PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

CONSTRUCTION OF ISOLATION FACILITIES OF THE DSWD-NCR UNDER DESIGN AND BUILD SCHEME

(Invitation to Bid No. 21-08-18)

Sixth Edition
July 2020

Preface

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

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

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

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

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

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

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

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

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

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

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

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

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

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

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

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

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

d. Any important bid evaluation criteria.

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

INVITATION TO BID
No. 21-08-18

CONSTRUCTION OF ISOLATION FACILITIES OF THE DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT – NATIONAL CAPITAL REGION (DSWD-NCR) UNDER DESIGN AND BUILD SCHEME

1. The Department of Social Welfare and Development – National Capital Region through the Capital Outlay-Centrally Managed Funds 2021 intends to apply the sum of **FOURTEEN MILLION NINE HUNDRED TWENTY FOUR THOUSAND PESOS (Php14,924,000.00)** *being the Approved Budget for the Contract (ABC) to payments under the contract for each lot* with the following breakdown as follows:

   LOT 1: Construction of Isolation Facility for North Cluster with Detailed Engineering Design at Reception and Study Center for Children (RSCC)
   Contract Amount: **Php6,396,000.00**

   LOT 2: Construction of Isolation Facility for Central Cluster with Detailed Engineering Design at Jose Fabella Center (JFC)
   Contract Amount: **Php3,198,000.00**

   LOT 3: **Construction of Isolation Facility for South Cluster with Detailed Engineering Design at Elsie Gaches Village (EGV)**
   Contract Amount: **Php5,330,000.00**

   Bids received in excess of the **ABC FOR EACH LOT** shall be automatically rejected at bid opening. Late bids shall not be accepted

2. The DSWD-NCR now invites bids for the above Procurement Project. Completion of the Works shall be:
   - **LOT 1: Construction of Isolation Facility for North Cluster with Detailed Engineering Design at Reception and Study Center for Children (RSCC)**
     Completion Date: One Hundred (100) Calendar Days
   - **LOT 2: Construction of Isolation Facility for Central Cluster with Detailed Engineering Design at Jose Fabella Center (JFC)**
     Completion Date: Ninety (90) Calendar Days
   - **LOT 3**: **Construction of Isolation Facility for South Cluster with Detailed Engineering Design at Elsie Gaches Village (EGV)**
     Completion Date: One Hundred (100) Calendar Days

   Bidders should have completed **within the last three (3) years from the date of submission and receipt of bids**, a contract similar to the project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instruction to Bidders.

3. Bidding will be conducted through open competitive bidding procedures using non-discretionary pass/fail criteria as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act 9184 (R.A. 9184), otherwise known as the "Government Procurement Reform Act".

   Bidding is restricted to Filipino citizens/sole proprietorships, organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country, the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.

4. Prospective bidders may obtain further information from DSWD-NCR Bids and Awards Committee (BAC) Secretariat and inspect the Bidding Documents at the address given below from Monday to Friday at 8:00AM to 5:00PM.

5. A complete set of Bidding Documents may be purchased by interested Bidders from **17 August 2021 to 3 September 2021;** ***(August 17 to September 3, 2021; 8:00AM to 4:00PM)(September 6, 2021: until 9:30A.M only)*** from the address given below and upon payment of a refundable fee in accordance to Section 17.5 of the IRR:

Lot No.	Particulars	Approved Budget for the Contract (ABC)	Cost of Bidding Documents (Php)
1	**Construction of Isolation Facility for North Cluster with Detailed Engineering Design at Reception and Study Center for Children (RSCC)**	**Php6,396,000.00**	Php10,000.00
2	**Construction of Isolation Facility for Central Cluster with Detailed Engineering Design at Jose Fabella Center (JFC)**	**Php3,198,000.00**	Php5,000.00
3	**Construction of Isolation Facility for South Cluster with Detailed Engineering Design at Elsie Gaches Village (EGV)**	**Php5,330,000.00**	Php10,000.00

   It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

6. The DSWD-NCR BAC will hold a **Pre-Bidding Conference on 24 August 2021; 10:00 A.M. at DSWD-NCR-Rehabilitation Sheltered Workshop (RSW), J.P Burgos Street, Project 4, Quezon** City and through video conferencing via google meet (meet.google.com/vsa-rqrh-rrp) which shall be opened to all interested bidders.

7. Bids must be received by the BAC Secretariat at the address below on or before **6 September 2021, 9:45 A.M. at DSWD-NCR-Rehabilitation Sheltered Workshop (RSW), J.P Burgos Street, Project 4, Quezon City**. Late bids shall not be accepted.

8. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 18.

9. Bid opening shall immediately follow after the deadline of the submission and receipt of bids shall be on **6 September 2021, 10:00 A.M. at DSWD-NCR-Rehabilitation Sheltered Workshop (RSW), J.P Burgos Street, Project 4, Quezon City** Bids will be opened in the presence of the Bidder's representatives who choose to attend.

10. The DSWD-NCR reserves the right to accept or 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 Section 35.6 and 41 of RA 9184 and its 2016 Revised Implementing Rules and Regulation (IRR), without thereby incurring any liability to the affected bidder or bidders.

11. For further information, please refer to:

    THE CHAIRPERSON
    Bids and Awards Committee
    DSWD-NCR
    c/o BAC Secretariat
    Room 301, DSWD-NCR Field Office
    389 San Rafael St. cor. Legarda St.
    Sampaloc, Manila
    Email Address: dswdncr.bac@gmail.com
    Telephone No.: 5310-1434

12. You may visit the following websites:

    For downloading of Bidding Documents: **www.philgeps.gov.ph** and **www.ncr.dswd.gov.ph**

Issued this 13th day of August 2021.

Org. Sgd.
MARIDOL R. LICERIO
Chairperson
Bids and Awards Committee

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

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

1. Scope of Bid

The Procuring Entity, Department of Social Welfare and Development – National Capital Region (DSWD-NCR) invites Bids for the Construction of Isolation Facilities of the DSWD-NCR under Design and Build Scheme, with Project Identification Number ITB No. 21-08-18.

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

2. Funding Information

13. The GOP through the source of funding as indicated below for *Capital Outlay* in the sum of **FOURTEEN MILLION NINE HUNDRED TWENTY FOUR THOUSAND PESOS (Php14,924,000.00)** with the following breakdown as follows:

LOT 1: Construction of Isolation Facility for North Cluster with Detailed Engineering Design at Reception and Study Center for Children (RSCC)
Contract Amount: **Php6,396,000.00**

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Contract Amount: **Php3,198,000.00**

LOT 3: **Construction of Isolation Facility for South Cluster with Detailed Engineering Design at Elsie Gaches Village (EGV)**
Contract Amount: **Php5,330,000.00**

2.1. The source of funding is:

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

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 Procuring Entity has prescribed that:

a. Subcontracting is not allowed.

7.1. 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 **DSWD-NCR Rehabilitation Sheltered Workshop (RSW), J.P Burgos St. Project 4, Quezon** City and/or through videoconferencing/webcasting} as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

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

10.3. A valid 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:*

[Select one, delete other/s]

a. Philippine Pesos.

b. *[indicate currency if procurement involves a foreign-denominated bid as allowed by the Procuring Entity, which shall be tradeable or acceptable by the BSP.]*

15. Bid Security

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

15.2. The Bid and bid security shall be valid until *[indicate date]*. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

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

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

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

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

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

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

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

Bid Data Sheet

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

a. Construction Projects under Design and Build Scheme.</td></tr>
<tr><td>7.1</td><td>Subcontracting is not allowed.</td></tr>
<tr><td>10.3</td><td>[Specify if another Contractor license or permit is required.]

a. Valid PCAB License
▪ Size Range: Medium A
▪ License Category: at least Category B</td></tr>
<tr><td>10.4</td><td>The key personnel must meet the required minimum years of experience set below:
<table>
<tr><th>Key Personnel</th><th>Minimum Years of Similar Experience (Same Position)</th><th>Minimum Years of Similar & Related Experience</th></tr>
<tr><td>Project Manager</td><td>5</td><td>5</td></tr>
<tr><td>Project Engineer</td><td>5</td><td>5</td></tr>
<tr><td>Foreman</td><td>1</td><td>1</td></tr>
<tr><td colspan="3">MANPOWER REQUIRED</td></tr>
<tr><td>Lead man</td><td></td><td>1</td></tr>
<tr><td>Skilled Laborer</td><td></td><td>4</td></tr>
<tr><td>Unskilled Laborer</td><td></td><td>12</td></tr>
<tr><td>Equipment Operator</td><td></td><td>1</td></tr>
<tr><td>Warehouseman</td><td></td><td>1</td></tr>
<tr><td>Sight Men</td><td></td><td>2</td></tr>
<tr><td>Messenger/Utility</td><td></td><td>2</td></tr>
<tr><td>Part Time Safe Practitioner</td><td></td><td>1</td></tr>
</table></td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<u>Equipment</u> <u>Capacity</u> <u>Number of Units</u>
<table>
<tr><td colspan="3">MINIMUM EQUIPMENT REQUIREMENT</td></tr>
<tr><td>Equipment Description</td><td>Capacity</td><td>Number of Units</td></tr>
<tr><td>Dumptruck</td><td>12 yd3</td><td>3</td></tr>
<tr><td>Backhoe</td><td>0.80m3 / 1.04 yd3</td><td>1</td></tr>
<tr><td>Water Truck</td><td>1600L</td><td>1</td></tr>
<tr><td>Concrete Vibrator</td><td></td><td>2</td></tr>
<tr><td>Bar Cutter</td><td></td><td>2</td></tr>
<tr><td>One Bagger Mixer</td><td>4-6 ft3/min</td><td>1</td></tr>
</table></td></tr>
</table>

	Transit Mixer 5-6 yd3 2 Service Vehicle 1 Total Station 1
12	*[Insert Value Engineering clause if allowed.]*
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: a. The amount of not less than _____ *[Insert two percent (2%) of ABC of the LOT which a bidder's opts to bid]*, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than _____ *[Insert five percent (5%) of ABC of the LOT which a bidder's opts to bid]* if bid security is in Surety Bond.
19.2	Partial bids are allowed, as follows: *[Insert grouping of lots by specifying the items and the quantity for every identified lot.]*
20	*[List licenses and permits relevant to the Project and the corresponding law requiring it, e.g. Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone, etc.]*
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.

Section IV. General Conditions of Contract

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

4.1. 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.

4.2. 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	*[If different dates are specified for completion of the Works by section, i.e. "sectional completion," these dates should be listed here.]*
4.1	*[Specify the schedule of delivery of the possession of the site to the Contractor, whether full or in part.]*
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	*[Select one, delete the other:]* a. Dayworks are applicable at the rate shown in the Contractor's original Bid. b. No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within *[insert number]* days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is [*insert amount*].
13	The amount of the advance payment is *[insert amount as percentage of the contract price that shall not exceed 15% of the total contract price and schedule of payment]*.
14	*[If allowed by the Procuring Entity, state:]* Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The date by which operating and maintenance manuals are required is *[date]*.

	The date by which "as built" drawings are required is *[date]*.
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is *[amount in local currency]*.

Section VI. Specifications

TERMS OF REFERENCE

CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER UNDER DESIGN AND BUILD SCHEME

RECEPTION AND STUDY CENTER FOR CHILDREN

This Term of Reference shall form part of the Contract for the Construction of Isolation Facility for North Cluster at DSWD-NCR Reception and Study Center for Children (RSCC) to include all the Works herein stated below.

I. DESCRIPTION OF THE PROJECT:

The Isolation Facility for North Cluster is located at Reception and Study Center for Children (RSCC), which has enough area for the building with mirror type design and possible isolated access through the gate and aims to control the airflow in the room so that the number of airborne infectious particles is reduced to a level that ensures cross-infection of other people within a healthcare facility and its surroundings.

II. SCOPE OF WORKS (Supply and Installation):

1. General Requirements
    a. Mobilization / Demobilization (Generator Set, Manpower, Materials and Tarpaulin)
    b. Building and Occupancy Permits (Original Copies)
    c. Bonds and Insurance (Original Copies)
    d. Temporary Water Consumption including installation of water sub-meter and supply and installation of Generator Set for electric consumption.
    e. Admin/ Management Cost/ Safety and Health
    f. Soil Boring Testing (Result/Certificates)
    g. Layout and Staking
    h. Testing of Sample Materials by Accredited DPWH Testing Centers
    i. Signed and Sealed Construction Drawings and As-Built Plans (see details below)
    j. General Cleaning (including existing debris on actual site condition)
2. Earthworks:
    a. Excavation & Soil Protection
    b. Backfilling and Compaction
    c. Gravel Bedding
    d. Termite Pest Control System (LENTREKS only)
    e. Laying of Polyurethane Sheet and Perforated PVC Pipe with Geotextile Sacks
    f. Hauling of excess materials off the site
3. Reinforced – Concrete Works
    a. Footings, Footing Tie Beams and Wall Footing,
    b. Columns and Beams;
    c. Slab on Fill including Stairs and Ramps;
    d. Lintel Beams & Columns;
    e. Septic Tanks (Perimeter Wall); (Water-based Cement)
    f. Entrance and Gate Posts;
    g. Countertop
    h. Path walk and PWD Ramp
4. Formworks and Scaffoldings
5. Masonry Works
    a. Concrete Hollow Block laying
        i. 6" Concrete Hollow Blocks (Exterior)
        ii. 4" Concrete Hollow Blocks (Interior)
        iii. 6" CHB Exterior Wall Footing

iv. 4: CHB Interior Wall Footing
v. 4" CHB Wall Partition of Septic Tank
vi. 4" CHB Catch Basin and Plant Box

b. Plastering Works
i. Exterior Plastering
ii. Interior Plastering
iii. Preparation of Door and Window Opening
iv. Catch Basin, Concrete Cover and Plant Box
v. Septic Tank Partition

6. Roofing Works
a. Pre-Painted Corrugated Plain Sheet Ga. 24 or 0.6mm thick
b. Insulation Foam (Double Bubble – Double Wrap)
c. G.I. Wire (Diagonally Spaced at 30cm)
d. Angle Bar 2" x 2" or 40mm x 40mm by 6mm thick (Double Attach)

7. Architectural Works
a. Ceiling Works (Boards and Frames)
i. Rooms
ii. Toilets
iii. Soffit/Eaves
iv. Veranda

b. Painting Works
i. Exterior Walls (Three (3) Coats with Fiber Mesh)
ii. Interior Walls including Baseboard (Three (3) Coats)
iii. Ceiling (Rooms, Toilets, Soffits/Eaves and Veranda)
iv. Trusses & Purlins
v. Main Door (Varnish) & Jambs

c. Tiling Works
i. Rooms – 400cmx400cm with grouts
ii. Toilet Wall – 300cmx600cm with grouts
iii. Toilet Floor – 300cmx300cm with grouts
iv. Lavatory Granite Tiles - 600cmx1200cm with grouts

d. Steel Works
i. Supply and Installation of Stainless Handrails at PWD Toilet
ii. Supply and Installation of Tubular and Frame Handrails for Verandas

e. Doors and Windows
i. Sliding-Smoke Glass Doors
ii. Sliding, Fixed and Awning Windows with Mosquito Screen and Aluminum Frame
iii. Doors with lockset and Jambs

8. Plumbing Works
a. PVC Pipe and Fittings
i. Soil and Vent Stack Line
ii. Sanitary and Drainage

b. Polypropylene (PPR) Pipe and Fittings
i. Water Line

c. Check and Gate Valve
d. Water Meter / Sub-Meter
e. Plumbing Fixtures
i. Water Closet with Bidet
ii. Shower Head with Faucet
iii. Stainless Sink with Faucet

9. Electrical Works
a. PVC Conduit
i. Convenience Outlet
ii. Switches
iii. Data Internet

iv. Air Conditioning Unit

b. Junction Box and Utility Box
c. Outlet and Switches
    i. Outlets
        1. Power System
        2. Air Conditioning Unit
    ii. Switches
        1. Lighting System
d. Electrical Wires (THHN)
    i. Power System
    ii. Lighting System
    iii. Entrance Post
    iv. Air Conditioning Unit
e. Panel Boards and Circuit Breakers
    i. Panel Board with Cabinets for Rooms (5 Branches)
        1. 1 – 20Amp for Lightings
        2. 1 – 20Amp for Outlet
        3. 1 – 40Amp for ACU
        4. 1 – 20Amp for Main Breaker
    ii. Main Distribution Panel for Perimeter
    iii. Sub-meter / Generator Set
f. Entrance Post and Cap
g. Testing and Commissioning (MEGGER TEST)

10. Mechanical Works
    a. Air Conditioning Unit (Window Type – INVERTER)

III. APPROVED BUDGET FOR CONTRACT AND CONTRACT DURATION:

The project if awarded to the Contractor shall be within the Approved Budget for the Contract amounting to **Six Million Three Hundred Ninety-Six Thousand pesos only (₱ 6,396,000.00)** and completed not more than **One Hundred (100) calendar days** (Saturdays, Sundays and Holidays included) which shall be reckoned three (3) days from the date of issuance of Notice to Proceed (NTP).

IV. TERMS OF PAYMENT:

Payment of the works in the Execution of the project shall be as follows:

1. Fifteen Percent (15%) Mobilization Fund upon Signing of the Contract.
2. Balance: Progress Billing every added 15% (15%, 30%, 45%, 60%, 75% & 95% Physical Works Done) Accomplishment completion, Less: Fifteen Percent (15%) Liquidation of mobilization fund and Ten Percent (10%) Retention Fund.
3. The remaining 10% payment as retention fee shall be covered the warranty for the project against materials defects and workmanship shall be released upon the expiration of warranty period or upon substitution with a warranty bond which covers the 10% of the contract price effective for a period of one (1) year.
4. It is understood that all such payment is subject to standard operating requirements including inspection and acceptance of the works completed. All Progress Billing shall be supported with the following documentary requirements, as follows:
    1. Checklist of Required Attachment for Processing
    2. Billing Statement / Approve Letter of Request
    3. Certified True Copy of Contract
    4. Certified True Copy of Notice of Award
    5. Certified True Copy of Notice to Proceed

6. Certified True Copy of Performance Bond
7. PERT / CPM
8. Philgeps Posting
9. Statement of Work Accomplishment (SWA)
10. Contractors affidavit on Payment of Laborers and Materials
11. Updated Pictures before, during and after construction of items of work especially embedded items.
12. Photocopy of Vouchers of all previous payments
13. Letter of Extension and Approved extension if applicable

V. GENERAL PROVISIONS:

1. The Winning Bidder shall review all **Detailed Engineering Design** (Architectural, Structural, Electrical, Mechanical, Plumbing & Sanitary Plans) prior to construction implementation and revise if necessary corresponding with complete Computations and Sign & Seal which subject to approval of HOPE.

2. The Contractor shall furnish all the required Labor and Materials stated in the **Specification** in conjunction with the **Plans, Working Drawings and Cost Breakdown (Bill of Quantities)** to complete the Project.

3. All Labor and Materials shall conform to the Specifications and Plans and shall be in accordance with Best Quality of Workmanship and Methods, and to Laws and Ordinances of the Local Governing Body.

4. The Contractor shall post the required amount of Bid Bond, Performance Bond and Warranty Bond necessary to ensure the Completion of the Project and warrants it performance against workmanship and quality of materials used in the implementation of the project.

5. To strictly follow the Instruction to Bidders (ITB) and pertinent Provisions specified in the Bid Data Sheet (BDS). Non-Compliance therewith shall cause for the disqualification of the participating Contractor/Bidders.

6. The Contractor shall secure all necessary Permits and Licenses from the National and Local Government Unit where the Project is located.

7. DSWD-NCR reserves the right to reject any or all bids and resort to any appropriate method of Procurement in the implementation of the project which is most advantageous to the government and in compliance to Republic Act 9184.

8. The Contractor shall submit GANTT Chart with S-Curve and PERT-CPM for Monitoring and must strictly adhere to its Program of Works / Schedule.

9. The Contractor shall submit the List of workers who will be commissioned for this Project for security purposes, and also shall provide with proper ID and uniform of its workers for identification. This includes the Swab/Rapid Test Result/Certificate in compliance with Department of Public Works and Highways (DPWH) Department Order 39 – Revised Construction Safety Guidelines for the Implementation of Infrastructure Projects During the COVID-19 Public Health Crisis, repealing Department Order No. 35 Series 2020.

10. Utilities (Water and Power) shall for the account of the Contractor. The Contractor shall provide for the Sub-Meter for Water & Power Supply Actual Consumption yet preferably provision for Generator Set.

11. The Contractor shall conduct regular weekly Technical Coordination Meeting together with its Sub-Contractor and Other Trades and also with DSWD NCR FO Representative and Center Representative to ascertain Project Status and identify possible obstacles that may encounter in the execution of the Project.

12. The Contractor shall secure Mill Certificate, Pouring Request and Approval of Slump Test from the DSWD NCR FO prior to Pouring of Concrete with Date for Inspection & Verification.

13. The Contractor shall conduct Tensile & Bending test for reinforcement bars prior to installation.

14. The Contractor shall conduct Trial Mix (depends on approved design strength / specifications) prior to pouring and concrete testing thereafter for specified 7, 14 and or 28 days.

15. The Contractor is prohibited in holding their Barracks/Temporary Shelter for their Workers on the Premises of Centers / Residential Care Facilities. However, the temporary barracks for stocking construction materials is permitted but only 1 Personnel (Warehouseman/Watchmen) is allowed to stay inside the construction site. Thus, temporary shelter for both personnel and materials shall be included in the Bill of Quantities (BOQ).

16. The Contractor shall adhere to the Policy of the Center while undertaking the Project, in no case shall the workers of the Contractor mingle or interact with Clients of the Center and make comments of whatever nature or means.

17. Drinking of Alcoholic drinks and smoking inside the compound of the Center are strictly prohibited.

18. Workers of the Contractors are not employees of the Department, there being no Employer-Employee Relationship DSWD-NCR and the Employees or Laborers of the Contractor. Thus, all Labor-related claims of workers particularly Salaries and Benefit in connection with the implementation of the Project shall be done by the Contractor.

19. The Contractor shall comply with the DO 13 (OSH Standard) of the Department of Labor & Employment during the Execution of the Works. The Contractor shall be Responsible and commits to undertake appropriate Precautionary Measure for the Safety and Security of the Staff and Residents of the Center and their Employees/Workers affected by the Project.

20. The Contractor Upon award shall submit Method of Statement for review and approval of Procuring Entity prior to mobilization.

21. Repair of damages on adjacent buildings or facilities during the period of construction shall be the sole responsibility of the Contractor.

22. Good Housekeeping shall be observed at all times by the Contractor. Debris should be cleared regularly and properly disposed.

23. The Contractor shall also submit As-Built Plans, 3 set Blueprint with Signed & Sealed of Supervising Engineer, 1 set A4 Size Signed and Sealed(attachment for Final Billing) and 1 set Soft Copy (CAD) in CD format for Record Purposes, Final payment will not be released unless this has been complied with.

24. In case of Conflict, the Plan and Specification shall govern. Procuring Entity shall have the final decision on any apparent conflict between the drawings and specifications or on any under and controversial point in either or both.

25. If any item of works or material has been omitted or not indicated which are necessary for the completion of the Project as outlined herein before, then such items shall be and hereby included in the proposal.

26. The Contractor must comply strictly to the Safety and Health Protocol guided by the IATF, DOH, DOLE and DPWH guidelines.

27. The contractor shall submit a sample of materials based on plans and specifications for Approval of HOPE before commencement of work.

28. The contractor shall secure "Construction General Forms" from DSWD prior to commencement of work for verification and inspection.

29. The contractor shall adhere to the house rules and regulations of the Center/ Residential Care Facilities.

30. The contractor shall secure a letter from DSWD NCR regarding revision/changes on construction prior commencement of works.

31. The generator set shall be owned by the Head of Procuring Entity (HoPE) upon completion of the project implementation.

32. The contractor shall secure Gate Pass prior entry and exit of any materials and equipment signed by the Center Head / Assigned Site Engineer/Architect.

VI. SPECIAL PROVISIONS

1. Once the project reaches an accomplishment of ninety-five (95%) of the total contract price, the procuring shall direct the inspection committee to preliminary inspection and submit a punch-list to the contractor in preparation for the final turnover of the project.

2. Per Construction Industry Authority of the Philippines (CIAP) Article 20.11 (D). No liquidated damages for delay beyond the Completion Time shall accrue after the date of substantial completion of the Work.

3. Contractor of DSWD-NCR with lapses and/or negative feedback performance along project implementation in its current and past engagements with the DSWD shall not be considered for this project.

4. Contractors whose current performance on their on-going project implementation showing fifteen (15%) negative slippage in any one project or a negative slippage of at least ten (10%) percent in each of two (2) or more contracts due to their fault or negligence shall be considered disqualified.

VII. LIQUIDATED DAMAGES

Where the Contractor refuses or fails to satisfactorily complete the work within the specified contract time, plus any time extension duly granted and is hereby in default under the contract, the Contractor shall pay The Procuring Entity for liquidated damages, and not by way of penalty, an amount, as provided in the conditions of

contract, equal to at least one tenth (1/10) of one percent (1%) of the cost of the unperformed portion of the works for every day of delay. Should the amount of liquidated damages reach ten percent (10%) of the contract amount, The Procuring Entity shall, at its own discretion, terminate the contract without prejudice to any further action it may take to recover whatever losses incurred due to non-performance of the Contractor.

To be entitled to such liquidated damages, The Procuring Entity does not have to prove that it has incurred actual damages. Such amount shall be deducted from any money due or which may become due the Contractor under the contract and/or collect such liquidated damages from the retention money or other securities posted by the Contractor whichever is convenient to The Procuring Entity.

VIII. BIDDERS REQUIREMENTS:

1. Participating Bidders/Contractors shall submit the following requirements:
   1.a Those Specified in the invitation to participate and to Bid.
   1.b Requirements specified in Bid Data Sheet (BDS) and Instruction to Bidders (ITB).
   1.c Other requirements which the Bids and Awards Committee may require as an additional Document other than those specified in the BDS and ITB.

Prepared by:

MHAYFLORDELIZA Y. SALAPA
PDO II – ORCC PMT

Reviewed and Checked by:

MA. CRISTINA U. CAYANAN
PDO III – ORCC PMT

EJAY LUIGI JUAN
PDO III – ORCC PMT

ELMER I. DAPITAN JR.
PDO III – ORCC PMT

Noted by:

MARIDOL R. LICERIO
SWO V – ORCC

Conformed by:

ROWELA F. HIZON
SWO V – RSCC

Recommending Approval:

MANUELA M. LOZA
Assistant Regional Director for Administration

Approved by:

VICENTE GREGORIO B. TOMAS
Regional Director

7

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

TERMS OF REFERENCE

CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER UNDER DESIGN AND BUILD SCHEME

JOSE FABELLA CENTER

This Term of Reference shall form part of the Contract for the Construction of Isolation Facility for Central Cluster at DSWD-NCR Jose Fabella Center (JFC) to include all the Works herein stated below.

I. DESCRIPTION OF THE PROJECT:

The Isolation Facility for Central Cluster is located at Jose Fabella Center (JFC), which has enough area for the building with mirror type design and possible isolated access through the gate and aims to control the airflow in the room so that the number of airborne infectious particles is reduced to a level that ensures cross-infection of other people within a healthcare facility and its surroundings.

II. SCOPE OF WORKS (Supply and Installation):

1. General Requirements
    a. Mobilization / Demobilization (Manpower, Materials and Tarpaulin)
    b. Building and Occupancy Permits (Original Copies)
    c. Bonds and Insurance (Original Copies)
    d. Temporary Water and Electricity Consumption including installation of water and electrical sub-meter or preferably provision for Generator Set.
    e. Admin/ Management Cost/ Safety and Health
    f. Soil Boring Testing (Result/Certificates)
    g. Layout and Staking
    h. Testing of Sample Materials by Accredited DPWH Testing Centers
    i. Signed and Sealed Construction Drawings and As-Built Plans (see details below)
    j. General Cleaning (including existing debris on actual site condition)
2. Earthworks:
    a. Excavation & Soil Protection
    b. Backfilling and Compaction
    c. Gravel Bedding
    d. Termite Pest Control System (LENTREKS only)
    e. Laying of Polyurethane Sheet and Perforated PVC Pipe with Geotextile Sacks
    f. Hauling of excess materials off the site
3. Reinforced – Concrete Works
    a. Footings, Footing Tie Beams and Wall Footing,
    b. Columns and Beams;
    c. Slab on Fill including Stairs and Ramps;
    d. Lintel Beams & Columns;
    e. Septic Tanks (Perimeter Wall); (Water-based Cement)
    f. Entrance and Gate Posts;
    g. Countertop
    h. Path walk and PWD Ramp

4. Formworks and Scaffoldings
5. Masonry Works
    a. Concrete Hollow Block laying
        i. 6" Concrete Hollow Blocks (Exterior)
        ii. 4" Concrete Hollow Blocks (Interior)
        iii. 6" CHB Exterior Wall Footing
        iv. 4: CHB Interior Wall Footing
        v. 4" CHB Wall Partition of Septic Tank
        vi. 4" CHB Catch Basin and Plant Box
    b. Plastering Works
        i. Exterior Plastering
        ii. Interior Plastering
        iii. Preparation of Door and Window Opening
        iv. Catch Basin, Concrete Cover and Plant Box
        v. Septic Tank Partition
6. Roofing Works
    a. Pre-Painted Corrugated Plain Sheet Ga. 24 or 0.6mm thick
    b. Insulation Foam (Double Bubble – Double Wrap)
    c. G.I. Wire (Diagonally Spaced at 30cm)
    d. Angle Bar 2" x 2" or 40mm x 40mm by 6mm thick (Double Attach)
7. Architectural Works
    a. Ceiling Works (Boards and Frames)
        i. Rooms
        ii. Toilets
        iii. Soffit/Eaves
        iv. Veranda
    b. Painting Works
        i. Exterior Walls (Three (3) Coats with Fiber Mesh)
        ii. Interior Walls including Baseboard (Three (3) Coats)
        iii. Ceiling (Rooms, Toilets, Soffits/Eaves and Veranda)
        iv. Trusses & Purlins
        v. Main Door (Varnish) & Jambs
    c. Tiling Works
        i. Rooms – 400cmx400cm with grouts
        ii. Toilet Wall – 300cmx600cm with grouts
        iii. Toilet Floor – 300cmx300cm with grouts
        iv. Lavatory Granite Tiles - 600cmx1200cm with grouts
    d. Steel Works
        i. Supply and Installation of Stainless Handrails at PWD Toilet
        ii. Supply and Installation of Tubular and Frame Handrails for Verandas
    e. Doors and Windows
        i. Sliding-Smoke Glass Doors
        ii. Sliding, Fixed and Awning Windows with Mosquito Screen and Aluminum Frame
        iii. Doors with lockset and Jambs
8. Plumbing Works
    a. PVC Pipe and Fittings
        i. Soil and Vent Stack Line
        ii. Sanitary and Drainage
    b. Polypropylene (PPR) Pipe and Fittings
        i. Water Line

c. Check and Gate Valve
d. Water Meter / Sub-Meter
e. Plumbing Fixtures
    i. Water Closet with Bidet
    ii. Shower Head with Faucet
    iii. Stainless Sink with Faucet

9. Electrical Works
    a. PVC Conduit
        i. Convenience Outlet
        ii. Switches
        iii. Data Internet
        iv. CATV
        v. CCTV
        vi. Air Conditioning Unit
    b. Junction Box and Utility Box
    c. Outlet and Switches
        i. Outlets
            1. Power System
            2. Air Conditioning Unit
        ii. Switches
            1. Lighting System
    d. Electrical Wires (THHN)
        i. Power System
        ii. Lighting System
        iii. Entrance Post
        iv. Air Conditioning Unit
    e. Panel Boards and Circuit Breakers
        i. Panel Board with Cabinets for Rooms (5 Branches)
            1. 1 – 20Amp for Lightings
            2. 1 – 20Amp for Outlet
            3. 1 – 30Amp for ACU
            4. 1 – SPARE
            5. 1 – 20Amp for Main Breaker
        ii. Main Distribution Panel for Perimeter
        iii. Sub-meter / Generator Set
    f. Entrance Post and Cap
    g. Testing and Commissioning (MEGGER TEST)
10. Mechanical Works
    a. Air Conditioning Unit (Window Type – INVERTER)

III. APPROVED BUDGET FOR CONTRACT AND CONTRACT DURATION:

The project if awarded to the Contractor shall be within the Approved Budget for Contract amounting to **Three Million One Hundred and Ninety-Eight Thousand Pesos Only (₱ 3,198,000.00)** and completed not more than **Ninety (90) calendar days** (Saturdays, Sundays and Holidays included) which shall be reckoned three (3) days from the date of issuance of Notice to Proceed (NTP).

IV. TERMS OF PAYMENT:

Payment of the works in the Execution of the project shall be as follows:

1. Fifteen Percent (15%) Mobilization Fund upon Signing of the Contract.
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    1. Checklist of Required Attachment for Processing
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    11. Updated Pictures before, during and after construction of items of work especially embedded items.
    12. Photocopy of Vouchers of all previous payments
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3. All Labor and Materials shall conform to the Specifications and Plans and shall be in accordance with Best Quality of Workmanship and Methods, and to Laws and Ordinances of the Local Governing Body.

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17. Drinking of Alcoholic drinks and smoking inside the compound of the Center are strictly prohibited.

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19. The Contractor shall comply with the DO 13 (OSH Standard) of the Department of Labor & Employment during the Execution of the Works. The Contractor shall be Responsible and commits to undertake appropriate Precautionary Measure for the Safety and Security of the Staff and Residents of the Center and their Employees/Workers affected by the Project.

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23. The Contractor shall also submit As-Built Plans, 3 set Blueprint with Signed & Sealed of Supervising Engineer, 1 set A4 Size Signed and Sealed(attachment for Final Billing) and 1 set Soft Copy (CAD) in CD format for Record Purposes, Final payment will not be released unless this has been complied with.

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3. Contractor of DSWD-NCR with lapses and/or negative feedback performance along project implementation in its current and past engagements with the DSWD shall not be considered for this project.

4. Contractors whose current performance on their on-going project implementation showing fifteen (15%) negative slippage in any one project or a negative slippage of at least ten (10%) percent in each of two (2) or more contracts due to their fault or negligence shall be considered disqualified.

VII. LIQUIDATED DAMAGES

Where the Contractor refuses or fails to satisfactorily complete the work within the specified contract time, plus any time extension duly granted and is hereby in default under the contract, the Contractor shall pay The Procuring Entity for liquidated damages, and not by way of penalty, an amount, as provided in the conditions of contract, equal to at least one tenth (1/10) of one percent (1%) of the cost of the unperformed portion of the works for every day of delay. Should the amount of liquidated damages reach ten percent (10%) of the contract amount, The Procuring Entity shall, at its own discretion, terminate the contract without prejudice to any further action it may take to recover whatever losses incurred due to non-performance of the Contractor.

To be entitled to such liquidated damages, The Procuring Entity does not have to prove that it has incurred actual damages. Such amount shall be deducted from any money due or which may become due the Contractor under the contract and/or collect such liquidated damages from the retention money or other securities posted by the Contractor whichever is convenient to The Procuring Entity.

VIII. BIDDERS REQUIREMENTS:

1. Participating Bidders/Contractors shall submit the following requirements:
   1.a Those Specified in the invitation to participate and to Bid.
   1.b Requirements specified in Bid Data Sheet (BDS) and Instruction to Bidders (ITB).
   1.c Other requirements which the Bids and Awards Committee may require as an additional Document other than those specified in the BDS and ITB.

Prepared by:

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Noted by:

MARIDOL R. LICERIO
SWO V – ORCC

Conformed by:

MIRIAM C. NAVARRO
SWO IV – JPC

Recommending Approval:

MANUEL A M. LOZA
Assistant Regional Director for Administration

Approved by:

VICENTE GREGORIO B. TOMAS
Regional Director

ORC

7

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

TERMS OF REFERENCE

CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER UNDER DESIGN AND BUILD SCHEME

ELSIE GACHES VILLAGE

This Term of Reference shall form part of the Contract for the Construction of Isolation Facility for South Cluster at DSWD-NCR Elsie Gaches Village (EGV) to include all the Works herein stated below.

I. DESCRIPTION OF THE PROJECT:

The Project is located at The Elsie Gaches Village, which is a residential institution that provides care and rehabilitation to abandoned and neglected children with special needs such as cerebral palsy, epilepsy, visual and hearing impairment, mental retardation, autism and other related illnesses. The Center which is suitable location on the south cluster centers for the isolation of people who are suspect with COVID – 19 viruses. Hence, the need for the Isolation Facility for South Cluster at Elsie Gaches Village is needed to meet its demand.

II. SCOPE OF WORKS (Supply and Installation):

1. General Requirements
    a. Mobilization / Demobilization (Generator Set, Manpower, Materials and Tarpaulin)
    b. Building and Occupancy Permits (Original Copies)
    c. Bonds and Insurance (Original Copies)
    d. Temporary Water Consumption including installation of water sub-meter and supply and installation of Generator Set for electric consumption.
    e. Admin/ Management Cost/ Safety and Health
    f. Soil Boring Testing (Result/Certificates)
    g. Layout and Staking
    h. Testing of Sample Materials by Accredited DPWH Testing Centers
    i. Signed and Sealed Construction Drawings and As-Built Plans (see details below)
    j. General Cleaning (including existing debris on actual site condition)
2. Earthworks:
    a. Excavation & Soil Protection
    b. Backfilling and Compaction
    c. Gravel Bedding
    d. Termite Pest Control System (LENTREKS only)
    e. Laying of Polyurethane Sheet and Perforated PVC Pipe with Geotextile Sacks
    f. Hauling of excess materials off the site
3. Reinforced – Concrete Works
    a. Footings, Footing Tie Beams and Wall Footing,
    b. Columns and Beams;
    c. Slab on Fill including Stairs and Ramps;
    d. Lintel Beams & Columns;
    e. Septic Tanks;
    f. Entrance and Gate Posts;
    g. Countertop
4. Formworks and Scaffoldings
5. Masonry Works
    a. Concrete Hollow Block laying
        i. 6" Concrete Hollow Blocks (Exterior)
        ii. 4" Concrete Hollow Blocks (Interior)

iii. 6" CHB Exterior Wall Footing
iv. 4: CHB Interior Wall Footing
v. 4" CHB Wall Partition of Septic Tank
vi. 4" CHB Catch Basin and Plant Box

b. Plastering Works
i. Exterior Plastering
ii. Interior Plastering
iii. Preparation of Door and Window Opening
iv. Catch Basin, Concrete Cover and Plant Box

6. Roofing Works
a. Supply and Installation of Roof
b. Supply and Installation of Insulation Foam
c. Supply and Installation of G.I. Wire
d. Supply and Installation of Angle Bar (Double Attach)
e. Supply and Installation of Roof for Gate

7. Architectural Works
a. Ceiling Works (Boards and Frames)
i. Rooms
ii. Toilets
iii. Soffit/Eaves
iv. Veranda

b. Painting Works
i. Exterior Walls (Three (3) Coats with Fiber Mesh)
ii. Interior Walls including Baseboard (Three (3) Coats)
iii. Ceiling (Rooms, Toilets, Soffits/Eaves and Veranda)
iv. Trusses & Purlins
v. Main Door (Varnish) & Jambs

c. Tiling Works
i. Rooms – 400cmx400cm with grouts
ii. Toilet Wall – 300cmx600cm with grouts
iii. Toilet Floor – 300cmx300cm with grouts
iv. Lavatory Granite Tiles - 600cmx1200cm with grouts

d. Steel Works
i. Supply and Installation of Stainless Handrails at PWD Toilet
ii. Supply and Installation of Tubular and Frame Handrails for Verandas

e. Supply and Installation of Doors and Windows
i. Sliding-Smoke Glass Doors
ii. Sliding, Fixed and Awning Windows with Mosquito Screen and Aluminum Frame
iii. Doors with lockset and Jambs

8. Plumbing Works
a. PVC Pipe and Fittings
i. Soil and Vent Stack Line
ii. Sanitary and Drainage

b. Polypropylene (PPR) Pipe and Fittings
i. Water Line

c. Check and Gate Valve
d. Water Meter / Sub-Meter
e. Plumbing Fixtures
i. Water Closet with Bidet
ii. Shower Head with Faucet
iii. Stainless Sink with Faucet

9. Electrical Works
a. PVC Conduit
i. Convenience Outlet
ii. Switches

iii. Data Internet
iv. Air Conditioning Unit

b. Junction Box and Utility Box
c. Outlet and Switches
   i. Outlets
      1. Power System
      2. Air Conditioning Unit
   ii. Switches
      1. Lighting System
d. Electrical Wires (THHN)
   i. Power System
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e. Panel Boards and Circuit Breakers
   i. Panel Board with Cabinets for Rooms (5 Branches)
      1. 1 – 20Amp for Lightings
      2. 1 – 20Amp for Outlet
      3. 1 – 40Amp for ACU
      4. 1 – 20Amp for Main Breaker
   ii. Main Distribution Panel for Perimeter
   iii. Sub-meter / Generator Set
f. Entrance Post and Cap
g. Testing and Commissioning (MEGGER TEST)

10. Mechanical Works
    a. Air Conditioning Unit (Window Type – INVERTER)

III. APPROVED BUDGET FOR CONTRACT AND CONTRACT DURATION:

The project if awarded to the Contractor shall be within the Approved Budget for Contract amounting to **Five Million Three Hundred Thirty Thousand Pesos only (₱ 5,330,000.00)** and completed not more than **One Hundred (100) calendar days** (Saturdays, Sundays and Holidays included) which shall be reckoned three (3) days from the date of issuance of Notice to Proceed (NTP).

IV. TERMS OF PAYMENT:

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1. Fifteen Percent (15%) Mobilization Fund upon Signing of the Contract.
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1. The Winning Bidder shall review all **Detailed Engineering Design** (Architectural, Structural, Electrical, Mechanical, Plumbing & Sanitary Plans) prior to construction implementation and revise if necessary corresponding with complete Computations and Sign & Seal which subject to approval of HOPE.

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Conformed by:

MARIA CLARA P. DE GUZMAN
SWO V – EGV

Recommending Approval:

MANUELA M. LOZA
Assistant Regional Director for Administration

Approved by:

VICENTE GREGORIO B. TOMAS
Regional Director

7

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

TECHNICAL SPECIFICATIONS

CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
RECEPTION AND STUDY CENTER FOR CHILDREN

A. GENERAL CONDITIONS

1. The Works under this **Specification** is in conjunction with the **Plans, Working Drawings & Cost Breakdown (Bill of Quantities)**. It includes all Supply of Labor and Materials necessary to complete the Construction Isolation – North Cluster at the Reception and Study Center for Children.

2. The Contractor shall guarantee that All Labor and Materials shall conform to these Specifications and in Accordance with the Best Quality of Workmanship and Methods and the Laws of the Local Governing Body.

B. SITE PREPARATION

1. Site preparation work consists of site clearance, survey, cutting, imported fill, embankment and construction of ditches for drainage. Work of this section includes all measurement and materials required to complete the supply, execution and construction of site preparation.

   The contractor shall clear, from all areas planned for the work, all buildings, materials, debris, etc, prior to the cutting and filling work taking all necessary precautions to prevent damage to the existing road structures and buildings or other facilities, in the area, which shall not be demolished.

2. In case of rain, the day's works shall be stopped so as to confine damage due to rainfall to a minimum. According to the site conditions, temporary drainage ditches shall be provided. In cases where ditches, damage ditches etc. become blocked with sand, earth, etc, such shall be immediately removed. Broken slopes shall be immediately repaired. In case where swamps, pools etc. which are not shown on the Drawings are found, such shall be drained.

C. EARTHWORKS

1. Earthworks consists of excavation, back filling and disposal of surplus materials. Work of this section includes all measures and materials required to complete the design supply, support, use, construction, removal of earth work.

2. Excavation - The ground shall be excavated to the lengths, widths and exact depths required for the construction of the works as specified in the approved design plans. The contractor shall examine any unsuitable or weak ground material, standards of which are given below and shall report the situation in writing to the Architect/Design Engineer before executing concrete or any other Works. If the surface of a subgrade is found to be unstable or to include any type of refuse subject to removal in the opinion of the Architect/Design Engineer, the contractor shall excavate and remove such unsuitable Material to the width and depth required by the Architect/Design Engineer.

   Weather due to negligence or error on the part of the contractor or at the request of the Architect/Design Engineer owing to an unstable sub grade, the contract price shall be deemed to cover the whole cost of all excavation, inclusive of replacement with suitable material, necessary in what so ever type of earth or ground conditions

encountered, e.g. earth with boulders, hard pan, rock, old concrete foundation, roadways, paved areas, etc.

All excavation works shall be kept dry and clean in order that work may not be affected or interfered with by water entering the excavation. The contractor shall pump out all water which may occur or be brought into the excavation employing such equipment as engines, pumps pipe work, chutes and other necessary devices to keep the water level below the bottom of the permanent works during the period required by the Architect/Design Engineer, Raised water shall be conveyed away in such manner as not to cause any nuisance or injury to the occupants of adjacent properties or sites. If pumping is required if it shall be carried out continuously and may not be stopped without the permission of the Architect/Design Engineer .

Excavated material, approved by the Architect/Design Engineer for re-use for filling shall be selected, loaded and hauled to the specified location for temporary stockpiling. Excavation materials containing brushy roots or other vegetable materials shall be classified as unsuitable for fill. The sides of excavation shall be supported as necessary to Maintain a vertical face and to prevent fall or slip of any nature at any - time during the duration of excavation and back filling works. The contractor shall be responsible for the design, supply, fixing and removal of the shoring, sheet piling or any works required to support the side of the excavation. It is also the contractors responsibility to protect existing structures and utilities from damage or interruption of services due to excavation work .

3. Excess of Excavation - The contractor shall be responsible for all excess soil of excavated material not suitable for re-use. The Architect/Design Engineer my require the contractor to transport such material to a disposal area and /or my instruct the contractor to dispose of the surplus to a disposal area to be procured by the contractor himself - This shall all be carried out by the contractor at no extra expense to the employer.

4. Backfilling - Excavation shall not be backfilled until such structures and properties as drainage, insulation pipes, construction details, and water tightness have been inspected, tested and approved by the Architect/Design Engineer. All available precaution shall be taken during back filling to ensure that the pipes, insulation and construction details are not damaged. All backfill material shall be approved and free from vegetable or organic material, mud, refuse, boulders, rock, stones of over 15 cm and other materials which, in the opinion of the Architect/Design Engineer, are unsuitable. Filling shall be carried out in such away and to such a generous depth as to ensure that the final surfaces after settlement and compaction conform to the levels indicated in the Drawings and specifications.

5. Compaction - Compaction of fill. All soil fill material used shall be thoroughly compacted by mechanical means until the specified degree of compaction is obtained. The filling Material shall be approved by the Architect/Design Engineer and placed in even layers of a depth not greater than 30cm. A power-driven roller shall make at least 10 trips for each layer unless otherwise specified. Every effort shall be made to compact the fill material at its optimum moisture content for compaction. In any case, the dry density of compacted soil shall not be less than 95% of the value obtained in a standard laboratory test. When spade will not permit the use of rollers, other types of approved equipment shall be used to achieve the same degree of degree of compaction specified. Filling and compacting around pipes, cables and conduits shall be done by hand using selected Materials to depth of the least 50cm. above such pipes, cables and conduit.

