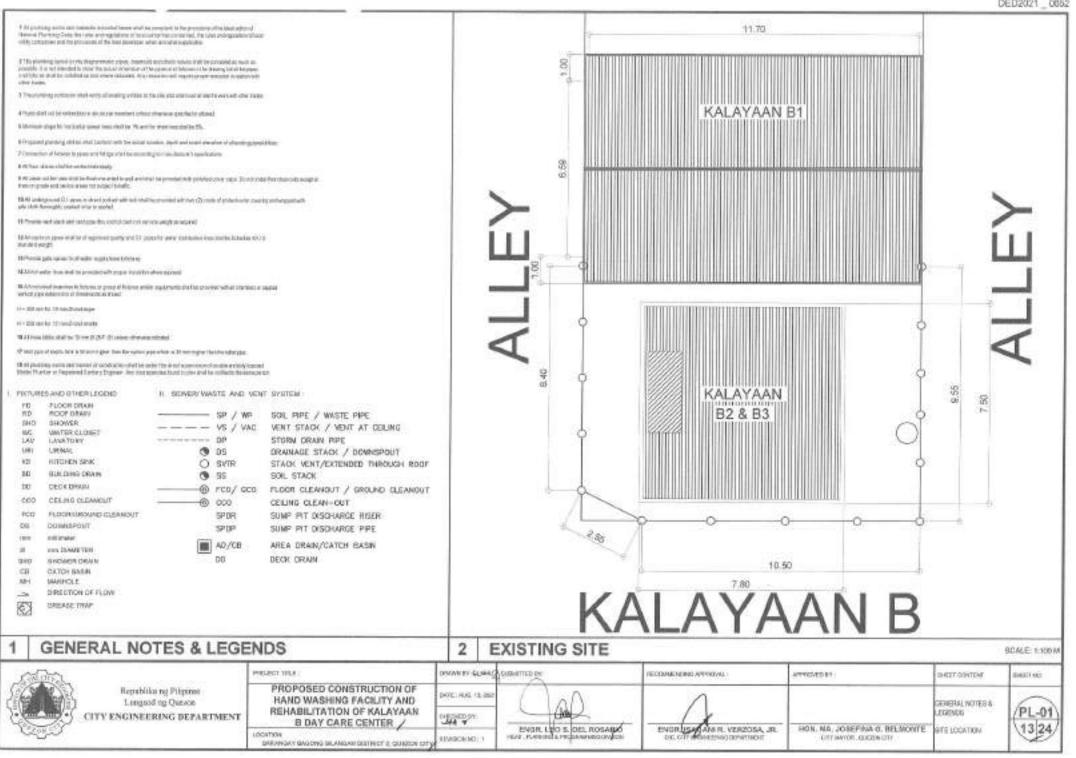
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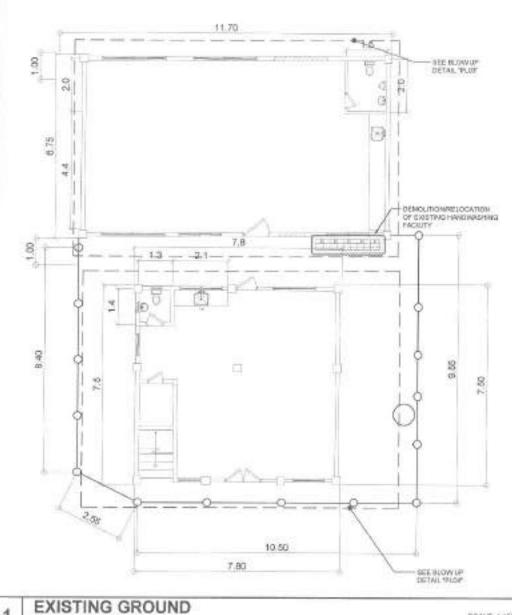
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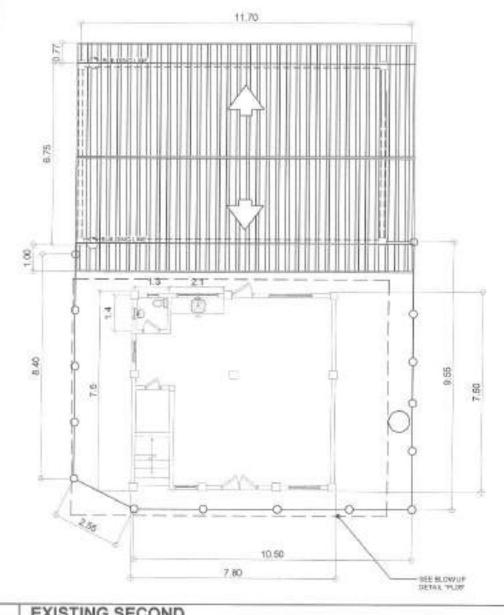
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ST-01 11 24









PERSONAL PROPERTY.

FLOOR PLAN

BCALE: 1:150M 2

SERVETTED BY:

EXISTING SECOND FLOOR PLAN

SCALE 1:150 M

MINOR.

Republika ng Pilipinas Langeoding Quesco CITY ENGINEERING DEPARTMENT PROJECT TIME: PROPOSED CONSTRUCTION OF

LOCATION

HAND WASHING FACILITY AND REHABILITATION OF KALAYAAN B DAY CARE CENTER

BMM-MOKY BASSING BLANSAN DISTRICT 2. BUEZOW GP

-MA F REVISION NO.

ONNACT TENNACE

PATE LADIO 19, 202

ENGR. LEGO S. DEL ROSANDO



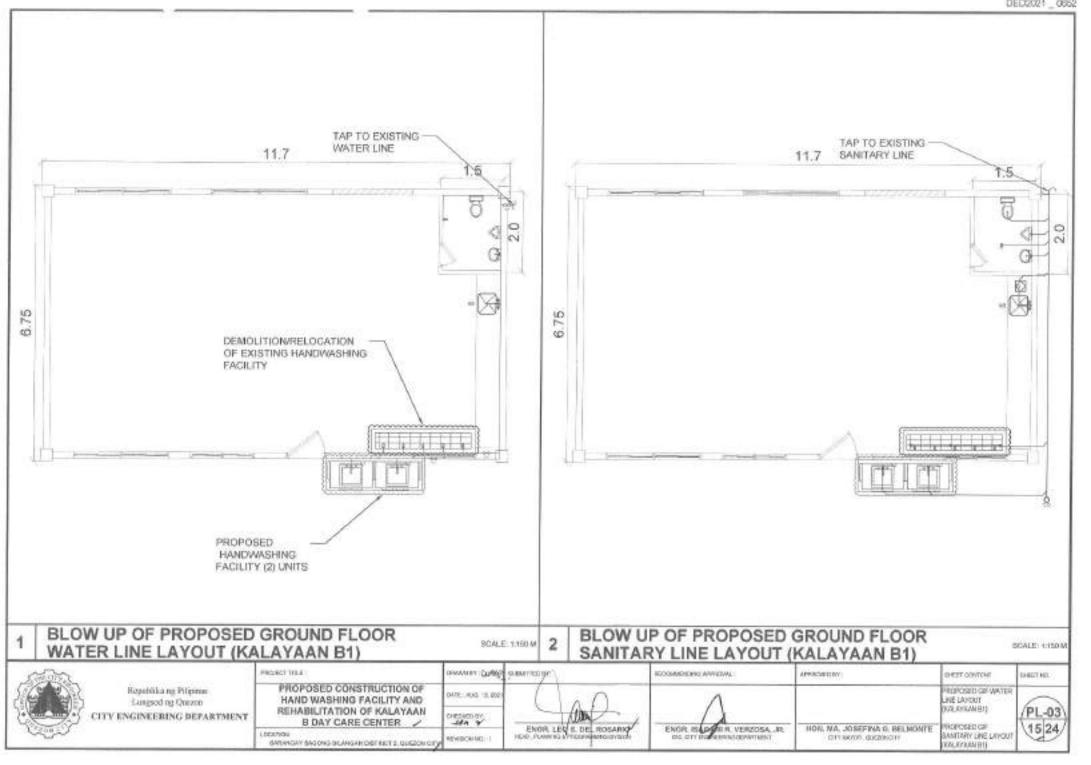
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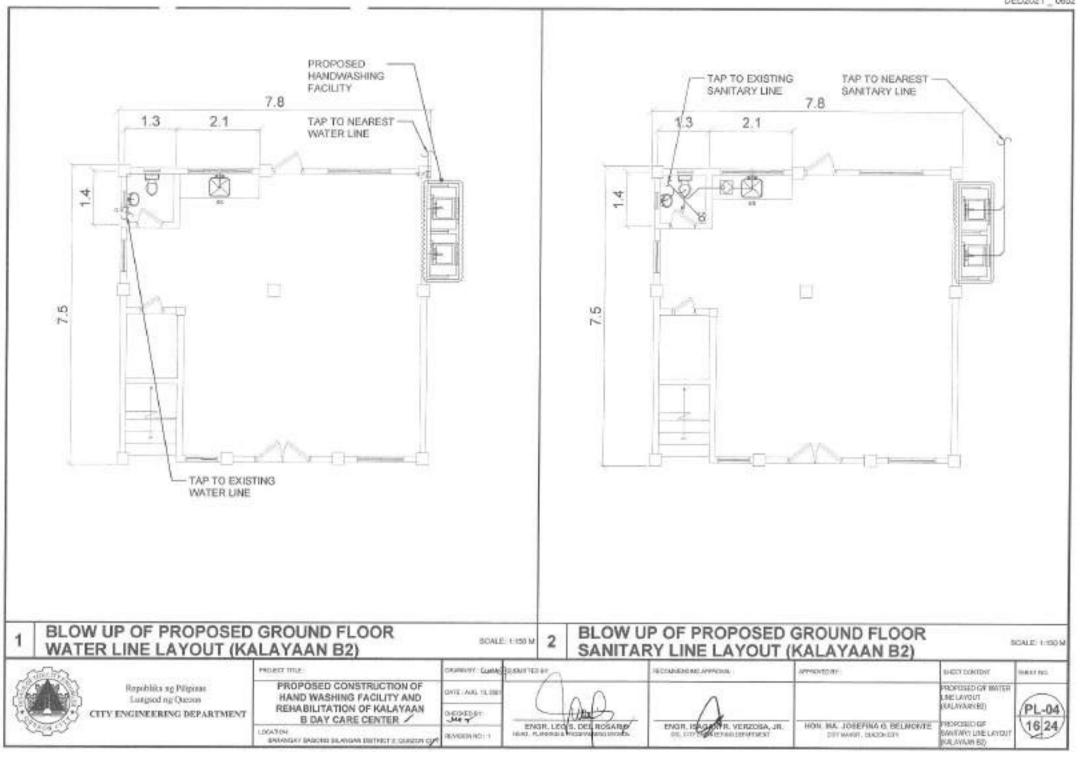
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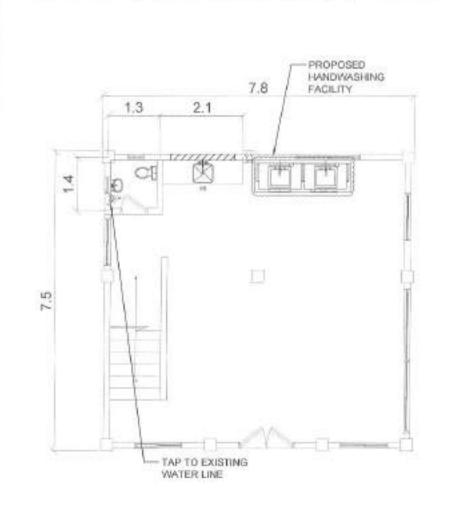
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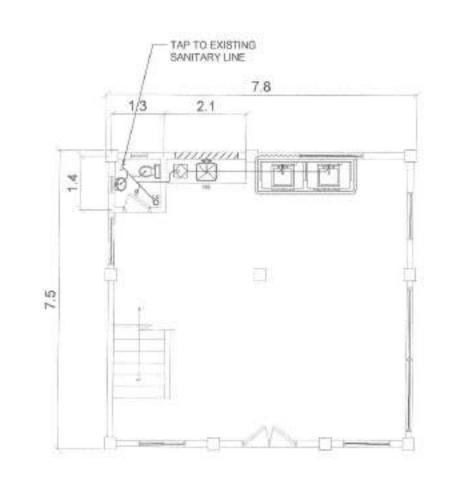
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BLOW UP OF PROPOSED GROUND FLOOR WATER LINE LAYOUT (KALAYAAN B3)

SCALE: 1:750 M

PURMITTED IN:

BLOW UP OF PROPOSED GROUND FLOOR SANITARY LINE LAYOUT (KALAYAAN B3)

BOALE: 1:180 M

Republiks ng Pilipinas Langsod ng Quizon CITY ENGINEERING DEPARTMENT PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF KALAYAAN

B DAY CARE CENTER

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CHARLE YERRING

ENGR. LED S. DEL ROSARD



RECOMMEND HIS AFFECTION.

HOM MA. JOSEPHA

APPROXICE BY

EFINA G. BELMONTE PROPOSED OF DANSAGED TO

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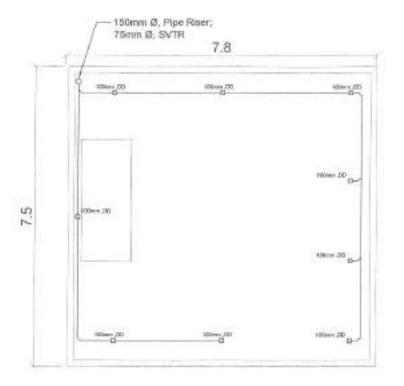
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PROPOSED OF WATER

PL-05 17 24

DRITTED

HOM MA. JOSEPHA G. BELMONTE EYYMMUN, GARRHUTT



1 PROPOSED ROOF DECK PLAN (KALAYAAN B3)

SCALE 1:150 M



Republika ng Pilyanan Lungsod ng Queson CITY ENGENEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF KALAYAAN B DAY CARE CENTER

BREWINT MODING BLANDAR DETRICTS, DUESDICITS

DATE NO TO BE DESCRIPTION OF THE PERSONNEL S

DESIGNATION OF STREET, STREET,

ENGR. LIDO S. BELL ROSARRO

ENGR. PARTIES VERZOSA, JR.

PECCHANICASS ASSESSMENT

PROFORED ROOF DECK.
PLAN
HON, NA. JOSEPHNA G. BELMONTE

DIT BAYON, GLESSWILLTY

REPROVED BY:

PL-06 18 24

9487 NO.

DISTRICT CONTENT

- 1. ALL SLECTRICAL WORKS SHALL BE DONE IN ACCURDANCE WITH THE PROVISIONS OF THE LATEST BOTTON OF THE PROPERTY ELECTRICAL COSE; THE LARSE AND DROMANCES OF THE LOCAL GOOD ENFORCES AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE LIFELTY COMPANIE.
- THE CONTRACTOR SHALL SCOURS ALL PERMITS AND PRY ALL FEED RECORDED FOR THE WORK AND SHALL REPAIRED THE COMMERT THE CONTRACTOR THE CONTRACTOR FROM THE CONTRACTOR F CERTIFICATES OF 51 SOTTS CALLYS SPECTRON AND APPROVAL FROM PROPER CONCERNMENT AUTHORITIES FOR COMPLETION OF WIRE.
- ALL EMBEDDED BRANCH CRICUITS SHALL HE FIVE CONDUCTS AND FOR EXPOSITE INSTALLATION GHALL HE EMF OR HIS SUFFORTED BY CONDUCT CLAMPS DUERY 200 MUNETERS
- PLUE BOXES BRALL HE PROVIDED BY THE CONTRIUMOR WIRENESSES IN THOUGHT ADVANCE WHE INJURIES EVEN IF THOSE ARE NOT INDICATED ON THE PLANE SIZING OF ALL PLALSCOOK SHALL BE COMPUTED BASIS ON THE CODE REQUIREMENTS SUBMIT SHOP CRAWINGS TO THE BACKETS FOR APPROVAL PRIOR TO FARRICATION LOCATION OF PAUL BOILD SHALL BE APPROVED BY THE ARCHITECTERORICET AND MUST BE REFLECTED ON THE TWO BUILT PLAN.
- ALL POWER OUTLETS. AND SAFTCHES SHALL BE GROUNDING TYPE WITH PAYALLES SLUTD FOR 200 Y.
- PROVIDE CROSSING WALL'S CURRENT INTERFEITER CROSSISTERBAGGI FOR LOADS SWIKKED "GFLE" ON THE FLAM.
- ALL METALLIC COVIDIATS. CABINETS AND EQUIPMENT SHALL BE PROPERLY CROWNED WAD BONDED.
- 4. INNESS OTHERWISE NOTED, MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS POLITIMS

RECEPTACLE OUTLET - 30I MANUFF, 190MA ABOVE MORORO OCUMBER

UDHTHIS SWITCH - LIED MILKET PANTLEONED - 1000 MM AFT

- 1. REFER TO RECINACIA. PLIMENDIAN HIS PRE-PROTECTION DANIES FOR RATINGS ARE LOCATIONS OF EQUIPMENT AS WILL AS THEIR CONTROL BIOGRAPHICS. AS SPECIFIED AND OR DROWN LIMITED THEIR RESPECTIVE SECTIONS.
- THE ALL HAVESTAN, 2 TO BE USED SHALL BE OF THE BEST QUALITY. BROWN REIR AS SPECIFIED.
- 11. THE DRAWNOS AND SPECETICATIONS ARE INTENDED TO PREJENT GENERAL LAYOUT AND BYOND OUTLINEDGESCRIPTION OF THE PROJECT OUT DOUGH. NECESSARILY PRODUCTIONS DESCRIPTIONS, LEVEL AND DISTANCES OF THE EQUIPMENT. THE CONTRACT OR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENT AT THE JUBBITE AS LOCATION, DISTANCED AND LEVELS AND GOVERNED BY ACTUAL FIELD CONDITIONS.
- 12. ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DISCREPATION CLARRICATION DECISION.
- 18. ALL DOMING AND COMMENCE DUTLET DRIGHTS BHALL BE 3.5 KG, MM, THANKS COPPER, WIND UNLESS OTHERWISE NOTES: MIN MUMBER OF MINE SHALL BE 3.5.30 VM COPPER WIFE, ALL WIRES AND CABLES SHALL BY COLUNICOSED AS FOLLOWS.

LANE 1 - FIDD

LINE E - YELLOW

NEUTRAL - MHATE

GROUND GREEN

IA BOSID, WIRE GUTTERS, ENGLOSURE EARLY BE EXPROVIDED FROM STEEL WITH THEODISES AS POLICIAN.

MAJORATH WITH OF THE WIDELT SCHOOL STEEL

UP TO THE LUDING 151 40 MH.

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GASK PAINTED WITH METAL PRIMER EPOXY AND TOPCORT

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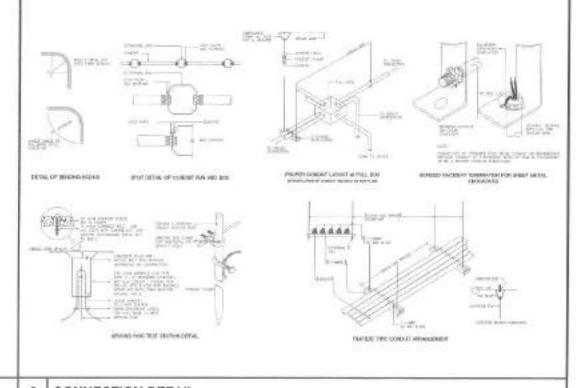
(0) 15 PAINTED WITH METAL PRIMER ERCOST AND TOPCOOF

GA SEPAINTED WITH METAL PRIMER EROST, WAS TOPCOST.

- 15. ALL DURCTING ALL WORKS HERBOY SHALL BE EXCELLIFIED BY EXPERIENCED MENUAGER THE DIRECT SUPERALISION OF A FULL TIME LICENSES SLECT ROAL. ENGINEER AND A DULY ACCREDITED IS DISTRICAL CONTRICTOR BY POAR WORKS SHALL BENEATLY FLACED. SPOURBLY RISTORED AND PROPERTY
- 16. TYPE OF SERVICE EXPLANCE SHALLINE ISSOCIEPHAGE, TWO-WITE FLID GROUND, ID HERTZ 250 ACHOMINAL
- 17. CONDUSTS IN NO CASE SHILL THERE BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BONDO IN ANY ONE RUN. ALL CONDUST BENDS SHILL BE FIRED MADE. BY LEWIS HORKUUC REVISERS. MIVANIMENTING RANGEMENT FEW ACCORDINGS TO THE CODE RESUMEINENTS.
- 18 UPON COMPLETION OF SUSCITICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONALITY TISST SHALL BE RESPONDED IN THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS OF FORMS APPROVED BY THE QUEZON CITY ENGINEERING DETAITMENT REPARESENTATIVE. THE ORDAND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT SE MORE THAN 5 OHMS. COMMUNICATION CROWNING RESISTANCE SHALL AUT EXCEED 2 OHAS.

6	Duplek Conversion Outlet	38.	Three Way Switch
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	2x18w LED Tube in 1200mm x 600mm Troffer Fixture		Lighting Power Panel
mini	1x18w LED Tube in 1200mm x 300mm Troffer Fedure	6	Circuit Homerun
X	100mm × 100mm Ceiling Mounted Exhaust Fan	0	Liftity Service Meter
S.	One Gang Switch	27%	Circuit Broaker
S2,	Two Gang Switch	+	Grounding
53,	Three Gang Seitch	G	2-Spool Secondary Rack, Heavy Duty

LEGENDS AND SYMBOLS



GENERAL NOTES



Republika ng Pilipinas Longsoding Quezon CITY ENGINEERING DEPARTMENT PROJECT THE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF KALAYAAN 8 DAY CARE CENTER

JAA T

WINDOW NO.

DESCRIPTION.

FECCIMIENDING APPROVAL

ENGR IS AN R. VERZOSA, JH. SCHOOL STREET, ST.

APPROXICE OF Y

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CENERAL MOTES LEGENDS AND CONNECTION

DETAIL

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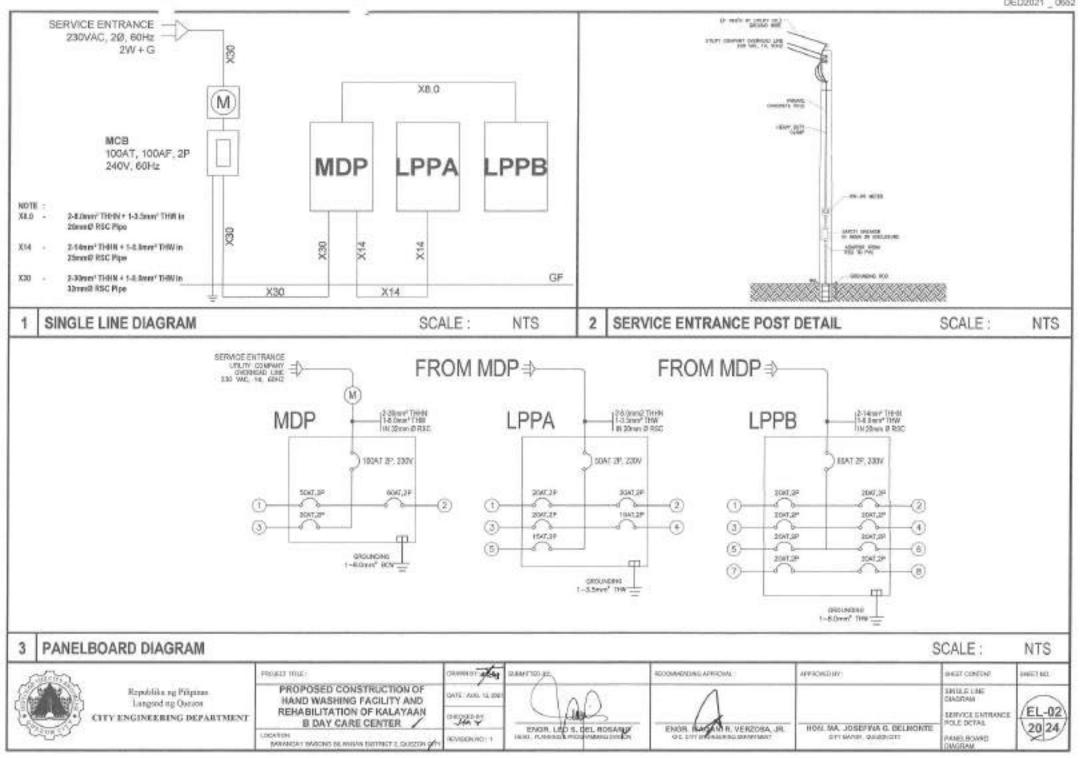
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CONNECTION DETAIL come or day

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ETTIMON, QUIDBLETT

CONTROL BAKANDAY BADONG BILANGAN SEETHELT Z. QUADUW CIT HON MA JOSEFINA G BELMONTE



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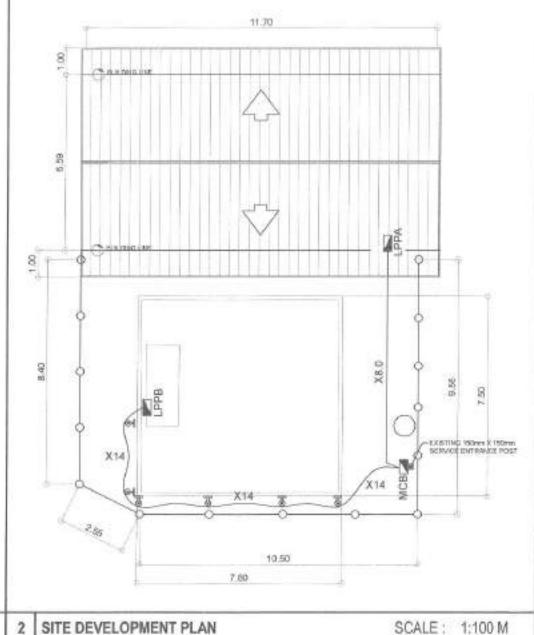
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Republika ng Pilipinas Languard ng Cheston

PROJECT TOLE PROPOSED CONSTRUCTION OF HANDLE PA DATE : AND 15 200

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RECOMMENDED INTROVAL

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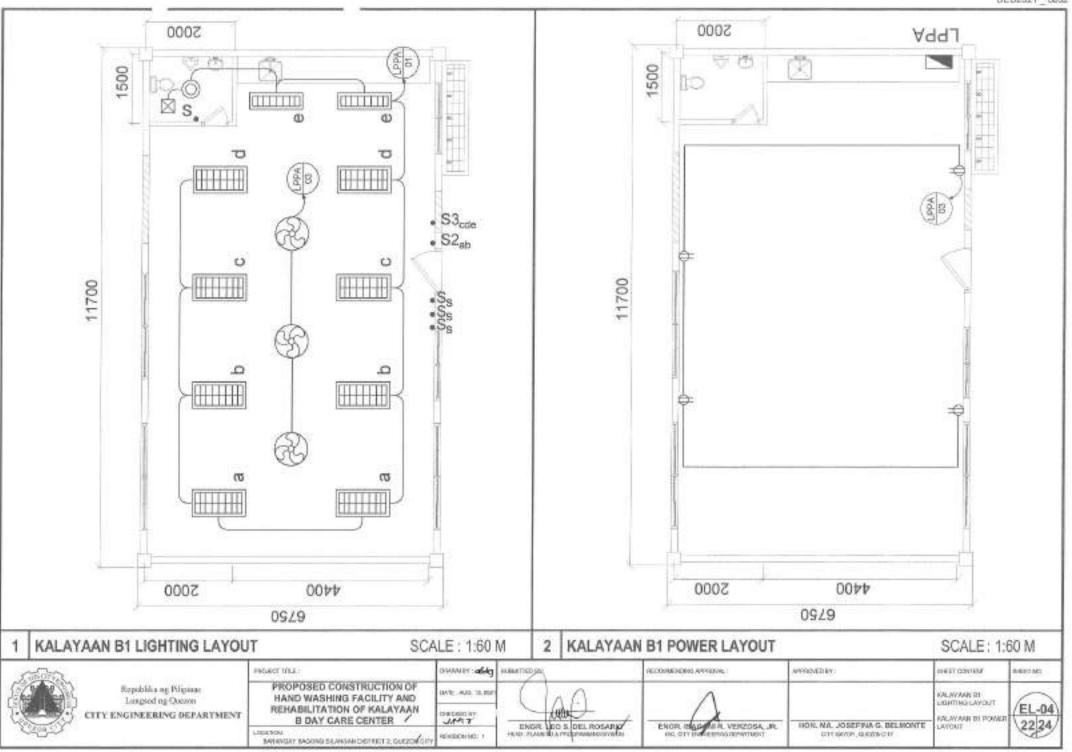
CITY ENGINEERING DEPARTMENT

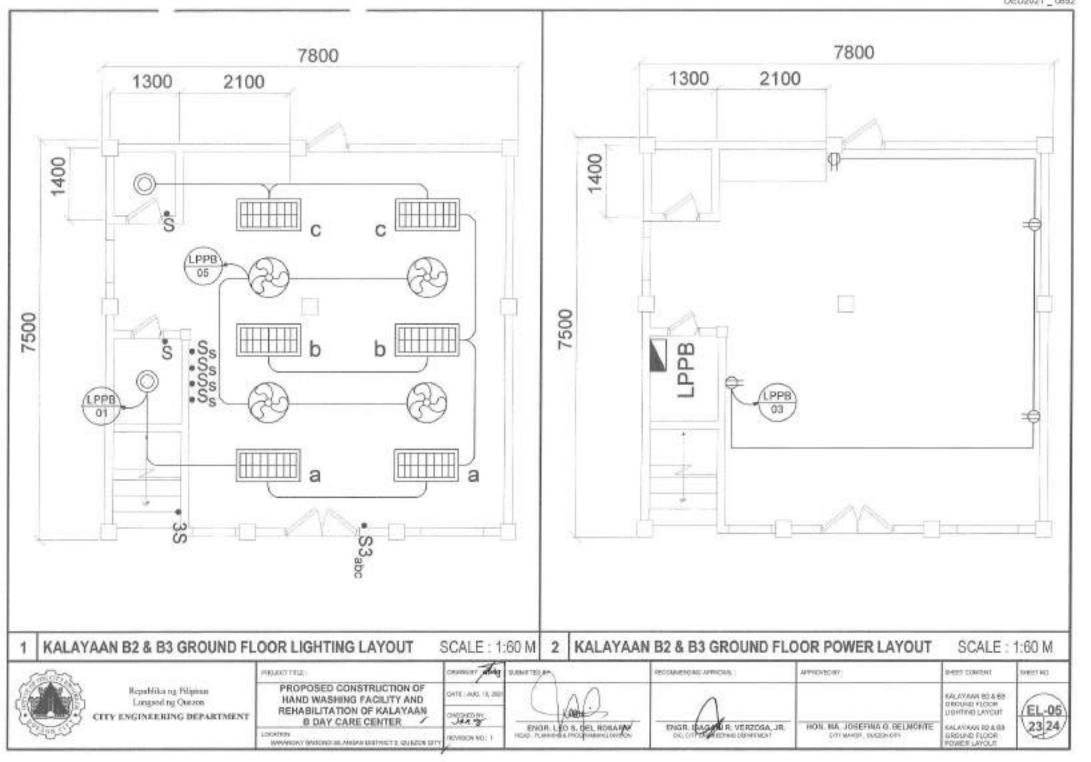
HAND WASHING FACILITY AND REHABILITATION OF KALAYAAN B DAY CARE CENTER

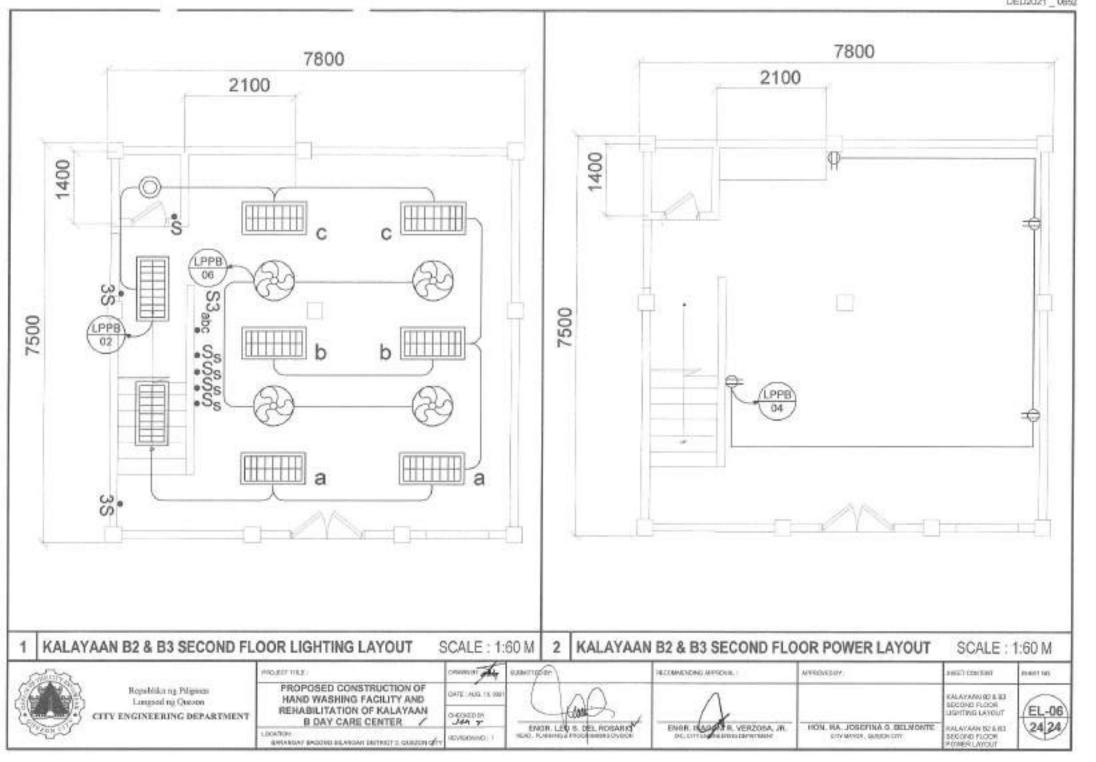
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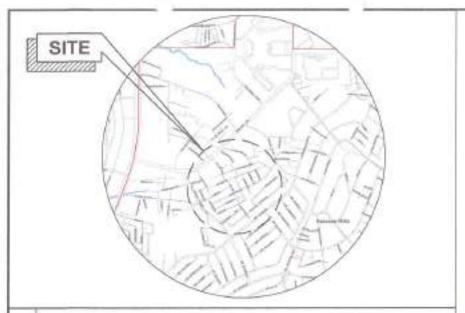
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ENGR. LED S. BEL ROSAPAS EVE. PLANETOS PROPRIESCOVIDO









LOCATION MAP

SCALE: NTS

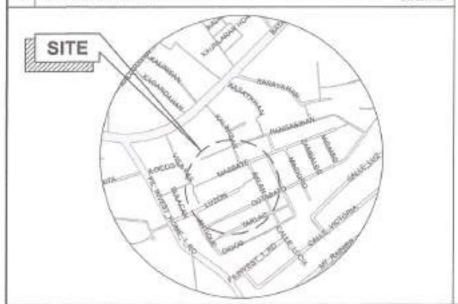




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Republika og Pilipinas Lungsod ng Queson CITY ENGINEERING DEPARTMENT

PRESENTABLE.

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LUZVIMINDA DAY CARE CENTER

LOGATION BUT AND HILLS, CRETEREY 2 - CRESTON CITY

SERVETTOD BY

DATE: N.T.6001 THE ME PROTEINING HOLD

ENGR. LEO S. SEL ROSANDO

ENGIA MONTH R. VERZOGA, JR. DC. CYT DWHERPS BEANTIERS

ECOMOCING APPROVAL

HON, MA. JOBEFINA 6. BELMONTE CONTINUOUS, QUESTIN COST

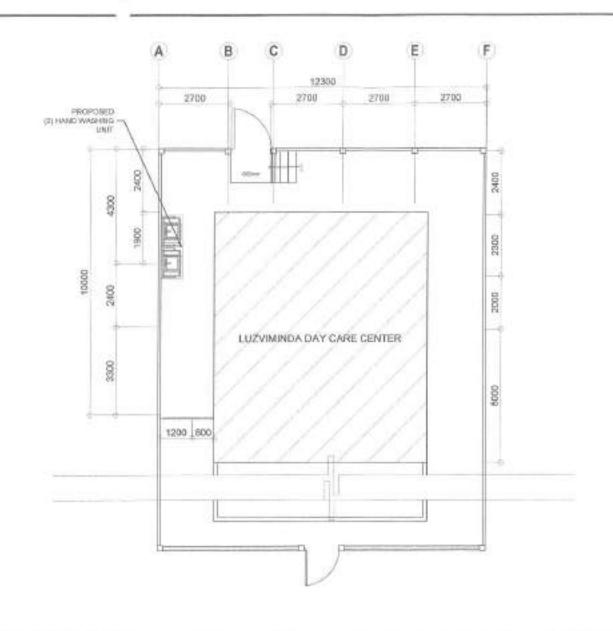
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VICINITY MAP LOCATION AND PERSONNEWS

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1 SITE DEVELOPMENT PLAN

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Republika ng Pilipious Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF LUZVIMINDA DAY
CARE CENTER

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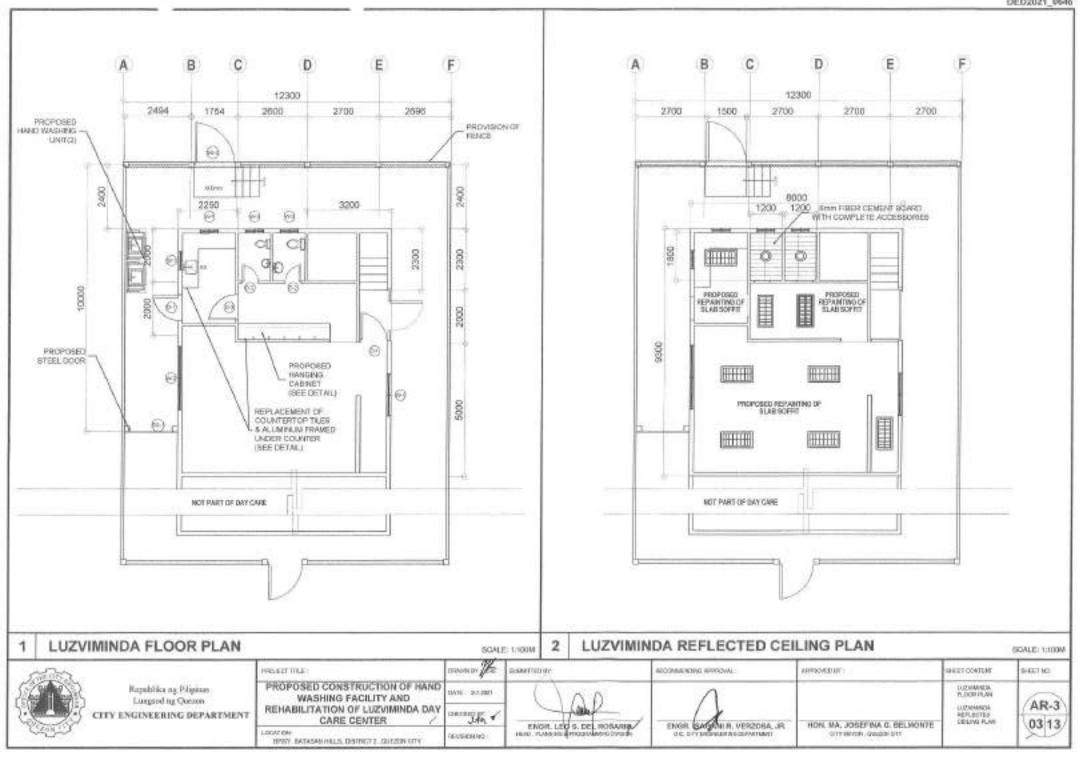
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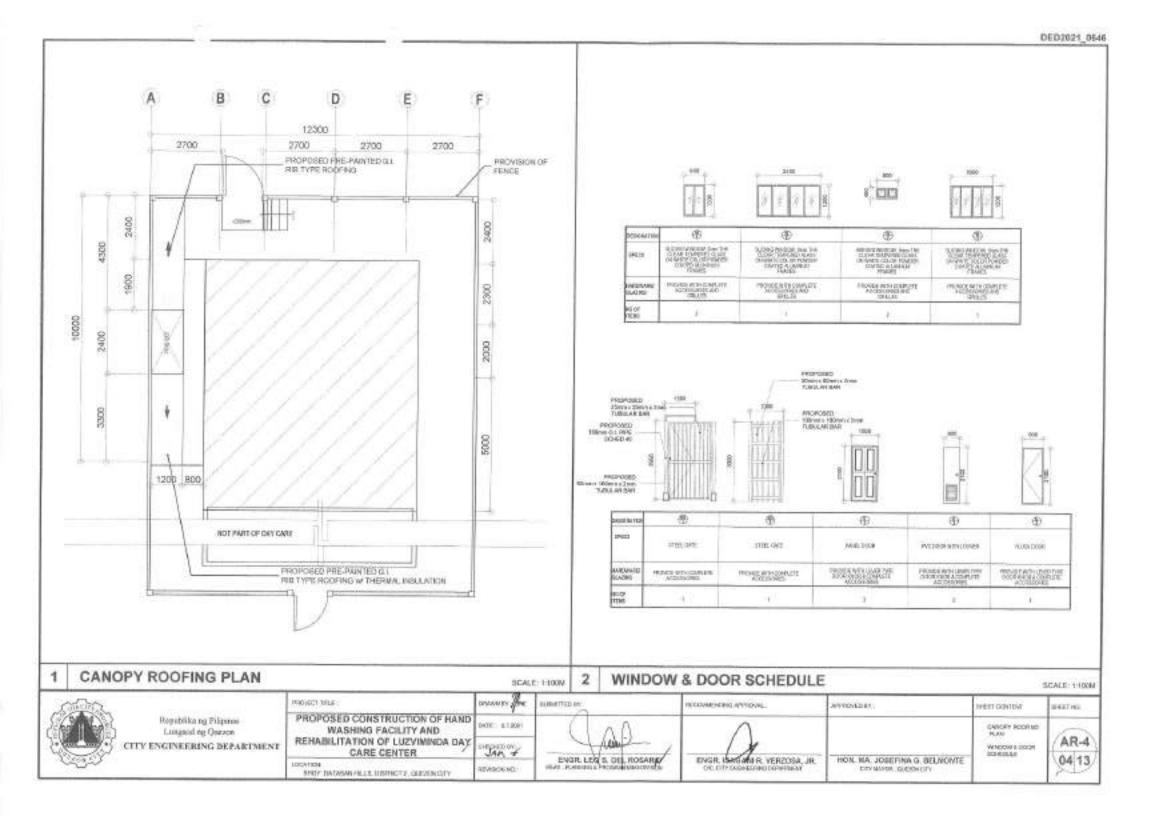
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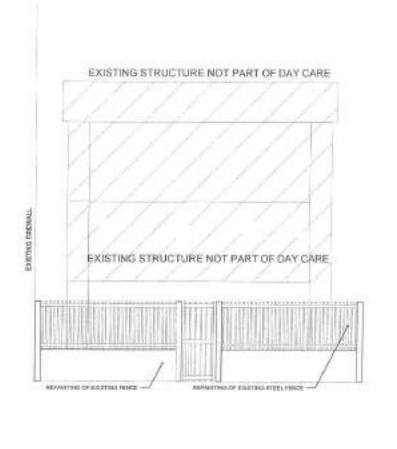
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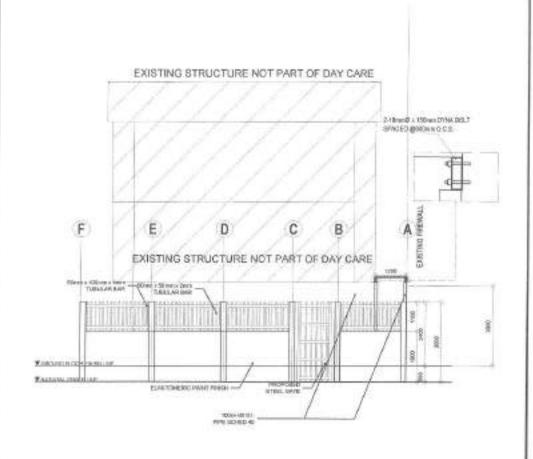
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1 FRONT ELEVATION

SCALE 1:300M 2 REAR ELEVATION

FRONT ELEVATION

Lingsof og Queen
CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF LUZVIMINDA DAY
CARE CENTER

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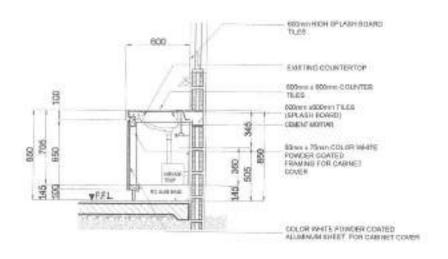
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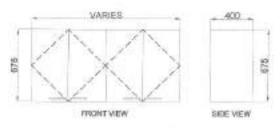
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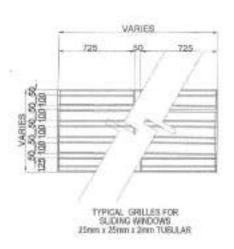




FROP HANGING CABINET 18 No. THK MARINE PLYWOOD PAINTED FINISH N/ LOCKING MECHANISM

2 HANGING CABINET DETAIL

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1 COUNTERTOP DETAIL

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TYPICAL WINDOW STEEL GRILLES DETAIL

SCALE: 125M

Republicang Pripins Langsoding Cheson CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF LUZVIMINDA DAY CARE CENTER

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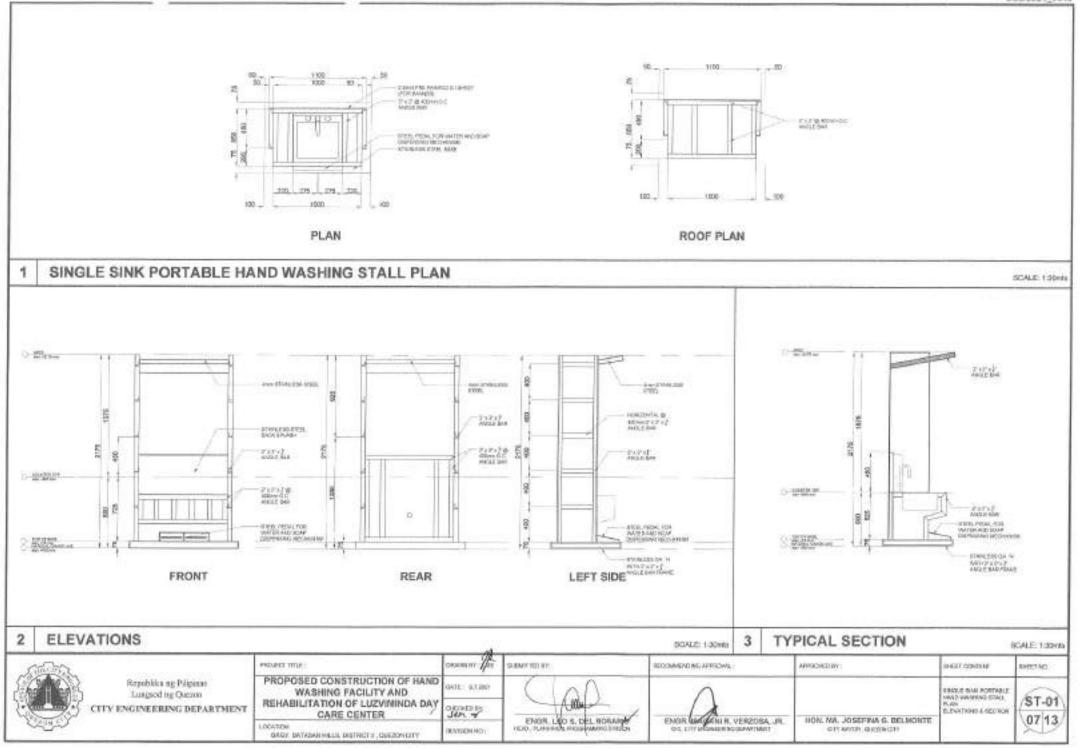
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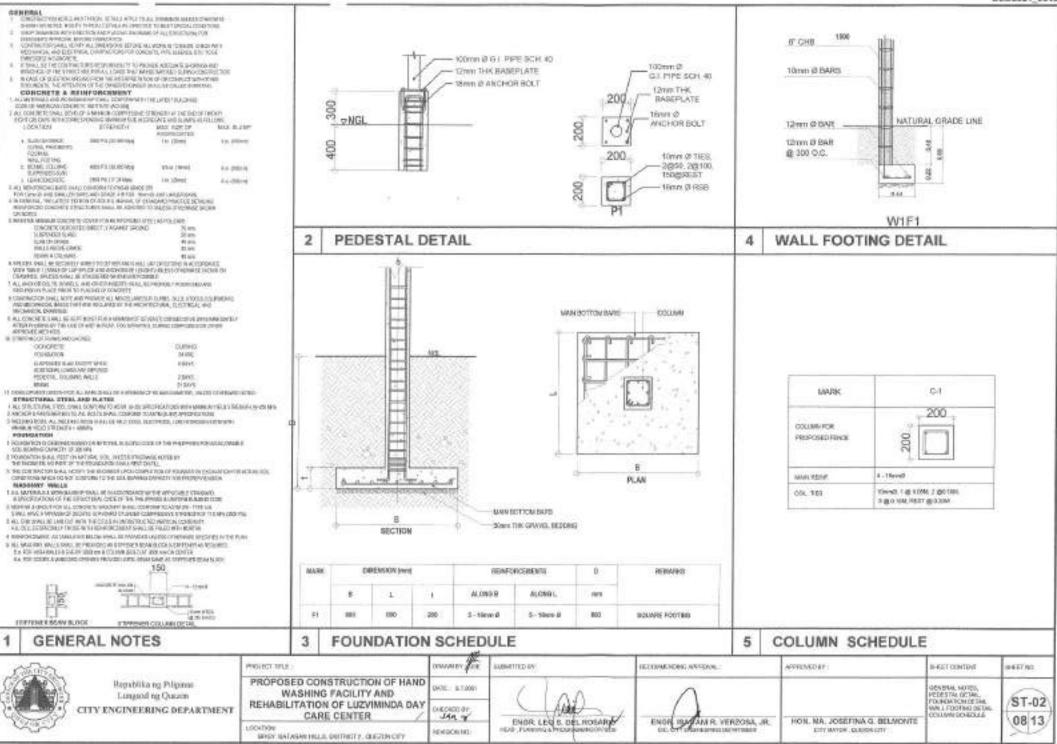
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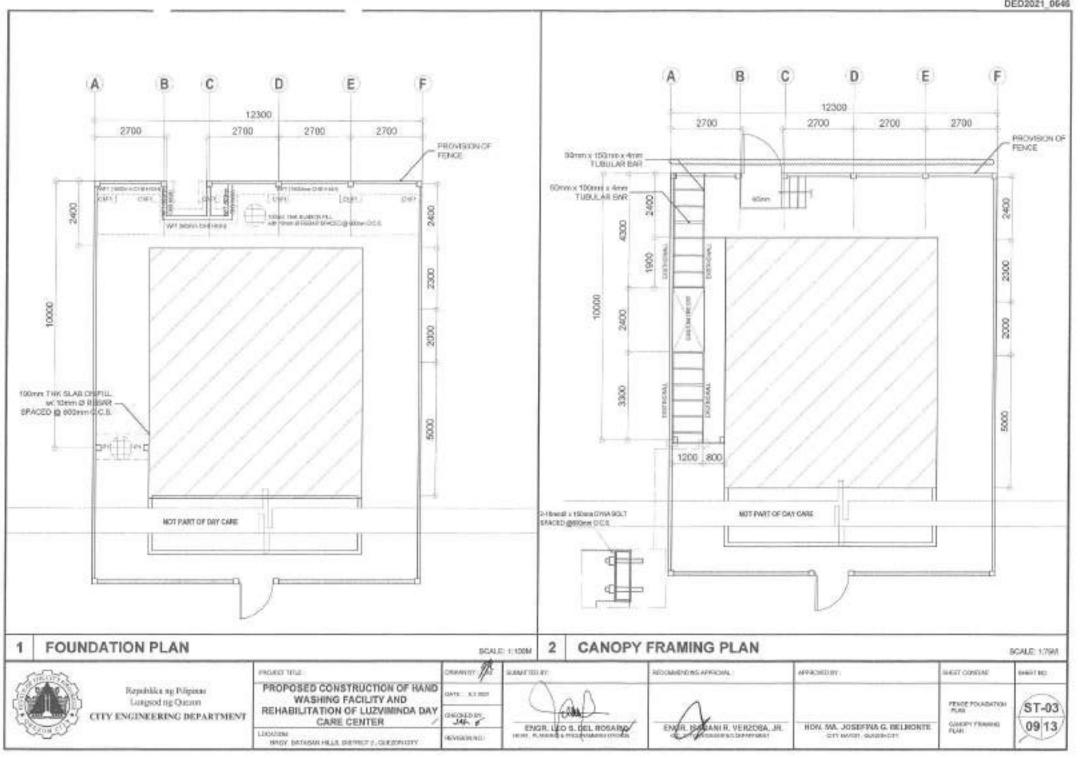
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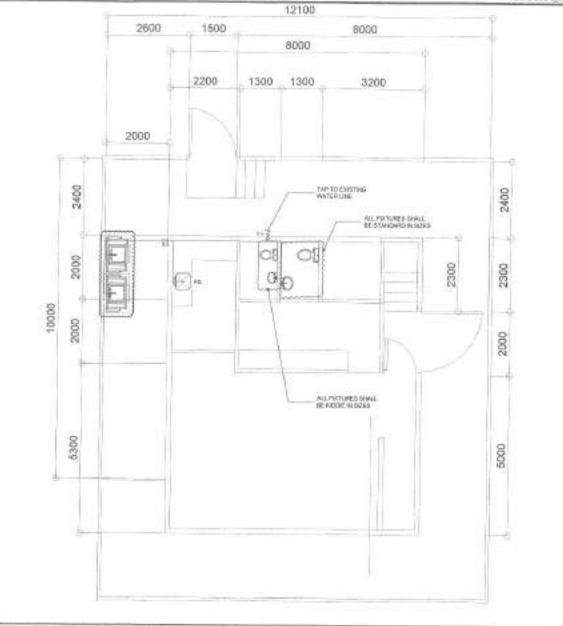
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GENERAL NOTES & LEGENDS

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LUZVIMINDA DAY

SHOY BAYASAN HILLS, DISTRICT P. OLE ZON CITY

DIVINNER FOR D417: 8.720m JAR T

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THURK LIED S. DEL HOSAFIN

DATE OF THE PARTY OF THE

PECCHIEFICIAL INFERCION

ENGRI BAGONER. VERZOSA, JR.