D. CONCRETE WORKS

1. Concrete works shall conform and in accordance with to ACI 318-14, it consists of mixing, conveying, and placing of concrete, for work and reinforcement Work, (it is inclusive of all measures and materials required removal of concrete forms and reinforcement).

   All materials used in the work shall be the best of their kind and shall conform in quality and treatment to the conditions herein specified. The contractor shall submit to the Design Engineer when required and at his own expense, samples of all materials to be used in the works. The quality of the samples so provided being representative of the Bulk of such materials. The construction of all concrete and reinforced concrete work shall commence at points approved by Design Engineer and shall be continued and completed in accordance with the program of work to be submitted to the Engineer for approval before the concrete work is commenced. Any work considered by the Engineer to be of inferior workmanship and therefore, to present a potential point of weakness in any part of the work shall be demolished and rebuilt at the expense of the contractor.

2. CEMENT - Portland cement for all structural concrete shall conform to ASTM C 150, for all concrete construction below ground level and water-retaining structures, sulphate resisting Portland cement Type II of ASTM C 150 or equivalent shall be used and for above ground level Type I shall be used. The contractor shall provide appropriate dry, well ventilated weather and water proof sheds of capacity sufficient to store cement so that the cement can be stored in such a manner as to prevent deterioration or intrusion of foreign matter. Floors of the sheds shall be at least 30 cm above ground. The cement while being conveyed to the site in trucks or other vehicles shall be adequately from the weather. The cement shall be used as soon as possible after delivery. Any cement that has deteriorated or has been contaminated shall not be used for concrete.

3. AGGREGATES - All aggregates shall conform to the requirements of ASTM C33 or equivalent and be locally available. Aggregates failing to meet above mentioned specifications but which have been shown by special test or to actual service to produce concrete of adequate strength and durability may be used when authorized by the engineer. The aggregates shall be dense, hard durable and free from harmful amount of reactive minerals and other chemical compounds and shall conform to the above-mentioned standards. Samples of aggregates used in the work shall so provide from the same aggregate sources stockpile at the site, and be submitted to the laboratory authorized by the employer and the written approval of the authorized laboratory shall be given to the engineer for his approval.

4. WATER - Water use in mixing concrete shall be clean and free from injurious amounts of oil, acids, alkalis, salts, organic material or other substance which may be deleterious to concrete or reinforcement. The temperature of water use for making concrete in hot weather shall be low enough to attain the proper mixing temperature of concrete, and in any case shall be lower than 30 degrees centigrade. The contractor shall store on the site an adequate supply of fresh water to meet all needs.

5. STEEL REINFORCING BARS - Reinforcing bar should be deformed bars for all reinforced concrete work, and should have minimum yield strength of 230 N/mm2 (33000 psi) in accordance to PNS 49:2002 ASTM Grade33 (ASTM A 615 and A 615M-16). Representative samples of all steel reinforcement that the contractor proposes to use in the Works together with manufacture's certificate stating clearly

for each sample, the place of manufacture expected date and size of deliveries to site, and all relevant details as regards composition manufacture, strength and other qualities of the steel shall be submitted to the Engineer for written approval.

Steel Bars shall comply with PNS 49:2002 ASTM Grade33, random Testing by accredited DPWH Testing Center shall be done at least once for the duration of this Project and shall be submitted to DSWD NCR FO for Recording.

6. FORMWORKS – Ordinary plywood, 5-ply, 12 mm thick, or wood boards shall be used. Wood boards or ply wood for shuttering shall be such as not to damage the placed concrete owing to its containing impurities and shall be able to withstand loading occurring during placing of concrete.

7. Concrete Mixes - Concrete shall be proportioned to have the following specified compressive strengths, as determined by the specified testing and test evaluation procedure, specified compressive strength (f'c) shall be as indicated on the drawings.

8. Water-cement ratio - Water-cement ratio shall be determining so as to achieve the required workability and to obtain the specified concrete strength, which shall be subject to the approval of the Design Engineer.

9. Test of Concrete Work cylinder test shall be made on concrete sampled during the works. Samples shall be taken for each new grade concrete, from each 100 m3 of concrete when the same grade is being used continuously, except for lean concrete and other non-load bearing concrete. The number of specimens taken shall not less than 3 for each compressive strength test, all tests shall be performed in accordance with ASTM C39 and ACI 318-14, and shall be carried out in an authorized & accredited laboratory at the contractor's own expense. If the results of the 28 days' test are unsatisfactory, all concrete work shall be stopped at contractor's expense and shall not proceed further without the written permission of the Design Engineer. Should the test prove that the concrete is not satisfactory or the Design Engineer ascertain any section to be defective, the condemned concrete shall be cut out, removed and replaced by the contractor. All Test Results shall be submitted to DSWD NCR FO for recording.

10. Mixing and placing concrete – Mechanical Mixing, batching. All concrete shall be Machine Mixed. The contractor must also submit details on the type or types of mixers and machines to be used and proposals for the means of conveying mixed concrete from the mixer to the points of deposition. All concrete shall be batched using appropriate means shall be of a type approved by the Engineer and shall be kept in good condition while in use at the works. Each mixer shall be fitted with a water measuring device. If aggregate batching by volume is allowed, the cement shall be batched by weight and the water by weight or volume. Any deposit of old concrete in the mixer drum shall be cleaned out by rotating clean aggregate and water in the drum before any fresh concrete is mixed.

11. Placing and compacting Immediately after Mixing, the concrete shall be transported to the place of final deposit- by method which prevent separation , loss contamination of any of the ingredients.. Any method involving the use of pipes or chutes for transporting concrete shall not be permitted, except with the written approval of the Design Engineer.

    Transport of concrete from the mixers must be as rapid. as possible and the contractor shall always be responsible to place and compact the concrete.

Before any concrete is poured, the formwork must be thoroughly cleaned of all dirt, shavings, loose stones, etc, and the wood form which will come in contact with the concrete shall be soaked well with an approved mould oil. The concrete shall be placed gently in position and shall normally not have a free fall of more than one meter. To convey, the concrete as near as possible to its final position, rubber or metal drop chutes shall be used for small sections, and bottom opening buckets or other suitable vessels for large sections. The concrete shall be placed in such a manner so as to prevent water from collecting at the ends, corner or along the faces of the forms, and it shall not be placed in large quantities at a given point and allowed to run or worked over a long distance in the form . All concrete shall be placed and compacted in even layers with each batch adjoining the previous one. The thickness of the layers shall be between 15-30 cm for reinforced concrete and up to 45 cm. for un-reinforced concrete in relation to the width of the forms.

The concrete shall be carefully and continuously compacted and worked around the reinforcement and into the corners of the formwork so that it will be in close contact with the reinforcement and free from honeycombing. Over-vibration causing segregation shall be carefully avoided and the redistribution of concrete in the formwork by means of vibrators shall not be permitted.

The concrete shall be compacted by mechanical or electro-mechanical vibrators of a type approved by the Engineer. The plunger type vibrators shall have a diameter compatible with the spacing of the reinforcement., and sufficiently high frequency.

All vibration, compaction and finishing operations shall be completed immediately after placing of the concrete in its final position, workers shall not be permitted to walk over freshly placed concrete until it has hardened sufficiently to carry their weight without distortion, and great care shall be taken to ensure that reinforcement projecting from recently placed concrete is sot shaken or disturbed so as not to destroy or damage the initial set of the concrete in contact with it.

Concreting in any one part or section of the work shall be carried out in one continuous operation and no interruption of concreting work shall be allowed without the approval of the Design Engineer.

12. Curing - Curing shall start as soon as practical after placing or finishing, concrete shall be cured with water unless membrane curing is employed. The surface of placed concrete shall be covered with damped mats or other approved materials for a suffocation period talking into consideration weather conditions during the period. Horizontal surfaces shall be covered by a suitable method so as to avoid the effect of sunshine, drying wind and other harmful effects, vertical surfaces such as walls and column sides shall be wetted for a sufficient period by sprinkling water to forms, or other suitable methods.

13. Bending and anchorage - Bending specifications shall be drawn up as applicable in accordance with the approved codes, and each reinforcement bar shall be bent to the exact dimensions specified in the relevant specification. All bars shall be bent cold. Bars shall not be welded without the approval of the Design Engineer. No splices shall be made in the reinforcement except where approved by the Design Engineer, and all splices or overlaps shall comply entirety with the requirements of proved.

14. Fixing of reinforcement. The steel reinforcement shall be assembled to the exact shapes and dimensions as approved by the Design Engineer. The rods shall have

the approved cross-sectional area and shall be fixed accurately in the moulds. The ends of all tying wires shall be turned into the main body of the concrete and shall not be allowed to project towards the surface. Spacing blocks shall be used to ensure accurate cover to the reinforcement, where necessary, and these blocks shall be of precast concrete of a strength at least equal to that of the concrete being placed. They shall be as small as possible in view of practicality and shall be securely fixed in position by means of wires to be cast into them. No temporary supports for the reinforcement shall be allowed to be incorporated into the finished concrete. At the time of concreting all reinforcement shall have been thoroughly cleaned and made free of all loss rust (crude oil or any other coatings that might destroy or reduce the bond). Unless otherwise specified or shown on the drawings, minimum cover shall be determined in accordance with ACI 318- 14 as indicated on the following table:

Description			Minimum Thickness Cover
Cast against and permanently exposed to earth			75
Exposed to earth and weather		D16 and smaller	50
		D20 - D25	40
Not Exposed to weather and not in contact with earth	Slabs, joists and walls	D25 and smaller	20
	Beams, girder columns & pedestals	main bars , ties, stirrups	40

15. Form work - This section covers the fabrication, erection and removal of forms and other necessary work thereof, including material and design of forms. All works, covered by this section shall conform to ACI 347-14 or relevant Code & standards unless otherwise specified herein.

Design of forms

a. Forms shall be constructed complete with centering, sleeves and molds to conform to the shape, form, line and grade required and shall be maintained rigid to prevent deformation under load where required forms shall provide for adequate protection of the precast units placed within the forms, before pouring concrete.

b. Joints shall be leak proof and arranged vertically or horizontally to conform to the design pattern. Forms shall be placed on successive units for continuous surfaces and fitted to accurate alignment to secure smooth completed surfaces free from irregularities, in long span, where intermediate supports are not possible, the form deflection due to fresh concrete shall be compensated for. Members shall have true surfaces in accordance with desired lines, planes and elevations. If adequate foundation for shores cannot be secured, trussed supports shall be provided.

c. Form surfaces shall be coated before placing of reinforcement, when oil is used, surplus oil shall be removed from form surfaces. All oil stains shall be cleaned from reinforcing steel before pouring of concrete,

d. Forms shall not be removed without the approval of Design Engineer. This approval shall not relieve the contractor of responsibility for the safety of the work, the minimum period of time that must elapse between the pouring of the concrete and the slackening of the form work shall be as follows: The removal of form works shall in all cases be supervised by an experienced foreman. All form works shall be removed without such shock or vibration as would damage the concrete, and

before the form works and props are removed the concrete surface should be exposed, where necessary, in order to ascertain that the concrete has hardened sufficiently, any work showing signs of damage due to premature loading is to be removed and entirely reconstructed at the contractor's expense.

16. Finishing - The finishes described, below must not cause any deviation outside the specified allowable deviation from plumb or level or from alignment, profile grades or dimensions specified in the paragraph on tolerance. Offsets caused by displaced or misplaced sheathing, lining or form sections, or by knots in forms or by otherwise defective items shall be checked by direct measurement. All other irregularities can be checked by use of straight edges or by use of templates. Surfaces shall be corrected so as to meet the requirements specified in the paragraph or tolerances.

    a. Formed surfaces to be hidden by backfill, plaster or other finish material shall not require treatment after form removal except for patching defective concrete, the filling of holes and the specified curing; correction of surface irregularities shall be required for depression exceeding a limit not affecting the subsequent finish. Formed surfaces for exposed walls, water conduit, parapets, curbs, stair faces and other areas shall be smooth and regular when completed. Ridges or lips on exposed concrete shall be removed by tooling, grinding or rubbing.

    b. Fair faced concrete this type of finish is for surfaces which are permanently exposed to view. Forms to provide this finish shall be faced with wrought tongued and grooved boards or plywood or metal panels, arranged in a uniform approved pattern, free from defects likely to detract from the general appearance of the finished surface. This finished shall be such as to require no general filling of surface pitting, but fins, surface discoloration and other minor defects shall be remedied by methods approved by the Design Engineer without extra cost to the contract. All forms shall be removed without damages to the concrete. The use of non- staining mould oil or other material to facilitate this shall not have a deleterious effect on either the strength or appearance of the concrete and

    c. Unformed Surfaces Unformed screeded finish surfaces to be covered by-backfill or concrete and surfaces of sub-floors to be covered by concrete floor topping: Finishing operations shall include sufficient levelling and screeding to produce flat uniform surfaces. Unformed floated finish surfaces not permanently concealed by backfill or concrete and for which other finishes are not specified, including concrete to be permanently exposed to view such as outside decks, floor of sumps, tope of walls, surfaces of gutters, sidewalks and outside entrance slabs, when trowel finishes are needed, floating shall be continued until a small amount of mortar without excess water is brought to the surface, permitting effective trowelling. Surfaces to receive mastic water proofing or asphalt water proofing shall not have any prominence likely to cause damage or other harmful irregularity. Surfaces irregularities shall be reduced or eliminated by grinding, after concrete has hardened.

E. CONCRETE HOLLOW BLOCK WORK

1. All concrete blocks shall conform to ASTM C129 or equivalent unless otherwise specified as follows:

    a. Concrete block shall be manufactured in accordance with the specification stated herein, block shall be manufactured of Portland cement and locally available aggregate by mixing and compacting using an electric

machine, Joint mortar materials cement shall be specified in section D (concrete work)

b. Sand shall be clean sharp, coarse, well-graded and shall conform to ASTM C-144 (Aggregate for Mortar) or ASTM C33

c. block shall be reasonably uniform in compressive strength and in all dimensions and shall be straight and free from cracks, chips or other defects. Specification of the materials shall be in accordance with Section D "Concrete work".

d. 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.

2. Joint mortar materials

a. Cement shall be specified in section D (concrete work)

b. Sand shall be sharp S-1, washed, clean and greenish in color, coarse, well-graded and shall conform to ASTM C-144 (Aggregate for Mortar)

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

d. Plaster bond: N and H Plaster bond - Apply to all wall areas prior to plastering.

F. FINISHING WORKS

Refer to Architectural Plans for location. Verify plans for other finishes not specified or omitted herein. Sample of all materials shall be submitted to the Procuring Entity for approval as to color and quality workmanship.

FLOOR FINISHES

1. Ceramic Tiles: Supply and installation of 400 mm x 400 mm unglazed tiles; polished / unpolished / textured and colored: set on tile adhesive setting with 3 - 5 mm spacing between tile. For Reception / Lobby Area. See Design. Submit Samples for approval.

2. Ceramic Unglazed Tiles: Supply and installation of 300 mm x 600 mm for Toilet Wall & 300mmx300mm for Floor Tiles. Refer to Schedule of finishes. Submit sample for Procuring Entity"s approval.

WALL FINISHES

1. Plain Cement Plaster Finish: 10 mm. thick. on vertical, on masonry and for all concrete hollow block surfaces, painted finish as indicated in the Drawings and for all areas not otherwise noted with other finishes.

2. Fiber Cement Board: 6-mm thick for all Dry Interior Walls.
   a. Use standard G.I. metal Studs framing at every 600-mm on center both ways. Provide standard construction system complete with seismic bracing.

3. Sand for finish coats shall be clean and well graded from coarse fine as specified in concrete work.

Cement shall be specified in section D (concrete work).

Plastering accessories shall be approved on samples by the Engineer before starting plastering work. Such accessories, including corner beads, casing beads, lath and other materials, shall be used where and necessary for workmanlike plastering work.

Surface preparation Dust, Oil, grease and other undesirable substances that might hinder the forming of a good bond with plaster bases on concrete or masonry shall be removed immediately prior to plastering.

Moistening underbed immediately before applying plastering work, concrete surfaces shall be wet-down sufficiently to reduce suction but shall not be excessively wet.

All plastering shall be executed in a workmanlike manner leaving all finished plaster surfaces free from waves or imperfections.

Mixing Plaster materials shall be thoroughly mixed with the correct amount of water, in accordance with the specific requirements of the Manufacturer.

G. CEILING FINISHES

Fiber Cement Board: Supply and installation of 4.5mm Fiber Cement Board ceiling on a 400mm on center spacing G.I. Framing Suspended Ceiling System complete with all accessories and acrylic diffuser lighting system.

Furnish all labour, materials and equipment for the completion of work as shown on the drawing and specified herein,

H. METALWORKS

Furnish all labour, material and equipment for complete erection of metal work as shown on the drawings, specified herein and as evidently necessary to complete the work. All supplemental parts necessary to complete the work shall be included whether or not such parts are definitely shown or specified.

Work includes, though is not limited, the followings:

A. Hand railing

Steel for metal item shall be new, low carbon mild steel and shall meet the requirements of ASTM 36 or other standards applicable for the designated purposes.

The basic materials to be used for the material work shall conform to following standards or other equivalent standards.

ASTM A6 / ASTM A36 : Hot Rolled sections, Weldable structural steel, steel plate, sheets and strips

ASTM A53/PNS 26:1992: Hot dip galvanized coatings on iron and steel articles.

All metal surfaces shall be given corrosion protection treatment, expect, where embedded in concrete such treatment shall be galvanizing bonderizing or rust paint coating given after completely cleaning of rust and loose scale, and shall be of a type suitable to the subsequent application of final finish paint.

Connection of all members shall be rigidly fixed and ground smooth where exposed.

I. PAINTING WORKS

All materials shall be Environmental protection Agency (EPA) certified and approved.

Painting Materials:

1. Submit various painting materials specification data and sample to be used for Procuring Entity"s approval.

2. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.

3. Painting materials including its application must be covered with minimum of five- (5) year guarantee to be rendered by the painting manufacturer.

4. Use BOYSEN or Equivalent only for all painted works.

Application:

a. All sample paint shall be submit on at least 300-mm x 300mm plywood panel, color and shade as per approval by the Procuring Entity.

b. Application shall be as per paint Manufacturer"s specification and recommendation.

c. 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 cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

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. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.Manufacturer: Boysen or Davies Paint.

Painting Schedule:

a. Interior Concrete or Masonry Painted - Three (3) coats water-based masonry plain semi-gloss finish. Sample Shades for Procuring Entity"s Approval.
b. Plain Flat Finish: Acrylic water-based paint on ceilings, three (3) coats. FLAT
c. Plain Semi-gloss in Acrylic water-based Epoxy paint on interior walls, columns, on all other interior concrete surfaces. (3) coats.

J. THERMAL AND MOISTURE PROTECTION

All applications shall be strictly as per Manufacturer's Specifications. It shall strictly be performed by licensed or certified applicators / waterproofing contractor representing waterproofing manufacturer or insulation company specified herein. The Procuring Entity shall be furnished with pertinent literature and detailed drawings .

K. DOORS AND INTERIOR VIEWING WINDOWS :

Refer to Schedule of Doors and Windows in Architectural Plan

L. FINISHING HARDWARE

The following Hardware Sets are furnished for whatever assistance it may afford the Contractor. The Contractor shall verify Plans and Specifications for hardware quality. Should any particular item be omitted, Contractor shall provide similar or equivalent item or hardware same as required.

All door hardware must be ANSI A156.2 approved.

1. Locksets shall be Heavy duty lever type handles, HAFELE, Bonco or Hope Brand with locked keys and profile cylinders.
    a. All locks shall have three (3) keys with the lock number stamped for identification. Verify number of duplicates.

    b. Schedule: Use extra heavy duty industrial / commercial series of door hardware. Refer to Schedule of Doors A6

Toilet Privacy Lock: Use Corridor or Passage Lock for unlockable lockset.

Keyed Entrance Mortise Lock: Single cylinder with throw-deadbolt, standard full latch bolt with heavy duty anti-friction tongue. When locked, key outside or Knob inside retracts all bolts simultaneously. Outside Knob remains locked until thumb turn is restored to vertical position. Use Knob type.

Single Cylinder Deadbolt Lock: deadbolt thrown or retracted by key from outside or by inside turn unit. Bolt automatically deadlocks when fully thrown

Indicator Lock: for Toilet Stalls with safety release lock.

2. Door Hinges
    a. Loose pin hinge 4 ½" x 4" heavyduty, chrome finish.
    Schedule: Four Ball Bearing Hinges: 4 ½ " x 4" for metal louver doors over 900 mm in width and/or over 44 mm thickness, strictly SUS 304, Stainless Steel based

    Floor Hinge: standard duty floor hinge with closer on active and inactive leaf

    b. Hinge finish shall match locusts of respective openings; stainless steel.

3. Door Closer:(Only on Specified Doors) grade 1 door closer with hold open function on active and inactive leaf. Can be surface mounted on hinge face or stop face for metal doors indicated in the Schedule, with finish matching locust of the respective opening and a slim line look; concealed type for aluminum doors to provide by aluminum door fabricator. Door closer shall be incorporated in the door closer.

4. Miscellaneous Hardware

   a. Door Plate and Pull Bar: Ga 16. Stainless Steel plate with stainless steel 20 mm diameter x 200 mm length pull bar, both in hairline finish.
   b. Flush 6" and Head Bolt 12": for two leaves of steel swing doors
   c. Push-Pull Bar: approximately 30 mm diameter x 600 mm long stainless steel
   d. Push Plate: approximately 150 mm wide x 400 mm high stainless steel
   e. Stainless Steel handle bars
   f. Heavy Duty Flush Bolt
   g. All other necessary hardware such as latch bolts, catch locks, door chain fasteners, door stops, wall stops and holders, push plates, handles, etc. shall be of type, size and design suitable for the purpose.

M. GLASS AND GLAZING

Refer to Schedule of Window Glass in the Architectural Plans.

N. SPECIALTIES

TOILET DOORS AND PARTITIONS

A. TOILET CUBICLES

1. Partition System: homogeneous, floor-anchored, high pressure compact OR Marine laminated partition and doors complete with stainless steel bracing and hinges, brass or molded plastic pedestals, and indicator lock with heavy duty stainless steel hardware. Submit catalogue & mock-up for Procuring Entity's approval.

3. Accessories: All accessories should be in molded plastic material. Submit samples for Procuring Entity's Approval.

   a. Grab Bars: provide stainless steel grab bars for handicapped toilets.
   b. Urinal Dividers: wall-hung suspended type with stainless stiffener and stainless steel wall bracket; material same as toilet partition system

O. TOILETS

A. PLUMBING FIXTURES AND ACCESSORIES

All fixtures shall be installed complete with accessories, such as fittings, angle valve, shut-off valve and supply pipe assembly, p-traps flange and others to make it functional. Submit model and color samples for Procuring Entity's approval of all fixtures and accessories.

Plumbing Fixture Colors: White Verify with Procuring Entity

1. Water closet: Tank Type Siphon Vortex bottom inlet top flush.

2. Lavatory:
   a. Wall Hung type lavatory with single faucet hole on center w/ front overflow hole, to match water closet color.
   b. Wall hung with full pedestal type

3. Lavatory Faucets: self-closing press-action tap model with timed flow and anti-blocking system.

4. Floor Drains: Stainless steel 4"x4"
5. Slop Sink Bibb: wall-mounted long gooseneck faucet

P. TINSMITHRY WORKS

All Works to be done in this Division of the Specification Consists of Supply, Fabrication, Furnishings Delivery and Installation, complete in all details of the Tinsmith Works. All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern.

The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

1.0 ROOFING SHEETS

All Roofing Sheets and Accessories shall meet the standard set by PNS 201:1990,

1.1 Roofing Sheets shall be Ga. 24, Cold Rolled Hot Dipped Galvanized Annealed Steel with 2 Coat 2 Baked Reversed Process of Oil Free Polyester / Epoxy Base Thermosetting

1.2 Accessories such as Ridge Rolls, Gutters, End Flashing, Corner Flashings shall be Ga. 26, Cold Rolled Hot Dipped Galvanized Annealed Steel with 2 Coat 2 Baked Reversed Process of Oil Free Polyester / Epoxy Base Thermosetting same color as the Roofing Sheets.

1.3 Insulation shall be LDPE (Low Density Polyethylene) Foam or Bubble Insulations with aluminized or pure aluminum sheet lamination

1.4 All Joints shall be properly connected and sealed with Joint Silicone Sealant to prevent leaks. All Roofs and Gutter shall be tested for possible leaks.

1.5 Submit samples for approval.

Q. ELECTRICAL SPECIFICATIONS

1.0 GENERAL DESCRIPTION

1.1 The work to be done under this DIVISION of the Specifications consist 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 others.

All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern. The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

The Specifications are intended to provide a broad outline of the requirement and are not intended to include all details of design and construction.

1.2 LAWS/CODES and REGULATIONS:
The work under this DIVISION shall be executed in accordance with the latest requirements of the following:

-Building Code of the Philippines
-Philippine Electrical Code
-Laws, ordinances, and regulations of the locality having jurisdiction over the project.
-Power and telephone utility companies
-UAP Doc. 301

The requirements of the above mentioned governing laws/codes and the requirements of the companies having involvement/participation are hereby made part of this Specifications and the CONTRACTOR is required to comply with the same.

This does not relieve the CONTRACTOR from complying with requirements of specifications or drawings in excess of above laws and ordinances, codes and requirements which are not prohibited by the same.

1.3 GUARANTEE
The CONTRACTOR shall guarantee that the electrical system is free from all grounds and defective materials and workmanship for a period of one (1) year from the date of acceptance of the work. All defects arising within the guarantee period shall be reminded by the CONTRACTOR at his own expense.

The CONTRACTOR shall indemnify and save harmless PROCURING ENTITY from and against all claims, suits, actions, or liabilities for damages arising from injuries, disabilities or loss of life to persons or damage to public or private properties resulting from fault or any act of contractor or his representative in the execution of this work.

The partial acceptance of the work for the purpose of making partial payments, based on the estimated cost satisfactorily completed by the CONTRACTOR, shall not be considered as final acceptance of that portion of the work.

1.4 DRAWINGS & SPECIFICATIONS

1.4.1 The electrical plans, which constitute an integral part of these Specifications, shall serve as the working drawings. The plans indicate the general layout and arrangement of the complete electrical system and other works.

1.4.2 The drawings and specifications are meant specifically to be complementary to each other and where it is called for by one shall be binding as if called for by both. Anything which is basically required to complete the installation for proper operation but not expressly mentioned on the drawings and/or specifications shall be furnished and installed by the CONTRACTOR at no extra cost to the PROCURING ENTITY as though specifically stipulated or shown in both.

1.4.3 Procuring Entity shall have the final decision on any apparent conflict between the drawings and specifications or on any under and controversial point in either or both.

1.4.4 All dimensions and locations shown on the plans are approximate and shall be verified in the field, as actual locations, distances, and levels are governed by actual conditions.

2.0 SCOPE OF WORK

2.1 Work Included
The work to be done under this DIVISION shall include the furnishing of all tools, labor, equipment, fixtures and materials, each complete and in proper working condition unless one or other is specifically excluded or stated otherwise in these Specifications but not limited to the following principal items of work:

3.1.1 Furnish and install a complete wiring and raceway system for the underground power and telephone distribution system including concrete pedestals, concrete hand holes and necessary wiring gutters and boxes.
2.1.2 Furnish and install a complete grounding system.
2.1.3 Perform terminations for all electrical system.
2.1.4 Complete testing of all electrical systems.
2.1.5 Preparation of "As-built" drawings.
2.1.6 If any item of works or material has been omitted which are necessary for the completion of the Electrical Work as outlined herein before, then such items shall be and hereby included in this section of work.

3.0 PROCEDURE

3.1 Workmanship
The CONTRACTOR shall execute the work in the most thorough, prompt and workmanlike manner and in accordance with the plans and specifications. The installations shall be done thru standard methods and good engineering practices.

3.2 Materials
All materials to be installed shall be brand new except as otherwise noted on the plans or specifications. The materials shall be as specified. No substitution of materials is allowed. Should the CONTRACTOR find it necessary to use another type/brand of materials instead of the specified item, he shall first obtain approval from the PROCURING ENTITY prior to installation. Any substituted material installed without the approval of the PROCURING ENTITY shall be subject to replacement.

3.3 Coordination
It is the sole responsibility of the CONTRACTOR to conduct coordination of his activities with the following:

3.3.1 Other trades and suppliers
3.3.2 Procuring Entity/Engineer
3.3.3 Local Government Authority

3.4 Deviation from The Plans
No deviation from the plans is to be made unless given notice or approval by the PROCURING ENTITY.

3.5 Record Drawings and "As-Built" plan.
The CONTRACTOR is required to keep an active record of the actual installation during the progress of the job. This shall be the reference in the preparation of the

"As-Built" plans which shall include all pertinent information, complete in all aspect of the actual installation, and all new information not originally shown in the contract drawings. The "As-Built" plans shall be prepared by the CONTRACTOR at his expense and shall be submitted to the Procuring Entity for approval upon the completion of the work. The approval of the "As-Built" drawings shall be a pre-requisite for the final acceptance of the electrical works.

Submit two (2) copies of the "As-Built" drawings signed and dry sealed by the CONTRACTOR'S. Registered Professional Electrical Engineer. Original tracing/ reproducible copy together with CAD File in CD shall also be submitted to the PROCURING ENTITY.

3.6 Samples & Shop Drawings

3.6.1 30 days prior to the installation or fabrication of materials the CONTRACTOR shall submit to Procuring Entity the following for approval.

a. Shop drawings of panel boards showing arrangements of circuit breakers, bus bar sizes, lugs, etc. Indicate all dimensions.

b. Shop drawings or samples required as noted in the drawings.

c. Samples and catalogs of materials intended to be installed.

3.6.2 The CONTRACTOR shall also submit to the Procuring Entity without delay shop drawings and other submittals which may be required by Procuring Entity during the progress of construction.

3.6.3 The above requirements shall be submitted to the Procuring Entity at the earliest possible time to give allowance for checking and verification. These shall be complete in all aspects.

3.6.4 Submit four (4) sets of each shop drawings.

3.7 Electric Power

The CONTRACTOR shall be responsible for his own electric power needed for the execution of the job.

3.8 TEST

Conduit tests on all electrical conductors installed in the presence of the PROCURING ENTITY's representative.

3.8.1 check for grounds
3.8.2 insulation resistance test
3.8.3 continuity test for all outlets
3.8.4 voltage level test
3.8.5 phase relationship
3.8.6 check circuit connections at panel boards, all single phase circuit shall be connected to phase as shown in the load schedule.

3.9 Submit Reports On Tests

All reports must be formal, typewritten and properly identified.

3.10 All defects found during the test shall be repaired immediately by the CONTRACTOR.

3.11 All tools, equipment and instruments needed to conduct tests shall be on the account of the CONTRACTOR.

4.0 METHODS & MATERIALS

4.1 Conduits

4.4.1 Rigid Steel Conduits (RSC) and Intermediate Metal Conduit (IMC):

a. Standard trade sizes, hot dipped galvanized with inside enamel or epoxy coating.
b. Joints-threaded coupling for joints.
c. Use for power & lighting.

4.4.2 Polyvinyl Chloride Conduit (PVC)

a. Standard trade sizes, schedule 40.

b. Coupling & fittings - standard couplings for joints by solvent weld process.

c. Telephone System & other auxiliary system.

4.4.3 Installation of Conduits

a. Installation is in accordance with PEC and of good engineering practice.

b. Use standard trade sizes locknut and bushing at each end terminating in boxes/panel boards. Ensure electrically continuous conduit system.

c. Provide independent conduits supports using hangers, supports or fastenings spaced in accordance with good engineering practice and PEC.

d. Use adjustable trapeze hangers for horizontal parallel runs.

e. Conduits bends shall not be more than the equivalent of three (3) 90 degree bends between pulling points.

f. Conduit threads cut on job shall have same effective lengths, thread dimensions, and taper as factory threads.

g. Cut ends of conduit square with hand or power saw and ream to remove burrs and sharp edges. Do not use wheel cutter.

h. Clamps shall be galvanized malleable iron one-hole straps, beam clamps or other approved device with necessary bolts and expansion shields.

i. Trapeze hangers shall be used for parallel runs of conduits. Install conduit clamps at end of each run and at each elbow. Paint hangers one prime coat of red lead or zinc chromate, and one finish coat of an approved color. Hangers are not detailed but must be adequate to support combined weight of conduit, conductors and hangers. Submit shop drawings for approval.

j. All underground conduits installed shall be provided with concrete encasement at least 8cm. thick outer face of conduit.

4.2 Wires

1. Wires shall be annealed copper, 98% or better conductivity, insulated, stranded, except as noted in the drawings.

2. 600 volt class type as indicated in the plans.

3. Minimum size shall be #3.5 THHN for power and lighting circuits.

4. Telephone wires shall be no. 22 AWG jacketed type, 4 wires.

5. Use standard methods in pulling wires.

6. Splices of wires/cables shall be done inside junction boxes or auxiliary gutters using standard connectors. No wires shall be spliced inside conduits.

7. All wires and cables shall be color coded as follows:

Phase A Red
Phase B Yellow
Phase C Black
Ground Green
Neutral White

4.3 Connectors

Use solderless mechanical pressure - type lugs, copper

4.4 Insulation

All splices shall be properly insulated using 3M electrical tape. Application of insulation tape shall be equivalent to the insulation of the wire concerned. Use filler compound, "Scotch fill at sharp edges to provide smooth surface before taping.

4.5 Panel board & Circuit Breaker

4.5.1 NEMA type/enclosure unless noted, PEC rules and regulations, circuit breaker type shall be 230V, number of pole as required.

4.5.2 Panel boards shall contain a single brand of circuit breakers.

4.5.3 All circuit breakers used as main shall be "Bolt on" type molded case, thermal magnetic protective, quick make, quick break, trip free from handle, trip indicating, number and size as shown in the schedule. Internal common trip for 2 and 3 pole breakers.

4.5.4 Breaker minimum interrupting capacities shall be based on NEMA and UL test procedures.

a. 230 volt breakers - 10,000 rms. Symmetrical amperes at 240V A/C (minimum)

4.5.5 All circuit breakers used as branches rated at below 100 AT and specifically installed in lighting panel boards shall be be „bolt-on".

4.5.6 Word "space" indicated in the schedule shall mean that complete bus, insulators, etc. shall be included ready to accept future circuit breaker of the same frame size as the largest branch circuit breaker.

R. PLUMBING / SANITARY WORKS

1.0 SCOPE OF WORKS

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete installation, testing and operation of the plumbing system accordance with the applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

a. Soil, waste and vents pipe system, within the building up to sewer line.

b. Interior fire protection system consisting of combination standpipes, valves, fire hose cabinets, inlets, connectors and portable fire extinguishers.

c. Water service connection from main building distribution system.

d. Furnishing, installation and testing of water closets, lavatories, accessories including controls & piping works.

e. Furnishing and installation of all plumbing fixtures, fittings, trims and accessories.

f. All work shall be performed in accordance with the requirements of all applicable laws of the Republic of the Philippines and all local codes and ordinances.

1.2 The contractor is required to refer to all mechanical, electrical, structural and architectural plans and specifications all shall investigate all possible interference and conditions affecting his work in this section and that of the other sections.

1.3 All plumbing works to be done and sizes of pipe to be used shall be of the sizes, which are required and in accordance with the NATIONAL PLUMBING CODE OF THE PHILIPPINES.

2.0 GENERAL

2.1 DRAWING AND SPECIFICATIONS:

a) The contract drawings and the specifications are complimentary to each other, and any labor or materials called for by both, if necessary for the successful operation of any other particular types of equipment shall be furnished and installed without additional cost of Procuring Entity.

b) All dimensional locations of fixtures, equipment, floors and roof drains risers and pipe. Chases shall be verified on the architectural drawings and manufacturer's catalogs.

c) Upon completion of the work as described herein, the Contractor shall at his own expense furnish the Procuring Entity originals and three (3) sets of "AS BUILT" Plans for future reference and maintenance purposes together with CAD File in CD.

2.2 PROTECTION:

The contractor shall protect all his work and materials loss, injury or defacement. Protection of fixtures and materials shall be provided by boards, papers and/or cloth as required and any loss, damaged or deface material shall be replaced by the Contractor at his own expense.

2.3 INSTALLATION AND WORKMANSHIP:

a. All labor shall be performed in a first-class, neat and workman like manner by mechanic skilled in their work shall be satisfactory to the Project Architect.
b. No piping in any location shall be closed up, furred in or covered before testing and the examination of same by the inspector, Procuring Entity or their representatives.

3.0 IDENTIFICATION OF MATERIALS:

a. Each length of pipe, fitting, traps, fixtures, and device used in the plumbing system shall have cast, stamped or indelibly marked on it the manufacturer's trade mark or name, the weight, the type, and classes of product when so required by the standards mention above.
b. All plumbing fixtures and fittings installed without the above trademarks shall be removed and replaced with probably marked fixtures and fittings without any extra cost to the Procuring Entity.

4.0 WATER SUPPLY

a. Pipes and fittings for waterline shall be as SPECIFIED.

b. Valves-All valves, unless otherwise specified shall be gate valves of size as indicated in the drawings: for hot water supply, valves and fittings shall be insulated of a thickness equal to that of the insulation on the adjoining pipe, securely fastened in place.

4.1 SANITARY DRAINAGE

a. Soil and waste Pipes and Fittings: Soil and waste pipes and fittings shall be PVC pipes (POLYVINYL CHLORIDE) series 1000 submit sample for approval.

b. Vent Pipes and Fittings: Vent pipes and fittings shall be PVC pipes

c. Shower and Floor Drains: Shower and floor drains shall be of high grade, strong, tough, and even grained metals.

d. Cleanouts:

1. Ceiling cleanouts shall be of the same material as pipe with sealed screw type, raised head plug.

2. Floor cleanouts shall be cast-iron body with brass plug, colt-type or countersunk head; METMA brand or approved equal.

4.2 HANGERS, INSERTS AND PIPE SUPPORTS

A. Provide suitable and substantial hangers and supports for all piping.

B. Support horizontal piping in accordingly approved sizes where pipe clamps are too short to connect to the building construction.

5.0 EXECUTION

5.1 GENERAL INSTALLATION OF PIPES

A. Install pipes approximately as shown on the drawings, as straight and direct as possible forming right angles parallel lines with walls and other pipes, and neatly spaced unless otherwise indicated. Care shall be taken not to weaken the structural portions of the building.

B. Maintain minimum slope of 3mm (1/8 inch fall per foot) on all soil, waste and drain lines 100mm in diameter.

C. Do not install pipes or other apparatus in a manner which will interfere with full swing of the doors and windows.

D. The arrangement, position and connection of pipe fixtures, drains, valves and the like indicated on the drawings shall be followed as closely as possible, the right is reserved by the Procuring Entity to change location and elevations to accommodate conditions which may arise during the progress of the work prior to installation, without additional cost of the Procuring Entity for such changes.

The responsibility for accurately laying out of the work rests with this Contractor. Should be found that any work if laid out caused interference, the matter shall be reported to the Engineer before connecting the work.

E. Ream all screwed pipes smooth before installation. Do not bend, flatten, split or injure pipes in any way.

F. Use reducing fittings, in making reduction in size of pipe. Bushing will not be allowed unless specifically approved.

G. Where chrome plated piping is installed, cut and thread pipe. Bushing will not be allowed unless specifically approved.

H. Carry fixture connections, concealed in building constructions, to points above floor, break out close to underside of fixture and rise exposed to fixture.

I. No piping shall be installed which will provide a cross or interconnection between a distribution supply of drinking water of Domestic use and pollution or waste pipe, the water line shall be placed above the waste pipe in ground installation.

5.2 INSTALLATION OF WATER SUPPLY PIPES AND FITTINGS

A. The piping shall be extended to all fixtures, outlets and equipment. Ends of pipes and outlets shall be capped or plugged and left ready for future connections.

B. Branch pipe from service line may take off of main, bottom of main, or side of main, using such cross over fittings as may be required by structural or installation conditions.

All service pipes, valves and fittings shall be kept at sufficient distance from other work to permit finished covering not less than 12.7mm (1/2") from such other work and not less than 12.7mm between finished coverings on

the different services. No water piping shall be buried in floors until after they have been inspected and approved.

C. Where the branch serves more than one fixture, the branch shall be increased in size in proportion to sizes as shown on the drawings.

D. Cast bronze unions shall be installed at the connection to all equipment so that they may be conveniently disassembles.

E. Upon completion of water system, flush out lines and all valve sets to clear system of particles and dirt.

5.3 INSTALLATION OF SOIL, WASTE, VENT AND DRAINAGE PIPING

A. Horizontal Drainage Pipe and Vent Piping Horizontal waste pipe 75mm (3") and smaller shall have minimum grade of 6mm (1/4") per foot, and for 100mm (4") and larger, 3mm (1/8") per foot. Vertical vent pipes may be connected to a vent lines carrying other fixtures, the connection to be at least 1.20m (4 feet) above floor on which the fixtures and located to prevent the use of any vent lines as waste lines. Horizontal waste lines receiving the discharge from two (2) or more fixtures shall be provided with vents, unless separate venting of fixtures noted.

B. Fittings - All changes in pipes sizes on soil waste line shall be made with reducing fittings or recessed reducers. All changes in direction shall be made with the appropriate use of 45 wyes, half wyes, long sweep quarter bends, or elbows may use in soil and waste lines where the change in direction of flow is from horizontal to vertical, and on the discharge from water closets. Where it become necessary to use short radius fittings in any other location, the approval of the Procuring Entity shall be obtained before they are installed.

C. Traps - Each fixture and place of equipment connection to the drainage system except fixture with continuous waste shall be equipped with a trap. Traps shall be placed as near to fixtures as possible.

5.4 FIXTURES AND EQUIPMENT SUPPORTS AND FASTENINGS All fixtures and equipment shall be supported and fattened in a satisfactory manner.

A. Where secured to concrete on hollow block, walls, they shall be fastened with 6mm (1/4") brass bolts with twenty threads to the inch and of sufficient length to extend at least 75mm (3") into solid concrete on hollow block work; fitted with loose tubing or sleeve inserts, shall be securely anchored and installed flushed with the finished wall and shall be completely concealed when the fixtures are installed.

B. Where though bolts are used, they shall be provided with name plates and washers at backsets so that head, nuts and washer will be concealed by plaster. Bolts and nuts shall be hexagonal and screw shall be provided chromium brass washers.

C. Upon completion of work, all fixtures, trimmings, and equipment shall be thoroughly cleaned, polished and left in first class condition for final acceptance.

5.5 CLEANING AND PAINTING

A. Prior to acceptance of the work, thoroughly clean all exposed metal surface and rid of grease, dirt or other foreign material. Chrome or nickel - plated piping's, fitting and trimming shall be polished.

B. Pipe hangers, supports and all other iron work in concealed spaces shall be thoroughly cleaned and painted with one coat of red lead and a finish coat of oil enamel paint.

C. All exposed soil, waste and vent piping or cast iron that are asphalt or tar-coated shall be given two (2) coats of shellac and two (2) coats of oil paint.

5.6 WATER SYSTEM TEST

A. Upon completion of the roughing-in and before fixtures, the entire water piping system shall be tested at a hydrostatic pressure of one and half (11/2) times the expected working pressure in the system when in operation, and proven tight at this pressure or not less than 150 psi gauge.

B. Where a portion of the water piping system is to be concealed before completion, this portion shall be tested separately in a manner to that described for the entire system, and in the presence of the Procuring Entity or its representative.

5.7 DRAINAGE SYSTEM TEST

A. The entire drainage and venting system shall have necessary opening which can be plugged to permit the entire system to be filled with water to the level of the highest vent stack and/or vent above the roof.

B. The system shall hold this water for a full thirty (30) minutes during which time there shall be no drop more than four inches 100mm (4").

C. The Contractor shall also conduct Flow Test to determine if the System is Connected properly to Septic Tank/Street Sewer Line for a period of 1Hr.

D. If and when the Procuring Entity decides that an additional test is needed, such as an air or smoke test on the drainage system, the Contractor shall perform such test without additional cost to the Procuring Entity.

S. **MECHANICAL WORKS**

a. Exhaust & Ventilation System
b. Airconditioning System
c. Automatic Fire Suppression System
d. LPG Line System

(Refer to Mechanical Plans and Specifications.)

T. **FIRE ALARM SYSTEM**

All the Works under this section shall conform to the latest Edition of Fire Code of the Philippines.

a. Battery Operated Smoke Detector Devices

(Refer to Fire Protection System Plan & Specifications)

U. STAINLESS STEEL WORKS

1.0 SCOPE OF WORKS

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete fabrication, installation & testing of the equipment's in accordance with the applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

4.0 SPECIFICATION

All Materials for this section shall be Food Grade Stainless Steel (304/316) Sheets and Pipes (Frames) in brushed finish.

Prepared by:

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Assistant Regional Director for Administration

Approved by:

VICENTE GREGORIO B. TOMAS
Regional Director

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

ORCC

TECHNICAL SPECIFICATIONS

CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER
JOSE FABELLA CENTER

A. GENERAL CONDITIONS

1. The Works under this **Specification** is in conjunction with the **Plans, Working Drawings & Cost Breakdown (Bill of Quantities)**. It includes all Supply of Labor and Materials necessary to complete the Construction Isolation – Central Cluster at the Jose Fabella Center

2. The Contractor shall guarantee that All Labor and Materials shall conform to these Specifications and in Accordance with the Best Quality of Workmanship and Methods and the Laws of the Local Governing Body.

B. SITE PREPARATION

1. Site preparation work consists of site clearance, survey, cutting, imported fill and construction of ditches for drainage. Work of this section includes all measurement and materials required to complete the supply, execution and construction of site preparation.

   The contractor shall clear, from all areas planned for the work, all buildings, materials, debris, etc, prior to the cutting and filling work taking all necessary precautions to prevent damage to the existing road structures and buildings or other facilities, in the area, which shall not be demolished.

2. In case of rain, the day's works shall be stopped so as to confine damage due to rainfall to a minimum. According to the site conditions, temporary drainage ditches shall be provided. In cases where ditches, damage ditches etc. become blocked with sand, earth, etc, such shall be immediately removed. Broken slopes shall be immediately repaired. In case where swamps, pools etc. which are not shown on the Drawings are found, such shall be drained.

C. EARTHWORKS

1. Earthworks consists of excavation, back filling and disposal of surplus materials. Work of this section includes all measures and materials required to complete the design supply, support, use, construction, removal of earth work.

2. Excavation - The ground shall be excavated to the lengths, widths and exact depths required for the construction of the works as specified in the approved design plans. The contractor shall examine any unsuitable or weak ground material, standards of which are given below and shall report the situation in writing to the Architect/Design Engineer before executing concrete or any other Works. If the surface of a subgrade is found to be unstable or to include any type of refuse subject to removal in the opinion of the Architect/Design Engineer, the contractor shall excavate and remove such unsuitable Material to the width and depth required by the Architect/Design Engineer.

   Weather due to negligence or error on the part of the contractor or at the request of the Architect/Design Engineer owing to an unstable sub grade, the contract price shall be deemed to cover the whole cost of all excavation, inclusive of replacement with suitable material, necessary in what so ever type of earth or

ground conditions encountered, e.g. earth with boulders, hard pan, rock, old concrete foundation, roadways, paved areas, etc.