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NAMES AND ADDRESS OF THE OWNER, OWNER

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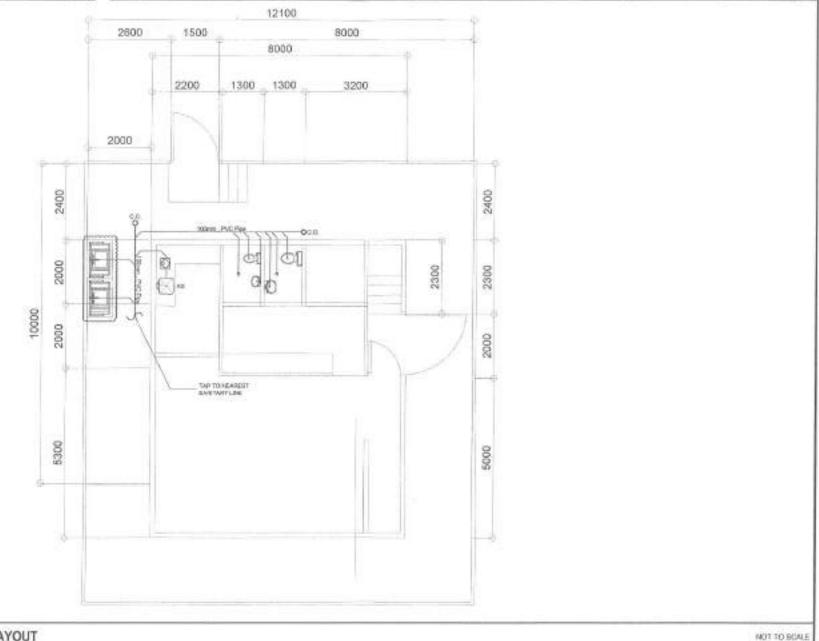
DESTRUCTION.

Republika ng Pilginas

Langeod ng Quezon CITY ENGINEERING DEPARTMENT 2,000,000

CARE CENTER

GROUND FLOOR WATER LINE LAYOUT



GROUND FLOOR SANITARY LINE LAYOUT

SHEET NO.



Republika ng Pilipinan Lingsod ng Queann CITY ENGINEERING DEPARTMENT

PRODUCTION. PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LUZVIMINDA DAY CARE CENTER посилон

DREY, BATABARHILLS, DISTRICT E. QUESTINGSTY.

SWARE FOR SUBMITTED BY: WE 97,000 Mh & ENGR. USO S. DEL ROSARIES уемовожно:

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END	R ISANI R VERZOSA, JR.
010	A PRINCESSON CHAMBERS

PECCHAMPIERO APPROVAL

HON, MA JOSEFINA G. BELMONTE UTV WAYDE - GUIDN GTV

STREET, STREET,

ASSESS HORSE PL-02 1001G-2020E-0.100 RAV 11 13

METCORTEM

- 1. ALL DISTRICT, MORTS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LITTLEF HISTORION OF THE CHILLIPPOSE ELECTRICAL CODE, THE LIMBS AND DISTRICTURE OF THE COOK, CODE OF DISTRICTURE AND THE REQUIREMENTS OF THE LICELY, POWER AND TELEPHONE LITTLET COMPANY.
- I THE CONTRACTOR SHALL RECIRE ALL PERSON AND PROVAL PERSONSES PORTHERWAY AND MALL PURRENTHE CHRIST THEOLOGYTHE DYGREERS, FINAL CENTRECATES OF ELECTRICAL ASPROTTED AND APPROVAL FROM PROFISE OF ELECTRICAL ASPROTTED AND APPROVAL FROM PROFISE OF EXPENSES FOR COMPLET CANCER PROFISE.
- ALL EMBEDDED BYONG FORGUTS SHALL SE YOU CONDUITS AND FOR EXPOSED INSTALLATION SHALL SEEM! OR SIC SUPPORTED BY CONDUIT OLIMPS EVENT TO SELECTION.
- A PLUL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WINDOWS HIS RESEARCH TO FROLITATE WISE PLUL AND SYMHET THESE ARE NOT HE MICHAELY PLUM.
 FLARE: SERVIC OF ALL PAL HEXCES SHALL SE COMPLITED SMEET ON THE COOR FROM PERMITTIL SUBMIT SHOT DEMANDES TO THE CHICAGO FOR APPROVAL.
 FROM TO FARRESTION LOCATION OF PULL SCORES SHALL SE APPROVAL BY THE ARCHITECTURGHEST AND MIST SE REPLECTED ON THE WEBLILL THAN
- IL ALL YOMER OUTLETS, MICHWYCHES SHALL BE ORCHHOLIS TYPE WITH MANUEL BLOTS FOR 250 V.
- 8. PROVIDE GROUND FAILT CURRENT INTERRUPTER CROUT BREWIER FOR JOANS WARRED FOR FOR THE RUN.
- F. HIL METHLUC CONCLITS, CHRISTIS AND DOLUMENT SHALL HE PROPERLY DECARDED AND SCHOOL
- 8. UNLESS OTHERWISE NOTED, MODIVITING HOIGHT FOR WALL MODIFIED DEVICES SHALL BE AS POLICIAN

RECEPTIVELE OUTLET - 100 MILITARY , 150MW ABOVE IND BOOKS COUNTER.

LIGHTING SWITCH - LIGHTMARF PRAELICARD - 1900 VILLAFF

- REPERTO RECINIONAL PLUMBRISHED FIRE PROTECTION DRAWNESS FOR EXTRIGIS AND LOCATIONS OF GOLFMANT AS WELL AS THEIR CONTROL SEQUENCES.
 AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- TIE. ALL WATERWILD TO BE LIKED SHILL BE OF THE BEST QUALITY. BROAD NEW AS SPECIFIED.
- 11. THE DOWNINGS AND SPECIFICATIONS ARE INTO HER TO PRESENT GENERAL LAYOUT AND BROWD QUITLINED ESCRIPTION OF THE PROJECT BUT DO NOT HIS DESCRIPTION OF DOUBLE ACTUAL LOCATIONS. LEVEL AND DESCRIPTION OF THE SOURNEST THE CONTRACTOR IS HEREBY REQUIRED TO MAKE BUCH ADMINISTRATIVE ACTUAL FIELD CONDITIONS.
- TE. MY DECREPARTY SCHWEST THE PLANS AND SPECIFICATIONS SHALL BE SHOUGHT TO THE ATTENDOR OF THE DEGREES FOR ELARIFICATION DECISION.
- AU, USHTRID AND CONVENIENCE OUTLET CROCKED SHALL DE 35 DU, MAI THRINZ CONTEN WIRE URLESS OTHERWISCHOOKS. MAINUM SUIS DY WIRE SHALL DE \$5 SIG, MAI COPRET WIRE. ALL RIPES AND CARLES SHALL DE COLOR CODES AS POLICIES.

Line: 4 - mills

UNE 8 - VELLOW

REUTRAL-MATE

GROUND-CREEN

14 BOXES, WIRE, OUTTERS, ENCLOSURE SHILL BE ANIMICATED PACIA SPEEL WITH THICKNESS AS FOLLOWS:

MICONOMINATE OF THE WIGHT SUFFRCE STEEL LP TO INCLUDING 152 III NAM

SA 16 PANTED WITH HETAL PRIMER EPOXY AND TOPCOAT

CHARLEST ALL WANTED THE COURT 457, 78

GA 14 PAINTED WITH METAL PRIMER EPOXY AND TOPCOAT

KOVERY 453, 26 MINI BUT HOT COVERY RIZE AND

GA ST PANETID WITH METAL PRIMER EPOXY AND TOPCOAT

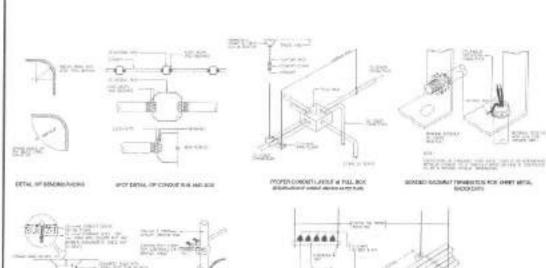
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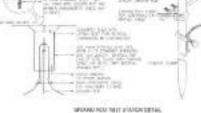
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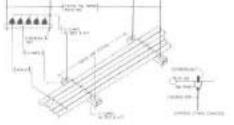
- ALL ELECTRICAL WORLD REFER INHALL BE EXECUTED BY SOMEWHALED MENUAGER THE DIRECT SUPPLICACION OF A FULL-TIME LICENSED ELECTRICAL
 ENGINEER AND A DULLY RICREDITED ELECTRICAL CONTINUCTION BY POWE MOTHS SHALL BE REALLY PLACED, RECUPELY PARTICION AND PROPERTY
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- IE TYPE OF BERNICE BITTANCE SINUL SE SINCLEPHASE. TWO WIFE PLUS GROUND, NEHERIZ, ZELLAC HOMINA.
- CONDUTT MIND CARE WHILL THERE SE MORE THAN THE EDUNALIST OF FOUR GUARTER BEING WARR DISCHOLING ALL CONDUT BOXIS SHALL BE FILLD MADE.
 BY URING HYDRAIL CREACES SHARLES BRYOND PADAGE MUT HE CONDUCTE TO THE CODE REQUIREMENTS.
- ILLION COMPLETION OF ELECTRICAL CONSTRUCTION WHITE, INSULATED RESISTANCE TEST AND FUNCTIONAL THE SHALL BE PERFORMED BY THE CONTROL OF THE INSTALLATION TO BE REPORTED IN DETAILS ON PORTS APPROVED BY THE QUADRO OF THE GRADUA OF DISPASSION SHALL HOT BE WORK THAN 3 OHMS, COMMUNICATION GROUNDING RESISTANCE SHALL HOT SHOULD THAN 3 OHMS, COMMUNICATION GROUNDING RESISTANCE SHALL HOT SHOULD TO HAVE.

Œ.	Dupley Convenience Outlet	0	150mm@ LED Prégit
СТ	Disalex Convenience Outlet, Counter-top	EEEE	2x18er LED Tube in 1200mm a 600mm Trofler Future

2 LEGENDS AND SYMBOLS







TRAPESE THE ISOLOGIE WASHINGTON

GENERAL NOTES

Republika ny Pilipinan
Langsod ny Queece
CITY ENGINEERING DEFARTMENT

PROJECT STILE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF LUZVIMINDA DAY

CARE CENTER /

2 CONNECTION DETAIL

SHESSELEY AND SHESSELEY

60V0006-501

ENGR. NO SIGN. ROSAND ENGR

ENOR 1945ANI R. VERZOGA, JR.

ANDREWS SHEERINGS APPROVAL

APPROXIMENT OV.

HON, MA. JOSEFINA G. BELMONTE OTI WARK, OKESHOTI

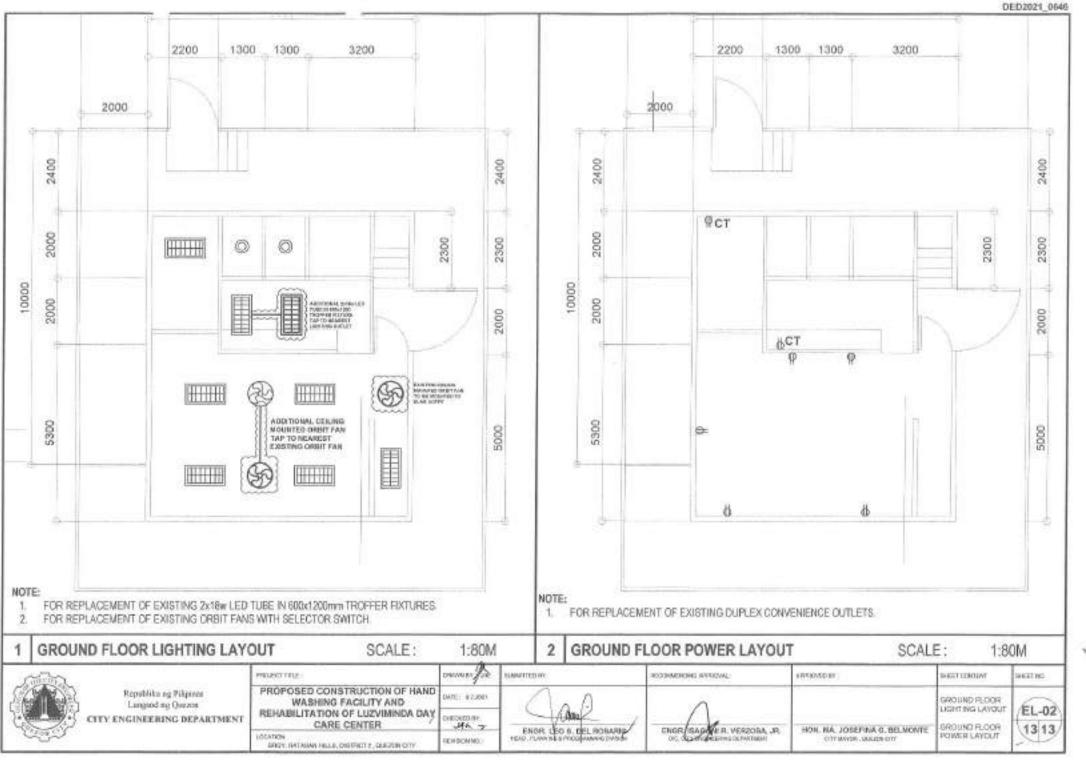
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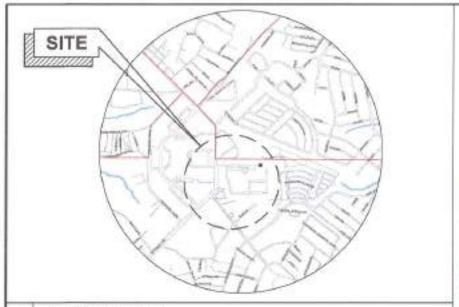
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LOCATION MAP

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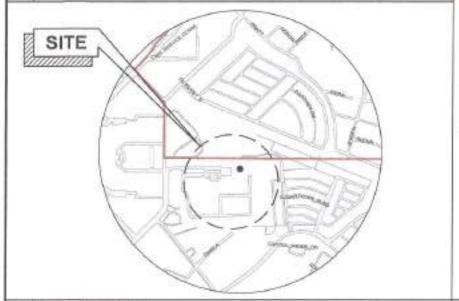




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Afte:	STANDARD COUNTERTOP DETAILS
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E	LECTRICAL
ELA	GENERAL NOTES

LEGENOS AND SYMBOLS CONNECTION DETAIL EL-2 SEMEDULE OF LOADS SINGLE LIVE DIAGRAM PAREL BOATO DIAGRAM SERVICE ENTRANCE DETAILS BL/4 PROPOSED USHTNIS LAYOUT 61-4 PROPOSED POWER LAYOUT

MECHANICAL

ME-1 GENERAL NOTES LEGENER AND SYMBOLE SCHEDULE OF EQUARMENT COURTMENT LAYOUT

LOCATION MAP VACINITY MISP PERPEOTINE

VICINITY MAP PERSPECTIVE SCALE: NTS SCALE: NTS



Republika ng Pilipinas Lurgsod og Quexon CITY ENGINEERING DEPARTMENT

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK PAG-ASA DAY CARE CENTER / LOCATION STREET SATISFANTALIS DEFINETS, QUESTIONS

pineventr: By BURNITED BY DATE: B. INGS CHOSEIN AN NEWWOMAN.

ENGR. LED S. DEL ROSAND

RECOMMENDATE APPROVAL

ENDR. ISQUANI R. VERZOSA, JR.

APPROVED BY

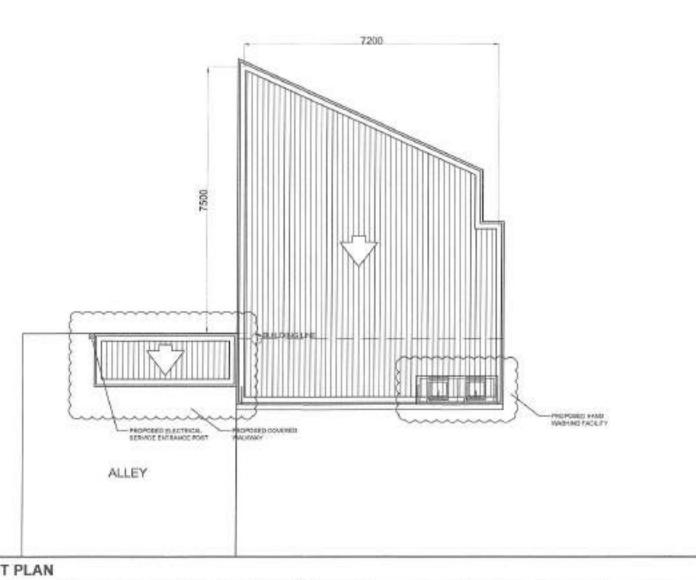
INSTRUCTIONS

HON, NA. JOSEFINA G. BELINONTE

CITY METER, QUICKS/CITY

RESET NO.

AR-1 01 16



1 SITE DEVELOPMENT PLAN

SCALE: 1/5ems



Republika ng Pilajinas Lungsod ng Queson CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF POOK PAG-ASA
DAY CARE CENTER

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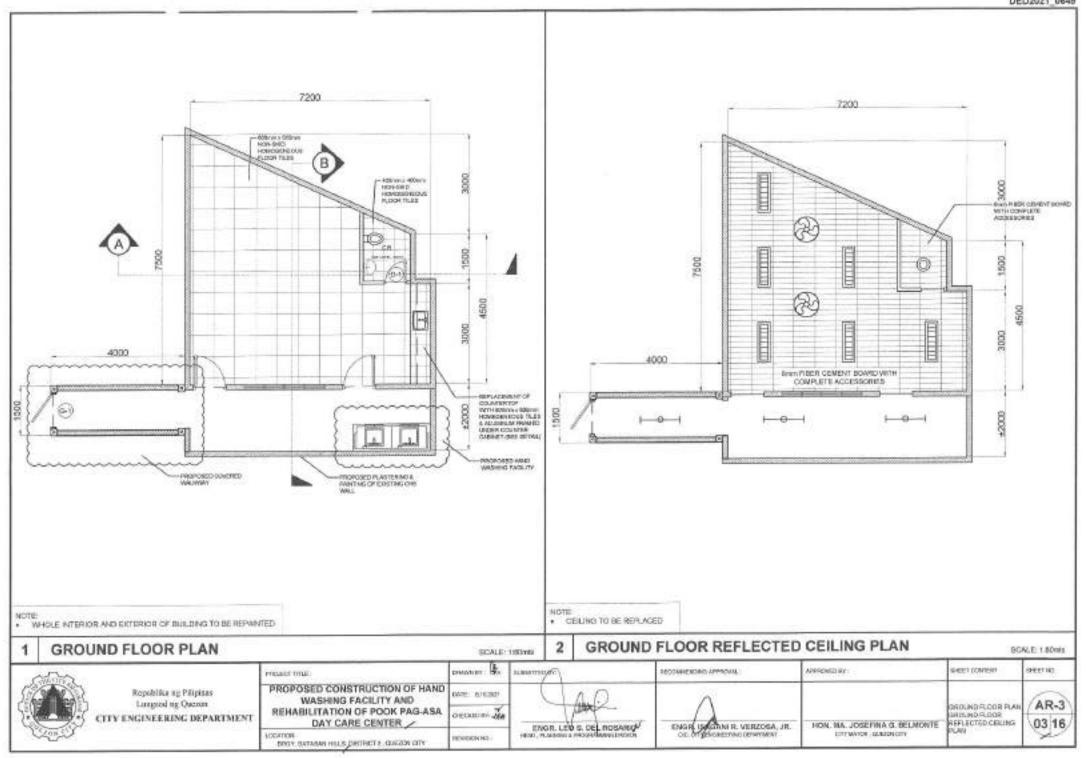
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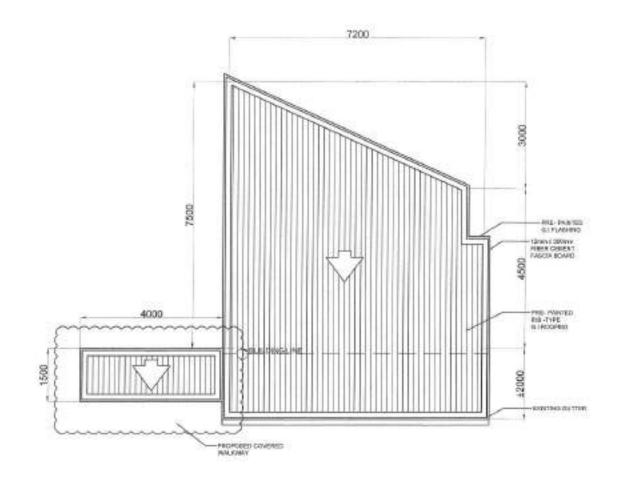
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NOTE: • ROOFING TO BE REPLACED.

ROOF PLAN

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Republika ng Pilipinas Langued og Queston CITY ENGINEERING DEPARTMENT.

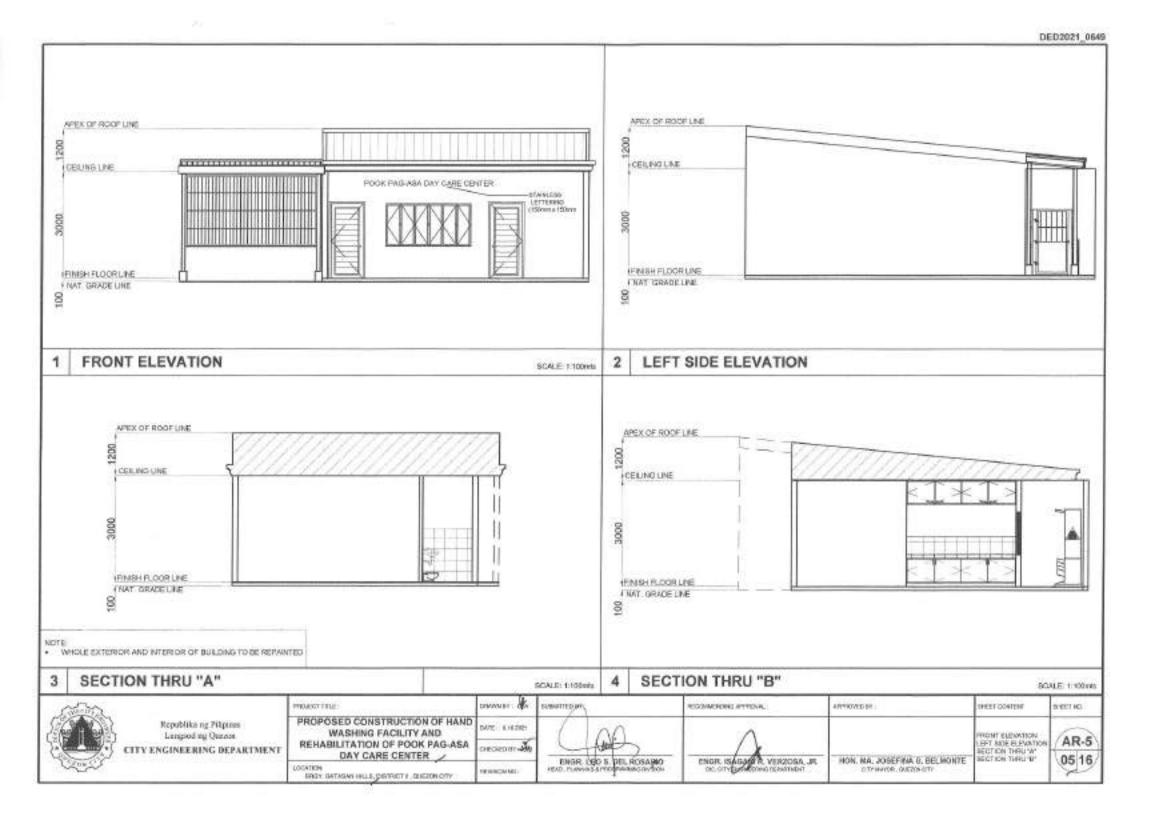
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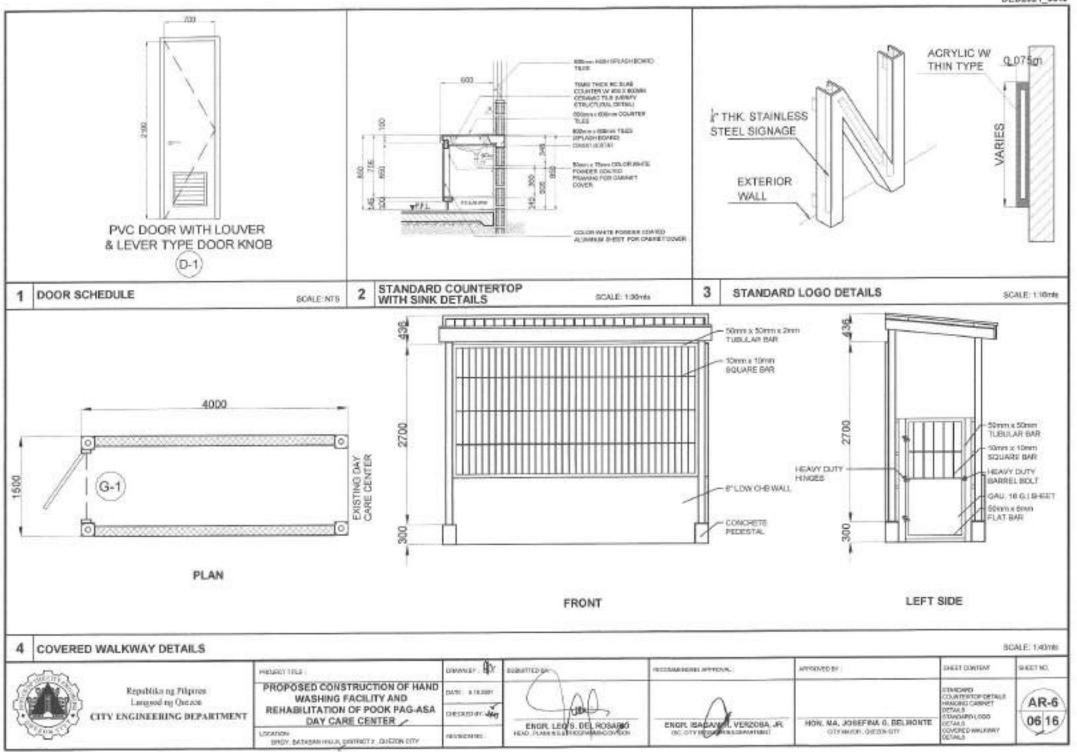
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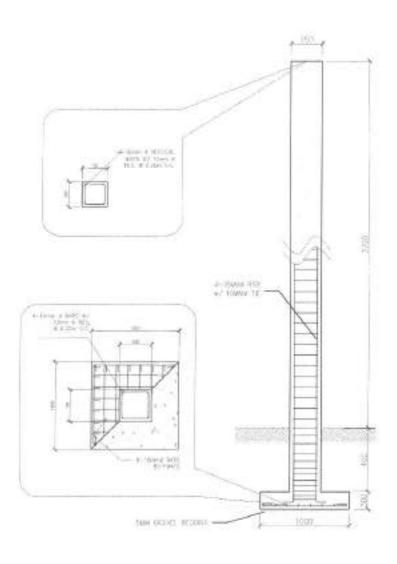
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HON, MA. JOSEFINA G. BELMONTE. CITY MANDY, GRIDBINGTY		

AR-4 04 16





GENERAL CONTRACTOR WITH SHE FIRST, WELL WELL TO ALL CHARGE WITH CONTRACTOR SHEWS OF NOTES WOULD SHOW DOWN THE SHEWS OF NOTES WOULD SHOW THE SHEWS AND AND SHEWS AND SHEWS AND AND SHEWS AN 50mm x 100mm x BHOP DRAWINGS WITH EFFICTION AND MINDRIGHT HARD STILL STRUCK BIA, HOS. 2mm C PURLINS DISCRETE SWINGLAND BY SEE DANCED. CONTRACTOR CAR, I VERY YALL I MENDION REPORT ILL WORKS TO BOOK DISCOVERY 12mm Ø SAG ROD 4000 ABONINGS, AND ELECTRICAL CONTENCT ON COMBINES INTO THE AUTHOR CO. EMERCOGED IN CONCRETE. FIGURE DE CONTRCTORS REPURSAÇÃO TO PROCERVADAM DEPRESAND. PROCESOS DE VINISTORIO POR AL J. D.C.S. THIT ISSUE AND PROCESO PROCESOR CITAL. 6" CHOWALL -- 50mm x 150mm A DISENVICE DISENCE ASSAULT RESISTANCE AND RESISTANCE OF THE PROPERTY OF THE PARTY a dram. DISCONNECTION FOR EXPRESSION OF THE OWNERS WERE BASIC OF DISLOCATIONS OF TUBULAR BAR CONCRETE & REINFORGEMENT TNG DAY CENTER ALTERITACIONO INCREMENTANT, CONTINUADO DE LATER BLADICO. DODE OF IMPORCAN CONCRETE MOTTURE MCXXIII 3 83 CONCERTS TAKES BEING OF A BRIGHAM COMPRESSION STREETS AT THE FIRST OF THE PRINCIPLE. HER PROVINCE COMMENTERS WORLD SE LOSSESCE AN ALAST ACCOUNT 500 STREETS MAK OUT OF HAVE, ELLENY LEGISTER ACKSWINGSTER. CARE 300 PS (2005 No.) A BARDLINES dis. (Micro) to Simo WIF MARK POWERS pomic. WALL POINT HO 8: 50965-GO, MAN WHITE CONTRACTOR -3H in 17146 4 h (90m) MISPENDEDSAN 6' LOW CHB WALL 1500 PG (1139 New 110.02016 in 1894/coacease. Ass. (William) IT SEE THAT SHOW SURES SHALL CONTRIVE TO PLAN SHOP THE TOR THIN O' HELD SHEET SHEET SHOULD CRETTOR SHIP AND LINEST SHEET. I HIS GREEN. THE LOCAL DETINE OF ACUSTS SHEET OF STREET SHEET SH COVERED WALK WAY **COVERED WALK WAY** SERVICES CONTROL STRUCTURES SHALL BE ASPERSO TO SELECT ORIGINATE SHOULD FOUNDATION PLAN SCALE 1:40mis ROOF FRAMING PLAN SCALE: 130000 IF THE MOTH IN BRAINING CONCRETE CONFER FOR REPRODUCING CITES, AS TOLLOWS. CONCRETE DE CENTRO DE LOS YARRESTE DE CUE SHIPTHOUS DANS Eyes SUARCH SENSE \$5000 NUMBER OF STREET Tit see MONTH COLUMN - Short of William Street Control And 4 OFFICES SHALL SELECTIFIES WHEN TIME HER HIS SHALL WITHERSTEIN HARCORISMOS WITH TABLE I THESE OF SATISFAST MEASURED COMARD ENGINEERS OF RESIDENCE. CREWINGS, \$7,000 SHALL BE STRUBERTO IN ENVIOUS POSSIBLE. THE ANOMORED TO COME SHAPE ITTER RECEIPTS SHALL SCHOOLSE VIRGINISHED HAD 3,654,669,069 SDOUGEL IN PLACE RIGHT TO PLANTING OF CONFRICTE A CONTRACTOR SHALL RETEXAND PROVODERS, MINES JAMEOUS MARK SILLS VICELS RESPRENTS AND MICHARDS WARREST AND AND REQUIRED BY THE IMPORTED MAY RECORDS. AND 8° CHB 100mm Ø G.I. INTO HONDA, CRIMANICO RIAL CONDECTE OHALL DE REPTIATION FOR ANAMERICACE SENSO (F) CONSISTATION PRANTS WITLY WITER-POLICING SHITTE LISE OF MET EVIRGA FOR PRANTS GRAND COMPRISADE OF SERVE PIPE SCH. 40 12mm THK APPROXITE METHODS CENSOR STREET, STREET, AND SHORES. BASEPLATE 10mm & BARS CONCRETE currio GHURROWS. 18mm @ ANCHOR BOLT 30100 POLISPINTON. SASTRO-BEE SLAD CO-CEPT SHIEN AROTTO HAS LONG WHIS METOLES FRAME PERSON, DOLLARS, NALLS 2109/6 COVER DIG I PIPE THE DRIVE REPORTED HER PERFORMANCE SHALL SEE MANAGEMENT OF BEAR COMMERCE UNLISS STREAMISTICINED. SCHED, 40 STRUCTURAL STEEL AND PLATES NGL 3-12mm Ø BAR 10mm @ TIES. ALL SPECTURES, STEEL SHALL CODE ON TO HAVE ON BY DESCRICTION TO PRODUCE A STREET, SHALL DAY 2 ANOTHER EFACTORISH EVETS, MLL SHUTS BIRKLY CONFORM TO ASTROMOTE AND INCOME. 2@50, 2@100. 2 WELL HO RICK, ALL YILLIAN & ROSS SHALL NE HAD STIML ILLINGUISE LOSS PROPRIESS THE WITH 12mm @ BAR 150mREST PARMOUTHLE STREETS -- BIDTH POWNENTION @ 300 O.C. I POROVITO O DESIGNO BOYO ON MATERIAL MUDERNI CIDO DE THE PREVINDENCE MUNECUMARA tanın ØRSB - The Took MAY NATE SOLISMS SCHOOLS ASSOCIA I FOLKSYSTE SHILL HELT SCHAFURE, SIX, GLUNGCHERGER SCHED BY THE RECEIVED AND PART OF THE POSITION CONTROL WISTORIAL The B MATHOR BOLD SP SHOWS NO THE CONTINUE ON SALL HOS STORE ENGINEES AND COMPLETION OF POSICIONS DOWN FOR HEIS ACTIVE, SOIL CONDITIONS WHICH BO HOT COMPONINTS THEIR BUILDINGS ON NOT THREE POSICIONS. 400 _ MASONRY WALLS EAL HOPERING A WORK ASSESSED THAN HE IS NOT RECEIVED A PROPERTY OF THE PROPERT W1F1 A SPECIFICATIONS OF THE STRUCTURAL PORE OF THE PHORPHOSA INFORM BLADING DOSC A MUSTOR & GROUT FOR ALL CONCRETE MISCHIEF SHIEL, COSTORE TO ASTREETS. PRICES SHALL HAVE AUTRORISE OF SECOND STANDARDS CREATED FOR COMPRISON STREETS OF SECOND STANDARDS. E.A.L. CHESTALL SELECT WITH THE CITE ENLISHMENTS LITTLY VEHICLE CONTINUES. ALL DELIGIBLES THOSE WITH RESPONDENCE WALL SCREEN WHICH A DESKRIPTION AS THE LOTTE BE ON HALL BE MICKED THE EST CHROMED SECTION FOR HAIL E. ALL HALDWAY WALLES HALL REPROVIDED WESTERDIED BEAVILLORS OF THE WARRANGED REP. ILA PONTROPIVALI EN EVERY ROTTON E CALIMI BIETATROS DE ONOBRESE. EX PORDOCOREA WINDOWS OPENIUS PRINCIPLINES, REMISSINE AS CORRESPONDED DOS WALL FOOTING PEDESTAL NOT TO SCALE ROOF DETAILS GENERAL NOTES SCALE: NTB SCALE: NTB SCALE: 140mbr DETAILS DETAILS at WANGE OF THE PARTY PROJECT TITLE DUMENTED \$40 RECOMMENDATIONAL APPROXIDATE INVESTIGATION TEMPOR 9427 50 PROPOSED CONSTRUCTION OF HAND SENERAL MOTES Republika ng Pilipinas SWITE: KIRJANE! FOUNDATION PLAN ROOF FROM BOX PLAN WASHING FACILITY AND Lungsed ng Quezon ST-1 REHABILITATION OF POOK PAG-ASA WILL POOTING DETAILS eft.moscom. CITY ENGINEERING DEPARTMENT STREET, WITHOUT DAY CARE CENTER / BOOF DRIVES 07 16 ENGR. ISAGON R. VERZOSA, JR. HON, HA. JOSEFINA G. BELMONTE ENSH, LED S. DEL ROSAMO MONTACOL DITY MAYOR GUILDINGTY ENGINE NO. BROY BATABAN HILLS DISTRICT 2 CHEROSCHY



SERVICE ENTRANCE POST DETAILS

SCALE: 100 vts. DEED NO.

REPORT CONTROL



Ropublika ng Pilipinas Langued ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE	commercial &	DAMPING IN
PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND	GATE: 8.10,0001	
REHABILITATION OF POOK PAG-ASA DAY CARE CENTER	CHECKED ON JOS	
JOCKSON BROV SATABAN HELIX SHITBUT P, CLEZONOTY	(NEVERON NO.)	HORD, PLANSE

GHTE: 6.10,2021	AA
CHECKED BY AN	(MA)
(MANAGON ACC)	ENGR. LEG S. DEL ROSARA

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NGR. L	OS DE	L ROSANO
ENGR. LI	Maconin	L ROSARIO MINISTORNO

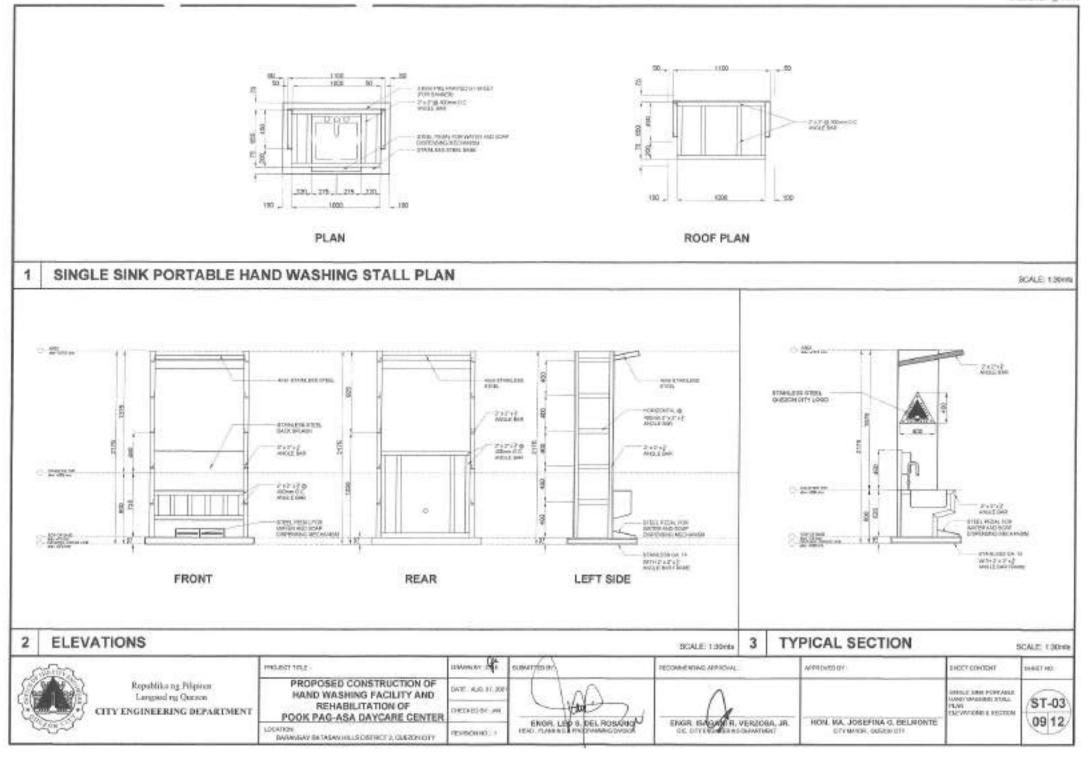
Λ
ENGR. ISAGAN R. VERZOSA, JR.

TECONACIONAL APPROVAL.

		BENNON
	MA, JOSEPHA G, BELWONTE CTYRWOR, DESIGN CTY	

APPYOVED BY

ST-2 08 16



- 1 All plumbing works and realested indicated herein shall be compliant to the provisions of the latest edition of National Plumbing Code, the sides and regulations of local authorities concerned, the nates and regulations of local atility companies and the provisions of the land developer when and where applicable.
- If The planning layout is only diagrammatic; pipes, cleancuts and check valves shall be concealed as much as possible. It is not elanded to show the ectual dimension of the poss and follows in the straying but of the pipes. and fixtures shall be installed as and where indicated. Any relocation will require proper execution is relation with
- 3 The pluriting contrador shall verty all existing utilities at the oile and shall coordinate the york with other tradus.
- A Pipes shall not be embedded in structural members unless otherwise specified or allowed.
- 5 Winimum slope for hottomal sower lines shall be 116 and for drain lines shall be 516.
- 6 Proposed plumbing utilities shall conform with the actual location, depth and invertidevation of all existing pipes/stitles.
- If Connection of Estures to pipes and 'Ránge shall be according to manufacturar's specifications.
- # All floor drains shall be vented includually.
- # All clean out terrules shall be flush-mounted to wall and shall be provided with polished cover page. Do not install floor sister outs except at inea on grade and serice areas not subject to buffic.
- 10 All underground G.1. pipes in direct contact with soil shall be provided with two [2] soats of protestive far covering and wrapped with ate doth thoroughly so sleed in tay or arghait.
- 11 Provide vert stack and work pipe thre root of cost iron service weight an required.
- 12 All cost iron pipes shall be of approved quality and G.I. pipes for water distribution lines shall be Schedule 40 U.S.
- 13 Provide gate valves to all water supply lines to Educas.
- 14 All hot water lines shall be provided with proper insulation where exposed.
- 15 All individual transhes to linkurse or group of fistures and/or equipments shall be provided with air chambers or copped vertical pipe automators of disservators as shown
- H = 450 mm for 10 mm 8 and larger
- H = 300 min for 12 mm 8 and smaller
- 16 All hose bibbs shall be 19 mm (3 (3/4" (3) unless otherwise indicated.
- \$7 Inlet pipe of sopilic tank is 50 mm higher than the option pipe which is 30 mm higher than the outer pipe.

Republika ng Pilipines

Longsod ng Quezon

CITY ENGINEERING DEPARTMENT

18 All plumbing works and manner of construction shall be under the direct supervision of an able and duly learned Master Plumber of Registered Senitary Engineer. Any discrepancies found in plan shall be notified to the same person.

8 TH 5/71	110100	2187	25/254	9 to 11	6000	KIT!

0	FLOOR DRAIN
TI.	HOOF SHARE
HO.	SHOWER
VC.	MATER CLOSE

LANATORY LAY URL DRIVER

145 KITCHEN SINK

TURED BY DRAWN

OD. DEDKOWN

CERLING CLEANCH! FLOORIGROUND CLIEURIU, IT

DOWNSPOUT

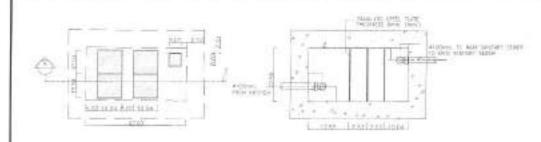
*** OWNETER SHOWER DRAW

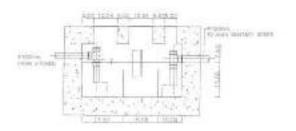
CATCH BASIN Malester Medi

DIRECTION OF FLOW

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25%	S RECTION OF FLOW/SLOTE

LEGENDS





GENERAL NOTES

MOJEST TIME:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK PAG-ASA DAY CARE CENTER /

MODATION: TERSY, BATKSAMPLEA DISTRICT V. QUEDON CITY promour be DATE: 8:10,0001

ADVISIONINO:

PAR TO GROOM

SUGGETTED DO:

GREASE TRAP BLOW-UP PLAN

ANCHEN CHIRARRICAL

APPROVED BY

DIKET CONTENT

SHEET NEX

CONCRAL NOTES LICENOS AND SHIRESS Chinas Team BLOW UP PLAN

ENGH. LEG S. DEL ROSANGO

ENGIL ISAGANTR. VERZOSA, JR.

HON, MA, JOSEFINA G, BELMONTE DEVMANOR: GUEZONOTTE

PL-1 10 16

SCALE NTS

- ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATERY FORTHOW OF THE PINE PLACETRICAL GODE, THE LABOR MAD ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANY.
- 2. THE CONTRACTOR SHALL SECURE ALL PERVITS AND PAY ALL FEES REQUISED FOR THE WORK AND BHALL PLANSER THE OWNER THROUGH THE ENGINEERS FRAM. CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETION OF RORK.
- 2 ALL EMBEDIES DRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION B-WLL BE EVELOR BLOCK EXPROPERTED BY CONDUIT CLAMPS EVERY TRO INC. INSTERNA
- 4. PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR INHEREXER RECESSARY TO FACILITATE WIRE PULLING EVEN IF THESE ARE NOT INDICATED ON THE FLANS SLEWS OF ALL PULLBOXES BAILL BE COMPUTED BASES ON THE COSE REQUIREMENTS, SUBJECT SHOP CRAWMISS TO THE ENGINEER FOR APPROVAL. FROR TO PARRICATION, LOCATION OF PULLBORED SHALL BE APPROVED BY THE ANOHITECT/ENGINEER AND MUST BE REPLICITED ON THE "MARKEL" PLAN.
- ALL POWER DUTLETS AND SWITCHES SHALL SE IMPOUNDING TYPE WITH PARALLEL SLOTS FOR JOUV.
- 8. PROVIDE CROUND FAULT GURRENT IN TERRUPTER CIRCUIT SPEAKER FOR LOADS MARKED TAYOF ON THE PLAN.
- ALL METALLIG CONDUTTS. CARRIETS AND EQUIPMENT SHALL HE PROPERLY OPERLINIED AND HONDED.
- 5 UNLESS O'THERRIBE NOTES MIDUITANG HEIGHT FOR WALL MIDUITED BOYASIS SHALL BE AS FOLLOWS

RECEPTAGLE OUTLET - 306 MM ATT : ESMA ABOVE WORKING COUNTER.

LIGHTING SWITCH - HOS MILATE

PANELEGARD - 1000 MM AFF

- REFER TO MICHARICAL, PLUMBING AND FINE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL SEQUENCES. AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- III. ALL MATERIALS TO BE USED SHALL BE OF THE BEST QUALITY. BRAND HERI AS SPECIFIED.
- 11 THE DRAWINGS AND SPECIFICATIONS ARE INTERCED TO PRESENT GENERAL LAPOUT AND BROAD OUTLINGSESSAMMON OF THE PROJECT BUT DO NOT NECESSARILY INDICATE/DESCRIBED ACTIVAL LOCATIONS, LEVEL AND DISTANCES OF THE EDUTIMENT, THE ODISTRICTOR IS HEREIT REQUIRED TO MAKE SLICK ADJAINSTRENT AT THE JOSSITE AS LOCATION, DISTANCES AND LEVELS ARE CONSTRUCT ACTUAL FIELD CONDITIONS.
- 12. MY DECREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE INDUCED TO THE ATTEMPTOR OF THE ENGREPATION CLASSICS FROM DECEMON.
- 15 ALL DOMINO AND CONVENIENCE CUTLET CIRCLETS SHALL BE 35.50; BM THAN 3 DOMINE WIFE LIALDED CRACKWAY NOTCH MINIMA SOF DE WIFE SHALL BE \$5.50, MM, COPPER WIRE, ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

LINE 1 - RED

LBE 2 - YELLOW

RECEPOIL-MATE

DEBRO-DAUGRO

OVER YEARS

- 14 BOXES, WIRE, GUTTERS, ENGLISHING SHALL BE PARTICULATED FROM DEED, WITH THOO WESS AS FOLLOWS:
 - MAXIMUM WIETH OF THE WIDEST SURVACE STEEL.

UP TO INCLUDING 15240 NM GA 15 PAINTED WITH METAL PRIMER EPONY AND TOPCOAT OVER 152.40 MILEUT NOT DMIR 457.00 GA 11 PARTIES WITH METAL PRIMER SPOKY AND TOPCOAT CHER 457 30 MINURUT NOT DVER 740 MW ON 12 PAINTED WITH METAL PRIMER EPONY AND TOPCOAT

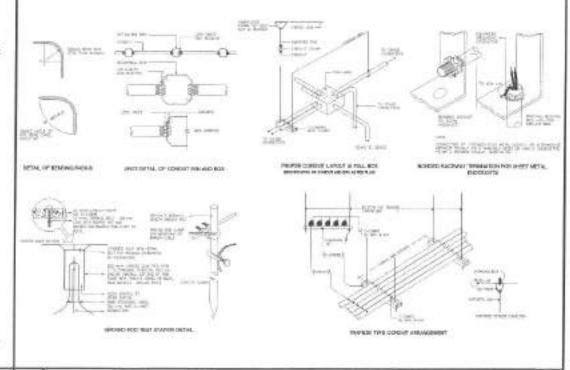
15. ALL ELECTRICAL BUTKER HERE IN IDIALL SE EXECUTED BY CAPCRETICES WENLINDER THE DIRECT SUFFICIAL FINAL TIME LICENSED ELECTRICAL ENGINEER AND ADJULY ACCREDITED ELECTRICAL CONTRACTOR BY PICAL INDRY 5 SHALL BE MEATLY PLACED, SECURELY EXISTENCE AND IMPORTAL. **EARDINGS**

CACHOL CAR VACABLE BRITAL BETALL PERMISH BROWN AND TOROCK T

- 16. TYPE OF SERVICE ENTRANCE GHALL SE SINGLE PHASE. TWO WIFE PLUS GROUND, SO HERTZ 2001 AC NOMBALL
- 17. CONDUETS IN NO CASE SHALL THERE BE WORE THAN THE EQUIVALENT OF FOUR CONFIDENCIES IN ANY ONE RUN ALL CONDUIT EDIOS SHALL BE FELD ANGE. BY USING HYDRASUC BENDERS, HIS MUM BENDING PARDUS MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.
- 15 UPON DOMESTION OF SUBCTRICAL CONSTRUCTION WIRE. INSULATION RESISTANCE TEST AND PLANTING VALUE FEBRUARY BY THE CONTRACTOR INCLUDATE OF THE HISTALLATION TO BE REPORTED BY DETAILS ON FORMS APPROVED BY THE QUESTION OFF SHOWS SHOW DEPARTMENT REPRESENTATIVE. THE GREUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE MOSE THAN SCHARL COMMUNICATION ORGANISMS RESISTANCE SHALL NOT EXCEED 1 CHAS.

₽	Deplex Convenience Outlet	9	Orbit Fan with Selector Switch	
\oplus	Duplex Convenience Outlet (Elev. 0+002.2m)		Lighting/Power Panel	
0	150mm@LED Pinlight	6	Clouk Homerus	
UII III	1200mm x 200mm LED table in Troffer Ridure	0	Utility Service Meter	
X	100mm x 100mm Ceiling Mounted Exhaust Fan	-1	Circuit Breeker	
s.	One Geng Switch		Grounding	
SZ.	Two Gang Swich			

LEGENDS AND SYMBOLS



APPROVED BY

GENERAL NOTES



Republika ng Pilipinas Langeod ng Quezon

CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF POOK PAG-ASA

DAY CARE CENTER / BROY BATKBON HILLS DIFFRCT 9 QUEZOUDTY

CONNECTION DETAIL



0.675 k (0.608)

REVISION NO.

	\wedge
	/ X
ENGR. IS	WEARIN. VERZOSA, JR.

HETCHMENDAM APPROVE

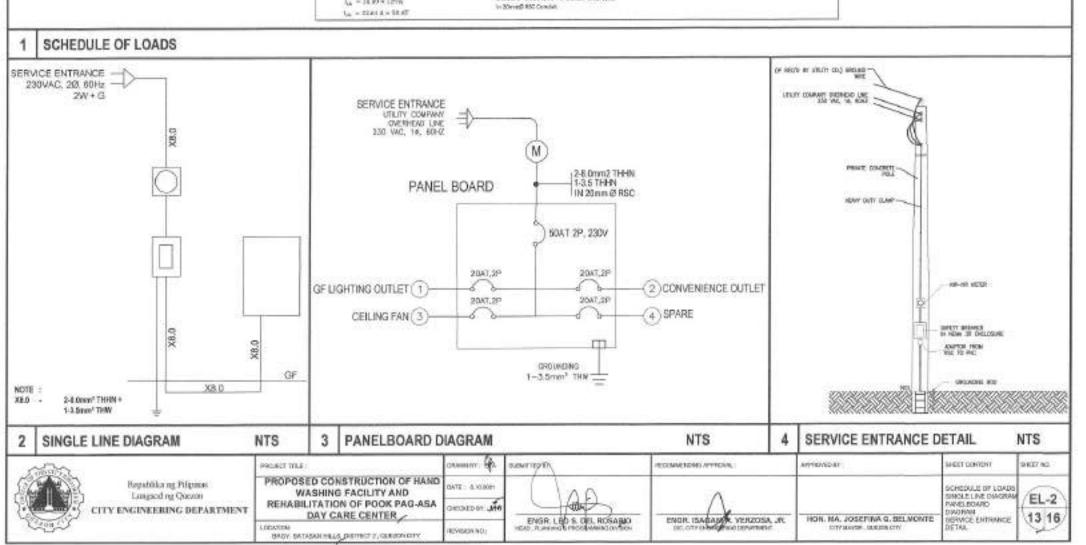
		GENE LEGE SYMB
HON	MA. JOSEFINA G. BELMONTE DEFINADO, GUERNOTA	DETA

ERAL NOTES	10
ENDS AND BOL	EL
PERCHON	12

B#27/40

SHEET CONTEM

PAMEL 1	NAME: IFF		1100.40			MARK:	99AT, 200	WI, 2P, 991s,	SWV, Baltion		
11000			BATTERS	ATTING OWER CHARGINT PROTECTION					- SSSS-2	10090331	
DOI NO.	DESCRIPTION	W		.4			30.00	200	SERVING STEEL	HER	2006
			-	0.7	AT:	10		THINE		reces	7.0.4
8	(Agring Ochris	1300	589	1:23	.00	1807	2	Laboral	2-1 Smart (1886) + 3-2 Smart (19		rvc
3	Sarverierus Osrbe	120	239	313	70	180	2.	Estima	>XServe*Yees+ 1-2 firev*TM	10	FIE
)	Earling fun	686	1107	124	10	160	1	Litter	215mm*THM+ 23.5mm/TM	38	Pyc
	Spew	1040	310	8.00	20	360	(8)	Edition)			
15.00	1004.	4160		19.0%							
COMPUT	$I_1 = \frac{4160}{216}$ $I_2 = \frac{4160}{216}$ $I_3 = 18.89 \times 127W$ $I_{3,4} = 38.89 \times 127W$ $I_{3,4} = 22201.4 = 98.87$		1600	(000+,3F) 9.50()	90%, 2189, W(+ 3-3.1	TANK AND THE W					



1.All pluriding works and materials indicated herein shall be compliant to the provisions of the latest edition of National Plumping Code, the rules and regulations of local surfrontes concerned, the rules and regulations of local utility companies and the provisions of the land developer when and whem applicable.

2 The plunting byout is only diagrammatic pipes, depresses and check values shall be consessed as much as possible. It is not intended to show the actual dimension of the pipes and foliates in the drawing but all the pipes and foliates in the intended as and where is dealed. Any relocation will require proper execution at relation with related to the pipes.

3 The plumbing contractor shall varily all arising utilities at the site and shall exertinate the west with other tradus.

A Pasis stail not be embedded in structural members origins otherwise specified or allowed.

5 Minimum stope for horizontal sawar tines shall be 1% and for drain lines shall be 5%.

6 Proposed plumbing utilities shall conform with the actual bootlon, stepth and invent elevation of all oxisting piposiutilities.

7 Connection of fixtures to pipes and fittings shall be according to manufacturer's specifications.

8 At Your drains shall be narried individually.

9 At door out torules shall be flush excurded to wall and shall be provided with polished cover cape. Do not restall floor clean outs except at lines on peaks and sevice areas not subject to traffic.

10.At underground G.I. pipes in direct contact with sail shall be provided with two (2) coals of protective for covering and wrapped with jule cloffs thereughly scaled in two or rephalt.

11 Provide west stack and vent pipe than soof of cast iron service weight as respilast.

12 At cast inin a bas shall be of approved quality and G.I. pipes for water distribution lines shall be Schadulo 40 U.E. standard weight.

13 Provide gate valves to all water supply lines to bitassa.

14 At hat water lines shall be provided with proper insulation where expenses.

15.All individual boundnes to fedures or group of flatures and/or equipments shall be provided with all chambers or capped vertical plos settentions of dimensions as shown:

H = 450 mm to 115 mm Ø and larger

H = 380 rare for 12 csm Ø and smaller

16 All hose blobs shall be 19 mm Ø (3 PF Ø) snices atherwise indicated.

17 (elst pipe of suptic tank is 50 mm higher than the sighon pipe which is 30 mm higher than the outlet pipe.

18 All plumbing works and number of construction shall be under the direct supervision of on side and duly issuessed lidester Plumbar or Registered Senday Engineer. Any discrepances found in plan shall be redified to the same person.

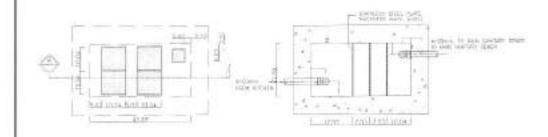
4 674 3000	THE COURSE OF TH
PD BD	FLOOR DRAW BOOF DRAW
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000	CERTING EFFANORA
FOD	FLOOR/GROUND CLEANOUT
06	DOWNSPOUT
1911	and distances
a.	THE DISCHIFTER
SHE	SHOWER DRAW
638	CATCH BASH
341	MANHOLE

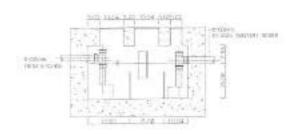
DIRECTION OF FLOW

L. PROTUBES AND OTHER LEGENO

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	ISATE VALVE
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and the last	MPEUP.
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15 -00.5	CONCRETE PART PRINT COSE. AND
122	VERY THRU ROOF
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2 LEGENDS





1 GENERAL NOTES

Republika ng Pilipinas Lungsod ng Queson CTTV ENGINEERING DEPARTMENT 3 GREASE TRAP

PENDOUNE!

PROPOSED CONSTRUCTION OF HAND
WASHING FACILITY AND
REHABILITATION OF POOK PAG-ASA
DAY CARE CENTER

BROY, BATASAN HILLS, DIVERCES, GLEZON DRY

ENGR. LEG S. DEL ROSANSE BILL RUMBERS (PROSANSE) DISTON

VIOLENT MARKET

ENGR. ENGLAPH. VERZOGA, JR.

TAYONAN WICHIGAN

ARRHOVED EY!

COMBAL NOTES
(SEEDING AND SYMBOLS)

DOY MAYON, QUESTIONS

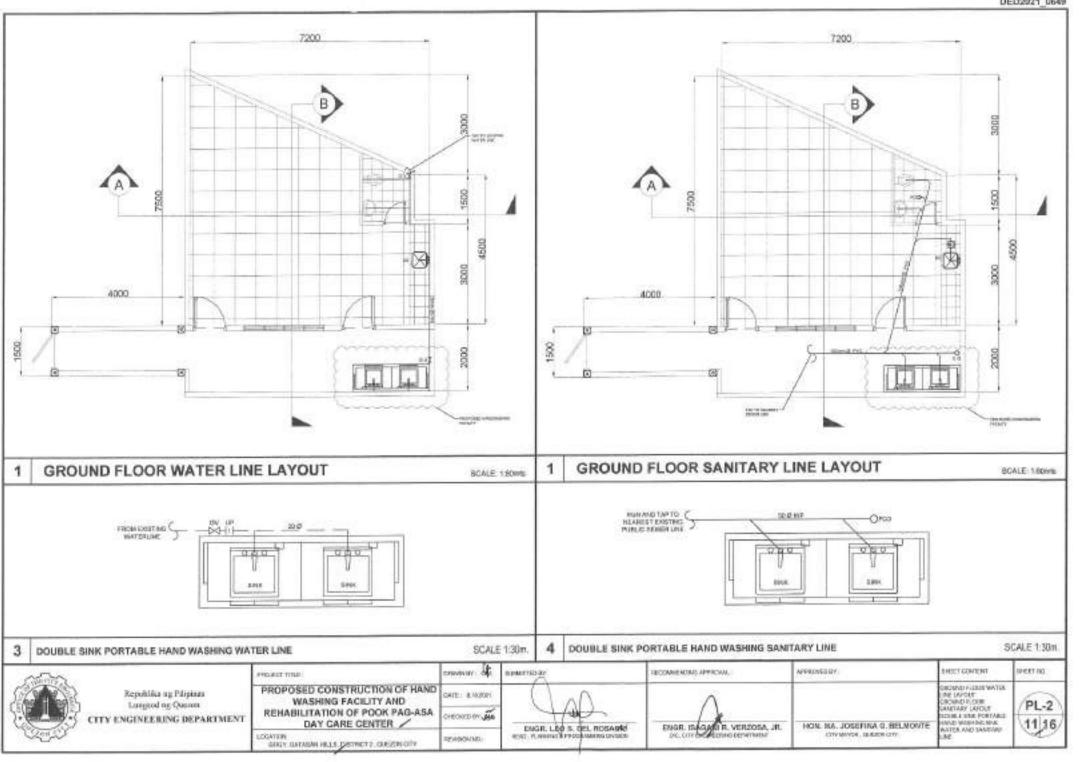
NOTES PL-1

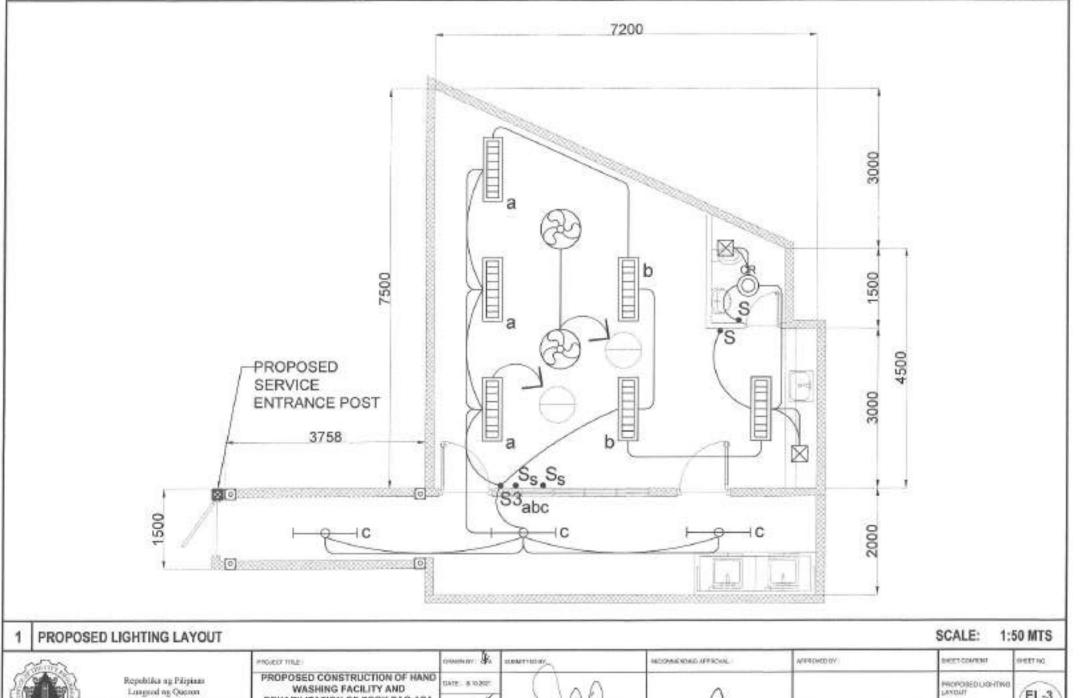
SHEET COMMENT

SCALE: NTS

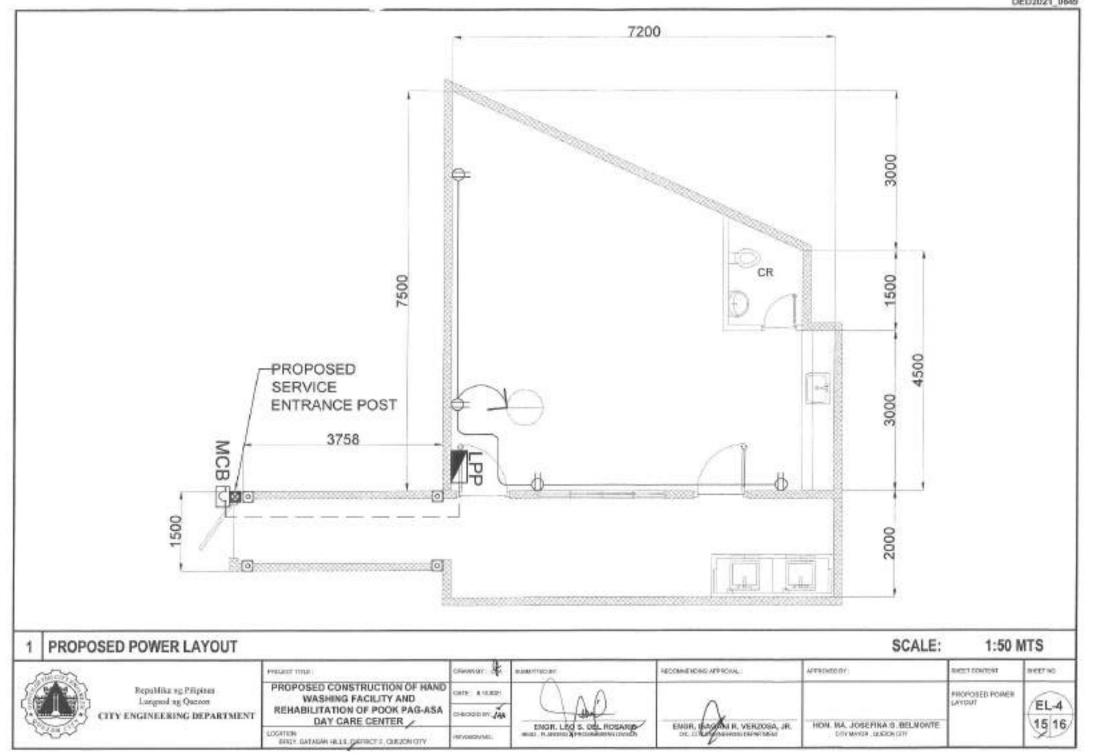
DESCRIPTION OF THE PERSON

3 GREASE TRAP BLOW-UP PLAN





EL-3 REHABILITATION OF POOK PAG-ASA GROSSIN AND CITY ENGINEERING DEPARTMENT DAY CARE CENTER / 14 16 HON, MA. JOSEFINA G. BELMONTE STYMMOR, QUEDILITY ENGR. LEGIS. DELI ROSANDO HILL R. MINISTER DESSANDARIO LINGGO ENGR. ISAGANTA VERZOGA, JR. EDISATION BROY DATASAN HELD JOHTTRCT 9 CUEZONIOTY



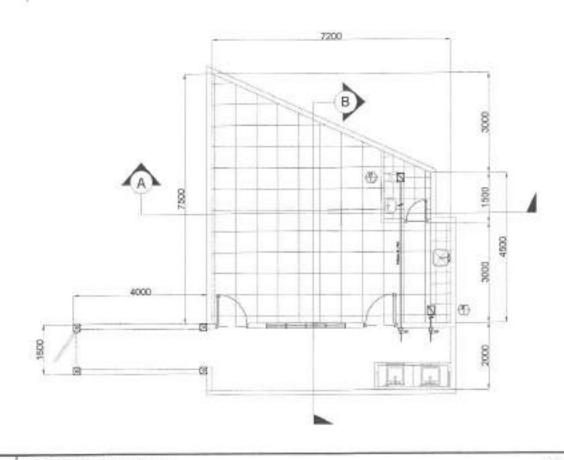
ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE NATIONAL BUILDING CODE, PSIVE CODE AND THE FILLES AND REGULATIONS OF QUEZON CITY.

- 2. THE BOOPE OF WORK SHALL INCLUDE ALL WORKS. DESCRIBED IN PLANS.
- 1. THE WORKS SHALL BE EXECUTED IN CLOSE COORDINATION WITH ALL OTHER TRADES.
- 4. ALL AIRCONDITIONED SPACES SHALL BE MAINTAINED AT 24°C DB AND 50% RH.
- 5. CONTRACTOR SHALL SLEMIT SHOP DRAWINGS, MANUFACTURERS CATALOGUE, SPECIFICATIONS, SAMPLES, INCLUDING VIBRATION ISOLATORS BEFORE EXECUTION OF WORK.
- 8. ALL FLOOR SLAB MOUNTED VIBRATING EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATORS TO PREVENT VIBRATIONS AND NOISE TRANSMISSION.
- 7. EQUALIST FAN SHALL BE PROVIDED WITH SUITABLE FLEXIBLE CONNECTIONS TO DISCHARGE DUCT.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING OF THE WHOLE VENTLATION AND AIRCONDITIONING SYSTEM AND INSTALLATION.
- 8. ALL POWER WIRING SHALL BE ELECTRICAL AND TERMINATION TO EQUIPMENT SHALL BE MECHANICAL.
- 16. PROVIDE CONTROL WIRING FOR AIRCONDITIONING EQUIPMENT.
- 11. PROVIDE THERMOSTAT FOR ALL INDOOR LINITS (FAN COIL UMITS.
- 12. VERIFY LOCATION OF CONTROLLERS AND SWITCHES ON ELECTRICAL PLANS.
- 13. ALL PIPE EQUIPMENT CONDENSATE DRAIN SHALL BE CONNECTED TO THE NEAREST FLOOR DRAIN (AD ACB
- 14. PROVIDE GUIDES, HANGERS, AND SUPPLEMENTAL STEEL. SUPPORT FOR ALL PIPING, DUCTING AND EQUIPMENTS.
- 16. PROVIDE PIPE SLEEVES FOR ALL PIPING PASSING THRU BUILDING STRUCTURE.
- 16. ALL PIPE DIMENSIONS ARE IN MILLIMETER UNLESS DTHERWISE NOTED

1	GENERAL NOTES		
0	- EQUIPMENTITIESIGNATION	D	- AR COOLED CONDENSING UNIT
—F0?	- REFRICERANT RPE		- ELBOW UP
K	- BALL NOUNTED PRODUCT UNIT		- ELBOW DOWN
	- NUCLOW TYPE AR CONDITIONER	FCU	- FAN COIL UNIT

DESIGNATION	LOCATION QUANTITY	TYPE	AR VOLUME	FORCE NPUT	ELEC	TRICAL 8	WPPLY.	REMARKS
SCSRIPPLICATE	DOCKINGS SUSPINIT	TITE.	CIBA	WATER	VOLTS	PHASE	HERTZ	UNITS SHOUL BE HOLFFED WITH DISCHARGE COTLE
(F)	HS SHOWN 25ET	CELLING MOUNTED	189-190	28.	250.8	18	60.0	TAPERSO DUT ADAPTER, CAE-TOICH SPRING FWE LOUAER & AN ADAPTER CONTAINING A REVENUE R_DIS PREVENTION SHUTTER

SCHEDULE OF EQUIPMENT



LEGENDS

Rogebilka ng Pilipinas Lungsed ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND

WASHING FACILITY AND REHABILITATION OF POOK PAG-ASA DAY CARE CENTER

SROY HATASAN HILLS, DISTRICT P. GLEVEN CITY

EQUIPMENT LAYOUT

CRUMBINS OF SUBMITTED BY: WIE & 10,000 SALL VICENCES

SEVERON MO.

PETCHALIGHE ATTYCKS.

ENGR ISAGANER VERZOSA JR.

APPENDING.

STREET, A DITTE ECENTS AND SYMBOLS EMPERATION FOR BOILDING DURING ME LAPOUT

Brezzi Cobinski

ME-1 16 16

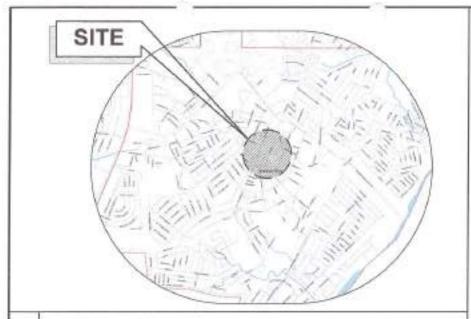
Destino

SCALE: 1.80 MTS

PROJECT TITLE

ENGR. LED S. DEL ROSANIO

HON, NA. JOSEFINA G. BELNONTE DOTO MINORIA, GLIGORO CITY



VICINITY MAP

SCALE:NTS

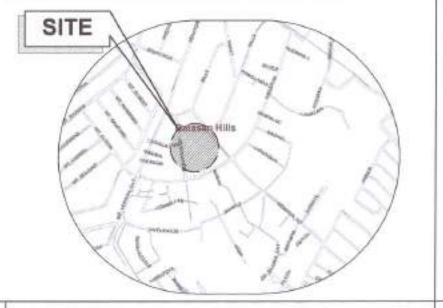




TABLE OF CONTENTS

ARCHITECTURAL ARIOT LOCATION PLAN VICINITY MAP PERBPECTME AR-DE SITT DEVELOPMENT PLAN AR-00 PROPOSED GROUND FLOOR. ROOF PLAN DROUND FLOOR PEFLECTED CELLING FLAN ASHIN THORT YEW LEFT GOD VIEW TOULET DETAIL AR-95 DOORS AND WINDOWS SCHEDULE WINDOW ACCESSORIES DETAIL HANGING CASINET DETAIL. COUNTERTOR W/ SINK DETAIL STRUCTURAL

ST-01 SINGLE SHIK POHTABLE HAND WASHING STALL PLAN CLEVATIONS & SCIETCH ST-02 PDOF FBAMING

TRUBS DETAIL (TR-1) TRENCH CANAL DETAIL

PLUMBING

-91 GENERAL NOTES LEGENDS AND SYMBOLS WARTE/ SEWER LAYOUT WATERLINE LAYOUT

ELECTRICAL

ELICI GEMERAL NOTES LEGENDS WITH SYMBOLS MISCELLANEOUS DETAILS EL-02 BHOLE LIVE DWOLVIN SCHEDULG OF LOAD PANEL BOARD DIAGRAM ELECTRICAL BETWICE ENTRANCE DETAIL

EL-60 BY LIGHTING LAYOUT IFOR REPLACEMENT

MECHANICAL

ME-OT GENERAL NOTES LEGENOS AND SYMBOLS EDMPMBYT LAYOUT

LOCATION PLAN

SCALE NTS

PERSPECTIVE

SCALE: NTS

Republika ng Pilipnas Lungsoding Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

BANKABAY BALABAN HILLE SIETPICT 2, GLESSON DITY,

SHAPE OF PERSONS DATE: AUG. 01; 800

CHECKHO BY JAM

HEWSON NO. 1

ENGR. LEO S. DEL ROSARIO

ANCHER MAINTINANCES

ENGR. MAGNIFIR VERZOSA, JR.

HON, MA. JOSEFINA G. BELMONTE. OTY MAYOR, QUODON OTY

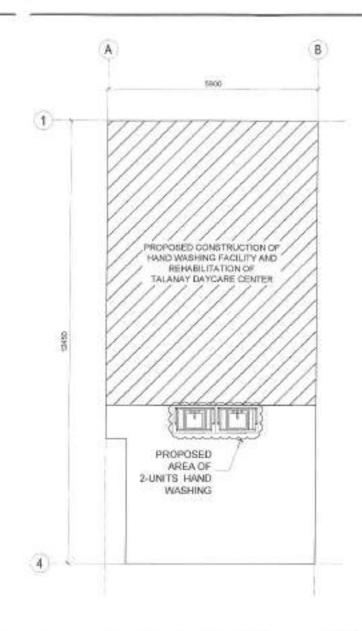
WALKER BOOK

REPUTY NOW CONTION PLAN

THE PERSON NAMED

AR-01

BHILLIAN.



SITE DEVELOPMENT PLAN

SCALE: 1:79VTS

9400.90



Republiks og Pilipina Lungsod og Quexos CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

DISTANCE Y BATASANCHILLS DISTRICT Y, COEZON UTY

OWNER SEE STANDARD OF SECOND SEE

DEVERONNO: 1

ENGIN, LIDO IS DEL ROSIÁRION HEIO. PLANSITE PODEMINIS DIVISIO

ENGRAPHENAM R. VERZOSA, JR.

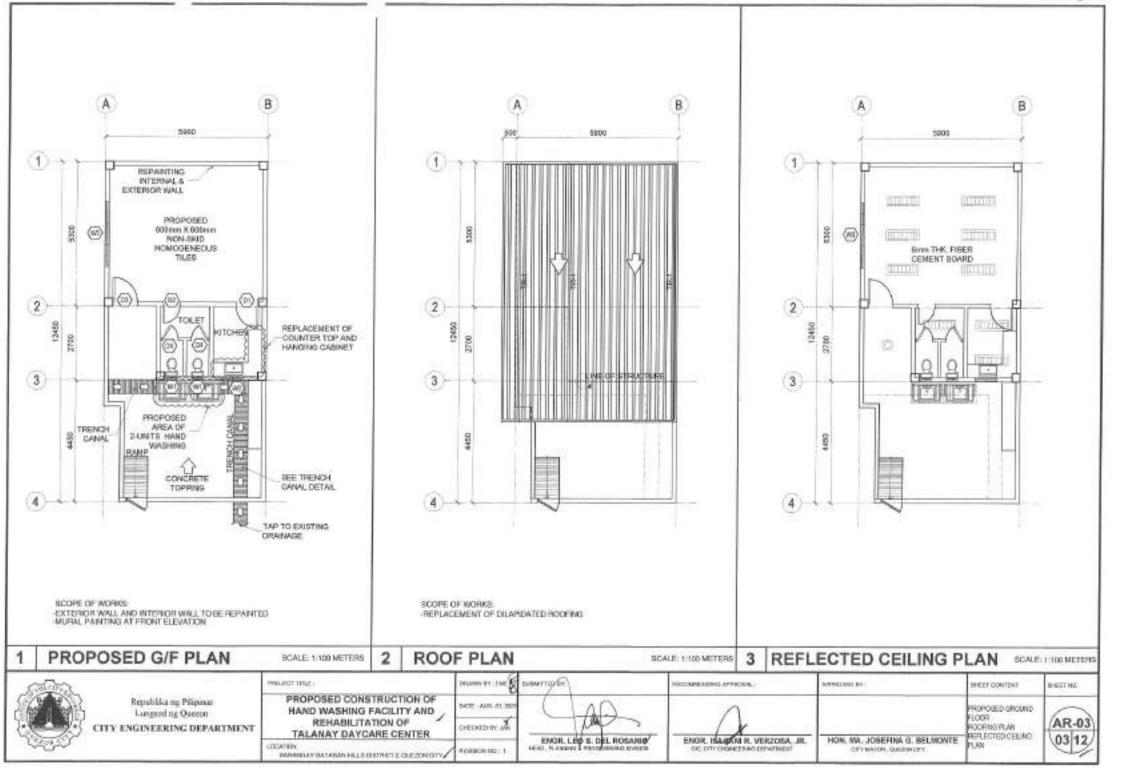
RECOMMENDING REPROVIL

HON, MA. JOSEFINA S, BELMONTE
GIFFWYOR, QUEEN GIT

APROVIDER:

AR-02

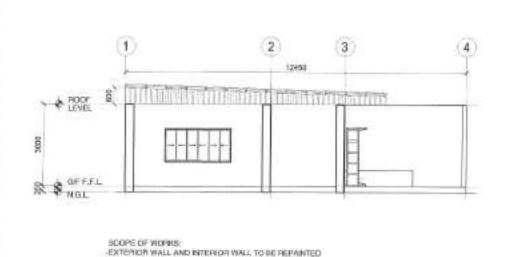
SHEET CONTEME



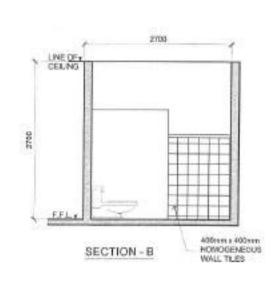


FRONT ELEVATION

BCALL 1:100 METERS



1775 LINE OF CELING 400mm x 400mm HOMOGENEOUS WALL TILES SECTION - A



400mm x 400mm

HOMOGENEOUS FLOOR TILES

NON-BKID

LEFT SIDE ELEVATION

SCALE: 1:100 METERS

DATE WAS BUILDED

DHEDROOM AN

REWRONNO: 1

TOILET PLAN & DETAIL

SCALE 1:100 METERS

THESE CONTENT

Republika ng Filipinas Lungsoding Quexon CITY ENGINEERING DEPARTMENT

MURAL PAINTING AT FRONT ELEVATION

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

TALANAY DAYCARE CENTER ICERTON: DAPANCAY BATADAY HULD OBTRICT J. QUICKON DTV.



ENGR. 18 BANI R. VERZOSA, JR.

EDODMNETIDING APPROVAL:

NOTE PLUMBING FOTURES

PLAN

TO BE REPLACED

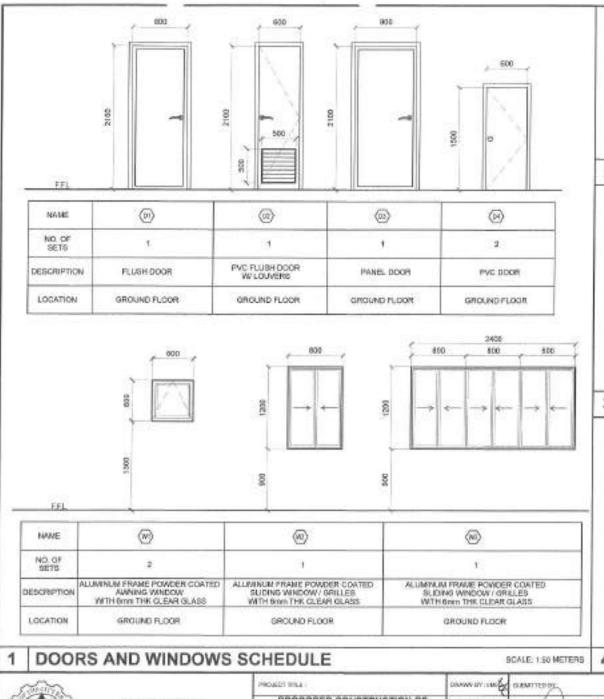
FRONT ELEVATION LEFT SIDE BLEVATION TOILET DETAIL HON, MA. JOSEFINA C. BELMONTE

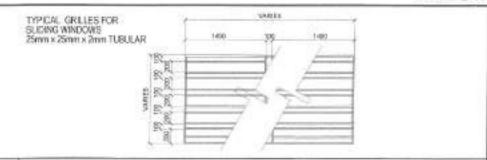
DET MAYOR, GREENWAY

APPROVED BY:

AR-04 04 12

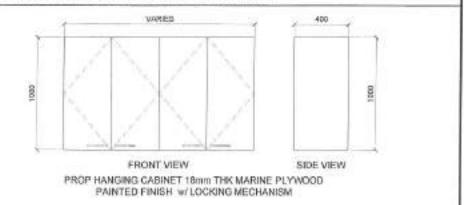
SHEETING





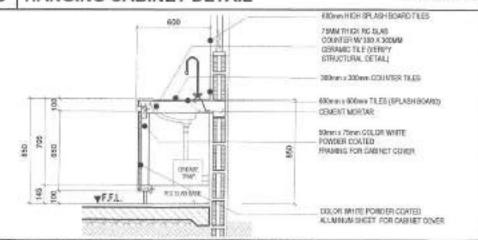
WINDOW ACCESSORIES DETAIL

BCALE: 1:50 METERS





BCALE: 1:50 METERS



COUNTERTOP WITH SINK DETAILS

SIGNLE: 1 SO METERS

AR-05

05 12



Republika ng Pilipiner Lungtod ng Queron CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

BARWIGHY BATASANIHELS DETRICT IS GUEZON CITY

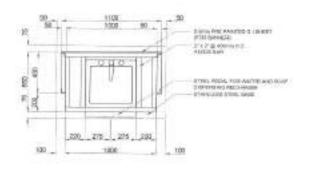
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ENGR, LED S. DEL ROSARIO

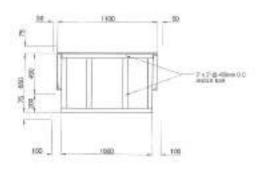


RECOMMENDING APPROVAL ENGR ISASAM R. VERZOSA, JR.

APPROVED BY SHEET CONTRACT AMERICAN. DOORS AND WINDOWS SCHEDULE WINDOW ACCESSORIES STAR HON, MA. JOSEFINA G, BELMONTE HANGING CABINET CITY MYTON, GRECON CITY COUNTERTOP WISHIN



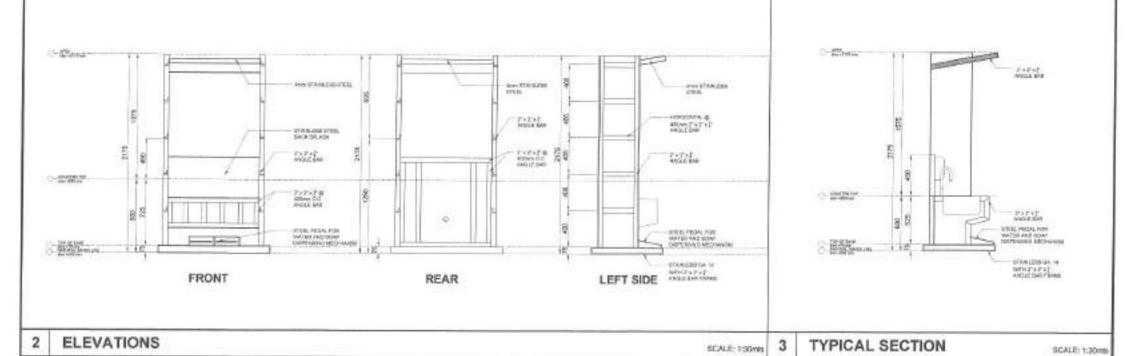
PLAN



ROOF PLAN

1 SINGLE SINK PORTABLE HAND WASHING STALL PLAN

SCALE: 1:30mm



Republika ng Pilipum Lungsod ng Quecon CITY ENGINEERING DEPARTMENT PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

SARANGAY BATABAN HELIS DISTRICT & GLESCHICITY A

CHECKENING: : HERE, THANK

ENGR. LITO S. OC. ROSARROV

ENGR. MISSAN R. VERZOSA, JR.

COURLE SAN POSTALL
HWG WATERS STALL
HUAN
REPATIONS & SECUNONTE

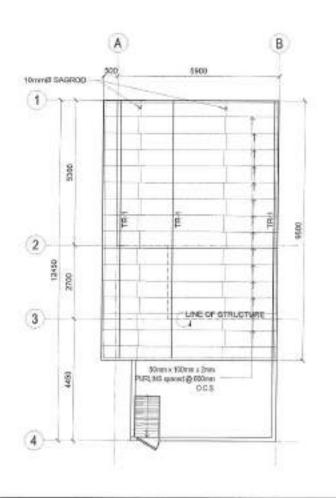
CITY WARCH, DIRECTOR CITY

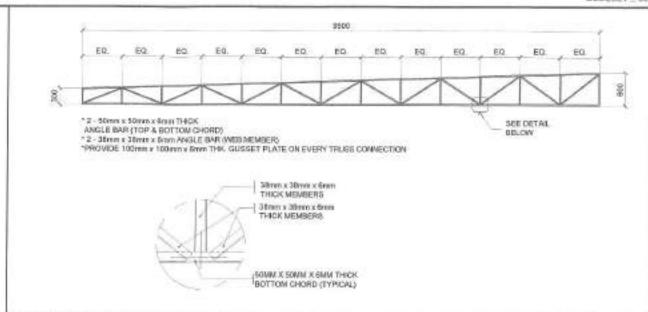
APPROVED BY

ST-01 06 12

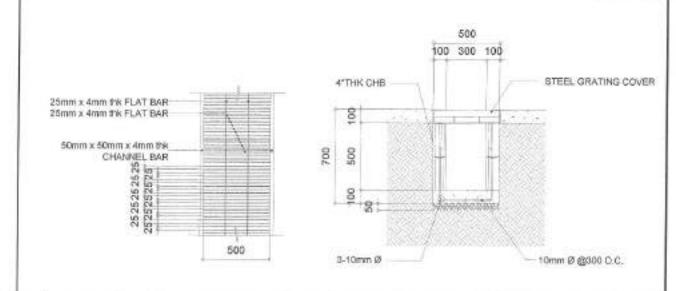
SPETT NO.

DESTRUCT THESE





2 TRUSS DETAIL (TR-1)



ROOF FRAMING PLAN

SCALE: 1:100 METERS

3 TRENCH CANAL DETAIL

SCALE, NTS

SHIET NO.

Republika ng Pilipinas Lungsod ng Queson CITY ENGINEERING DEPARTMENT PROJECT TITLE:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

PRIMARON DETANAMENTE DISTRICT F DESCRIPTION OF A

DATE AND ON SEC SATE AND ON SEC SATE AND ON SEC

REVISION NO. 1

ENGR LEDS DEL ROSARIO

ENGLANDRANI R. VERZOBA, JR.

PERCEMBENDAL APPROVAL

HON, NA, JOSEFINA Q, BELIAKNITE

CTYLUSS DETAIL (TRUS)

TRENCH CANAL

CTYLUSTER, OXCOMENT

CTYLUSTER, OXCOMENT

APPROVIDENT:

ST-02 07 12

INTERFECT CONTENT

GENERAL NOTES:

- 1. ALL THE PLANTING SANITARY WORKS INCLIDED HERRIN IN-NUL WE EXECUTED ACCORDING TO THE PROVISION OF THE HIGH HAVE ALLEGATED CODE. THE MATICALS BUILDING CODE. RECED AND ROSWATTON OF GUILDINGTH.
- \$ 10000M/LINE ENWINE HIS SPECIAL INVASORMENT WE MAD AN ARREST SPECIAL HIS VIEW THE VIEW TO SERVICE SPECIAL SPE WHEN THE SEAN ENGINEERS FOR THEFER.
- 4. AU PRESENCUE RETAUZA AL RECONTO (REPUBSI ANY ROLDO DE LA RECORDA DE DESCRIPCIO DE DESCRIPCIO DE LA RECONTRA DEL RECONTRA DEL RECONTRA DE LA RECONTRA DEL RECONTRA DE LA RECONTRA DEL RECONTRA DE LA RE PRODUPROWLET'S PERSONNERS AND PRO-
- PROPORTED AMERICAN THE SHALL BY CONTRACT THE ACCURATION TO DETER HIS EMPT CODE CONTRACT OF THE ACCURATION TO SHALL BY CONT PRESIDENTIAL PROPERTY AND ADDRESS OF THE PERSON OF THE PER
- 8 FLI SLOPER FOR KONDOWN, DRADAGE BALL MINISTER FLAIN (ALCS) OF EWIS (MODIFIE)
- A DESCRIPTION OF THE PROPERTY OF THE PARTY O
- THE CONTRACTOR SHALL VERFY ALL EXSTREASY INSTANCES AND CONTRACTOR SHALL THE WITH LINE SERVICE CONFESSION FORT
- 8. HE WAS SHOULD HAVE BUILDING THE HERSELD TO PARTIES FROM CONTRACTOR FOR THE SALES.
- TO ALL WATERS AND STORM ON EASY OFFE BINLE SCHOOLSCOLD RESCUE DOES NOT HERE THE WATER SHEEKING OF THE STREET, THE WKT00 TROVE
- 11. ALL SMONEGE WE SHAFTERS AND ALL PARTITIOS SAFERINGUISTES ON ESHIBITIONS SPECIFIC
- TE ALL PRETERMONNESS ON FLANSS PRESENTS AFFEC MISCONDESSES.

TAP TO 1000 PIPE NEAREST

GENERAL NOTES

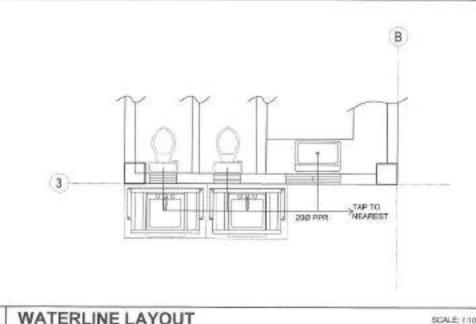
I MORRITARITE AND VEHT STEELS

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	(W) (60)	HEST RECIVE FATOLISE	0	10	H, KIR STALL	
	100	STORED STORED	回	-11	GAZCH SARRI	
0	FID1900	FUZDR CESNACET ORCUP CEDINEUT	(8)	60	esph train	
-11	800	TEORNAL CONTROL	· a		STALL TIPE LIMBU	
	19	SHAGE EVEN COMMENT	वा		GREATERIA .	
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pqs:	DATEVALIE
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Quu	witer veter.
ON.	DALODIE JSHA

3 WASTE/ SEWER LAYOUT



LEGEND AND SYMBOLS

Republika ng Pilipinas Lungsod ng Quezon CTTY ENGINEERING DEPARTMENT

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

poomov.

STREET, SALE BARRETTO, ST. DATE: 40/0.07.080

THEORIE BY 301

RECORNERDING AFFRONAL:

APPROVED BY

SWITHOU FORMS

DESTRUCTION

SENERAL NOTES LEGEND AND SHMEOLS WASTE/ SEWER

PL-01 08 12

SCALE: 1:100 METERS

BANAGAY BATASAN HILLS DISTRICT & QUESTIN CITY

PENSONNO. 1

ENGR. LEG S. DEL ROBARION

EMBLISHDAM R. VERZOSA, JR.

HON, MA. JOSERNA G. BELMONTE OTT WAYOR, GUEZONOTTI

AVOUT. WATERLINE LAYOUT

GENERAL NOTES:

- 1. ALL BLECTRICAL WORKER IN ALL, RE DONE IN ADDRESSING WITH THE PROVISIONS OF THE LARGET BOTTON OF THE PROLEDY BLECTREAL COOK, THE LANS AND GROSSWICES OF THE LOCAL COOK ERFORD SCIUTION TIES AND THE REQUIRE HERES OF THE LOCK, POWER AND TELEPHONE WILLTY COMPANY
- 1. THE CONTRACTOR SHILL SECURE ALL PERSONS AND PREVAIL PLES REQUIRED FOR THE BOTH BUILD REPORT THE OWNER THROUGH THE STIGNICESS, FRUIL CERTIFICATED OF BLECTRICAL PROPERTY AND APPROXIMA, PROBE PROPERTY DESCRIPTION OF THE PROPERTY OF
- 8 ALL MARCHET REMACH CRICITS BANU. RELIYO CONDUITS AND FOR EXPOSED HETALLATION SHALL BE NO LURROPTED BY CONDUT CLAMPS SWERT YOU HILL METER
- 4. PALED BIG SHALL BE PROVIDED BY THE CONTRACTOR WHITEVARY REPRESENT TO EXCLUTATE WHE PLALED EVENUE THESE. ASS NOT RESCATED ON THE PLANE. SIGNAL OF ALL PULLISCRESS SHALL BE COMPUTED MAKED ON THE CODE REQUIREMENTS. QUART CHOST DRIVINGS TO THE ENGINEER FOR APPROVAL PROSETS FAMILION LOCATION OF FULL BOXES ENGLISH APPROVED BY THE ANOMATECT ENGINEEST AND MUST BE REPLICITED ON THE "ASSEMUT" PLAN.
- E. ALL POWER OUTLITTE MELENTOHES BRALL BE GROUPENG TYPE WITH PARALLEL SLOTS FOR 236V.
- 8. PROVIDE CROUND PAULY CURRENT INTERMUTTER CIRCUIT SECURES FOR LOADS WARRED SHOT DE THE RUNI
- ALL INSTALLIC CONSILITYS, CARRIETTS AND RECUPERAT SHALL BE PROPERTY CRECURCING AND BONGED.
- 6. UNLESS CTHERWISE NOTED, BIOLINTRIG HEIGHT FOR BALL, VOLKTED DEVICES SHALL BY AS POLLORIS:

PROTECTION SHOULD WIND TO SEE AND SET A TRANSPORT OF THE SECOND S

THE EFFICAME CLITTLET - 500 SMI ATT CATY GUTLET - 300 MR APP LIGHTWO SWITCH - NOT NOT ARREST PAND DOARD - WIN MILEST

- III. PREPRINTO NECOLO PLANENCIA. PLANENCIA PARE PROTECTION DY OWNERS OF DISTRIBUTIONS OF EQUIPMENT AS WILL. AS THEIR CONTROL ISCUSSINGUE AS SPECIFIED AND OR SHOWS LIGHER THEIR RESPECTIVE SECTIONS.
- 10. ALL RATORIALS TO SELUCED SHALL SE OF THE SELET CLINILTY, INCHES NEW AS SPRICINGS
- 11. THE DRIVINGS AND SPECIFICATIONS ARE INTENDED TO PRESENT GENERAL LAYOUT AND INCLADOLITER DESCRIPTION OF THE PROJECT BUT DO NOT NECOSSAREY INDICATEDESCRIBED ACTUAL LOCATIONS, LIGHE, WILL CONTINUES OF THE KIND PLACE. THE CONTRACTOR IS REPORT REQUIRED TO MAKE SUCK ADJUSTMENT AT THE JOBSTE AS LCCATION, DISTANCES. AND LEVELS ARE DOMERNED BY ACTUAL RISLD CONDITIONS.
- 13. ANY DISCREPANCY SETWEIN THE ALANS AND SPECIFICATIONS SHALL BE BROADED TO THE ATTENTION OF THE DISCREPANCY. GUARRENTICH DEGRAM
- 13. ALL DONTINO HIS CONFIDENCE OUTLIT CONCURS SHALL BE 3 & 65 KM 15-MAG COPPER MAY DALESS STYPINGS HOTELS MARKAUM SIZE OF VIEWE SHALL BE 3.5 SD. MIS CORPSHIWING. ALL MIRISD AND CARLLER SHALL BE COLOR CODED AS PERLITAMENT

LINE 1 - HICK LINE 2 - YELLOW HELITERAL - HARTE ORGUNO - CREEN

14 BOXES, WHIS GUTTERS EXCLOSURE SHILL BY FAMPICATED FROM STRILL BOTH THIS ORDER ASTROLOGYS. HARMUN HIGH-OF THE WIDEST SURFACE STEEL

UP TO HICKLID NO HIS 40 MVI GA 16 PRINTED WITH INCTAL PRINTER EPORY AND TOPCTION CWIRA SIC ADMINISTRACT CARRIAGE SC OA 14 PARKTED WITH METAL PRIMER EPOXY AND TOPODAY CHRR JEE 20 MM BUT RET OFFER 762 WW GA 12 PARKTED WITH METAL PRIMER EPOKY AND TOPEDAY. CHEST PERMIT SA TOPANITED WITH NETAL PRIMER BYOKY AND TOPODAY.