All excavation works shall be kept dry and clean in order that work may not be affected or interfered with by water entering the excavation. The contractor shall pump out all water which may occur or be brought into the excavation employing such equipment as engines, pumps pipe work, chutes and other necessary devices to keep the water level below the bottom of the permanent works during the period required by the Architect/Design Engineer, Raised water shall be conveyed away in such manner as not to cause any nuisance or injury to the occupants of adjacent properties or sites. If pumping is required if it shall be carried out continuously and may not be stopped without the permission of the Architect/Design Engineer .

Excavated material, approved by the Architect/Design Engineer for re-use for filling shall be selected, loaded and hauled to the specified location for temporary stockpiling. Excavation materials containing brushy roots or other vegetable materials shall be classified as unsuitable for fill. The sides of excavation shall be supported as necessary to Maintain a vertical face and to prevent fall or slip of any nature at any - time during the duration of excavation and back filling works. The contractor shall be responsible for the design, supply, fixing and removal of the shoring, sheet piling or any works required to support the side of the excavation. It is also the contractors responsibility to protect existing structures and utilities from damage or interruption of services due to excavation work .

3. Excess of Excavation - The contractor shall be responsible for all excess soil of excavated material not suitable for re-use. The Architect/Design Engineer my require the contractor to transport such material to a disposal area and /or my instruct the contractor to dispose of the surplus to a disposal area to be procured by the contractor himself - This shall all be carried out by the contractor at no extra expense to the employer.

4. Backfilling - Excavation shall not be backfilled until such structures and properties as drainage, insulation pipes, construction details, and water tightness have been inspected, tested and approved by the Architect/Design Engineer. All available precaution shall be taken during back filling to ensure that the pipes, insulation and construction details are not damaged. All backfill material shall be approved and free from vegetable or organic material, mud, refuse, boulders, rock, stones of over 15 cm and other materials which, in the opinion of the Architect/Design Engineer, are unsuitable. Filling shall be carried out in such away and to such a generous depth as to ensure that the final surfaces after settlement and compaction conform to the levels indicated in the Drawings and specifications.

5. Compaction - Compaction of fill. All soil fill material used shall be thoroughly compacted by mechanical means until the specified degree of compaction is obtained. The filling Material shall be approved by the Architect/Design Engineer and placed in even layers of a depth not greater than 30cm. A power-driven roller shall make at least 10 trips for each layer unless otherwise specified. Every effort shall be made to compact the fill material at its optimum moisture content for compaction. In any case, the dry density of compacted soil shall not be less than 95% of the value obtained in a standard laboratory test. When spade will not permit the use of rollers, other types of approved equipment shall be used to achieve the same degree of degree of compaction specified. Filling and compacting around pipes, cables and conduits shall be done by hand using selected Materials to depth of the least 50cm. above such pipes, cables and conduit.

D. CONCRETE WORKS

1. Concrete works shall conform and in accordance with to ACI 318-14, it consists of mixing, conveying, and placing of concrete, for work and reinforcement Work, (it is inclusive of all measures and materials required removal of concrete forms and reinforcement).

   All materials used in the work shall be the best of their kind and shall conform in quality and treatment to the conditions herein specified. The contractor shall submit to the Design Engineer when required and at his own expense, samples of all materials to be used in the works. The quality of the samples so provided being representative of the Bulk of such materials. The construction of all concrete and reinforced concrete work shall commence at points approved by Design Engineer and shall be continued and completed in accordance with the program of work to be submitted to the Engineer for approval before the concrete work is commenced. Any work considered by the Engineer to be of inferior workmanship and therefore, to present a potential point of weakness in any part of the work shall be demolished and rebuilt at the expense of the contractor.

2. CEMENT - Portland cement for all structural concrete shall conform to ASTM C 150, for all concrete construction below ground level and water-retaining structures, sulphate resisting Portland cement Type II of ASTM C 150 or equivalent shall be used and for above ground level Type I shall be used. The contractor shall provide appropriate dry, well ventilated weather and water proof sheds of capacity sufficient to store cement so that the cement can be stored in such a manner as to prevent deterioration or intrusion of foreign matter. Floors of the sheds shall be at least 30 cm above ground. The cement while being conveyed to the site in trucks or other vehicles shall be adequately from the weather. The cement shall be used as soon as possible after delivery. Any cement that has deteriorated or has been contaminated shall not be used for concrete.

3. AGGREGATES - All aggregates shall conform to the requirements of ASTM C33 or equivalent and be locally available. Aggregates failing to meet above mentioned specifications but which have been shown by special test or to actual service to produce concrete of adequate strength and durability may be used when authorized by the engineer. The aggregates shall be dense, hard durable and free from harmful amount of reactive minerals and other chemical compounds and shall conform to the above-mentioned standards. Samples of aggregates used in the work shall so provide from the same aggregate sources stockpile at the site, and be submitted to the laboratory authorized by the employer and the written approval of the authorized laboratory shall be given to the engineer for his approval.

4. WATER - Water use in mixing concrete shall be clean and free from injurious amounts of oil, acids, alkalis, salts, organic material or other substance which may be deleterious to concrete or reinforcement. The temperature of water use for making concrete in hot weather shall be low enough to attain the proper mixing temperature of concrete, and in any case shall be lower than 30 degrees centigrade. The contractor shall store on the site an adequate supply of fresh water to meet all needs.

5. STEEL REINFORCING BARS - Reinforcing bar should be deformed bars for all reinforced concrete work, and should have minimum yield strength of 230 N/mm2 (33000 psi) in accordance to PNS 49:2002 ASTM Grade33 (ASTM A 615 and A 615M-16). Representative samples of all steel reinforcement that the contractor proposes to use in the Works together with manufacture's certificate stating clearly

for each sample, the place of manufacture expected date and size of deliveries to site, and all relevant details as regards composition manufacture, strength and other qualities of the steel shall be submitted to the Engineer for written approval.

Steel Bars shall comply with PNS 49:2002 ASTM Grade33, random Testing by accredited DPWH Testing Center shall be done at least once for the duration of this Project and shall be submitted to DSWD NCR FO for Recording.

6. FORMWORKS – Ordinary plywood, 5-ply, 12 mm thick, or wood boards shall be used. Wood boards or ply wood for shuttering shall be such as not to damage the placed concrete owing to its containing impurities and shall be able to withstand loading occurring during placing of concrete.

7. Concrete Mixes - Concrete shall be proportioned to have the following specified compressive strengths, as determined by the specified testing and test evaluation procedure, specified compressive strength (f'c) shall be as indicated on the drawings.

8. Water-cement ratio - Water-cement ratio shall be determining so as to achieve the required workability and to obtain the specified concrete strength, which shall be subject to the approval of the Design Engineer.

9. Test of Concrete Work cylinder test shall be made on concrete sampled during the works. Samples shall be taken for each new grade concrete, from each 100 m3 of concrete when the same grade is being used continuously, except for lean concrete and other non-load bearing concrete. The number of specimens taken shall not less than 3 for each compressive strength test, all tests shall be performed in accordance with ASTM C39 and ACI 318-14, and shall be carried out in an authorized & accredited laboratory at the contractor's own expense. If the results of the 28 days' test are unsatisfactory, all concrete work shall be stopped at contractor's expense and shall not proceed further without the written permission of the Design Engineer. Should the test prove that the concrete is not satisfactory or the Design Engineer ascertain any section to be defective, the condemned concrete shall be cut out, removed and replaced by the contractor. All Test Results shall be submitted to DSWD NCR FO for recording.

10. Mixing and placing concrete – Mechanical Mixing, batching. All concrete shall be Machine Mixed. The contractor must also submit details on the type or types of mixers and machines to be used and proposals for the means of conveying mixed concrete from the mixer to the points of deposition. All concrete shall be batched using appropriate means shall be of a type approved by the Engineer and shall be kept in good condition while in use at the works. Each mixer shall be fitted with a water measuring device. If aggregate batching by volume is allowed, the cement shall be batched by weight and the water by weight or volume. Any deposit of old concrete in the mixer drum shall be cleaned out by rotating clean aggregate and water in the drum before any fresh concrete is mixed.

11. Placing and compacting Immediately after Mixing, the concrete shall be transported to the place of final deposit- by method which prevent separation , loss contamination of any of the ingredients.. Any method involving the use of pipes or chutes for transporting concrete shall not be permitted, except with the written approval of the Design Engineer.

    Transport of concrete from the mixers must be as rapid. as possible and the contractor shall always be responsible to place and compact the concrete.

Before any concrete is poured, the formwork must be thoroughly cleaned of all dirt, shavings, loose stones, etc, and the wood form which will come in contact with the concrete shall be soaked well with an approved mould oil. The concrete shall be placed gently in position and shall normally not have a free fall of more than one meter. To convey, the concrete as near as possible to its final position, rubber or metal drop chutes shall be used for small sections, and bottom opening buckets or other suitable vessels for large sections. The concrete shall be placed in such a manner so as to prevent water from collecting at the ends, corner or along the faces of the forms, and it shall not be placed in large quantities at a given point and allowed to run or worked over a long distance in the form . All concrete shall be placed and compacted in even layers with each batch adjoining the previous one. The thickness of the layers shall be between 15-30 cm for reinforced concrete and up to 45 cm. for un-reinforced concrete in relation to the width of the forms.

The concrete shall be carefully and continuously compacted and worked around the reinforcement and into the corners of the formwork so that it will be in close contact with the reinforcement and free from honeycombing. Over-vibration causing segregation shall be carefully avoided and the redistribution of concrete in the formwork by means of vibrators shall not be permitted.

The concrete shall be compacted by mechanical or electro-mechanical vibrators of a type approved by the Engineer. The plunger type vibrators shall have a diameter compatible with the spacing of the reinforcement., and sufficiently high frequency.

All vibration, compaction and finishing operations shall be completed immediately after placing of the concrete in its final position, workers shall not be permitted to walk over freshly placed concrete until it has hardened sufficiently to carry their weight without distortion, and great care shall be taken to ensure that reinforcement projecting from recently placed concrete is sot shaken or disturbed so as not to destroy or damage the initial set of the concrete in contact with it.

Concreting in any one part or section of the work shall be carried out in one continuous operation and no interruption of concreting work shall be allowed without the approval of the Design Engineer.

12. Curing - Curing shall start as soon as practical after placing or finishing, concrete shall be cured with water unless membrane curing is employed. The surface of placed concrete shall be covered with damped mats or other approved materials for a suffocation period talking into consideration weather conditions during the period. Horizontal surfaces shall be covered by a suitable method so as to avoid the effect of sunshine, drying wind and other harmful effects, vertical surfaces such as walls and column sides shall be wetted for a sufficient period by sprinkling water to forms, or other suitable methods.

13. Bending and anchorage - Bending specifications shall be drawn up as applicable in accordance with the approved codes, and each reinforcement bar shall be bent to the exact dimensions specified in the relevant specification. All bars shall be bent cold. Bars shall not be welded without the approval of the Design Engineer. No splices shall be made in the reinforcement except where approved by the Design Engineer, and all splices or overlaps shall comply entirety with the requirements of proved.

14. Fixing of reinforcement. The steel reinforcement shall be assembled to the exact shapes and dimensions as approved by the Design Engineer. The rods shall have

the approved cross-sectional area and shall be fixed accurately in the moulds. The ends of all tying wires shall be turned into the main body of the concrete and shall not be allowed to project towards the surface. Spacing blocks shall be used to ensure accurate cover to the reinforcement, where necessary, and these blocks shall be of precast concrete of a strength at least equal to that of the concrete being placed. They shall be as small as possible in view of practicality and shall be securely fixed in position by means of wires to be cast into them. No temporary supports for the reinforcement shall be allowed to be incorporated into the finished concrete. At the time of concreting all reinforcement shall have been thoroughly cleaned and made free of all loss rust (crude oil or any other coatings that might destroy or reduce the bond). Unless otherwise specified or shown on the drawings, minimum cover shall be determined in accordance with ACI 318- 14 as indicated on the following table:

Description			Minimum Thickness Cover
Cast against and permanently exposed to earth			75
Exposed to earth and weather		D16 and smaller	50
		D20 - D25	40
Not Exposed to weather and not in contact with earth	Slabs, joists and walls	D25 and smaller	20
	Beams, girder columns & pedestals	main bars , ties, stirrups	40

15. Form work - This section covers the fabrication, erection and removal of forms and other necessary work thereof, including material and design of forms. All works, covered by this section shall conform to ACI 347-14 or relevant Code & standards unless otherwise specified herein.

Design of forms

a. Forms shall be constructed complete with centering, sleeves and molds to conform to the shape, form, line and grade required and shall be maintained rigid to prevent deformation under load where required forms shall provide for adequate protection of the precast units placed within the forms, before pouring concrete.

b. Joints shall be leak proof and arranged vertically or horizontally to conform to the design pattern. Forms shall be placed on successive units for continuous surfaces and fitted to accurate alignment to secure smooth completed surfaces free from irregularities, in long span, where intermediate supports are not possible, the form deflection due to fresh concrete shall be compensated for. Members shall have true surfaces in accordance with desired lines, planes and elevations. If adequate foundation for shores cannot be secured, trussed supports shall be provided.

c. Form surfaces shall be coated before placing of reinforcement, when oil is used, surplus oil shall be removed from form surfaces. All oil stains shall be cleaned from reinforcing steel before pouring of concrete,

d. Forms shall not be removed without the approval of Design Engineer. This approval shall not relieve the contractor of responsibility for the safety of the work, the minimum period of time that must elapse between the pouring of the concrete and the slackening of the form work shall be as follows: The removal of form works shall in all cases be supervised by an experienced foreman. All form works shall be removed without such shock or vibration as would damage the concrete, and

before the form works and props are removed the concrete surface should be exposed, where necessary, in order to ascertain that the concrete has hardened sufficiently, any work showing signs of damage due to premature loading is to be removed and entirely reconstructed at the contractor's expense.

16. Finishing - The finishes described, below must not cause any deviation outside the specified allowable deviation from plumb or level or from alignment, profile grades or dimensions specified in the paragraph on tolerance. Offsets caused by displaced or misplaced sheathing, lining or form sections, or by knots in forms or by otherwise defective items shall be checked by direct measurement. All other irregularities can be checked by use of straight edges or by use of templates. Surfaces shall be corrected so as to meet the requirements specified in the paragraph or tolerances.

    a. Formed surfaces to be hidden by backfill, plaster or other finish material shall not require treatment after form removal except for patching defective concrete, the filling of holes and the specified curing; correction of surface irregularities shall be required for depression exceeding a limit not affecting the subsequent finish. Formed surfaces for exposed walls, water conduit, parapets, curbs, stair faces and other areas shall be smooth and regular when completed. Ridges or lips on exposed concrete shall be removed by tooling, grinding or rubbing.

    b. Fair faced concrete this type of finish is for surfaces which are permanently exposed to view. Forms to provide this finish shall be faced with wrought tongued and grooved boards or plywood or metal panels, arranged in a uniform approved pattern, free from defects likely to detract from the general appearance of the finished surface. This finished shall be such as to require no general filling of surface pitting, but fins, surface discoloration and other minor defects shall be remedied by methods approved by the Design Engineer without extra cost to the contract. All forms shall be removed without damages to the concrete. The use of non- staining mould oil or other material to facilitate this shall not have a deleterious effect on either the strength or appearance of the concrete and

    c. Unformed Surfaces Unformed screeded finish surfaces to be covered by-backfill or concrete and surfaces of sub-floors to be covered by concrete floor topping: Finishing operations shall include sufficient levelling and screeding to produce flat uniform surfaces. Unformed floated finish surfaces not permanently concealed by backfill or concrete and for which other finishes are not specified, including concrete to be permanently exposed to view such as outside decks, floor of sumps, tope of walls, surfaces of gutters, sidewalks and outside entrance slabs, when trowel finishes are needed, floating shall be continued until a small amount of mortar without excess water is brought to the surface, permitting effective trowelling. Surfaces to receive mastic water proofing or asphalt water proofing shall not have any prominence likely to cause damage or other harmful irregularity. Surfaces irregularities shall be reduced or eliminated by grinding, after concrete has hardened.

E. CONCRETE HOLLOW BLOCK WORK

1. All concrete blocks shall conform to ASTM C129 or equivalent unless otherwise specified as follows:

    a. Concrete block shall be manufactured in accordance with the specification stated herein, block shall be manufactured of Portland cement and locally available aggregate by mixing and compacting using an electric machine, Joint mortar materials cement shall be specified in section D (concrete work)

b. Sand shall be clean sharp, coarse, well-graded and shall conform to ASTM C-144 (Aggregate for Mortar) or ASTM C33

c. block shall be reasonably uniform in compressive strength and in all dimensions and shall be straight and free from cracks, chips or other defects. Specification of the materials shall be in accordance with Section D "Concrete work".

d. 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.

2. Joint mortar materials

a. Cement shall be specified in section D (concrete work)

b. Sand shall be sharp S-1, washed, clean and greenish in color, coarse, well-graded and shall conform to ASTM C-144 (Aggregate for Mortar)

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

d. Plaster bond: N and H Plaster bond - Apply to all wall areas prior to plastering.

F. FINISHING WORKS

Refer to Architectural Plans for location. Verify plans for other finishes not specified or omitted herein. Sample of all materials shall be submitted to the Procuring Entity for approval as to color and quality workmanship.

FLOOR FINISHES

1. Ceramic Tiles: Supply and installation of 400 mm x 400 mm unglazed tiles; polished / unpolished / textured and colored: set on tile adhesive setting with 3 - 5 mm spacing between tile. For Reception / Lobby Area. See Design. Submit Samples for approval.

2. Ceramic & Unglazed Tiles: Supply and installation of 300 mm x 600 mm for Toilet Wall & 300mm x 300mm Floor Tiles. Refer to Schedule of finishes. Submit sample for Procuring Entity"s approval.

WALL FINISHES

1. Plain Cement Plaster Finish: 10 mm. thick. on vertical, on masonry and for all concrete hollow block surfaces, painted finish as indicated in the Drawings and for all areas not otherwise noted with other finishes.
2. Fiber Cement Board: 6-mm thick for all Dry Interior Walls.
   a. Use standard G.I. metal Studs framing at every 600-mm on center both ways. Provide standard construction system complete with seismic bracing.

3. Sand for finish coats shall be clean and well graded from coarse fine as specified in concrete work.

Cement shall be specified in section D (concrete work).

Plastering accessories shall be approved on samples by the Engineer before starting plastering work. Such accessories, including corner beads, casing beads, lath and other materials, shall be used where and necessary for workmanlike plastering work.

Surface preparation Dust, Oil, grease and other undesirable substances that might hinder the forming of a good bond with plaster bases on concrete or masonry shall be removed immediately prior to plastering.

Moistening underbed immediately before applying plastering work, concrete surfaces shall be wet-down sufficiently to reduce suction but shall not be excessively wet.

All plastering shall be executed in a workmanlike manner leaving all finished plaster surfaces free from waves or imperfections.

Mixing Plaster materials shall be thoroughly mixed with the correct amount of water, in accordance with the specific requirements of the Manufacturer.

G. CEILING FINISHES

Fiber Cement Board: Supply and installation of 4.5mm Fiber Cement Board ceiling on a 400mm on center spacing G.I. Framing Suspended Ceiling System complete with all accessories and acrylic diffuser lighting system.

Furnish all labour, materials and equipment for the completion of work as shown on the drawing and specified herein,

H. METALWORKS

Furnish all labour, material and equipment for complete erection of metal work as shown on the drawings, specified herein and as evidently necessary to complete the work. All supplemental parts necessary to complete the work shall be included whether or not such parts are definitely shown or specified.

Work includes, though is not limited, the followings:

A. Hand railing

Steel for metal item shall be new, low carbon mild steel and shall meet the requirements of ASTM 36 or other standards applicable for the designated purposes.

The basic materials to be used for the material work shall conform to following standards or other equivalent standards.

ASTM A6 / ASTM A36 : Hot Rolled sections, Weldable structural steel, steel plate, sheets and strips

ASTM A53/PNS 26:1992: Hot dip galvanized coatings on iron and steel articles.

All metal surfaces shall be given corrosion protection treatment, expect, where embedded in concrete such treatment shall be galvanizing bonderizing or rust paint coating given after completely cleaning of rust and loose scale, and shall be of a type suitable to the subsequent application of final finish paint.

Connection of all members shall be rigidly fixed and ground smooth where exposed.

I. PAINTING WORKS

All materials shall be Environmental protection Agency (EPA) certified and approved.

Painting Materials:

1. Submit various painting materials specification data and sample to be used for Procuring Entity"s approval.

2. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.

3. Painting materials including its application must be covered with minimum of five- (5) year guarantee to be rendered by the painting manufacturer.

4. Use BOYSEN or Equivalent only for all painted works.
Application:

a. All sample paint shall be submit on at least 300-mm x 300mm plywood panel, color and shade as per approval by the Procuring Entity.

b. Application shall be as per paint Manufacturer"s specification and recommendation.

c. 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 cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

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. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.Manufacturer: Boysen or Davies Paint.

Painting Schedule:

a. Interior Concrete or Masonry Painted - Three (3) coats water-based masonry plain semi-gloss finish. Sample Shades for Procuring Entity"s Approval.
b. Plain Flat Finish: Acrylic water-based paint on ceilings, three (3) coats. FLAT
c. Plain Semi-gloss in Acrylic water-based Epoxy paint on interior walls, columns, on all other interior concrete surfaces. (3) coats.

J. THERMAL AND MOISTURE PROTECTION

All applications shall be strictly as per Manufacturer's Specifications. It shall strictly be performed by licensed or certified applicators / waterproofing contractor representing waterproofing manufacturer or insulation company specified herein. The Procuring Entity shall be furnished with pertinent literature and detailed drawings .

K. DOORS AND INTERIOR VIEWING WINDOWS :

Refer to Schedule of Doors and Windows in Architectural Plan

L. FINISHING HARDWARE

The following Hardware Sets are furnished for whatever assistance it may afford the Contractor. The Contractor shall verify Plans and Specifications for hardware quality. Should any particular item be omitted, Contractor shall provide similar or equivalent item or hardware same as required.

All door hardware must be ANSI A156.2 approved.

1. Locksets shall be Heavy duty lever type handles, HAFELE, Bonco or Hope Brand with locked keys and profile cylinders.
    a. All locks shall have three (3) keys with the lock number stamped for identification. Verify number of duplicates.

    b. Schedule: Use extra heavy duty industrial / commercial series of door hardware. Refer to Schedule of Doors A6

Toilet Privacy Lock: Use Corridor or Passage Lock for unlockable lockset.

Keyed Entrance Mortise Lock: Single cylinder with throw-deadbolt, standard full latch bolt with heavy duty anti-friction tongue. When locked, key outside or Knob inside retracts all bolts simultaneously. Outside Knob remains locked until thumb turn is restored to vertical position. Use Knob type.

Single Cylinder Deadbolt Lock: deadbolt thrown or retracted by key from outside or by inside turn unit. Bolt automatically deadlocks when fully thrown

Indicator Lock: for Toilet Stalls with safety release lock.

2. Door Hinges
    a. Loose pin hinge 4 ½" x 4" heavyduty, chrome finish.
        Schedule: Four Ball Bearing Hinges: 4 ½ " x 4" for metal louver doors over 900 mm in width and/or over 44 mm thickness, strictly SUS 304, Stainless Steel based

        Floor Hinge: standard duty floor hinge with closer on active and inactive leaf

    b. Hinge finish shall match locusts of respective openings; stainless steel.

3. Door Closer:(Only on Specified Doors) grade 1 door closer with hold open function on active and inactive leaf. Can be surface mounted on hinge face or stop face for metal doors indicated in the Schedule, with finish matching locust of the respective opening and a slim line look; concealed type for aluminum doors to provide by aluminum door fabricator. Door closer shall be incorporated in the door closer.

4. Miscellaneous Hardware

    a. Door Plate and Pull Bar: Ga 16. Stainless Steel plate with stainless steel 20 mm diameter x 200 mm length pull bar, both in hairline finish.
    b. Flush 6" and Head Bolt 12": for two leaves of steel swing doors
    c. Push-Pull Bar: approximately 30 mm diameter x 600 mm long stainless steel
    d. Push Plate: approximately 150 mm wide x 400 mm high stainless steel
    e. Stainless Steel handle bars

f. Heavy Duty Flush Bolt
g. All other necessary hardware such as latch bolts, catch locks, door chain fasteners, door stops, wall stops and holders, push plates, handles, etc. shall be of type, size and design suitable for the purpose.

M. GLASS AND GLAZING

Refer to Schedule of Window Glass in the Architectural Plans.

N. SPECIALTIES

TOILET DOORS AND PARTITIONS

A. TOILET CUBICLES

1. Partition System: homogeneous, floor-anchored, high pressure compact OR Marine laminated partition and doors complete with stainless steel bracing and hinges, brass or molded plastic pedestals, and indicator lock with heavy duty stainless steel hardware. Submit catalogue & mock-up for Procuring Entity's approval.

3. Accessories: All accessories should be in molded plastic material. Submit samples for Procuring Entity's Approval.

a. Grab Bars: provide stainless steel grab bars for handicapped toilets.
b. Urinal Dividers: wall-hung suspended type with stainless stiffener and stainless steel wall bracket; material same as toilet partition system

O. TOILETS

A. PLUMBING FIXTURES AND ACCESSORIES
All fixtures shall be installed complete with accessories, such as fittings, angle valve, shut-off valve and supply pipe assembly, p-traps flange and others to make it functional. Submit model and color samples for Procuring Entity's approval of all fixtures and accessories.
Plumbing Fixture Colors: White Verify with Procuring Entity

1. Water closet: Tank Type Siphon Vortex bottom inlet top flush.

2. Lavatory:
a. Wall Hung type lavatory with single faucet hole on center w/ front overflow hole, to match water closet color.
b. Wall hung with full pedestal type

3. Lavatory Faucets: self-closing press-action tap model with timed flow and anti-blocking system.

4. Floor Drains: Stainless steel 4"x4"

5. Slop Sink Bibb: wall-mounted long gooseneck faucet

P. TINSMITHRY WORKS

All Works to be done in this Division of the Specification Consists of Supply, Fabrication, Furnishings Delivery and Installation, complete in all details of the

Tinsmith Works. All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern.

The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

1.0 ROOFING SHEETS

All Roofing Sheets and Accessories shall meet the standard set by PNS 201:1990,

1.1 Roofing Sheets shall be Ga. 24, Cold Rolled Hot Dipped Galvanized Annealed Steel with 2 Coat 2 Baked Reversed Process of Oil Free Polyester / Epoxy Base Thermosetting

1.2 Accessories such as Ridge Rolls, Gutters, End Flashing, Corner Flashings shall be Ga. 26, Cold Rolled Hot Dipped Galvanized Annealed Steel with 2 Coat 2 Baked Reversed Process of Oil Free Polyester / Epoxy Base Thermosetting same color as the Roofing Sheets.

1.3 Insulation shall be LDPE (Low Density Polyethylene) Foam or Bubble Insulations with aluminized or pure aluminum sheet lamination

1.4 All Joints shall be properly connected and sealed with Joint Silicone Sealant to prevent leaks. All Roofs and Gutter shall be tested for possible leaks.

1.5 Submit samples for approval.

Q. ELECTRICAL SPECIFICATIONS

1.0 GENERAL DESCRIPTION

1.1 The work to be done under this DIVISION of the Specifications consist 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 others.

All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern. The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

The Specifications are intended to provide a broad outline of the requirement and are not intended to include all details of design and construction.

1.2 LAWS/CODES and REGULATIONS:
The work under this DIVISION shall be executed in accordance with the latest requirements of the following:

-Building Code of the Philippines
-Philippine Electrical Code
-Laws, ordinances, and regulations of the locality having jurisdiction over the project.
-Power and telephone utility companies

The requirements of the above mentioned governing laws/codes and the requirements of the companies having involvement/participation are hereby made part of this Specifications and the CONTRACTOR is required to comply with the same.

This does not relieve the CONTRACTOR from complying with requirements of specifications or drawings in excess of above laws and ordinances, codes and requirements which are not prohibited by the same.

1.3 GUARANTEE

The CONTRACTOR shall guarantee that the electrical system is free from all grounds and defective materials and workmanship for a period of one (1) year from the date of acceptance of the work. All defects arising within the guarantee period shall be reminded by the CONTRACTOR at his own expense.

The CONTRACTOR shall indemnify and save harmless PROCURING ENTITY from and against all claims, suits, actions, or liabilities for damages arising from injuries, disabilities or loss of life to persons or damage to public or private properties resulting from fault or any act of contractor or his representative in the execution of this work.

The partial acceptance of the work for the purpose of making partial payments, based on the estimated cost satisfactorily completed by the CONTRACTOR, shall not be considered as final acceptance of that portion of the work.

1.4 DRAWINGS & SPECIFICATIONS

1.4.1 The electrical plans, which constitute an integral part of these Specifications, shall serve as the working drawings. The plans indicate the general layout and arrangement of the complete electrical system and other works.

1.4.2 The drawings and specifications are meant specifically to be complementary to each other and where it is called for by one shall be binding as if called for by both. Anything which is basically required to complete the installation for proper operation but not expressly mentioned on the drawings and/or specifications shall be furnished and installed by the CONTRACTOR at no extra cost to the PROCURING ENTITY as though specifically stipulated or shown in both.

1.4.3 Procuring Entity shall have the final decision on any apparent conflict between the drawings and specifications or on any under and controversial point in either or both.

1.4.4 All dimensions and locations shown on the plans are approximate and shall be verified in the field, as actual locations, distances, and levels are governed by actual conditions.

2.0 SCOPE OF WORK

2.1 Work Included

The work to be done under this DIVISION shall include the furnishing of all tools, labor, equipment, fixtures and materials, each complete and in proper working condition unless one or other is specifically excluded or stated otherwise in these Specifications but not limited to the following principal items of work:

3.1.1 Furnish and install a complete wiring and raceway system for the underground power and telephone distribution system including concrete pedestals, concrete hand holes and necessary wiring gutters and boxes.
2.1.2 Furnish and install a complete grounding system.
2.1.3 Perform terminations for all electrical system.
2.1.4 Complete testing of all electrical systems.
2.1.5 Preparation of "As-built" drawings.
2.1.6 If any item of works or material has been omitted which are necessary for the completion of the Electrical Work as outlined herein before, then such items shall be and hereby included in this section of work.

3.0 PROCEDURE

3.1 Workmanship
The CONTRACTOR shall execute the work in the most thorough, prompt and workmanlike manner and in accordance with the plans and specifications. The installations shall be done thru standard methods and good engineering practices.

3.2 Materials
All materials to be installed shall be brand new except as otherwise noted on the plans or specifications. The materials shall be as specified. No substitution of materials is allowed. Should the CONTRACTOR find it necessary to use another type/brand of materials instead of the specified item, he shall first obtain approval from the PROCURING ENTITY prior to installation. Any substituted material installed without the approval of the PROCURING ENTITY shall be subject to replacement.

3.3 Coordination
It is the sole responsibility of the CONTRACTOR to conduct coordination of his activities with the following:

3.3.1 Other trades and suppliers
3.3.2 Procuring Entity/Engineer
3.3.3 Local Government Authority

3.4 Deviation from The Plans
No deviation from the plans is to be made unless given notice or approval by the PROCURING ENTITY.

3.5 Record Drawings and "As-Built" plan.
The CONTRACTOR is required to keep an active record of the actual installation during the progress of the job. This shall be the reference in the preparation of the "As-Built" plans which shall include all pertinent information, complete in all aspect of the actual installation, and all new information not originally shown in the contract drawings. The "As-Built" plans shall be prepared by the CONTRACTOR at his expense and shall be submitted to the Procuring Entity for approval upon the completion of the work. The approval of the "As-Built" drawings shall be a pre-requisite for the final acceptance of the electrical works.

Submit two (2) copies of the "As-Built" drawings signed and dry sealed by the CONTRACTOR'S. Registered Professional Electrical Engineer. Original tracing/ reproducible copy together with CAD File in CD shall also be submitted to the PROCURING ENTITY.

3.6 Samples & Shop Drawings

3.6.1 30 days prior to the installation or fabrication of materials the CONTRACTOR shall submit to Procuring Entity the following for approval.

a. Shop drawings of panel boards showing arrangements of circuit breakers, bus bar sizes, lugs, etc. Indicate all dimensions.

b. Shop drawings or samples required as noted in the drawings.

c. Samples and catalogs of materials intended to be installed.

3.6.2 The CONTRACTOR shall also submit to the Procuring Entity without delay shop drawings and other submittals which may be required by Procuring Entity during the progress of construction.

3.6.3 The above requirements shall be submitted to the Procuring Entity at the earliest possible time to give allowance for checking and verification. These shall be complete in all aspects.

3.6.4 Submit four (4) sets of each shop drawings.

3.7 Electric Power

The CONTRACTOR shall be responsible for his own electric power needed for the execution of the job.

3.8 TEST

Conduit tests on all electrical conductors installed in the presence of the PROCURING ENTITY's representative.

3.8.1 check for grounds
3.8.2 insulation resistance test
3.8.3 continuity test for all outlets
3.8.4 voltage level test
3.8.5 phase relationship
3.8.6 check circuit connections at panel boards, all single phase circuit shall be connected to phase as shown in the load schedule.

3.9 Submit Reports On Tests

All reports must be formal, typewritten and properly identified.

3.10 All defects found during the test shall be repaired immediately by the CONTRACTOR.

3.11 All tools, equipment and instruments needed to conduct tests shall be on the account of the CONTRACTOR.

4.0 METHODS & MATERIALS

4.1 Conduits

4.4.1 Rigid Steel Conduits (RSC) and Intermediate Metal Conduit (IMC):

a. Standard trade sizes, hot dipped galvanized with inside enamel or epoxy coating.
b. Joints-threaded coupling for joints.
c. Use for power & lighting.

4.4.2 Polyvinyl Chloride Conduit (PVC)

a. Standard trade sizes, schedule 40.

b. Coupling & fittings - standard couplings for joints by solvent weld process.

c. Telephone System & other auxiliary system.

4.4.3 Installation of Conduits

a. Installation is in accordance with PEC and of good engineering practice.

b. Use standard trade sizes locknut and bushing at each end terminating in boxes/panel boards. Ensure electrically continuous conduit system.

c. Provide independent conduits supports using hangers, supports or fastenings spaced in accordance with good engineering practice and PEC.

d. Use adjustable trapeze hangers for horizontal parallel runs.

e. Conduits bends shall not be more than the equivalent of three (3) 90 degree bends between pulling points.

f. Conduit threads cut on job shall have same effective lengths, thread dimensions, and taper as factory threads.

g. Cut ends of conduit square with hand or power saw and ream to remove burrs and sharp edges. Do not use wheel cutter.

h. Clamps shall be galvanized malleable iron one-hole straps, beam clamps or other approved device with necessary bolts and expansion shields.

i. Trapeze hangers shall be used for parallel runs of conduits. Install conduit clamps at end of each run and at each elbow. Paint hangers one prime coat of red lead or zinc chromate, and one finish coat of an approved color. Hangers are not detailed but must be adequate to support combined weight of conduit, conductors and hangers. Submit shop drawings for approval.

j. All underground conduits installed shall be provided with concrete encasement at least 8cm. thick outer face of conduit.

4.2 Wires

1. Wires shall be annealed copper, 98% or better conductivity, insulated, stranded, except as noted in the drawings.

2. 600 volt class type as indicated in the plans.

3. Minimum size shall be #3.5 THHN for power and lighting circuits.

4. Telephone wires shall be no. 22 AWG jacketed type, 4 wires.

5. Use standard methods in pulling wires.

6. Splices of wires/cables shall be done inside junction boxes or auxiliary gutters using standard connectors. No wires shall be spliced inside conduits.

7. All wires and cables shall be color coded as follows:
   Phase A Red
   Phase B Yellow
   Phase C Black
   Ground Green
   Neutral White

4.3 Connectors

Use solderless mechanical pressure - type lugs, copper

4.4 Insulation
All splices shall be properly insulated using 3M electrical tape. Application of insulation tape shall be equivalent to the insulation of the wire concerned. Use filler compound, "Scotch fill at sharp edges to provide smooth surface before taping.

4.5 Panel board & Circuit Breaker

4.5.1 NEMA type/enclosure unless noted, PEC rules and regulations, circuit breaker type shall be 230V, number of pole as required.

4.5.2 Panel boards shall contain a single brand of circuit breakers.

4.5.3 All circuit breakers used as main shall be "Bolt on" type molded case, thermal magnetic protective, quick make, quick break, trip free from handle, trip indicating, number and size as shown in the schedule. Internal common trip for 2 and 3 pole breakers.

4.5.4 Breaker minimum interrupting capacities shall be based on NEMA and UL test procedures.

a. 230 volt breakers - 10,000 rms. Symmetrical amperes at 240V A/C (minimum)

4.5.5 All circuit breakers used as branches rated at below 100 AT and specifically installed in lighting panel boards shall be be „bolt-on".
4.5.6 Word "space" indicated in the schedule shall mean that complete bus, insulators, etc. shall be included ready to accept future circuit breaker of the same frame size as the largest branch circuit breaker.

R. PLUMBING / SANITARY WORKS

1.0 SCOPE OF WORKS

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete installation, testing and operation of the plumbing system accordance with the applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

a. Soil, waste and vents pipe system, within the building up to sewer line.

b. Interior fire protection system consisting of combination standpipes, valves, fire hose cabinets, inlets, connectors and portable fire extinguishers.

c. Water service connection from main building distribution system.

d. Furnishing, installation and testing of water closets, lavatories, accessories including controls & piping works.

e. Furnishing and installation of all plumbing fixtures, fittings, trims and accessories.

f. All work shall be performed in accordance with the requirements of all applicable laws of the Republic of the Philippines and all local codes and ordinances.

1.2 The contractor is required to refer to all mechanical, electrical, structural and architectural plans and specifications all shall investigate all possible interference and conditions affecting his work in this section and that of the other sections.

1.3 All plumbing works to be done and sizes of pipe to be used shall be of the sizes, which are required and in accordance with the NATIONAL PLUMBING CODE OF THE PHILIPPINES.

2.0 GENERAL

2.1 DRAWING AND SPECIFICATIONS:

a) The contract drawings and the specifications are complimentary to each other, and any labor or materials called for by both, if necessary for the successful operation of any other particular types of equipment shall be furnished and installed without additional cost of Procuring Entity.

b) All dimensional locations of fixtures, equipment, floors and roof drains risers and pipe. Chases shall be verified on the architectural drawings and manufacturer's catalogs.

c) Upon completion of the work as described herein, the Contractor shall at his own expense furnish the Procuring Entity originals and three (3) sets of "AS BUILT" Plans for future reference and maintenance purposes together with CAD File in CD.

2.2 PROTECTION:

The contractor shall protect all his work and materials loss, injury or defacement. Protection of fixtures and materials shall be provided by boards, papers and/or cloth as required and any loss, damaged or deface material shall be replaced by the Contractor at his own expense.

2.3 INSTALLATION AND WORKMANSHIP:

a. All labor shall be performed in a first-class, neat and workman like manner by mechanic skilled in their work shall be satisfactory to the Project Architect.

b. No piping in any location shall be closed up, furred in or covered before testing and the examination of same by the inspector, Procuring Entity or their representatives.

3.0 IDENTIFICATION OF MATERIALS:

a. Each length of pipe, fitting, traps, fixtures, and device used in the plumbing system shall have cast, stamped or indelibly marked on it the manufacturer's trade mark or name, the weight, the type, and classes of product when so required by the standards mention above.
b. All plumbing fixtures and fittings installed without the above trademarks shall be removed and replaced with probably marked fixtures and fittings without any extra cost to the Procuring Entity.

4.0 WATER SUPPLY

a. Pipes and fittings for waterline shall be as SPECIFIED.

b. Valves-All valves, unless otherwise specified shall be gate valves of size as indicated in the drawings: for hot water supply, valves and fittings shall be insulated of a thickness equal to that of the insulation on the adjoining pipe, securely fastened in place.

4.1 SANITARY DRAINAGE

a. Soil and waste Pipes and Fittings: Soil and waste pipes and fittings shall be PVC pipes (POLYVINYL CHLORIDE) series 1000 submit sample for approval.

b. Vent Pipes and Fittings: Vent pipes and fittings shall be PVC pipes

c. Shower and Floor Drains: Shower and floor drains shall be of high grade, strong, tough, and even grained metals.

d. Cleanouts:

1. Ceiling cleanouts shall be of the same material as pipe with sealed screw type, raised head plug.

2. Floor cleanouts shall be cast-iron body with brass plug, colt-type or countersunk head; METMA brand or approved equal.

4.2 HANGERS, INSERTS AND PIPE SUPPORTS

A. Provide suitable and substantial hangers and supports for all piping.

B. Support horizontal piping in accordingly approved sizes where pipe clamps are too short to connect to the building construction.

5.0 EXECUTION

5.1 GENERAL INSTALLATION OF PIPES

A. Install pipes approximately as shown on the drawings, as straight and direct as possible forming right angles parallel lines with walls and other

pipes, and neatly spaced unless otherwise indicated. Care shall be taken not to weaken the structural portions of the building.

B. Maintain minimum slope of 3mm (1/8 inch fall per foot) on all soil, waste and drain lines 100mm in diameter.

C. Do not install pipes or other apparatus in a manner which will interfere with full swing of the doors and windows.

D. The arrangement, position and connection of pipe fixtures, drains, valves and the like indicated on the drawings shall be followed as closely as possible, the right is reserved by the Procuring Entity to change location and elevations to accommodate conditions which may arise during the progress of the work prior to installation, without additional cost of the Procuring Entity for such changes.

The responsibility for accurately laying out of the work rests with this Contractor. Should be found that any work if laid out caused interference, the matter shall be reported to the Engineer before connecting the work.

E. Ream all screwed pipes smooth before installation. Do not bend, flatten, split or injure pipes in any way.

F. Use reducing fittings, in making reduction in size of pipe. Bushing will not be allowed unless specifically approved.

G. Where chrome plated piping is installed, cut and thread pipe. Bushing will not be allowed unless specifically approved.

H. Carry fixture connections, concealed in building constructions, to points above floor, break out close to underside of fixture and rise exposed to fixture.

I. No piping shall be installed which will provide a cross or interconnection between a distribution supply of drinking water of Domestic use and pollution or waste pipe, the water line shall be placed above the waste pipe in ground installation.

5.2 INSTALLATION OF WATER SUPPLY PIPES AND FITTINGS

A. The piping shall be extended to all fixtures, outlets and equipment. Ends of pipes and outlets shall be capped or plugged and left ready for future connections.

B. Branch pipe from service line may take off of main, bottom of main, or side of main, using such cross over fittings as may be required by structural or installation conditions.

All service pipes, valves and fittings shall be kept at sufficient distance from other work to permit finished covering not less than 12.7mm (1/2") from such other work and not less than 12.7mm between finished coverings on the different services. No water piping shall be buried in floors until after they have been inspected and approved.

C. Where the branch serves more than one fixture, the branch shall be increased in size in proportion to sizes as shown on the drawings.

D. Cast bronze unions shall be installed at the connection to all equipment so that they may be conveniently disassembles.

E. Upon completion of water system, flush out lines and all valve sets to clear system of particles and dirt.

5.3 INSTALLATION OF SOIL, WASTE, VENT AND DRAINAGE PIPING

A. Horizontal Drainage Pipe and Vent Piping Horizontal waste pipe 75mm (3") and smaller shall have minimum grade of 6mm (1/4") per foot, and for 100mm (4") and larger, 3mm (1/8") per foot. Vertical vent pipes may be connected to a vent lines carrying other fixtures, the connection to be at least 1.20m (4 feet) above floor on which the fixtures and located to prevent the use of any vent lines as waste lines. Horizontal waste lines receiving the discharge from two (2) or more fixtures shall be provided with vents, unless separate venting of fixtures noted.

B. Fittings - All changes in pipes sizes on soil waste line shall be made with reducing fittings or recessed reducers. All changes in direction shall be made with the appropriate use of 45 wyes, half wyes, long sweep quarter bends, or elbows may use in soil and waste lines where the change in direction of flow is from horizontal to vertical, and on the discharge from water closets. Where it become necessary to use short radius fittings in any other location, the approval of the Procuring Entity shall be obtained before they are installed.

C. Traps - Each fixture and place of equipment connection to the drainage system except fixture with continuous waste shall be equipped with a trap. Traps shall be placed as near to fixtures as possible.

5.4 FIXTURES AND EQUIPMENT SUPPORTS AND FASTENINGS All fixtures and equipment shall be supported and fattened in a satisfactory manner.

A. Where secured to concrete on hollow block, walls, they shall be fastened with 6mm (1/4") brass bolts with twenty threads to the inch and of sufficient length to extend at least 75mm (3") into solid concrete on hollow block work; fitted with loose tubing or sleeve inserts, shall be securely anchored and installed flushed with the finished wall and shall be completely concealed when the fixtures are installed.

B. Where though bolts are used, they shall be provided with name plates and washers at backsets so that head, nuts and washer will be concealed by plaster. Bolts and nuts shall be hexagonal and screw shall be provided chromium brass washers.

C. Upon completion of work, all fixtures, trimmings, and equipment shall be thoroughly cleaned, polished and left in first class condition for final acceptance.

5.5 CLEANING AND PAINTING

A. Prior to acceptance of the work, thoroughly clean all exposed metal surface and rid of grease, dirt or other foreign material. Chrome or nickel - plated piping's, fitting and trimming shall be polished.

B. Pipe hangers, supports and all other iron work in concealed spaces shall be thoroughly cleaned and painted with one coat of red lead and a finish coat of oil enamel paint.

C. All exposed soil, waste and vent piping or cast iron that are asphalt or tar-coated shall be given two (2) coats of shellac and two (2) coats of oil paint.

5.6 WATER SYSTEM TEST

A. Upon completion of the roughing-in and before fixtures, the entire water piping system shall be tested at a hydrostatic pressure of one and half (11/2) times the expected working pressure in the system when in operation, and proven tight at this pressure or not less than 150 psi gauge.

B. Where a portion of the water piping system is to be concealed before completion, this portion shall be tested separately in a manner to that described for the entire system, and in the presence of the Procuring Entity or its representative.

5.7 DRAINAGE SYSTEM TEST

A. The entire drainage and venting system shall have necessary opening which can be plugged to permit the entire system to be filled with water to the level of the highest vent stack and/or vent above the roof.

B. The system shall hold this water for a full thirty (30) minutes during which time there shall be no drop more than four inches 100mm (4").

C. The Contractor shall also conduct Flow Test to determine if the System is Connected properly to Septic Tank/Street Sewer Line for a period of 1Hr.

D. If and when the Procuring Entity decides that an additional test is needed, such as an air or smoke test on the drainage system, the Contractor shall perform such test without additional cost to the Procuring Entity.

S. MECHANICAL WORKS

a. Exhaust & Ventilation System
b. Airconditioning System
c. Automatic Fire Suppression System
d. LPG Line System

(Refer to Mechanical Plans and Specifications.)

T. FIRE ALARM SYSTEM

All the Works under this section shall conform to the latest Edition of Fire Code of the Philippines.

a. Battery Operated Smoke Detector Devices

(Refer to Fire Protection System Plan & Specifications)

U. STAINLESS STEEL WORKS

1.0 SCOPE OF WORKS

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete fabrication, installation & testing of the equipment's in accordance with the

applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

4.0 SPECIFICATION

All Materials for this section shall be Food Grade Stainless Steel (304/316) Sheets and Pipes (Frames) in brushed finish.