- 15. ALL ELECTRICAL WORKS HEREIT DIVALL BE SESSIVING BY REPRESENTED HER EXPENDION OF A FULL-TIME LIGHT-BOD ELECTRICAL DIVENSER AND A DULT ADDRESS THE ELECTRICAL CONTRACTOR BY FORE HOPICS SHALL BE NEXTLY PLACED. SECURELY PASTEINED AND PROPERLY FINENED.
- 16. TIPS OF SERVICE ENTRINCE SHALLES SINGLE-PHASE, TWO-1873 PLUS SECURED, BO HERRIZ, 2007 AC ROSENAL
- 17 CONCRETE IN NO CARE SHALL THEFE SE MORE THAN THE EDUCALISM OF FOUR QUARTER ISSUES IN OWING HAS ALL CONCUST MINESS SHALL RELEVANDE INVENION INTERVALUES STADERS, INSIGERAL BEYONG BYOLDS MUST BE INJUDICIONAL OF THE PROPERTY OF T TO THE ODDE RECURRENMENTS.
- 16. UPON COMPLETION OF ELECTRICAL CONSTRUCTION MORE, INSULATION RESISTANCE TEST AND PURCHOPALITY TEST SHALL BEFORE DEMINE BY THE DOMERNATION HALLISMS OF THE ESTALLATION TO BE REPORTED IN DETAILS ON FORES APPROVED. BY THE QUEZON DITH ENGINEERING DEFINENMENT REPRESENTATIVE. THE ORD LIND RECIEVANCE FOR ELECTRICAL EVATIONS. SHALL NOT BE WORE THAN 5 OHMS. COMMUNICATION GROUNDING REGIONAVES SHALL WOT ENCESSED DHAIR.

0	Digitivi Convenience Outlet	(3)	District with Salvetar Swith:	
0	Displac Convenience Dullel (New 9+002 2x)	-	Lighting/Power Panal	
0	160 med LED Fleight	6	Groat Heneral	
100013	1200anc c XDNnn LED sale in Treffertinism	00	CITITY Service Meter	
X	When a Where Colleg Rinard College Fine	-0.	Groat Brasier	
5.	One-Gang Baltch	-1-	Omining	
52,	Two Comp Bolish			

LEGEND & SYMBOLS

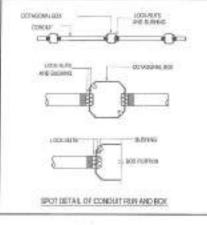
SCALE NTS

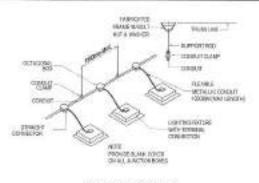




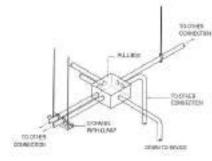
EDISH BORF



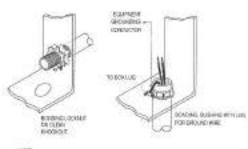




CONDUIT RUN FOR LIGHTING DISTRIBUTION IN ONE CIRCUIT FOR EXPOSED DRIVINGED DROP-CELLING INSTALLATION)



PROPER COMOUT LAYOUT AN PULL BOX



PERCHASIN

CONNECTION OF THREATED DICEMENT, CONDUCTOR MISTRADOVICE METALLISI CONDUCTO A THRENDED BORROWING IS CONSIDERED. TO BE A SOURCE CONDUCT SERVICED.

BONDED RICEWAY TERM NATION FOR SHEET WE'VE.

GENERAL NOTES

SCALE NTS

MISCELLANEOUS DETAILS

HEAD. PLAYMING'S INCOMPARTICIONISCH

BOME NTS



Republika ng Pilipinas Langsod ng Quezan CITY ENGINEERING DEPARTMENT PRODUCTIONS: PROPOSED CONSTRUCTION OF

HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

iciotmosi: BARRANGAY BATASAN HILLS DISTRICT Y, GLEZONICTY DOWN BY THE BUILDING BY DATE: AUG. BT.300 Decision av 181 ENGR. LEO S. DEL ROSARION

REVENONNO: 1

ENER JORGANI R. VERZOSA, JR. TATY ESSENSE BYRNO DEPURY BYTH

ROOMAENDING APPROVISE

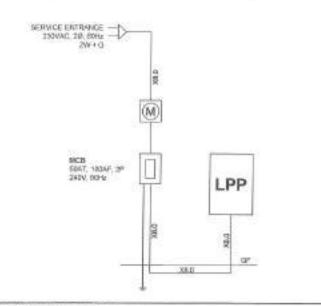
HON, MA. JOSEFINA G. BELMONTE HITY MAYOR, QUICLONCEY

BORROW, NOTICE ENGELING AND EVANGE. BUCGROTZOR DETAILS

WEET GOATHW



DATES N



1 SINGLE LINE DIAGRAM

SCALE: NTS

PANEL NAME: 1/PP						MAJO: SOAT, 2000P, 3P, 50H), 349V, Solf-en					
	3.2277.00000	SATTREE			OHER DURISMY PROTECTION				5000001	DOMONIA.	
OCTAGE.	DESCRIPTION	764	·V	A					SEES OF URSE	HAT .	Pire
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2	Consensator Darter	1000	100	178	30	190	2	561-01	3.5 Seer TRANS 3.4 Seer TW	30	NE
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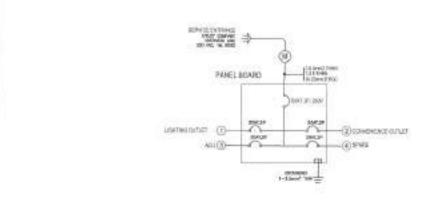
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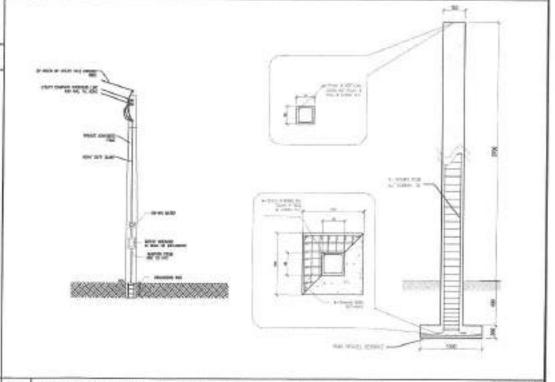
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Lat. = 38.19 A. = 50 AY 9.25 (20 min) 127 min) 1



3 PANEL BOARD DIAGRAM

SCALE:NTS



APPRENTED BY

2 SCHEDULE OF LOAD

BCALE: MTS

ELECTRICAL SERVICE ENTRANCE DETAIL

SCALE: NTS

SHETNO

Republika ng Plipinas Lungsod ng Oswon CITY ENGINEERING DEPARTMENT PROJECT TITLE

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

LOCATION SATASANI HILLE DISTRICT A, CARREST CITY

DATE: ALC: OF, 2001 CHOOSES FO THE

ENGR. LED S. DEL ROSARIS



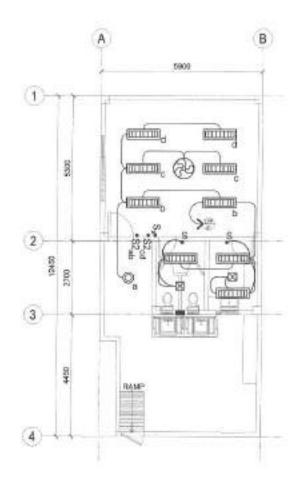
ENGR ISAGANI R. VERZOSA, JR.

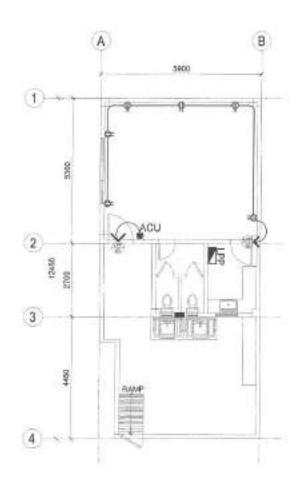
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HON, MA. JOSEPHNA G, RELINONTE GTF MAGE, GLECONOTE GLECONOL GRANCE

0-60LE OF LOND
O-60LE OF LOND
O-60LE

SHEET CONTENT





LIGHTING LAYOUT

SCALE: 1:100 METERS

POWER LAYOUT

SCALE: 1:100 METERS

SHEET NO.

BALLY CONTINU

Republika ng Pilipinas Lingsod ng Quexas CITY ENGINEERING DEPARTMENT MOJECT TIME:

PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER

DESCRIPTION OF THE REST OF THE PROPERTY OF T

DETERMENT OF STREET STREET OF STREET

MINISTER NO. 1

ENDR. LING S. CIEL HOBARIQ

ENGR. 1846AN R. VERZOSA, JR.

RECOMBINISTING APPROVIL

HON, MA. JOSEPHIA G. BELMONTE

APPENDENT

EL-03

- ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE. WITH THE LATEST REQUIREMENTS OF THE NATIONAL BUILDING CODE, PSWE GODE AND THE RILLES AND REGULATIONS OF QUEZON CITY.
- 2. THE SCOPE OF WORK SHALL INCLUDE ALL WORKS DESCRIBED IN PLANS.
- THE WORKS SHALL BE EXECUTED IN CLOSE COORDINATION. WITH ALL OTHER TRADES.
- 4. ALL AIRCONDITIONED SPACES SHALL BE MAINTAINED AT 24°C DB AND 50% RM.
- 5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, MANUFACTURERS CATALOGUE, SPECIFICATIONS, SAMPLES, INCLUDING VIBRATION ISOLATORS BEFORE EXECUTION OF WORK.
- 8. ALL FLOOR SLAB MOUNTED VIBRATING EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATORS TO PREVENT VERATIONS AND NOISE TRANSMISSION.
- 7. EXHAUST FAN SHALL BE PROVIDED WITH SUITABLE FLEXBLE CONNECTIONS TO DISCHARGE DUCT.
- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING OF THE WHOLE VENTILATION AND ARCONDITIONING SYSTEM AND INSTALLATION.
- 9. ALL POWER WIRING SHALL BE ELECTRICAL AND TERMINATION TO EQUIPMENT SHALL BE MECHANICAL.
- 10. PROVIDE CONTROL WIRING FOR ARCONDITIONING EQUIPMENT.
- 11. PROVIDE THERMOSTAT FOR ALL INDOOR UNITS / FAN COL. UNITS
- 12. VERIFY LOCATION OF CONTROLLERS AND SWITCHES ON ELECTRICAL PLANS.
- 13. ALL PIPE SQUIPMENT CONDENSATE DRAIN SHALL BE CONNECTED TO THE NEAREST FLOOR DRAIN / AD /CB
- 14. PROVIDE GLIDES, HANGERS, AND SUPPLEMENTAL STEEL SUPPORT FOR ALL PIPING, DUCTING AND EQUIPMENTS.
- 15. PROVIDE PIPE SLEEVES FOR ALL PIPING PASSING THRU BUILDING STRUCTURE.
- 16. ALL PIPE DIMENSIONS ARE IN MILLIMETER UNLESS. OTHERWISE NOTED.

\odot	- EQUIPMENT DESIGNATION		- AR COOLED CONCERSING UNIT
—sp—	- REFRICERANT PIPE		EUBOWUP
[46	- MALL MOUNTED INDOOR UNIT		»ELBOW DOWN
	- WINDOW TYPE AIR CONDITIONER	FOU	-FAN COLLUNT

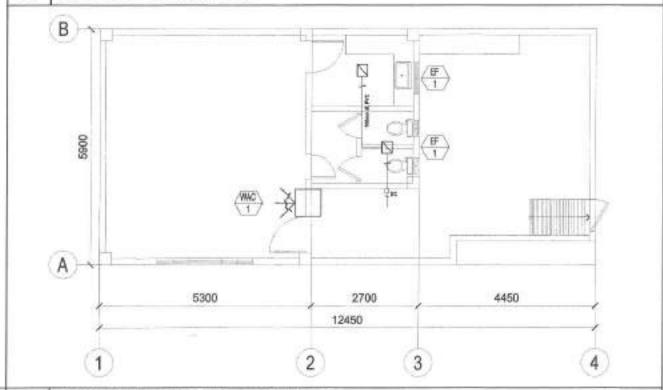
WINDOW TYPE AIR-CONDITIONER AIR-COOLED CONDENSING UNITS

	COLUMN COLUMN	CODUNG CAPACITY		ARCIRCULATION	POWER NPUT	ELECTRICAL SUPPLY			REHLARIOS
DESIGNATION	LOCATION CHANTITY	RP	82HR	- Sen Gendara Parisa	WATTS	VOL18	PHOASE	HERRE	REMOVABLE INTARE BRILLE EMBY TO CLERK!
(WiC)	ASSHOWN LISET ON PLANS	15(P	26.500	eon cerui	280	230.0	ta	103	ANTI-GAC PILTER, NV MECHANICAL ON/OFF TIMOR

EXMANST FAN

DESIGNATION	LOCATION	CHANTTY	TYPE	AR VOLUME	POWER INPUT	BUSC	TRICALS	UPPLY	REMARKS
			9995	DMM	WATTE	VOLTS	PHASE	HERTZ	LINETS SHALL BE SOUPPED WITH DISCHARGE DUTLET
(F)	AS SHOWN OR PLANS	1627	DOLMS WOUNTED	148-150	29	236.6	19	80	TAPERED OUT NOAPTER, ONE-TOUCH SPRING THRE LOUVER & AN ADAPTER CONTRAINING A REVERSE PLOW PROVENTION SHUTTER

SCHEDULE OF EQUIPMENT



GENERAL NOTES AND LEGENDS

GROUND FLOOR EQUIPMENT LAYOUT

SCALE: NTS SHEET NO.

SHEET CONTENT



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF TALANAY DAYCARE CENTER OCUTOR.

COMMISS SAN SLEMITTED BY: DATE: Aspects 2021 moreom Jan BARANGAY BATASAN HILLS, DISTRICT IL QUEZON CITY

ENGR. LEG & DEL ROSARIO HIS: PARKET LYCENARISOVERS

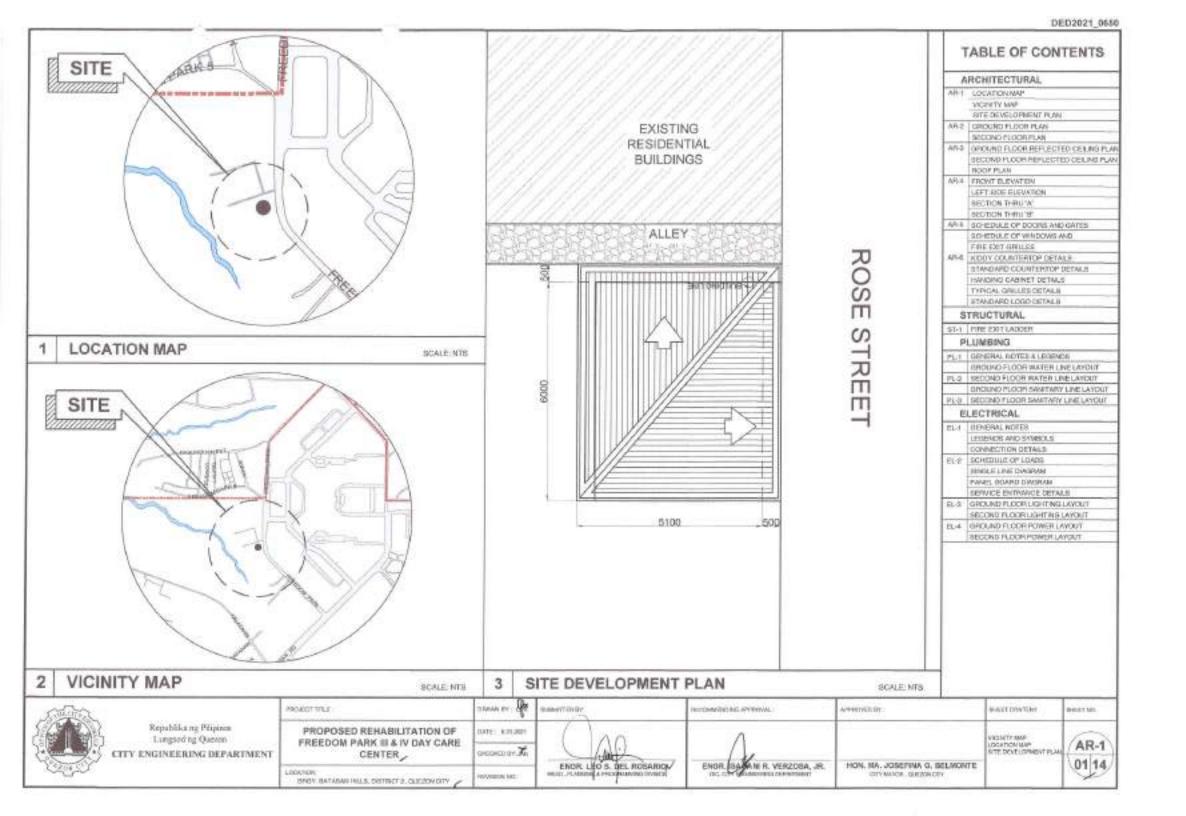
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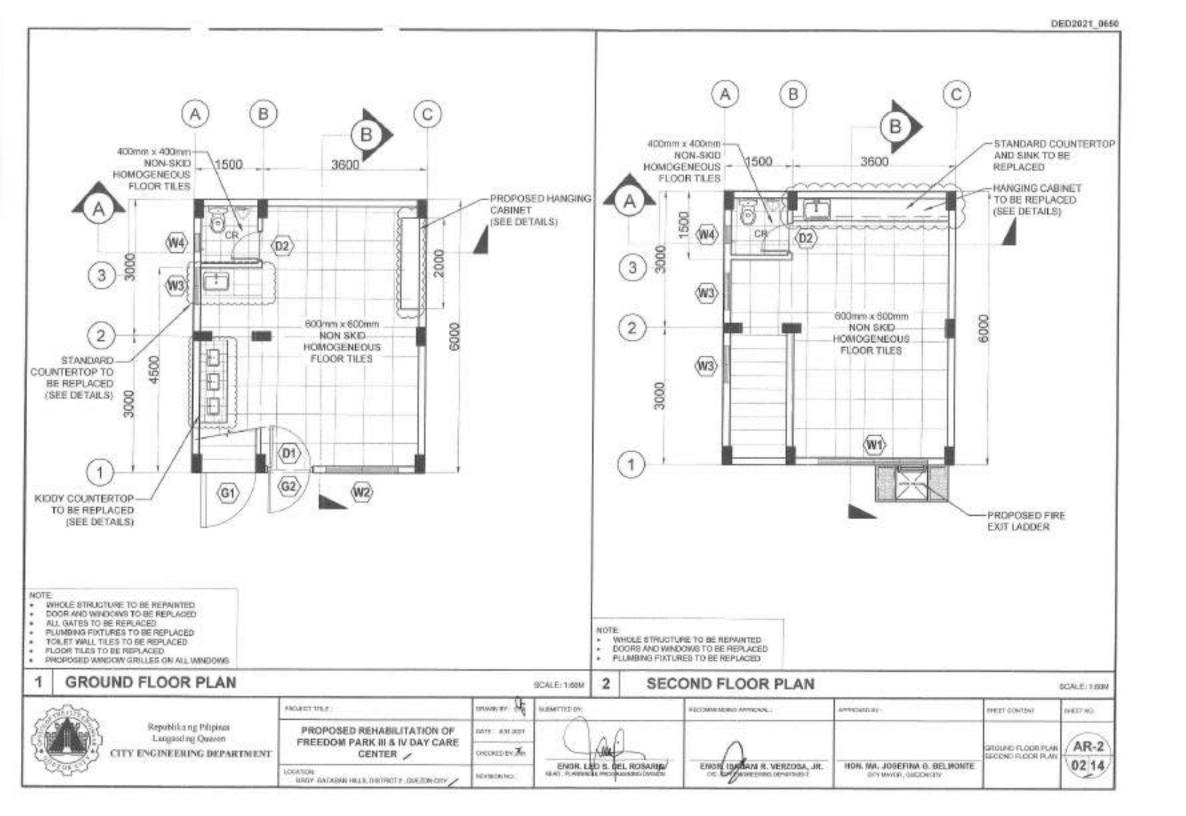
RECOMMENDING APPROVAL:

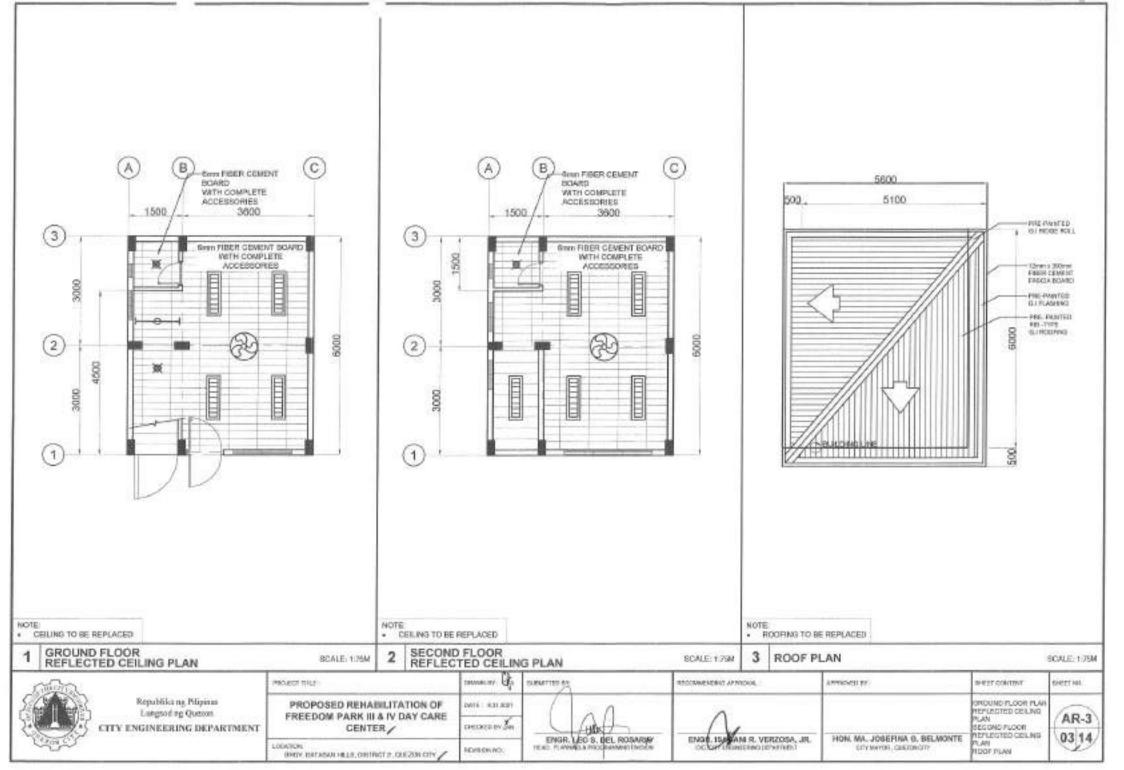
DENERAL NOTES ESENDE AMD SYMBOLS HON, MA.JOSEFINA G. BELMONTE **EQUIPMENT LAYOUT** CTYDENOR

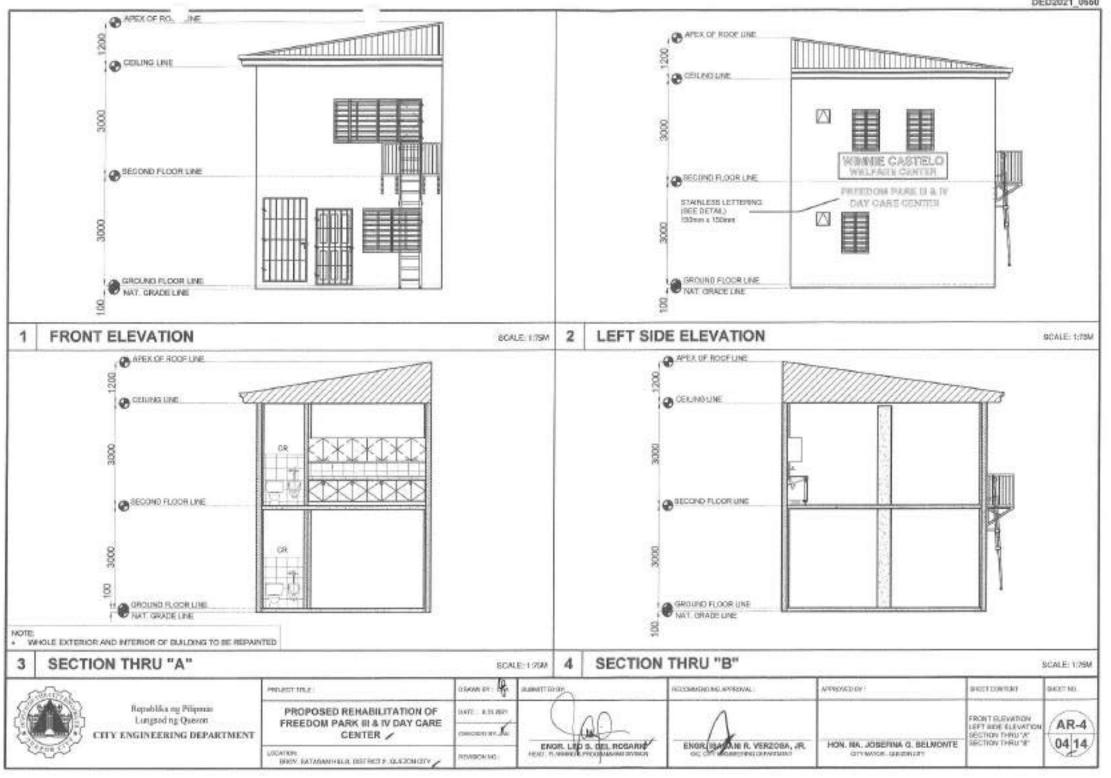
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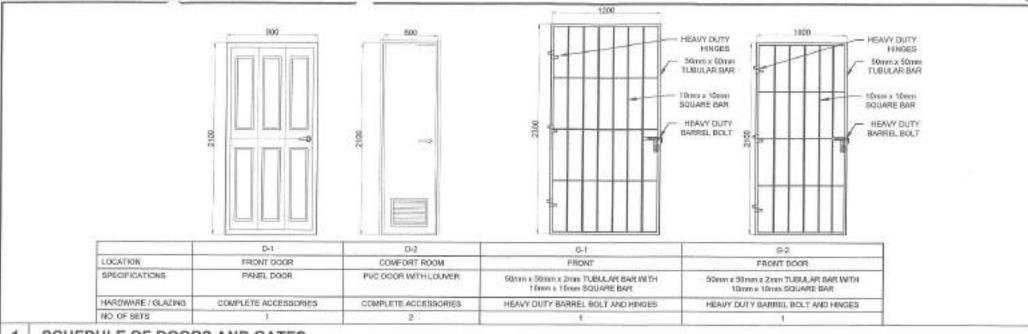
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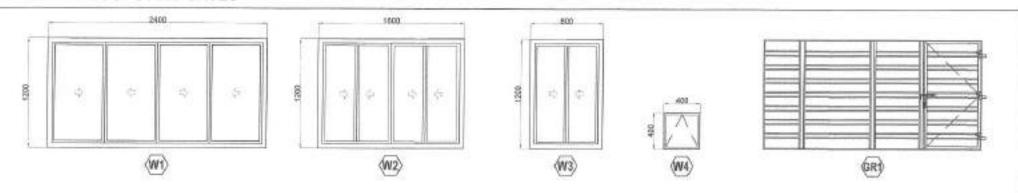








1 SCHEDULE OF DOORS AND GATES



	W-1	W-2	W-3	VI-4	GR.1
LOCATION	DAY CARE	DAY CARE	DAY CARE	COMFORT ROOM	FIRE EXIT ORILLES
SPEORCATIONS	SLIDING WINDOW, 6mm THK GLIPAT TEMPERED GLASS ON WHATE COLOR POWNER COATED ALLMINUM FRAMES	SUDING WINDOW, 6mm THK CLEAR TEMPERED GLASS ON WHITE COLOR PONDERS CONTED ALLWINUM FRAMES	ELIDING WINDOW, Green THK CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALLIMINUM FRAMES	AVAINS WINDOW, BY MITH CLEAR TEMPERED GLASS ON WHITE COLOR POWDER COATED ALAMNUM FRAMES	25mm x 25mm x 2mm HORIZONTAL AND VERTICAL TUBULAR BAR
HARDWARE / GLAZING	COMPLETE ACCESSORIES	COMPLETE ACCESSORIES	COMPLETE ACCESSORIES	COMPLETE ACCESSORIES	HEAVY DUTY HINGES AND BARRIEL BOLT
NO OF SETS	1	Y	-1	2	

SCHEDULE OF WINDOWS AND FIRE EXIT GRILLES



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT THE:	
PROPOSED REHABILITATION OF FREEDOM PARK III & IV DAY CARE CENTER /	
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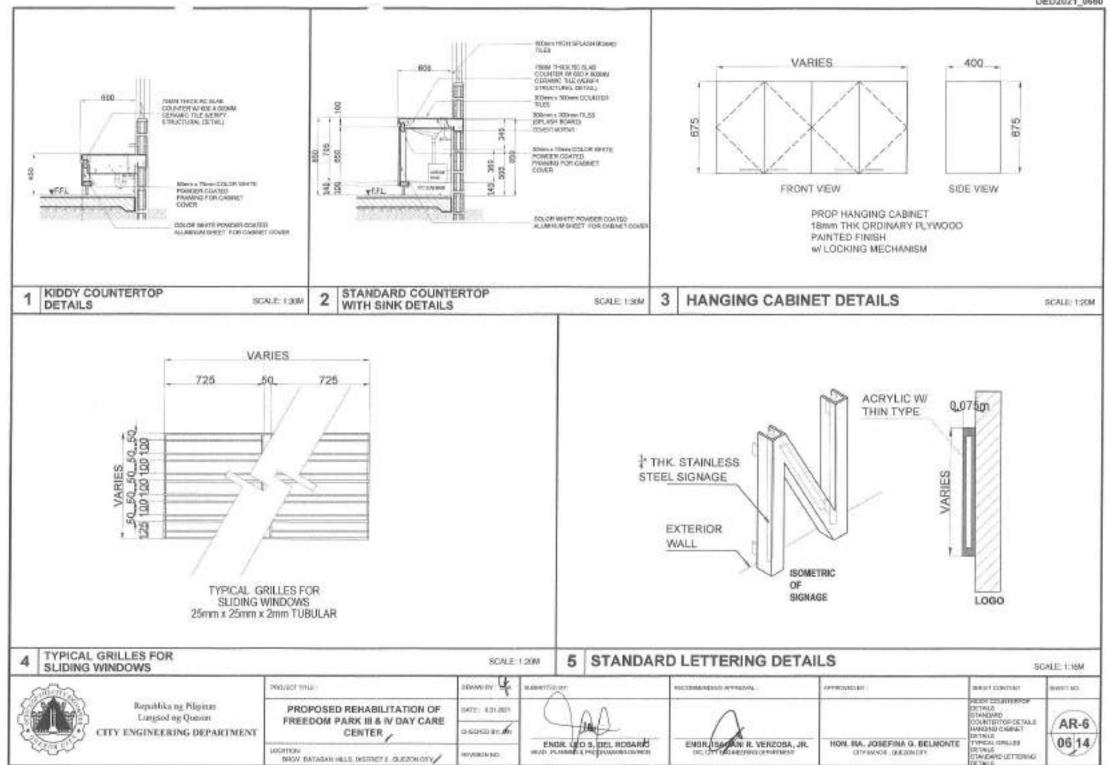
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0'	ENDR ISANAN R VERZOBA, JR.
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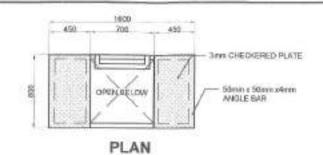
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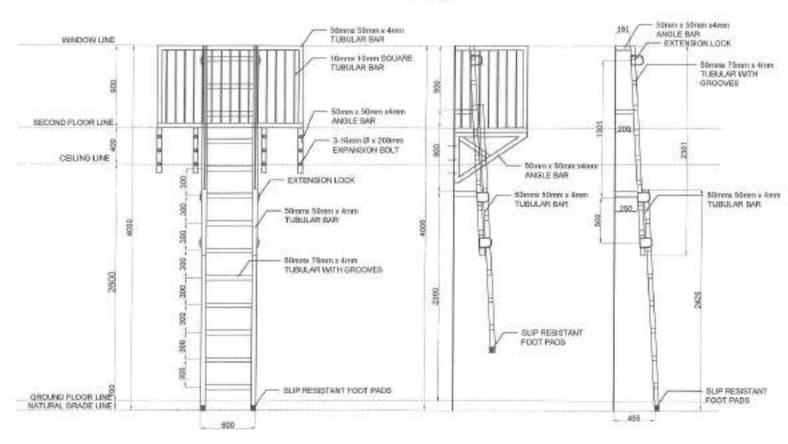
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SHEET CONTENT

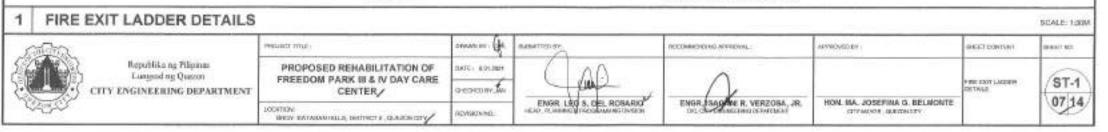






FRONT

SIDE ELEVATIONS



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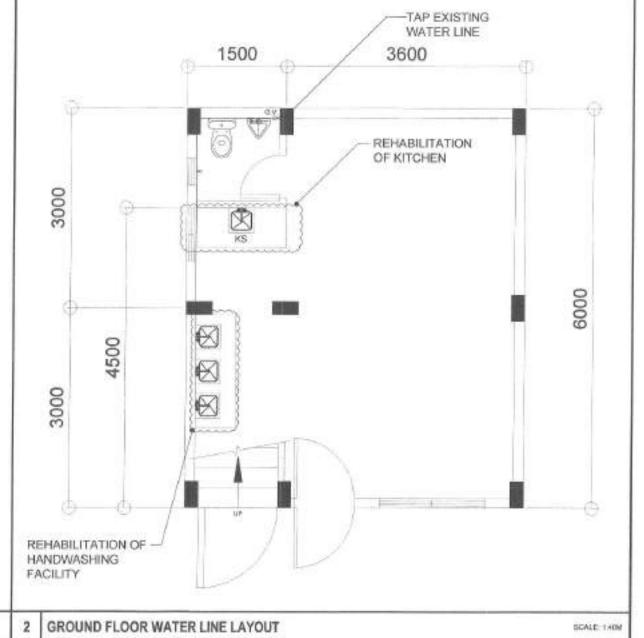
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	BORT THREE PODE
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GENERAL NOTES AND LEGENDS

PROJECT TIME

PROPOSED REHABILITATION OF FREEDOM PARK III & IV DAY CARE CITY ENGINEERING DEPARTMENT CENTER

PORTOR

WATE: 0.8.0001 CHECKED BY AN

DINAMENT.

REVISION NO.

ENGR. LEO B. DEL ROBARMA

SUBMITTED BY

RECOMMENDING APPROVAL

ENGR. MAGATIR. VERZOBA, JR.

APPROXIDERY.

DENIERAL NOTES IL HORSE.

HOW MA. JOSEFFILM G. RELINONTE

OTT WASH, SAMEHOTE

DEDLAS FLOOR MAIN DISCUSSION

SPECIAL CONTRACT

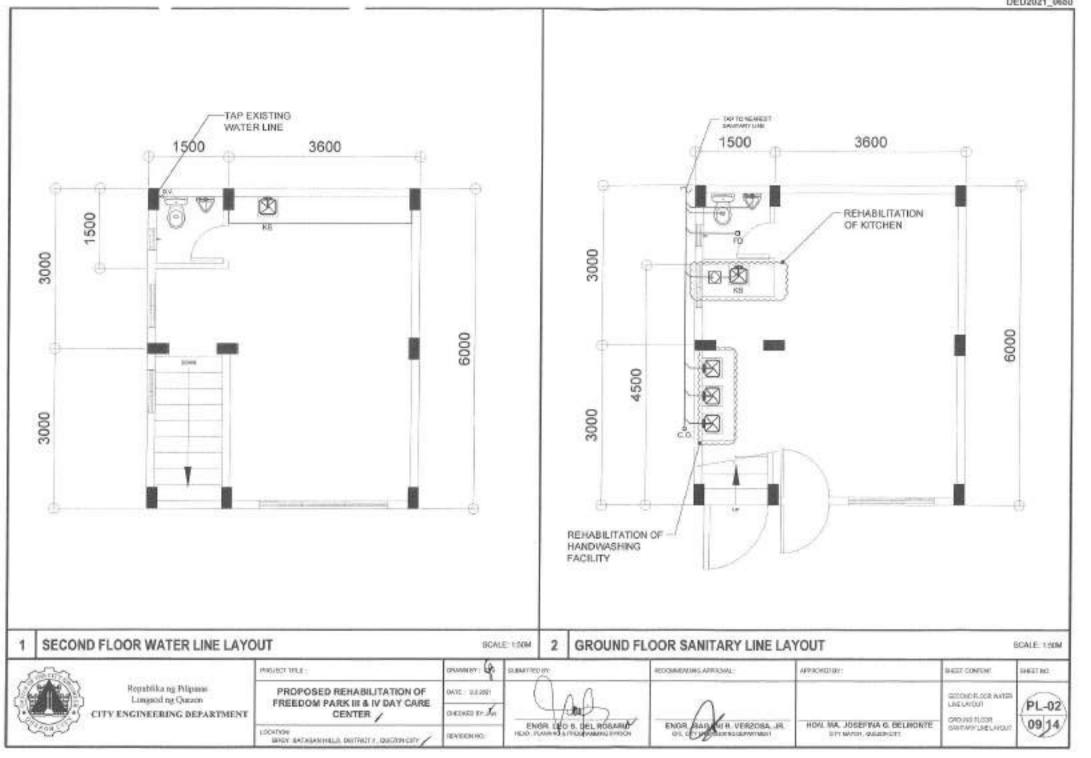
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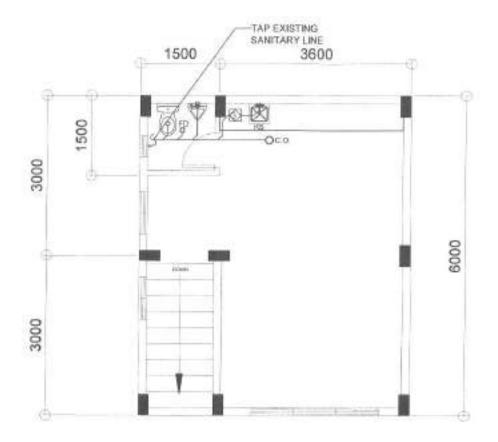
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Republika ng Pilipinas

Tangsod ng Queam

1910V. BATHSANHIGLD, DISTRICT 9. GOCZOWCYTY





SANITARY FLOOR WATER LINE LAYOUT

SCALIF 150M



Republika og Pilponas Langsod og Queson CITY ENGINEERING DEPARTMENT

over mue:	
PROPOSED REHABILITATION OF FREEDOM PARK III & IV DAY CARE	
CENTER	

SHOY, BATABAN HALLS, DISTRICT 2, GLEDONICHY

DAME SOME DESCRIPTION OF THE PROPERTY OF THE P

RECOMMENDAD APPROVAL

HON, MA. JOSEFINA G. BELMONTE
CIT MICH, CARRIETT

APPROXICE (Y)

PL-03

SHEET OF

BASET COMMOD

- 1. ALL ELECTRICAL WORKS SHALL BE DOKE IN ACCORDANCE WITH THE PROVISIONS OF THE LARGE TEXTRONION THE PRILIPPINE ELECTRICAL CODE. THE LAWS MED provinces of the Local case Peroland Authorities was the Residentists for the Local Power was Telephone UTUTY conview.
- THE CONTRICTOR SHALL REQUIRE ALL PERMITS AND PRIVAL FEET REQUIRED FOR THE WORK WAS SHALL FLEROUS THE OWNER THROUGH THE ENGINEERS. HAVE CERTIFICATES OF ELECTRICAL INSPECTION AND APPROXIAL FROM PROPER GOVERNMENT ALT VEHICLES FOR COMPLETION OF WORK.
- ALL EMBEDDED BRINGH CRICKETS SHALL BE INC CONDUCTS ARE YOR EXPOSED INSTALLATION SHALL BE BAY ON INC. SUPPORTED BY CONDUCT CLAMPS ENTRY 700 MILIMETERS
- FLEE SHALL BE PROVIDED BY THE CONTRACTOR WHIREVER MICESSARY, TO PROUD THE PULLING EVEN IF THESE WIS NOT RESCARD ON THE PLAYS, SIZING OF WILL PLULDINGS SHALL BE COMPLETED BASED ON THE CODE REQUESTMENTS SUBMIT SHOP DRAWINGS TO THE CHISARETERS APPROVAL FROM TO PARTICIATION LIDICATION OF PILLIFOXES SHALL BE APPROVED BY THE ARCHITECTION OBESIN AND MUST BE REPLETTED ON THE TAX-BUILT! PLAN.
- ALL POWER OUTLETS. AND SWITCHES SHALL BE GROUNDING THRE WITH PARALLEL SLCTS FOR 280 V.
- PROVIDE DROUND FAULT DURINDY INTERRUPTER GROUNT BREWER FOR LOADS MARKED FOR YOU THE PLAN.
- ALL METALLIC CONDUITS, CARRIETS AND SOURNESS SHALL SE PROPERLY CADLABES AND BOADES.
- 8 MINLESS OTHERWISE MOTED, MOUNTAIN HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS

RECEPTACLE OUTLET - SHE WIN AVF., WOMER ABOVE INCREMES COUNTER. LIGHTING SWITCH - 1400 WM AFF PANIL BOARD - THOS MIS AFT

- 8 REFER TO MEDIANCIAL PLUMBING AND FIRE PROTECTION DRAININGS FOR PACKED AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL REQUENCES. AS SPECIFIED AND OF SHOWN UNDER THEIR RESPECTIVE SECTIONS.
- 16. ALL MATERIALS TO BE USED SHALL HE OF THE BOST QUALITY. BRAND NEW AS INTERPRET.
- 11. THE DRAWINGS AND RESCHICATIONS ARE INTEREST TO PRESENT SENERAL LARGUE AND BROAD OUTLINE/DESCRIPTION OF THE PROJECT ANY DO NOT NECESSARILY INDICATEDESCRIBED ACTUAL LOCATIONS, LEVEL AND INTRACES OF THE SOUPMONT. THE CONTRACTOR IS HEREBY REQUIRED TO MIKE BLOH ADJUSTMENT AT THE JORSTE AS LOCATION, DISTRICES AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONSTROUG.
- 12. ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE EROUGHT TO THE ATTENTION OF THE EXCIDENT FOR CURRICULOR DECISION.
- 11 ALL DOMINO MID CONVENIENCE OVITLET CRICUTE SHALL BE 3.5 SQ. AND THINK I COPPER WIRE LALESS OTWERWISE MOTED WARRAND MIZE OF WIRE SHALL BE 3.5 SQ. MILL COPPER WHILL ALL WIFES AND CARLES SHALL BE COLOR CODED AS FOLLOWS:

DAE 1-RED DIRECT-VELLOW NICUTIVE - WHITE GROUND - CREEN

14 BOXES, MINE, GLITTERS, END, DELIVE SHALL BE PARRICATED PROMISTEEL WITH THOUSEDS AS POLLOWS.

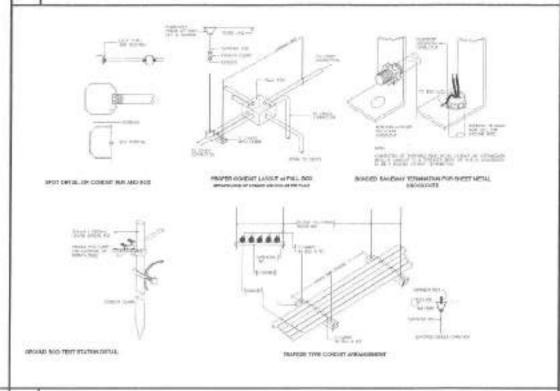
MUMAUM WOTH OF THE MIDEST BURFACE STEEL

SM 95-50 DMOLEDMOT NO # MH CIA-SE PRINTED WITH METAL PRINTER EPONY AND TOPCOME. OVER 152 IS MANUFACTURED BY SET SET. CA IM PARMED WITH METAL PRIMER EPOLY AND TOPCOAT DVER 467 38 MARRIET NOT DVER 742 MAR CA 12 PARKED WITH METAL HYMER BYORY AND TOPCOM? CA 16 PAINTED WITH METAL RRIMER BROWN AND TOPCOAT

- ID. W.) ELECTRICAL WORKS HEREIN DAWLERS EXECUTED BY SOPEREINCED MENTANCER THE DIRECT SUPERVISION OF A RULL TIME LICENSED BLECTRICAL. ENGINEER AND A TRULY ACCREDITED ELECTRICAL CONTRACTOR BY FOAS, WORKS SHALL SE VEATLY PLACED, SECURELY MOTISED AND PROPERLY
- 16 TYPE OF SERVICE SYTEMACE SHALL SE SHALLE PHASE. TWO INTRE PLUS SPOUND. III HERTZ 2001 IC TOMINAL.
- 17. DOWDLIT'S BYING CASE SHALL THERE BE MOVE THAN THE EQUITALENT OF FOUR CLARITERISENS IN ANY DIVERSIA. ALL CONDUCT BEINGS SHALL SE FIELD HARDS BY LIBRIGHYDRULL IC SENDERS, MINIMUM BEHOMS HADJUS MUST BE IN ADDICTIONACE TO THE CODE REQUIREMENTS.
- 18. LIPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE FEST AND FUNCTIONALITY TEST SHALL BE PERFORMED BY THE CONTRACTOR BIOLIDAYS OF THE INSTALLANCY TO BE REPORTED BY SETULS ON PORMS APPROVED BY THE GLEZON CITY ENGREPHING DEPORTMENT REPRESENTATIVE. THE ORIGINAL RESISTANCE FOR ELECTRICAL INVITABLE BANK, SOT BY AGREE THAN 5 DHAIR CONSELVACION ORIGINAL REPLACE BANK. NOT EXCESS 2 (HARE).

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	1200mm x 300mm LED table in Troffer Floture	6	Circuit Homerus	
0	1200mm x 300mm LED tube in Box Type Flidure	M	Utility Service Maler	
S.	One Gong Switch	-0-	Circuit Breaker	
52,	Two Geng Bivlich	1	Grounding	
	100mm s 100mm Gelling Mounted Exhaust Fan			

LEGENDS AND SYMBOLS



GENERAL NOTES



Regublika ng Pilipinas Longsod ng Queann CITY ENGINEERING DEPARTMENT

political

PROPOSED REHABILITATION OF FREEDOM PARK III & IV DAY CARE CENTER

REVISIONING BREY, SATASAN HILLS, DISTRICT Y, BUCKSHOTT

SAMMES, MIN

MTR: EXECUTE

GLESATTISCION

CHECKED BY JAN ENGR LEO S DEL ROSARIO HICCORMINERS ASSESSMEN

ENGRY ISAMON III. VERZOGA, JR.

errocyepey.

HON, MA. JOSEFINA G. BELMONTE

chaves, qualects

GENERAL NOTES LEGENDS AND SYMBOL

HEET CONTEND

CONNECTION DETAIL

EL-01 11 14

HENT NO.

CONNECTION DETAIL

SCHEDULE OF LOADS

SINGLE LINE DIAGRAS

BERNICE ENTRANCE

PANELBOARD.

MARIDAGE

DETRE.

HON, MA. JOSEFINA G. BELMONTE

CITY WAYNER JOB BOTH CITY

EL-02

12 14

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1 SCHEDULE OF LOADS

Republika ng Pilipinas

Langeod ng Oseace

CITY ENGINEERING DEPARTMENT

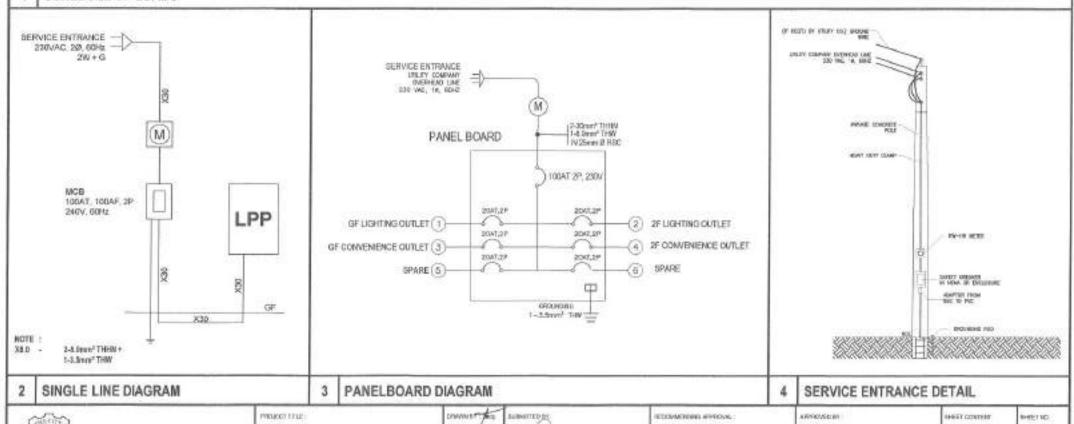
PROPOSED REHABILITATION OF

FREEDOM PARK III & IV DAY CARE

SHOY TAYABAN HILLS, DRIFFETT GLEVEN GTY

DEATEN

CENTER

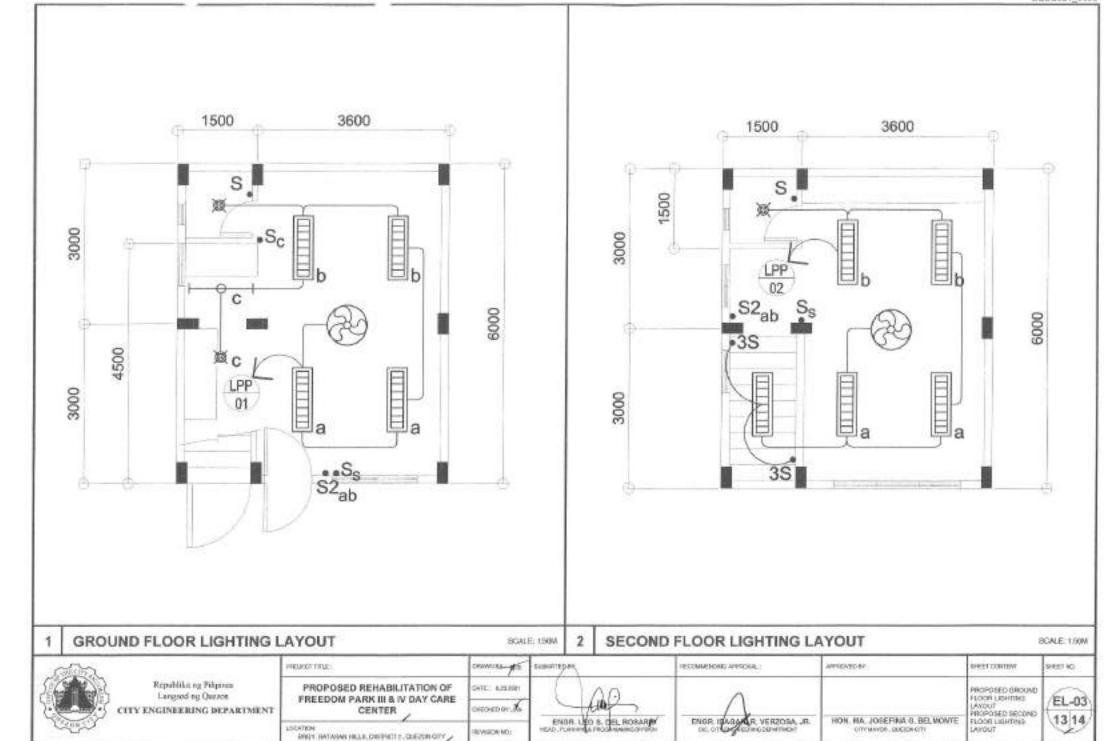


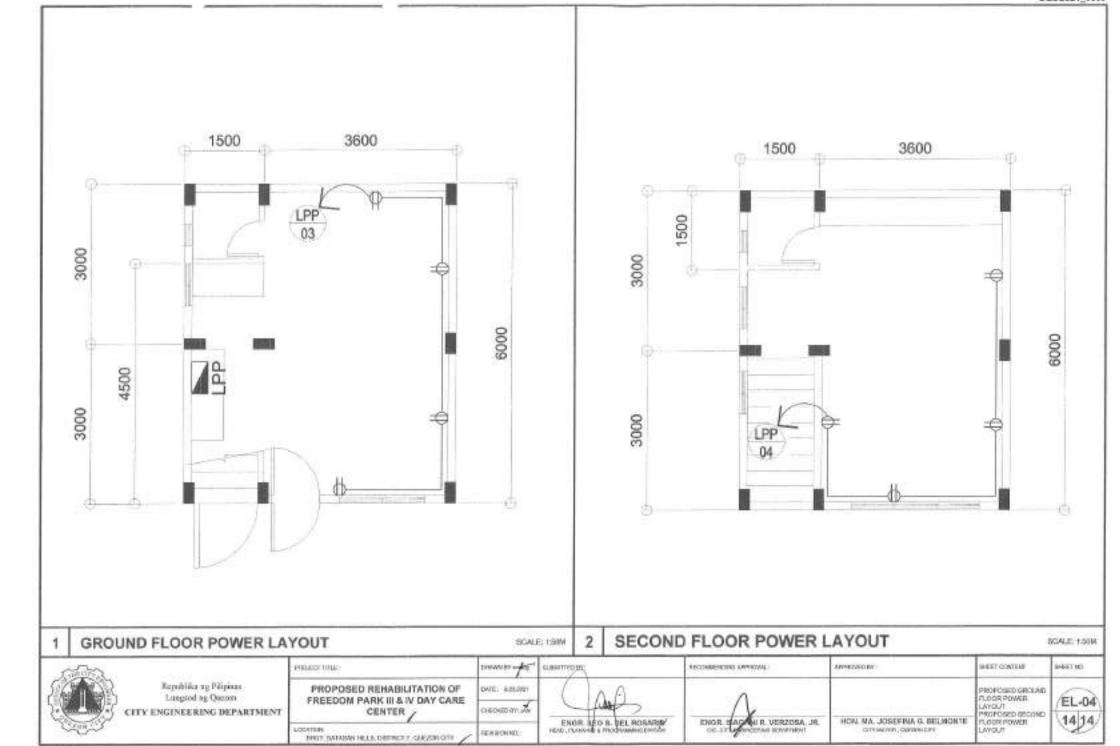
ENGR. LEO S. BEL ROSARIO.

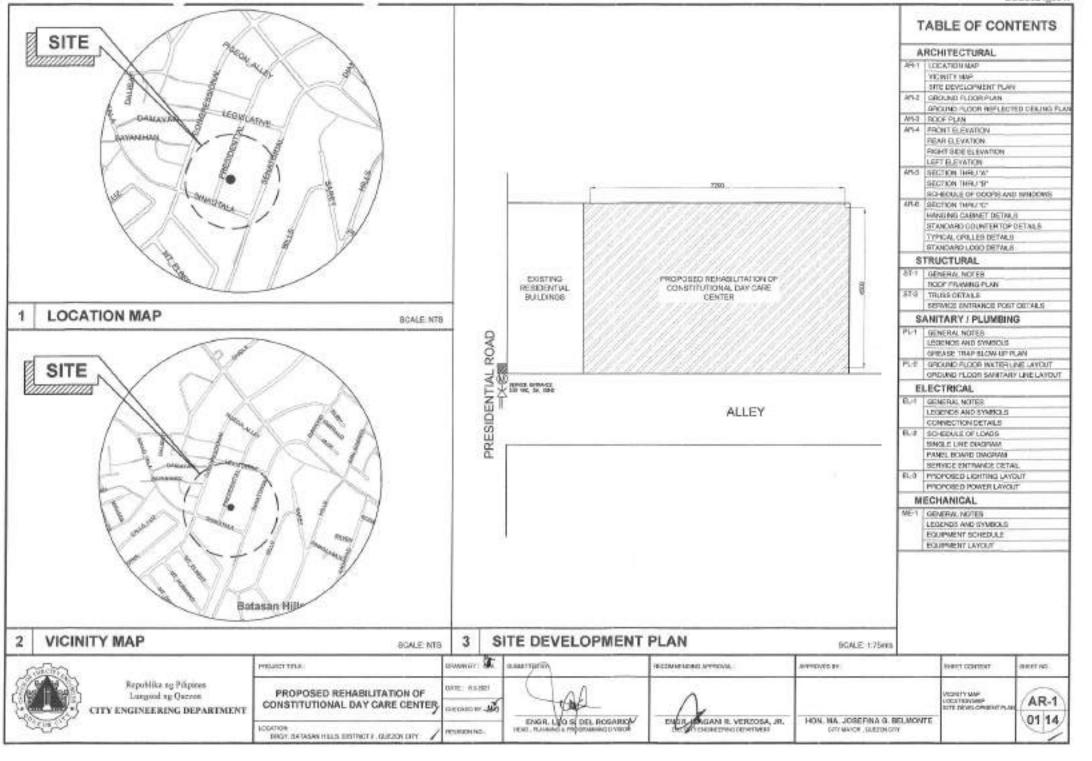
ENGR. ISASSA III. VERZOSA JR.

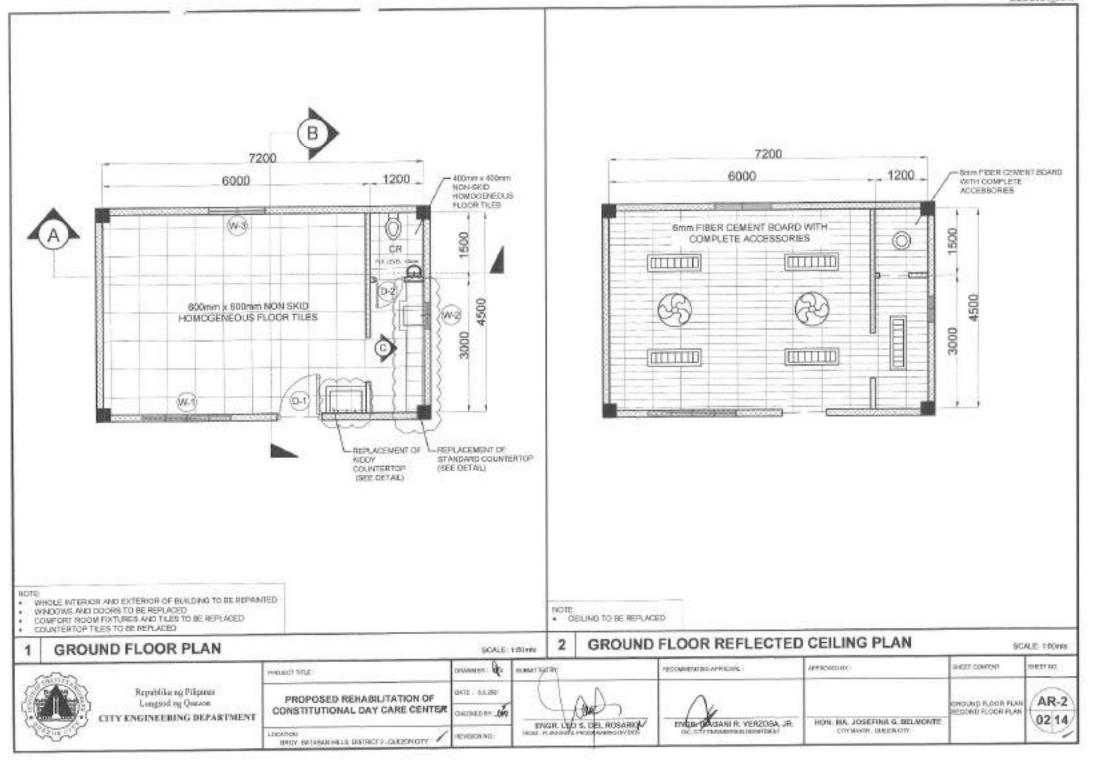
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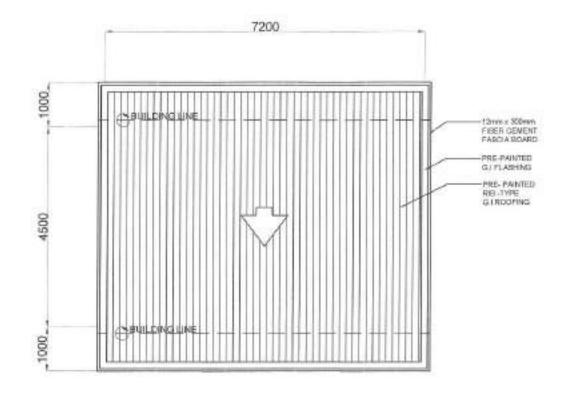
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NOTE . ROOFING TO BE REPLACED.

ROOF PLAN

BCALE: 1:60ms SHEET COMEN. SPECTION



Republika ng Pilipinos Lungsoding Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHA	BILITATION OF
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CONSTITUTIONAL DA	41 ONNE GENTEN

DANNEY: A SLEWITEPTY; DATE: RESORT organism Jan ENGR. UFO S. DEL ROS

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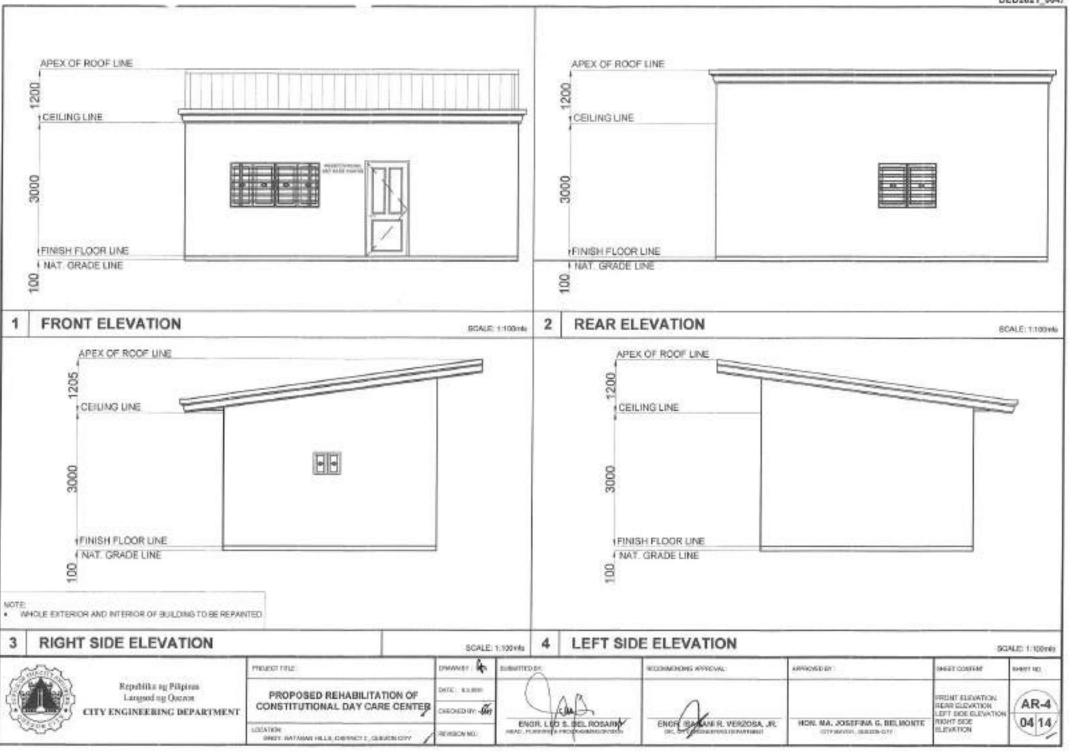
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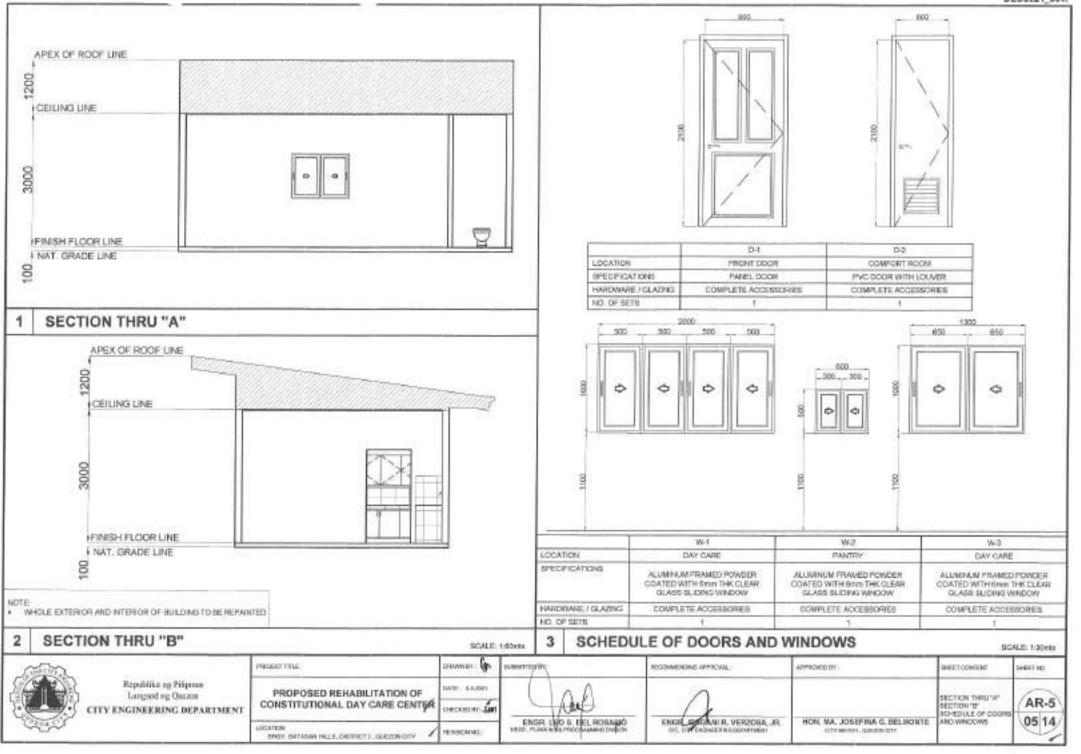
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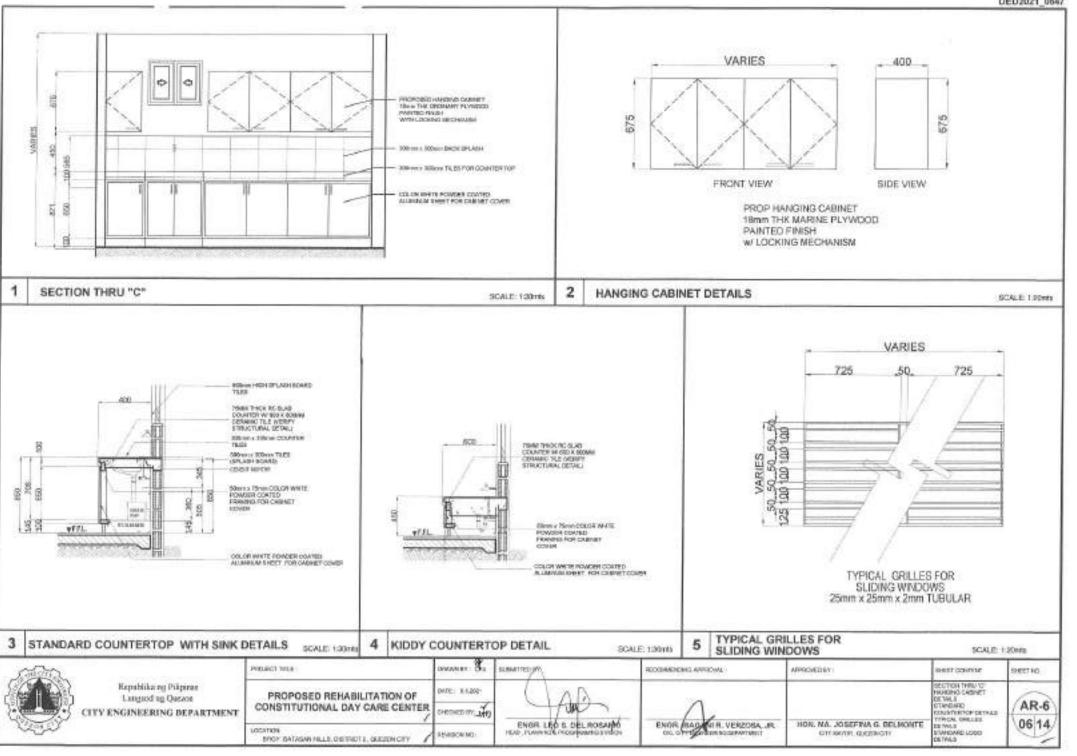
ROOF PLAN HON, MA. JOSEFINA G. BELIJIONTE 611 MAIH. GUARRICH

APPROVED BY:

AR-3 03 14







DOSFEROTOS NOTELANO TYPOJA, SCHALLARIA, 13 AL, DEMERSIA, SOSO DESARRISS SHOWS OF YORK SECTOR PRO DIL OCTUL AL DISCUSS TO MISS SPECIA, CONSTRUIS SHEP COMPACE WITH EFFECT ON AND PLACED DISCONDING OF NAT STREETUNG, FOR ENBIGERY APPROVALGITORS DEPOSITORS TOTAL TO SHALL WAS ALL MISSION BEFORE ALL YOU IS THERE DISTONS TO SHOULD BE IT THALL BE THE CONTRACTOR'S RESPONSESSED FOR TWO MODE ADDICASE SHOWING HAS BRACKED OF THE STRUCTURE FOR ALL LONGS THAT A MISCHARGED CAPAGIC CONTRACTOR. AS CAST OF QUESTION ARE NOT THEN THE ACCOMPLETATION OF COORDINGS WITHOUT THE ACCOMPLIST THE ACCOMPLIST OF THE SAME PROPERTY SHALL GOOD, LECTON WITHOUT THE SAME PROPERTY SHALL GOOD, LICENSMAN TO THE CONCRETE & REINFORCEMENT CODE OF ANTIQUE CONCRETE INSTITUTIONS AND TIAL DRIGHTERAL DOVE OF FRAMEWOODS SYNCHROLDS AND RESPONDED DOLT ON DAYS WITH COPPOSITION ON BRIDGING SANDLAND SANDLA LOCATION \$7954EH 100 PG (21/95/96) SURSS, HORSENS. FOOTING. WALL TOOTHE 9001 PM (21 HOW) 3.0701000 D.W. 2011/51/737066 4. TEM COMBLE If ALL WIRE OROSO BARS SHALL COLFS WAS PRINTED BASIS SIS. THE THINK AND DIRECTOR BROWNED CHOICE TO FINE WHICH AND CHOICE SCHOOL OF CHARGAST PROCESS SCHOOL OF CH IS SHEET HER MANUAL COLUMN TO COLUMN FOR HER POPULACIONAL ACPOLICIONS. BRIGGED CONNECTED CHEET, VANDAMET CROSSES SERRES NORO IS AND SOME IN CRACE MALIS HODE ONCE MANUFACTORNS - SPLIGG SHALL IS SICLAST PRINCIPATION AS SHALL (SPLIN STOPP ACCORDAD) MEN MALE TO SELF-TRUCK SICLASCH PRINCIPLIS STOPP ACCORDANCE (ACCORDANCE SPLIN STOPP ACCORDANCE SPLIN STOPP ACCO DARKER BY DECKE SOUL OF CONTRACT CHARGEST POSSELY. Y ALL MICHIEF BUTS, COMUN. AND OTHER SCHEET SHIEL, SE PROPERLY POST SHIEL ACT. SECURED BY RACE PROPERTY PLANSAGE ON SHIPTS. # CONTRACTOR SWILL HOTE-AND PROVIDE NUL WINCOLANDIAN COPIES SILES CROSS EQUIPMENTS. AND HIS DAMAGNA SHARES THAT HIS REQUIRED BY THE APONTROTHER. BERTROOK, MIT MICHAROL ORASHOS If ALL CONSTRUCTION IS NOT NOT PERFORM AND RELATED BY SEVEN BY CONSECUTING DATE AND RESIDENCE. After Flux by IV THE BIS OF WET BUILDY TO EXPONEUR, CHROSCOPOLISSICS OTHER MANAGED ARTHREST THE CHAPTER OF FIRMS MICH. CHICKS. CONCRETE. (consistent NUMBER OF STREET WASHINGTON HEREI'R, COLUMN, MILLS. BUAN STRUCTURAL STEEL AND PLATED

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FAUL CREATIVANAL ETERL GIALL CONFORM TO YOTH JAMES SPECIFICATIONS WITH MINISTERNED STRUMEN IN-200369. 2 AGENOR & PARTENIER BOLTS, ALL BOLTS ARALL DOLEDON TO ASTRONOMY SPECIFICATIONS.

IN AND, DRIVEN STORY, MJ. MELDING FORE SHALL REVALD STEEL IS ECTRODE LINK-HOROGO-STREAMIN

MR RUM NELS STRENGTS - 400FV

FOURDATION

FOR BATTOR IS SCORED DAVIS ON HET TIME, SHED IN LOCK OF THE PRESENCE HERALL WHILE DISL SSWING CHIAD THOS 30 KBs.

I FORGATOR SHALL REST OF HIT WAS LISTED LY LISTED THE PROPERTY OF THE PROPERTY THE ENGINEER HIS MIST OF THE POLICE STALL REST OR FLA.

THE CONTRACTOR WHILE HOTEL THE INSUREN UND CONTRACTOR OF SCHOOL HUMBOUR DEVICES, U.S.
COMBROOD MACK TO SOT CONFORM TO THE SOL BRANCH OWNERS HAVE BRANCH.

BURGHBY MALLS

ALL MITCHALL & MERRIMANNIAN SHAUL, BUT ACCOMPANIES IN THE MITCHALL STREAM A SPECIFICATIONS OF THE STRUCTURAL COOR OF THE PHILOTHERS & URINDAMINED FOLICIOSE

E. MINTEN'S SERVIT FOR ALL CONCRETE MACKING SHIEL CONCRETE DESCRIPTIONS - TYPE 8 SERVIL SAME A MISSION OF 25 SAYS CONSIGNATO DESCRIPTION CONFIDENCE FOR C

If ALL ONLINE BLAD BUT WITH THE COLLEGE PRODUCT WITHOUT COLDINATY ALL COLLS EMPLOYED FROM RETAINST SHOULD REFULE WITHOUT MIS.

EXPRODUCED AND AND AND ADDRESS OF THE PROPERTY OF THE PROPERTY

EAL MODERNALS SHALL BE HEIVEST AN ETHYSISS SOME, SOCK OF MISSING PERSONS SALE FOR HOST BALLS & PRIVATION BY A DOLLARS BOLD AT BROWN OF DRIVE. So. FOR DOORS & WINCOMS OFFIR NO PROVIDE UNITED MINER WARRANT WHIPEY MANUALIZED.

ROOF FRAMING PLAN

ROOF FRANKING TO SE REPLACED

SCALE 160Ws CHESTIC

BHEET CONVENT



Republika ng Pilipinas. Longsod ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF CONSTITUTIONAL DAY CARE CENTER

BRIGH, BATHSAN HILLS, DISTRICT # . QUICTON CITY

0A3E:::85.9081

REVISION NO.

ENGR. LEO'S, DEL ROSARIO



RECOMMENDING APPRICHAL

GENERAL MOTES ROOF PENNING FUAN ST-1 07 14

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BURNITICALLY.

HON, MA. JOSEFINA G. BELMONTE CTT MOTH GRADIECTS

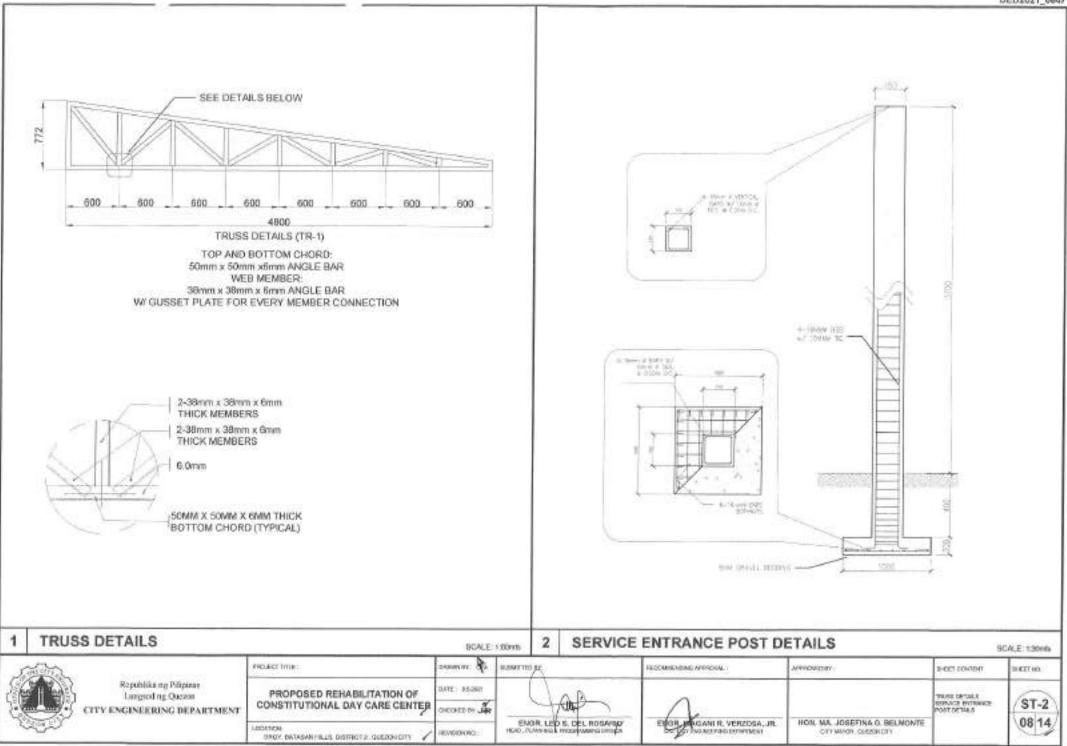
APPROXICULTY:

7200 900 50mm x 100mm x 1.2mm C PURLINS 12mm Ø SAG ROD 4500 Ė 0001

GENERAL NOTES

NOT TO SCALE

DOLLADO



- 1 All plumbing works and materials indicated herein shall be compliant to the provisions of the latest edition of National Plumbing Code, the rules and regulations of local authorities concerned, the rules and regulations of local stillty companies and the provisions of the land developer when and where applicable.
- 2. The plumbing Tayout is only diagrammatic; pipes, cleanouts and check valves shall be concealed as much as possible. It is not intended to show the actual dimension of the pipes and fixtures in the drawing but all the pipes. and fixtures shall be installed as and where indicated. Any relocation will require proper execution in relation with other trades.
- 3. The plumbing contractor shall verify all existing utilities at the site and shall coordinate the work with other trades.
- 4 Placs shall not be embedded in structural members unless otherwise specified or allowed.
- 5 Minimum alope for horizontal sever lines shall be 1% and for drain lines shall be 5%.
- 6 Proposed plumbing utilities shall conform with the actual location, depth and levert elevation of all existing opes/utilities.
- If Connection of futures to pipes and fittings shall be according to manufacturer's specifications.
- # All floor drains shall be vented individually.
- 9 All clean out females shall be flush-mounted to wall and shall be provided with polished cover caps. Do not install floor down outs except at lines on grade and sevice areas not subject to traffic.
- 10 All underground G.I. pipes in direct contact with soil shall be provided with two (2) coats of protective tar covering and unapped with jute cloth thoroughly spaked in tar or asphalt.
- 11 Provide vent stack and vent pipe thru roof of cast iron service weight as required.
- 12 All cast iron pipes shall be of approved quality and G.I. pipes for water distribution lines shall be Schedule 40 LLS. standard weight.
- 13 Provide gate valves to all water supply lines to fixtures.
- 14 All hot water lines shall be provided with proper insulation where exposed.
- 15 All individual branches to fedures or group of fictures and/or equipments shall be provided with air chambers or cappost vertical pipe extensions of dimensions as shows:
- H = 450 mm for 19 mm @ and larger
- H = 300 mm for 12 mm Ø and smaller
- 16 All hase blobs shall be 19 mm Ø (3/4" Ø) unless otherwise indicated:
- 17 Inlet pipe of septic tank is 50 mm higher than the siphon pipe which is 30 mm higher than the outlet pipe.
- 18 All plumbing works and manner of construction shall be under the direct supervision of an able and duly licensed Moster Plumber or Registered Sanitary Engineer. Any discrepancies found in plan shall be notified to the same person.

I. FOCTURES AND OTHER LEGEND.

FLOOR DRAIN
ROOF DRAIN
SHOWER
WATER CLOSET
LAVATORY
URINAL
KITCHEN SINK
BUILDING DRAIN

DECK DRAIN

CEILING CLEANOUT

FLOOR/GROUND CLEANOUT

DOWNSPOUT

milimater

00. mm DIAMETER SHOWER DRAIN CB CATCH BASIN MH. MANHOLE

DIRECTION OF FLOW

GREASE TRAP

	UNION PATERT
100	CHECK WAVE
216	BUILDING SEMER
83	BUILDING ORAIN
197	WASTE LINE
60108	AREA DRAW/CATCH BASIN
/D	FLOOR DRAWN
	DAMETER
	WASTELIKE
-	WATER LINE
	ONTE WILVE
.00	DECKORON
00	CLEAROUT
	PIPE DOWN
	PPEUP
100	MILLIMETER
44	GATE WILVE
	AREA DRUN/ CATTIN BASIN
WG	WATER GLOSET
1,000	LAVATORY
Stat.	MANHOLE
190	HOSE BIBB
-	STORM DRAW LINE
	VENTLINE
VKC	VENT AROVE CELLING
05/808	CONCRETE PIPE/REINF CONC. PIPE
ATE	VERT THIIU NOOF
- 62	DIRECTION OF FLOW / SLOPE

GENERAL NOTES

LEGENDS

SCALE: NTS

SHEET NO.

SHIEL CONTENT

GENERAL HORSE

LEBERGS

Republika ng Pilipinas Lungsoding Quezon CITY ENGINEERING DEPARTMENT PROJECT TITLE: HOME BY THE B/E Augus 10, 2021 PROPOSED REHABILITATION OF CONSTITUTIONAL DAY CARE CENTER / momer Ah BARWINGAY BATASAMHILLS, DIETRICT II, QUEZON CITY

SUBMITTED BY:

ENGR. LEG S. DEL ROSARIO 100 needo arebanasis oroca

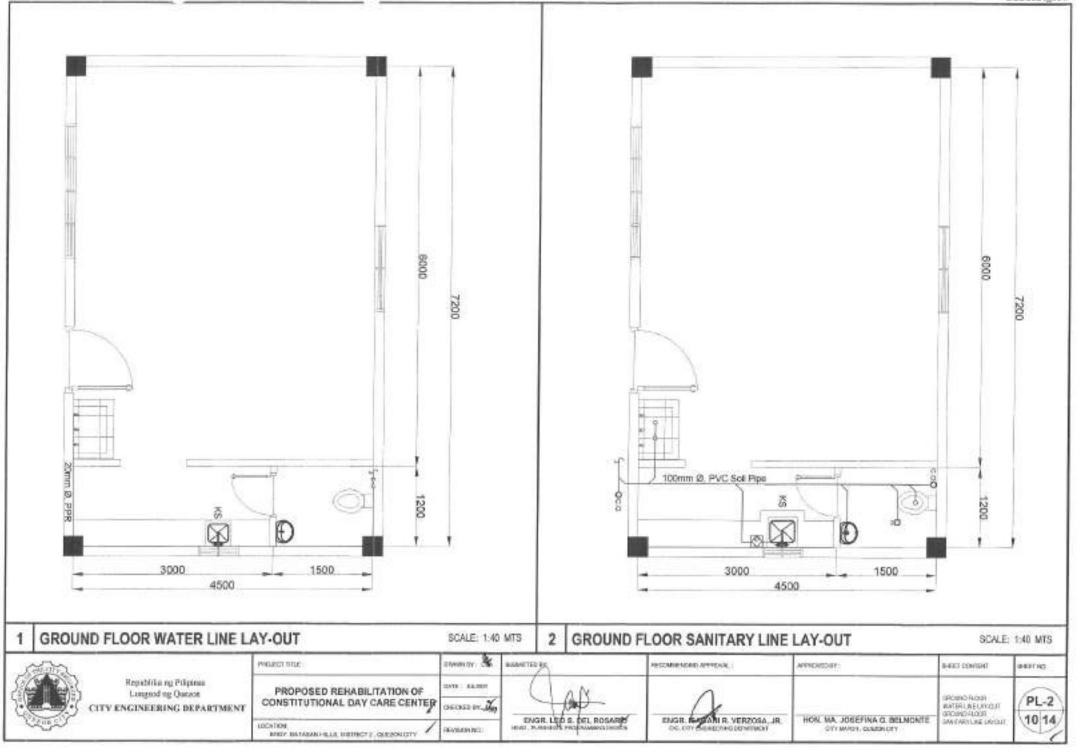
ENGR. BAGAN R. VERZOSA JR. DE CO TRANSPORT HENDEN

RECOMMENDING APPROVAL

HON, MAJOSEFINA G. BELMONTE

APPROVED BY:

PL-1



- AULELECTRICAL WORKS SMALL SE DOBE IN ACCORDANCE WITH THE PROVISIONS OF THE LAYEST CONTINUED. THE PROPERTY ESCURIFICAL CODE, THE LAYES AND OPDINANCES OF THE LOCAL CODE ENFORCERS AUTHOR/THES AND THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE LITELTY COMPANY.
- THE CONTRACTOR SHALL SECURE ALL PIGUETS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL PURNISH THE DWIREN THROUGH THE ENGINEERS, FINAL CERTIFICATES OF ELECTRICAL REPORTION AND APPROVAL FROM PROPER CONFINMENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL EMBEDDED BRANCH CRIGOTIS SHALL BE PAC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE EMIT OF INC SUPPORTED BY CONDUIT IS ANY SHALLT FOR MUNICIPALS
- PULL BOXES SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER RECEISARY TO PAGULTATE WIRE PILLING EVEN IF THESE ARE NOT BENCATED ON THE PLANS. SIZING OF ALL PULLBOYES SHALL BY COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DISCHARGE TO THE ENGAGER FOR APPROVAL PROR TO PARRICATION, LOCK TION OF PILLBOYES SHALL BY APPROVED BY THE APCHIBOTEING MEET AND MUST BE REPUBLIFICION THE VISIBILITY PLAN.
- 5. ALL POWER OUTLIETS, AND SWITCHES SHALL BE GROUNDING TYPE WITH PARALLEL SLOTS FOR 2004.
- PROVIDE ORDUND FAULT CLEFFORT INTERFLIPTOR DIRECTOR DIRECTOR LOADS MARKED SETT ON THE RUN.
- ALL METALLIC CONDUCTS, CARRIETO AND EQUIPMENT SHALL BE PROPERLY CRICKNOSID AND ROMOED.
- 8. UNLESS CITYETWISE HOTED, RICUSTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BY AS FOLLOWS.

PECEPTAGLE DUTLET - 300 NW AFF. HISSIN ARCHE WORKING COUNTRY.

LIGHTING SINTON - HOUMARY

PANELSCARS - 1880 MW AFF

- REPER TO BECOMMON, PLUMBING AND PROTECTION (PROVINCES FOR RATINGS AND LOCATIONS OF EQUIPMENT AS INELLIAS THEIR COMMON, SEQUENCES
 AS SPECIFIED AND ON SHOWN UNDER THEIR RESPECTIVE SECTIONS
- TIL. ALL MATERIALS TO BE USED SHALL BE OF THE HEST QUALITY, BRANCHEWAS \$PROPRIED.
- 11. THE DRAWINGS AND SPEID ROATIONS ARE INTENDED TO PRESENT ID-HERAL INVOLVENUE SHOULD UILLIBED ESCRIPTION OF THE PROJECT BUT DO NOT INCRESSAFILY INDICATED STREET ACTUAL LOCATIONS, LEVEL AND DETAINESS OF THE SOUPPMENT. THE CONTRACTOR IS HEREIN INCIDENCE TO MAKE SUCH ADJUSTMENT AT THE JOSSITE AS LOCATION, DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL HELD CONSTITUTES.
- 12. WAY DISCREPANCY DETWIND THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE SYCREPA FOR CLANIFICATION ORGINAL.
- WILLIGHTING AND CONVENENCE OUTLEF CIRCUITS SHALL BE 3/8/0, MM. THANK 2 COPPER WHE UNLESS OTHERWISE NOTICE MINIMUM RIZE OF WIRE SHALL BE 3/5/90. AMIL COPPER WHE ALL WIRES AND CASHES BHALL BE COLOR CODED AS FOLLOWS:

LINE 1 - RED

LINE 1 - YELLOW

NEUTRAL WHITE

GROUND - GREEN

16 BOXER, WIRE, SUTTERS, SHOLDSURE 8-IN J. BE. FARRICATED FROM STEEL WITH "HIGDNESS AS FOLLOWS MAXIMUM WIDTH OF THE WIDEST SURFACE STEEL.

UP TO INCLUSING 152-41 MM

GA 19 FARRITED WITH NET ALL PRIMER SPCKY AND TOPOCAT

OVER 102.40 MM BLT NOT OVER 40030

OA 14 FAINTED WITH WETAL PRIMER BPOXY AND TOPODAT

OVER 457-30 MM SLT NOT OVER 162 MM

GA CEPARITED WITH METAL PRIMER EPOXY AND TOPOCAT

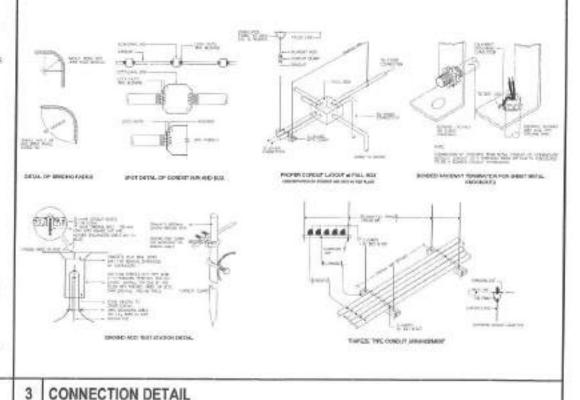
OVER 762 NW

- GA 10 PAINTED WITH METAL PRIMER EPOXY AND TOPODAT
- ALL ELECTRICAL WORKS HEREIN SHALL REINSCUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A RULL THE LICENSED GLECTRICAL. SHORNEER AND A DULY ACCREDITED ELECTRICAL CONTRACTOR DE POAUL BIORRES SHALL DE BEATLY PLACED. SECURELY ENGTERED AND PROPERTY PROPERTY.
- 98. THPE OF SERVICE EN TRANCE SHALL BE SANGLE-FIASE, TWO HIRE FALS GROUND. IDNEFTZ ZIEV ACHOMINAL
- 11 CONSTITUTION OF CASE SHALL THERE BE MORE THAN THE CONVACIANT OF FOUR QUARTER SENDING MAY ONE FIRM ALL CONDUCT SENDER MAY USE OF FROM THE CONDUCT SENDER MAY USE OF FROM THE CONDUCT SENDER MAY USE OF FROM THE CONDUCT SENDER MAY USE OF THE CONDUC
- THE UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, INSULATION RESISTANCE TEST AND FUNCTIONAL TY TEST BINAL, BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON FORMS APPROVED BY THE QUESTION OF ENGINEERING DEPARTMENT PROPERTIES. THE GROUND RESISTANCE FOR ELECTRICAL SYSTEMS SHALL NOT BE HORE THAN 5 CHARL CONMANDATION CROWNING RESISTANCE SHALL NOT EXCEED SOME.

DESCRIPTION:

0:	Duplex Convenience Outlet	B	Orbit Fan with Selector Seitzh	
0:	Duplex Convenience Outlot (Elev. 0+602.2m)		Lighting/Power Panel	
0	150mmil LED Pinight	6	Circuit Homerun	
(0111111))	1200mm x 300mm LEO tube in Troffer Finance	(M)	Utility Service Meter	
\boxtimes	100mm x 100mm Ceiling Mounted Exhaust Fan	_^	Circuit Brasker	
s.	One Gang Switch	1	Grounding	
SZ.	Two Gong Switch		ACU Outer	

2 LEGENDS AND SYMBOLS



GENERAL NOTES



Republika ng Pilipinas Langsod ng Quezon CITY ENGENEERING DEPARTMENT PROPERTY.

MACH, MATASAN HILLS, SASTRICT & LILESON CITY

PROPOSED REHABILITATION OF CONSTITUTIONAL DAY CARE CENTER

THE DRIVE BY JA

DEMONSTRY: MA

W10 68300

ENDR LEDS SEL ROSAND

1

ECOMMENSAS AFRICAL:

SANI R. VERZOSA, JR. HON. NA. JOSEF NA G. BELMONTE

APPROVED BY

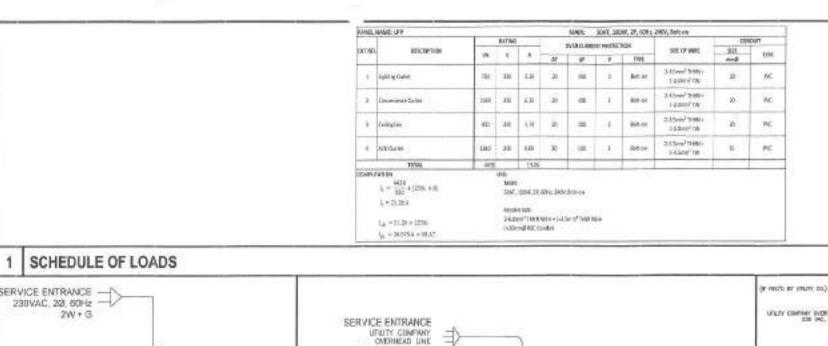
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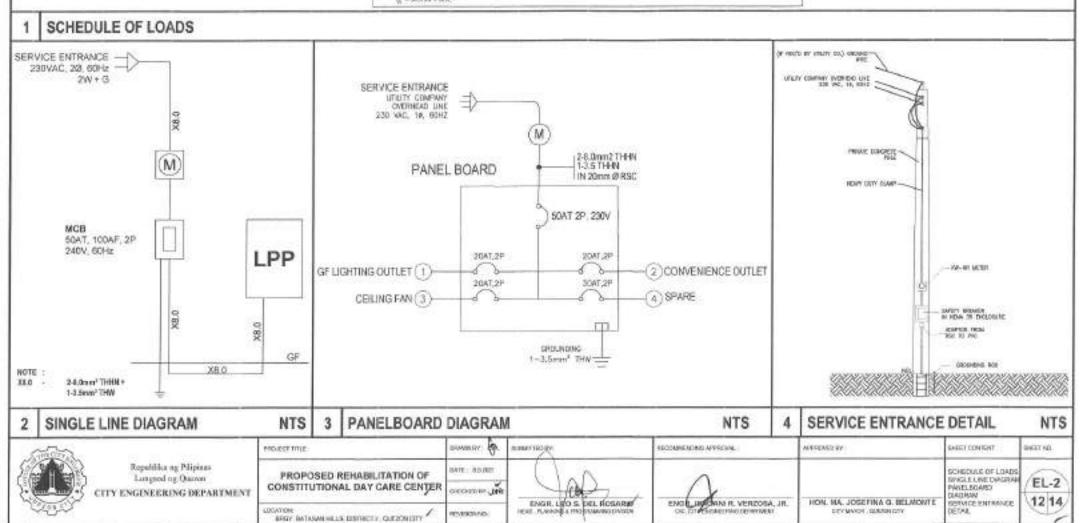
LEGENDS AND SYMBOL DONNECTION DETAIL

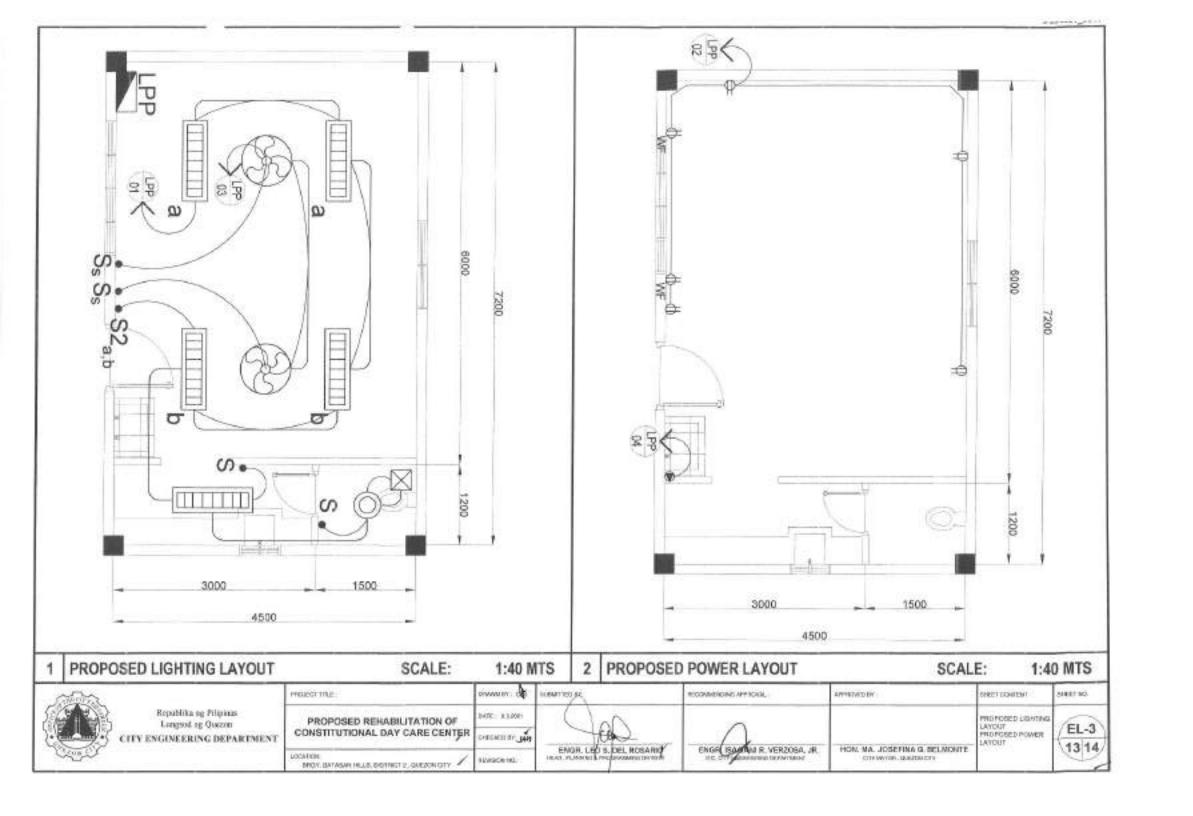
SHEET COUNTRY

EL-1

THE PERSON







ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE NATIONAL BUILDING CODE, PSME CODE AND THE RULES AND REGULATIONS OF QUEZON CITY.

THE SCOPE OF WORK SHALL INCLUDE ALL WORKS DESCRIBED IN PLANS.

THE WORKS SHALL BE EXECUTED IN CLOSE COORDINATION WITH ALL OTHER TRACES.

ALL AIRCONDITIONED SPACES SHALL BE MAINTAINED AT 24°C DB AND 50% RH.

CONTRACTOR SHALL SUBMIT SHOP ORAWINGS, MANUFACTURERS CATALOGUE, SPECIFICATIONS. SAMPLES, INCLUDING VIBRATION ISDLATORS BEFORE EXECUTION OF WORK.

ALL FLOOR SLAB MOUNTED VIERATING EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATORS TO PREVENT VIBRATIONS AND NOISE TRANSMISSION.

EXHAUST FAN SHALL BE PROVIDED WITH BUITABLE FLEXIBLE CONNECTIONS TO DISCHARGE DUCT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING OF THE WHOLE VENTILATION AND AIRCONDITIONING SYSTEM AND INSTALLATION.

ALL POWER WIRING SHALL BE ELECTRICAL AND TERMINATION TO EQUIPMENT SHALL BE MECHANICAL.

PROVIDE CONTROL WIRING FOR AIRCONDITIONING EQUIPMENT.

PROVIDE THERMOSTAT FOR ALL INDOOR UNITS / FAN COIL UNITS.

VERIFY LOCATION OF CONTROLLERS AND SWITCHES ON ELECTRICAL PLANS.