Prepared by:

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MANUELA M. LOZA
Assistant Regional Director for Administration

Approved by:

VICENTE GREGORIO B. TOMAS
Regional Director

Conforme:

_____
Name of Company

_____
Signature of Bidder or Authorized Representative

_____
Name and Designation

TECHNICAL SPECIFICATIONS

CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
ELSIE GACHES VILLAGE (EGV)

A. GENERAL CONDITIONS

1. The Works under this **Specification** is in conjunction with the **Plans, Working Drawings & Cost Breakdown (Bill of Quantities)**. It includes all Supply of Labor and Materials necessary to complete the Construction Isolation – South Cluster at the Elsie Gaches Village (EGV).

2. The Contractor shall guarantee that All Labor and Materials shall conform to these Specifications and in Accordance with the Best Quality of Workmanship and Methods and the Laws of the Local Governing Body.

B. SITE PREPARATION

1. Site preparation work consists of site clearance, survey, cutting, imported fill, embankment and construction of ditches for drainage. Work of this section includes all measurement and materials required to complete the supply, execution and construction of site preparation.

   The contractor shall clear, from all areas planned for the work, all buildings, materials, debris, etc, prior to the cutting and filling work taking all necessary precautions to prevent damage to the existing road structures and buildings or other facilities, in the area, which shall not be demolished.

2. In case of rain, the day's works shall be stopped so as to confine damage due to rainfall to a minimum. According to the site conditions, temporary drainage ditches shall be provided. In cases where ditches, damage ditches etc. become blocked with sand, earth, etc, such shall be immediately removed. Broken slopes shall be immediately repaired. In case where swamps, pools etc. which are not shown on the Drawings are found, such shall be drained.

C. EARTHWORKS

1. Earthworks consists of excavation, back filling and disposal of surplus materials. Work of this section includes all measures and materials required to complete the design supply, support, use, construction, removal of earth work.

2. Excavation - The ground shall be excavated to the lengths, widths and exact depths required for the construction of the works as specified in the approved design plans. The contractor shall examine any unsuitable or weak ground material, standards of which are given below and shall report the situation in writing to the Architect/Design Engineer before executing concrete or any other Works. If the surface of a subgrade is found to be unstable or to include any type of refuse subject to removal in the opinion of the Architect/Design Engineer, the contractor shall excavate and remove such unsuitable Material to the width and depth required by the Architect/Design Engineer.

   Weather due to negligence or error on the part of the contractor or at the request of the Architect/Design Engineer owing to an unstable sub grade, the contract price shall be deemed to cover the whole cost of all excavation, inclusive of

replacement with suitable material, necessary in what so ever type of earth or ground conditions encountered, e.g. earth with boulders, hard pan, rock, old concrete foundation, roadways, paved areas, etc.

All excavation works shall be kept dry and clean in order that work may not be affected or interfered with by water entering the excavation. The contractor shall pump out all water which may occur or be brought into the excavation employing such equipment as engines, pumps pipe work, chutes and other necessary devices to keep the water level below the bottom of the permanent works during the period required by the Architect/Design Engineer, Raised water shall be conveyed away in such manner as not to cause any nuisance or injury to the occupants of adjacent properties or sites. If pumping is required if it shall be carried out continuously and may not be stopped without the permission of the Architect/Design Engineer .

Excavated material, approved by the Architect/Design Engineer for re-use for filling shall be selected, loaded and hauled to the specified location for temporary stockpiling. Excavation materials containing brushy roots or other vegetable materials shall be classified as unsuitable for fill. The sides of excavation shall be supported as necessary to Maintain a vertical face and to prevent fall or slip of any nature at any - time during the duration of excavation and back filling works. The contractor shall be responsible for the design, supply, fixing and removal of the shoring, sheet piling or any works required to support the side of the excavation. It is also the contractors responsibility to protect existing structures and utilities from damage or interruption of services due to excavation work .

3. Excess of Excavation - The contractor shall be responsible for all excess soil of excavated material not suitable for re-use. The Architect/Design Engineer my require the contractor to transport such material to a disposal area and /or my instruct the contractor to dispose of the surplus to a disposal area to be procured by the contractor himself - This shall all be carried out by the contractor at no extra expense to the employer.

4. Backfilling - Excavation shall not be backfilled until such structures and properties as drainage, insulation pipes, construction details, and water tightness have been inspected, tested and approved by the Architect/Design Engineer. All available precaution shall be taken during back filling to ensure that the pipes, insulation and construction details are not damaged. All backfill material shall be approved and free from vegetable or organic material, mud, refuse, boulders, rock, stones of over 15 cm and other materials which, in the opinion of the Architect/Design Engineer, are unsuitable. Filling shall be carried out in such away and to such a generous depth as to ensure that the final surfaces after settlement and compaction conform to the levels indicated in the Drawings and specifications.

5. Compaction - Compaction of fill. All soil fill material used shall be thoroughly compacted by mechanical means until the specified degree of compaction is obtained. The filling Material shall be approved by the Architect/Design Engineer and placed in even layers of a depth not greater than 30cm. A power-driven roller shall make at least 10 trips for each layer unless otherwise specified. Every effort shall be made to compact the fill material at its optimum moisture content for compaction. In any case, the dry density of compacted soil shall not be less than 95% of the value obtained in a standard laboratory test. When spade will not permit the use of rollers, other types of approved equipment shall be used to achieve the same degree of degree of compaction specified. Filling and compacting around pipes, cables and conduits shall be done by hand using

selected Materials to depth of the least 50cm. above such pipes, cables and conduit.

D. CONCRETE WORKS

1. Concrete works shall conform and in accordance with to ACI 318-14, it consists of mixing, conveying, and placing of concrete, for work and reinforcement Work, (it is inclusive of all measures and materials required removal of concrete forms and reinforcement).

   All materials used in the work shall be the best of their kind and shall conform in quality and treatment to the conditions herein specified. The contractor shall submit to the Design Engineer when required and at his own expense, samples of all materials to be used in the works. The quality of the samples so provided being representative of the Bulk of such materials. The construction of all concrete and reinforced concrete work shall commence at points approved by Design Engineer and shall be continued and completed in accordance with the program of work to be submitted to the Engineer for approval before the concrete work is commenced. Any work considered by the Engineer to be of inferior workmanship and therefore, to present a potential point of weakness in any part of the work shall be demolished and rebuilt at the expense of the contractor.

2. CEMENT - Portland cement for all structural concrete shall conform to ASTM C 150, for all concrete construction below ground level and water-retaining structures, sulphate resisting Portland cement Type II of ASTM C 150 or equivalent shall be used and for above ground level Type I shall be used. The contractor shall provide appropriate dry, well ventilated weather and water proof sheds of capacity sufficient to store cement so that the cement can be stored in such a manner as to prevent deterioration or intrusion of foreign matter. Floors of the sheds shall be at least 30 cm above ground. The cement while being conveyed to the site in trucks or other vehicles shall be adequately from the weather. The cement shall be used as soon as possible after delivery. Any cement that has deteriorated or has been contaminated shall not be used for concrete.

3. AGGREGATES - All aggregates shall conform to the requirements of ASTM C33 or equivalent and be locally available. Aggregates failing to meet above mentioned specifications but which have been shown by special test or to actual service to produce concrete of adequate strength and durability may be used when authorized by the engineer. The aggregates shall be dense, hard durable and free from harmful amount of reactive minerals and other chemical compounds and shall conform to the above-mentioned standards. Samples of aggregates used in the work shall so provide from the same aggregate sources stockpile at the site, and be submitted to the laboratory authorized by the employer and the written approval of the authorized laboratory shall be given to the engineer for his approval.

4. WATER - Water use in mixing concrete shall be clean and free from injurious amounts of oil, acids, alkalis, salts, organic material or other substance which may be deleterious to concrete or reinforcement. The temperature of water use for making concrete in hot weather shall be low enough to attain the proper mixing temperature of concrete, and in any case shall be lower than 30 degrees centigrade. The contractor shall store on the site an adequate supply of fresh water to meet all needs.

5. STEEL REINFORCING BARS - Reinforcing bar should be deformed bars for all reinforced concrete work, and should have minimum yield strength of 230 N/mm2

(33000 psi) in accordance to PNS 49:2002 ASTM Grade33 (ASTM A 615 and A 615M-16). Representative samples of all steel reinforcement that the contractor proposes to use in the Works together with manufacture's certificate stating clearly for each sample, the place of manufacture expected date and size of deliveries to site, and all relevant details as regards composition manufacture, strength and other qualities of the steel shall be submitted to the Engineer for written approval.

Steel Bars shall comply with PNS 49:2002 ASTM Grade33, random Testing by accredited DPWH Testing Center shall be done at least once for the duration of this Project and shall be submitted to DSWD NCR FO for Recording.

6. FORMWORKS – Ordinary plywood, 5-ply, 12 mm thick, or wood boards shall be used. Wood boards or ply wood for shuttering shall be such as not to damage the placed concrete owing to its containing impurities and shall be able to withstand loading occurring during placing of concrete.

7. Concrete Mixes - Concrete shall be proportioned to have the following specified compressive strengths, as determined by the specified testing and test evaluation procedure, specified compressive strength (f'c) shall be as indicated on the drawings.

8. Water-cement ratio - Water-cement ratio shall be determining so as to achieve the required workability and to obtain the specified concrete strength, which shall be subject to the approval of the Design Engineer.

9. Test of Concrete Work cylinder test shall be made on concrete sampled during the works. Samples shall be taken for each new grade concrete, from each 100 m3 of concrete when the same grade is being used continuously, except for lean concrete and other non-load bearing concrete. The number of specimens taken shall not less than 3 for each compressive strength test, all tests shall be performed in accordance with ASTM C39 and ACI 318-14, and shall be carried out in an authorized & accredited laboratory at the contractor's own expense. If the results of the 28 days' test are unsatisfactory, all concrete work shall be stopped at contractor's expense and shall not proceed further without the written permission of the Design Engineer. Should the test prove that the concrete is not satisfactory or the Design Engineer ascertain any section to be defective, the condemned concrete shall be cut out, removed and replaced by the contractor. All Test Results shall be submitted to DSWD NCR FO for recording.

10. Mixing and placing concrete – Mechanical Mixing, batching. All concrete shall be Machine Mixed. The contractor must also submit details on the type or types of mixers and machines to be used and proposals for the means of conveying mixed concrete from the mixer to the points of deposition. All concrete shall be batched using appropriate means shall be of a type approved by the Engineer and shall be kept in good condition while in use at the works. Each mixer shall be fitted with a water measuring device. If aggregate batching by volume is allowed, the cement shall be batched by weight and the water by weight or volume. Any deposit of old concrete in the mixer drum shall be cleaned out by rotating clean aggregate and water in the drum before any fresh concrete is mixed.

11. Placing and compacting Immediately after Mixing, the concrete shall be transported to the place of final deposit- by method which prevent separation , loss contamination of any of the ingredients.. Any method involving the use of pipes or chutes for transporting concrete shall not be permitted, except with the written approval of the Design Engineer.

Transport of concrete from the mixers must be as rapid. as possible and the contractor shall always be responsible to place and compact the concrete.
Before any concrete is poured, the formwork must be thoroughly cleaned of all dirt, shavings, loose stones, etc, and the wood form which will come in contact with the concrete shall be soaked well with an approved mould oil. The concrete shall be placed gently in position and shall normally not have a free fall of more than one meter. To convey, the concrete as near as possible to its final position, rubber or metal drop chutes shall be used for small sections, and bottom opening buckets or other suitable vessels for large sections. The concrete shall be placed in such a manner so as to prevent water from collecting at the ends, corner or along the faces of the forms, and it shall not be placed in large quantities at a given point and allowed to run or worked over a long distance in the form . All concrete shall be placed and compacted in even layers with each batch adjoining the previous one. The thickness of the layers shall be between 15-30 cm for reinforced concrete and up to 45 cm. for un-reinforced concrete in relation to the width of the forms.

The concrete shall be carefully and continuously compacted and worked around the reinforcement and into the corners of the formwork so that it will be in close contact with the reinforcement and free from honeycombing. Over-vibration causing segregation shall be carefully avoided and the redistribution of concrete in the formwork by means of vibrators shall not be permitted.

The concrete shall be compacted by mechanical or electro-mechanical vibrators of a type approved by the Engineer. The plunger type vibrators shall have a diameter compatible with the spacing of the reinforcement., and sufficiently high frequency.

All vibration, compaction and finishing operations shall be completed immediately after placing of the concrete in its final position, workers shall not be permitted to walk over freshly placed concrete until it has hardened sufficiently to carry their weight without distortion, and great care shall be taken to ensure that reinforcement projecting from recently placed concrete is sot shaken or disturbed so as not to destroy or damage the initial set of the concrete in contact with it.

Concreting in any one part or section of the work shall be carried out in one continuous operation and no interruption of concreting work shall be allowed without the approval of the Design Engineer.

12. Curing - Curing shall start as soon as practical after placing or finishing, concrete shall be cured with water unless membrane curing is employed. The surface of placed concrete shall be covered with damped mats or other approved materials for a suffocation period talking into consideration weather conditions during the period. Horizontal surfaces shall be covered by a suitable method so as to avoid the effect of sunshine, drying wind and other harmful effects, vertical surfaces such as walls and column sides shall be wetted for a sufficient period by sprinkling water to forms, or other suitable methods.

13. Bending and anchorage - Bending specifications shall be drawn up as applicable in accordance with the approved codes, and each reinforcement bar shall be bent to the exact dimensions specified in the relevant specification. All bars shall be bent cold. Bars shall not be welded without the approval of the Design Engineer. No splices shall be made in the reinforcement except where approved by the Design Engineer, and all splices or overlaps shall comply entirety with the requirements of proved.

14. Fixing of reinforcement. The steel reinforcement shall be assembled to the exact shapes and dimensions as approved by the Design Engineer. The rods shall have the approved cross-sectional area and shall be fixed accurately in the moulds. The ends of all tying wires shall be turned into the main body of the concrete and shall not be allowed to project towards the surface. Spacing blocks shall be used to ensure accurate cover to the reinforcement, where necessary, and these blocks shall be of precast concrete of a strength at least equal to that of the concrete being placed. They shall be as small as possible in view of practicality and shall be securely fixed in position by means of wires to be cast into them. No temporary supports for the reinforcement shall be allowed to be incorporated into the finished concrete. At the time of concreting all reinforcement shall have been thoroughly cleaned and made free of all loss rust (crude oil or any other coatings that might destroy or reduce the bond). Unless otherwise specified or shown on the drawings, minimum cover shall be determined in accordance with ACI 318- 14 as indicated on the following table:

Description			Minimum Thickness Cover
Cast against and permanently exposed to earth			75
Exposed to earth and weather		D16 and smaller	50
		D20 - D25	40
Not Exposed to weather and not in contact with earth	Slabs, joists and walls	D25 and smaller	20
	Beams, girder columns & pedestals	main bars , ties, stirrups	40

15. Form work - This section covers the fabrication, erection and removal of forms and other necessary work thereof, including material and design of forms. All works, covered by this section shall conform to ACI 347-14 or relevant Code & standards unless otherwise specified herein.

Design of forms

a. Forms shall be constructed complete with centering, sleeves and molds to conform to the shape, form, line and grade required and shall be maintained rigid to prevent deformation under load where required forms shall provide for adequate protection of the precast units placed within the forms, before pouring concrete.

b. Joints shall be leak proof and arranged vertically or horizontally to conform to the design pattern. Forms shall be placed on successive units for continuous surfaces and fitted to accurate alignment to secure smooth completed surfaces free from irregularities, in long span, where intermediate supports are not possible, the form deflection due to fresh concrete shall be compensated for. Members shall have true surfaces in accordance with desired lines, planes and elevations. If adequate foundation for shores cannot be secured, trussed supports shall be provided.

c. Form surfaces shall be coated before placing of reinforcement, when oil is used, surplus oil shall be removed from form surfaces. All oil stains shall be cleaned from reinforcing steel before pouring of concrete,

d. Forms shall not be removed without the approval of Design Engineer. This approval shall not relieve the contractor of responsibility for the safety of the work, the minimum period of time that must elapse between the pouring of the concrete and the slackening of the form work shall be as follows: The removal of form works

shall in all cases be supervised by an experienced foreman. All form works shall be removed without such shock or vibration as would damage the concrete, and before the form works and props are removed the concrete surface should be exposed, where necessary, in order to ascertain that the concrete has hardened sufficiently, any work showing signs of damage due to premature loading is to be removed and entirely reconstructed at the contractor's expense.

16. Finishing - The finishes described, below must not cause any deviation outside the specified allowable deviation from plumb or level or from alignment, profile grades or dimensions specified in the paragraph on tolerance. Offsets caused by displaced or misplaced sheathing, lining or form sections, or by knots in forms or by otherwise defective items shall be checked by direct measurement. All other irregularities can be checked by use of straight edges or by use of templates. Surfaces shall be corrected so as to meet the requirements specified in the paragraph or tolerances.

    a. Formed surfaces to be hidden by backfill, plaster or other finish material shall not require treatment after form removal except for patching defective concrete, the filling of holes and the specified curing; correction of surface irregularities shall be required for depression exceeding a limit not affecting the subsequent finish. Formed surfaces for exposed walls, water conduit, parapets, curbs, stair faces and other areas shall be smooth and regular when completed. Ridges or lips on exposed concrete shall be removed by tooling, grinding or rubbing.

    b. Fair faced concrete this type of finish is for surfaces which are permanently exposed to view. Forms to provide this finish shall be faced with wrought tongued and grooved boards or plywood or metal panels, arranged in a uniform approved pattern, free from defects likely to detract from the general appearance of the finished surface. This finished shall be such as to require no general filling of surface pitting, but fins, surface discoloration and other minor defects shall be remedied by methods approved by the Design Engineer without extra cost to the contract. All forms shall be removed without damages to the concrete. The use of non- staining mould oil or other material to facilitate this shall not have a deleterious effect on either the strength or appearance of the concrete and

    c. Unformed Surfaces Unformed screeded finish surfaces to be covered by-backfill or concrete and surfaces of sub-floors to be covered by concrete floor topping: Finishing operations shall include sufficient levelling and screeding to produce flat uniform surfaces. Unformed floated finish surfaces not permanently concealed by backfill or concrete and for which other finishes are not specified, including concrete to be permanently exposed to view such as outside decks, floor of sumps, tope of walls, surfaces of gutters, sidewalks and outside entrance slabs, when trowel finishes are needed, floating shall be continued until a small amount of mortar without excess water is brought to the surface, permitting effective trowelling. Surfaces to receive mastic water proofing or asphalt water proofing shall not have any prominence likely to cause damage or other harmful irregularity. Surfaces irregularities shall be reduced or eliminated by grinding, after concrete has hardened.

E. CONCRETE HOLLOW BLOCK WORK

1. All concrete blocks shall conform to ASTM C129 or equivalent unless otherwise specified as follows:

a. Concrete block shall be manufactured in accordance with the specification stated herein, block shall be manufactured of Portland cement and locally available aggregate by mixing and compacting using an electric machine, Joint mortar materials cement shall be specified in section D (concrete work)

b. Sand shall be clean sharp, coarse, well-graded and shall conform to ASTM C-144 (Aggregate for Mortar) or ASTM C33

c. block shall be reasonably uniform in compressive strength and in all dimensions and shall be straight and free from cracks, chips or other defects. Specification of the materials shall be in accordance with Section D "Concrete work".

d. 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.

2. Joint mortar materials

a. Cement shall be specified in section D (concrete work)

b. Sand shall be sharp S-1, washed, clean and greenish in color, coarse, well-graded and shall conform to ASTM C-144 (Aggregate for Mortar)

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

d. Plaster bond: N and H Plaster bond - Apply to all wall areas prior to plastering.

F. FINISHING WORKS

Refer to Architectural Plans for location. Verify plans for other finishes not specified or omitted herein. Sample of all materials shall be submitted to the Procuring Entity for approval as to color and quality workmanship.

FLOOR FINISHES

1. Ceramic Tiles: Supply and installation of 400 mm x 400 mm unglazed tiles; polished / unpolished / textured and colored: set on tile adhesive setting with 3 - 5 mm spacing between tile. For Reception / Lobby Area. See Design. Submit Samples for approval.

2. Ceramic Unglazed Tiles: Supply and installation of 300 mm x 600 mm for Toilet Wall & 300mmx300mm for Floor Tiles. Refer to Schedule of finishes. Submit sample for Procuring Entity"s approval.

WALL FINISHES

1. Plain Cement Plaster Finish: 10 mm. thick. on vertical, on masonry and for all concrete hollow block surfaces, painted finish as indicated in the Drawings and for all areas not otherwise noted with other finishes.

2. Fiber Cement Board: 6-mm thick for all Dry Interior Walls.

a. Use standard G.I. metal Studs framing at every 600-mm on center both ways. Provide standard construction system complete with seismic bracing.

3. Sand for finish coats shall be clean and well graded from coarse fine as specified in concrete work.

Cement shall be specified in section D (concrete work).

Plastering accessories shall be approved on samples by the Engineer before starting plastering work. Such accessories, including corner beads, casing beads, lath and other materials, shall be used where and necessary for workmanlike plastering work.

Surface preparation Dust, Oil, grease and other undesirable substances that might hinder the forming of a good bond with plaster bases on concrete or masonry shall be removed immediately prior to plastering.

Moistening underbed immediately before applying plastering work, concrete surfaces shall be wet-down sufficiently to reduce suction but shall not be excessively wet.

All plastering shall be executed in a workmanlike manner leaving all finished plaster surfaces free from waves or imperfections.

Mixing Plaster materials shall be thoroughly mixed with the correct amount of water, in accordance with the specific requirements of the Manufacturer.

G. CEILING FINISHES

Fiber Cement Board: Supply and installation of 4.5mm Fiber Cement Board ceiling on a 400mm on center spacing G.I. Framing Suspended Ceiling System complete with all accessories and acrylic diffuser lighting system.

Furnish all labour, materials and equipment for the completion of work as shown on the drawing and specified herein,

H. METALWORKS

Furnish all labour, material and equipment for complete erection of metal work as shown on the drawings, specified herein and as evidently necessary to complete the work. All supplemental parts necessary to complete the work shall be included whether or not such parts are definitely shown or specified.

Work includes, though is not limited, the followings:

A. Hand railing

Steel for metal item shall be new, low carbon mild steel and shall meet the requirements of ASTM 36 or other standards applicable for the designated purposes.

The basic materials to be used for the material work shall conform to following standards or other equivalent standards.

ASTM A6 / ASTM A36 : Hot Rolled sections, Weldable structural steel, steel plate, sheets and strips

ASTM A53/PNS 26:1992: Hot dip galvanized coatings on iron and steel articles.

All metal surfaces shall be given corrosion protection treatment, expect, where embedded in concrete such treatment shall be galvanizing bonderizing or rust

paint coating given after completely cleaning of rust and loose scale, and shall be of a type suitable to the subsequent application of final finish paint.

Connection of all members shall be rigidly fixed and ground smooth where exposed.

I. PAINTING WORKS

All materials shall be Environmental protection Agency (EPA) certified and approved.
Painting Materials:

1. Submit various painting materials specification data and sample to be used for Procuring Entity"s approval.

2. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.

3. Painting materials including its application must be covered with minimum of five- (5) year guarantee to be rendered by the painting manufacturer.

4. Use BOYSEN or Equivalent only for all painted works.
Application:

a. All sample paint shall be submit on at least 300-mm x 300mm plywood panel, color and shade as per approval by the Procuring Entity.

b. Application shall be as per paint Manufacturer"s specification and recommendation.

c. 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 cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

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. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.Manufacturer: Boysen or Davies Paint.

Painting Schedule:

a. Interior Concrete or Masonry Painted - Three (3) coats water-based masonry plain semi-gloss finish. Sample Shades for Procuring Entity"s Approval.
b. Plain Flat Finish: Acrylic water-based paint on ceilings, three (3) coats. FLAT

c. Plain Semi-gloss in Acrylic water-based Epoxy paint on interior walls, columns, on all other interior concrete surfaces. (3) coats.

J. THERMAL AND MOISTURE PROTECTION

All applications shall be strictly as per Manufacturer's Specifications. It shall strictly be performed by licensed or certified applicators / waterproofing contractor representing waterproofing manufacturer or insulation company specified herein. The Procuring Entity shall be furnished with pertinent literature and detailed drawings .

K. DOORS AND INTERIOR VIEWING WINDOWS :

Refer to Schedule of Doors and Windows in Architectural Plan

L. FINISHING HARDWARE

The following Hardware Sets are furnished for whatever assistance it may afford the Contractor. The Contractor shall verify Plans and Specifications for hardware quality. Should any particular item be omitted, Contractor shall provide similar or equivalent item or hardware same as required.

All door hardware must be ANSI A156.2 approved.

1. Locksets shall be Heavy duty lever type handles, HAFELE, Bonco or Hope Brand with locked keys and profile cylinders.
   a. All locks shall have three (3) keys with the lock number stamped for identification. Verify number of duplicates.

   b. Schedule: Use extra heavy duty industrial / commercial series of door hardware. Refer to Schedule of Doors A6

Toilet Privacy Lock: Use Corridor or Passage Lock for unlockable lockset.

Keyed Entrance Mortise Lock: Single cylinder with throw-deadbolt, standard full latch bolt with heavy duty anti-friction tongue. When locked, key outside or Knob inside retracts all bolts simultaneously. Outside Knob remains locked until thumb turn is restored to vertical position. Use Knob type.

Single Cylinder Deadbolt Lock: deadbolt thrown or retracted by key from outside or by inside turn unit. Bolt automatically deadlocks when fully thrown

Indicator Lock: for Toilet Stalls with safety release lock.

2. Door Hinges
   a. Loose pin hinge 4 ½" x 4" heavyduty, chrome finish.
      Schedule: Four Ball Bearing Hinges: 4 ½ " x 4" for metal louver doors over 900 mm in width and/or over 44 mm thickness, strictly SUS 304, Stainless Steel based

      Floor Hinge: standard duty floor hinge with closer on active and inactive leaf

   b. Hinge finish shall match locusts of respective openings; stainless steel.

3. Door Closer:(Only on Specified Doors) grade 1 door closer with hold open function on active and inactive leaf. Can be surface mounted on hinge face or stop face for metal doors indicated in the Schedule, with finish matching locust of the respective opening and a slim line look; concealed type for aluminum doors to provide by aluminum door fabricator. Door closer shall be incorporated in the door closer.

4. Miscellaneous Hardware

   a. Door Plate and Pull Bar: Ga 16. Stainless Steel plate with stainless steel 20 mm diameter x 200 mm length pull bar, both in hairline finish.
   b. Flush 6" and Head Bolt 12": for two leaves of steel swing doors
   c. Push-Pull Bar: approximately 30 mm diameter x 600 mm long stainless steel
   d. Push Plate: approximately 150 mm wide x 400 mm high stainless steel
   e. Stainless Steel handle bars
   f. Heavy Duty Flush Bolt
   g. All other necessary hardware such as latch bolts, catch locks, door chain fasteners, door stops, wall stops and holders, push plates, handles, etc. shall be of type, size and design suitable for the purpose.

M. GLASS AND GLAZING

Refer to Schedule of Window Glass in the Architectural Plans.

N. SPECIALTIES

TOILET DOORS AND PARTITIONS

A. TOILET CUBICLES

1. Partition System: homogeneous, floor-anchored, high pressure compact OR Marine laminated partition and doors complete with stainless steel bracing and hinges, brass or molded plastic pedestals, and indicator lock with heavy duty stainless steel hardware. Submit catalogue & mock-up for Procuring Entity's approval.

3. Accessories: All accessories should be in molded plastic material. Submit samples for Procuring Entity's Approval.

   a. Grab Bars: provide stainless steel grab bars for handicapped toilets.
   b. Urinal Dividers: wall-hung suspended type with stainless stiffener and stainless steel wall bracket; material same as toilet partition system

O. TOILETS

A. PLUMBING FIXTURES AND ACCESSORIES

All fixtures shall be installed complete with accessories, such as fittings, angle valve, shut-off valve and supply pipe assembly, p-traps flange and others to make it functional. Submit model and color samples for Procuring Entity's approval of all fixtures and accessories.

Plumbing Fixture Colors: White Verify with Procuring Entity

1. Water closet: Tank Type Siphon Vortex bottom inlet top flush.

2. Lavatory:

a. Wall Hung type lavatory with single faucet hole on center w/ front overflow hole, to match water closet color.
b. Wall hung with full pedestal type

3. Lavatory Faucets: self-closing press-action tap model with timed flow and anti-blocking system.
4. Floor Drains: Stainless steel 4"x4"
5. Slop Sink Bibb: wall-mounted long gooseneck faucet

P. TINSMITHRY WORKS

All Works to be done in this Division of the Specification Consists of Supply, Fabrication, Furnishings Delivery and Installation, complete in all details of the Tinsmith Works. All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern.

The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

1.0 ROOFING SHEETS

All Roofing Sheets and Accessories shall meet the standard set by PNS 201:1990,

1.1 Roofing Sheets shall be Ga. 24, Cold Rolled Hot Dipped Galvanized Annealed Steel with 2 Coat 2 Baked Reversed Process of Oil Free Polyester / Epoxy Base Thermosetting

1.2 Accessories such as Ridge Rolls, Gutters, End Flashing, Corner Flashings shall be Ga. 26, Cold Rolled Hot Dipped Galvanized Annealed Steel with 2 Coat 2 Baked Reversed Process of Oil Free Polyester / Epoxy Base Thermosetting same color as the Roofing Sheets.

1.3 Insulation shall be LDPE (Low Density Polyethylene) Foam or Bubble Insulations with aluminized or pure aluminum sheet lamination

1.4 All Joints shall be properly connected and sealed with Joint Silicone Sealant to prevent leaks. All Roofs and Gutter shall be tested for possible leaks.

1.5 Submit samples for approval.

Q. ELECTRICAL SPECIFICATIONS

1.0 GENERAL DESCRIPTION

1.1 The work to be done under this DIVISION of the Specifications consist 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 others.

All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern. The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials

and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.

The Specifications are intended to provide a broad outline of the requirement and are not intended to include all details of design and construction.

1.2 LAWS/CODES and REGULATIONS:
The work under this DIVISION shall be executed in accordance with the latest requirements of the following:

-Building Code of the Philippines
-Philippine Electrical Code
-Laws, ordinances, and regulations of the locality having jurisdiction over the project.
-Power and telephone utility companies
-UAP Doc. 301

The requirements of the above mentioned governing laws/codes and the requirements of the companies having involvement/participation are hereby made part of this Specifications and the CONTRACTOR is required to comply with the same.

This does not relieve the CONTRACTOR from complying with requirements of specifications or drawings in excess of above laws and ordinances, codes and requirements which are not prohibited by the same.

1.3 GUARANTEE
The CONTRACTOR shall guarantee that the electrical system is free from all grounds and defective materials and workmanship for a period of one (1) year from the date of acceptance of the work. All defects arising within the guarantee period shall be reminded by the CONTRACTOR at his own expense.

The CONTRACTOR shall indemnify and save harmless PROCURING ENTITY from and against all claims, suits, actions, or liabilities for damages arising from injuries, disabilities or loss of life to persons or damage to public or private properties resulting from fault or any act of contractor or his representative in the execution of this work.

The partial acceptance of the work for the purpose of making partial payments, based on the estimated cost satisfactorily completed by the CONTRACTOR, shall not be considered as final acceptance of that portion of the work.

1.4 DRAWINGS & SPECIFICATIONS

1.4.1 The electrical plans, which constitute an integral part of these Specifications, shall serve as the working drawings. The plans indicate the general layout and arrangement of the complete electrical system and other works.

1.4.2 The drawings and specifications are meant specifically to be complementary to each other and where it is called for by one shall be binding as if called for by both. Anything which is basically required to complete the installation for proper operation but not expressly mentioned on the drawings and/or specifications shall be furnished and installed by the CONTRACTOR at no extra cost to the PROCURING ENTITY as though specifically stipulated or shown in both.

1.4.3 Procuring Entity shall have the final decision on any apparent conflict between the drawings and specifications or on any under and controversial point in either or both.

1.4.4 All dimensions and locations shown on the plans are approximate and shall be verified in the field, as actual locations, distances, and levels are governed by actual conditions.

2.0 SCOPE OF WORK

2.1 Work Included
The work to be done under this DIVISION shall include the furnishing of all tools, labor, equipment, fixtures and materials, each complete and in proper working condition unless one or other is specifically excluded or stated otherwise in these Specifications but not limited to the following principal items of work:

3.1.1 Furnish and install a complete wiring and raceway system for the underground power and telephone distribution system including concrete pedestals, concrete hand holes and necessary wiring gutters and boxes.
2.1.2 Furnish and install a complete grounding system.
2.1.3 Perform terminations for all electrical system.
2.1.4 Complete testing of all electrical systems.
2.1.5 Preparation of "As-built" drawings.
2.1.6 If any item of works or material has been omitted which are necessary for the completion of the Electrical Work as outlined herein before, then such items shall be and hereby included in this section of work.

3.0 PROCEDURE

3.1 Workmanship
The CONTRACTOR shall execute the work in the most thorough, prompt and workmanlike manner and in accordance with the plans and specifications. The installations shall be done thru standard methods and good engineering practices.

3.2 Materials
All materials to be installed shall be brand new except as otherwise noted on the plans or specifications. The materials shall be as specified. No substitution of materials is allowed. Should the CONTRACTOR find it necessary to use another type/brand of materials instead of the specified item, he shall first obtain approval from the PROCURING ENTITY prior to installation. Any substituted material installed without the approval of the PROCURING ENTITY shall be subject to replacement.

3.3 Coordination
It is the sole responsibility of the CONTRACTOR to conduct coordination of his activities with the following:

3.3.1 Other trades and suppliers
3.3.2 Procuring Entity/Engineer
3.3.3 Local Government Authority

3.4 Deviation from The Plans
No deviation from the plans is to be made unless given notice or approval by the PROCURING ENTITY.

3.5 Record Drawings and "As-Built" plan.
The CONTRACTOR is required to keep an active record of the actual installation during the progress of the job. This shall be the reference in the preparation of the "As-Built" plans which shall include all pertinent information, complete in all aspect of the actual installation, and all new information not originally shown in the contract drawings. The "As-Built" plans shall be prepared by the CONTRACTOR at his expense and shall be submitted to the Procuring Entity for approval upon the completion of the work. The approval of the "As-Built" drawings shall be a pre-requisite for the final acceptance of the electrical works.

Submit two (2) copies of the "As-Built" drawings signed and dry sealed by the CONTRACTOR'S. Registered Professional Electrical Engineer. Original tracing/ reproducible copy together with CAD File in CD shall also be submitted to the PROCURING ENTITY.

3.6 Samples & Shop Drawings

3.6.1 30 days prior to the installation or fabrication of materials the CONTRACTOR shall submit to Procuring Entity the following for approval.

a. Shop drawings of panel boards showing arrangements of circuit breakers, bus bar sizes, lugs, etc. Indicate all dimensions.

b. Shop drawings or samples required as noted in the drawings.

c. Samples and catalogs of materials intended to be installed.

3.6.2 The CONTRACTOR shall also submit to the Procuring Entity without delay shop drawings and other submittals which may be required by Procuring Entity during the progress of construction.

3.6.3 The above requirements shall be submitted to the Procuring Entity at the earliest possible time to give allowance for checking and verification. These shall be complete in all aspects.

3.6.4 Submit four (4) sets of each shop drawings.

3.7 Electric Power
The CONTRACTOR shall be responsible for his own electric power needed for the execution of the job.

3.8 TEST
Conduit tests on all electrical conductors installed in the presence of the PROCURING ENTITY's representative.

3.8.1 check for grounds
3.8.2 insulation resistance test
3.8.3 continuity test for all outlets
3.8.4 voltage level test
3.8.5 phase relationship
3.8.6 check circuit connections at panel boards, all single phase circuit shall be connected to phase as shown in the load schedule.

3.9 Submit Reports On Tests

All reports must be formal, typewritten and properly identified.

3.10 All defects found during the test shall be repaired immediately by the CONTRACTOR.

3.11 All tools, equipment and instruments needed to conduct tests shall be on the account of the CONTRACTOR.

4.0 METHODS & MATERIALS

4.1 Conduits

4.4.1 Rigid Steel Conduits (RSC) and Intermediate Metal Conduit (IMC):

a. Standard trade sizes, hot dipped galvanized with inside enamel or epoxy coating.
b. Joints-threaded coupling for joints.
c. Use for power & lighting.

4.4.2 Polyvinyl Chloride Conduit (PVC)

a. Standard trade sizes, schedule 40.

b. Coupling & fittings - standard couplings for joints by solvent weld process.

c. Telephone System & other auxiliary system.

4.4.3 Installation of Conduits

a. Installation is in accordance with PEC and of good engineering practice.

b. Use standard trade sizes locknut and bushing at each end terminating in boxes/panel boards. Ensure electrically continuous conduit system.

c. Provide independent conduits supports using hangers, supports or fastenings spaced in accordance with good engineering practice and PEC.

d. Use adjustable trapeze hangers for horizontal parallel runs.

e. Conduits bends shall not be more than the equivalent of three (3) 90 degree bends between pulling points.

f. Conduit threads cut on job shall have same effective lengths, thread dimensions, and taper as factory threads.

g. Cut ends of conduit square with hand or power saw and ream to remove burrs and sharp edges. Do not use wheel cutter.

h. Clamps shall be galvanized malleable iron one-hole straps, beam clamps or other approved device with necessary bolts and expansion shields.

i. Trapeze hangers shall be used for parallel runs of conduits. Install conduit clamps at end of each run and at each elbow. Paint hangers one prime coat of red lead or zinc chromate, and one finish coat of an approved color. Hangers are not detailed but must be

adequate to support combined weight of conduit, conductors and hangers. Submit shop drawings for approval.

j. All underground conduits installed shall be provided with concrete encasement at least 8cm. thick outer face of conduit.

4.2 Wires

1. Wires shall be annealed copper, 98% or better conductivity, insulated, stranded, except as noted in the drawings.

2. 600 volt class type as indicated in the plans.

3. Minimum size shall be #3.5 THHN for power and lighting circuits.

4. Telephone wires shall be no. 22 AWG jacketed type, 4 wires.

5. Use standard methods in pulling wires.

6. Splices of wires/cables shall be done inside junction boxes or auxiliary gutters using standard connectors. No wires shall be spliced inside conduits.

7. All wires and cables shall be color coded as follows:

Phase A Red
Phase B Yellow
Phase C Black
Ground Green
Neutral White

4.3 Connectors

Use solderless mechanical pressure - type lugs, copper

4.4 Insulation

All splices shall be properly insulated using 3M electrical tape. Application of insulation tape shall be equivalent to the insulation of the wire concerned. Use filler compound, "Scotch fill at sharp edges to provide smooth surface before taping.

4.5 Panel board & Circuit Breaker

4.5.1 NEMA type/enclosure unless noted, PEC rules and regulations, circuit breaker type shall be 230V, number of pole as required.

4.5.2 Panel boards shall contain a single brand of circuit breakers.

4.5.3 All circuit breakers used as main shall be "Bolt on" type molded case, thermal magnetic protective, quick make, quick break, trip free from handle, trip indicating, number and size as shown in the schedule. Internal common trip for 2 and 3 pole breakers.

4.5.4 Breaker minimum interrupting capacities shall be based on NEMA and UL test procedures.

a. 230 volt breakers - 10,000 rms. Symmetrical amperes at 240V A/C (minimum)

4.5.5 All circuit breakers used as branches rated at below 100 AT and specifically installed in lighting panel boards shall be be „bolt-on".

4.5.6 Word "space" indicated in the schedule shall mean that complete bus, insulators, etc. shall be included ready to accept future circuit breaker of the same frame size as the largest branch circuit breaker.

R. PLUMBING / SANITARY WORKS

1.0 SCOPE OF WORKS

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete installation, testing and operation of the plumbing system accordance with the applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

a. Soil, waste and vents pipe system, within the building up to sewer line.

b. Interior fire protection system consisting of combination standpipes, valves, fire hose cabinets, inlets, connectors and portable fire extinguishers.

c. Water service connection from main building distribution system.

d. Furnishing, installation and testing of water closets, lavatories, accessories including controls & piping works.

e. Furnishing and installation of all plumbing fixtures, fittings, trims and accessories.

f. All work shall be performed in accordance with the requirements of all applicable laws of the Republic of the Philippines and all local codes and ordinances.

1.2 The contractor is required to refer to all mechanical, electrical, structural and architectural plans and specifications all shall investigate all possible interference and conditions affecting his work in this section and that of the other sections.

1.3 All plumbing works to be done and sizes of pipe to be used shall be of the sizes, which are required and in accordance with the NATIONAL PLUMBING CODE OF THE PHILIPPINES.

2.0 GENERAL

2.1 DRAWING AND SPECIFICATIONS:

a) The contract drawings and the specifications are complimentary to each other, and any labor or materials called for by both, if necessary for the successful operation of any other particular types of equipment shall be furnished and installed without additional cost of Procuring Entity.

b) All dimensional locations of fixtures, equipment, floors and roof drains risers and pipe. Chases shall be verified on the architectural drawings and manufacturer's catalogs.

c) Upon completion of the work as described herein, the Contractor shall at his own expense furnish the Procuring Entity originals and three (3) sets of "AS BUILT" Plans for future reference and maintenance purposes together with CAD File in CD.

2.2 PROTECTION:

The contractor shall protect all his work and materials loss, injury or defacement. Protection of fixtures and materials shall be provided by boards, papers and/or cloth as required and any loss, damaged or deface material shall be replaced by the Contractor at his own expense.

2.3 INSTALLATION AND WORKMANSHIP:

a. All labor shall be performed in a first-class, neat and workman like manner by mechanic skilled in their work shall be satisfactory to the Project Architect.
b. No piping in any location shall be closed up, furred in or covered before testing and the examination of same by the inspector, Procuring Entity or their representatives.

3.0 IDENTIFICATION OF MATERIALS:

a. Each length of pipe, fitting, traps, fixtures, and device used in the plumbing system shall have cast, stamped or indelibly marked on it the manufacturer's trade mark or name, the weight, the type, and classes of product when so required by the standards mention above.
b. All plumbing fixtures and fittings installed without the above trademarks shall be removed and replaced with probably marked fixtures and fittings without any extra cost to the Procuring Entity.

4.0 WATER SUPPLY

a. Pipes and fittings for waterline shall be as SPECIFIED.

b. Valves-All valves, unless otherwise specified shall be gate valves of size as indicated in the drawings: for hot water supply, valves and fittings shall be insulated of a thickness equal to that of the insulation on the adjoining pipe, securely fastened in place.

4.1 SANITARY DRAINAGE

a. Soil and waste Pipes and Fittings: Soil and waste pipes and fittings shall be PVC pipes (POLYVINYL CHLORIDE) series 1000 submit sample for approval.

b. Vent Pipes and Fittings: Vent pipes and fittings shall be PVC pipes

c. Shower and Floor Drains: Shower and floor drains shall be of high grade, strong, tough, and even grained metals.

d. Cleanouts:

1. Ceiling cleanouts shall be of the same material as pipe with sealed screw type, raised head plug.

2. Floor cleanouts shall be cast-iron body with brass plug, colt-type or countersunk head; METMA brand or approved equal.

4.2 HANGERS, INSERTS AND PIPE SUPPORTS

A. Provide suitable and substantial hangers and supports for all piping.

B. Support horizontal piping in accordingly approved sizes where pipe clamps are too short to connect to the building construction.

5.0 EXECUTION

5.1 GENERAL INSTALLATION OF PIPES

A. Install pipes approximately as shown on the drawings, as straight and direct as possible forming right angles parallel lines with walls and other pipes, and neatly spaced unless otherwise indicated. Care shall be taken not to weaken the structural portions of the building.

B. Maintain minimum slope of 3mm (1/8 inch fall per foot) on all soil, waste and drain lines 100mm in diameter.

C. Do not install pipes or other apparatus in a manner which will interfere with full swing of the doors and windows.

D. The arrangement, position and connection of pipe fixtures, drains, valves and the like indicated on the drawings shall be followed as closely as possible, the right is reserved by the Procuring Entity to change location and elevations to accommodate conditions which may arise during the progress of the work prior to installation, without additional cost of the Procuring Entity for such changes.

The responsibility for accurately laying out of the work rests with this Contractor. Should be found that any work if laid out caused interference, the matter shall be reported to the Engineer before connecting the work.

E. Ream all screwed pipes smooth before installation. Do not bend, flatten, split or injure pipes in any way.

F. Use reducing fittings, in making reduction in size of pipe. Bushing will not be allowed unless specifically approved.

G. Where chrome plated piping is installed, cut and thread pipe. Bushing will not be allowed unless specifically approved.

H. Carry fixture connections, concealed in building constructions, to points above floor, break out close to underside of fixture and rise exposed to fixture.

I. No piping shall be installed which will provide a cross or interconnection between a distribution supply of drinking water of Domestic use and pollution or waste pipe, the water line shall be placed above the waste pipe in ground installation.

5.2 INSTALLATION OF WATER SUPPLY PIPES AND FITTINGS

A. The piping shall be extended to all fixtures, outlets and equipment. Ends of pipes and outlets shall be capped or plugged and left ready for future connections.

B. Branch pipe from service line may take off of main, bottom of main, or side of main, using such cross over fittings as may be required by structural or installation conditions.

All service pipes, valves and fittings shall be kept at sufficient distance from other work to permit finished covering not less than 12.7mm (1/2") from such other work and not less than 12.7mm between finished coverings on the different services. No water piping shall be buried in floors until after they have been inspected and approved.

C. Where the branch serves more than one fixture, the branch shall be increased in size in proportion to sizes as shown on the drawings.

D. Cast bronze unions shall be installed at the connection to all equipment so that they may be conveniently disassembles.

E. Upon completion of water system, flush out lines and all valve sets to clear system of particles and dirt.

5.3 INSTALLATION OF SOIL, WASTE, VENT AND DRAINAGE PIPING

A. Horizontal Drainage Pipe and Vent Piping Horizontal waste pipe 75mm (3") and smaller shall have minimum grade of 6mm (1/4") per foot, and for 100mm (4") and larger, 3mm (1/8") per foot. Vertical vent pipes may be connected to a vent lines carrying other fixtures, the connection to be at least 1.20m (4 feet) above floor on which the fixtures and located to prevent the use of any vent lines as waste lines. Horizontal waste lines receiving the discharge from two (2) or more fixtures shall be provided with vents, unless separate venting of fixtures noted.

B. Fittings - All changes in pipes sizes on soil waste line shall be made with reducing fittings or recessed reducers. All changes in direction shall be made with the appropriate use of 45 wyes, half wyes, long sweep quarter bends, or elbows may use in soil and waste lines where the change in direction of flow is from horizontal to vertical, and on the discharge from water closets. Where it become necessary to use short radius fittings in any other location, the approval of the Procuring Entity shall be obtained before they are installed.

C. Traps - Each fixture and place of equipment connection to the drainage system except fixture with continuous waste shall be equipped with a trap. Traps shall be placed as near to fixtures as possible.

5.4 FIXTURES AND EQUIPMENT SUPPORTS AND FASTENINGS All fixtures and equipment shall be supported and fattened in a satisfactory manner.

A. Where secured to concrete on hollow block, walls, they shall be fastened with 6mm (1/4") brass bolts with twenty threads to the inch and of sufficient length to extend at least 75mm (3") into solid concrete on hollow block work; fitted with loose tubing or sleeve inserts, shall be securely anchored and installed flushed with the finished wall and shall be completely concealed when the fixtures are installed.

B. Where though bolts are used, they shall be provided with name plates and washers at backsets so that head, nuts and washer will be concealed by plaster. Bolts and nuts shall be hexagonal and screw shall be provided chromium brass washers.

C. Upon completion of work, all fixtures, trimmings, and equipment shall be thoroughly cleaned, polished and left in first class condition for final acceptance.

5.5 CLEANING AND PAINTING

A. Prior to acceptance of the work, thoroughly clean all exposed metal surface and rid of grease, dirt or other foreign material. Chrome or nickel - plated piping's, fitting and trimming shall be polished.

B. Pipe hangers, supports and all other iron work in concealed spaces shall be thoroughly cleaned and painted with one coat of red lead and a finish coat of oil enamel paint.

C. All exposed soil, waste and vent piping or cast iron that are asphalt or tar-coated shall be given two (2) coats of shellac and two (2) coats of oil paint.

5.6 WATER SYSTEM TEST

A. Upon completion of the roughing-in and before fixtures, the entire water piping system shall be tested at a hydrostatic pressure of one and half (11/2) times the expected working pressure in the system when in operation, and proven tight at this pressure or not less than 150 psi gauge.

B. Where a portion of the water piping system is to be concealed before completion, this portion shall be tested separately in a manner to that described for the entire system, and in the presence of the Procuring Entity or its representative.

5.7 DRAINAGE SYSTEM TEST

A. The entire drainage and venting system shall have necessary opening which can be plugged to permit the entire system to be filled with water to the level of the highest vent stack and/or vent above the roof.

B. The system shall hold this water for a full thirty (30) minutes during which time there shall be no drop more than four inches 100mm (4").

C. The Contractor shall also conduct Flow Test to determine if the System is Connected properly to Septic Tank/Street Sewer Line for a period of 1Hr.

D. If and when the Procuring Entity decides that an additional test is needed, such as an air or smoke test on the drainage system, the Contractor shall perform such test without additional cost to the Procuring Entity.

S. MECHANICAL WORKS

a. Exhaust & Ventilation System
b. Airconditioning System
c. Automatic Fire Suppression System
d. LPG Line System

(Refer to Mechanical Plans and Specifications.)

T. FIRE ALARM SYSTEM

All the Works under this section shall conform to the latest Edition of Fire Code of the Philippines.

a. Battery Operated Smoke Detector Devices

(Refer to Fire Protection System Plan & Specifications)

U. STAINLESS STEEL WORKS

1.0 SCOPE OF WORKS

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete

fabrication, installation & testing of the equipment's in accordance with the applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

4.0 SPECIFICATION

All Materials for this section shall be Food Grade Stainless Steel (304/316) Sheets and Pipes (Frames) in brushed finish.

Prepared by:

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Conformed by:

MARIA CLARA P. DE GUZMAN
SWO V – EGV

Recommending Approval:

MANUELA M. LOZA
Assistant Regional Director for Administration

Approved by:

VICENTE GREGORIO B. TOMAS
Regional Director

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

CONSTRUCTION SAFETY AND HEALTH PROGRAM

Date Submitted

Subject/Title	:	Construction of Isolation Facility for South Cluster Under Design and Build Scheme
Location	:	DSWD-NCR Reception and Study Center for Children (RSCC)

Item	Description

Statement of Commitment to Comply with OSH Requirements

I/We (Name of Contractor's Authorized Official and/or Project Owner), by accomplishing this Construction Safety and Health Program, do hereby commit and bind ourselves to comply with the requirements of the Department Order No. 13, series of 1998 – Guidelines Governing Occupational Safety and Health in the Construction Industry and the applicable provisions of the Occupational Safety and Health Standards (OSHS). We (also) acknowledge our obligation and responsibilities to provide throughout the course of the project the appropriate Personal Protective Equipment (PPE) as added protection for our workers and employees. We also (hereby) commit to implement the necessary job safety and health instructions and training to all our workers for the entire (during the) duration of the project, as well as the safety of the general public.

Company Safety and Health Policy

It is the general policy of (Name of Contractor/company) to perform work in the safest manner possible consistent with good construction practices. To fulfill the requirements of this policy, an organized and effective Construction Safety and Health Program as described in this program and in consonance with DOLE D.O. No. 13 and the OSH Standards must be carried out on every project. To achieve these objectives, we are committed to perform the following:

- Identifying potential hazards that may arise from the programmed work activities;
- Organizing the work activities so as to minimize the risk arising from them;
- Developing and implementing project specific safety and health program;
- Establishing and enforcing all necessary safe work procedures, rules and regulations;
- Ensuring that all workers are given orientation/briefing or induction prior to deployment to the site;
- Establishing a site safety and health committee to act as policy-making body of the project on all issues pertaining to safety and health;

- Ensuring the conduct of daily toolbox meetings;
- Establishing a system of follow-up of actions and periodic assessment to check program effectiveness.

Project Details

Specific name of project and Name of Owner:

Location of the project:

Name of General Constructor (constructor who has general supervision over other constructors in the execution of this project and who directly receives instructions from the owner or construction project manager, if any)		
Name of Project Manager/ Contact Number (the overall technical personnel of the general constructor and or the subcontractor in charge of the actual execution of this project)		
Name of Resident Engineer, if any (a duly licensed engineer who shall be tasked to be present at the construction site at all times, whenever work is being undertaken, and shall have the responsibility of assuring the technical conformance of all designs, materials, processes, work procedures rendered for the execution of this project, including safety and health of all persons within the construction site)		
Name and Classification of Constructors	Name	Classification

(synonymous to builders who undertake or offer to undertake or purport to have the capacity to undertake or submit a bid to, or do themselves or by or through others, construct, alter, repair, add to, subtract from, improve, move, wreck or demolish any building, highway, road, railroad, excavation or other structures, project, development or improvement, or to do any part thereof, including the erection of scaffolding or other structures or works in connection with this project. The term constructor includes subcontractor and specialty contractor.)	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.
Estimated quantity of heavy equipment:	Equipment Estimated Quantity 1. 2. 3. 4. 5. 6.
Projected dates of commencement and completion	Start Date: _____ End Date: _____ Est. Days to Complete: _____
Name and address of Emergency Health Provider (any person or organization who is certified or recognized by the Department of Health and who can provide the same or equivalent emergency health services as an emergency hospital, including emergency treatment or workers on site, emergency transport and care during transport of injured workers to the nearest hospital, with adequate personnel, supplies and facilities for the complete immediate treatment of injuries or illnesses)	
Total Project Cost (Php)	

Construction Safety & Health Committee

Section 11 of D.O. No. 13 requires that rules of Construction Safety and Health Program must be observed and enforced at the project site, each site shall, at the start of the construction have a construction safety and health committee. With respect to this project, the committee will be organized in accordance with the requirements of Rule 1040 of the Occupational Safety and Health (OSH) Standards of the Department of Labor and Employment (DOLE).

Composition of Construction Safety and Health Committee (CSHC) Our CSHC at the (Name of Project) is composed of:

Project Manager or his representative as the chairperson: _____

General Construction Safety and Health Officer/s (overall in charge in the implementation of the OSH program of this project hired by the General Constructor. Please attach certificate of training/s prescribed by DOLE. Numbers will be dependent on the numbers of workers and heavy equipment)
Name: _____
Name: _____

Construction Safety and Health (CSH) Officer/s from Subcontractors any employee/worker trained and, in addition to their regular duties and responsibilities tasked by his employer to implement occupational safety and health program in accordance with the provisions of the OSH Standard. Please attach certificate of training/s prescribed by DOLE).
Name: _____
Company: _____

Name: _____
Company: _____

Name: _____
Company: _____

Occupational Health Personnel (qualified first-aider, nurse, dentist, or physician, engaged by the employer to provide occupational health services in the establishment/undertaking. Please attach certificate of training/s prescribed by DOLE):

Name: _____
Designation: _____

Name: _____
Designation: _____

Name: _____
Designation: _____

Name: _____
Designation: _____

Workers' representatives (minimum of 3 union members if organized, not necessarily from one employer)

Name: _____
Designation: _____

Name: _____
Designation: _____

Name: _____
Designation: _____

Duties of the CSH Committee shall include but are not limited to the following

Plans, develops and oversees the accident prevention programs for the construction project;

Directs the accident prevention efforts of the establishment in accordance with the safety programs and performance and government regulations in order to prevent accidents from occurring in the worksite;

Conducts safety meetings at least once a month. The committee will hold a safety meeting every First Monday of the month;

Submits reports to the project manager (is this pm of the owner or pm of the gen con?) on its meetings and activities one day after the meeting;

Reviews reports of inspection, accident investigation and implementation of program;

Provides necessary assistance to government inspecting authorities in the proper conduct of their activities specifically on the enforcement of the provision of DOLE's OSHS;

Submits the monthly the following safety and health reports to the DOLE Regional Office having jurisdiction over the project

Summary of all safety and health committee meetings agreements;

Periodic hazards assessment with the corresponding remedial measures/actions for each hazard;

Initiates and supervises safety and health training for employees. (Check on the boxes or list down the training to be provided for workers and employees)

□ 40-Hour Construction Occupational Safety and Health Course
□ 1-Day Workers Safety & Health Orientation
□ others, specify:
_____

Dangerous Occurrence or Major Accident

In case of any dangerous occurrence or major accident resulting to death or permanent total disability, we will notify the DOLE Regional Office within twenty-four (24) hours from occurrence. After the conduct of investigation by our concerned safety and health officer, we will report all permanent total disabilities to the DOLE Regional Office on or before the 20th of the month following the date of occurrence of accident using the DOLE/BWC/HSD-IP-6 form.

Emergency Occupational Health Personnel and Facilities

Section 8 of D.O. No. 13 states that the construction project owner or his representative shall provide competent emergency health personnel within the worksite duly complemented by adequate medical supplies, equipment and facilities based on the total number of workers in the site.

Emergency Health Personnel and Facilities

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Emergency Health Personnel and Facilities

CONSTRUCTION STAGE	NO. OF WORKERS	HEALTH PERSONNEL (NAME)

(Use additional sheet if necessary)

Safety & Health Promotion & Education:

The (Name of Company) is committed at ensuring that all workers or employees are given orientation/briefing or induction prior to deployment to the site. It is our continuing effort to promote safety and health consciousness to all people involved in this project by providing them with the necessary safety and health training and education to enhance their knowledge and skills to enable us to attain a safe and healthful project site.

Workers Safety and Health Orientation/Trainings

We require new workers to attend our Safety & Health Orientation before they are deployed to this project site in consonance to Section 12 of the D.O. 13. The assigned Safety Officer, Mr./Ms (Name of Personnel) will coordinate the conduct of this orientation.

We ensure that they receive instruction and training regarding the general safety and health measures we plan to implement for this project, specifically:

basic rights and duties of workers at the jobsite;
means of access and egress both during normal work and in emergency situation;
measures for good housekeeping;
location and proper use of welfare amenities and first –aid facilities;
proper care of PPEs and other protective clothing;
general measures for personal hygiene and health protection;
fire precautions to be taken;
action to be taken in case of any emergencies;

requirements of relevant health and safety rules and regulations

Below is the list of workers who have undergone the DOLE prescribed safety and health trainings and orientation

Name	Title of Training Attended

(Use additional sheet if necessary)

Responsible for the Toolbox Meeting

The following supervisor or any designated person (foreman, leadman, etc.) is required to conduct daily toolbox or similar meetings prior to starting the tasks for the day to discuss with the workers and anticipate safety and health problems related to every task and the potential solutions to those problems. The supervisor will remind the workers on the necessary safety precautions that need to be undertaken.

Name of Supervisor	Time of Toolbox Meeting (indicate shift, e.g. 1st, 2nd, 3rd)	Means of Documentation (attach sample instrument)

(Use additional sheet if necessary)

Accident/Incident/Illnesses Investigation & Reporting

We consider accident/incident/illnesses investigation and reporting as our responsibility. Absenteeism can greatly affect our work schedule. Looking for replacement can be costly for the company, the hiring effort, training of new workers, the loss of job momentum affects our productivity. We involve our supervisors in this program because they are more familiar with the people involved, they have better understanding of the operation, and they have personal interest in the investigation since it's their people who are involved. For this reason, the (name of

company) is committed to include this responsibility to all supervisors and made them aware about it.

In this project the following person/s will be assigned to conduct accident/incident investigation:

Accidents	All incidents	Illness

(Use additional sheet if necessary)

In conducting the accident/illness investigation, we gather facts, analyze them and make the necessary recommendation.

_____
_____
_____
_____
_____
_____
_____
_____
_____

We will submit the following reports to the DOLE Regional Office concerned:

In case of any dangerous occurrence or major accidents resulting to death or permanent total disability shall be notified to DOLE Regional Office concerned within 24 hours.

Summary of Work Accident/Illness Exposure Data Report will be submitted on or before the 20th of the month following the date of occurrence of accident (for those projects with short duration or less than one year duration).

Personal Protective Equipment (PPE)

Section 6 of D.O. No. 13 requires that every employer shall, at his own expense, furnish his workers with protective equipment for eyes, face, hands, feet, lifeline, safety belt/harness, protective shields and barriers whenever necessary by reason of the hazardous work process or environment, chemical or radiological or other mechanical irritants or hazards capable of causing

injury or impairment in the function or any part of the body through absorption, inhalation or physical agent. Provision of PPE shall be in accordance with Rule 1080 of the OSHS (must include Rule 1070 for noise). The equivalent cost for the provision of PPE (life span, depreciation, replacement, etc.) shall be an integral part of the project cost.

Type of PPE	Quantity Needed	Unit Price (Php)	Total Cost (Php)

(Use additional sheet if necessary)

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Our workers or employees inspect, clean, and maintain their PPE according to the manufacturers' instructions before and after each use. Our supervisors are responsible for ensuring that users properly maintain their PPEs in good condition.

We enforce our rule that PPEs must not be shared between workers or employees until it has been properly cleaned and sanitized. PPE are distributed for individual use whenever possible.

If workers or employees provide their own PPEs, we make sure that it is adequate for the work place hazards, and that it is maintained in a clean and stored in a conducive condition.

We never allow the use of defective or damaged PPEs. We immediately discard and replace them to avoid any unintentional use.

We also consider the importance of ensuring that any contaminated PPE which cannot be decontaminated is disposed of in a manner that protects workers or employees from exposure to hazards

Safety Signages

Our Safety Signages provides warning to workers and employees and the public about the hazards around the project site. These will be posted in prominent positions at strategic location visible as far as possible in a language understandable to most of the workers and employees as well as the public.

The specific safety signages we intend to set-up for this project include but not limited to (attached picture):

- Mandatory requirement on the usage of PPE prior to entry to the project site
- Areas where there are potential risks of falling objects
- Areas where explosives and flammable substances are used or stored

- Areas where there are tripping or slipping hazards
- All places where contact with or proximity to electrical/facility equipment can cause danger
- All places where workers may come in contact with dangerous moving parts of the machineries or equipment
- Location of the fire alarms and fire-fighting equipment
- Instructions on the usage of specific construction equipment
- Periodic updating of man-hours lost.

We will regularly inspect and maintain in good condition all safety signages that we will be providing for this project. The person in charge in inspecting is/are (complete name of person/s), he/she is/are our (designation). Inspection will be carried out on a weekly basis. Staff of the person-in-charge will remove and replaced any signages that are damaged, illegible, or no longer apply with the current hazard.

Construction Workers Skills Certification

The company will ensure that all workers assigned in the critical occupations as defined in Section 15 of D.O. No. 13 and those who will be assigned in the operation of construction heavy equipment (CHE) will undergo mandatory skills testing for certification by TESDA (Attach TESDA certificates of those workers certified by TESDA.)

Testing & Inspection of Construction Heavy Equipment

All construction heavy equipment will be tested and inspected in accordance with the requirements of Section 10 of D.O. No. 13. The company will ensure that all heavy equipment will be operated by qualified and certified operators. (Attach Certificate of Testing and Inspection of CHE used issued by DOLE Accredited Testing Organizations for CHE and TESDA certificate of CHE operator/s).

Control Measures on Construction Activities

To ensure safe and healthy working conditions throughout the duration of the project the following control measure activities will be enforced and disseminated to all the workers in the site:

Major Activities

Major activities for this project include but not limited to the following: (please check on the box all that applies)

□ Demolition
□ Excavation
□ Earthmoving
□ Scaffold
□ Formwork
□ Structural Steel

□ Crane Operation
□ Concreting
□ Rebar works
□ Welding
□ Electrical
□ HVAC
□ Plumbing
□ Painting
□ interior Decoration
□ Others (please specify)

Hazards Identified

Based on the list of activities for this project, we found the following potential hazards that we may possibly encounter in the course of project implementation:

Physical Hazards

Physical hazards are the most common in most workplaces. The physical hazards that we identified for this project include but are not limited to the following: (please check on the box all that applies)

□ machineries
□ power and hand tools
□ electrical
□ ladders and scaffolds
□ noise
□ ventilation
□ exposure to heat
□ tripping
□ fall hazards
□ collapse
□ others (please specify)

Chemical Hazards

Chemical hazards are present workers handle chemical preparations in any form (solid, liquid or gas). Some are safer than others, however, some workers are more sensitive to chemicals, even the common solutions causing illness, skin irritation or breathing problems. The chemical hazards that we identified for this project include but are not limited to the following: (please check on the box all that applies)

□ solvents
□ paint products
□ acids
□ cleaning products
□ acetylene
□ propane
□ gasoline
□ explosive chemical
□ welding fumes
□ others (please specify)

Biological Hazards

Biological hazards come from working with infectious people, plants, and other living materials. The biological hazards that we have identified for this project includes but not limited to the following: (please check on the box all that applies)
□ blood or other body fluids
□ fungi
□ bacteria and viruses
□ plants
□ insect bites
□ animal and bird droppings
□ others (please specify)

Ergonomic Hazards

Ergonomic hazards occur when the type of work, body position and working conditions put strain on the body. They are the hardest to spot since one does not immediately notice the strain on your body or the harm these hazards pose. Short-term exposure may result in "sore muscles" on the days following exposure, but long-term exposure can result in serious musculoskeletal injuries. The ergonomic hazards that we identified for this project includes but not limited to the following: (please check on the box all that applies)

□ poor lighting
□ frequent lifting
□ poor posture
□ repetitive motion
□ exertion of force
□ awkward movement
□ others (please specify)

Safe Work Practices

Safe work practices are procedures adopted for carrying out specific tasks that ensures workers' exposure to hazardous situations, substances, and physical agents is controlled in a safe manner. Safe work practices are generally written methods outlining how to perform a task with minimum

risk to people, equipment, materials, environment, and processes. It should be developed as a result of completing a Hazard Assessment and should closely reflect the activities in this project. All safe work practices should be kept in a location central to the work being performed and readily available to the workforce. Some safe work practices will require specific job procedures, which clearly set out in a chronological order each step in a process. (Enumerate below the safe work practices that you intend to perform relative to the hazards you previously identified above.)

First-Aid, Health Care Medicines and Equipment Facilities

The company will provide first-aid kit and health care medicines and facilities for workers in the site in accordance with the requirements of Rule 1960 of the OSHS.

Workers Welfare Facilities

The following welfare facilities will be provided in the site to ensure human working conditions:

- Adequate supply of safe drinking water
- Adequate sanitary, washing and sleeping facilities separate for men and women workers
- Adequate facilities for changing and for the storage and drying of work clothes.
- Adequate accommodation for taking meals.

To assure that the company provides adequate welfare facilities for the workers in the site the company will implement the provision of toilets and other facilities in accordance with the requirements of the Sanitation Code.

Medical Surveillance

The company will require all employees to undergo a baseline or initial medical health examination prior to assigning to a potentially hazardous activity. The examination will include but not limited to the following:

- Complete medical and work history;
- Physical examination (Pre-employment, During employment and Separation);
- Other special examination (Pulmonary function test, blood panel, ECG >40 years of age, audiogram); Random drug testing.
- Any Covid-19 Related Diseases

Working Hour & Break Time

The work schedule will be on (please check on the boxes that apply):
□ Mon. □Tue. □Wed. □Thur. □Fri. □Sat. □Sun

Check on the shift and indicate the work hours for the shift that applies.
□ 1st Shift from _____(am/pm) to _____ (am/pm)
□ 2nd Shift from _____(am/pm) to _____ (am/pm)

□ 3rd Shift from _____(am/pm) to _____ (am/pm)

Check on the shift and indicate the break for the shift that applies.
□ 1st Shift from _____(am/pm) to _____ (am/pm)
□ 2nd Shift from _____(am/pm) to _____ (am/pm)
□ 3rd Shift from _____(am/pm) to _____ (am/pm)

Construction Waste Disposal

The company including subcontractors will be responsible for minimizing waste generated during the implementation of the project. The following procedures for disposal of wastes will be implemented in the site:

- Ensure that the construction wastes are segregated from that of domestic waste.
- All domestic wastes are to be collected on a daily basis.
- Construction debris (broken hollow blocks, spoiled concrete, loose concrete, etc.) should be taken out on the staging area.
- Oil spills and spoiled greases should be wrapping in the black garbage bag and will be properly disposed. Application of good housekeeping.

Emergency Preparedness

The objectives of this are to ensure that the company has developed and communicated plans that will allow for the effective management of emergencies. Attach copy of company emergency preparedness plan.

Penalties/Sanctions

For every offenses and violation of any safety rules, regulations and general practices promulgated by the project and/or the company, the company recommended the following penalties and sanctions for violation of CSH program: (Please attach company policy on penalties, if there are any).

Safety Violation	First Offense	Second Offense	Third Offense
No helmet, no safety shoes, no safety belt/harness	Warning	3 calendar day suspension	5 calendar day suspension
no ID, Uniform, working attire, goggles, glove & apron	Warning	3 calendar day suspension	5 calendar day suspension
eating at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension
littering and loitering	Warning	3 calendar day suspension	5 calendar day suspension
smoking at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension
urinating at	Warning	3 calendar day	5 calendar day

prohibited area		suspension	suspension
illegal dismantling of safety signages and paraphernalia	Warning	3 calendar day suspension	Dismissal
illegal gambling	3 calendar day suspension	5 calendar day suspension	Dismissal
overnight stay w/o permission	3 calendar day suspension	Dismissal	
fighting & provoking others	5 calendar day suspension		
working under the influence of drugs and liquor	Dismissal		
possession of illegal drugs, deadly weapon & gambling paraphernalia	Dismissal		
pilferage and robbery	Dismissal		
illegal entry/exit	Dismissal		
refusal to surrender ID & giving false representation	Dismissal		

Attach the following upon submittal:

- Certificate of DOLE Company registration under Rule 1020 of the OSHS
- DTI – PCAB License
- Notice of Award/contract
- Certificates of trainings completed of appointed safety and health personnel
- CHE certificate of testing and inspection (if heavy equipment will be used)
- Skills certification of workers (critical occupations)
- OSH Reportorial requirements
- Others _____

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

CONSTRUCTION SAFETY AND HEALTH PROGRAM

Date Submitted

Subject/Title	:	Construction of Isolation Facility for Central Cluster Under Design and Build Scheme
Location	:	DSWD-NCR Jose Fabella Center (JFC)

Item	Description

Statement of Commitment to Comply with OSH Requirements

I/We (Name of Contractor's Authorized Official and/or Project Owner), by accomplishing this Construction Safety and Health Program, do hereby commit and bind ourselves to comply with the requirements of the Department Order No. 13, series of 1998 – Guidelines Governing Occupational Safety and Health in the Construction Industry and the applicable provisions of the Occupational Safety and Health Standards (OSHS). We (also) acknowledge our obligation and responsibilities to provide throughout the course of the project the appropriate Personal Protective Equipment (PPE) as added protection for our workers and employees. We also (hereby) commit to implement the necessary job safety and health instructions and training to all our workers for the entire (during the) duration of the project, as well as the safety of the general public.

Company Safety and Health Policy

It is the general policy of (Name of Contractor/company) to perform work in the safest manner possible consistent with good construction practices. To fulfill the requirements of this policy, an organized and effective Construction Safety and Health Program as described in this program and in consonance with DOLE D.O. No. 13 and the OSH Standards must be carried out on every project. To achieve these objectives, we are committed to perform the following:

- Identifying potential hazards that may arise from the programmed work activities;
- Organizing the work activities so as to minimize the risk arising from them;
- Developing and implementing project specific safety and health program;
- Establishing and enforcing all necessary safe work procedures, rules and regulations;
- Ensuring that all workers are given orientation/briefing or induction prior to deployment to the site;
- Establishing a site safety and health committee to act as policy-making body of the project on all issues pertaining to safety and health;
- Ensuring the conduct of daily toolbox meetings;
- Establishing a system of follow-up of actions and periodic assessment to check program effectiveness.

Project Details

Specific name of project and Name of Owner:	
Location of the project:	
Name of General Constructor (constructor who has general supervision over other constructors in the execution of this project and who directly receives instructions from the owner or construction project manager, if any)	
Name of Project Manager/ Contact Number (the overall technical personnel of the general constructor and or the subcontractor in charge of the actual execution of this project)	
Name of Resident Engineer, if any (a duly licensed engineer who shall be tasked to be present at the construction site at all times, whenever work is being undertaken, and shall have the responsibility of assuring the technical conformance of all designs, materials, processes, work procedures rendered for the execution of this project, including safety and health of all persons within the construction site)	
Name and Classification of Constructors (synonymous to builders who undertake or offer to undertake or purport to have the capacity to undertake or submit a bid to, or do themselves or by or through others, construct, alter, repair, add to, subtract from, improve, move, wreck or demolish any building, highway, road, railroad, excavation or other structures, project, development or improvement, or to do any part thereof, including the erection of scaffolding or other structures or works in connection with this project. The term constructor includes subcontractor and specialty contractor.)	Name Classification 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.
Estimated quantity of heavy equipment:	Equipment Estimated Quantity 1. 2. 3. 4. 5. 6.
Projected dates of commencement and	Start Date: _____

completion

End Date: _____
Est. Days to Complete: _____

Name and address of Emergency Health Provider (any person or organization who is certified or recognized by the Department of Health and who can provide the same or equivalent emergency health services as an emergency hospital, including emergency treatment or workers on site, emergency transport and care during transport of injured workers to the nearest hospital, with adequate personnel, supplies and facilities for the complete immediate treatment of injuries or illnesses)

Total Project Cost (Php)

Construction Safety & Health Committee

Section 11 of D.O. No. 13 requires that rules of Construction Safety and Health Program must be observed and enforced at the project site, each site shall, at the start of the construction have a construction safety and health committee. With respect to this project, the committee will be organized in accordance with the requirements of Rule 1040 of the Occupational Safety and Health (OSH) Standards of the Department of Labor and Employment (DOLE).

Composition of Construction Safety and Health Committee (CSHC) Our CSHC at the (Name of Project) is composed of:

Project Manager or his representative as the chairperson: _____

General Construction Safety and Health Officer/s (overall in charge in the implementation of the OSH program of this project hired by the General Constructor. Please attach certificate of training/s prescribed by DOLE. Numbers will be dependent on the numbers of workers and heavy equipment)

Name: _____
Name: _____

Construction Safety and Health (CSH) Officer/s from Subcontractors any employee/worker trained and, in addition to their regular duties and responsibilities tasked by his employer to implement occupational safety and health program in accordance with the provisions of the OSH Standard. Please attach certificate of training/s prescribed by DOLE).

Name: _____
Company: _____

Name: _____

Company: _____

Name: _____
Company: _____

Occupational Health Personnel (qualified first-aider, nurse, dentist, or physician, engaged by the employer to provide occupational health services in the establishment/undertaking. Please attach certificate of training/s prescribed by DOLE):

Name: _____
Designation: _____

Name: _____
Designation: _____

Name: _____
Designation: _____

Name: _____
Designation: _____

Workers' representatives (minimum of 3 union members if organized, not necessarily from one employer)

Name: _____
Designation: _____

Name: _____
Designation: _____

Name: _____
Designation: _____

Duties of the CSH Committee shall include but are not limited to the following

Plans, develops and oversees the accident prevention programs for the construction project;

Directs the accident prevention efforts of the establishment in accordance with the safety programs and performance and government regulations in order to prevent accidents from occurring in the worksite;

Conducts safety meetings at least once a month. The committee will hold a safety meeting every First Monday of the month;

Submits reports to the project manager (is this pm of the owner or pm of the gen con?) on its

meetings and activities one day after the meeting;

Reviews reports of inspection, accident investigation and implementation of program;

Provides necessary assistance to government inspecting authorities in the proper conduct of their activities specifically on the enforcement of the provision of DOLE's OSHS;

Submits the monthly the following safety and health reports to the DOLE Regional Office having jurisdiction over the project

Summary of all safety and health committee meetings agreements;

Periodic hazards assessment with the corresponding remedial measures/actions for each hazard;

Initiates and supervises safety and health training for employees. (Check on the boxes or list down the training to be provided for workers and employees)

□ 40-Hour Construction Occupational Safety and Health Course
□ 1-Day Workers Safety & Health Orientation
□ others, specify: _____

Dangerous Occurrence or Major Accident

In case of any dangerous occurrence or major accident resulting to death or permanent total disability, we will notify the DOLE Regional Office within twenty-four (24) hours from occurrence. After the conduct of investigation by our concerned safety and health officer, we will report all permanent total disabilities to the DOLE Regional Office on or before the 20th of the month following the date of occurrence of accident using the DOLE/BWC/HSD-IP-6 form.

Emergency Occupational Health Personnel and Facilities

Section 8 of D.O. No. 13 states that the construction project owner or his representative shall provide competent emergency health personnel within the worksite duly complemented by adequate medical supplies, equipment and facilities based on the total number of workers in the site.

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Emergency Health Personnel and Facilities

CONSTRUCTION STAGE	NO. OF WORKERS	HEALTH PERSONNEL (NAME)

(Use additional sheet if necessary)

Safety & Health Promotion & Education:

The (Name of Company) is committed at ensuring that all workers or employees are given orientation/briefing or induction prior to deployment to the site. It is our continuing effort to promote safety and health consciousness to all people involved in this project by providing them with the necessary safety and health training and education to enhance their knowledge and skills to enable us to attain a safe and healthful project site.

Workers Safety and Health Orientation/Trainings

We require new workers to attend our Safety & Health Orientation before they are deployed to this project site in consonance to Section 12 of the D.O. 13. The assigned Safety Officer, Mr./Ms (Name of Personnel) will coordinate the conduct of this orientation.

We ensure that they receive instruction and training regarding the general safety and health measures we plan to implement for this project, specifically:

basic rights and duties of workers at the jobsite;
means of access and egress both during normal work and in emergency situation;
measures for good housekeeping;
location and proper use of welfare amenities and first –aid facilities;
proper care of PPEs and other protective clothing;
general measures for personal hygiene and health protection;
fire precautions to be taken;
action to be taken in case of any emergencies;
requirements of relevant health and safety rules and regulations

Below is the list of workers who have undergone the DOLE prescribed safety and health trainings and orientation

Name	Title of Training Attended

(Use additional sheet if necessary)

Responsible for the Toolbox Meeting

The following supervisor or any designated person (foreman, leadman, etc.) is required to conduct daily toolbox or similar meetings prior to starting the tasks for the day to discuss with the

workers and anticipate safety and health problems related to every task and the potential solutions to those problems. The supervisor will remind the workers on the necessary safety precautions that need to be undertaken.

Name of Supervisor	Time of Toolbox Meeting (indicate shift, e.g. 1st, 2nd, 3rd)	Means of Documentation (attach sample instrument)

(Use additional sheet if necessary)

Accident/Incident/Illnesses Investigation & Reporting

We consider accident/incident/illnesses investigation and reporting as our responsibility. Absenteeism can greatly affect our work schedule. Looking for replacement can be costly for the company, the hiring effort, training of new workers, the loss of job momentum affects our productivity. We involve our supervisors in this program because they are more familiar with the people involved, they have better understanding of the operation, and they have personal interest in the investigation since it's their people who are involved. For this reason, the (name of company) is committed to include this responsibility to all supervisors and made them aware about it.

In this project the following person/s will be assigned to conduct accident/incident investigation:

Accidents	**All incidents**	**Illness**

(Use additional sheet if necessary)

In conducting the accident/illness investigation, we gather facts, analyze them and make the necessary recommendation.

_____
_____
_____
_____
_____
_____
_____
_____

We will submit the following reports to the DOLE Regional Office concerned:

In case of any dangerous occurrence or major accidents resulting to death or permanent total disability shall be notified to DOLE Regional Office concerned within 24 hours.

Summary of Work Accident/Illness Exposure Data Report will be submitted on or before the 20th of the month following the date of occurrence of accident (for those projects with short duration or less than one year duration).

Personal Protective Equipment (PPE)

Section 6 of D.O. No. 13 requires that every employer shall, at his own expense, furnish his workers with protective equipment for eyes, face, hands, feet, lifeline, safety belt/harness, protective shields and barriers whenever necessary by reason of the hazardous work process or environment, chemical or radiological or other mechanical irritants or hazards capable of causing injury or impairment in the function or any part of the body through absorption, inhalation or physical agent. Provision of PPE shall be in accordance with Rule 1080 of the OSHS (must include Rule 1070 for noise). The equivalent cost for the provision of PPE (life span, depreciation, replacement, etc.) shall be an integral part of the project cost.

Type of PPE	Quantity Needed	Unit Price (Php)	Total Cost (Php)

(Use additional sheet if necessary)

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Our workers or employees inspect, clean, and maintain their PPE according to the manufacturers' instructions before and after each use. Our supervisors are responsible for ensuring that users properly maintain their PPEs in good condition.

We enforce our rule that PPEs must not be shared between workers or employees until it has been properly cleaned and sanitized. PPE are distributed for individual use whenever possible.

If workers or employees provide their own PPEs, we make sure that it is adequate for the work place hazards, and that it is maintained in a clean and stored in a conducive condition.

We never allow the use of defective or damaged PPEs. We immediately discard and replace them to avoid any unintentional use.

We also consider the importance of ensuring that any contaminated PPE which cannot be decontaminated is disposed of in a manner that protects workers or employees from exposure to hazards

Safety Signages

Our Safety Signages provides warning to workers and employees and the public about the hazards around the project site. These will be posted in prominent positions at strategic location visible as far as possible in a language understandable to most of the workers and employees as well as the public.

The specific safety signages we intend to set-up for this project include but not limited to (attached picture):

- Mandatory requirement on the usage of PPE prior to entry to the project site
- Areas where there are potential risks of falling objects
- Areas where explosives and flammable substances are used or stored
- Areas where there are tripping or slipping hazards
- All places where contact with or proximity to electrical/facility equipment can cause danger
- All places where workers may come in contact with dangerous moving parts of the machineries or equipment
- Location of the fire alarms and fire-fighting equipment
- Instructions on the usage of specific construction equipment
- Periodic updating of man-hours lost.

We will regularly inspect and maintain in good condition all safety signages that we will be providing for this project. The person in charge in inspecting is/are (complete name of person/s), he/she is/are our (designation). Inspection will be carried out on a weekly basis. Staff of the person-in-charge will remove and replaced any signages that are damaged, illegible, or no longer apply with the current hazard.

Construction Workers Skills Certification

The company will ensure that all workers assigned in the critical occupations as defined in Section 15 of D.O. No. 13 and those who will be assigned in the operation of construction heavy equipment (CHE) will undergo mandatory skills testing for certification by TESDA (Attach TESDA certificates of those workers certified by TESDA.)

Testing & Inspection of Construction Heavy Equipment

All construction heavy equipment will be tested and inspected in accordance with the requirements of Section 10 of D.O. No. 13. The company will ensure that all heavy equipment will be operated by qualified and certified operators. (Attach Certificate of Testing and Inspection of CHE used issued by DOLE Accredited Testing Organizations for CHE and TESDA certificate of CHE operator/s).

Control Measures on Construction Activities

To ensure safe and healthy working conditions throughout the duration of the project the following control measure activities will be enforced and disseminated to all the workers in the site:

Major Activities

Major activities for this project include but not limited to the following: (please check on the box all that applies)

□ Demolition
□ Excavation
□ Earthmoving
□ Scaffold
□ Formwork
□ Structural Steel
□ Crane Operation
□ Concreting
□ Rebar works
□ Welding
□ Electrical
□ HVAC
□ Plumbing
□ Painting
□ interior Decoration
□ Others (please specify)

Hazards Identified

Based on the list of activities for this project, we found the following potential hazards that we may possibly encounter in the course of project implementation:

Physical Hazards

Physical hazards are the most common in most workplaces. The physical hazards that we identified for this project include but are not limited to the following: (please check on the box all that applies)

□ machineries
□ power and hand tools
□ electrical
□ ladders and scaffolds
□ noise
□ ventilation
□ exposure to heat
□ tripping
□ fall hazards
□ collapse
□ others (please specify)

Chemical Hazards

Chemical hazards are present workers handle chemical preparations in any form (solid, liquid or gas). Some are safer than others, however, some workers are more sensitive to chemicals, even the common solutions causing illness, skin irritation or breathing problems. The chemical hazards that we identified for this project include but are not limited to the following: (please check on the box all that applies)

□ solvents
□ paint products
□ acids
□ cleaning products
□ acetylene
□ propane
□ gasoline
□ explosive chemical
□ welding fumes
□ others (please specify)

Biological Hazards

Biological hazards come from working with infectious people, plants, and other living materials. The biological hazards that we have identified for this project includes but not limited to the following: (please check on the box all that applies)
□ blood or other body fluids
□ fungi
□ bacteria and viruses
□ plants
□ insect bites
□ animal and bird droppings
□ others (please specify)

Ergonomic Hazards

Ergonomic hazards occur when the type of work, body position and working conditions put strain on the body. They are the hardest to spot since one does not immediately notice the strain on your body or the harm these hazards pose. Short-term exposure may result in "sore muscles" on the days following exposure, but long-term exposure can result in serious musculoskeletal injuries. The ergonomic hazards that we identified for this project includes but not limited to the following: (please check on the box all that applies)

□ poor lighting
□ frequent lifting
□ poor posture
□ repetitive motion
□ exertion of force
□ awkward movement
□ others (please specify)

Safe Work Practices

Safe work practices are procedures adopted for carrying out specific tasks that ensures workers' exposure to hazardous situations, substances, and physical agents is controlled in a safe manner. Safe work practices are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. It should be developed as a result of completing a Hazard Assessment and should closely reflect the activities in this project. All safe work practices should be kept in a location central to the work being performed and readily available to the workforce. Some safe work practices will require specific job procedures, which clearly set out in a chronological order each step in a process. (Enumerate below the safe work practices that you intend to perform relative to the hazards you previously identified above.)

First-Aid, Health Care Medicines and Equipment Facilities

The company will provide first-aid kit and health care medicines and facilities for workers in the site in accordance with the requirements of Rule 1960 of the OSHS.

Workers Welfare Facilities

The following welfare facilities will be provided in the site to ensure human working conditions:

- Adequate supply of safe drinking water
- Adequate sanitary, washing and sleeping facilities separate for men and women workers
- Adequate facilities for changing and for the storage and drying of work clothes.
- Adequate accommodation for taking meals.

To assure that the company provides adequate welfare facilities for the workers in the site the company will implement the provision of toilets and other facilities in accordance with the requirements of the Sanitation Code.

Medical Surveillance

The company will require all employees to undergo a baseline or initial medical health examination prior to assigning to a potentially hazardous activity. The examination will include but not limited to the following:

- Complete medical and work history;
- Physical examination (Pre-employment, During employment and Separation);
- Other special examination (Pulmonary function test, blood panel, ECG >40 years of age, audiogram); Random drug testing.
- Any Covid-19 Related Diseases

Working Hour & Break Time

The work schedule will be on (please check on the boxes that apply):
□ Mon. □Tue. □Wed. □Thur. □Fri. □Sat. □Sun

Check on the shift and indicate the work hours for the shift that applies.
□ 1st Shift from _____(am/pm) to _____ (am/pm)
□ 2nd Shift from _____(am/pm) to _____ (am/pm)
□ 3rd Shift from _____(am/pm) to _____ (am/pm)

Check on the shift and indicate the break for the shift that applies.
□ 1st Shift from _____(am/pm) to _____ (am/pm)
□ 2nd Shift from _____(am/pm) to _____ (am/pm)
□ 3rd Shift from _____(am/pm) to _____ (am/pm)

Construction Waste Disposal

The company including subcontractors will be responsible for minimizing waste generated during the implementation of the project. The following procedures for disposal of wastes will be implemented in the site:

- Ensure that the construction wastes are segregated from that of domestic waste.
- All domestic wastes are to be collected on a daily basis.
- Construction debris (broken hollow blocks, spoiled concrete, loose concrete, etc.) should be taken out on the staging area.
- Oil spills and spoiled greases should be wrapping in the black garbage bag and will be properly disposed. Application of good housekeeping.

Emergency Preparedness

The objectives of this are to ensure that the company has developed and communicated plans that will allow for the effective management of emergencies. Attach copy of company emergency preparedness plan.

Penalties/Sanctions

For every offenses and violation of any safety rules, regulations and general practices promulgated by the project and/or the company, the company recommended the following penalties and sanctions for violation of CSH program: (Please attach company policy on penalties, if there are any).

Safety Violation	First Offense	Second Offense	Third Offense
No helmet, no safety shoes, no safety belt/harness	Warning	3 calendar day suspension	5 calendar day suspension
no ID, Uniform, working attire, goggles, glove & apron	Warning	3 calendar day suspension	5 calendar day suspension
eating at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension
littering and loitering	Warning	3 calendar day suspension	5 calendar day suspension
smoking at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension
urinating at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension
illegal dismantling of safety signages and paraphernalia	Warning	3 calendar day suspension	Dismissal
illegal gambling	3 calendar day suspension	5 calendar day suspension	Dismissal
overnight stay w/o permission	3 calendar day suspension	Dismissal	
fighting & provoking others	5 calendar day suspension		
working under the influence of drugs and liquor	Dismissal		
possession of illegal drugs, deadly weapon & gambling paraphernalia	Dismissal		
pilferage and robbery	Dismissal		
illegal entry/exit	Dismissal		
refusal to surrender ID & giving false representation	Dismiss		

Attach the following upon submittal:

- Certificate of DOLE Company registration under Rule 1020 of the OSHS
- DTI – PCAB License

- Notice of Award/contract
- Certificates of trainings completed of appointed safety and health personnel
- CHE certificate of testing and inspection (if heavy equipment will be used)
- Skills certification of workers (critical occupations)
- OSH Reportorial requirements
- Others _____

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

CONSTRUCTION SAFETY AND HEALTH PROGRAM

Date Submitted

Subject/Title	:	Construction of Isolation Facility for South Cluster Under Design and Build Scheme
Location	:	DSWD-NCR Elsie Gaches Village (EGV)

Item	Description

Statement of Commitment to Comply with OSH Requirements

I/We (Name of Contractor's Authorized Official and/or Project Owner), by accomplishing this Construction Safety and Health Program, do hereby commit and bind ourselves to comply with the requirements of the Department Order No. 13, series of 1998 – Guidelines Governing Occupational Safety and Health in the Construction Industry and the applicable provisions of the Occupational Safety and Health Standards (OSHS). We (also) acknowledge our obligation and responsibilities to provide throughout the course of the project the appropriate Personal Protective Equipment (PPE) as added protection for our workers and employees. We also (hereby) commit to implement the necessary job safety and health instructions and training to all our

workers for the entire (during the) duration of the project, as well as the safety of the general public.

Company Safety and Health Policy

It is the general policy of (Name of Contractor/company) to perform work in the safest manner possible consistent with good construction practices. To fulfill the requirements of this policy, an organized and effective Construction Safety and Health Program as described in this program and in consonance with DOLE D.O. No. 13 and the OSH Standards must be carried out on every project. To achieve these objectives, we are committed to perform the following:

- Identifying potential hazards that may arise from the programmed work activities;
- Organizing the work activities so as to minimize the risk arising from them;
- Developing and implementing project specific safety and health program;
- Establishing and enforcing all necessary safe work procedures, rules and regulations;
- Ensuring that all workers are given orientation/briefing or induction prior to deployment to the site;
- Establishing a site safety and health committee to act as policy-making body of the project on all issues pertaining to safety and health;
- Ensuring the conduct of daily toolbox meetings;
- Establishing a system of follow-up of actions and periodic assessment to check program effectiveness.

Project Details

Specific name of project and Name of Owner:

Location of the project:

Name of General Constructor (constructor who has general supervision over other constructors in the execution of this project and who directly receives instructions from the owner or construction project manager, if any)
Name of Project Manager/ Contact Number (the overall technical personnel of the general constructor and or the subcontractor in charge of the actual execution of this project)
Name of Resident Engineer, if any (a duly licensed engineer who shall be tasked to be present at the construction site at all times, whenever work is being undertaken, and shall have the responsibility of assuring the technical conformance of all designs, materials, processes, work procedures rendered for the execution of this project, including safety and

health of all persons within the construction site)	
Name and Classification of Constructors (synonymous to builders who undertake or offer to undertake or purport to have the capacity to undertake or submit a bid to, or do themselves or by or through others, construct, alter, repair, add to, subtract from, improve, move, wreck or demolish any building, highway, road, railroad, excavation or other structures, project, development or improvement, or to do any part thereof, including the erection of scaffolding or other structures or works in connection with this project. The term constructor includes subcontractor and specialty contractor.)	Name Classification 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.
Estimated quantity of heavy equipment:	Equipment Estimated Quantity 1. 2. 3. 4. 5. 6.
Projected dates of commencement and completion	Start Date: _____ End Date: _____ Est. Days to Complete: _____
Name and address of Emergency Health Provider (any person or organization who is certified or recognized by the Department of Health and who can provide the same or equivalent emergency health services as an emergency hospital, including emergency treatment or workers on site, emergency transport and care during transport of injured workers to the nearest hospital, with adequate personnel, supplies and facilities for the complete immediate treatment of injuries or illnesses)	
Total Project Cost (Php)	

Construction Safety & Health Committee

Section 11 of D.O. No. 13 requires that rules of Construction Safety and Health Program must be observed and enforced at the project site, each site shall, at the start of the construction have a

construction safety and health committee. With respect to this project, the committee will be organized in accordance with the requirements of Rule 1040 of the Occupational Safety and Health (OSH) Standards of the Department of Labor and Employment (DOLE).

Composition of Construction Safety and Health Committee (CSHC) Our CSHC at the (Name of Project) is composed of:

Project Manager or his representative as the chairperson: _____

General Construction Safety and Health Officer/s (overall in charge in the implementation of the OSH program of this project hired by the General Constructor. Please attach certificate of training/s prescribed by DOLE. Numbers will be dependent on the numbers of workers and heavy equipment)
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Construction Safety and Health (CSH) Officer/s from Subcontractors any employee/worker trained and, in addition to their regular duties and responsibilities tasked by his employer to implement occupational safety and health program in accordance with the provisions of the OSH Standard. Please attach certificate of training/s prescribed by DOLE).
Name: _____
Company: _____

Name: _____
Company: _____

Name: _____
Company: _____

Occupational Health Personnel (qualified first-aider, nurse, dentist, or physician, engaged by the employer to provide occupational health services in the establishment/undertaking. Please attach certificate of training/s prescribed by DOLE):

Name: _____
Designation: _____

Name: _____
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Name: _____
Designation: _____

Name: _____
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Conducts safety meetings at least once a month. The committee will hold a safety meeting every First Monday of the month;

Submits reports to the project manager (is this pm of the owner or pm of the gen con?) on its meetings and activities one day after the meeting;

Reviews reports of inspection, accident investigation and implementation of program;

Provides necessary assistance to government inspecting authorities in the proper conduct of their activities specifically on the enforcement of the provision of DOLE's OSHS;

Submits the monthly the following safety and health reports to the DOLE Regional Office having jurisdiction over the project

Summary of all safety and health committee meetings agreements;

Periodic hazards assessment with the corresponding remedial measures/actions for each hazard;

Initiates and supervises safety and health training for employees. (Check on the boxes or list down the training to be provided for workers and employees)

□ 40-Hour Construction Occupational Safety and Health Course
□ 1-Day Workers Safety & Health Orientation

□ others, specify: _____

Dangerous Occurrence or Major Accident

In case of any dangerous occurrence or major accident resulting to death or permanent total disability, we will notify the DOLE Regional Office within twenty-four (24) hours from occurrence. After the conduct of investigation by our concerned safety and health officer, we will report all permanent total disabilities to the DOLE Regional Office on or before the 20th of the month following the date of occurrence of accident using the DOLE/BWC/HSD-IP-6 form.