ALL PIPE EQUIPMENT CONDENSATE DRAIN SHALL BE CONNECTED TO THE NEAREST FLOOR DRAWN AD JOB

PROVIDE QUIDES, HANGERS, AND SUPPLEMENTAL STEEL SUPPORT FOR ALL PIPING, DUCTING AND EQUIPMENTS:

PROVIDE PIPE SLEEVES FOR ALL PIPING PASSING THRU BUILDING STRUCTURE

ALL PIPE DIMENSIONS ARE IN MILLIMETER UNLESS D'THERWISE NOTED.

GENERAL NOTES

- EQUIPMENT DESIGNATION - METRICERUNT PIPE WALL MOUNTED INDOOR UNE?

-WHITON TYPE AIR CONDITIONER

LEGENDS

AIR COOLED CONDENSING UNIT

ELECW UP

ELECOW DOWN

- FAM DOSLUMIT

SHOUSET TITLE

EQUIPMENT LAYOUT

BURBUTTED BY

SCALE: 1:40 MTS

SPECTION.

Republika ng Pilipinas Langual ng Quezon CITY ENGINEERING DEPARTMENT

PROPOSED REHABILITATION OF CONSTITUTIONAL DAY CARE CENTER

1908/8/B | DETAIL CHECOGODON AND revision NO. SHOP DATASAN HALE DISTRICT C CARGOS OTH

Orwanar : An

ENGR. LEG S DEL ROSARD

ENGR-SAGANI II. VERZOSA, JR. ас, с услужникова политивы

AND PARTY OF THE PARTY OF

HON, MA. JOSEFFMA G. BELMONTE CITY MARKET IN COLUMN STR.

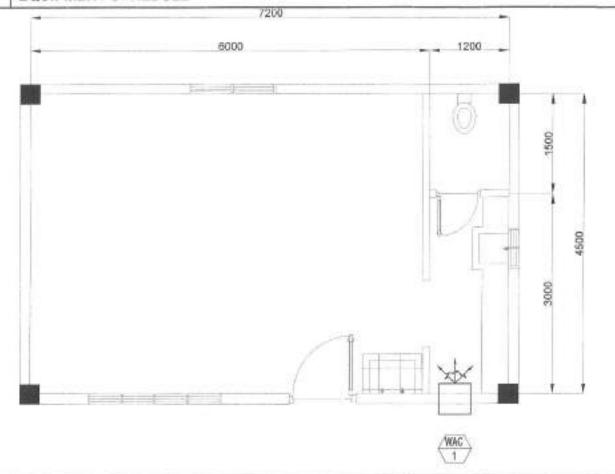
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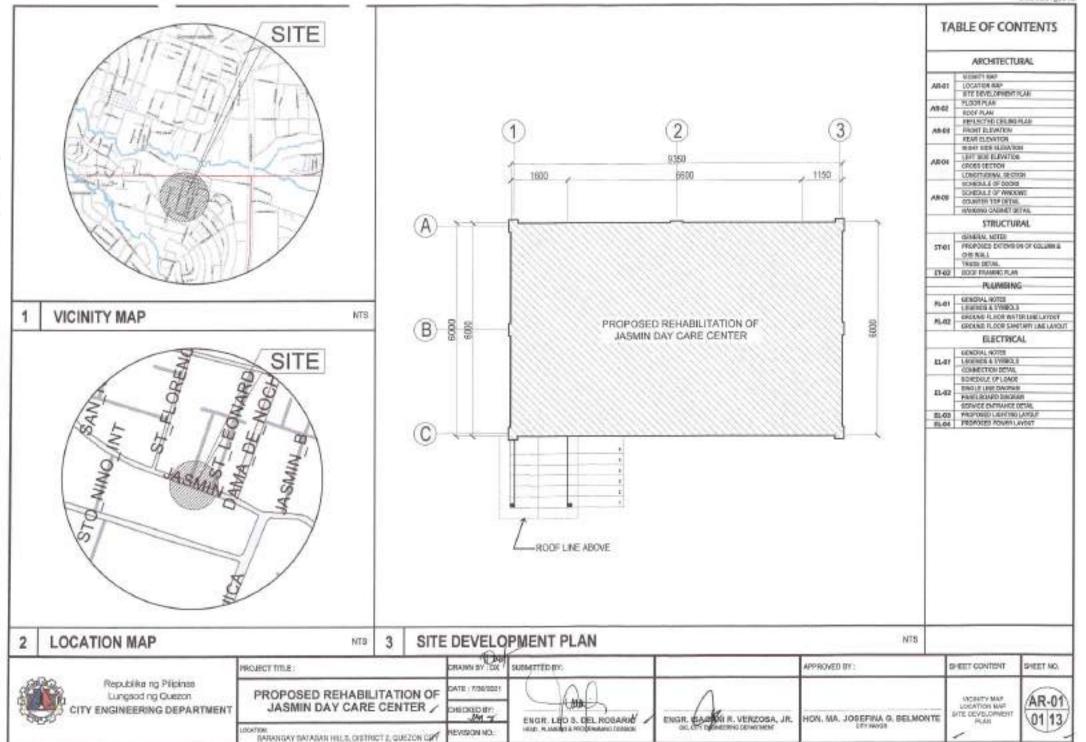
GENERAL NOTES LECENTIS AND ME-1 SYMBOLS 14 14 8 CHEDULE EQUIPMENT LAYOUT

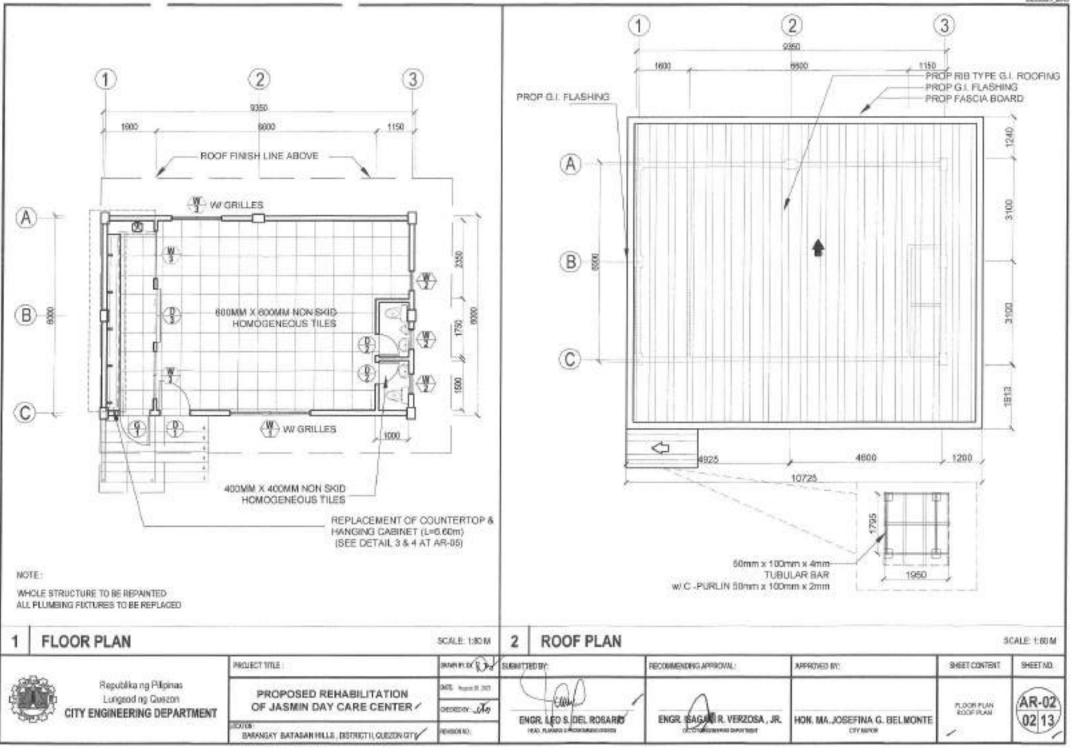
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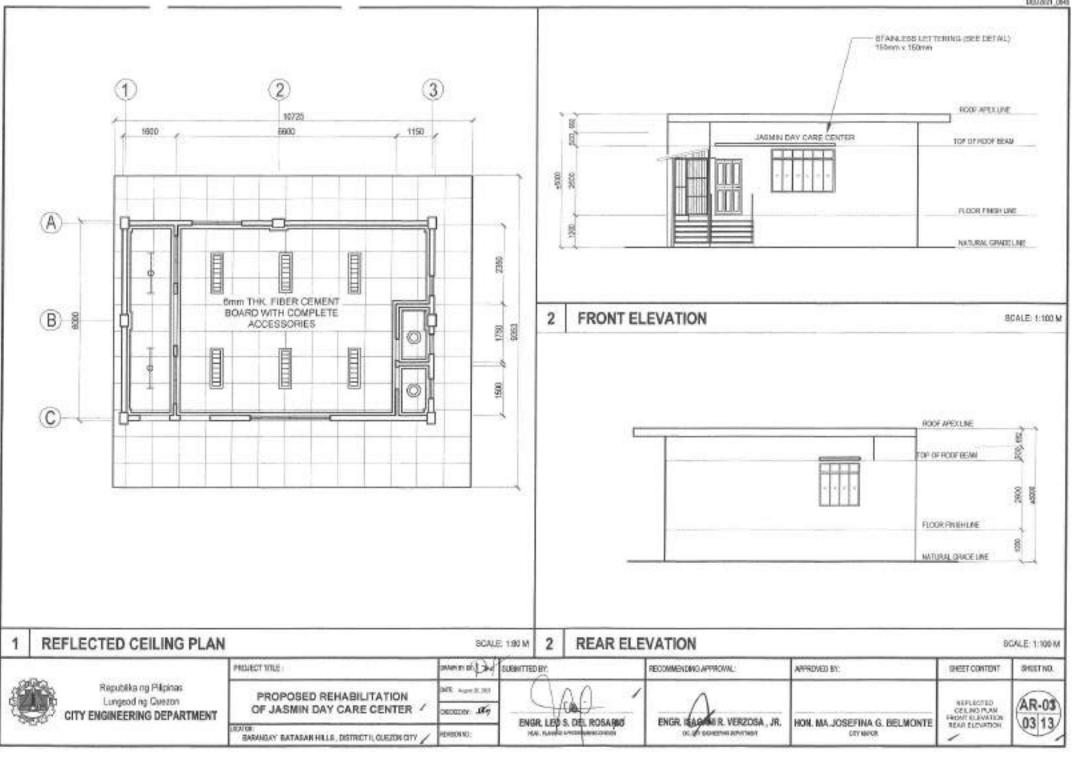
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	LOCATION	assemility	HP	KAHR	ARK GEOGRESITION	WATTS	VOLTS	PHAGE	HEREZ	REMOVABLE MINUE ORICE FASY TO CLEAN	
(WVC)	AS SHOWS	1967	1514	25,580	60H CRW	2380	230.0	18	810	ANTHOROPETER, WY MICHANICAL OMOFF TRAINS	

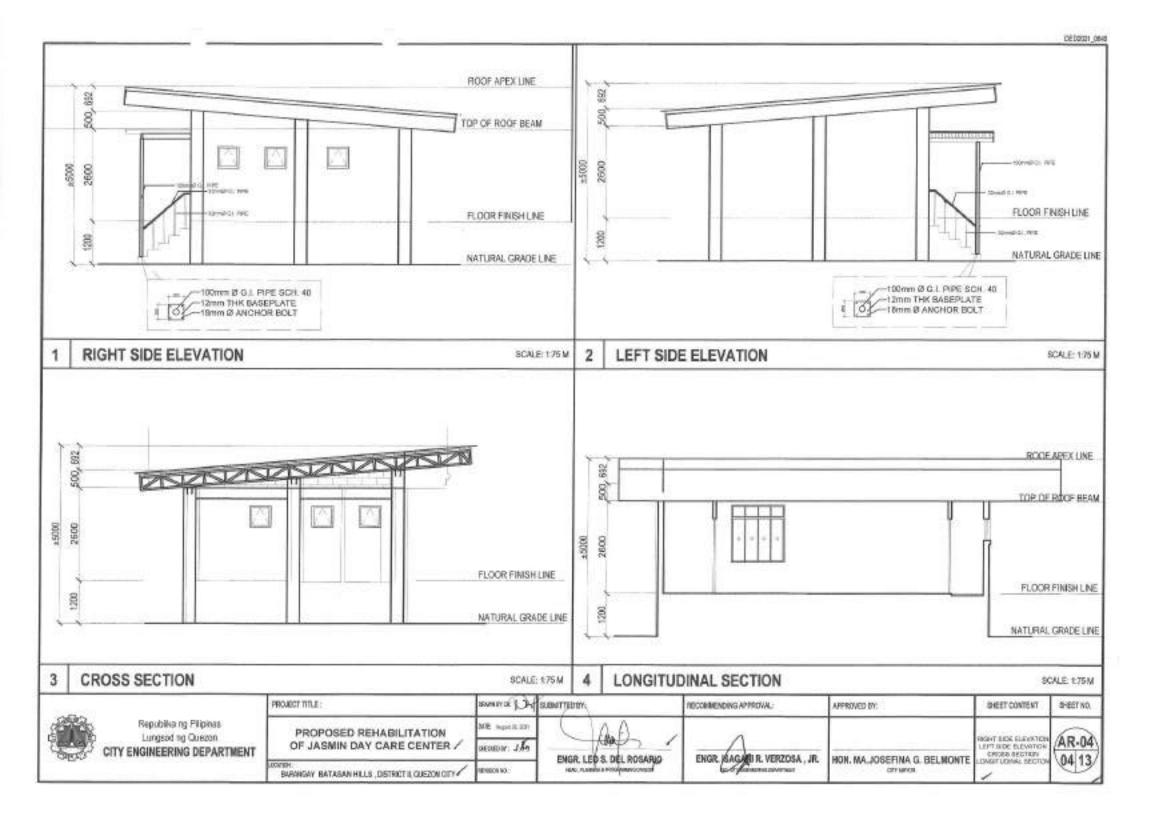
EQUIPMENT SCHEDULE

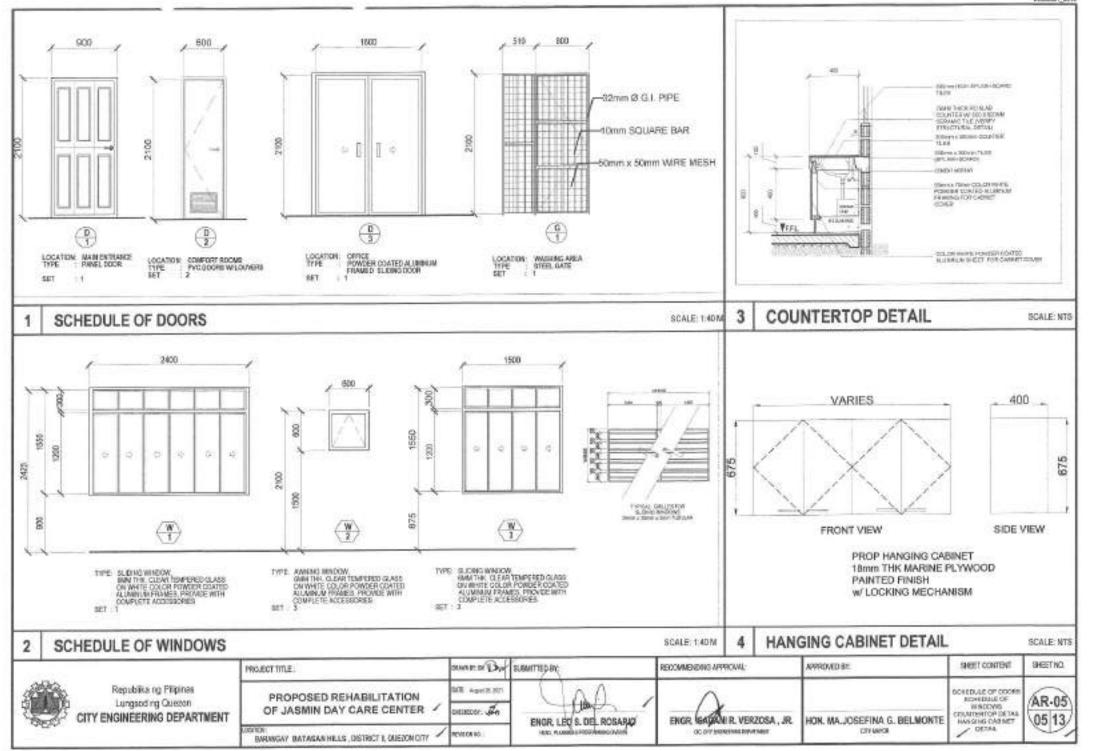




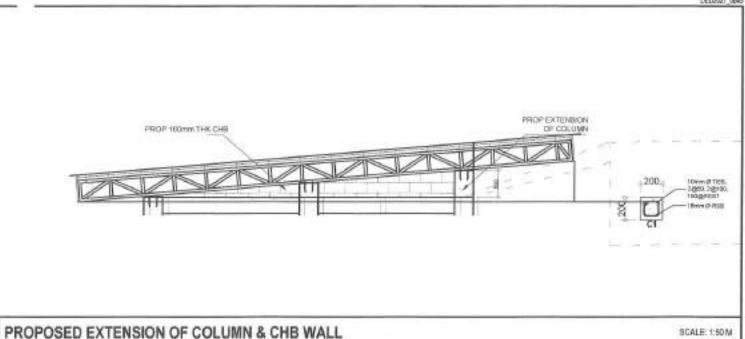


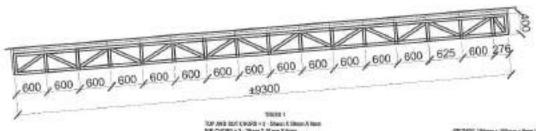












TOP AND SECT (MODES 1) - STREET, STREET, A STR

RECONNENDING APPROVAL:

PROVIDE SHOWN & WHOM I SHOW OUTST PLATE. IN OVERY COMMICTION.

3 TRUSS DETAIL

5CALE: 1:50 M

SHEET NO.



Republika ng Plipinas. Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER

BARAKKAY BATASAN HILLS , DISTRICT II, QUEZON CITY

PROJECT TITLE:

NTER / OCOCINI A

ENGR. LED S. DEL ROSARIO

CHARGE OF THE SUBMITTED BY:

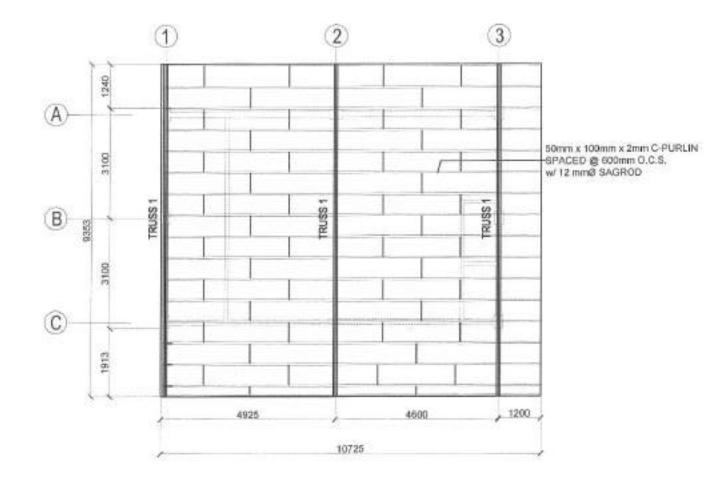
ENGRESADANI R. VERZOSA , JR.

HON, MA.JOSEFINA G. BELMONTE

APPROVED BY:

PENDIA HOTES
PROMOZES ENTERIOR
OF COLUMN A CHEWARL
TRIBE SETAL

SHEET CONTENT



SCALE: 1:50 MTS ROOF FRAMING PLAN SEMILIMENT STAMPHONE PROJECT TITLE: RECOMMENDING APPROVAL: APPROVED BY: SHEET CONTENT SHEET NO. Republika ng Pilipinas DATE AWARD DO PROPOSED REHABILITATION ST-02 Lungsod ng Quezon OF JASMIN DAY CARE CENTER NECESSION AND ROOT FRAMING FLAV CITY ENGINEERING DEPARTMENT 07 13 ENGR. IS GANI R. VERZOSA, JR. ENGR. LED S. DEL ROSARIS HON, MA, JOSEFINA G. BELMONTE OR WHOM HIVEON IC. BARANGAY BATASAN HELLS ; DISTRICT & QUEZON CITY -

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- 3 The slumbing contractor shall verify all existing utilities at the site and shall coordinate the work with other trades.
- 4 Pipes shall not be embedded in structural members unless otherwise specified or allowed.
- 5 Minimum aloge for horizontal sewer lines shall be 1% and for drain lines shall be 5%.
- 6 Proposed plumbing utilities shall conform with the actual location, depth and invert elevation of all existing pipes/utilities.
- 7 Connection of fixtures to pipes and fittings shall be according to manufacturer's specifications.
- 3 All floor drains shall be vented individually:
- 9 All clean out fermies shall be flush-mounted to wall and shall be provided with polished cover caps. Do not lestall floor clean outs except at lines on grade and service areas not subject to traffic.
- 18 All underground G.1 pipes in direct contact with soft shall be provided with two (2) coats of protective far covering and wrapped withute cloth thoroughly soaked in tar or asphalt,
- If Provide vent stack and vent pipe thru roof of cast iron service weight as required:
- 12 All cast iron piges shall be of approved quality and G.I. piges for water distribution lines shall be Schedule 40 U.S. standard weight.
- 13 Provide gate valves to all water supply lines to futures.
- 14 All hot water lines shall be provided with proper insulation where exposed.
- 16 All individual branches to flutures or group of flutures and/or equipments shall be provided with air chambers or capped vertical pipe extensions of dimensions as shown:
- H = 450 mm for 19 mm Ø and larger
- H = 300 mm for 12 mm Ø and smaller
- 15 All nose bibbs shall be 19 mm Ø (3/4" Ø) unless otherwise indicated.
- 17 Inlet pipe of septic tank is 60 mm higher than the siphon pipe which is 30 mm higher than the outlet pipe.
- 18 All plumbing works and manner of construction shall be under the direct supervision of an able and duty licensed Waster Plumber or Registered Sanitary Engineer. Any discrepancies found in plan shall be notified to the same person.

PROJECT TITLE:

I. FIXTURES AND OTHER LEGEND D COR OPAN

RD	ROOF DRAIN
SHO	BHOWER
LAV	WATER CLOSET LAVATORY
URI	URINAL
KS.	KITCHEN SWK
80	BUILDING DRAIN
DD	DECK DRAIN
cco	GEILING CLEANOUT
FCO	FLOOR/GROUND CLEANOUT
00	DOWNSPOUT
mm.	millimeter
xii:	mm/DIAMETER

90	BUILDING OF AM
PF	WASTELINE
N011100	AREA DRIAM/COTO-FRASIN
70	FLOOR DRAW
	CHARTER
_	WASTELINE
-	WATER LINE
	GATE VALUE
80	DEDK DRAW
604	CLEANOUT
	FIFE COWN
	PREUP
140	WILLINETER
90	GATE WALVE
	AREA DRAIN I CATCH BASEL
96.	WATER CLOSET
S.M.	LAVATORY
(84)	MARHOLE
- 98	HORE BEE
processio	BTOFMORAWUNE
	VENTURE
196	VENT ABOVE CEILING
CP./HCP	DONORS TE PINE I REINF CONC. PPE
979	VIEW THRU HOOF
0-	DIRECTION OF FLOW/SLOPE

JUNION PATENT CHECK VALVE

BUILDING SEWER

BHD

GREASE TRAP

MANHOLE DIRECTION OF FLOW

SHOWER DRAIN CATCH BASIN

GENERAL NOTES

LEGENDS & SYMBOLS

SCALE NTS

SHEET NO.



Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER -

BAHANDAY BATASAN HILLS, DISTRICT II, QUEZON ON'Y

DIE Aug 2020 AAL BORDS ENGR. LED S. DEL ROSARIO NO AMERICANO HOMBOROLOGO

SEMEST COME STREET, STREET

ENGR. (SAGINI R. VERZOSA, JR.

RECOMMENDING APPROVAL:

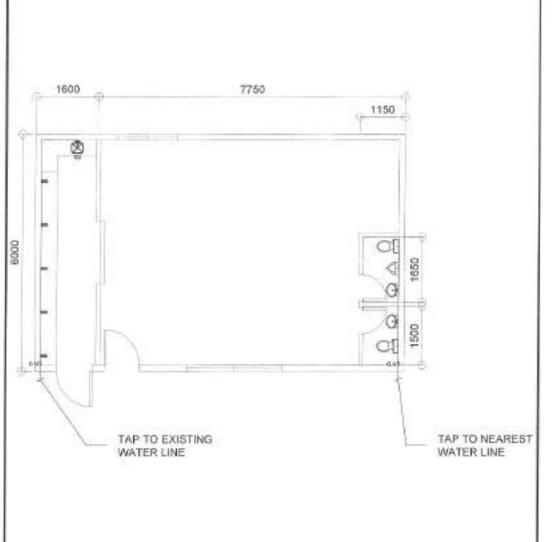
HON, MAJOSEFINA G. BELMONTE

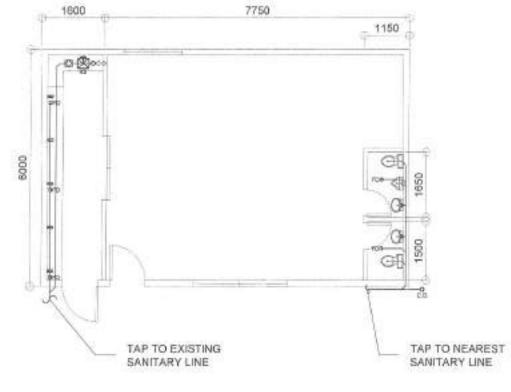
APPROVED BY:

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SHEET CONTEXT

1.E09408





GROUND FLOOR WATER LINE LAYOUT

SCALE: NTS

GROUND FLOOR SANITARY LINE LAYOUT

RECOMMENDING APPROVAL:

SCALE NTS

SHIET NO.

SHEET CONTINT

Republika ng Pilipinas Lungaod ng Quezon CITY ENGINEERING DEPARTMENT PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER /

BARANGAY BATASAN HILLS, DISTRICT II, QUEZON CATY

PROJECT TITLE

эконе: ом 🖟 вценттерек; 96E Hotel 200 money Ale

ENGR. LISO S. DEL ROSARIO

ENGRUSSIENS R. VERZOSA, JR.

BROWN THORPIAN HON, MA.JOSEFINA G. BELMONTE OTY MAYOR

ARPROVED BY:

PL-02 0913

- ALL SLETTRICK, WORKS SHALL BE DOVE IN ACCORDANCE WITH THE PROVIDED OF THE LATES? BOTTOM OF THE RELIGITMORE ELECTRICAL CODE, THE LAYS AND ORDINANCES OF THE LOCAL CODE ENFORCING NUTHORITIES MAD THE REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE UTILITY COMPANIE
- THE CONTRACTOR SHALL SCORRE ALL POWERS AND PAY ALL PERS REQUIRES FOR THE BOOK AND SHALL RUNNING TWE OWNER THROUGH THE CHOMERS, FINAL DERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER SO REPRESENT AUTHORITIES FOR COMPLETION OF WORK.
- ALL EXECUTED BROKEN CRICUITS SHALL BE INCIGORDUITS MAD FOR EXPOSED RETAILATION SHALL BE IDAY OR RING SUPPORTED BY COMPLET CLAUBS EVERY
- PULL MODER SHALL BE PROVIDED IN THE CONTRACTOR WINDVENES RECESSANT TO PROUTATE WINE PULLING EIGHT PLINESS AND HOT MORCATED ON THE FLAKE. SZING OF ALL PILLEDGES SHILL BE COMPUTED SASED ON THE DODG REQUIREMENTS, SLIGHT, SHOP CROWNINGS THE THE ENGINEER FOR APPEXAGE. FROM TO FAMILIATION, LOCATION OF PULL BOXES SHIPL. BE APPRINGED BY THE APCENTECTIONS BEITH AND MOST SERIEFLESTED ON THE WARRINGT PLAN.
- ALL POWER GUTLETO WHO SAFFOLES SHALL BE GROLINGING TYPS WITH PARKLES, SLOTS FOR 2017.
- PROVIDE GROUND FAULT CORRESTO INTERRUPTER CIRCUIT GROWER FOR LOADS HARRED "GRID" ON THE FLAM.
- ALL METALLIC CONDUITS, CARRIETS AND EQUIPMENT SHALL BE PROPOSILY DISCURPED AND BONDED
- UNLESS OTHERWISE NOTED. MOUNTING HEIGHT FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS.

RECORPTACLE OUTLET - NO MAY AFF , 15 BINN HEAVE IND BY MAD COLMITED.

LIGHTING SWITCH - 1695 WHATE PWWELBOARD - 1800 MM AFT

- 8 REFER TO MECHANICAL PLUMBNO AND FRIE PROTECTION DRAWINGS FOR EXTINGO AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL SECURINGS. AS SPECIFIED AND OR SHOWN (AIDER THEIR RESPECTIVE SECTIONS.
- III ALL INITIATIALS TO BE USED SHILL BE OF THE BEST QUALITY. SPANDINEW AS SPECIFIED.
- 11. THE DRAWINGS AND SPECIFICATIONS ARE INTOXICED TO PREJENT GEVERAL LAYOUT AND SHOAD GUTU-NEDESCRIPTION OF THE PROJECT BUT DO NOT NECESSAMILY MEDICATED ESCRIPTION ACTUAL LOCATIONS, LIVEL WID DETRACES OF THE FOLIPMENT. THE CONTRACTOR IS HEREBY RECURSED TO MAKE SUCH ADJUST MOST AT THE JUBISTE AS LOCATION, DISTANCES AND LEVELS ARE GOVERNED BY ACTUAL RILL DENGINORS.
- 12. MAY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROLIGHT TO THE SITTEM FOR OF THE DISCREPANCY BETWEEN THE PLANS AND SPECIFICAL
- 11. ALL DISHTING JIND CONNENGING CUTLET CIRCLITTS SKILL BE 55-80. NM THANKS COPPER NIFE UNLESS CHIEFWISE NOTED ANNIXAM INDEXES WHE SHALL BE 3.5 SC. MM. CORRER WIRE, ALL HIRES AND CHILLES SHILL BE COLOR CODED AS POLLOWIC

DMET-RED UNE 2 - YELLOW

HELITRIAL-MINTE

GROWING-GREEN

14. BOXOS, WIFE, GUTTERS, ENCLOSURE SHILL BE PASPICATED FROM STODE, WITH THICHMED AS POLLOWS.

BAXIMUM/WIDTH OF THE WIDEST BURFACE STEEL

LP TO INCLUDING 152 WIAM OVER 153 ALL VALENT NOT MIGH 467 OIL

ON 16 PARKED WITH NETAL PRIMER EPOXY AND TOPCOAT 6A 14 PWHITED WITH METAL PRIMER EPOXY AND FORCOM? DA 12 PARITED RITH METAL PRIMER CROSS AND FORCIAL

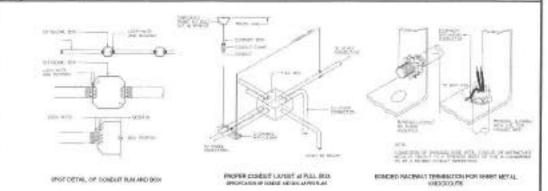
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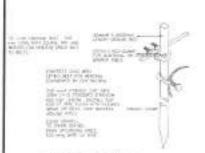
GA 10 PAINTED HITH WETAL PRIMER SPORY AND TOPODAT

- 15. ALL ELECTRICAL WORKS HEREIN SHALL BE EVESUTED BY EXPERIENCED MENUNDER THE OPECY SUPERVISION OF A FULL TIME LICENSED ELECTRICAL ENGR BOY AND A DULY RECORDING ELECTRICAL CONTRACTOR BY POAR WORRS SHALL REVISABLY PLACED. SECURELY PARTENED AND PROPERTY
- 16. TYPE OF BERIADE DISTRIBUTE SHALL SE SINGLE PHASE. THIS WIFE PILLS DROVED, HE HERTZ 2004 ACHISMAN.
- 17. CONDUCTS IN NO DASS SHALL THERE BE MOVE THAN THE EQUIVALENT OF TOUR QUALITIES BONDS IN ANY UNIC RUN. ALL COMBUST BEINGS SHALL BE FIRED MADE. 57:05 NO HYDRIAL ICHINOSHIS, MINIMER BENDRIC HADRIC MADE BE IN ACCORDANCE TO THE COOR PEDIATRIAGNITI.
- 10. UPON COMPLETION OF ELECTRICAL CONTRINCTION BORK, INSULATION RESISTANCE TEST AND FUNCTIONAL ITY TEST SHALL BE PERFORMED BY THE CONTRICTOR WICLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON PORMS APPROVED BY THE QUEZON CITY ENGINEERING SEPARTMENT REPPESENTATIVE. THE GROUND RESISTANCE FOR ILLECTRICAL SYSTEMS SHILL NOT BE MORE THAN 5 OHIOS. COMMUNICATION GROUNDING RESISTANCE SHILL. NOT EXCITED 2 OHMS.

0	Duplex Convenience Outlet	8	Orbit Fan with Selector Switch
0:	Duplex Convenience Outlet (Elley, 0+002.2m)	134	Lighting/Power Panel
0	150mm@ LED Pinlight	6	Girouit Hamerun
0000000	1200mm x 300mm LED tube in Troffer Fodure	(M)	Utility Service Meter
X	100mm x 100mm Ceiling Mounted Exhaust Fan	2	Circuit Breaker
S.	One Gang Switch	1	Grounding
52.	Two Gang Switch		

2 LEGENDS AND SYMBOLS





DOWNER TITE CONDUCT A NEW COMMENT

GENERAL NOTES

Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE:

PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER >

BARANDAY BATASAN HILLS , DISTRICT 2, GLISSON CITY

South and to SUBMITTED BY: WE have 26 352

recogner: Jaw

ENSON NO.

ENGR. LED S. DEL ROSARUO

RECOMMENDING APPROVAL:

ENGR. (SAGANTR. VERZOSA, JR. HE OPTIGHENING HAVINGS!

HON, MA, JOSEFINA G. BELMONTE

ARPROVED BY

OTY MAYOR

LEGENDS AND EVMBC1 CONNECTION

SHEET CONTENT

EL-01 10 13

SHEET NO.

CONNECTION DETAIL

GROUND AND THAT STATION DISTAIL

SCHEDULE OF LOADS

EL-02

11 13

SINGLE LINE DUNDANA PANELBOARD

SGRANCE ENTRANCE

HON, MAJOSEFINA G. BELMONTE

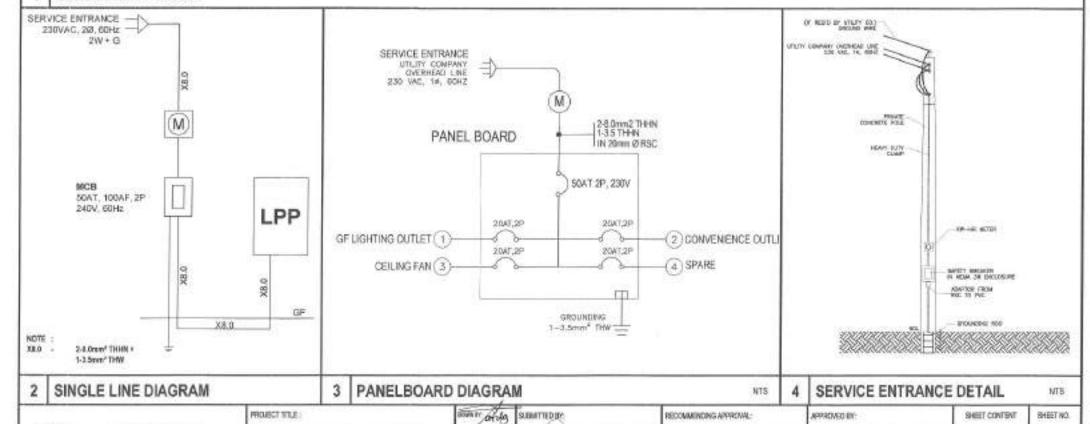
RAMEL P	WANE: URP					MMW.	\$9AT, 300	W. IF, Alley,	3160V, Suit-on :	III OV	
2018	The presentation	8678.66			DVER CURRENT PROFESTION				""TOWNERS -	CONDUIT	
DCT NO.	DESCRIPTION	94	w	Α -	Land Attendance Control				WATER AND ADDRESS.	148	7095
				175	65.	W		70%		med	1,137
1	Suffrey Corter	1000	200	4.15	ж.	800	3	60.41	3.5 Sept * Texts c 3 d Brant Titl	20	PVC
1	Consumenta Datel	130	116	1.18	#6	900	1	Sek ex	3-3,5mm*T844 - 3-2,3mm*TW	20	NE.
У.	Calling First	100	310	130	ж.	981	7	565.60	3-13-m2-1945 - 1-1-19-m2-70V	20	PVE
	Taken 1	2002	210	440	20	186		Spin and			
-	705%	2000		37.00							
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1 SCHEDULE OF LOADS

Republika ng Pilipinas

Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT



ENGR. LED S. DEL ROSAGIO

ENGR. ISADANI R. VERZOSA , JR.

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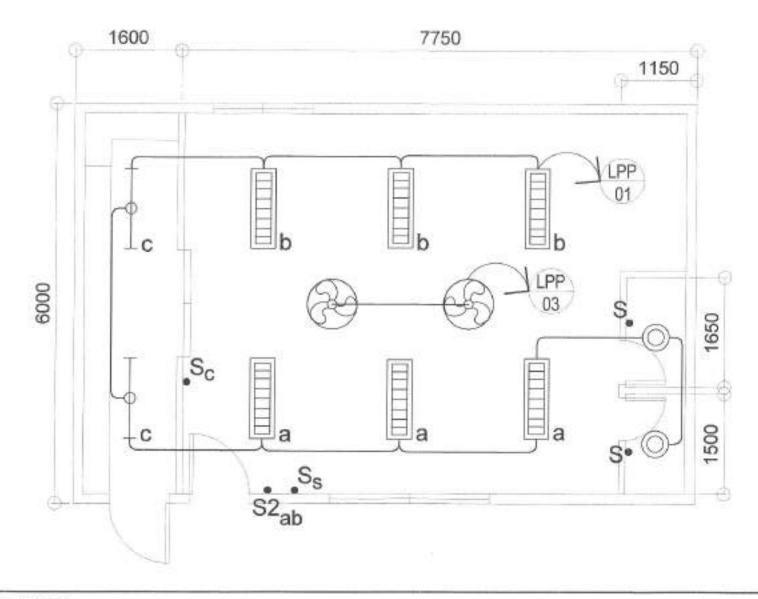
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REVISION NO.

PROPOSED REHABILITATION OF

BARANDAY BATABAN HILLS, DISTRICT 2, QUEZON CITY

JASMIN DAY CARE CENTER <



1 PROPOSED LIGHTING LAYOUT

SCALE: 1:40M

SHEET CONTENT

SAOM

Republika ng Pilipinas Lungsod ng Quezon CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	
PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER /	
BARANGAY BATASAR HALS DISTRICT 2 OLEJONOW	

ORDER OFFICE	SUBMITTED BY:
DATE Agreed that	/ Inn
DEDENII JĀ	
WANTED IN	ENGR. LEGIS. DEL ROSARIO

ı	2
	ENGR ISAGONI R. VERZOSA , JR.

RECONNENDING APPROVAL.

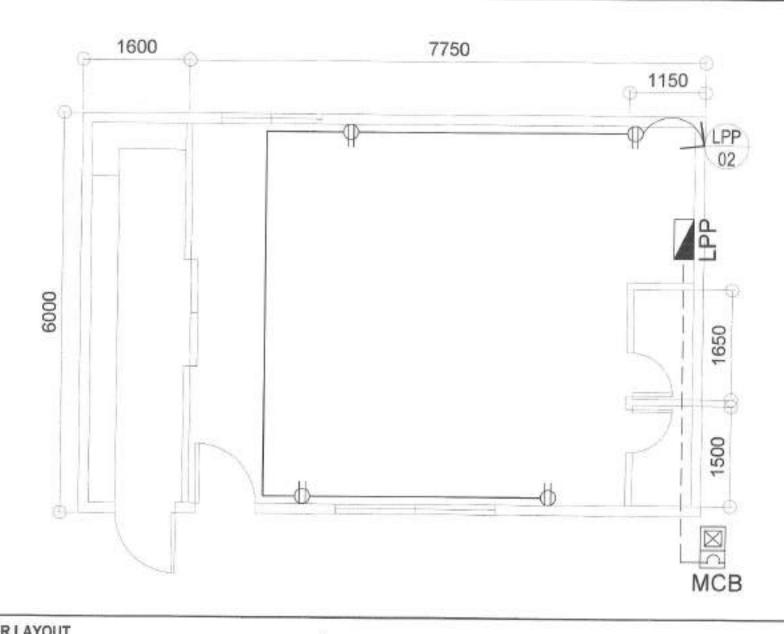
HON, MA. JOSEFINA G. BELMONTE

APPROVED BY:

PROPOSED LIGHTING EL-03

SHEET NO.





PROPOSED POWER LAYOUT PROJECT TITLE: SUBMITTED BE RECOMMENDING APPROVAL APPROVED BY: SHEET CONTENT Republika og Pilipinas PROPOSED REHABILITATION OF Lungsod ng Quezon PROPOSES POWER LAYOUT JASMIN DAY CARE CENTER

CITY ENGINEERING DEPARTMENT

DECREOF. A. ENGR. LEGYS. DEL ROSARJO manie. BAHANDAY BATASIAN HILLS , DISTRICT Z, QUEZON OTTY

ENGR. BAGANI R. VERZOSA , JR.

HON, MAJOSEFINA G. BELMONTE COLMAKO

EL-04

1:40 M

DATES

SCALE:

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.

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND

REHABILITATION OF DAY CARE CENTER AT DISTRICT II / AREA VII

(CLUSTER 2)

LOCATION : BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

DURATION: Ninety (90) Calendar Days

BREAKDOWN OF COST

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
NO.	(DESCRIPTION)	COST			
	FREEDOM PARK III & IV DAY CARE CENTER				
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
	FREEDOM PARK 5 DAY CARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HAND WASHING FACILITY				
III	REHABILITATION OF DAY CARE CENTER				
IV	UTILITY AND ANCILLARY				
	LUZVIMINDA DAY CARE CENTER				
- 1	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HAND WASHING FACILITY				
III	REHABILITATION OF DAY CARE CENTER				
	KALAYAAN B DAY CARE CENTER				
- 1	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HAND WASHING FACILITY				
III	REHABILITATION OF B1 DAY CARE CENTER				
IV	REHABILITATION OF B2 & B3 DAY CARE CENTER				
	CONSTITUTIONAL DAY CARE CENTER				

ITEM NO.	ITEM OF WORK (DESCRIPTION)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
I	GENERAL REQUIREMENTS				
II	REHABILITATION OF DAY CARE CENTER				
III	UTILITIES AND ANCILLARIES				
	TALANAY DAY CARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HAND WASHING FACILITY				
III	REHABILITATION OF DAY CARE CENTER				
IV	UTILITIES AND ANCILLARIES				
	POOK PAG-ASA DAY CARE CENTER				
I	GENERAL REQUIREMENTS				
II	CONSTRUCTION OF HAND WASHING FACILITY				
Ш	REHABILITATION OF DAY CARE CENTER				
IV	UTILITIES AND ANCILLARIES				
	JASMIN DAY CARE CENTER				
I	GENERAL REQUIREMENTS				
II	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
			1	TOTAL COST	P

LUMP SUM BID IN WORDS : _______

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF FREEDOM PARK III & IV DAY CARE CENTER

LOCATION : BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

- I General Requirements include temporary enclosure, billboard, clearing, hauling and disposal of construction materials and debris, scaffolding and construction safety & health.
- II Site Works include removal works, and clearing and cleaning for painting preparation.
- III Civil / Structural Works include moisture protection, metal works and roofing works.
- IV Architectural Works include floor finishes, wall finishes, ceiling finishes, painting works, installation of doors and windows, fabricated materials and letterings.
- V Plumbing Works include installation of roughing-ins, fixtures, equipment and accessories.
- VI Electrical Works include installation of roughing-ins, wiring devices and fixtures.
- VII All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	80	sq.m.		
	Temporary Enclosure Around the Construction Area (H=2.4m)	12	l.m.		
				DIRECT COST I	P
II	SITE WORKS				
	Removal Works				
	Removal of Countertop	6	sq.m.	₽	₽
	Removal of Dilapidated Ceiling	67	sq.m.		
	Removal of Dilapidated Door	3	unit		
	Removal of Dilapidated Window	8	sq.m.		
	Removal of Gate	5	sq.m.		
	Removal of Hanging Cabinet	4	sq.m.		
	Removal of Roof and Accessories	50	sq.m.		
	Removal of Tiles	92	sq.m.		
	Removal of Urinal	2	unit		
	Removal of Water Closet	2	unit		
	Clearing / Cleaning for Painting Preparation	413	sq.m.		
				DIRECT COST II	₽
Ш	CIVIL / STRUCTURAL WORKS				
	Moisture Protection				
	Waterproofing Works				
	Cementitious Capillary Type (Comfort Room)	5	sq.m.	₽	₽
	Metal Works				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Gate 1				
	50mm x 50mm x 2mm Tubular Bar	24	kg		
	10mm Square Bar	15	kg		
	38mmø Round Bar, Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Gate 2				
	50mm x 50mm x 2mm Tubular Bar	21	kg		
	10mm Square Bar	12	kg		
	38mmØ Round Bar, Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Fire Exit Grilles				
	25mm x 25mm x 2mm Tubular Bar	80	kg		
	38mmØ Round Bar, Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Window Grilles				
	25mm x 25mm x 2mm Tubular Bar	191	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Oxygen Tank (Refill)	2	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	52	sq.m		
	Pre-Painted G.I. Flashing	27	l.m.		
	Pre-Painted G.I. Ridge Roll	9	l.m.		
	6mm thk One-Sided Aluminum Foil Thermal Insulation	39	sq.m.		
	12mm x 300mm Fiber Cement Fascia Board	27	l.m.		
	Tekscrew	213	piece		
	Blind Rivets	151	piece		
	Silicon Sealant	5	tube		
				MATERIAL COST III	₽
				LABOR COST III	
				DIRECT COST III	₽
IV	ARCHITECTURAL WORKS			DIRECT GOOT III	1
.,	Floor Finishes				
	Floor Topping for Preparation of Tile Works	65	sq.m.	₽	₽
	600mm x 600mm Non-Skid Homogeneous Tiles	60	sq.m	Г	Г
	400mm x 400mm Non-Skid Homogeneous Tiles	5	sq.m		
		0	34.111		
	Wall Finishes and Partition	19	sq.m		
	400mm x 400mm Homogeneous Tiles Ceiling Works	19	54.111		
	6mm thk Fiber Cement Board including Metal Framing	74	00 m		
	on in the riber cement board including wetar Framing	71	sq.m		_
				Materials Cost	₽
				Labor Cost	
	Installation of Doors			Subtotal	₽
		4			_
	D1 - (0.90m x 2.10m) Swing Type Panel Door	1	set	₽	₽
	D2 - (0.60m x 2.10m) Swing Type PVC Door with Louver	2	set		
	Door jamb				
	D1 - (0.90m x 2.10m) Swing Type Panel Door	1	set		
	Hardware accessories	_			
	Door Hinges, Heavy Duty Stainless	9	set		
	Door Knob, Lever Type, Stainless	3	set		
	Installation of Windows				
	W1 -(2.4m x 1.2m) 6mm Thk Clear Tempered Glass on White Color Powder Coated Aluminum Frames, Sliding Window with Grilles	1	set		
	W2 -(1.60m x 1.20m) 6mm Thk Clear Tempered Glass on White Color Powder Coated Aluminum Frames, Sliding Window with Grilles	1	set		
	W3 -(0.80m x 1.20m) 6mm Thk Clear Tempered Glass on White Color Powder Coated Aluminum Frames, Sliding Window with Grilles	3	set		
	W4 (0.40m x 0.40m) 6mm Thk Clear Tempered Glass on White Color Powder Coated Aluminum Frames, Awning Window	2	set		
				Labor Cost	
				Subtotal	₽
	Painting Works			2 3.3.3	

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Elastomeric Paint (Exterior Wall)	168	sq.m	₽	₽
	Epoxy Enamel Paint Finish (Steel Members)	47	sq.m		
	Flat Latex Paint Finish				
	Interior wall	198	sq.m		
	Ceiling	71	sq.m		
	Fabricated Materials				
	Kiddy Countertop	2	l.m.		
	Standard Countertop	6	l.m.		
	Fire Exit Ladder	1	set		
	Hanging Cabinet	6	sq.m.		
	Lettering				
	Stainless Steel Signage with Neon Backlights (150mm x 150mm)	30	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				MATERIAL COST IV	₽
				LABOR COST IV	
				DIRECT COST IV	₽
٧	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	4	piece	₽	₱
	75 mm Ø, PVC Pipe with Hub	6	piece		
	100mm Ø, PVC Pipe with Hub	4	piece		
	50mm Ø, P-Trap	7	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	75mm Ø, P-Trap	2	piece		
	50mm Ø, 1/8 Bend	9	piece		
	75mm Ø, 1/8 Bend	4	piece		
	100mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/4 Bend	8	piece		
	75mm Ø x 75mm Ø, Tee	8	piece		
	100mm Ø x 75mm Ø, Tee	8	piece		
	100mm Ø x 50mm Ø, Wye	8	piece		
	100mm Ø x 75mm Ø, Wye	3	piece		
	100mm Ø x 100mm Ø, Wye	4	piece		
	100mm Ø, Cleanout with Adapter	4	piece		
	100mm Ø, Coupling	4	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	4	piece		
	20mm Ø, Elbow	15	piece		
	20mm Ø, Coupling	4	piece		
	20mm Ø, Tee Equal	4	piece		
	20mm Ø, Female Threaded, Tee	10	piece		
	20mm Ø, Female Threaded, Elbow	3	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	2	piece		
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	2	set		
	Floor Drain, 100mm x 100mm, Stainless	2	set		
	Grease Trap, 5GPM, Stainless	1	set		
	Hose Bibb Lever Type, Stainless (Water Efficient)	2	set		
	Kitchen Faucet Lever Type, Stainless (Water Efficient)	5	set		
	Kitchen Sink, Single Tub, Stainless	5	set		
	Urinal, Flush Valve-Type (Water Efficient)	1	set		
	Urinal Kiddy, Flush Type (Water Efficient)	1	set		
	Water Closet, Tank-Type (Water Efficient)	1	set		
	Water Closet Kiddy, Tank Type (Water Efficient)	1	set		
	Accessories				
	Angle Valve, Single-Way Stainless	7	piece		
	Angle Valve, Two-Way Stainless	2	piece		
	Flexible Hose, Stainless	9	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	4	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	3	roll		
	Waste Cloth	1	kg		
				MATERIAL COST V	₽
				LABOR COST V	
				DIRECT COST V	₽
VI	ELECTRICAL WORKS				
	Lighting and Power System				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Roughing-ins				
	25mmØ RSC Pipe	2	piece	₽	₽
	20mmØ PVC Pipe	50	piece		
	15mmØ Flexible Metallic Conduit	30	lm		
	50mm x 100mm Metal Utility Box	15	piece		
	100mm x 100mm Metal Junction Box with cover	15	piece		
	Fittings & Accessories				
	15mmØ IMC Locknut and Bushing	30	pair		
	25mmØ RSC Locknut and Bushing	4	pair		
	20mmØ PVC Adaptor	120	piece		
	20mmØ PVC Elbow	20	piece		
	20mmØ PVC Locknut and Bushing	120	pair		
	15mmØ Angle Connector	15	piece		
	Wires and Cables				
	3.5mm² THHN Wire	2	roll		
	30mm² THHN Wire	30	lm		
	2.0mm² TW Wire (Green)	1	roll		
	8.0mm² TW Wire (Green)	15	lm		
	Lighting Fixtures				
	14w LED Bulb	3	piece		
	1 x 18 LED,300mmx1200mm Troffer Fixture	9	unit		
	1 x 18 T8 LED Tube in Box Type Lighting Fixture	1	unit		
	100mmØ Plastic Lighting Receptacle	3	unit		
	Wiring Devices				
	Orbit Fan with Selector Switch	2	unit		
	Outlet with Gounding , Two-gang	8	piece		
	Switch with plate and cover, One-Gang	3	piece		
	Switch with plate and cover, Two-Gang	2	piece		
	Switch with plate and cover, Three-way	2	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	12	lm		
	Vertical layout of pipe	6	lm		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Panelboard				
	LPP (New)	1	assy		
	MCB	1	assy		
	Miscellaneous & Consumables				
	400cc Solvent Cement	15	can		
	Electrical Tape	20	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	5	kg		
	Hacksaw Blade	3	piece		
	Masking Tape	20	piece		
	Pulling Lubricant	2	can		
	Rubber Tape	3	piece		
				MATERIAL COST VI	₱
				LABOR COST VI	
				DIRECT COST VI	₽

SUMMARY

ITEM NO.	WORK DESCRIPTIO	TOTAL COST	
 V V	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS		₽
	Ouly enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST verhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

FREEDOM PARK 5 DAY CARE CENTER

LOCATION : BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

General Requirements include billboard, clearing, hauling and disposal of construction materials and debris, temporary enclosure, construction safety & health and scaffolding.