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Emergency Health Personnel and Facilities

CONSTRUCTION STAGE	NO. OF WORKERS	HEALTH PERSONNEL (NAME)

(Use additional sheet if necessary)

Safety & Health Promotion & Education:

The (Name of Company) is committed at ensuring that all workers or employees are given orientation/briefing or induction prior to deployment to the site. It is our continuing effort to promote safety and health consciousness to all people involved in this project by providing them with the necessary safety and health training and education to enhance their knowledge and skills to enable us to attain a safe and healthful project site.

Workers Safety and Health Orientation/Trainings

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We ensure that they receive instruction and training regarding the general safety and health measures we plan to implement for this project, specifically:

basic rights and duties of workers at the jobsite;
means of access and egress both during normal work and in emergency situation;
measures for good housekeeping;
location and proper use of welfare amenities and first –aid facilities;

proper care of PPEs and other protective clothing;
general measures for personal hygiene and health protection;
fire precautions to be taken;
action to be taken in case of any emergencies;
requirements of relevant health and safety rules and regulations

Below is the list of workers who have undergone the DOLE prescribed safety and health trainings and orientation

Name	**Title of Training Attended**

(Use additional sheet if necessary)

Responsible for the Toolbox Meeting

The following supervisor or any designated person (foreman, leadman, etc.) is required to conduct daily toolbox or similar meetings prior to starting the tasks for the day to discuss with the workers and anticipate safety and health problems related to every task and the potential solutions to those problems. The supervisor will remind the workers on the necessary safety precautions that need to be undertaken.

Name of Supervisor	Time of Toolbox Meeting (indicate shift, e.g. 1st, 2nd, 3rd)	Means of Documentation (attach sample instrument)

(Use additional sheet if necessary)

Accident/Incident/Illnesses Investigation & Reporting

We consider accident/incident/illnesses investigation and reporting as our responsibility. Absenteeism can greatly affect our work schedule. Looking for replacement can be costly for the

company, the hiring effort, training of new workers, the loss of job momentum affects our productivity. We involve our supervisors in this program because they are more familiar with the people involved, they have better understanding of the operation, and they have personal interest in the investigation since it's their people who are involved. For this reason, the (name of company) is committed to include this responsibility to all supervisors and made them aware about it.

In this project the following person/s will be assigned to conduct accident/incident investigation:

Accidents	All incidents	Illness

(Use additional sheet if necessary)

In conducting the accident/illness investigation, we gather facts, analyze them and make the necessary recommendation.

_____
_____
_____
_____
_____
_____
_____
_____
_____

We will submit the following reports to the DOLE Regional Office concerned:

In case of any dangerous occurrence or major accidents resulting to death or permanent total disability shall be notified to DOLE Regional Office concerned within 24 hours.

Summary of Work Accident/Illness Exposure Data Report will be submitted on or before the 20th of the month following the date of occurrence of accident (for those projects with short duration or less than one year duration).

Personal Protective Equipment (PPE)

Section 6 of D.O. No. 13 requires that every employer shall, at his own expense, furnish his workers with protective equipment for eyes, face, hands, feet, lifeline, safety belt/harness, protective shields and barriers whenever necessary by reason of the hazardous work process or environment, chemical or radiological or other mechanical irritants or hazards capable of causing injury or impairment in the function or any part of the body through absorption, inhalation or physical agent. Provision of PPE shall be in accordance with Rule 1080 of the OSHS (must include Rule 1070 for noise). The equivalent cost for the provision of PPE (life span, depreciation, replacement, etc.) shall be an integral part of the project cost.

Type of PPE	Quantity Needed	Unit Price (Php)	Total Cost (Php)

(Use additional sheet if necessary)

It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Our workers or employees inspect, clean, and maintain their PPE according to the manufacturers' instructions before and after each use. Our supervisors are responsible for ensuring that users properly maintain their PPEs in good condition.

We enforce our rule that PPEs must not be shared between workers or employees until it has been properly cleaned and sanitized. PPE are distributed for individual use whenever possible.

If workers or employees provide their own PPEs, we make sure that it is adequate for the work place hazards, and that it is maintained in a clean and stored in a conducive condition.

We never allow the use of defective or damaged PPEs. We immediately discard and replace them to avoid any unintentional use.

We also consider the importance of ensuring that any contaminated PPE which cannot be decontaminated is disposed of in a manner that protects workers or employees from exposure to hazards

Safety Signages

Our Safety Signages provides warning to workers and employees and the public about the hazards around the project site. These will be posted in prominent positions at strategic location visible as far as possible in a language understandable to most of the workers and employees as well as the public.

The specific safety signages we intend to set-up for this project include but not limited to (attached picture):

- Mandatory requirement on the usage of PPE prior to entry to the project site
- Areas where there are potential risks of falling objects
- Areas where explosives and flammable substances are used or stored
- Areas where there are tripping or slipping hazards
- All places where contact with or proximity to electrical/facility equipment can cause danger
- All places where workers may come in contact with dangerous moving parts of the machineries or equipment
- Location of the fire alarms and fire-fighting equipment
- Instructions on the usage of specific construction equipment
- Periodic updating of man-hours lost.

We will regularly inspect and maintain in good condition all safety signages that we will be providing for this project. The person in charge in inspecting is/are (complete name of person/s), he/she is/are our (designation). Inspection will be carried out on a weekly basis. Staff of the person-in-charge will remove and replaced any signages that are damaged, illegible, or no longer apply with the current hazard.

Construction Workers Skills Certification

The company will ensure that all workers assigned in the critical occupations as defined in Section 15 of D.O. No. 13 and those who will be assigned in the operation of construction heavy equipment (CHE) will undergo mandatory skills testing for certification by TESDA (Attach TESDA certificates of those workers certified by TESDA.)

Testing & Inspection of Construction Heavy Equipment

All construction heavy equipment will be tested and inspected in accordance with the requirements of Section 10 of D.O. No. 13. The company will ensure that all heavy equipment will be operated by qualified and certified operators. (Attach Certificate of Testing and Inspection of CHE used issued by DOLE Accredited Testing Organizations for CHE and TESDA certificate of CHE operator/s).

Control Measures on Construction Activities

To ensure safe and healthy working conditions throughout the duration of the project the following control measure activities will be enforced and disseminated to all the workers in the site:

Major Activities

Major activities for this project include but not limited to the following: (please check on the box all that applies)

□ Demolition

□ Excavation
□ Earthmoving
□ Scaffold
□ Formwork
□ Structural Steel
□ Crane Operation
□ Concreting
□ Rebar works
□ Welding
□ Electrical
□ HVAC
□ Plumbing
□ Painting
□ interior Decoration
□ Others (please specify)

Hazards Identified

Based on the list of activities for this project, we found the following potential hazards that we may possibly encounter in the course of project implementation:

Physical Hazards

Physical hazards are the most common in most workplaces. The physical hazards that we identified for this project include but are not limited to the following: (please check on the box all that applies)

□ machineries
□ power and hand tools
□ electrical
□ ladders and scaffolds
□ noise
□ ventilation
□ exposure to heat
□ tripping
□ fall hazards
□ collapse
□ others (please specify)

Chemical Hazards

Chemical hazards are present workers handle chemical preparations in any form (solid, liquid or gas). Some are safer than others, however, some workers are more sensitive to chemicals, even the common solutions causing illness, skin irritation or breathing problems. The chemical hazards that we identified for this project include but are not limited to the following: (please check on the box all that applies)

□ solvents
□ paint products
□ acids
□ cleaning products
□ acetylene
□ propane
□ gasoline
□ explosive chemical
□ welding fumes
□ others (please specify)

Biological Hazards

Biological hazards come from working with infectious people, plants, and other living materials. The biological hazards that we have identified for this project includes but not limited to the following: (please check on the box all that applies)
□ blood or other body fluids
□ fungi
□ bacteria and viruses
□ plants
□ insect bites
□ animal and bird droppings
□ others (please specify)

Ergonomic Hazards

Ergonomic hazards occur when the type of work, body position and working conditions put strain on the body. They are the hardest to spot since one does not immediately notice the strain on your body or the harm these hazards pose. Short-term exposure may result in "sore muscles" on the days following exposure, but long-term exposure can result in serious musculoskeletal injuries. The ergonomic hazards that we identified for this project includes but not limited to the following: (please check on the box all that applies)

□ poor lighting
□ frequent lifting
□ poor posture
□ repetitive motion
□ exertion of force
□ awkward movement
□ others (please specify)

Safe Work Practices

Safe work practices are procedures adopted for carrying out specific tasks that ensures workers' exposure to hazardous situations, substances, and physical agents is controlled in a safe manner. Safe work practices are generally written methods outlining how to perform a task with minimum

risk to people, equipment, materials, environment, and processes. It should be developed as a result of completing a Hazard Assessment and should closely reflect the activities in this project. All safe work practices should be kept in a location central to the work being performed and readily available to the workforce. Some safe work practices will require specific job procedures, which clearly set out in a chronological order each step in a process. (Enumerate below the safe work practices that you intend to perform relative to the hazards you previously identified above.)

First-Aid, Health Care Medicines and Equipment Facilities

The company will provide first-aid kit and health care medicines and facilities for workers in the site in accordance with the requirements of Rule 1960 of the OSHS.

Workers Welfare Facilities

The following welfare facilities will be provided in the site to ensure human working conditions:

- Adequate supply of safe drinking water
- Adequate sanitary, washing and sleeping facilities separate for men and women workers
- Adequate facilities for changing and for the storage and drying of work clothes.
- Adequate accommodation for taking meals.

To assure that the company provides adequate welfare facilities for the workers in the site the company will implement the provision of toilets and other facilities in accordance with the requirements of the Sanitation Code.

Medical Surveillance

The company will require all employees to undergo a baseline or initial medical health examination prior to assigning to a potentially hazardous activity. The examination will include but not limited to the following:

- Complete medical and work history;
- Physical examination (Pre-employment, During employment and Separation);
- Other special examination (Pulmonary function test, blood panel, ECG >40 years of age, audiogram); Random drug testing.
- Any Covid-19 Related Diseases

Working Hour & Break Time

The work schedule will be on (please check on the boxes that apply):
□ Mon. □Tue. □Wed. □Thur. □Fri. □Sat. □Sun

Check on the shift and indicate the work hours for the shift that applies.
□ 1st Shift from _____(am/pm) to _____ (am/pm)
□ 2nd Shift from _____(am/pm) to _____ (am/pm)

□ 3rd Shift from _____(am/pm) to _____ (am/pm)

Check on the shift and indicate the break for the shift that applies.
□ 1st Shift from _____(am/pm) to _____ (am/pm)
□ 2nd Shift from _____(am/pm) to _____ (am/pm)
□ 3rd Shift from _____(am/pm) to _____ (am/pm)

Construction Waste Disposal

The company including subcontractors will be responsible for minimizing waste generated during the implementation of the project. The following procedures for disposal of wastes will be implemented in the site:

- Ensure that the construction wastes are segregated from that of domestic waste.
- All domestic wastes are to be collected on a daily basis.
- Construction debris (broken hollow blocks, spoiled concrete, loose concrete, etc.) should be taken out on the staging area.
- Oil spills and spoiled greases should be wrapping in the black garbage bag and will be properly disposed. Application of good housekeeping.

Emergency Preparedness

The objectives of this are to ensure that the company has developed and communicated plans that will allow for the effective management of emergencies. Attach copy of company emergency preparedness plan.

Penalties/Sanctions

For every offenses and violation of any safety rules, regulations and general practices promulgated by the project and/or the company, the company recommended the following penalties and sanctions for violation of CSH program: (Please attach company policy on penalties, if there are any).

Safety Violation	First Offense	Second Offense	Third Offense
No helmet, no safety shoes, no safety belt/harness	Warning	3 calendar day suspension	5 calendar day suspension
no ID, Uniform, working attire, goggles, glove & apron	Warning	3 calendar day suspension	5 calendar day suspension
eating at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension
littering and loitering	Warning	3 calendar day suspension	5 calendar day suspension
smoking at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension

urinating at prohibited area	Warning	3 calendar day suspension	5 calendar day suspension
illegal dismantling of safety signages and paraphernalia	Warning	3 calendar day suspension	Dismissal
illegal gambling	3 calendar day suspension	5 calendar day suspension	Dismissal
overnight stay w/o permission	3 calendar day suspension	Dismissal	
fighting & provoking others	5 calendar day suspension		
working under the influence of drugs and liquor	Dismissal		
possession of illegal drugs, deadly weapon & gambling paraphernalia	Dismissal		
pilferage and robbery	Dismissal		
illegal entry/exit	Dismissal		
refusal to surrender ID & giving false representation	Dismissal		

Attach the following upon submittal:

- Certificate of DOLE Company registration under Rule 1020 of the OSHS
- DTI – PCAB License
- Notice of Award/contract
- Certificates of trainings completed of appointed safety and health personnel
- CHE certificate of testing and inspection (if heavy equipment will be used)
- Skills certification of workers (critical occupations)
- OSH Reportorial requirements
- Others _____

Conforme:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

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.]

DSWD

DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT

NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER

PROJECT LOCATION: NO.4 MISAMIS EXTENSION BAGO BANTAY, QUEZON CITY

DSWD DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT NATIONAL CAPITAL REGION	CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER							A-0

PERSPECTIVE
SITE DEVELOPMENT PLAN
SITE
VICINITY MAP
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VICINITY MAP
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GROUND FLOOR PLAN
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A-3
SITE ELEVATION 'A'
SITE ELEVATION 'B'
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SITE ELEVATION 'C'
SITE ELEVATION 'D'
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SITE SECTION THRU '1'
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SCHEDULE OF DOORS AND WINDOWS
A-7
REFLECTED CEILING PLAN
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GENERAL NOTES
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S-1
FOUNDATION PLAN
ROOF FRAMING PLAN
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SCHEDULE OF RC BEAMS
SCHEDULE OF FOOTING
SCHEDULE OF COLUMN
TRUSS DETAIL
C1F1 DETAIL
E-0 ELECTRICAL
GENERAL NOTES
E-1
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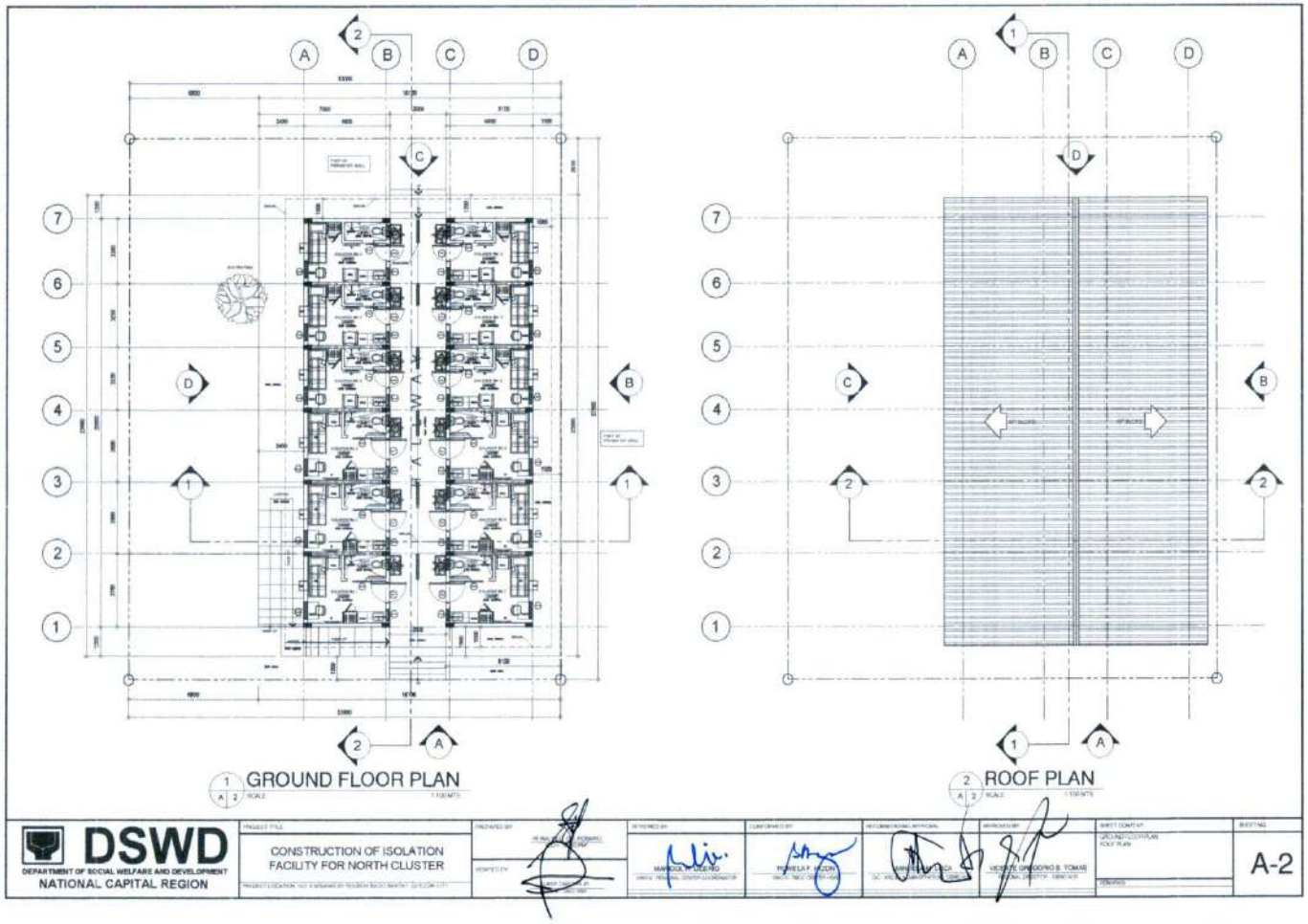
POWER LAYOUT
E-2
LOAD SCHEDULE
RISER DIAGRAM
P-0 PLUMBING
GENERAL NOTES
PLUMBING DETAILS
P-1
PLUMBING DETAILS
P-2
WATER LINE LAYOUT
STORM AND DRAINAGE LAYOUT
P-3
WATER LINE ISOMETRIC
STORM AND DRAINAGE ISOMETRIC
Republic of the Philippines
Department of Public Works
Transportation and
Communications
OFFICE OF THE BUILDING OFFICIAL
District/City/Municipality
DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION
FACILITY FOR NORTH CLUSTER
MARIDOL R. LUCERO
VICENTE GREGORIO B. TOMAS
A-1


GROUND FLOOR PLAN
ROOF PLAN
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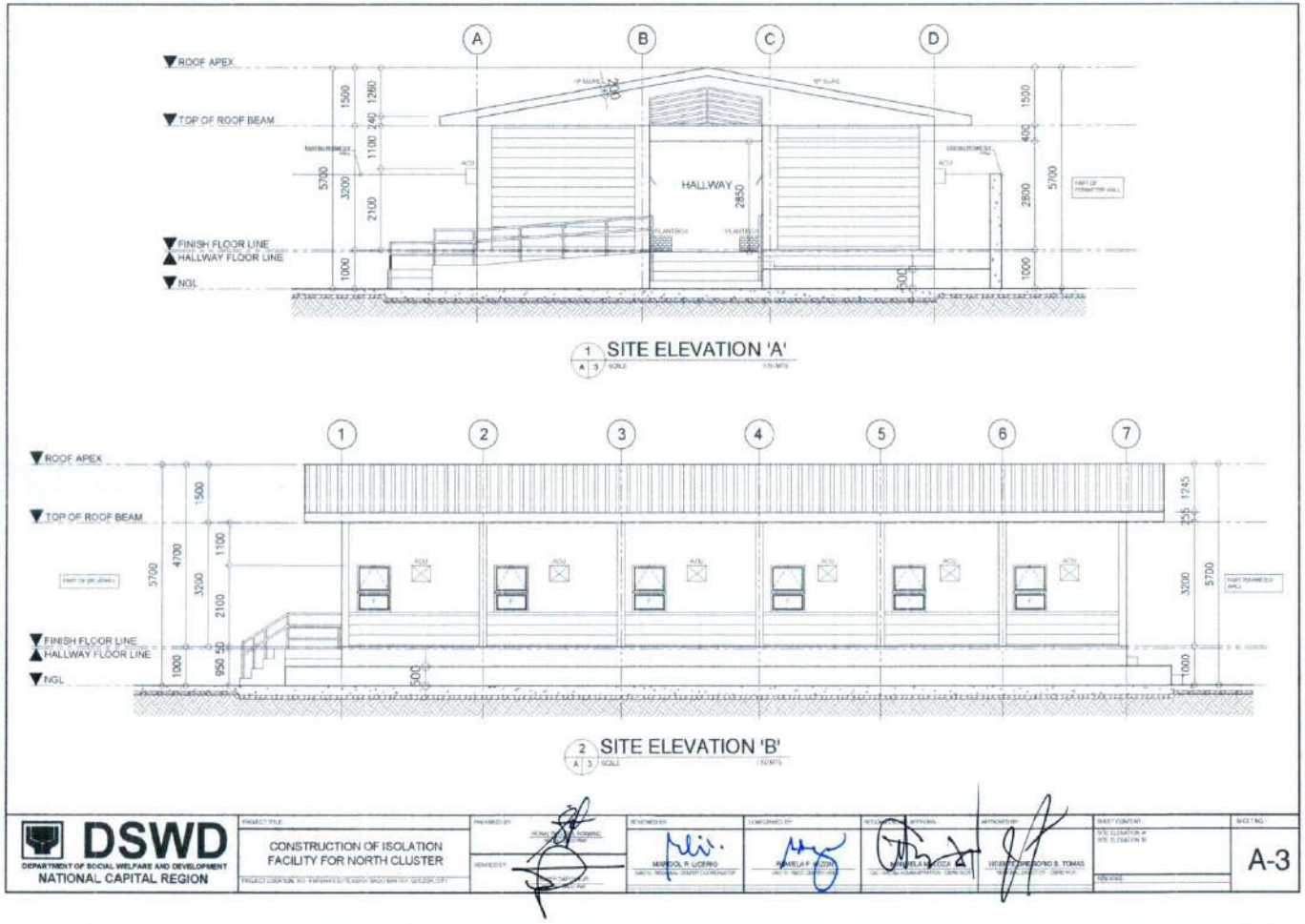
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
A-2


A
B
C
D
ROOF APEX
TOP OF ROOF BEAM
FINISH FLOOR LINE
HALLWAY FLOOR LINE
NGL
HALLWAY
1500
1260
240
1100
3200
2100
1000
5700
2850
500
SITE ELEVATION 'A'
1
2
3
4
5
6
7
ROOF APEX
TOP OF ROOF BEAM
FINISH FLOOR LINE
HALLWAY FLOOR LINE
NGL
1500
4700
3200
2100
1000
950
50
5700
500
1245
SITE ELEVATION 'B'
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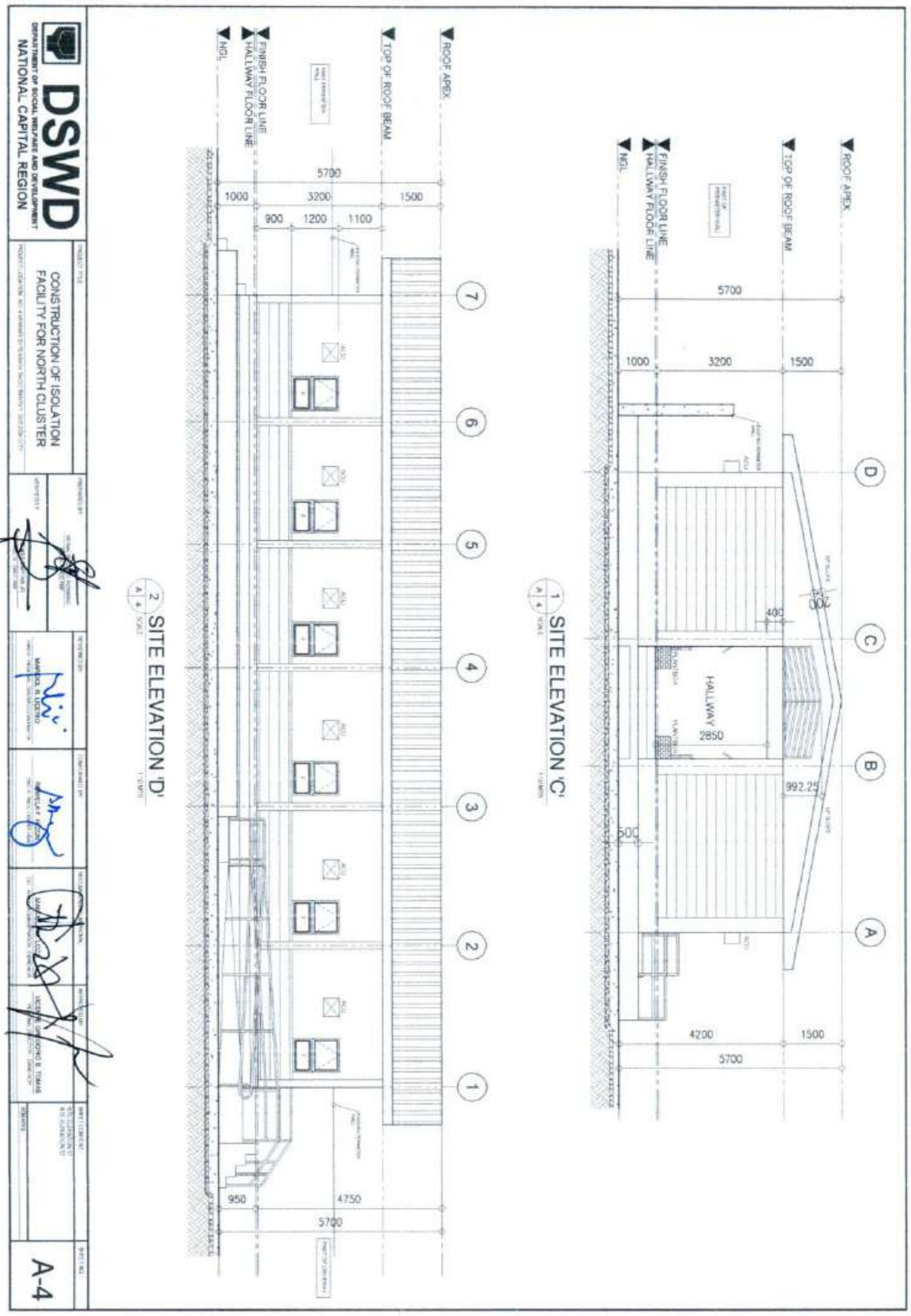
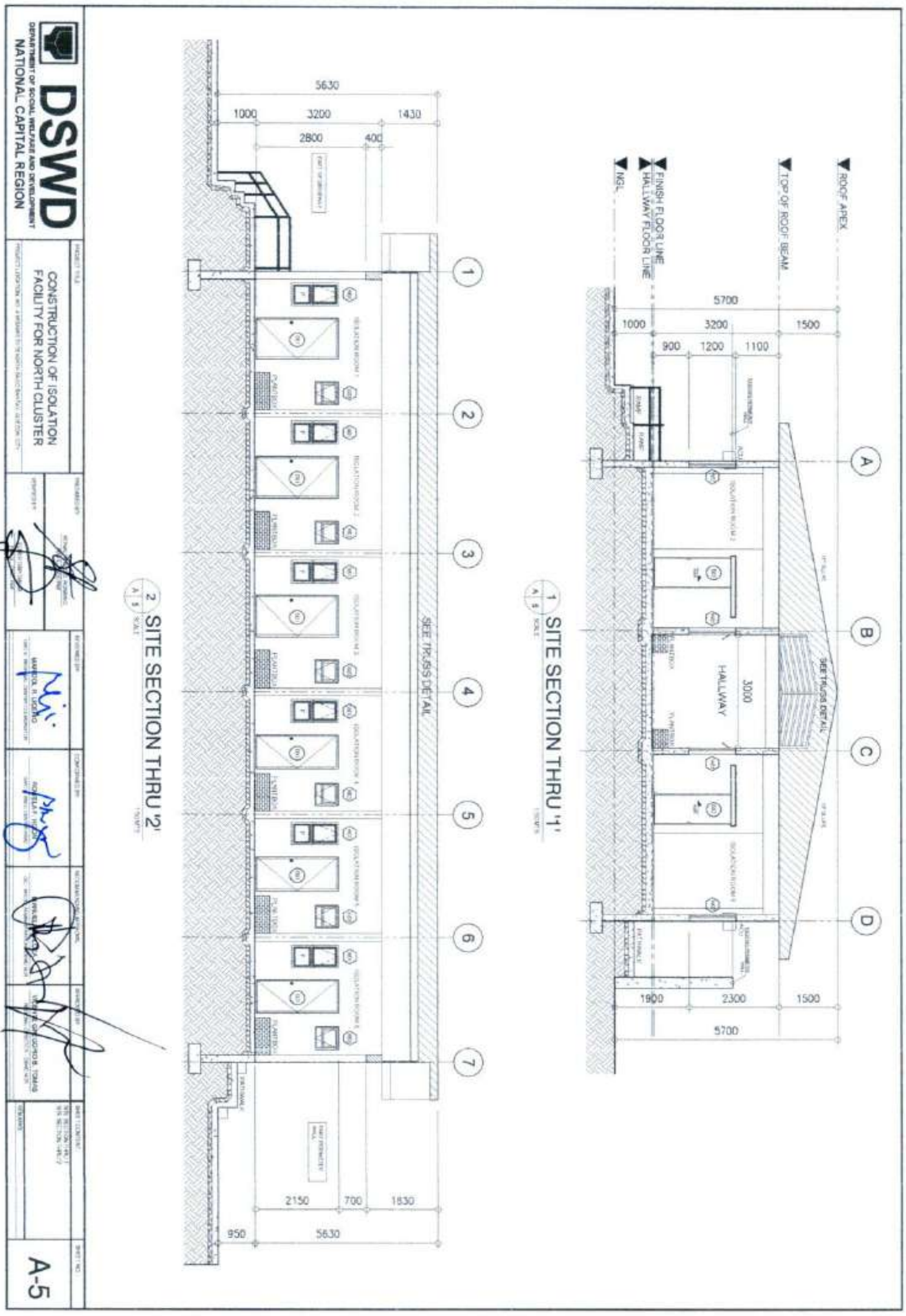
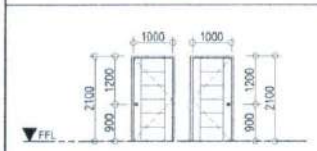
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
A-3


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION
FACILITY FOR NORTH CLUSTER
SITE ELEVATION 'C'
SITE ELEVATION 'D'
ROOF APEX
TOP OF ROOF BEAM
FINISH FLOOR LINE
HALLWAY FLOOR LINE
NGL
HALLWAY
A-4


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
A-5
SITE SECTION THRU '1'
SITE SECTION THRU '2'
ROOF APEX
TOP OF ROOF BEAM
FINISH FLOOR LINE
HALLWAY FLOOR LINE
NGL
HALLWAY
SEE TRUSS DETAIL
5700
1000
3200
1500
900
1200
1100
3000
1900
2300
5630
1430
2800
400
2150
700
1830
950

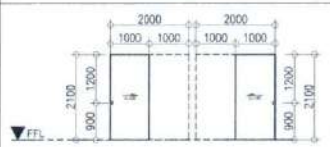
SCHEDULE OF DOORS AND WINDOWS

D - 01



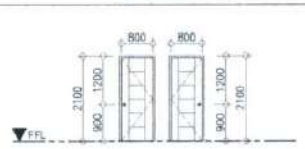
DESCRIPTION	SWING SOLID WOODEN PANEL DOOR IN 50X100MM DOOR JAMB W/ LEVER TYPE OF DOOR KNOB AND COMPLETE SET OF LOCKSET (DESIGN VERIFY BY THE ARCHITECT)
LOCATION	ENTRANCE DOOR FOR ISOLATION ROOMS 1, 2, 3, 7, 8 & 9
QUANTITY	6 SETS

D - 02



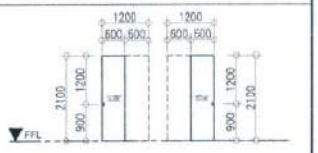
DESCRIPTION	SLIDING GLASS DOOR W/ 6MM THK SMOKED GLASS IN ALUMINUM FRAME (DESIGN VERIFY BY THE ARCHITECT)
LOCATION	TOILET AND BATH FOR ISOLATION ROOMS 1, 2, 3, 7, 8 & 9
QUANTITY	6 SETS

D - 03



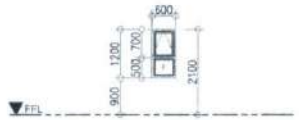
DESCRIPTION	SWING SOLID WOODEN PANEL DOOR IN 50X100MM DOOR JAMB W/ LEVER TYPE OF DOOR KNOB AND COMPLETE SET OF LOCKSET (DESIGN VERIFY BY THE ARCHITECT)
LOCATION	ENTRANCE DOOR FOR ISOLATION ROOMS 4, 5, 6, 10, 11 & 12
QUANTITY	6 SETS

D - 03



DESCRIPTION	SLIDING GLASS DOOR W/ 6MM THK SMOKED GLASS IN ALUMINUM FRAME (DESIGN VERIFY BY THE ARCHITECT)
LOCATION	TOILET AND BATH FOR ISOLATION ROOMS 4, 5, 6, 10, 11 & 12
QUANTITY	6 SETS

W - 01

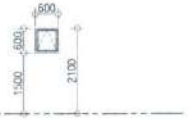


DESCRIPTION	AWNING W/ FIXED WINDOW AND MOSQUITO SCREEN IN 6MM THK CLEAR GLASS IN ANALOK FRAME
LOCATION	ENTRANCE AREA FOR ISOLATION ROOMS 1 TO 12
QUANTITY	12 SETS

W - 02

DESCRIPTION	AWNING W/ FIXED WINDOW AND MOSQUITO SCREEN IN 6MM THK CLEAR GLASS IN ANALOK FRAME
LOCATION	REAR AREA FOR ISOLATION ROOMS 1 TO 12
QUANTITY	12 SETS

W - 03



DESCRIPTION	AWNING WINDOW IN 6MM THK CLEAR GLASS IN ANALOK FRAME
LOCATION	TOILET AND BATH FOR ISOLATION ROOMS 1 TO 12
QUANTITY	12 SETS

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE:
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER

PREPARED BY:

RECOMMENDING APPROVAL:

VERIFIED BY:

RECOMMENDED BY:
MARIDOL R. OSORIO

CONFORMED BY:

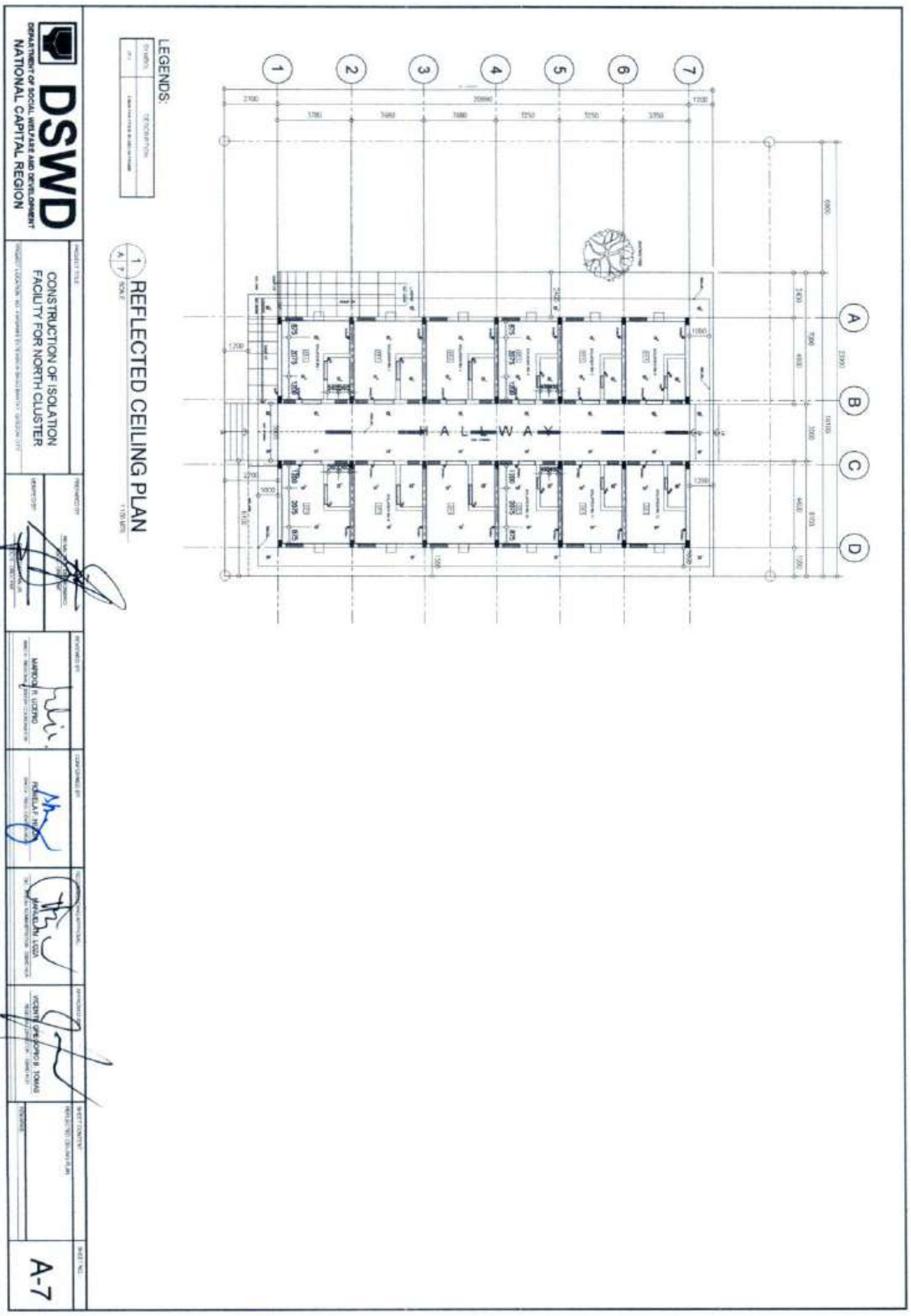
RECOMMENDING APPROVAL:

APPROVED BY:
VICENTE GREGORIO B. TOMAS

SHEET CONTENT:
SCHEDULE OF DOORS AND WINDOWS

REVISIONS

SHEET NO.:
A-6


LEGENDS:
REFLECTED CEILING PLAN
HALLWAY
DSWD
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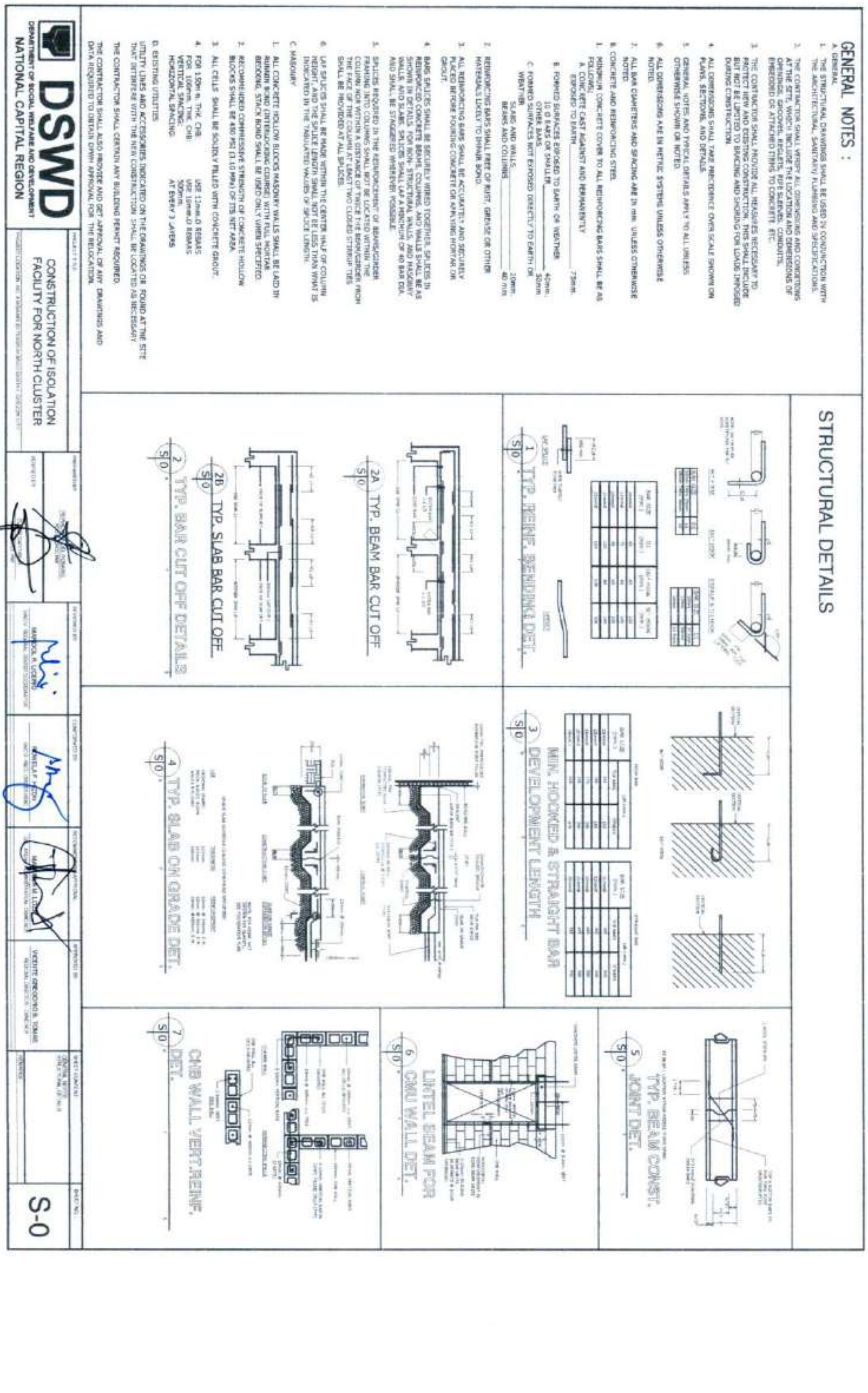
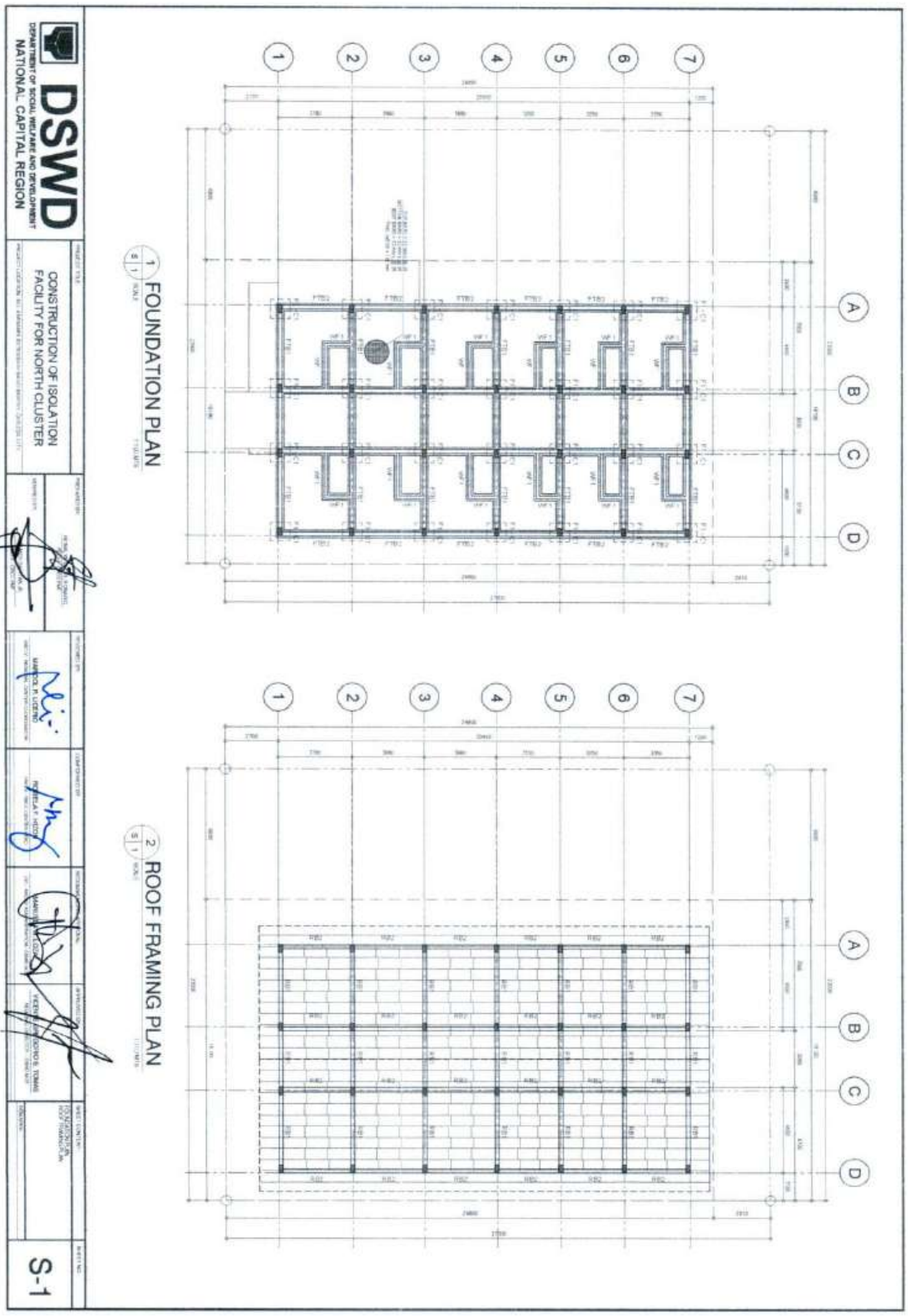
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION
FACILITY FOR NORTH CLUSTER
A-7


GENERAL NOTES :
STRUCTURAL DETAILS
TYP. REINF. BENDING DET.
MIN. HOOKED & STRAIGHT BAR DEVELOPMENT LENGTH
TYP. BEAM CONST. JOINT DET.
TYP. BEAM BAR CUT OFF
TYP. SLAB BAR CUT OFF
TYP. BAR CUT OFF DETAILS
TYP. SLAB ON GRADE DET.
LINTEL BEAM FOR CMU WALL DET.
CHB WALL VERT.REINF. DET.
DSWD
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
S-0


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
FOUNDATION PLAN
ROOF FRAMING PLAN
S-1

SCHEDULE OF R.C. BEAMS

BEAM MARK	B (mm)	H (mm)	REBAR (mm)	STEEL REINFORCEMENT: LEFT SUPPORT TOP BARS	LEFT SUPPORT BOTTOM BARS	MIDSPAN TOP BARS	MIDSPAN BOTTOM BARS	RIGHT SUPPORT TOP BARS	RIGHT SUPPORT BOTTOM BARS	WEB BARS (mmØ)	STIRRUPS SIZE	STIRRUPS SPACING (START 1 at 50)	REMARKS
GROUND FLOOR LEVEL													
FTB1	200	300	16ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 9@100, REST @ 300mm O.C.	
FTB2	200	300	16ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 7@100, REST @ 300mm O.C.	
ROOF LEVEL													
RB1	200	300	12ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 9@100, REST @ 300mm O.C.	
RB2	200	300	12ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 7@100, REST @ 300mm O.C.	