- II Construction of Handwashing Facility
- A Installation of single sink portable handwashing facility.
- B Plumbing Works include installation of waterline, sewerline, fixtures, hardware and accessories.
- III Rehabilitation of Day Care Center
- A Site Works include removal works and cleaning/clearing for painting preparation.
- B Civil Works include concrete works, masonry works, metal works and roofing works.
- C Architectural Works include floor finishes, wall finishes, countertop finishes, ceiling works, painting works, installation of doors and windows, fabricated materials and letterings.
- D Plumbing Works include installation of waterline, sewerline, fixtures, hardware and accessories.
- E Electrical Works include installation of roughing-ins, wiring devices and other fixtures.
- IV All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT		UNIT COST	TO	TAL COST
I	GENERAL REQUIREMENTS						
	Billboard	1	unit	₽		₱	
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.				
	Construction Safety and Health	1	unit				
	Scaffolding (Rental)	24	sq.m.				
	Temporary Enclosure around the Construction Area (H=2.4m)	8	l.m.				
					DIRECT COST I	₽	
	CONSTRUCTION OF HANDWASHING FACILITY						
Α	Hand Washing Facility						
	Single Sink, Portable Hand Washing Facility	2	unit	₽		₽	
					Subtotal	₽	335,912.40
В	Plumbing / Sanitary Works						
	Sewer Line / Storm Drainage System						
	Roughing-Ins						
	50 mm Ø,PVC Pipe	1	piece	₱		₽	
	75 mm Ø, PVC Pipe	1	piece				
	50mm Ø, 1/8 Bend	2	piece				
	100mm Ø, 1/8 Bend	2	piece				
	75mm Ø, 1/4 Bend	2	piece				
	100mm Ø x 50mm Ø, Wye	2	piece				
	Waterline System						
	Roughing-Ins						
	20mm Ø, PPR Pipe	3	piece				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø, Elbow	2	piece		
	20mm Ø, Coupling	3	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
				MATERIAL COST II	₽
				LABOR COST II	
				DIRECT COST II	P

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
II	REHABILITATION OF DAY CARE CENTER				
Α	Site Works				
	Removal Works				
	Removal of CHB Walls	3	sq.m.	₱	₱
	Removal of Countertop	3	sq.m.		
	Removal of Dilapidated Ceiling	52	sq.m.		
	Removal of Dilapidated Door	2	unit		
	Removal of Dilapidated Window	8	sq.m.		
	Removal of Fence Steel Members	16	sq.m.		
	Removal of Gate	2	sq.m.		
	Removal of Gutter	16	l.m.		
	Removal of Hanging Cabinet	2	sq.m.		
	Removal of Lavatory	1	unit		
	Removal of Roof	53	sq.m.		
	Removal of Tiles	33	sq.m.		
	Removal of Urinal	1	unit		
	Removal of Water Closet	1	unit		
	Clearing / Cleaning for Painting Preparation	323	sq.m.		
				Subtotal	₽
В	Civil / Structural Works				
	Concrete Works				
	On Site Mix Concrete, 21Mpa, 3/4" Gravel @ 28 Days				
	Column	1	cu.m.	₽	₽
	Reinforcing Steel Bar				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	10mmØ Column	4	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	16mmØ Column	10	kg		
	Formworks				
	Column	1	sq.m		
	Masonry Works				
	100mm CHB Wall Laying, including Mortar, Reinforcing and Two-	4	sq.m		
	Face Plastering				
	Metal Works				
	Roof Framing				
	50mm x 50mm x 6mm Angle Bar	404	kg		
	38mm x 38mm x 6mm Angle Bar	253	kg		
	50mm x 100mm x 2mm Purlin	370	kg		
	1.20m x 2.40m x 6mm Gusset Plate	143	kg		
	12mmø Sagrod	25	kg		
	200mm x 200mm Base Plate	24	kg		
	18mmØ Anchor Bolt	8	kg		
	Gate		 		
	50mm x 50mm x 2mm Tubular Bar	28	kg		
	10mm Square Bar	3	kg		
	G.I Sheet Ga. 18	24	kg		
	50mm x 6mm Flat Bar	23	kg		
	Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fence Steel Members				
	50mm x 50mm x 2mm Tubular Bar	22	kg		
	25mm x 25mm 2mm Tubular Bar	131	kg		
	Window Grilles				
	25mm x 25mm x 2mm Tubular Bar	146	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	2	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	4	tank		
	Welding Rod	2	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	55	sq.m		
	Pre-Painted G.I. Flashing	31	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	31	l.m.		
	Silicon Sealant	5	tube		
	Tekscrew	479	piece		
	Blind Rivets	172	piece		
				Material Cost	₱
				Labor Cost	
				Direct Cost	₽
С	Architectural Works				
	Floor Finishes				
	Floor Topping for Preparation of Tile Works	35	sq.m.	₱	₱
	600mm x 600mm Non-Skid Homogeneous Tiles	33	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	2	sq.m		
	Wall Finishes and Partition				
	400mm x 400mm Homogeneous Tiles	8	sq.m		
	Countertop Finishes				
	300mm x 300mm Homogeneous Tiles	3	sq.m.		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Ceiling Works				
	6mm thk Fiber Cement Board with Complete Framing and Accessorie	55	sq.m		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	D1 - (0.90m x 2.10m) Swing Type Panel Door	1	set	₱	₱
	D2 - (0.70m x 2.10m) Swing Type PVC Door with Louver	1	set		
	Door jamb				
	D1 - (0.90m x 2.10m) Swing Type Panel Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	6	set		
	Door Knob, Lever Type, Stainless	2	set		
	Installation of Windows				
	W1 -(2.40m x 1.20m) Aluminum Frame Powder Coated Sliding Window with 6mm Thk Clear Glass	2	set		
	W2 -(1.20m x 1.20m) Aluminum Frame Powder Coated Sliding Window with 6mm Thk Clear Glass	1	set		
	W3 -(0.60m x 0.40m) Aluminum Frame Powder Coated Awning Window with 6mm Thk Clear Glass	1	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Painting Works				
	Elastomeric Paint (Exterior Wall)	108	sq.m	₽	₽
	Epoxy Enamel Paint Finish (Steel Members)	125	sq.m		
	Flat Latex Paint Finish				
	Interior Wall	90	sq.m		
	Ceiling	55	sq.m		
	Fabricated Materials				
	Standard Countertop	4	l.m.		
	Hanging Cabinet	3	sq.m.		
	Lettering				
	Stainless Steel Signage with Neon Backlights (150mm x 150mm) "FREEDOM PARK 5 DAY CARE CENTER"	25	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Material Cost C	₽
				Labor Cost C	
D	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	4	piece	₽	₽
	75 mm Ø, PVC Pipe with Hub	4	piece		
	100mm Ø, PVC Pipe with Hub	6	piece		
	50mm Ø, P-Trap	3	piece		
	75mm Ø, P-Trap	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø, 1/8 Bend	6	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/4 Bend	3	piece		
	75mm Ø x 75mm Ø, Tee	2	piece		
	100mm Ø x 75mm Ø, Tee	2	piece		
	100mm Ø x 50mm Ø, Wye	6	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	3	piece		
	100mm Ø x 50mm Ø, Tee Reducer	2	piece		
	100mm Ø, Cleanout with Adapter	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	3	piece		
	20mm Ø, Elbow	10	piece		
	20mm Ø, Coupling	3	piece		
	20mm Ø, Tee Equal	8	piece		
	20mm Ø, Female Threaded, Elbow	4	piece		
	20mm Ø, Female Adapter	2	piece		
	32mm Ø x 20mm Ø, Reducer	1	piece		
	32mm Ø, Union Patente	1	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	2	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	1	piece		
	Grease Trap, 5 GPM, Stainless	1	piece		
	Hose Bibb Lever Type, Stainless Steel Heavy Duty (Water Efficient)	3	piece		
	Kitchen Faucet Lever Type, Stainless (Water Efficient)	1	piece		
	Kitchen Sink, Single Tub, Stainless	1	piece		
	Lavatory Faucet Lever Type, Stainless Steel (Water Efficient)	1	piece		
	Lavatory, Wall Hung, Kiddy	1	piece		
	Urinal, Kiddy, Flush Type (Water Efficient)	1	piece		
	Water Closet, Kiddy, Tank Type (Water Efficient)	1	piece		
	Accessories				
	Angle Valve, Stainless Steel, Single Way	3	piece		
	Angle Valve, Stainless Steel, Two Way	1	piece		
	Flexible Hose, Stainless Steel	5	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				Materials Cost D	₱
				Labor Cost D	
				Direct Cost D	₱
Е	Electrical Works				
	Lighting and Power System				
	Roughing-ins				
	20mmØ RSC Pipe	6	piece	₽	₽
	20mmØ PVC Pipe	27	piece		-
	15mmØ Flexible Metallic Conduit	15	lm		
	50mm x 100mm Metal Utility Box	8	piece		
	100mm x 100mm Metal Junction Box with cover	8	piece		
	Fittings & Accessories				
	15mmØ IMC Locknut and Bushing	8	pair		
	20mmØ RSC Locknut and Bushing	4	pair		
	20mmØ PVC Adaptor	64	piece		
	20mmØ PVC Elbow	15	piece		
	20mmØ PVC Locknut and Bushing	64	pair		
	15mmØ Angle Connector	16	piece		
	Wires and Cables				
	3.5mm² THHN Wire	160	lm		
	8.0mm² THHN Wire	20	lm		
	2.0mm² TW Wire (Green)	80	lm		
	3.5mm² TW Wire (Green)	10	lm		
	Lighting Fixture (Energy Efficient)				
	150mmØ Pinlight LED	1	piece		
	1 x 18 LED,300mmx1200mm Troffer Fixture	5	unit		
	1 x 18 T8 LED Tube in Box Type Lighting Fixture	2	unit		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Wiring Devices				
	Orbit Fan with Selector Switch	1	unit		
	Outlet with Gounding , Two-Gang	4	piece		
	Switch with plate and cover, One-Gang	1	piece		
	Switch with plate and cover, Two-Gang	2	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	20	lm		
	Vertical layout of pipe	6	lm		
	Panelboard				
	LPP (New)	1	assy		
	MCB	1	assy		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Miscellaneous & Consumables				
	16mmØ x 250mm Oval Eye Bolt w/ nut	1	piece		
	20mm Ø x 3000mm Grounding Rod (Copper Clod) w/ Ground Clamp	1	piece		
	400cc Solvent Cement	5	can		
	Electrical Tape	10	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	2	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	30	piece		
	Pulling Lubricant	2	can		
	Rubber Tape	30	piece		
				Material Cost E	₱
				Labor Cost E	
				Direct Cost E	P
				MATERIAL COST III	P
				LABOR COST III	
				DIRECT COST III	P
IV	UTILITY AND ANCILLARY				
	150mm x 150mm x 3700mmm Electrical Service Entrance Post	1	unit	₱ 15,414.50	₽
				DIRECT COST IV	₽

SUMMARY

ITEM NO.	WORK DESCRIPTION & SCOPE OF WORKS				
-	I GENERAL REQUIREMENTS				
П	CONSTRUCTION OF HANDWASHING FACILITY				
III	REHABILITATION OF DAY CARE CENTER				
IV	UTILITY AND ANCILLARY				
	Ove y enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST erhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT			
		TOTAL ESTIMATED COST	P		

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

LUZVIMINDA DAY CARE CENTER

LOCATION : BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

General Requirements include billboard, clearing, hauling and disposal of construction materials and debris, temporary enclosure, construction safety & health and scaffolding.

- II Construction of Hand Washing Facility
- A Installation of single sink portable handwashing facility.
- B Plumbing Works include installation of waterline, sewerline and accessories.
- III Rehabilitation of Day Care Center
- A Site Works include removal works and cleaning/clearing for painting preparation, layout and staking, site clearing and preparation, excavation for structure, gravel bedding, soil treatment, backfill and compaction.
- B Civil Works include concrete works, masonry works, metal works and roofing works.
- C Architectural Works include floor finishes, wall finishes, ceiling works, painting works, installation of doors and windows, and fabricated materials.
- D Plumbing Works include installation of waterline, sewerline, fixtures, hardware and accessories.
- E Electrical Works include installation of roughing-ins, wiring devices and other fixtures.
- IV All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	2	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	24	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	8	l.m.		
				DIRECT COST I	₽
II	CONSTRUCTION OF HANDWASHING FACILITY				
Α	Hand Washing Facility				
	Single Sink, Portable Hand Washing Facility	2	unit	₱	₱
				Subtotal	₱
В	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø,PVC Pipe with Hub	1	piece	₽	₱
	75 mm Ø, PVC Pipe with Hub	2	piece		
	100 mm Ø, PVC Pipe with Hub	1	piece		
	50mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	2	piece		
	75mm Ø, 1/4 Bend	2	piece		
	100mm Ø x 50mm Ø, Wye	2	piece		
	Waterline System				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Roughing-Ins				
	20mm Ø, PPR Pipe	1	piece		
	20mm Ø, Elbow	2	piece		
	20mm Ø, Coupling	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₱
				MATERIAL COST II	₱
				LABOR COST II	
				DIRECT COST II	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT		UNIT COST	TOTAL COST
III	REHABILITATION OF DAY CARE CENTER					
Α	Site Works					
	Removal Works					
	Removal of CHB Walls	37	sq.m.	₽		₱
	Removal of Countertop	3	sq.m.			
	Removal of Dilapidated Ceiling	5	sq.m.			
	Removal of Dilapidated Door	5	set			
	Removal of Dilapidated Window	8	sq.m.			
	Removal of Lavatory	2	unit			
	Removal of Tiles	23	sq.m.			
	Removal of Water Closet	2	unit			
	Cleaning and Clearing for Painting Preparation	308	sq.m.			
	Layout and Staking	13	sq.m.			
	Site Clearing and Preparation	13	sq.m.			
	Excavation for Structure	5	cu.m			
					Subtotal	₽
						•
	Gravel Bedding	2	cu.m.	₽		₽
	Soil Treatment	13	sq.m.			
					Material Cost	₽
					Labor Cost	
					Subtotal	₽
						1
	Backfill and Compaction	2	cu.m.	₽		₽
	•				Subtotal	<u>'</u>
					Material Cost	₽
					Labor Cost	
					Direct Cost	₽
В	Civil / Structural Works					
	Concrete Works					
	On Site Mix Concrete, 21Mpa, 3/4" Gravel @ 28 Days					
	Wall Footing	2	cu.m.	₽		₽
	Column Footing	1	cu.m.	†		•
	Slab on Fill	3	cu.m.			
	Column	1	cu.m.			
	Reinforcing Steel Bar	<u>'</u>				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16					
	10mmØ Slab on Fill	95	kg			
	10mmØ Column	68	kg			
	12mmØ Wall Footing	96	kg			
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire # 16	30	6.			
	16mmØ Column Footing	86	kg			
	16mmØ Column	156	kg			
	Formworks	130	iv9			
	Column	20	sq.m			
	Scaffolding and Shoring	20	54.111			
	Coarlording and Onloring			1		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Masonry Works				
	150mm CHB Wall Laying, including Mortar, Reinforcing and Two-Face Plastering	31	sq.m		
	Metal Works				
	Fence Steel Members				
	50mm x 100mm x 2mm Tubular Bar	95	kg		
	50mm x 50mm x 2mm Tubular Bar	229	kg		
	Steel Gate - 1				
	50mm x 100mm x 2mm Tubular Bar	67	kg		
	25mm x 25mm x 2mm Tubular Bar	39	kg		
	38mm Ø Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty	3	piece		
	Steel Gate - 2				
	100mm x 100mm x 2mm Tubular Bar	83	kg		
	50mm x 50mm x 2mm Tubular Bar	60	kg		
	38mm Ø Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty	3	piece		
	Roof Canopy Framing				
	50mm x 150mm x 4mm Tubular Bar	201	kg		
	50mm x 100mm x 4mm Tubular Bar	179	kg		
	18mmØ x 150mm Dyna Bolt	52	piece		
	Pedestal				
	100mmØ G.I. Pipe Sched.40	125	kg		
	200mm x 200mm x 12mm Base Plate	16	kg		
	18mmØ Anchor Bolt	16	piece		
	Window Grilles				
	25mm x 25mm x 2mm Tubular Bar	244	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	2	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Oxygen Tank (Refill)	4	tank		
	Welding Rod	2	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	10	sq.m		
	Pre-Painted G.I. Flashing	21	l.m.		
	6mm thk One-Sided Aluminum Foil Thermal Insulation	10	sq.m		
	12mm x 300mm Fiber Cement Fascia Board	6	l.m.		
	Silicon Sealant	5	tube		
	Tekscrew	63	piece		
	Blind Rivets	11	piece		
				Material Cost	₽
				Labor Cost	
				Direct Cost	₽
С	Architectural Works				
	Floor Finishes				
	Floor Topping for Preparation of Tile Works	5	sq.m.	₽	₽
	400mm x 400mm Non-Skid Homogeneous Tiles	5	sq.m		
	Wall Finishes and Partition				
	400mm x 400mm Homogeneous Tiles	19	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board with Complete Framing and		00 m		
	Accessories	5	sq.m		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	D1 - (1.00m x 2.10m) Swing Type Panel Door	2	set	₱	₱
	D2 - (0.60m x 2.10m) Swing Type PVC Door with Louver	2	set		
	D3 - (0.80m x 2.10m) Swing type Flush Door	1	set		
	Door jamb				
	D1 - (1.00m x 2.10m) Swing Type Panel Door	2	set		
	D3 - (0.80m x 2.10m) Swing type Flush Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	15	set		
	Door Knob, Lever Type, Stainless	5	set		
	Installation of Windows				
	W1 -(0.80m x 1.20m) Sliding Window, 6mm thk Clear Tempered Glass on White Color Powder Coated Aluminum Frame	2	set		
	W2 -(2.40m x 1.20m) Sliding Window, 6mm thk Clear Tempered Glass on White Color Powder Coated Aluminum Frame	1	set		
	W3 -(0.80m x 0.40m) Awning Window, 6mm thk Clear Tempered Glass on White Color Powder Coated Aluminum Frame	2	set		
	W4 -(1.60m x 1.20m) Sliding Window, 6mm thk Clear Tempered Glass on White Color Powder Coated Aluminum Frame	1	set		
				Materials Cost	₽
				Labor Cost	

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Subtotal	₽
	Painting Works				
	Elastomeric Paint (Exterior Wall)	122	sq.m	₽	₽
	Epoxy Enamel Paint Finish (Steel Members)	107	sq.m		
	Flat Latex Paint Finish				
	Slab Soffit	79	sq.m		
	Ceiling	5	sq.m		
	Fabricated Materials				
	Countertop Tiles with Aluminum Undercounter Cover	8	l.m.		
	Hanging Cabinet	3	sq.m		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Material Cost C	₱
				Labor Cost C	
				Direct Cost C	₱
D	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	4	piece	₽	₽
	75 mm Ø, PVC Pipe with Hub	3	piece		
	100mm Ø, PVC Pipe with Hub	3	piece		
	50mm Ø, P-Trap	4	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/8 Bend	1	piece		
	100mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/4 Bend	4	piece		
	75mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 50mm Ø, Wye	9	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	100mm Ø x 75mm Ø, Wye	3	piece		
	100mm Ø, Cleanout with Adapter	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	4	piece		
	20mm Ø, Elbow	13	piece		
	20mm Ø, Coupling	4	piece		
	20mm Ø, Tee Equal	3	piece		
	20mm Ø, Female Threaded, Elbow	6	piece		
	20mm Ø, Female Adapter	1	piece		
	25mm Ø x 20mm Ø, Reducer	1	piece		
	25mm Ø, Union Patente	1	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	2	piece		
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	2	piece		
	Floor Drain, 100mm x 100mm, Stainless	2	piece		
	Grease Trap, 5 GPM, Stainless	1	piece		
	Kitchen Faucet Lever Type, Stainless (Water Efficient)	1	piece		
	Kitchen Sink, Single Tub, Stainless	1	piece		
	Lavatory Faucet Lever Type, Stainless Steel (Water Efficient)	2	piece		
	Lavatory, Wall Hung	1	set		
	Lavatory, Wall Hung, Kiddy	1	piece		
	Water Closet, Tank Type w/ Accessories (Water Efficient)	1	piece		
	Water Closet, Kiddy, Tank Type (Water Efficient)	1	piece		
	Accessories				
	Angle Valve, Stainless Steel, Single Way	3	piece		
	Angle Valve, Stainless Steel, Two Way	2	piece		
	Flexible Hose, Stainless Steel	5	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				Materials Cost D	₱
				Labor Cost D	
				Direct Cost D	₱
Е	Electrical Works				
	Lighting and Power System				
	Roughing-ins				
	15mmØ IMC Pipe	10	piece	₽	₽
	15mmØ Flexible Metallic Conduit	50	lm		
	100mm x 100mm Metal Junction Box with cover	2	piece		
	Fittings & Accessories				
	15mmØ Angle Connector	41	piece		
	15mmØ IMC Coupling	18	piece		
	15mmØ IMC Locknut and Bushing	20	pair		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	15mmØ IMC Conduit Body, LB Type	8	piece		
	Wires and Cables				
	3.5mm² THHN Wire	60	lm		
	2.0mm² TW Wire (Green)	30	lm		
	Lighting Fixture (Energy Efficient)				
	150mmØ Pinlight LED	2	unit		
	2 x 18 LED,600mmx1200mm Troffer Fixture, Surface Mounted	8	unit		
	Wiring Devices				
	Orbit Fan with Selector Switch	3	unit		
	Outlet with Grounding , Two-Gang	7	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	50	lm		
	Miscellaneous & Consumables				
	Electrical Tape	5	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	1	kg		
	Hacksaw Blade	2	piece		
	Masking Tape	5	piece		
				Material Cost	₱
				Labor Cost	
				Direct Cost	₽
				MATERIAL COST III	₽
				LABOR COST III	
				DIRECT COST III	P

I NO	ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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SUMMARY

ITEM NO.	WORK DESCRIPTIO	TOTAL COST	
 	GENERAL REQUIREMENTS CONSTRUCTION OF HANDWASHING FACILITY REHABILITATION OF DAY CARE CENTER		₽
	Ove enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST Thead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

KALAYAAN B DAY CARE CENTER

LOCATION : BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

General Requirements include billboard, clearing, hauling and disposal of construction materials and debris, temporary enclosure, construction safety & health and scaffolding.

- II Construction of Hand Washing Facility
- A Installation of single sink portable hand washing facility.
- B Site Works include chipping of concrete.
- C Civil Works include restoration of concrete.
- D Plumbing Works include installation of waterline, sewerline, fixtures, hardware and accessories.
- III Rehabilitation of Kalayaan B1 Day Care Center
- A Site Works include removal works and cleaning/clearing for painting preparation.
- B Civil Works include masonry works, metal works and roofing works.
- C Architectural Works include floor finishes, wall finishes, ceiling works, painting works, installation of doors and windows and fabricated materials.
- D Plumbing Works include installation of waterline, sewerline, fixtures, hardware and accessories.
- E Electrical Works include installation of roughing-ins, wiring devices and other fixtures.
- IV Rehabilitation of Kalayaan B2 & B3 Day Care Center
- A Site Works include removal works and cleaning/clearing for painting preparation.
- B Civil Works include concrete works, masonry works, moisture protection, metal works and roofing works.
- C Architectural Works include floor finishes, wall finishes, countertop finishes, ceiling works, painting works, installation of doors and fabricated materials.
- D Plumbing Works include installation of waterline, sewerline, fixtures, hardware and accessories.
- E Electrical Works include installation of roughing-ins, wiring devices and other fixtures.
- V All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	36	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	26	l.m.		
				DIRECT COST I	P
II	CONSTRUCTION OF HANDWASHING FACILITY				
Α	Hand Washing Facility				
	Single Sink, Portable Hand Washing Facility	6	unit	₱	₽
				Subtotal	₱
В	Site Works				
	Chipping of concrete (Plumbing Works)	2	sq.m.	₽	₱
				Subtotal	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
С	Civil Works				
	Restoration of Concrete (Plumbing Works)	2	sq.m.	₱	₽
				Material Cost	₱
				Labor Cost	
				Direct Cost	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
D	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø,PVC Pipe with Hub	3	piece	₱	₽
	75 mm Ø, PVC Pipe with Hub	5	piece		
	100 mm Ø, PVC Pipe with Hub	4	piece		
	50mm Ø, 1/8 Bend	6	piece		
	100mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/4 Bend	5	piece		
	100mm Ø x 50mm Ø, Wye	6	piece		
	100mm Ø, Coupling	4	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	5	piece		
	20mm Ø, Elbow	5	piece		
	20mm Ø, Coupling	5	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	2	kg		
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_	9	Materials Cost	₽
				Labor Cost	
				Direct Cost	₱
				MATERIAL COST II	₽
				LABOR COST II	
				DIRECT COST II	₽
II	REHABILITATION OF B1 DAY CARE CENTER				
A	Site Works				
^	Removal Works				
	Removal of Countertop	4	sq.m.	₽	₽
	Removal of Dilapidated Ceiling	81	sq.m.		
	Removal of Dilapidated Door	2	unit		
	Removal of Dilapidated Window	20	sq.m.		
	Removal of Lavatory	1	unit		
	Removal of Roof and Accessories	81	sq.m.		
	Removal of Tiles	93	sq.m.		
	Removal of Urinal	1	unit		
	Removal of Water Closet	1	unit		
	Clearing / Cleaning for Painting Preparation	461			
	Geaning / Oleaning for Fairtung Freparation	401	sq.m.	Subtotal	a
D .	Civil / Structural Works			Subiolai	₽
В	Masonry Works				
	100mm CHB Wall Laying, including Mortar, Reinforcing and Two-	21	sq.m	₽	₽
	Face Plastering		34.111		
	Metal Works				
	Roof Framing				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm x 50mm x 6mm Angle Bar	582	kg		
	38mm x 38mm x 6mm Angle Bar	342	kg		
	50mm x 100mm x 2mm Purlin	656	kg		
	1.20m x 2.40m x 6mm Gusset Plate	143	kg		
	10mmø Sagrod	37	kg		
	100mmØ G.I. Pipe Sched. 40	33	kg		
	250mm x 250mm Base Plate	38	kg		
	18mmØ Anchor Bolt	24	piece		
	Window Grilles				
	25mm x 25mm x 2mm Tubular Bar	616	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	4	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	8	tank		
	Welding Rod	3	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	117	sq.m		
	Pre-Painted G.I. Flashing	45	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	45	l.m.		
	Silicon Sealant	5	tube		
	Tekscrew	479	piece		
	Blind Rivets	245	piece		
				Material Cost	₱
				Labor Cost	
				Direct Cost	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
С	Architectural Works				
	Floor Finishes				
	Floor Topping for Preparation of Tile Works	85	sq.m.	₽	₽
	600mm x 600mm Non-Skid Homogeneous Tiles	82	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	4	sq.m		
	Wall Finishes and Partition				
	400mm x 400mm Homogeneous Tiles	12	sq.m		
	Ceiling Works		'		
	6mm thk Fiber Cement Board with Complete Framing and Accessories	117	sq.m		
				Materials Cos	t₽
				Labor Cos	t
				Subtota	₱
	Installation of Doors				
	D1 - (1.00m x 2.10m) Sliding Door, 6mm thk Clear Tempered Glass on White Color Powder Aluminum Frames	1	set	₽	₽
	D2 - (0.60m x 2.10m) Swing Type, PVC Door with Louver, Painted Finish (Kitten White)	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	3	set		
	Door Knob, Lever Type, Stainless	1	set		
	Installation of Windows				
	W1 -(1.60m x 1.80m) Sliding Window, 6mm thk Clear Tempered Glass on White Color Powder Coated Aluminum Frams	2	set		
	W2 -(2.40m x 1.90m) Sliding Window, 6mm thk Clear Tempered Glass on White Color Powder Coated Aluminum Frames	3	set		
				Materials Cos	t P
				Labor Cos	
				Subtota	
	Painting Works			Gustota	1
	Elastomeric Paint (Exterior Wall)	118	sq.m	₽	₽
	Epoxy Enamel Paint Finish (Steel Members)	202	sq.m		
	Flat Latex Paint Finish		34		
	Interior Wall	141	sq.m		
	Ceiling	117	sq.m		
	Fabricated Materials		94		
	Hanging Cabinet	3	sq.m.		
		3	I.m.		
	Kiddy Countertop with Aluminum Cover Standard Countertop with Aluminum Cover with Sink	4	I.m.		
	Standard Countertop with Aluminum Cover with Sink	4	1.111.	Mataviala	_ t ₱
				Materials Cos	-
				Labor Cos	
				Subtota	 *
				Material Cos	
				Labor Cos	
	Plumbing / Sanitary Works			Direct Cos	t ₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	3	piece	₱	P
	75 mm Ø, PVC Pipe with Hub	4	piece		
	100mm Ø, PVC Pipe with Hub	4	piece		
	50mm Ø, P-Trap	5	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	6	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/4 Bend	4	piece		
	75mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 50mm Ø, Wye	8	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	3	piece		
	100mm Ø x 50mm Ø, Tee Reducer	1	piece		
	100mm Ø, Cleanout with Adapter	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	5	piece		
	20mm Ø, Elbow	10	piece		
	20mm Ø, Coupling	5	piece		
	20mm Ø, Tee Equal	8	piece		
	20mm Ø, Female Threaded, Tee	11	piece		
	20mm Ø, Female Adapter	1	piece		
	32mm Ø x 20mm Ø, Reducer	1	piece		
	32mm Ø, Union Patente	1	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	5	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	4	piece		
	Grease Trap, 5 GPM, Stainless	1	piece		
	Hose Bibb Lever Type, Stainless Steel Heavy Duty (Water Efficient)	6	piece		
	Kitchen Faucet Lever Type, Stainless (Water Efficient)	1	piece		
	Kitchen Sink, Single Tub, Stainless	1	piece		
	Lavatory Faucet Lever Type, Stainless Steel (Water Efficient)	1	piece		
	Lavatory, Wall Hung, Kiddy	1	piece		
	Urinal,Flush Type, Kiddy (Water Efficient)	1	piece		
	Water Closet, Tank Type, Kiddy (Water Efficient)	1	piece		
	Accessories				
	Angle Valve, Stainless Steel, Single Way	3	piece		
	Angle Valve, Stainless Steel, Two Way	3	piece		
	Flexible Hose, Stainless Steel	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	3	roll		
	Waste Cloth	1	kg		
				Materials Cost	₱
				Labor Cost	
				Direct Cost	₱
Е	Electrical Works				
	Lighting and Power System				
	Roughing-ins				
	20mmØ PVC Pipe	62	piece	₽	₱
	32mmØ PVC Pipe	11	piece		
	40mmØ RSC Pipe	2	piece		
	15mmØ Flexible Metallic Conduit	15	lm		
	50mm x 100mm Metal Utility Box	7	piece		
	100mm x 100mm Metal Junction Box with cover	14	piece		
	Fittings & Accessories				
	15mmØ Angle Connector	22	piece		
	15mmØ IMC Locknut and Bushing	22	pair		
	20mmØ PVC Adaptor	63	piece		
	32mmØ PVC Adaptor	8	piece		
	20mmØ PVC Elbow	30	piece		
	32mmØ PVC Elbow	4	piece		
	20mmØ PVC Locknut and Bushing	63	pair		
	32mmØ PVC Locknut and Bushing	8	pair		
	40mmØ RSC Coupling	2	piece		
	40mmØ RSC Locknut and Bushing	4	pair		
			•		
	40mmØ Weatherproof Entrance Cap, Diecast	1	piece		
	Wires and Cables	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	8.0mm² THHN Wire	70	lm		
	30mm² THHN Wire	20	lm		
	3.5mm² THW Wire (Green)	35	lm		
	8.0mm² THW Wire (Green)	10	lm		
	2.0mm² TW Wire (Green)	2	roll		
	Lighting Fixtures				
	150mmØ Pinlight LED	1	unit		
	1 x 18 LED,300mmx1200mm Troffer Fixture	2	unit		
	2 x 18 LED,600mmx1200mm Troffer Fixture	8	unit		
	Wiring Devices				
	Orbit Fan with Selector Switch	3	unit		
	Outlet with Gounding , Two-Gang	4	piece		
	Switch with plate and cover, One-Gang	1	piece		
	Switch with plate and cover, Two-Gang	1	piece		
	Switch with plate and cover, Three-Gang	1	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	15	lm		
	Vertical layout of pipe	12	lm		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Panelboard				
	LPPA	1	assy		
	MDP	1	assy		
	Miscellaneous & Consumables				
	16mmØ x 250mm Oval Eye Bolt w/ Nut	2	piece		
	20mm Ø x 3000mm Grounding Rod (Copper Clod) w/ Ground Clamp	1	piece		
	400cc Solvent Cement	10	can		
	Electrical Tape	10	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	3	kg		
	Hacksaw Blade	2	piece		
	Masking Tape	10	piece		
	Pulling Lubricant	2	can		
	Rubber Tape	10	piece		
	. 14420. 1440		p.000	Material Cost	₽
				Labor Cost	•
				Direct Cost	₽
				Direct cost	1
				MATERIAL COST III	Ð
				LABOR COST III	Г
				DIRECT COST III	P
				DIRECT COST III	P
IV	REHABILITATION OF B2 & B3 DAY CARE CENTER				
Α	Site Works				
	Removal Works			₽	₱
	Removal of Countertop	3	sq.m.	F	Г
	Removal of Dilapidated Ceiling	117	sq.m.		
	Removal of Dilapidated Door	3	unit		
	Removal of Dilapidated Window	2	sq.m.		
	Removal of Lavatory	2	unit		
	Removal of Tiles	78	sq.m.		
	Removal of Water Closet	2	unit		
	Clearing / Cleaning for Painting Preparation	92	sq.m.		
				Subtotal	₱
В	Civil / Structural Works				
	Concrete Works				
	On Site Mix Concrete, 21Mpa, 3/4" Gravel @ 28 Days				
	Concrete Zocalo	1	cu.m	₽	₽
	Masonry Works				
	100mm CHB Wall Laying, including Mortar, Reinforcing and Two-Face Plastering	2	sq.m		
	Moisture Protection				
	Membrane Type Waterproofing (Roof Deck)	82	sq.m		
	Metal Works				
	Canopy Framing				
	50mm x 100mm x 2mm Tubular Bar	204	kg		
	50mm x 100mm x 2mm Purlin	141	kg		
				1	
		5	kg		
	100mmØ G.I. Pipe Sched. 40 200mm x 200mm Base Plate	5 19	kg kg		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	18mmØ x 150mm Dyna Bolt	18	piece		
	Window Grilles				
	25mm x 25mm x 2mm Tubular Bar	269	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	2	tank		
	Welding Rod	1	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	23	sq.m		
	Pre-Painted G.I. Flashing	21	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	21	l.m.		
	Silicon Sealant	5	tube		
	Tekscrew	117	piece		
	Blind Rivets	119	piece		
				Materials Cost	₽
				Labor Cost	
				Direct Cost	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
С	Architectural Works				
	Floor Finishes				
	Floor Topping for Preparation of Tile Works	88	sq.m.	₽	₱
	600mm x 600mm Non-Skid Homogeneous Tiles	85	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	4	sq.m		
	Wall Finishes and Partition				
	400mm x 400mm Homogeneous Tiles	17	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board with Complete Framing and		sq.m		
	Accessories	123	34.111		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	D3 - (0.70m x 2.10m) Swing Type, PVC Door with Louver, Painted Finish (Kitten White)	2	set	₱	₽
	D4 - (0.60m x 1.80m) Swing Type, Flush Door, Painted Finish (Kitten White)	1	set		
	SD-1 (1.00m x 1.50m) Swing Type, Steel Door	2	set		
	SD-2 (1.00m x 2.10m) Swing Type, Steel Door	1	set		
	Door jamb				
	SD-1 (1.00m x 1.50m) Swing Type, Steel Door	1	set		
	SD-2 (1.00m x 2.10m) Swing Type, Steel Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	15	set		
	Door Knob, Lever Type, Stainless	3	set		
	Barrel Bolt	2	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	54	sq.m	₽	₱
	Epoxy Enamel Paint Finish (Steel Members)	92	sq.m		
	Flat Latex Paint Finish				
	Ceiling	123	sq.m		
	Fabricated Materials				
	Countertop Tiles with Aluminum Undercounter Cover	3	l.m.		
	Hanging Cabinet	2	sq.m.		
	Standard Countertop	3	l.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Custotal	
				Material Cost	₽
		<u> </u>		Labor Cost	-
				Direct Cost	₽
D	Plumbing / Sanitary Works			2.1001.0031	
	Sewer Line / Storm Drainage System				
	Roughing-Ins				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50 mm Ø, PVC Pipe with Hub	2	piece	₱	₽
	75 mm Ø, PVC Pipe with Hub	6	piece		
	100mm Ø, PVC Pipe with Hub	12	piece		
	150mm Ø, PVC Pipe with Hub	4	piece		
	50mm Ø, P-Trap	4	piece		
	75mm Ø, P-Trap	2	piece		
	50mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/4 Bend	3	piece		
	100mm Ø, 1/4 Bend	9	piece		
	150mm Ø, 1/4 Bend	2	piece		
	75mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 100mm Ø, Tee	9	piece		
	100mm Ø x 75mm Ø, Tee	3	piece		
	100mm Ø x 50mm Ø, Wye	6	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	3	piece		
	150mm Ø x 100mm Ø, Wye	4	piece		
	100mm Ø x 50mm Ø, Tee Reducer	2	piece		
	100mm Ø, Cleanout with Adapter	4	piece		
	100mm Ø, Coupling	12	piece		
	150mm Ø, Coupling	4	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	4	piece		
	20mm Ø, Elbow	10	piece		
	20mm Ø, Coupling	4	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø, Tee Equal	3	piece		
	20mm Ø, Female Threaded, Tee	7	piece		
	20mm Ø, Female Adapter	2	piece		
	25mm Ø x 20mm Ø, Reducer	1	piece		
	25mm Ø, Union Patente	1	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	4	piece		
	Fixtures				
	Bidet with Complete Accessories, Stainless (Water Efficient)	2	set		
	Deck Drain 100mm Ø, Dome type, Stainless	9	set		
	Floor Drain,100mm x 100mm, Stainless	2	set		
	Grease Trap, 5GPM, Stainless	2	set		
	Hose Bibb Lever Type, Stainless Steel Heavy Duty (Water Efficient)	5	piece		
	Kitchen Faucet Lever Type, Stainless (Water Efficient)	2	set		
	Kitchen Sink, Single Tub, Stainless	2	set		
	Lavatory Faucet Lever Type, Stainless (Water Efficient)	2	set		
	Lavatory, Wall Hung, Kiddy	2	set		
	Water Closet, Kiddy, Tank Type w/ Accessories (Water Efficient)	2	set		
	Accessories				
	Angle Valve, Single-Way, Stainless	2	piece		
	Angle Valve, Two-Way, Stainless	1	piece		
	Flexible Hose, Stainless	3	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	4	can		
	All-Around Sealant	1	can		
	Hacksaw Blade	3	piece		
	Teflon Tape	3	roll		
	Waste Cloth	1	kg		
				Materials Cost	₱
				Labor Cost	_
_				Direct Cost	₱
Е	Electrical Works				
	Lighting and Power System				
	Roughing-ins	400	niac-	₽	Ð
	20mmØ PVC Pipe	103	piece	۲	r
	32mmØ RSC Pipe 15mmØ Flexible Metallic Conduit	4	piece		
		50	lm		
	50mm x 100mm Metal Utility Box	20	piece		
	100mm x 100mm Metal Junction Box with cover	27	piece		
	Fittings & Accessories				
	15mmØ Angle Connector	54	piece		
	15mmØ IMC Locknut and Bushing	54	pair		
	20mmØ PVC Adaptor	141	piece		
	20mmØ PVC Elbow	50	piece		
	20mmØ PVC Locknut and Bushing	141	pair		
	32mmØ RSC Coupling	6	piece		
	32mmØ RSC Locknut and Bushing	8	pair		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	32mmØ Weatherproof Entrance Cap, Diecast	2	piece		
	Wires and Cables				
	3.5mm² THHN Wire	4	roll		
	14mm² THHN Wire	70	lm		
	8.0mm² THW Wire (Green)	35	lm		
	2.0mm² TW Wire (Green)	2	roll		
	Lighting Fixtures				
	150mmØ Pinlight LED	3	unit		
	2 x 18 LED,600mmx1200mm Troffer Fixture	14	unit		
	Wiring Devices				
	Orbit Fan with Selector Switch	8	unit		
	Outlet with Gounding , Two-Gang	8	piece		
	Switch with plate and cover, One-Gang	3	piece		
	Switch with plate and cover, Three-Gang	5	piece		
	Switch with plate and cover, Three Way	5	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	35	lm		
	Vertical layout of pipe	12	lm		
	Secondary Rack, 2-Spool, Heavy Duty	6	piece		
	Panelboard				
	LPPB	1	assy		
	Miscellaneous & Consumables				
	400cc Solvent Cement	5	can		
	Electrical Tape	20	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	5	kg		
	Hacksaw Blade	3	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Masking Tape	20	piece		
	Pulling Lubricant	3	can		
	Rubber Tape	20	piece		
				Material Cost E	₱
				Labor Cost E	
				Direct Cost E	₱
				MATERIAL COST IV	P
				LABOR COST IV	
				DIRECT COST IV	P

ITEM NO.	WORK DESCRIPTION	ON & SCOPE OF WORKS	TOTAL COST
 V	GENERAL REQUIREMENTS CONSTRUCTION OF HANDWASHING FACILITY REHABILITATION OF B1 DAY CARE CENTER REHABILITATION OF B2 & B3 DAY CARE CENTER		P
	On y enforce Health Protocols relative to the applicable DPWH Memorandum	TOTAL DIRECT COST verhead, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF CONSTITUTIONAL DAY CARE CENTER

LOCATION : BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

General Requirements include billboard, scaffolding, temporary enclosure, clearing hauling and disposal of construction materials and debris and construction safety & health.