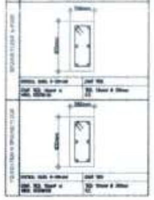
SCHEDULE OF FOOTINGS

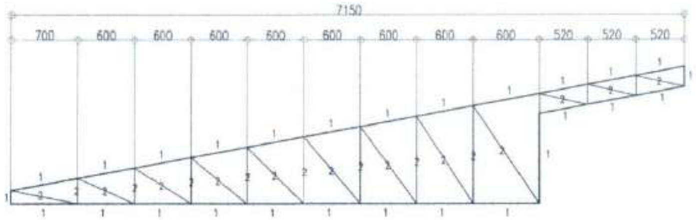
3000psf

FTG. MARK	DIMENSIONS L (mm)	W (mm)	t (mm)	REBAR (mm)	BOTTOM BARS SPACING ALONG - L (mm)	BOTTOM BARS SPACING ALONG - W (mm)	TOP BARS SPACING ALONG - L (mm)	TOP BARS SPACING ALONG - W (mm)	REMARKS
F1	1200	1200	400	20ø	200	200	200	200	ISOLATED

SCHEDULE OF COLUMN

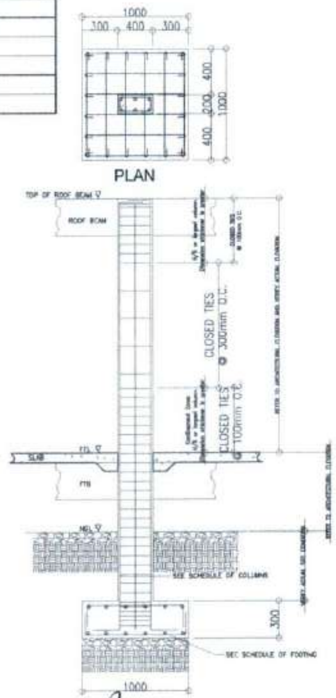
C-1





T-1 DETAIL

MARK	DESCRIPTION
T-1 TRUSS SCHEDULE	
1	2L-50x50x4mm ANGLE BAR
2	2L-25x25x4mm ANGLE BAR



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DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER

S-2

GENERAL NOTES :

1. ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF THE PHILIPPINES, THE PHILIPPINE ELECTRICAL CODE, THE RULES AND REGULATION OF LGU THE REQUIREMENTS OF THE LOCAL POWER COMPANY AND LOCAL TELEPHONE COMPANY.
2. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER. SERVICE SHALL BE 220V, 1-PHASE, 2W+G
3. ALL EQUIPMENT, DEVICES, MATERIALS AND INSTALLATION METHODS SHALL BE APPLICABLE TO THE DESIGN INTENT/PURPOSE/FUNCTION, LOCATION, SITE/AREA CONDITION AND WEATHER.
4. ALL BRANCH CIRCUITS AND FEEDERS SHALL BE INSTALLED AS INDICATED ON PLANS. COMBINATION OF HOMERUNS IN THE SAME SINGLE RACEWAY SHALL NOT BE ACCEPTABLE UNLESS NOTED OTHERWISE.
5. MINIMUM SIZE OF WIRE FOR POWER SHALL BE 3.5 SQ mm. (#12AWG) AND FOR CONTROL WIRES SHALL BE 2.0 mm DIA. (#14AWG). USE THWN / THW / TW TYPE OF WIRES FOR OUTDOOR OR WET INSTALLATIONS. CONDUITS FOR CONTROL WIRES GOING TO LIGHTING SWITCH/SWITCH BANKS SHALL BE 20 MM (1/2")Ø. MAXIMUM OF ELEVEN (11) CONTROL WIRES PER CONDUIT.
6. MOUNTING HEIGHTS OF DEVICES SHALL BE AS DETAILED IN THE PLANS OR AS DETAILED BY THE ARCHITECT AND/OR AS FOLLOWS:

LOCAL SWITCH	------	1370mm ABOVE FLOOR FINISH LEVEL
RECEPTACLES	------	300mm ABOVE FLOOR FINISH LEVEL
	------	170mm ABOVE COUNTER TOP

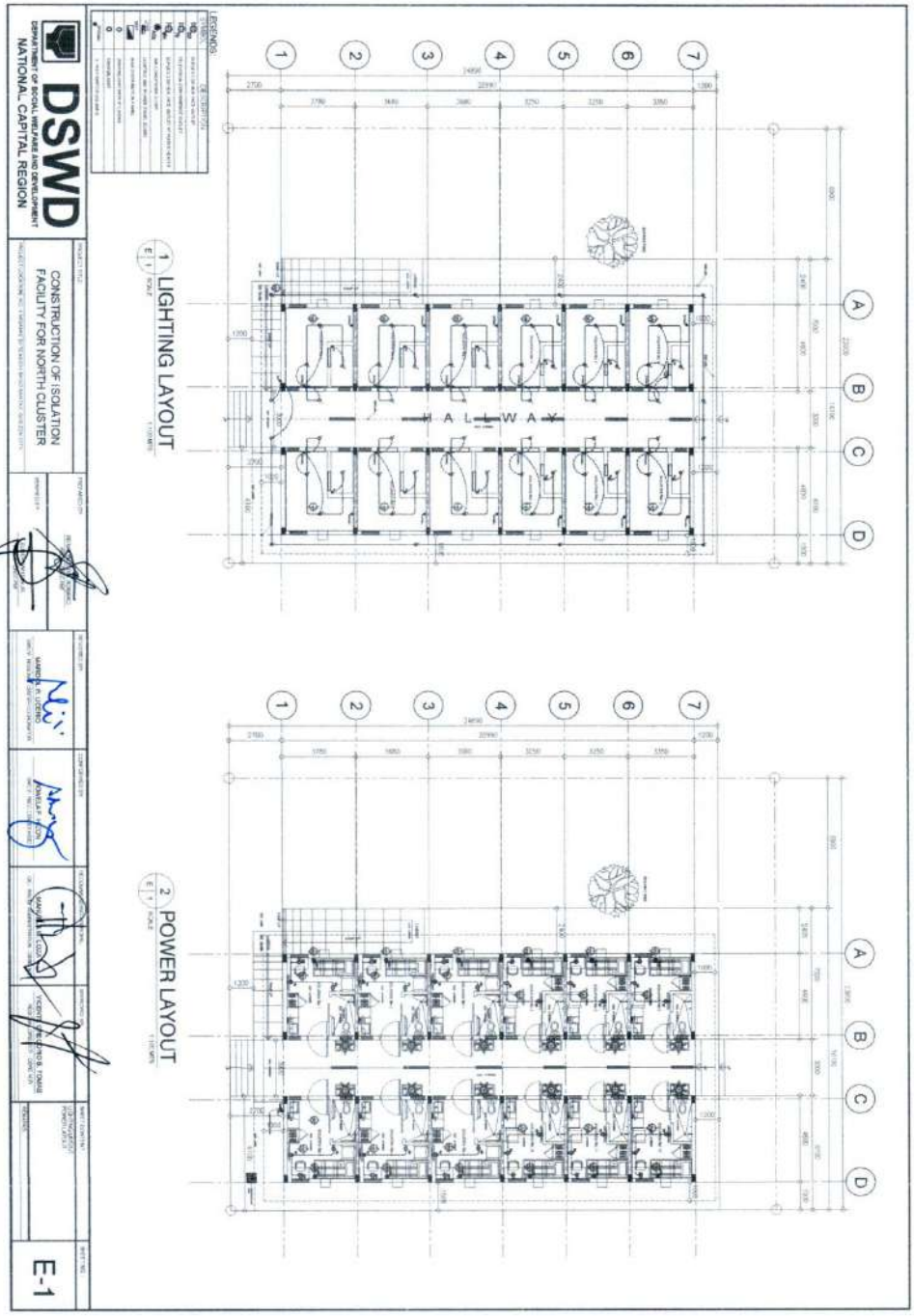
7. EXPOSED CONDUIT RUNS SHALL BE INSTALLED PARALLEL TO OR PERPENDICULAR WITH THE BUILDING LINE, DIAGONAL RUN SHALL NOT BE ACCEPTED. ALL BOXES AND CONDUITS SHALL BE RIGIDLY SUPPORTED BY HANGER RODS, ANGLE BARS, U-BOLTS AND METAL CONDUIT CLAMPS. USE OF G.I. WIRE HANGER IS NOT ACCEPTABLE. CONDUIT SUPPORT SHALL BE EVERY 1500mm INTERVAL.
8. USE OF METAL FLEXIBLE CONDUIT SHALL BE LIMITED TO 1000 mm LENGHT ONLY. USE OF MICA TUBE SHALL LIMITED ONLY TO SIX (6) INCHES. USE OF NON-METALLIC FLEXIBLE CONDUIT IS NOT ALLOWED.
9. ALL LIGHTING FIXTURE TRANSFORMERS SHALL BE MOUNTED ON CONCRETE OR NON-COMBUSTIBLE SURFACE ONLY. OTHERWISE USE HANGER RODS, AND ANGLE BARS TO SUPPORT THEM. TRANSFORMER SHALL NOT BE MOUNTED DIRECTLY ON DROP-CEILINGS.
11. FOR SWITCH AND RECEPTACLE BOXES WITH MORE THAN SIX (6) WIRES ENTERING THEM, USE 100 X 100 X 50mm SQUARE BOXES WITH ONE (1) ADAPTER RING.
12. ALL PULLBOXES, SPLICEBOXES AND AUXULIARY GUTTERS SHALL BE GA#16, G.I. SHEET, POWDER COATED FINISH
13. ALL RECEPTACLE OUTLETS SHALL BE PROPERLY GROUNDED TO THE BOX BY MEANS OF GROUNDING LUGS.
14. ALL MOLDED CASE CIRCUIT BREAKER FOR MOTORS SHALL BE INDUSTRIAL TYPE.
15. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULLING WIRES AND SHALL BE CAPPED.
16. EXACT LOCATION AND RATING OF ALL EQUIPMENT TO BE SUPPLIED BY OTHER TRADES SHALL BE COORDINATED WITH THEIR RESPECTIVE TRADE DRAWINGS/PLANS PRIOR TO IMPLEMENTATION.
17. COMMUNICATION AND DATA CIRCUIT RUN SHALL BE SEPARATED BY 100mm MINIMUM DISTANCE FROM POWER CIRCUIT RUN.
18. ADDITIONAL MATERIAL SPECIFICATIONS ASIDE FROM THOSE MENTIONED ELSEWHERE SHALL BE AS FOLLOWS OR APPROVED EQUAL :

A. ELECTRICAL CONDUITS	
IMC	– PANASONIC, Mc GILL
EMT	– PANASONIC, Mc GILL
PVC	– NELTEX POWER GUARD, EMERALD V2000, ATLANTA PERMALINE
B1. WIRE & CABLES	– PHELPS DODGE, PHILFLEX
B2. TELEPHONE CABLES	– PHELPS DODGE, PHILFLEX
B3. STRUCTURED CABLING SYSTEM	– BELDEN BRAND CABLES OR SYSTEM MANUFACTURER'S STANDARDS
B4. CABLE TV SYSTEM	– BELDEN BRAND CABLES OR SYSTEM MANUFACTURER'S STANDARDS
C. ELECTRICAL PANEL	– LJ INDUSTRY, RM ELECTRIC
ENCLOSURE & ELEMENTS	– MITSUBISHI, SIEMENS, SQUARE D, SCHNEIDER
BREAKERS, COMMON INTERNAL TRIP	– PANASONIC, CLIPSAL, BTICINO, TOSHIBA
D. WIRING DEVICES	– PHILIPS, G.E.
E. FIXTURE BALLAST, ELECTRONIC TYPE	– COMPLIANCE: IEC 61951-2 or UL 924 Damp Location Listed, NFPA 101 (Life Safety Code), 2-HR and 3-HR POWER DURATION.
F. EMERGENCY BATTERY PACK	DUAL LITE, TRIDONIC OR MAXSPID BRAND

SYMBOLS :

———	BRANCH CIRCUIT RUN IN CEILING
———	SAME AS ABOVE EXCEPT EMBEDDED IN WALL OR FLOOR SLAB
———	PVC CONDUIT, SIZE AS FIGURED
—●—→	HOMERUN TO PANELBOARD OR AS INDICATED
W/D ——	WIRING TURNED UP/DOWN
S	SINGLE POLE TOGGLE SWITCH, 15A, 300V, 2S, 3S, ETC INDICATES GANG SWITCHES. SMALL LETTER SUBSCRIPT INDICATES LIGHTS OR DEVICES BEING CONTROLLED. COMBINE MAXIMUM OF THREE (3) TOGGLES ON ONE STANDARD DEVICE PLATE. FOR SWITCH LOCATION WITH MORE THAN NINE (9) TOGGLE, USE SWITCH BANK PLATE.
S_3	SAME AS ABOVE EXCEPT 3-WAY SWITCH
	MONO X T50 WALL LAMP
	RECESSED DIRECTIONAL L.E.D LIGHTS IN WARM WHITE
	L.E.D.LINEAR LIGHTING (WARM WHITE)
	TRACK LIGHT
	6" x 6" RECESSED CFL WITH DIFFUSER
	DESK LAMP/ TABLE LAMP/ FLOOR LAMP
	DROP LIGHTING FIXTURE
	DUPLEX WALL CONVENIENCE OUTLET, 1P, 230V, 15A, UNIVERSAL SLOTS GROUNDING TYPE, MOUNTED ABOVE COUNTER IF MARKED "C".
F	SINGLE WALL CONV. OUTLET FOR REFRIGERATOR, 1P, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.
ACCU	SINGLE WALL CONV. OUTLET FOR REFRIGERATOR, 1, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.
REF	DUPLEX WALL CONV. OUTLET FOR REFRIGERATOR, 1, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.

DSWD DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT NATIONAL CAPITAL REGION	PROJECT TITLE CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER	PREPARED BY	REVIEWED BY MARISOL ...	CONFORMED BY PAMELA F. ...ON	RECOMMENDING APPROVAL MANUEL ...	APPROVED BY VICENTE GREGORIO B. TOMAS	SHEET CONTENT GENERAL NOTES	SHEET NO. E-0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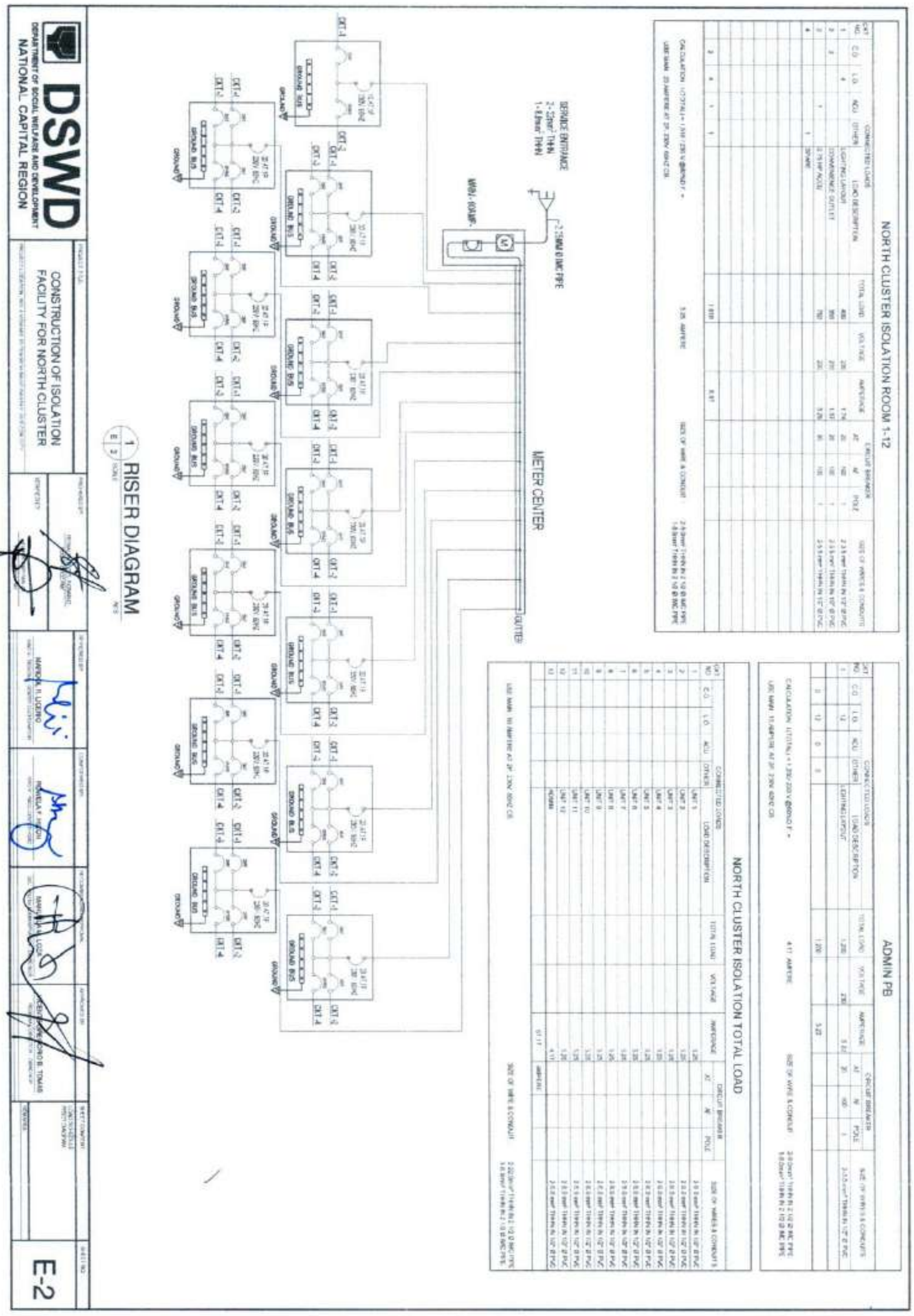
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
1 LIGHTING LAYOUT
2 POWER LAYOUT
E-1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CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
RISER DIAGRAM
METER CENTER
NORTH CLUSTER ISOLATION ROOM 1-12
ADMIN PB
NORTH CLUSTER ISOLATION TOTAL LOAD
E-2

GENERAL NOTES

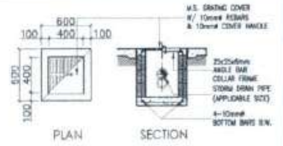
1. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE PHILIPPINE PLUMBING CODE AND THE RULES AND REGULATIONS OF THE GOVERNMENT.
2. COORDINATES THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
3. PIPES SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT AND ENGINEER.
4. PROPOSED SANITARY UTILITIES SHALL CONFORM THE ACTUAL LOCATION DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES STRUCTURE.
5. ALL SLOPES FOR HORIZONTAL BRANCHES (SEWER) SHALL MAINTAIN 1 % AS MINIMUM UNLESS NOTED OTHERWISE.
6. ALL FIXTURE SHALL BE VENTED, UNLESS OTHERWISE INDICATED.
7. ALL VERTICAL PIPES SUCH AS SOIL STACK, MAIN VENT, AHU/FCU STACK, & DOWNSPOUT SHALL BE C.I. (CAST IRON HUBLESS) PIPE .
8. ALL HORIZONTAL PIPE ALONG TRANSITION LEVEL SUCH AS SOIL PIPE, VENT PIPE, AHU/FCU PIPE & STORM DRAIN COLLECTOR PIPE SHALL BE C.I. (CAST IRON HUBLESS) PIPE.
9. ALL HORIZONTAL PIPE SUCH AS SOIL BRANCH PIPE, CIRCUIT VENT, AHU/FCU BRANCH PIPE, & STORM DRAIN COLLECTOR PIPE SHALL BE uPVC PIPE HIGH IMPACT SERIES 1,000.
10. ALL WATER LINE PIPES 110MMØ AND BELOW SHALL BE POLYPROPYLENE (PP) PIPE, PN-20.
11. ALL WATER LINE PIPES 150MMØ AND ABOVE SHALL BE GALVANIZED IRON (G.I.) PIPE SCHEDULE 40.
12. ALL AHU/FCU DRAIN PROVIDE INSULATION 19MM (3/4") THICK RUBBER TYPE.
13. ALL SOIL PIPE, VENT PIPE, AHU/FCU DRAIN, STORM DRAIN, AND WATER SUPPLY PIPE PROVIDE PIPE HANGER EVERY 1.5 METERS.
14. HEAD ROOM REQUIRED BY THE ARCHITECT MUST COMPLY BY THE CONTRACTOR. AND ALL WASTE LINE & WATERLINE THAT PASSING THRU BEAM SHOULD BE PROVIDED BY PIPE SLEEVE.

MATERIAL SPECIFICATIONS:

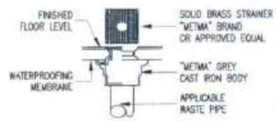
COLD WATER LINE	ALL RISERS, WATER DISTRIBUTION SUPPLY LINES SHALL BE HIGH DENSITY POLYPROPYLENE (PPR) "DONSEN BRAND"PIPE PN 20 CONFORMING TO ASTM D 2239-B.
HOT WATER LINE	ALL RISERS, WATER DISTRIBUTION SUPPLY LINES SHALL BE HIGH DENSITY POLYPROPYLENE (PPR) "DONSEN BRAND"PIPE PN 20 CONFORMING TO ASTM D 2239-B.
VENT PIPES	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 600 "CROWN" BRAND OR APPROVED EQUAL
SEWER LINES	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 II "CROWN" BRAND FOR 50mmØ TO 100mmØ CLASS 35 FOR 150mmØ AND ABOVE OR APPROVED EQUAL
WASTE LINE	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 II "CROWN" BRAND FOR 50mmØ TO 100mmØ CLASS 35 FOR 150mmØ AND ABOVE OR APPROVED EQUAL
FCU/AHU WASTE LINE	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 II "CROWN" BRAND OR APPROVED EQUAL. ALL EXPOSED FCU/AHU DRAIN LINES SHALL BE PROVIDED WITH 1" THICK CLOSE CELL ELASTOMETRIC THERMAL INSULATION "AEROFLEX" BRAND OR APPROVED EQUAL. ALL LATERAL AND BRANCH DRAIN LINES SHALL BE POLYVINYL CHLORIDE PIPES (PVC) SERIES 1000 II BY "CROWN" BRAND OR APPROVED EQUAL. OUTSIDE BUILDING-SHALL BE CONCRETE DRAIN PIPE (RCDP), TONGUE & GROOVE, MORTAR JOINTS REINFORCED FOR 300mmØ AND LARGER LOCALLY MANUFACTURED.
CHECK VALVES	"KITZ" OR APPROVED EQUAL
GATE VALVES	"KITZ" OR APPROVED EQUAL
WATER METER	"SYNERGY" BRAND OR APPROVED EQUAL

SCHEDULE OF PIPE SLEEVE

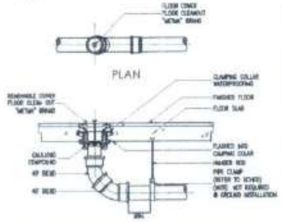
	NOMINAL SIZE								
PIPE SIZE	25	32	40	50	65	80	100	150	200
SLEEVE SIZE	50	50	65	100	125	125	200	250	300



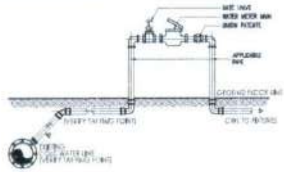
2 CATCH BASIN DETAIL



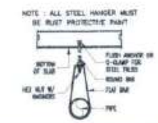
3 FLOOR DRAIN DETAIL



4 FLOOR CLEAN OUT DETAIL



1 WATER METER DETAIL



5 PIPE HANGER DETAIL

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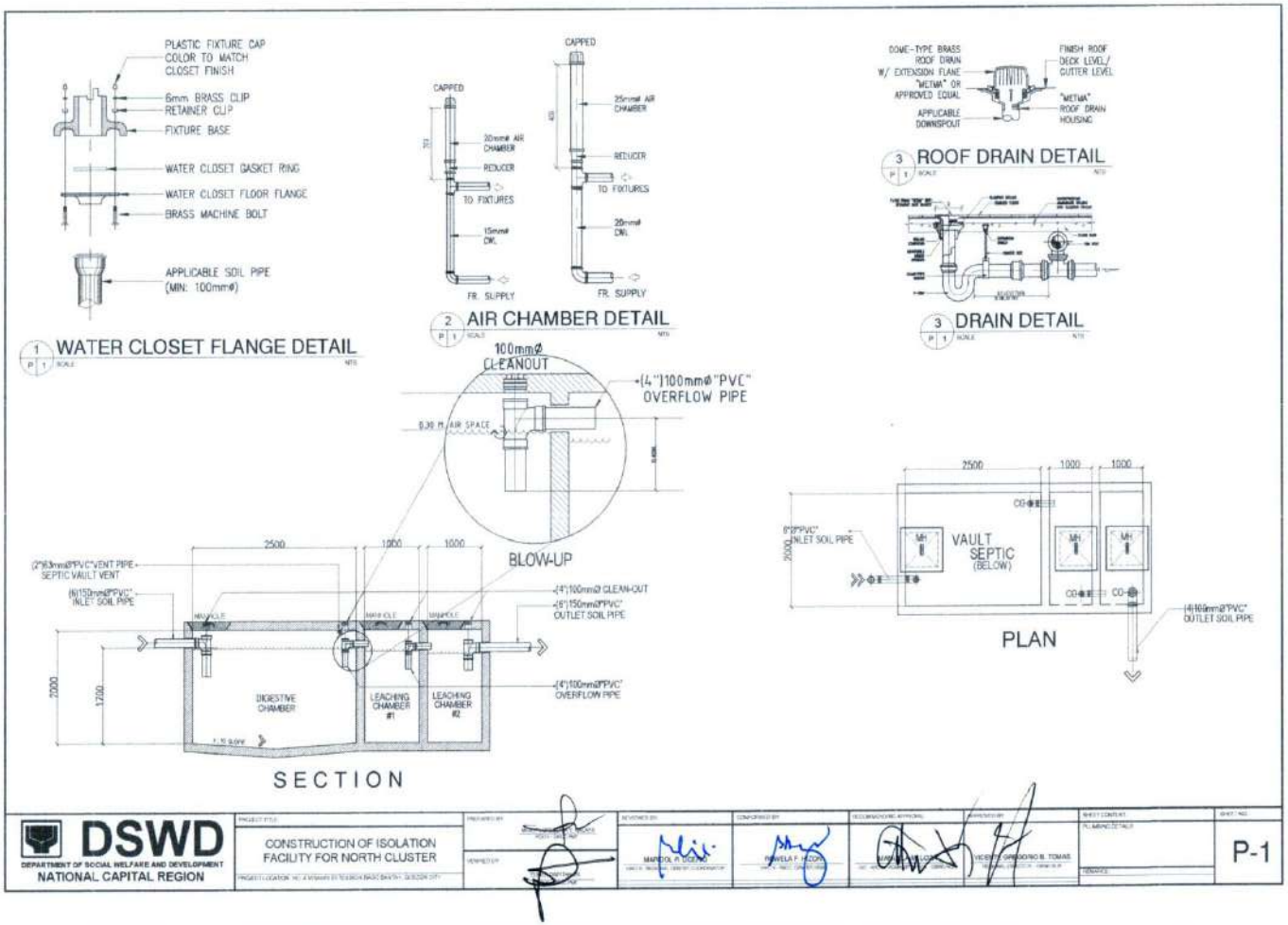
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER

P-0


PLASTIC FIXTURE CAP
COLOR TO MATCH
CLOSET FINISH
6mm. BRASS CLIP
RETAINER CLIP
FIXTURE BASE
WATER CLOSET GASKET RING
WATER CLOSET FLOOR FLANGE
BRASS MACHINE BOLT
APPLICABLE SOIL PIPE
(MIN: 100mmø)
1 WATER CLOSET FLANGE DETAIL
CAPPED
20mmø AIR CHAMBER
REDUCER
TO FIXTURES
15mmø DN.
FR. SUPPLY
CAPPED
25mmø AIR CHAMBER
REDUCER
TO FIXTURES
20mmø DN.
FR. SUPPLY
2 AIR CHAMBER DETAIL
DOME-TYPE BRASS ROOF DRAIN W/ EXTENSION FLANE "WETMA" OR APPROVED EQUAL
APPLICABLE DOWNSPOUT
FINISH ROOF DECK LEVEL/ GUTTER LEVEL
"WETMA" ROOF DRAIN HOUSING
3 ROOF DRAIN DETAIL
3 DRAIN DETAIL
100mmø CLEANOUT
(4")100mmø "PVC" OVERFLOW PIPE
0.30 M. AIR SPACE
BLOW-UP
2500
1000
1000
(2")63mmø"PVC"VENT PIPE- SEPTIC VAULT VENT
(6")150mmø"PVC" INLET SOIL PIPE
(4")100mmø CLEAN-OUT
(6")150mmø"PVC" OUTLET SOIL PIPE
(4")100mmø"PVC" OVERFLOW PIPE
2000
1200
DIGESTIVE CHAMBER
LEACHING CHAMBER #1
LEACHING CHAMBER #2
SECTION
2500
1000
1000
(6")"PVC" INLET SOIL PIPE
2000
VAULT SEPTIC (BELOW)
MH
MH
MH
CO
CO
CO
(6")150mmø"PVC" OUTLET SOIL PIPE
PLAN
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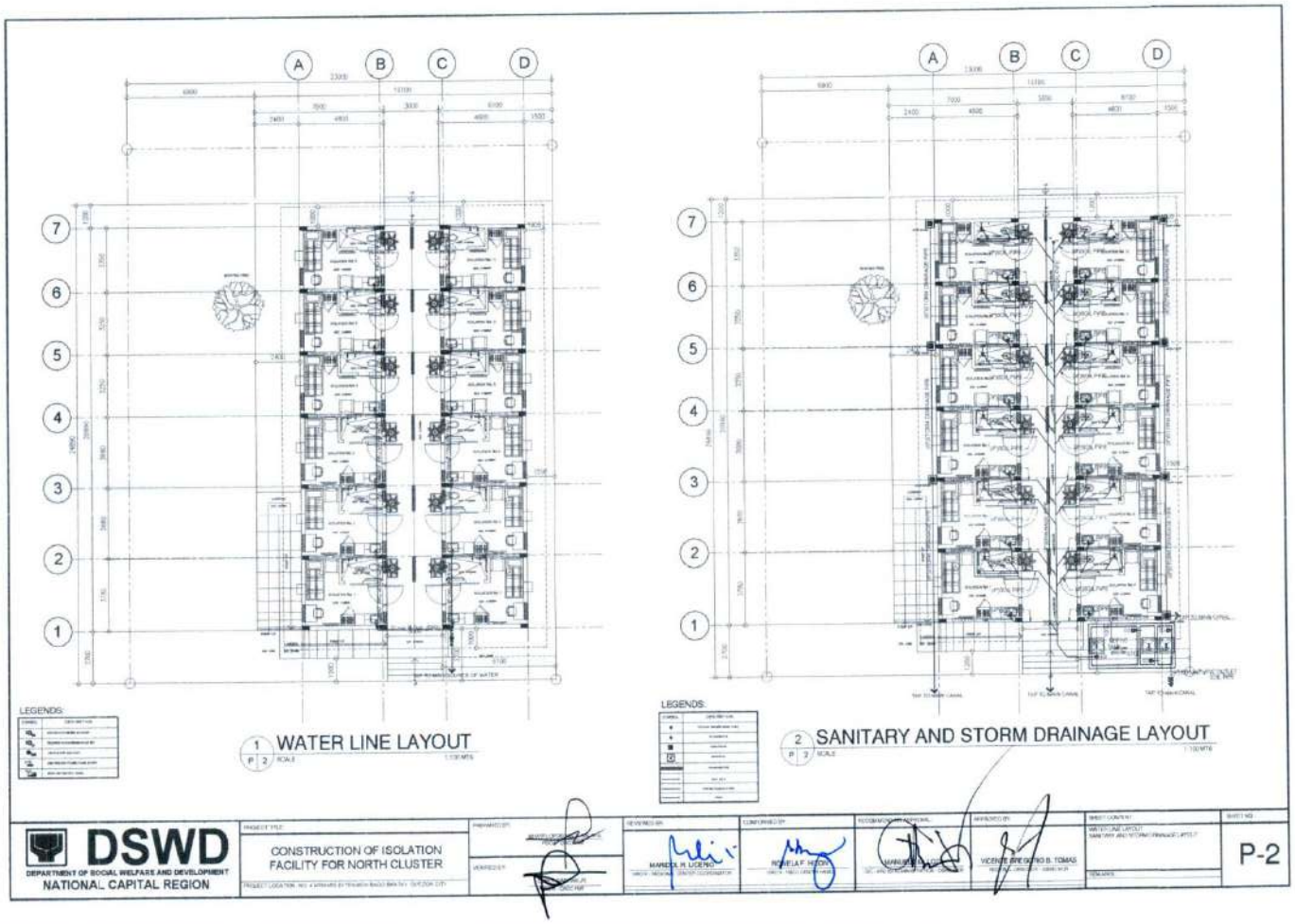
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
MANDOL A. LUCENO
PAMELA F. HIZON
VICENTE GREGORIO B. TOMAS
P-1


A
B
C
D
7
6
5
4
3
2
1
LEGENDS:
1 P 2 WATER LINE LAYOUT
SCALE
2 P 3 SANITARY AND STORM DRAINAGE LAYOUT
SCALE
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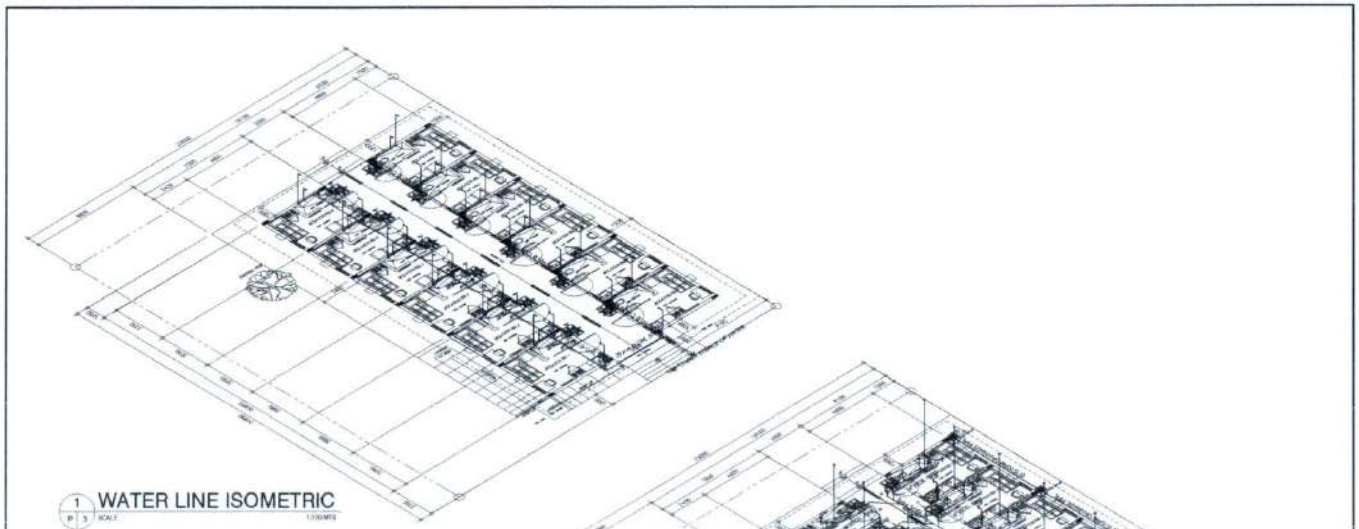
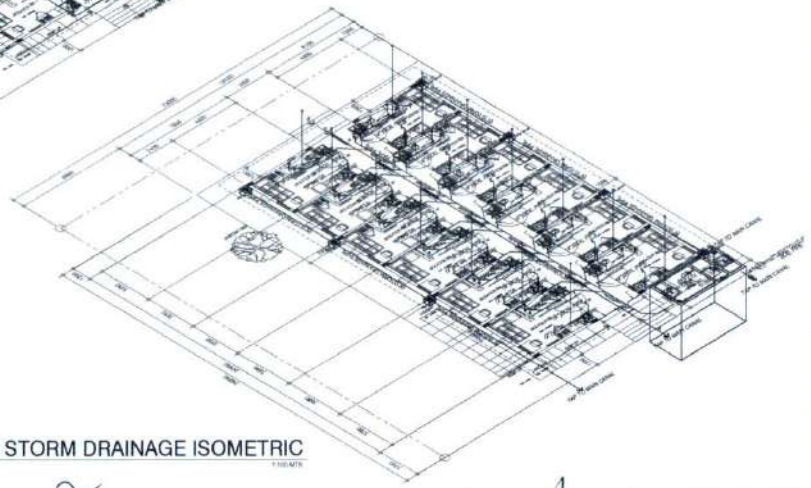
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER
P-2



1 P 3 WATER LINE ISOMETRIC



2 P 3 SANITARY AND STORM DRAINAGE ISOMETRIC

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CONSTRUCTION OF ISOLATION FACILITY FOR NORTH CLUSTER

MARIDEL R. UCERO

MANUEL A.M. LOZA

VICENTE GREGORIO B. TOMAS

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DSWD

DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT

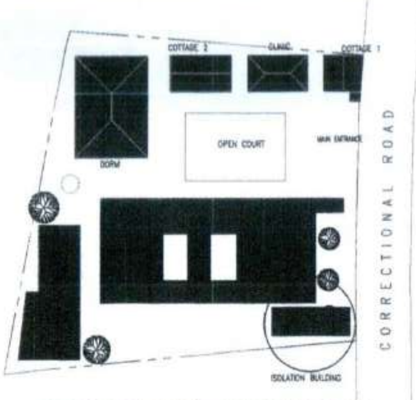
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER

PROJECT LOCATION: JOSE FABELLA CENTER, CORRECTIONAL ROAD, BRGY. ADDITION HILLS, MANDALUYONG

DSWD DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT NATIONAL CAPITAL REGION	PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER PROJECT LOCATION: Correctional Road, Mandaluyong, 1550 Metro Manila	PREPARED BY:	SUBMITTED BY:	APPROVED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT: COVER PAGE REVISIONS	SHEET NO. A-0

1 PERSPECTIVE



2 SITE DEVELOPMENT PLAN
A 1 SCALE 1:1000 MTS

1 VICINITY MAP
A 3 SCALE NTS

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A-5	LONGITUDINAL SECTION CROSS SECTION SCHEDULE OF DOORS AND WINDOWS
A-6	REFLECTED CEILING PLAN
P-1	VICINITY MAP SITE DEVELOPMENT PLAN DRAIN DETAILS HOSE BIBB FLANGE DETAILS WATER CLOSET FLANGE DETAILS PIPE HANGER DETAILS WATER METER DETAILS
P-2	SEPTIC TANK DETAILS FLOOR CLEANOUT DETAILS CATCH BASIN DETAILS AIR CHAMBER DETAILS
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E-2	POWER LAYOUT LIGHTING LAYOUT

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Department of Public Works, Transportation and Communications
OFFICE OF THE BUILDING OFFICIAL
District/City/Municipality

Recommending Approval as to LAND USE AND ZONING — Head — Date
Recommending Approval as to LINE AND GRADE — Head — Date
Recommending Approval as to ARCHITECTURAL — Head — Date
Recommending Approval as to STRUCTURAL — Head — Date
Recommending Approval as to SANITARY — Head — Date
Recommending Approval as to ELECTRICAL — Head — Date
Recommending Approval as to MECHANICAL — Head — Date

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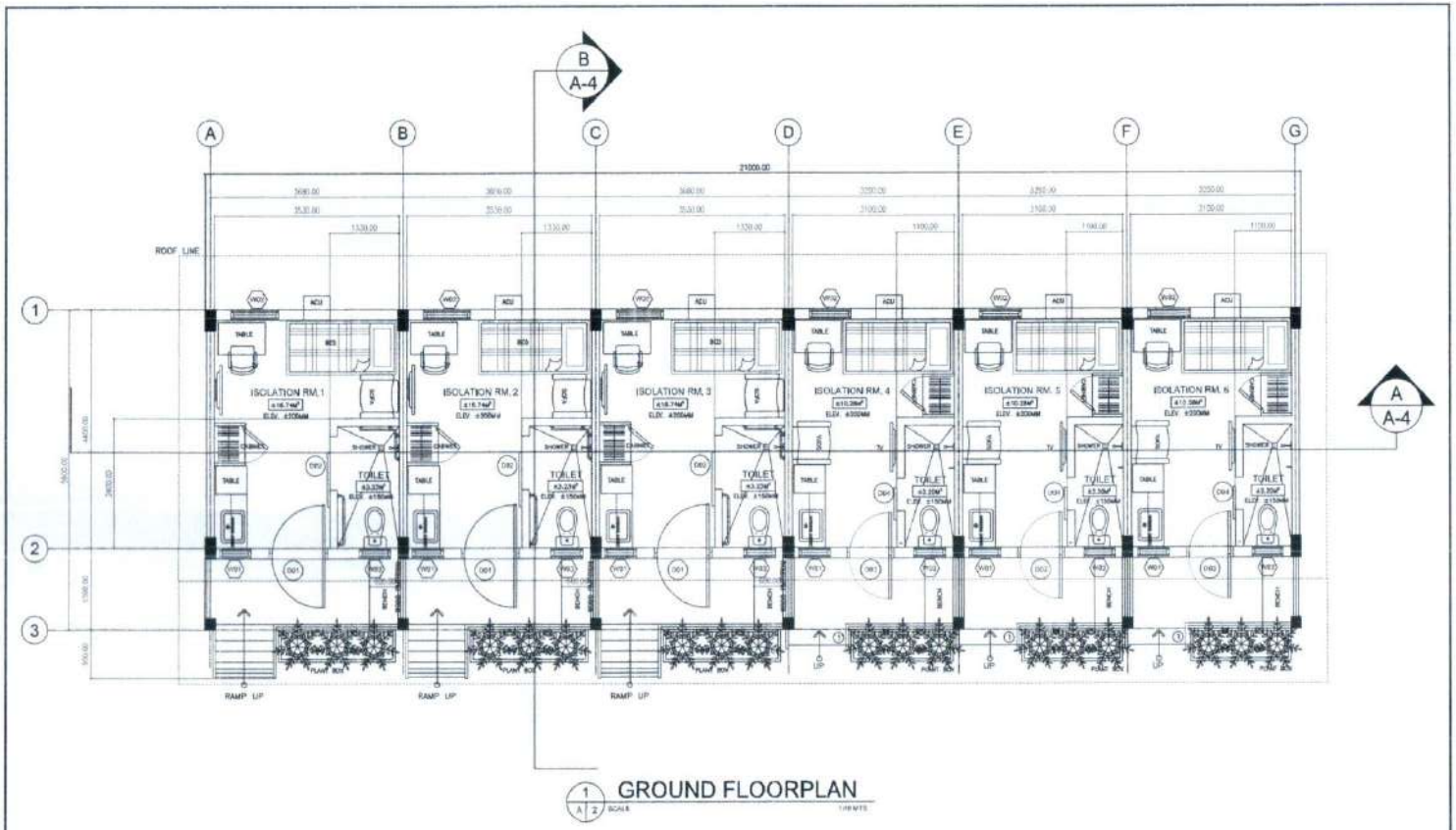
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER

PREPARED BY: | VERIFIED BY: | SUBMITTED BY: C. NAVARRO | REVIEWED BY: MARIO R. | RECOMMENDING APPROVAL: | APPROVED BY: VICENTE … B. TOMAS

SHEET CONTENT: EXTERIOR PERSPECTIVE, VICINITY MAP, SITE DEVELOPMENT PLAN

SHEET NO.: A-1



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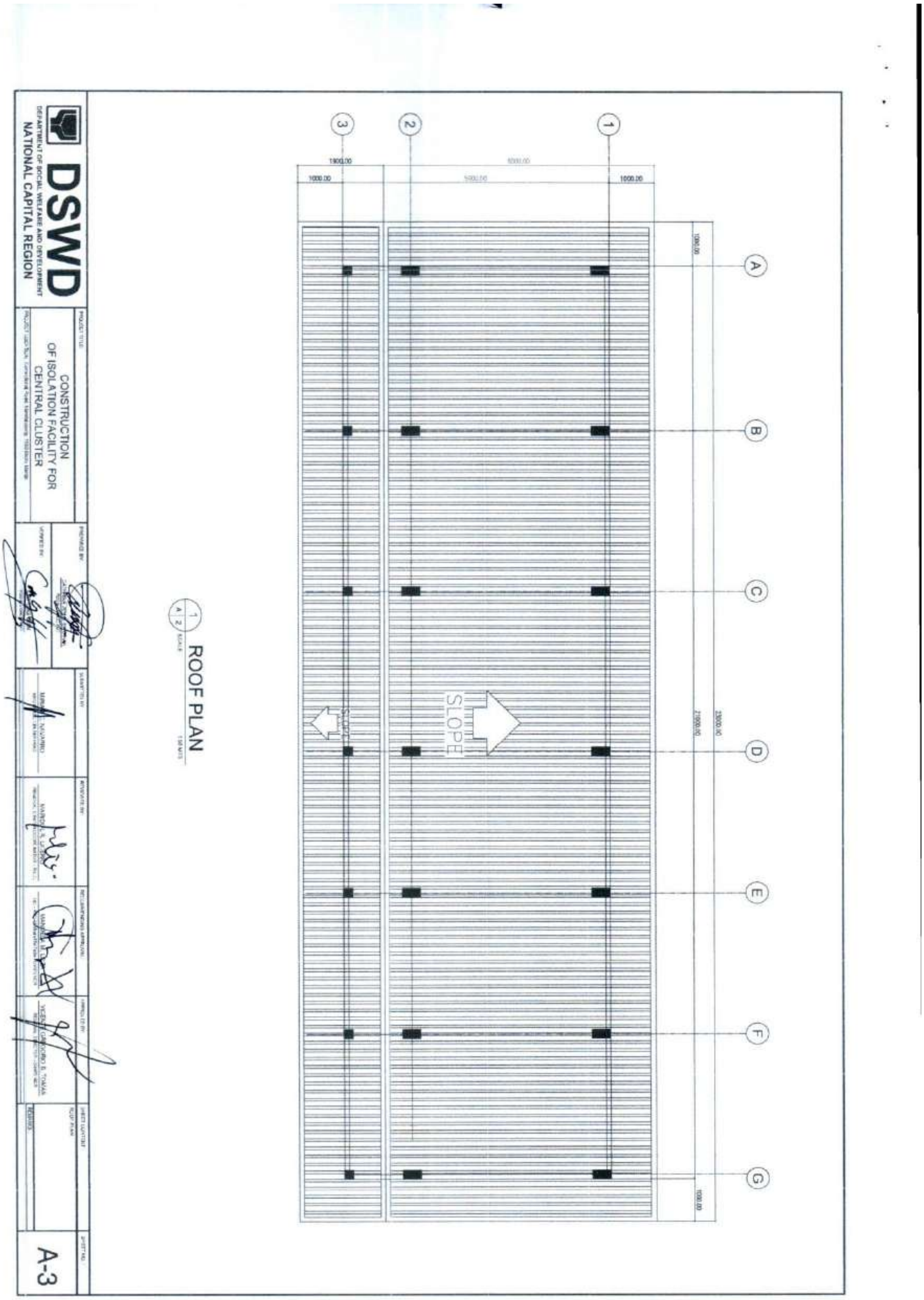
NATIONAL CAPITAL REGION