- II Rehabilitation of day care center.
- Site Works include removal of dilapidated ceiling, door, window, tiles, roof, gutter, countertop, water closet kiddy and cleaning and cleaning for painting preparation.
- b Civil Works include metal works and roofing works.
- C Architectural Works include floor finishes, wall finishes, ceiling works, painting works, installation of doors and windows and fabricated materials.
- d Plumbing Works include installation of waterline, fixtures, hardware and accessories.
- e Electrical Works include installation of wiring devices and other fixtures.
- f Mechanical works include installation of air-conditioning unit
- III Utilities and Ancillaries include civil works for electrical service post
- IV All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₱	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	25	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	10	l.m.		
				DIRECT COST I	₽
II	REHABILITATION OF DAY CARE CENTER				
Α	Site Works				
	Removal Works				
	Removal of Dilapidated Ceiling	54	sq.m.	₱	₱
	Removal of Dilapidated Door	2	unit		
	Removal of Dilapidated Window	4	sq.m.		
	Removal of Countertop (Standard & Kiddy)	3	sq.m.		
	Removal of Water Closet Kiddy	1	set		
	Removal of Tiles	41	sq.m.		
	Removal of Roof	54	sq.m.		
	Removal of Gutter	17	l.m.		
	Clearing / Cleaning for Painting Preparation	180	sq.m.		
				Subtotal-A	₱
В	Civil Works				
	Metal Works				
	Roof Framing				
	38mm x 38mm x 6mm Angle Bar	179	kg	₽	₱
	50mm x 50mm x 6mm Angle Bar	354	kg		
	1.20m x 2.40m x 6mm Mild Steel Plate	283	kg		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm x 100mm x 2mm C-Purlin	170	kg		
	12mmØ Sagrod	27	kg		
	Window Grille				
	25mm x 25mm x 2mm Tubular	66	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	2	tank		
	Welding Rod	2	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	57	sq.m		
	Pre-Painted G.I. Flashing	32	l.m.		
	300mm Fiber Cement Fascia Board	32	l.m.		
	Tekscrew	42	piece		
	Blind Rivets	156	piece		
				Materials Cost-B	₽
				Labor Cost-B	
				Direct Cost-B	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
С	Architectural Works				
	Floor Finishes				
	Floor Topping For Preparation of Tile Works	36	sq.m.	₱	₱
	600mm x 600mm Non-Skid Homogeneous Tiles	35	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	2	sq.m		
	Wall Finishes and Partition				
	400mm x 400mm Non-Skid Homogeneous Tiles	9	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board with	57	sq.m		
	Complete Framing and Accessories				
	Painting Works				
	Elastomeric Paint Finish (Exterior walls)	98	sq.m		
	Mural Painting (Elastomeric Paint)	27	sq.m		
	Flat Latex Paint Finish (Interior wall)	82	sq.m		
	Flat Latex Paint Finish (Ceiling)	57	sq.m		
	Epoxy Enamel Paint Finish (Metal Works)	68	sq.m		
	Fabricated Materials				
	Counter Top with 300mm x 300mm Tiles & Powder Coated Aluminum Framed Cabinet	3	l.m.		
	Kiddy Counter Top with 600mm x 600mm Tiles & Powder Coated Aluminum Framed Cabinet	2	l.m.		
	Hanging Cabinet (Pantry)	4	sq.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	D1 - (0.90m x 2.10m) Swing Type Panel Door Painted Finish	1	set	₽	₱
	D2 - (0.60m x 2.10m) Swing Type PVC Door	1	set		
	Painted Finish (Kitten White) w/ 400mm X 200mm Louver				
	Door Jamb				
	D1 - (0.80m x 2.10m) Panel Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	6	set		
	Door Knob, Lever Type, Stainless	2	set		
	Installation of Windows				
	W1 -(2.00m x 1.00m) Sliding Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W2 -(0.50m x 0.60m) Sliding Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
	W3 -(1.00m x 1.30m) Sliding Window, 6mm Thk,	1	set		
	Clear Tempered Glass White Color Powder Coated Aluminum				
	Frame with Complete Accessories				
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Materials Cost-C	₽
				Labor Cost-C	
				Direct Cost-C	₽
D	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe	3	piece	₱	₱
	75 mm Ø, PVC Pipe	4	piece		
	100mm Ø, PVC Pipe	3	piece		
	50mm Ø, P-Trap	4	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	6	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/4 Bend	4	piece		
	75mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 50mm Ø, Wye	6	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	3	piece		
	100mm Ø x 50mm Ø, Tee Reducer	2	piece		
	100mm Ø, Cleanout with Adapter	3	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	4	piece		
	20mm Ø, Elbow	12	piece		
	20mm Ø, Coupling	4	piece		
	20mm Ø, Tee Equal	7	piece		
	20mm Ø, Female Threaded, Elbow	8	piece		
	20mm Ø, Female Adapter	1	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	1	piece		
	Fixtures				
	Floor Drain, 100mm x 100mm, Stainless	3	piece		
	Bidet with Accessories, Stainless (Water Efficient)	1	piece		
	Grease Trap, 5GPM Heavy Duty	1	piece		
	Hose Bibb Lever Type, Stainless Steel Heavy Duty (Water Efficient)	3	piece		
	Kitchen Faucet Lever Type, Stainless Heavy Duty (Water Efficient)	1	piece		
	Sink 8" Deep, Stainless Steel	1	piece		
	Urinal Kiddy, Flush Type (Water Efficient)	1	piece		
	Water Closet Kiddy, Tank Type w/ Accessories (Water Efficient)	1	piece		
	Accessories				
	Flexible Hose, Stainless Steel	3	piece		
	Single Way Angle Valve, Stainless Steel	2	piece		
	Two Way Angle Valve, Stainless Steel	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
				Materials Cost-D	₱
				Labor Cost-D	
				Direct Cost-D	₱
Е	ELECTRICAL WORKS				
	Lighting and Power System				
	Roughing-ins				
	20mmØ RSC Pipe	6	piece	₱	₱
	20mmØ PVC Pipe	30	piece		
	25mmØ PVC Pipe	5	piece		
	15mmØ Flexible Metallic Conduit	10	lm		
	Pullbox, Junction Box & Utility Box				
	50mm x 100mm Metal Utility Box	12	piece		
	100mm x 100mm Metal Junction Box with cover	9	piece		
	Fittings & Accessories				
	15mmØ IMC Locknut and Bushing	18	pair		
	20mmØ RSC Locknut and Bushing	8	pair		
	20mmØ PVC Adaptor	84	piece		
	25mmØ PVC Adaptor	4	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mmØ PVC Elbow	15	piece		
	25mmØ PVC Elbow	3	piece		
	20mmØ PVC Locknut and Bushing	84	pair		
	25mmØ PVC Locknut and Bushing	4	pair		
	15mmØ Angle Connector	18	piece		
	Wires and Cables				
	3.5mm² THHN Wire	200	lm		
	5.5mm² THHN Wire	30	lm		
	8.0mm² THHN Wire	100	lm		
	2.0mm ² TW Wire (Green)	100	lm		
	3.5mm² TW Wire (Green)	70	lm		
	Wiring Devices				
	150mmØ Pinlight LED	1	piece		
	1 x 18 LED,600mmx1200mm Troffer Fixture	4	unit		
	Exhaust Fan, ceiling-mounted	1	unit		
	Orbit Fan with Selector Switch	2	unit		
	Outlet with Gounding , One-gang, for ACU, Heavy Duty	1	piece		
	Outlet with Gounding , Two-gang	6	piece		
	Switch with plate and cover, One-Gang	2	piece		
	Switch with plate and cover, Two-Gang	1	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	20	lm		
	Vertical layout of pipe	6	lm		
	Secondary Rack, Heavy Duty, 3-Spool	3	piece		
	Miscellaneous & Consumables				
	16mmØ x 250mm Oval Eye Bolt w/ nut	1	piece		
	20mm Ø x 3000mm Grounding Rod (Copper Clod) w/ Ground Clamp	1	piece		
	400cc Solvent Cement	5	can		
	Electrical Tape	10	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	2	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	30	piece		
	Pulling Lubricant	2	can		
	Rubber Tape	30	piece		

NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Panelboard				
	LPP (New)	1	assy		
	Main: 50 AT, 100AF, 2P, 240V, Bolt-on				
Ì	Branches:				
Ì	Enclosure: NEMA 1				
	MCB	2	assy		
Ì	Main: 50AT,100AF, 3P, 240V, MCCB				
Ì	Enclosure: NEMA 3R				
Ì					
F	MECHANICAL WORKS				
	Airconditioning System				
	Condensate Water Drainage System				
	Roughing-Ins				
	20mm Ø X 3m uPVC Pipe	1	piece		
	20mm Ø uPVC Elbow	3	piece		
	Insulation				
	20mmØ x 12mm thick Rubber Foam Insulation	3	l.m.		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₽
	Equipment and Accessories				
	Window-type Air Conditioning Unit				
	WAC 1 - Window-type Airconditioner 2.5 hp, 2.0 TR, 600cfm,2350W, 230/1/60	1	unit	₽	₽
				Materials Cost	₱
<u> </u>				Labor Cost	
				Subtotal	₱
	Pipe Hangers and Supports				
	Condensate Water Drainage System Support	3	l.m.	₱	₱
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	5	piece		
	Teflon Tape	1	roll		
	Waste Cloth	3	kg		
				Materials Cost	P
				Labor Cost	_
				Subtotal	₱
				M	_
				Material Cost - F	₽
				Labor Cost - F	
				Direct Cost - F	P
				MATERIAL COST II	₽
				LABOR COST II	
1				DIRECT COST II	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	150mm x 150mm x 3700mmm Electrical Service Entrance Post	1	unit	P	₱
				DIRECT COST III	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO.	WORK DESCRIPTION 8	& SCOPE OF WORKS	TOTAL COST
 	GENERAL REQUIREMENTS REHABILITATION OF DAY CARE CENTER UTILITIES AND ANCILLARIES		₽
-	Overhead enforce Health Protocols relative to the oplicable DPWH Memorandum	TOTAL DIRECT COST I, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

TALANAY DAY CARE CENTER

LOCATION: BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

General Requirements include billboard, clearing, hauling and disposal of construction materials and debris, temporary enclosure ,construction safety & health and scaffolding

- II Construction of Hand Washing Facility.
- a Installation of single sink portable handwashing facility.
- b Plumbing Works include installation of waterline, fixtures, hardware and accessories.
- III Rehabilitation of Day Care Center.
- Site Works include removal of dilapidated ceiling, door, window, tiles, roof, gutter, counter top, hanging cabinet excavation (trench canal) and cleaning and clearing for painting preparation.
- b Civil Works include metal works and roofing works.
- Architectural Works include floor finishes, wall finishes, ceiling works, painting works, installation of doors and windows and fabricated materials.
- d Plumbing Works include installation of waterline, fixtures, hardware and accessories.
- e Electrical Works include installation of wiring devices and other fixtures.
- f Mechanical Works include installation of air-conditioning unit and exhaust fans.
- IV Utilities and Ancillaries include construction of trench canal, tapping of drainage and construction of electrical service post
- V All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	#
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	21	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	8	l.m.		
				DIRECT COST I	₽
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	Hand Washing Facility				
	Single Sink, Portable Hand Washing Facility	2	unit	₱	₽
				Subtotal-A	₱
В	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	1	piece	₱	₽
	75 mm Ø, Pipe PVC	1	piece		
	50mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	2	piece		
	75mm Ø, 1/4 Bend	2	piece		
	100mm Ø x 50mm Ø, Wye	2	piece		
	Waterline System				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Roughing-Ins				
	20mm Ø, Pipe PPR	3	piece		
	20mm Ø, Elbow	2	piece		
	20mm Ø, Coupling	3	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	1	rolls		
	Waste Cloth	1	kgs		
				Materials Cost	₱
				Labor Cost	
				Direct Cost	₱
				MATERIAL COST II	₽
				LABOR COST II	
				DIRECT COST II	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
III	REHABILITATION OF DAY CARE CENTER				
Α	Site Works				
	Removal Works				
	Removal of Dilapidated Ceiling	57	sq.m.	₱	₱
	Removal of Dilapidated Door	5	unit		
	Removal of Dilapidated Window	5	sq.m.		
	Removal of Countertop	2	sq.m.		
	Removal of Hanging Cabinet	1	sq.m.		
	Removal of Tiles	60	sq.m.		
	Removal of Roof	57	sq.m.		
	Removal of Gutter	6	l.m.		
	Removal of Water Closet	2	unit		
	Clearing / Cleaning for Painting Preparation	341	sq.m.		
	Excavation (Trench Canal)	4	cu.m.		
				Subtotal-A	₽
В	Civil Works				
	Metal Works				
	Truss				
	50mm x 50mm x 6mm Angle Bar	591	kg	₱	₽
	38mm x 38mm x 6 mm Angle Bar	442	kg		
	50mm x 100mm x 2mm Purlin	359	kg		
	1.20m x 2.40m x 6mm Gusset Plate	285	kg		
	10mm Ø Sagrod	13	kg		
	Window Grilles				
	25mm x 25mm x 2mm Tubular Bar	78	kg		
	Trench Steel Grating				
	25mm x 4mm Flat Bar	199	kg		
	50mm x 50mm x 4mm Channel Bar	129	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	3	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	6	tank		
	Welding Rod	3	box		
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	61	sq.m		
	Pre-Painted G.I. Flashing	34	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	34	l.m.		
	All Purpose Sealant	5	piece		
	Tekscrew	304	piece		
	Blind Rivets	187	piece		
				Material Cost -B	₽
				Labor Cost-B	
				Subtotal-B	₽
С	Architectural Works				
	Floor Finishes				
	Floor Topping For Preparation of Tile Works	43	sq.m.	₽	₽
	Plain Cement Finish	29	sq.m.		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	600mm x 600mm Non-Skid Homogeneous Tiles	38	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	6	sq.m		
	Wall Finishes and Partition				
	400mm x 400mm Homogeneous Tiles	19	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board with Complete Framing and Accessories	64	sq.m		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	D1 - (0.80m x 2.10m) Swing Type Flush Door	1	set	₽	₽
	D2 - (0.60m x 2.10m) Swing Type PVC Door with Louvers	1	set		
	D3 - (0.90m x 2.10m) Swing Type Panel Door	1	set		
	D4 - (0.60m x 1.50m) Swing Type PVC Door	2	set		
	Door jamb				
	D1 - (0.80m x 2.10m) Swing Type Flush Door	1	set		
	D3 - (0.90m x 2.10m) Swing Type Panel Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	15	set		
	Door Knob, Lever Type, Stainless	5	set		
	Installation of Windows				
	W1 -(0.60m x 0.60m) Aluminum Frame Powder Coated Awning Window with 6mm Thk Clear Glass	2	set		
	W2 -(0.80m x 1.20m) Aluminum Frame Powder Coated Sliding Window with 6mm Thk Clear Glass	1	set		
	W3 -(2.40m x 1.20m) Aluminum Frame Powder Coated Sliding Window with 6mm Thk Clear Glass	1	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Painting Works				
	Elastomeric Paint (Exterior Wall)	88	sq.m	₽	₽
	Mural Painting (Elastomeric Paint)	13	sq.m		
	Flat Latex Paint Finish (Interior wall)	134	sq.m		
	Flat Latex Paint Finish (Ceiling)	64	sq.m		
	Epoxy Enamel Paint Finish (Steel Members)	119	sq.m		
	Fabricated Materials				
	Counter Top	3	l.m.		
	Hanging Cabinet	2	sq.m.		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Custotal	
				Material Cost -C	₽
				Labor Cost-C	
				Subtotal-C	₽
D	Plumbing / Sanitary Works			Oubiolai-O	1
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, Pipe PVC	2	piece	₽	₽
	75 mm Ø, Pipe PVC	4	piece	'	•
	-	-	piece		
	100mm Ø, Pipe PVC	3	piece		
	50mm Ø, P-Trap	2	piece		
	75mm Ø, P-Trap	1	· -		
	50mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	3	piece		
	75mm Ø, 1/4 Bend	2	piece		
	100mm Ø x 75mm Ø, Tee	2	piece		
	100mm Ø x 50mm Ø, Wye	4	piece		
	100mm Ø x 75mm Ø, Wye	1	piece		
	100mm Ø x 100mm Ø, Wye	1	piece		
	100mm Ø, Cleanout with Adapter	1	piece		
	Waterline System				
	Roughing-Ins	ļ .			
	20mm Ø, Pipe PPR	4	piece		
	20mm Ø, Elbow	9	piece		
	20mm Ø, Coupling	4	piece		
	20mm Ø, Tee Equal	3	piece		
	20mm Ø, Female Threaded, Elbow	3	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	1	piece		
	Fixtures				
	Floor Drain, 100mm x 100mm, Stainless	2	piece		
	Bidet with Accessories, Stainless (Water Efficient)	2	piece		
	Grease Trap, 5GPM, Heavy Duty	1	piece		
	Kitchen Faucet Lever Type, Stainless Heavy Duty (Water Efficient)	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Sink 8" Deep, Stainless Steel	1	piece		
	Water Closet Kiddy, Tank Type w/ Accessories (Water Efficient)	2	piece		
	Accessories				
	Flexible Hose, Stainless Steel	4	piece		
	Angle Valve, Stainless Steel, Single Way	2	piece		
	Angle Valve, Stainless Steel, Two Way	2	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	1	rolls		
	Waste Cloth	1	kgs		
				Material Cost -D	₽
				Labor Cost-D	
				Subtotal-D	₱
Е	Electrical Works				
	Lighting and Power System				
	Roughing-ins				
	20mmØ RSC Pipe	6	piece	₱	₱
	20mmØ PVC Pipe	25	piece		
	25mmØ PVC Pipe	3	piece		
	15mmØ Flexible Metallic Conduit	15	lm		
	Pullbox, Junction Box & Utility Box				
	50mm x 100mm Metal Utility Box	11	piece		
	100mm x 100mm Metal Junction Box with cover	13	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fittings & Accessories				
	15mmØ IMC Locknut and Bushing	26	pair		
	20mmØ RSC Locknut and Bushing	4	pair		
	20mmØ PVC Adaptor	126	piece		
	25mmØ PVC Adaptor	18	piece		
	20mmØ PVC Elbow	15	piece		
	25mmØ PVC Elbow	3	piece		
	20mmØ PVC Locknut and Bushing	126	pair		
	25mmØ PVC Locknut and Bushing	18	pair		
	15mmØ Angle Connector	26	piece		
	Wires and Cables				
	3.5mm ² THHN Wire	180	lm		
	5.5mm² THHN Wire	10	lm		
	8.0mm² THHN Wire	50	lm		
	2.0mm² TW Wire (Green)	90	lm		
	3.5mm² TW Wire (Green)	30	lm		
	Wiring Devices				
	150mmØ Pinlight LED	1	piece		
	1 x 18 LED,600mmx1200mm Troffer Fixture	9	unit		
	Orbit Fan with Selector Switch	1	unit		
		1	piece		
	Outlet with Gounding , One-gang, for ACU, Heavy Duty	6	piece		
	Outlet with Gounding , Two-gang	2	piece		
	Switch with plate and cover, One-Gang	2	piece		
	Switch with plate and cover, Two-Gang		piece		
	Pipe Hangers & Supports	20	lm		
	Horizontal layout of pipe	6	lm		
	Vertical layout of pipe	3	piece		
	Secondary Rack, Heavy Duty, 3-Spool Miscellaneous & Consumables				
	16mmØ x 250mm Oval Eye Bolt with nut	1	piece		
	20mm Ø x 3000mm Grounding Rod (Copper Clod) with Ground Clamp	1	piece		
	400cc Solvent Cement	5	can		
	Electrical Tape	10	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	2	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	30	piece		
	Pulling Lubricant	2	can		
	Rubber Tape	30	piece		
	Panelboard				
	LPP (New)	1	assy		
	Main: 50 AT, 100AF, 2P, 240V, Bolt-on				
	Branches:				
	3-20 AT, 2P				
	1-30 AT, 2P				
	Enclosure: NEMA 1				
	MCB	1	assy		
	Main: 50AT,100AF, 3P, 240V, MCCB				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Enclosure: NEMA 3R				
				Material Cost -E	₱
				Labor Cost-E	
				Subtotal-E	₽
F	Mechanical Works				
	Airconditioning System				
	Condensate Water Drainage System				
	Roughing-Ins				
	20mm Ø X 3m uPVC Pipe	1	piece	₽	₱
	20mm Ø uPVC Elbow	3	piece		
	Insulation				
	20mmØ x 12mm thick Rubber Foam Insulation	3	l.m.		
				Materials Cost	₱
				Labor Cost	
				Direct Cost	₱
	Equipment and Accessories				
	Window-type Air Conditioning Unit				
	WAC 1 - Window-type Airconditioner 2.5 hp, 2.0 TR,	1	unit	₱	₱
	600cfm,2350W, 230/1/60				
				Materials Cost	₱
				Labor Cost	
				Direct Cost	₱
	Ventilating Fan				
	EF 1 - Duct Mounted Ceiling Ventilation Fan	2	piece	₱	₱
	100 cfm / 20 w / 230 V / 1 ф				

Ventilation System			UNIT COST	TOTAL COST
7 5				
Duct				
100mm Ø, Pipe PVC	2	piece	₱	₱
100mm Ø, Air Vent Cap	1	piece		
Pipe Hangers and Supports				
Condensate Water Drainage System Support	3	l.m.		
Miscellaneous & Consumables				
400cc Solvent Cement	1	can		
Hacksaw Blade	5	piece		
Teflon Tape	1	roll		
Waste Cloth	3	kg		
			Materials Cost	₱
			Labor Cost	
			Direct Cost	₱
			Material Cost -D	₱
			Subtotal-D	₱
			MATERIAL COST III	₽
			LABOR COST III	
			DIRECT COST III	₽
UTILITIES AND ANCILLARIES				
Trench Canal	11	l.m.	₽	₱
Tapping of Drainage	1	set		
150mm x 150mm x 3700mmm Electrical Service Entrance Post	1	unit		
			DIRECT COST IV	P
	100mm Ø, Air Vent Cap Pipe Hangers and Supports Condensate Water Drainage System Support Miscellaneous & Consumables 400cc Solvent Cement Hacksaw Blade Teflon Tape Waste Cloth UTILITIES AND ANCILLARIES Trench Canal Tapping of Drainage	100mm Ø, Air Vent Cap Pipe Hangers and Supports Condensate Water Drainage System Support Miscellaneous & Consumables 400cc Solvent Cement Hacksaw Blade Teflon Tape 1 Waste Cloth 3 UTILITIES AND ANCILLARIES Trench Canal Tapping of Drainage 1 1 1 1 1 1 1 1 1 1 1 1 1	100mm Ø, Air Vent Cap Pipe Hangers and Supports Condensate Water Drainage System Support 3 I.m. Miscellaneous & Consumables 400cc Solvent Cement 1 can Hacksaw Blade 5 piece Teflon Tape 1 roll Waste Cloth 3 kg UTILITIES AND ANCILLARIES Trench Canal Tapping of Drainage 1 set	100mm Ø, Air Vent Cap Pipe Hangers and Supports Condensate Water Drainage System Support 3 I.m. Miscellaneous & Consumables 400cc Solvent Cement 1 can Hacksaw Blade 5 piece Teflon Tape 11 roll Waste Cloth 3 kg Materials Cost Labor Cost Direct Cost Material Cost -D Labor Cost-D Subtotal-D WATERIAL COST III UTILITIES AND ANCILLARIES Trench Canal Tapping of Drainage 1 set 150mm x 150mm x 3700mmm Electrical Service Entrance Post 1 unit

ITEM NO.	WORK DESCRIPTION &	TOTAL COST	
I II III	GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF DAY CARE CENTER UTILITIES AND ANCILLARIES		₽
1	Overhead, 0 enforce Health Protocols relative to the pplicable DPWH Memorandum	TOTAL DIRECT COST Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED CONSTRUCTION OF HAND WASHING FACILITY AND REHABILITATION OF

POOK PAG-ASA DAY CARE CENTER

LOCATION: BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

General Requirements include billboard, clearing, hauling and disposal of construction materials and debris, temporary enclosure, construction safety & health and scaffolding

- II Construction of Hand Washing Facility.
- A Installation of single sink portable handwashing facility.
- B Plumbing Works include installation of waterline, fixtures, hardware and accessories.
- III Rehabilitation of Day Care Center.
- A Site Works include removal of dilapidated ceiling, door, steel gate, tiles, roof, gutter, counter top, plumbing fixtures cleaning and clearing for painting preparation, earthworks, layout and staking, site clearing and preparation
- B Civil Works include concrete works, metal works, roofing works and masonry works
- C Architectural Works include floor finishes, wall finishes, ceiling works, painting works, installation of doors fabricated materials and lettering
- D Plumbing Works include installation of waterline, fixtures, hardware and accessories.
- E Electrical Works include installation of wiring devices and other fixtures.
- IV Utilities and Ancillary Works include construction of electrical service post
- V All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₱
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	22	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	8	l.m.		
				DIRECT COST I	₽
II	CONSTRUCTION OF HAND WASHING FACILITY				
Α	Hand Washing Facility				
	Single Sink, Portable Hand Washing Facility	2	unit	₱	₱
				Subtotal-A	#
В	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe	1	piece	₱	₽
	75 mm Ø, PVC Pipe	1	piece		
	50mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	2	piece		
	75mm Ø, 1/4 Bend	2	piece		
	100mm Ø x 50mm Ø, Wye	2	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, Pipe PPR	3	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mm Ø, Elbow	2	piece		
	20mm Ø, Coupling	3	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	1	piece		
	Teflon Tape	1	roll		
	Waste Cloth	1	kg		
				Materials Cost	₱
				Labor Cost	
				Subtotal-B	₱
				MATERIAL COST II	₱
				LABOR COST II	
				DIRECT COST II	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
Ш	REHABILITATION OF DAY CARE CENTER				
Α	Site Works				
	Site Clearing and Preparations	7	sq.m.	₽	₽
	Layout and Staking	7	sq.m.		
	Removal Works				
	Removal of Dilapidated Ceiling	58	sq.m.		
	Removal of Dilapidated Door	1	unit		
	Removal of Steel Gate	1	unit		
	Removal of Countertop	2	sq.m.		
	Removal of Lavatory	1	unit		
	Removal of Water Closet	1	unit		
	Removal of Tiles	53	sq.m.		
	Removal of Roof	58	sq.m.		
	Removal of Gutter	8	l.m.		
	Clearing / Cleaning for Painting Preparation	166	sq.m.		
	Excavation for Wall Footing	3	cu.m.		
	· ·			Subtotal	₽
	Gravel Bedding	1	cu.m.	₽	₽
	Soil Treatment	7	sq.m.		
			- 1	Material Cost	₽
				Labor Cost	1
				Subtotal	₽
					Г
	Backfill and Compaction	2	cu.m.	₽	₽
	Data and Compaction	 -	- Cuiiii	Subtotal	₽
				Oustolai	Г
		+		Material Cost-A	₽
				Labor Cost-A	Г
				Direct Cost-A	B
D	Civil Works			Direct Gost 70	₱
В	Concrete Works				
	On Site Mix Concrete, 21Mpa, 3/4" Gravel @28 Days				
	Column	1	cu.m.	₽	₽
	Slab on Grade	1	cu.m.	P	P
	Wall Footing	1			
	Reinforcing Steel Bar	1	cu.m.		
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	10mmØ Column	40	ka		
		16	kg		
	10mmØ Slab on Grade	38	kg		
	12mmØ Wall Footing	46	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire # 16		les.		
	16mmØ Column	43	kg		
	Formworks				
	Column	3	sq.m		
	Wall Footing	3	sq.m		
	Masonry Works				

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	150mm CHB Wall Laying, including Mortar, Reinforcing and Two-Face Plastering	12	sq.m		
	Plastering of CHB Wall	29	sq.m		
	Metal Works				
	Pedestal				
	12mm thk Base Plate	16	kg		
	100mmØ G.I. Pipe Sched 40	152	kg		
	18mmØ Anchor Bolt	16	piece		
	Covered Walkway Enclosure				
	50mm x 50mm x 2mm Tubular Bar	159	kg		
	10mm x 10mm Square Bar	134	kg		
	Gate				
	10mmx 10mm Square Bar	5	kg		
	50mm x 50mm x 2mm Tubular Bar	36	kg		
	50mm x 6mm Flat Bar	17	kg		
	Gauge 18 G.I. Sheet	12	kg		
	Barrel Bolt	3	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Covered Walkway Roofing				
	50mm x 150mmx 4mm Tubular Bar	330	kg		
	50mm X 100mm X 2mm C Purlin	40	kg		
	12mmØ Sagrod	3	kg		
	Miscellaneous & Consumables				
	Acetylene Tank (Refill)	1	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
	Oxygen Tank (Refill)	1	tank		
	Welding Rod	2	box		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Roofing Works				
	Pre-Painted Rib-type G.I. Roofing	80	sq.m		
	Pre-Painted G.I. Flashing	46	l.m.		
	12mm x 300mm Fiber Cement Fascia Board	46	l.m.		
	Blind Rivets	304	piece		
	Silicon Sealant	5	tube		
	Tekscrew	187	piece		
				Materials Cost-B	₱
				Labor Cost-B	
				Direct Cost-B	₱
С	Architectural Works				
	Floor Finishes				
	Floor Topping for Preparation of Tile Works	44	sq.m	₽	₽
	Plain Cement Finish	7	sq.m		
	600mm x 600mm Non-Skid Homogeneous Tiles	41	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	3	sq.m		
	Wall Finishes				
	400mm x 400mm Homogeneous Tiles	11	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board with Complete Framing and Accessories	59	sq.m		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Installation of Doors				
	D1 - (0.70m x 2.10m) Swing Type PVC Door with Louvers	1	set	₱	₱
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	3	set		
	Door Knob, Lever Type, Stainless	1	set		
	Door Closer, Heavy Duty Stainless	1	set		
	Door Lock Set, Stainless	1	piece		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₱
	Painting Works				
	Elastomeric Paint Finish (Exterior Wall)	69	sq.m	₽	₽
	Flat Latex Paint Finish (Interior wall)	118	sq.m		
	Flat Latex Paint Finish (Ceiling)	59	sq.m		
	Epoxy Enamel Paint Finish (Steel Members)	31	sq.m		
	Fabricated Materials				
	Countertop	4	l.m.		
	Lettering				
	Stainless Steel Signage with Neon Backlights (150mm x 150mm) "POOK PAG ASA DAY CARE CENTER"	23	set		
				Material Cost	₽
				Labor Cost	
				Subtotal	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Materials Cost-C	₱
				Labor Cost-C	
				Direct Cost-C	₱
D	Plumbing / Sanitary Works				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe	2	piece	₱	₱
	75 mm Ø, PVC Pipe	4	piece		
	100mm Ø, PVC Pipe	7	piece		
	50mm Ø, P-Trap	2	piece		
	75mm Ø, P-Trap	1	piece		
	50mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/8 Bend	2	piece		
	100mm Ø, 1/8 Bend	2	piece		
	75mm Ø, 1/4 Bend	2	piece		
	100mm Ø x 75mm Ø, Tee	2	piece		
	100mm Ø x 50mm Ø, Wye	2	piece		
	100mm Ø x 75mm Ø, Wye	2	piece		
	100mm Ø x 100mm Ø, Wye	2	piece		
	100mm Ø x 50mm Ø, Tee Reducer	1	piece		
	100mm Ø, Cleanout with Adapter	2	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	5	piece		
	20mm Ø, Elbow	12	piece		
	20mm Ø, Coupling	5	piece		
	20mm Ø, Tee Equal	5	piece		
	20mm Ø, Female Threaded, Elbow	4	piece		
	Valves and Appurtenances				
	20mm Ø Gate Valve, PPR	2	piece		
	Fixtures				
	Bidet with Accessories, Stainless (Water Efficient)	1	piece		
	Floor Drain, 100mm x 100mm, Stainless	1	piece		
	Grease Trap, 5GPM, Heavy Duty	1	piece		
	Kitchen Faucet Lever Type, Stainless Heavy Duty (Water Efficient)	1	piece		
	Lavatory Wall Hung	1	unit		
	Lavatory Faucet Lever Type, Stainless Steel Heavy Duty	1	piece		
	(Water Efficient)				
	Sink 8" Deep, Stainless Steel	1	unit		
	Water Closet Kiddy, Tank Type w/ Accessories (Water Efficient) Accessories	1	unit		
	Angle Valve, Stainless Steel, Single Way	3	piece		
	Angle Valve, Stainless Steel, Two Way	1	piece		
	Flexible Hose, Stainless Steel	4	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	2	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	2	roll		
	Waste Cloth	1	kg		
		-	9	Materials Cost-D	₽
				Labor Cost-D	
				Direct Cost-D	₽
Е	Electrical Works				
	Lighting and Power System				
	Roughing-ins				
	20mmØ RSC Pipe	6	piece	₽	₽
	20mmØ PVC Pipe	30	piece		
	25mmØ PVC Pipe	4	piece		
	15mmØ Flexible Metallic Conduit	20	lm		
	Pullbox, Junction Box & Utility Box				
	50mm x 100mm Metal Utility Box	5	piece		
	100mm x 100mm Metal Junction Box with cover	15	piece		
	Fittings & Accessories	0	F.000		
	15mmØ IMC Locknut and Bushing	30	nair		
	20mmØ RSC Locknut and Bushing	4	pair pair		
	20mmØ PVC Adaptor	45	piece		
	25mmØ PVC Adaptor	15	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mmØ PVC Elbow	15	piece		
	25mmØ PVC Elbow	4	piece		
	20mmØ PVC Locknut and Bushing	45	pair		
	25mmØ PVC Locknut and Bushing	15	pair		
	15mmØ Angle Connector	30	piece		
	Wires and Cables				
	3.5mm² THHN Wire	190	lm		
	8.0mm² THHN Wire	30	lm		
	2.0mm² TW Wire (Green)	190	lm		
	3.5mm² TW Wire (Green)	15	lm		
	Lighting Fixtures (Energy Efficient)				
	150mmØ Pinlight LED	1	piece		
	1 x 18 LED,300mmx1200mm Troffer Fixture	6	unit		
	1x18w T8 LED Tube Light, Box Type	3	unit		
	Wiring Devices				
	Orbit Fan with Selector Switch	2	unit		
	Outlet with Gounding , Two-gang	4	piece		
	Switch with plate and cover, One-Gang	2	piece		
	Switch with plate and cover, Three-Gang	1	piece		
	Pipe Hangers & Supports				
	Horizontal layout of pipe	20	lm		
	Vertical layout of pipe	6	lm		
	Miscellaneous & Consumables				
	16mmØ x 250mm Oval Eye Bolt w/ nut	1	piece		
	20mm Ø x 3000mm Grounding Rod (Copper Clod) w/ Ground Clamp	1	piece		
	400cc Solvent Cement	5	can		
	Electrical Tape	10	piece		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	2	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	30	piece		
	Pulling Lubricant	2	can		
	Rubber Tape	30	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Panelboard				
	LPP (New)	1	assy		
	Main: 50 AT, 100AF, 2P, 230V, Bolt-on				
	Branches:				
	4- 20 AT				
	Enclosure: NEMA 1				
	MCB	1	assy		
	Main: 50AT,100AF, 3P, 230V, MCCB				
	Enclosure: NEMA 3R				
				Material Cost-E	₱
				Labor Cost-E	
				Direct Cost-E	₽
F	MECHANICAL WORKS				
	Ventilating Fan				
	EF 1 - Duct Mounted Ceiling Ventilation Fan	2	piece	₱	₱
	100 cfm / 20 w / 230 V / 1 ф				
	Ventilation System				
	Duct				
	100mm Ø, PVC Pipe	2	piece		
	100mm Ø, Air Vent Cap	1	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	1	can		
	Hacksaw Blade	5	piece		
	Waste Cloth	3	kg		
				Materials Cost-F	₱
				Labor Cost-F	
				Direct Cost-F	₱
				MATERIAL COST III	₽
				LABOR COST III	
				DIRECT COST III	₽
IV	UTILITIES AND ANCILLARY WORKS				
	150mm x 150mm x 3700mmm Electrical Service Entrance Post	1	unit	₽	₽
				DIRECT COST IV	₱

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
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ITEM NO.	WORK DESCRIPTION	TOTAL COST	
 V	GENERAL REQUIREMENTS CONSTRUCTION OF HAND WASHING FACILITY REHABILITATION OF DAY CARE CENTER UTILITIES AND ANCILLARY WORKS	₽	
Note: Overhead Strictly enforce Health Protocols relative to the latest applicable DPWH Memorandum		TOTAL DIRECT COST ad, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST	

(Building Construction/Rehabilitation Project)

PROJECT TITLE: PROPOSED REHABILITATION OF JASMIN DAY CARE CENTER

LOCATION: BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

PROJECT NO. : 21 - 00177

SCOPE OF WORK:

- I General Requirements include temporary enclosure, billboard, clearing, hauling and disposal of construction materials and debris, scaffolding and construction safety & health.
- II Site Works include removal works, and cleaning and cleaning for painting preparation.
- III Civil / Structural Works include concrete works, masonry works, metal works and roofing works.
- IV Architectural Works include floor finishes, wall finishes, ceiling finishes, painting works, installation of doors and windows, fabricated materials and letterings.
- V Plumbing Works include installation of roughing-ins, fixtures, equipment and accessories.
- VI Electrical Works include installation of roughing-ins, wiring devices and fixtures.
- VII All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
ı	GENERAL REQUIREMENTS				
	Billboard	1	unit	₽	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	1	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding	29	sq.m.		
	Temporary Enclosure around the Construction Area (H=2.4m)	12	l.m.		
				DIRECT COST I	₽
II	SITE WORKS				
	Removal Works				
	Removal of Countertop	3	sq.m.	₱	₱
	Removal of Dilapidated Ceiling	89	sq.m.		
	Removal of Dilapidated Door	4	unit		
	Removal of Dilapidated Window	12	sq.m.		
	Removal of Gate	5	sq.m.		
	Removal of Gutter	16	l.m.		
	Removal of Hanging Cabinet	2	sq.m.		
	Removal of Lavatory	2	unit		
	Removal of Roof	90	sq.m.		
	Removal of Tiles	72	sq.m.		
	Removal of Urinal	1	unit		
	Removal of Water Closet	2	unit		
	Clearing / Cleaning for Painting Preparation	413	sq.m.		
				DIRECT COST II	₽
Ш	CIVIL / STRUCTURAL WORKS				
	Concrete Works				
	On Site Mix Concrete, 21Mpa, 3/4" Gravel @28 Days				
	Column	1	cu.m.	₽	₽
	Reinforcing Steel Bar				
			•	I	

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	10mmØ Column	5	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire # 16				
	16mmØ Column	17	kg		
	Formworks				
	Column	1	sq.m		
	Masonry Works				
	100mm CHB Wall Laying, including Mortar, Reinforcing and Two-Face Plastering	9	sq.m		
	Metal Works				
	Roof Framing				
	50mm x 50mm x 6mm Angle Bar	577	kg		
	38mm x 38mm x 6 mm Angle Bar	391	kg		
	50mm x 100mm x 2mm Purlin	602	kg		
	100mm x 100mm x 6mm Gusset Plate	51	kg		
	12mm Ø Sagrod	50	kg		
	12mm Base Plate	32	kg		
	18mm Ø Anchor Bolt	11	kg		

TEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Gate				
	32mmØ G.I. Pipe	41	kg		
	10mm Square Bar	24	kg		
	50mm x 50mm Wire Mesh	6	sq.m		
	38mmØ Round Bar Barrel Bolt	1	set		
	Cylindrical Hinge, Heavy Duty, Stainless	3	piece		
	Gate Pathwalk				
	100mmØ G.I. Pipe Sched 40	111	kg		
	50mm x 100mm x 4 mm Tubular Bar	98	kg		
	50mm x 100mm x 2 mm C- Purlin	22	kg		
	32mmØ G.I. Pipe (Railings)	19	kg		
	12mm thk Base Plate	16	kg		
	18mmØ Anchor Bolt	6	kg		
	Window Grilles		3		
	25mm x 25mm x 2mm Tubular Bar	106	kg		
	Miscellaneous & Consumables	100	שיי		
	Acetylene Tank (Refill)	3	tank		
	Cut Off Blade	5	piece		
	Grinding Disc for Metal	5	piece		
		6	tank		
	Oxygen Tank (Refill)		box		
	Welding Rod	3	DUX		
	Roofing Works	444	00 m		
	Pre-Painted Rib-type G.I. Roofing	111	sq.m		
	Pre-Painted G.I. Flashing	50	l.m.		
	6mm thk One-Sided Aluminum Foil Thermal Insulation	106	sq.m.		
	12mm x 300mm Fiber Cement Fascia Board	50	l.m.		
	All Purpose Sealant	5	piece		
	Tekscrew	479	piece		
	Blind Rivets	271	piece		
	Silicon Sealant	3	tube		
			N	MATERIAL COST III	₽
				LABOR COST III	
				DIRECT COST III	₽
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	Floor Topping For Preparation of Tile Works	63	sq.m.	₽	₽
	600mm x 600mm Non-Skid Homogeneous Tiles	56	sq.m		
	400mm x 400mm Non-Skid Homogeneous Tiles	4	sq.m		
	Wall Finishes and Partition				
	400mm x 400mm Homogeneous Tiles	17	sq.m		
	Ceiling Works				
	6mm thk Fiber Cement Board including Metal Framing	103	sq.m		
				Materials Cost	₱
				Labor Cost	
				Subtotal	₽
	Installation of Doors				
	D1 - (0.90m x 2.10m) Swing Type Panel Door	1	set	₽	₽

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	D2 - (0.60m x 2.10m) Swing Type PVC Door with Louver	2	set		
	D3 - (1.60m x 2.10m) Aluminum Frame Powder Coated Sliding Door with 6mm Thk Clear Glass	1	set		
	Door jamb				
	D1 - (0.90m x 2.10m) Swing Type Panel Door	1	set		
	Hardware accessories				
	Door Hinges, Heavy Duty Stainless	9	set		
	Door Knob, Lever Type, Stainless	3	set		
	Installation of Windows				
	W1 -(2.4m x 1.55m) Aluminum Frame Powder Coated Sliding Window with 6mm Thk Clear Glass	1	set		
	W2 -(0.60m x 0.60m) Aluminum Frame Powder Coated Awning Window with 6mm Thk Clear Glass	3	set		
	W3 -(1.50m x 1.55m) Aluminum Frame Powder Coated Sliding Window with 6mm Thk Clear Glass	3	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Painting Works				
	Elastomeric Paint (Exterior Wall)	101	sq.m	₽	₽
	Epoxy Enamel Paint Finish (Steel Members)	147	sq.m		
	Flat Latex Paint Finish				
	Interior wall	165	sq.m		
	Ceiling	103	sq.m		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
NO	Fabricated Materials				
	Counter Top	7	l.m.		
	Hanging Cabinet	5	sq.m.		
	Lettering		-		
	Stainless Steel Signage with Neon Backlights (150mm x 150mm) "JASMIN DAY CARE CENTER"	19	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
			N	IATERIAL COST IV	₽
				LABOR COST IV	
				DIRECT COST IV	₱
٧	SANITARY / PLUMBING WORKS				
	Sewer Line / Storm Drainage System				
	Roughing-Ins				
	50 mm Ø, PVC Pipe with Hub	4	piece	₽	₽
	75 mm Ø, PVC Pipe with Hub	4	piece		
	100mm Ø, PVC Pipe with Hub	5	piece		
	50mm Ø, P-Trap	4	piece		
	75mm Ø, P-Trap	2	piece		
	50mm Ø, 1/8 Bend	9	piece		
	75mm Ø, 1/8 Bend	3	piece		
	100mm Ø, 1/8 Bend	4	piece		
	75mm Ø, 1/4 Bend	4	piece		
	75mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 75mm Ø, Tee	4	piece		
	100mm Ø x 50mm Ø, Wye	7	piece		
	100mm Ø x 75mm Ø, Wye	3	piece		
	100mm Ø x 100mm Ø, Wye	3	piece		
	100mm Ø, Cleanout with Adapter	3	piece		
	Waterline System				
	Roughing-Ins				
	20mm Ø, PPR Pipe	6	piece		
	20mm Ø, Elbow	14	piece		
	20mm Ø, Coupling	6	piece		
	20mm Ø, Tee Equal	10	piece		
	20mm Ø, Female Threaded, Tee	4	piece		
	20mm Ø, Female Adapter	6	piece		
	20mm Ø, Male Adapter	1	piece		
	20mm Ø, Union Patente	1	piece		
	Valves and Appurtenances	<u>'</u>			
	20mm Ø Gate Valve, PPR	2	piece		
	Fixtures		F.555		
	Bidet with Accessories, Stainless (Water Efficient)	2	piece		
	Floor Drain , 100mm x 100mm , Stainless	5	piece		
	Grease Trap, 5 Gpm, Heavy Duty	1	piece		

ITEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hose Bibb Lever Type, Stainless Steel Heavy Duty (Water Efficient)	5	piece		
	Kitchen Faucet Lever Type, Stainless (Water Efficient)	1	piece		
	Lavatory Wall Hung, Kiddy	2	unit		
	Lavatory Faucet Lever Type, Stainless Steel (Water Efficient)	2	piece		
	Sink, 8" Deep, Stainless Steel	1	unit		
	Urinal , Kiddy, Flush Type (Water Efficient)	1	unit		
	Water Closet , Kiddy , Tank Type w/ Accessories (Water Efficient)	2	unit		
	Accessories				
	Angle Valve, Stainless Steel, Single Way	4	piece		
	Angle Valve, Stainless Steel, Two Way	2	piece		
	Flexible Hose, Stainless Steel	6	piece		
	Miscellaneous & Consumables				
	400cc Solvent Cement	3	can		
	Hacksaw Blade	2	piece		
	Teflon Tape	3	roll		
	Waste Cloth	1	kg		
			N	MATERIAL COST V	₱
				LABOR COST V	
				DIRECT COST V	₱
VI	ELECTRICAL WORKS				
	Lighting and Power System				
	Roughing-ins				
	20mmØ RSC Pipe	6	piece	₱	₱
	20mmØ PVC Pipe	35	piece		
	15mmØ Flexible Metallic Conduit	20	lm		
	50mm x 100mm Metal Utility Box	8	piece		
	100mm x 100mm Metal Junction Box with Cover	12	piece		
	Fittings & Accessories				
	15mmØ IMC Locknut and Bushing	12	pair		
	20mmØ RSC Locknut and Bushing	4	pair		

TEM NO	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	20mmØ PVC Adaptor	80	piece		
	20mmØ PVC Elbow	20	piece		
	20mmØ PVC Locknut and Bushing	80	pair		
	15mmØ Angle Connector	12	piece		
	20mmØ Weatherproof Entrance Cap, Diecast Type	1	piece		
	Wires and Cables				
	3.5mm² THHN Wire	210	lm		
	8.0mm² THHN Wire	40	lm		
	2.0mm² TW Wire (Green)	105	lm		
	3.5mm² TW Wire (Green)	20	lm		
	Lighting Fixture (Energy Efficient)				
	150mmØ Pinlight LED	2	piece		
	1 x 18 LED,300mmx1200mm Troffer Fixture, Energy Efficient	6	unit		
	1 x 18 T8 LED Tube in Box Type Lighting Fixture, Energy Efficient	2	unit		
	Wiring Devices				
	Orbit Fan with Selector Switch	2	unit		
	Outlet with Grounding , Two-Gang	4	piece		
	Switch with Plate and Cover, One-Gang	3	piece		
	Switch with Plate and Cover, Two-Gang	1	piece		
	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	20	lm		
	Vertical Layout of Pipe	6	lm		
	Panelboard				
	LPP (New)	1	assy		
	MCB	1	assy		
	Miscellaneous & Consumables				
	16mmØ x 250mm Oval Eye Bolt with Nut	1	piece		
	20mm Ø x 3000mm Grounding Rod (Copper Clod) with Ground Clamp	1	piece		
	400cc Solvent Cement	5	can		
	Electrical Tape	10	piece		
	GI Tie Wire, Ga. 16 (for Wire/Cable Pulling)	2	kg		
	Hacksaw Blade	5	piece		
	Masking Tape	30	piece		
	Pulling Lubricant	2	can		
	Rubber Tape	30	piece		
	·		·	IATERIAL COST VI	₽
				LABOR COST VI	
				DIRECT COST VI	₽
+					

ITEM	WORK DESCRIPTION & SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
NO					

SUMMARY

ITEM NO.	WORK DESCRIPTION & SCOPE OF WORKS				
 V V	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS		₽		
Note: Ove Strictly enforce Health Protocols relative to the latest applicable DPWH Memorandum		TOTAL DIRECT COST head, Contingencies and Miscellaneous Expenses (OCM) Profit VAT TOTAL ESTIMATED COST			

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

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

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

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

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

<u>Leg</u>	al Do	<u>cuments</u>
	(a)	Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
	(b)	and Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;
	(c)	and Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas; and
	(e)	Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).
Tec	hnica	l Documents
	(f)	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 (please see attached prescribed forms required by the QC – BAC for Infrastructure
	(g)	and Consultancy); <u>and</u> Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules with an attached Notice of Award, Notice to Proceed, Contract and Certificate of Acceptance (please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy); <u>and</u>
	(h)	Philippine Contractors Accreditation Board (PCAB) License;
	(i)	or Special PCAB License in case of Joint Ventures; and registration for the type and cost of the contract to be bid; and Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
	(j)	or Original copy of Notarized Bid Securing Declaration; and 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 (please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy);
		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

see attached prescribed form required by the QC - BAC for Infrastructure and Consultancy); and Original duly signed Omnibus Sworn Statement (OSS); \sqcap (k) 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. Additional Technical Requirements: Certificate of Site Inspection or Affidavit of Site Inspection as part of Omnibus Sworn Statement • Affidavit of Undertaking for Key Personnel and Equipment (please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy) ■ • Equipment Utilization Schedule ■ • Manpower Schedule Construction Schedule and S-Curve □ • PERT-CMP ☐ • Construction Methods Financial Documents (1) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and The prospective bidder's computation of Net Financial Contracting Capacity П (m) (NFCC) (please see attached prescribed form required by the QC – BAC for *Infrastructure and Consultancy*). Class "B" Documents If applicable, duly signed joint venture agreement (JVA) in accordance with \square (n) 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 (o) Original of duly signed and accomplished Financial Bid Form; and Other documentary requirements under RA No. 9184 Original of duly signed Bid Prices in the Bill of Quantities; and П (p)

lessor/vendor for the duration of the project, as the case may be (please

rentals used in coming up with the Bid; and

Cash Flow by Quarter.

Duly accomplished Detailed Estimates Form, including a summary shee indicating the unit prices of construction materials, labor rates, and equipmen

(q)

(r)

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM	
Date : Project Identification No. :	

To: [name and address of Procuring Entity]

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

- We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: [insert name of contract];
- b. We offer to execute the Works for this Contract in accordance with the PBDs:
- The total price of our Bid in words and figures, excluding any discounts offered below is: [insert information];
- d. The discounts offered and the methodology for their application are: [insert information];
- e. The total bid price includes the cost of all taxes, such as, but not limited to: [specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties], which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of [insert percentage amount] percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines¹ for this purpose;
- We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

currently based on GPPB Resolution No. 09-2020

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

Name:	
Legal Capacity:	
Signature:	
Duly authorized to sign the Bid for and behalf of:	
Date:	

Bid Securing Declaration Form

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

REPUBLIC OF THE PHILIPPINES)	
CITY OF) S.S.

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

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

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

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[Jurat]

Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

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

AFFIDAVIT

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

1. [Select one, delete the other:]

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

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

2. [Select one, delete the other:]

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

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

- 3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;
- 4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- 5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. [Select one, delete the rest:]

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project

Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

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

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

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]

Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT, made this [insert date] day of [insert month], [insert year] between [name and address of PROCURING ENTITY] (hereinafter called the "Entity") and [name and address of Contractor] (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute [name and identification number of contract] (hereinafter called "the Works") and the Entity has accepted the Bid for [contract price in words and figures in specified currency] by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
- The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - a. Philippine Bidding Documents (PBDs);
 - Drawings/Plans:
 - ii. Specifications;
 - iii. Bill of Quantities:
 - iv. General and Special Conditions of Contract;
 - v. Supplemental or Bid Bulletins, if any;
 - Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- c. Performance Security;
- d. Notice of Award of Contract and the Bidder's conforme thereto; and
- e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. <u>Winning bidder agrees that</u> additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.
- In consideration for the sum of [total contract price in words and figures] or such other sums as may be ascertained, [Named of the bidder] agrees to [state the object of the contract] in accordance with his/her/its Bid.

4. The [Name of the procuring entity] agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

[Insert Name and Signature] [Insert Name and Signature]

[Insert Signatory's Legal Capacity] [Insert Signatory's Legal Capacity]

for:

for:

[Insert Procuring Entity] [Insert Name of Supplier]

Acknowledgment

Performance Securing Declaration (Revised)

[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]

REPUBLIC OF THE PHILIPPINES)	
) S.S

PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents] To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
- I/We accept that: I/we will be automatically disqualified from bidding for any
 procurement contract with any procuring entity for a period of one (1) year for the first
 offense, or two (2) years for the second offense, upon receipt of your Blacklisting
 Order if I/We have violated my/our obligations under the Contract;
- I/We understand that this Performance Securing Declaration shall cease to be valid upon:
 - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
 - Procuring Entity has no claims filed against the contract awardee;
 - ii. It has no claims for labor and materials filed against the contractor; and
 - iii. Other terms of the contract; or
 - replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[Jurat]

NAME OF CONTRACTOR:	

PROJECT TITLE		9220-22292	100000000000000000000000000000000000000	CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR,	DATE OF COMMENT		TOTAL	PERCE	NTAGE	
(Name of the Contract) B. EXACT PROJECT LOCATION	DATE OF CONTRACT	DURATION	POSTAL ADDRESS NATURE OF WORK INTEREST AND CONTRACT COMPLETION OF POSTAL ADDRESS VALUE AT ESTIMATED		VALUE AT COMPLETION IF APPLICABLE	ACTUAL ACCOMPUSHMENT	PLANNED ACCOMPUSHMENT	VALUE OF OUTSTANDIN WORKS (IN PHP)		
								TOTAL AMOUNT OUTSTANDING V		

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

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NAME OF CONTRACTOR: PROJECT TITLE: _____ ROLE OF BIDDER IN THE MAJOR SCOPE OF WORKS & DATE CONTRACT PRICE CONTRACT SOLE NAME AND ADDRESS DATE OF SCHEDULED PROJECT TITLE & EXACT LOCATION STARTED OF PROJECT OWNER (PHP) AS AWARDED CONTRACTOR / SUB-COMPLETION CONTRACTOR/PARTNER IN A TOTAL AMOUNT

OF CONTRACT (Php)

LIST OF ALL AWARDED BUT NOT YET STARTED GOVERNMENT AND PRIVATE CONTRACTS OF THE BIDDER

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page___of___

NAME OF CONTRACTOR: PROJECT TITLE:

PROJECT TITLE (Name of the Contract) & EXACT PROJECT LOCATION	DATE OF CONTRACT	CONTRACT DURATION	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	CONTRACTOR'S ROLE SOLE CONTRACTOR, SURCONTRACTOR, PARTHNER IN A JVI and PERCENTAGE OF PARTICIPATION	TOTAL CONTRACT VALUE AT AWARD	DATE OF COMPLETION OF ESTIMATED COMPLETION TIME	TOTAL CONTRACT VALUE AT COMPLETION IF APPLICABLE

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Page	454	
- W. B. W.		

LIST OF MAJOR EQUIPMENT TO BE USED FOR THE PROJECT

NAME OF CONTRACTOR:		
DDOISCT TITLE		
PROJECT TITLE:		

TYPE	DESCRIPTION / CAPACITY	SERIAL NO.	YEAR ACQUIRED	PRESENT LOCATION (SPECIFIC ADDRESS)	STATUS OF AVAILABILITY (OWNED/LEASED)

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A. LIST OF KEY CONSTRUCTION PERSONNEL TO BE ASSIGNED TO THE PROJECT

NAME OF CONTRACTOR:			
PROJECT TITLE:			

NAME	POSITION	AGE	EDUCATIONAL ATTAINMENT	TYPE OF CONSTRUCTION EXPERIENCE	NO.OF YEARS WITH THE CONTRACTOR	PROFESSION	PRC NO.

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COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

NAME OF BIDDER:				
	CURRENT ASSETS*		PHP	
	(LESS) CURRENT LIABILITIES*	(LESS)	PHP	
	NETWORTH		PHP	
	NETWORTH x 15	x 15	PHP	
	(LESS) VALUE OF ALL OUTSTANDING ON-GOING CONTRACTS**	(LESS)	PHP	
	(LESS) VALUE OF ALL AWARDED BUT NOT YET STARTED CONTRACTS AS OF DATE**	(LESS)	PHP	
	NET FINANCIAL CONTRACTING CAPACITY		РНР	

NOTES:

- CURRENT ASSETS AND LIABILITIES BASED ON AUDITED FINANCIAL STATEMENT FOR THE PRECEDING CALENDAR YEAR SUBMITTED TO B.I.R.
- ** BASED ON LIST OF ON-GOING AND AWRDED BUT NOT YEY STARTED CONTRACTS SUBMITTED

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with c	office add	ress at							after
having	g been du	ly sworn	to in accord	ance with law	, hereby	y volum	atary depose an	d state:	-
	That 1 a underta	ım duly king ası	authorized i	representative / Secretary's C	of the . Certifica	[Nam	e of Bidder Board Resoluti	to execution.	te this
	That _	IName	of Bidder	_bidding for	the (Na	me of l	Project)		
	that the	equipm	ent to be use	ntioned Project and the key p project until i	ersonne	d to be	assign shall ex	_hereby undertal clusively be used	ke l and
	That I a with the	m execut	ing this affic	davit to attest technical requir	o the tr	uth of for the	the foregoing a public bidding	nd in compliance g of the said proje	ect.
of	IN WI	INESS 1	HEREOF, I	have hereun	to sign	ned m	y name belov	v this	day
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Notary Public