PROJECT TITLE:
CONSTRUCTION
OF ISOLATION FACILITY FOR
CENTRAL CLUSTER

PREPARED BY:
VERIFIED BY:
SUBMITTED BY:
MIRIAM C. NAVARRO
ENDORSED BY:
RECOMMENDING APPROVAL:
APPROVED BY:
VICENTE GREGORIO B. TOMAS
SHEET CONTENT:
GROUND FLOORPLAN
REMARKS:

A-2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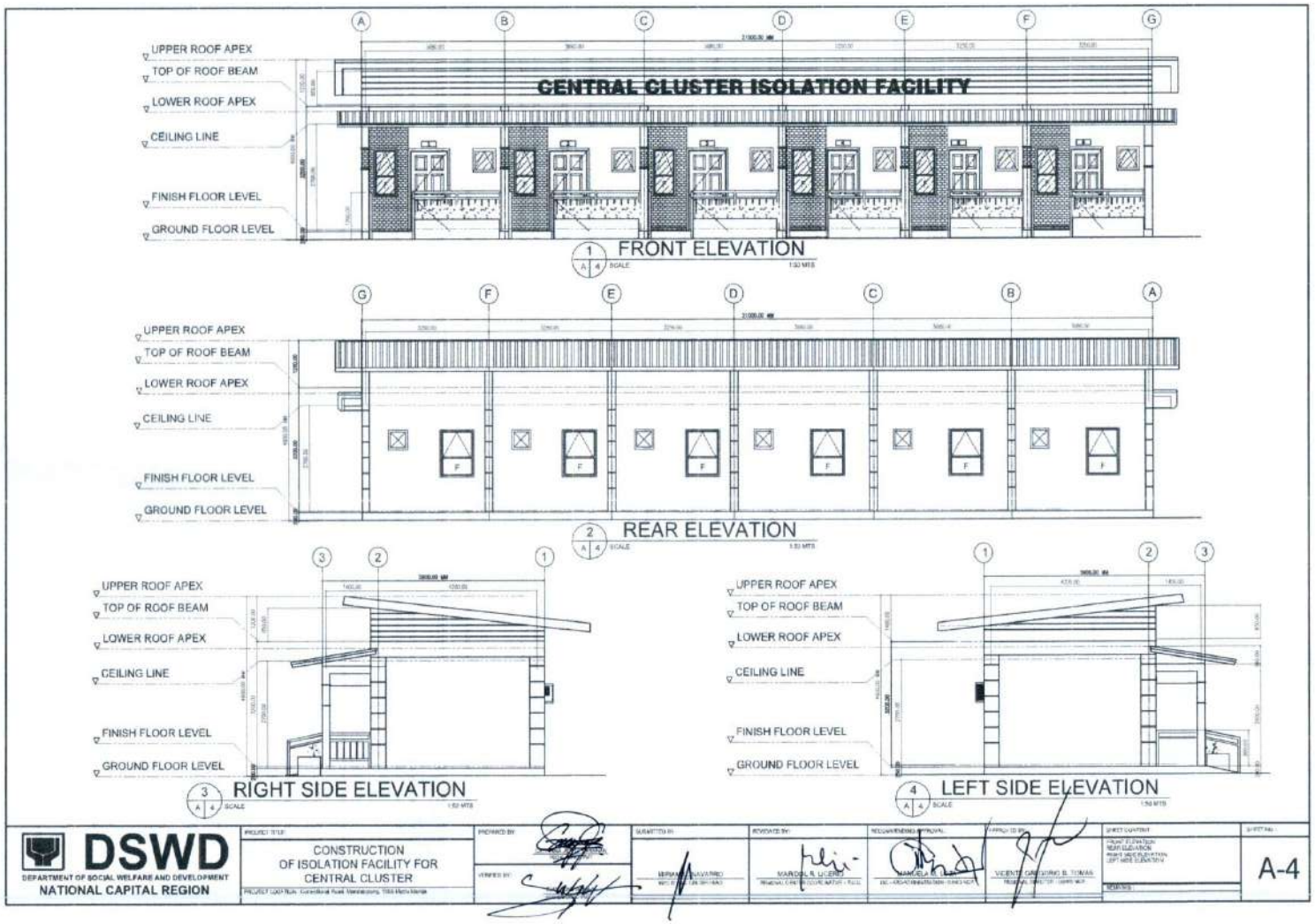
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER
ROOF PLAN
SLOPE
A-3


CENTRAL CLUSTER ISOLATION FACILITY
UPPER ROOF APEX
TOP OF ROOF BEAM
LOWER ROOF APEX
CEILING LINE
FINISH FLOOR LEVEL
GROUND FLOOR LEVEL
1 A 4 SCALE
FRONT ELEVATION
1:50 MTS
2 A 4 SCALE
REAR ELEVATION
1:50 MTS
3 A 4 SCALE
RIGHT SIDE ELEVATION
1:50 MTS
4 A 4 SCALE
LEFT SIDE ELEVATION
1:50 MTS
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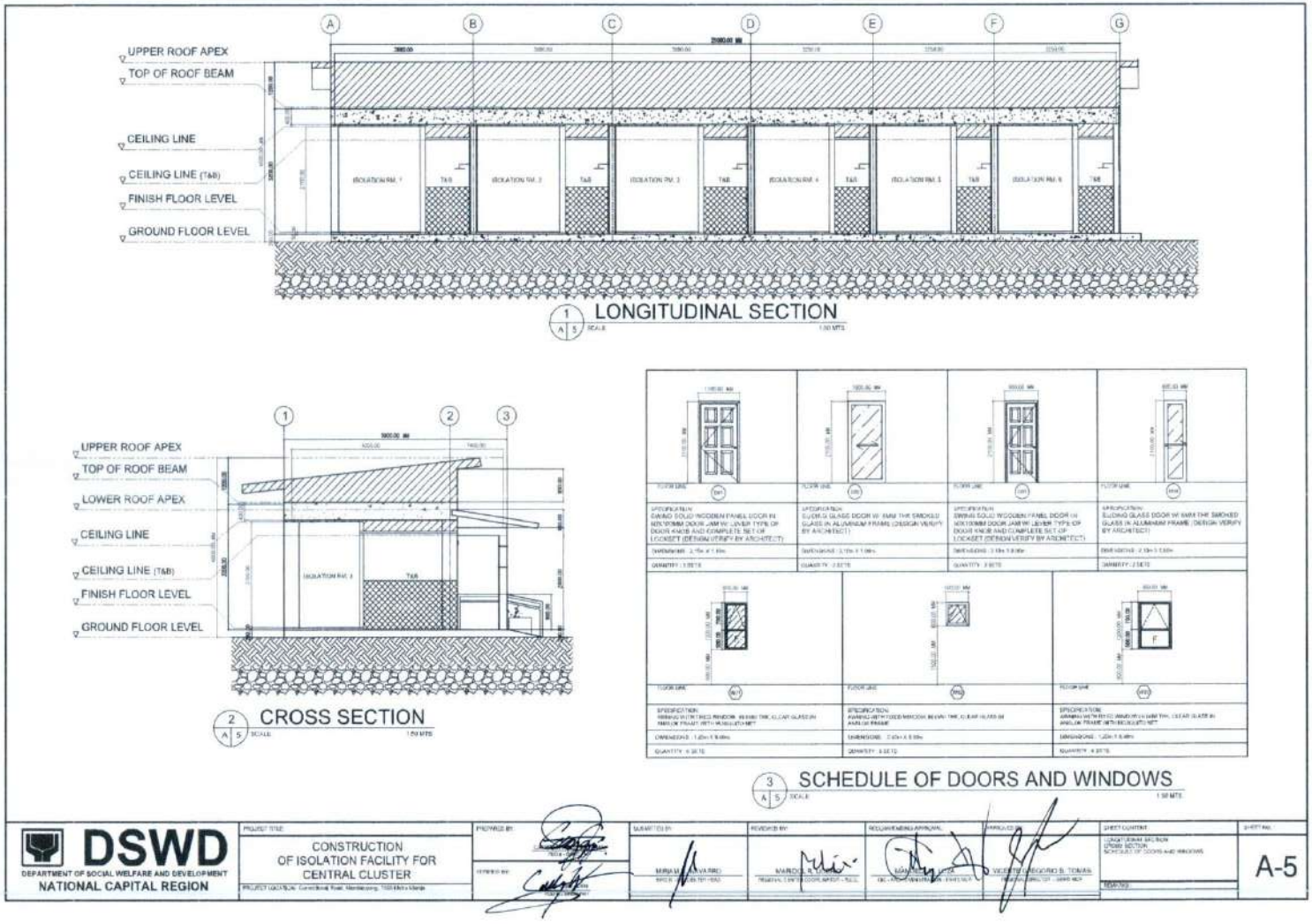
CONSTRUCTION
OF ISOLATION FACILITY FOR
CENTRAL CLUSTER
A-4


A
B
C
D
E
F
G
UPPER ROOF APEX
TOP OF ROOF BEAM
CEILING LINE
CEILING LINE (T&B)
FINISH FLOOR LEVEL
GROUND FLOOR LEVEL
T&B
1
LONGITUDINAL SECTION
SCALE
1:50 MTS
1
2
3
UPPER ROOF APEX
TOP OF ROOF BEAM
LOWER ROOF APEX
CEILING LINE
CEILING LINE (T&B)
FINISH FLOOR LEVEL
GROUND FLOOR LEVEL
T&B
2
CROSS SECTION
SCALE
1:50 MTS
3
SCHEDULE OF DOORS AND WINDOWS
SCALE
1:50 MTS
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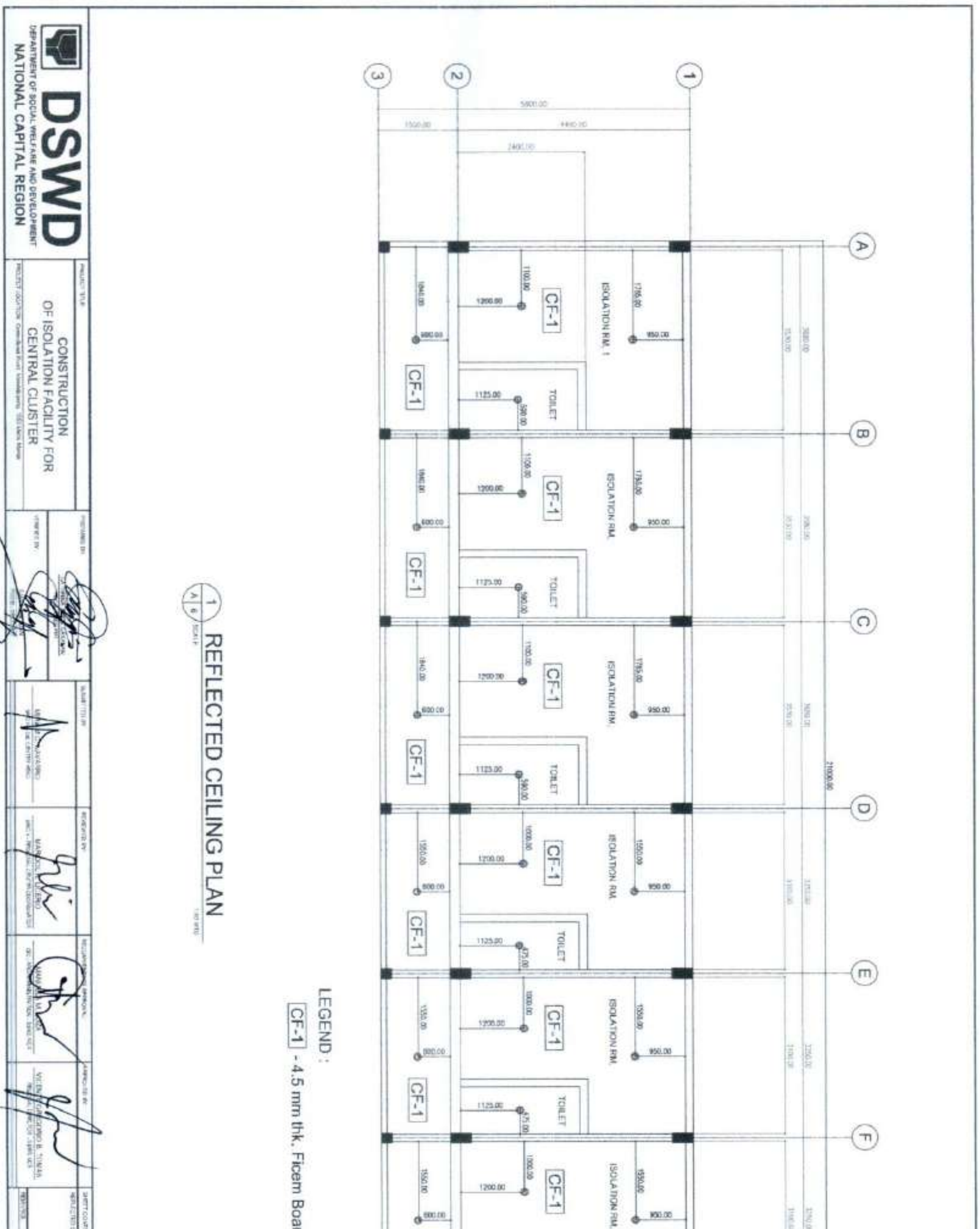
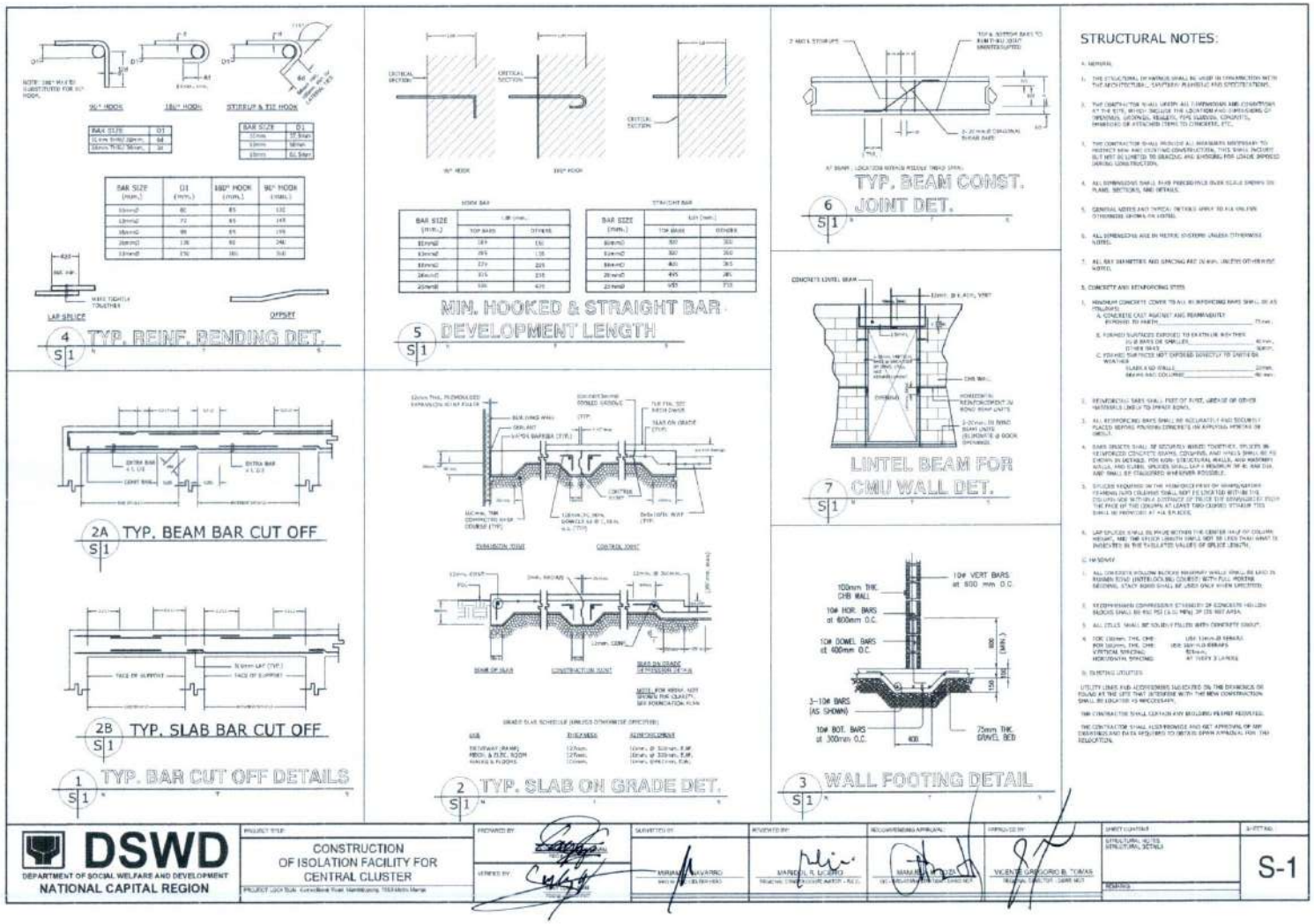
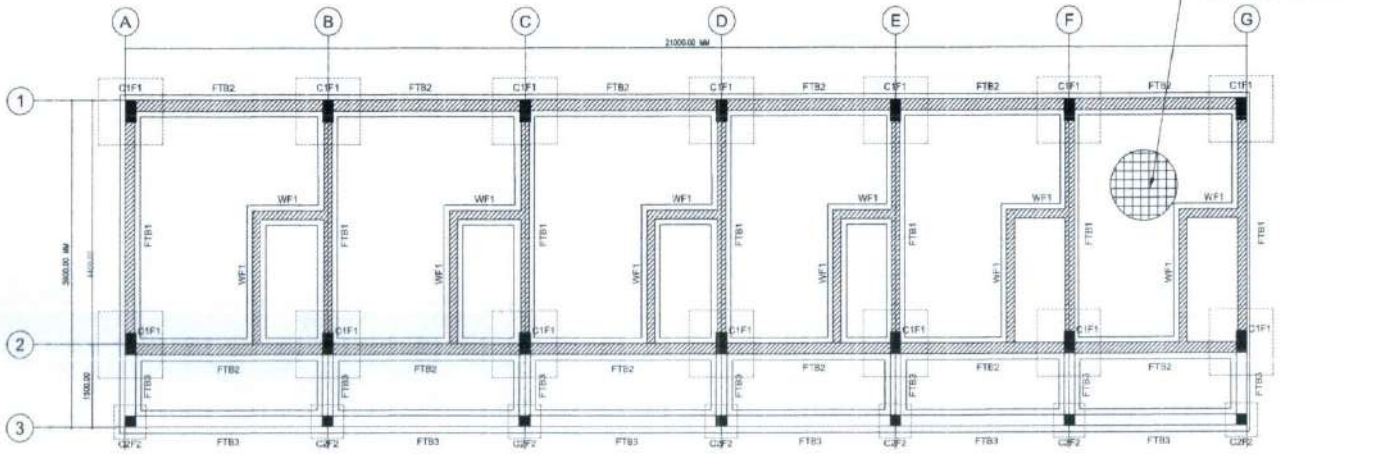
CONSTRUCTION
OF ISOLATION FACILITY FOR
CENTRAL CLUSTER
A-5


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER
REFLECTED CEILING PLAN
LEGEND :
CF-1 - 4.5 mm thk. Ficem Board w/ Frame
ISOLATION RM. 1
ISOLATION RM.
TOILET
CF-1
A-6


90° HOOK
135° HOOK
STIRRUP & TIE HOOK
LAP SPLICE
OFFSET
4 S1 TYP. REINF. BENDING DET.
MIN. HOOKED & STRAIGHT BAR DEVELOPMENT LENGTH
5 S1
6 S1 TYP. BEAM CONST. JOINT DET.
7 S1 LINTEL BEAM FOR CMU WALL DET.
2A S1 TYP. BEAM BAR CUT OFF
2B S1 TYP. SLAB BAR CUT OFF
1 S1 TYP. BAR CUT OFF DETAILS
2 S1 TYP. SLAB ON GRADE DET.
3 S1 WALL FOOTING DETAIL
100mm THK. CHB WALL
10# HOR. BARS at 600mm O.C.
10# DOWEL BARS at 400mm O.C.
3-10# BARS (AS SHOWN)
10# BOT. BARS at 300mm O.C.
10# VERT BARS at 800 mm O.C.
75mm THK. GRAVEL BED
STRUCTURAL NOTES:
DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER
S-1

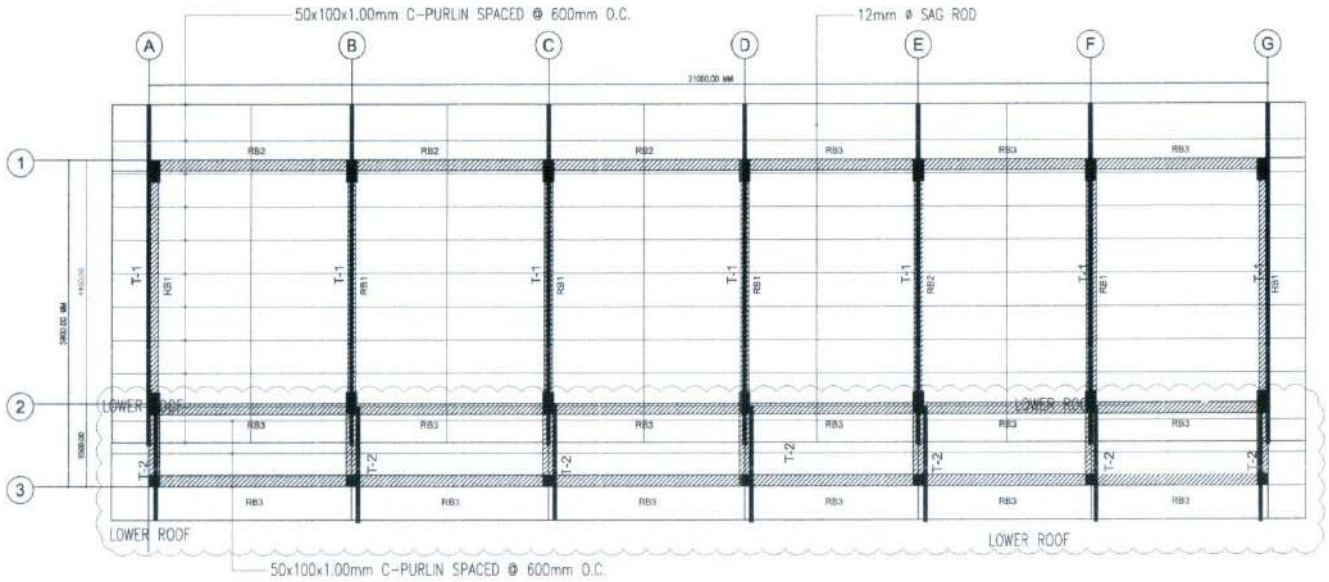
TOP BARS = 12 mm ø @ 25
BOTTOM BARS = 12 mm ø @ 25
BENT BARS = 12 mm ø @ 25
THICKNESS = 125 mm



1/5 2 SCALE

FOUNDATION PLAN

DSWD DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT NATIONAL CAPITAL REGION	PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER PROJECT LOCATION: Correctional Road, Alabang, Muntinlupa City	PREPARED BY: VERIFIED BY:	SUBMITTED BY: REVIEWED BY: MARIDEL R. LUCERO RECOMMENDING APPROVAL: APPROVED BY: VICENTE MARIGORIO B. TUMAS	SHEET CONTENT: LONGITUDINAL SECTION CROSS SECTION SCHEDULE OF DOORS AND WINDOWS REMARKS:	SHEET NO.: S-2



1/S-3 ROOF FRAMING PLAN

SCALE 1:40 MTS

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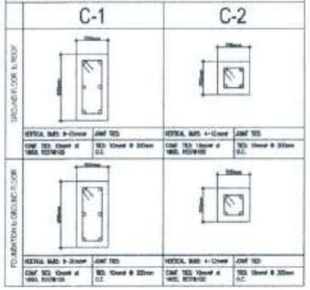
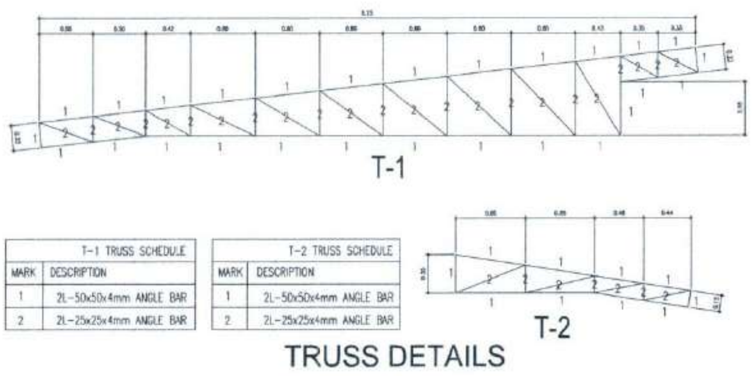
NATIONAL CAPITAL REGION

CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER

S-3

SCHEDULE OF COLUMN





T-1 TRUSS SCHEDULE	
MARK	DESCRIPTION
1	2L-50x50x4mm ANGLE BAR
2	2L-25x25x4mm ANGLE BAR

T-2 TRUSS SCHEDULE	
MARK	DESCRIPTION
1	2L-50x50x4mm ANGLE BAR
2	2L-25x25x4mm ANGLE BAR

TRUSS DETAILS

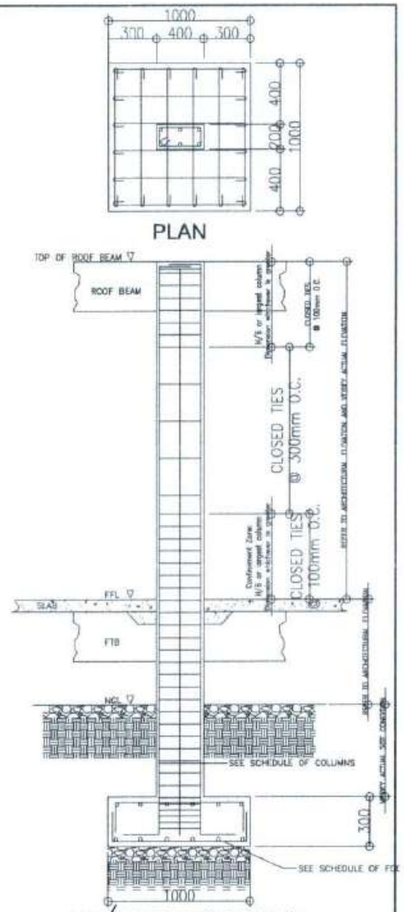
SCHEDULE OF FOOTINGS

3000psi

FTG. MARK	DIMENSIONS			REBAR (mm)	BOTTOM BARS		TOP BARS		REMARKS
	L (mm)	W (mm)	t (mm)		SPACING ALONG - L (mm)	SPACING ALONG - W (mm)	SPACING ALONG - L (mm)	SPACING ALONG - W (mm)	
F1	1200	1200	400	20ø	200	200	200	200	ISOLATED
F2	600	600	400	20ø	200	200	200	200	ISOLATED

SCHEDULE OF R.C. BEAMS

BEAM MARK	B (mm)	H (mm)	REBAR (mm)	STEEL REINFORCEMENT						WEB BARS (mmØ)	SIZE	STIRRUPS	REMARKS
				LEFT SUPPORT		MIDSPAN		RIGHT SUPPORT				SPACING (START, 1 at 50)	
				TOP BARS	BOTTOM BARS	TOP BARS	BOTTOM BARS	TOP BARS	BOTTOM BARS				
GROUND FLOOR LEVEL													
FTB1	200	300	16ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 9@100, REST @ 300mm O.C.	
FTB2	200	300	16ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 7@100, REST @ 300mm O.C.	
FTB3	200	200	16ø	2	2	2	2	2	2	–	10ø	1@50, 7@100, REST @ 300mm O.C.	
ROOF LEVEL													
RB1	200	300	12ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 9@100, REST @ 300mm O.C.	
RB2	200	300	12ø	2	2	2	2	2	2	2-10mø	10ø	1@50, 7@100, REST @ 300mm O.C.	
RB3	200	200	12ø	2	2	2	2	2	2	–	10ø	1@50, 7@100, REST @ 300mm O.C.	



COLUMN-FOOTING DETAIL

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER

PREPARED BY: | VERIFIED BY: | SUBMITTED BY: | REVIEWED BY: | RECOMMENDING APPROVAL: | APPROVED BY: VICENTE GREGORIO B. TOMAS

SHEET CONTENT: COLUMN DETAILS, COLUMN-FOOTING DETAIL, TRUSS DETAILS, SCHEDULE OF FOOTINGS, SCHEDULE OF R.C. BEAMS

S-4

GENERAL NOTES

1. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE PHILIPPINE PLUMBING CODE AND THE RULES AND REGULATIONS OF THE GOVERNMENT.
2. COORDINATES THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
3. PIPES SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT AND ENGINEER.
4. PROPOSED SANITARY UTILITIES SHALL CONFORM THE ACTUAL LOCATION DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES STRUCTURE.
5. ALL SLOPES FOR HORIZONTAL BRANCHES (SEWER) SHALL MAINTAIN 1 % AS MINIMUM UNLESS NOTED OTHERWISE.
6. ALL FIXTURE SHALL BE VENTED, UNLESS OTHERWISE INDICATED.
7. ALL VERTICAL PIPES SUCH AS SOIL STACK, MAIN VENT, AHU/FCU STACK, & DOWNSPOUT SHALL BE POLYVINYL CHLORIDE (uPVC).
8. ALL HORIZONTAL PIPE ALONG TRANSITION LEVEL SUCH AS SOIL PIPE, VENT PIPE, AHU/FCU PIPE & STORM DRAIN COLLECTOR PIPE SHALL BE POLYVINYL CHLORIDE (uPVC).
9. ALL HORIZONTAL PIPE SUCH AS SOIL BRANCH PIPE, CIRCUIT VENT, AHU/FCU BRANCH PIPE, & STORM DRAIN COLLECTOR PIPE SHALL BE uPVC PIPE HIGH IMPACT SERIES 1,000.
10. ALL WATER LINE PIPES 110MMØ AND BELOW SHALL BE POLYPROPYLENE (PP) PIPE, PN-20.
11. ALL WATER LINE PIPES 150MMØ AND ABOVE SHALL BE POLYPROPYLENE (PP) PIPE, PN-20.
12. ALL AHU/FCU DRAIN PROVIDE INSULATION 19MM (3/4") THICK RUBBER TYPE.
13. ALL SOIL PIPE, VENT PIPE, AHU/FCU DRAIN, STORM DRAIN, AND WATER SUPPLY PIPE PROVIDE PIPE HANGER EVERY 1.5 METERS.
14. HEAD ROOM REQUIRED BY THE ARCHITECT MUST COMPLY BY THE CONTRACTOR, AND ALL WASTE LINE & WATERLINE THAT PASSING THRU BEAM SHOULD BE PROVIDED BY PIPE SLEEVE.

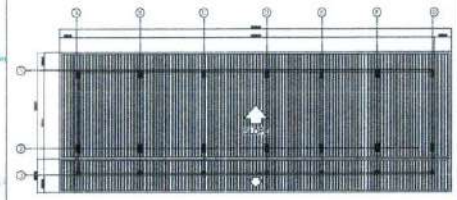
MATERIAL SPECIFICATIONS:

COLD WATER LINE	ALL RISERS, WATER DISTRIBUTION SUPPLY LINES SHALL BE HIGH DENSITY POLYPROPYLENE (PPR) "DONBEN BRAND"PIPE PN 20 CONFORMING TO ASTM D 2239-B.
HOT WATER LINE	ALL RISERS, WATER DISTRIBUTION SUPPLY LINES SHALL BE HIGH DENSITY POLYPROPYLENE (PPR) "DONBEN BRAND"PIPE PN 20 CONFORMING TO ASTM D 2239-B.
VENT PIPES	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 600 "CROWN" BRAND OR APPROVED EQUAL.
SEWER LINES	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 "CROWN" BRAND FOR 100mmø TO 150mmø AND CLASS 10 FOR 150mmø AND ABOVE OR APPROVED EQUAL
WASTE LINE	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 "CROWN" BRAND FOR 100mmø TO 150mmø AND CLASS 10 FOR 150mmø AND ABOVE OR APPROVED EQUAL
FCU/AHU WASTE LINES	SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 "CROWN" BRAND OR APPROVED EQUAL. ALL EXPOSED FCU/AHU DRAIN LINES SHALL BE PROVIDED WITH 1" THICK CLOSE CELL ELASTOMETRIC THERMAL INSULATION "AEROFLEX" BRAND OR APPROVED EQUAL. ALL LATERAL AND BRANCH DRAIN LINES SHALL BE POLYVINYL CHLORIDE PIPES (PVC) SERIES 1000 II BY "CROWN" BRAND OR APPROVED EQUAL. OUTSIDE BUILDING–SHALL BE CONCRETE DRAIN PIPE (RCDP), TONGUE & GROOVE, MORTAR JOINTS REINFORCED FOR 300mmø AND LARGER LOCALLY MANUFACTURED.
CHECK VALVES	"MITZ" OR APPROVED EQUAL.
GATE VALVES	"MITZ" OR APPROVED EQUAL.
WATER METER	"SONEROH" BRAND OR APPROVED EQUAL.

SCHEDULE OF PIPE SLEEVE

NOMINAL SIZE									
PIPE SIZE	25	32	40	50	65	80	100	150	200
SLEEVE SIZE	50	50	65	100	125	125	200	250	300

1 P1 VICINITY MAP SCALE NTS



2 P1 SITE DEVELOPMENT PLAN SCALE 1:500

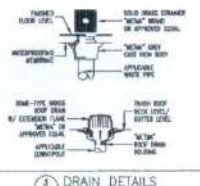
LEGEND

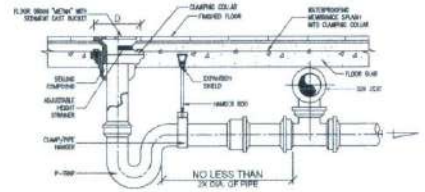
COLD WATER SUPPLY SYSTEM

CWL COLD WATER LINE
GV GATE VALVE
CV CHECK VALVE
W WATER METER
LAV LAVATORY
WC WATER CLOSET
KS KITCHEN SINK
SS SLOP SINK
HOSE VALVE
HOSE VALVE

WASTE, SEWER & VENT SYSTEM

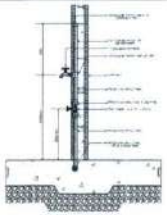
SP SEWER PIPE
DS DOWNSPOUT
VP VENT PIPE
FCO FLOOR CLEANOUT
FD FLOOR DRAIN
GI GREASE INTERCEPTOR
WC WATER CLOSET
LAV LAVATORY
KS/BS KITCHEN SINK/BAR SINK
SS SLOP SINK
LSD LAVATORY SINK DRAIN
URI URINAL
AD AREA DRAIN



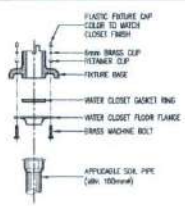


3 P1 DRAIN DETAILS SCALE NTS

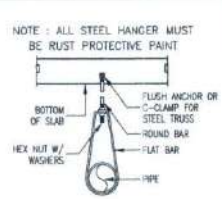
NOTES :
ALL WATERLINES SHALL BE THOROUGHLY FLUSHED AND DISINFECTED PRIOR TO TAP ON EXISTING STUB OUT
ALL WATERLINES SHALL BE HYDRO-STATICALLY TESTED (150PSI) FOR TWO HOURS A.L WATERLINES SHALL BE PAINTED WITH NAVY BLUE
APPLY 3 PLY MEMBRANE WATERPROOFING TO ALL WET AREAS AND TESTED 24 HOURS



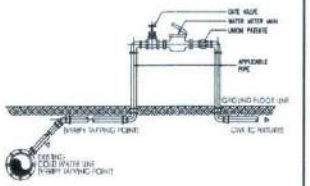
4 P1 HOSE BIBB DETAILS SCALE NTS



5 P1 WC FLANGE DETAILS SCALE NTS



6 P1 PIPE HANGER DETAILS SCALE NTS



7 P1 WATER METER DETAILS SCALE NTS

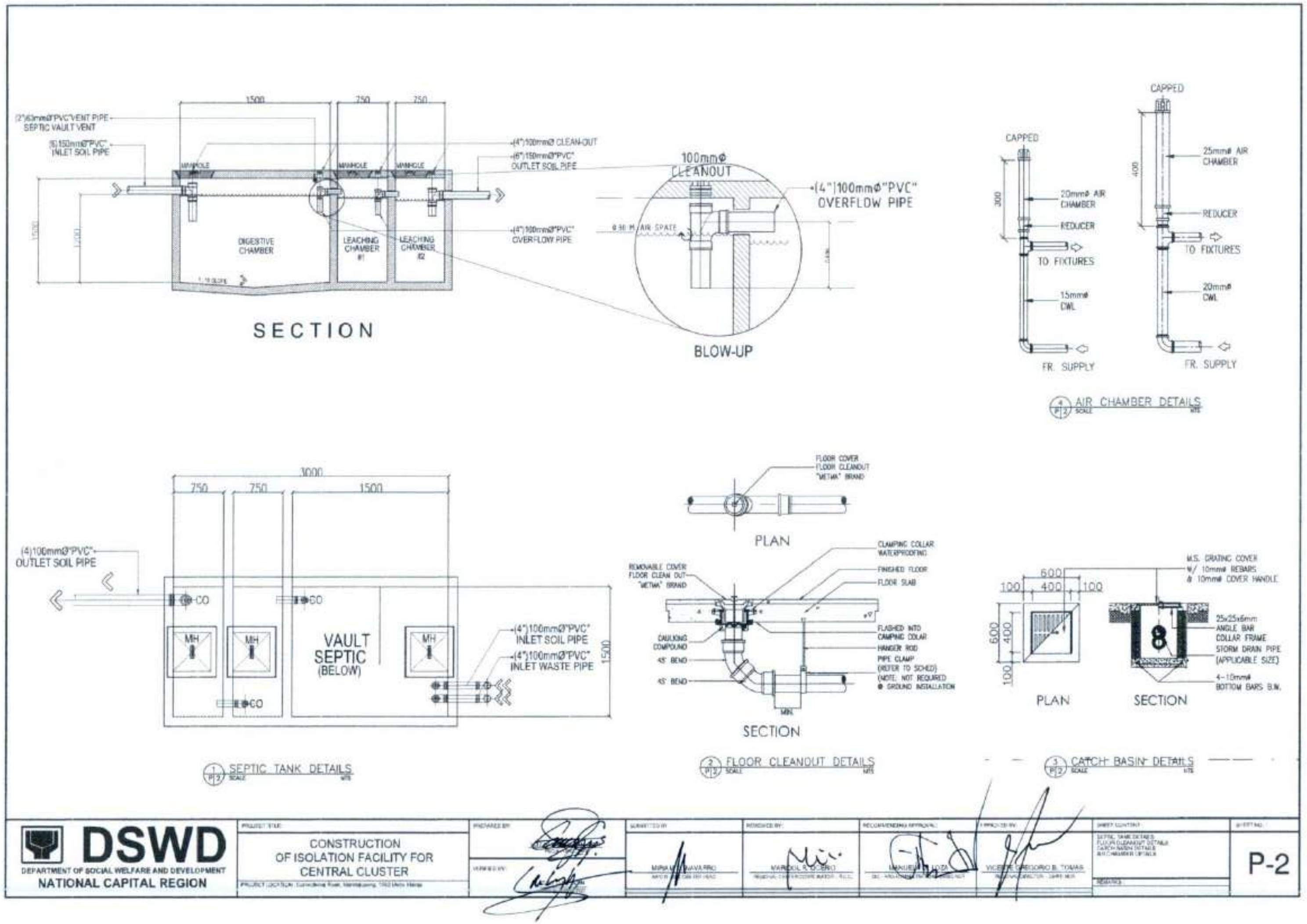
DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE:
CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER
PROJECT LOCATION: Commonwealth Avenue, Quezon City

PREPARED BY:
VERIFIED BY:
SUBMITTED BY: MANUEL M. NAVARRO
REVIEWED BY: MARIDOL R. LUCERO
RECOMMENDING APPROVAL:
APPROVED BY: VICENTE GREGORIO B. TOMAS

SHEET CONTENT:
VICINITY MAP
SITE DEVELOPMENT PLAN
LEGEND
DRAIN DETAILS
HOSE BIBB FLANGE DETAILS
WATER CLOSET FLANGE DETAILS
PIPE HANGER DETAILS
WATER METER DETAILS
REMARKS

SHEET NO.: P-1


(2")63mmØ"PVC"VENT PIPE-
SEPTIC VAULT VENT
(6)150mmØ"PVC"-
INLET SOIL PIPE
1500
750
750
MANHOLE
(4")100mmØ CLEAN-OUT
(6")150mmØ"PVC"
OUTLET SOIL PIPE
DIGESTIVE CHAMBER
LEACHING CHAMBER #1
LEACHING CHAMBER #2
(4")100mmØ"PVC"
OVERFLOW PIPE
SECTION
100mmØ
CLEANOUT
(4")100mmØ"PVC"
OVERFLOW PIPE
AIR SPACE
BLOW-UP
CAPPED
300
20mmØ AIR CHAMBER
REDUCER
TO FIXTURES
15mmØ CWL
FR. SUPPLY
CAPPED
400
25mmØ AIR CHAMBER
REDUCER
TO FIXTURES
20mmØ CWL
FR. SUPPLY
4 P-2 AIR CHAMBER DETAILS
3000
750
750
1500
(4)100mmØ"PVC"-
OUTLET SOIL PIPE
CO
MH
VAULT
SEPTIC
(BELOW)
(4")100mmØ"PVC"
INLET SOIL PIPE
(4")100mmØ"PVC"
INLET WASTE PIPE
1500
1 P-2 SEPTIC TANK DETAILS
FLOOR COVER
FLOOR CLEANOUT
"METMA" BRAND
PLAN
REMOVABLE COVER
FLOOR CLEAN OUT-
"METMA" BRAND
CLAMPING COLLAR
WATERPROOFING
FINISHED FLOOR
FLOOR SLAB
CAULKING COMPOUND
45' BEND
45' BEND
FLASHED INTO
CLAMPING COLLAR
HANGER ROD
PIPE CLAMP
(REFER TO SCHED)
(NOTE: NOT REQUIRED
@ GROUND INSTALLATION
SECTION
2 P-2 FLOOR CLEANOUT DETAILS
600
100
400
100
M.S. GRATING COVER
W/ 10mmØ REBARS
@ 10mmØ COVER HANDLE
25x25x6mm
ANGLE BAR
COLLAR FRAME
STORM DRAIN PIPE
(APPLICABLE SIZE)
4-10mmØ
BOTTOM BARS B.W.
PLAN
SECTION
3 P-2 CATCH BASIN DETAILS
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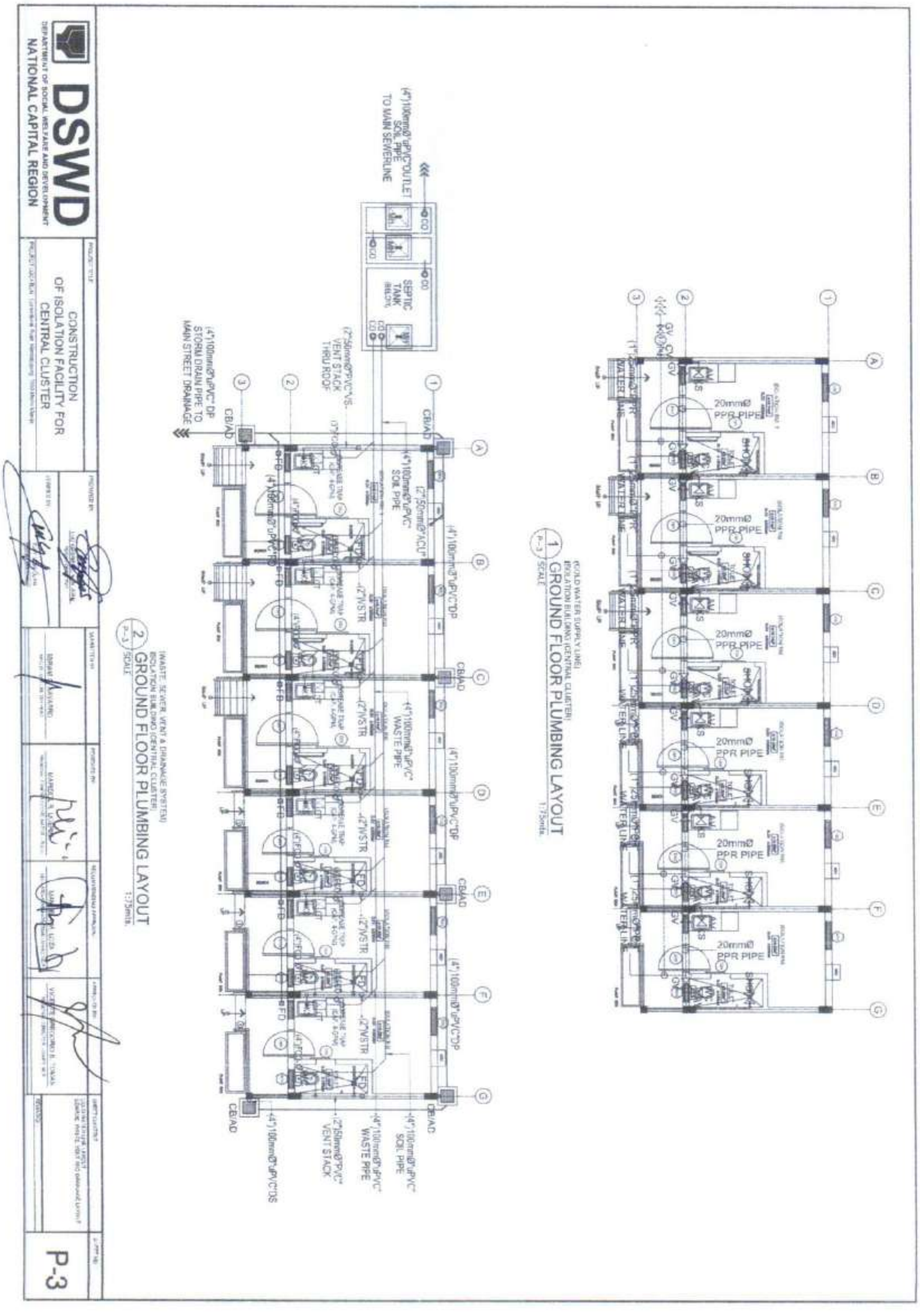
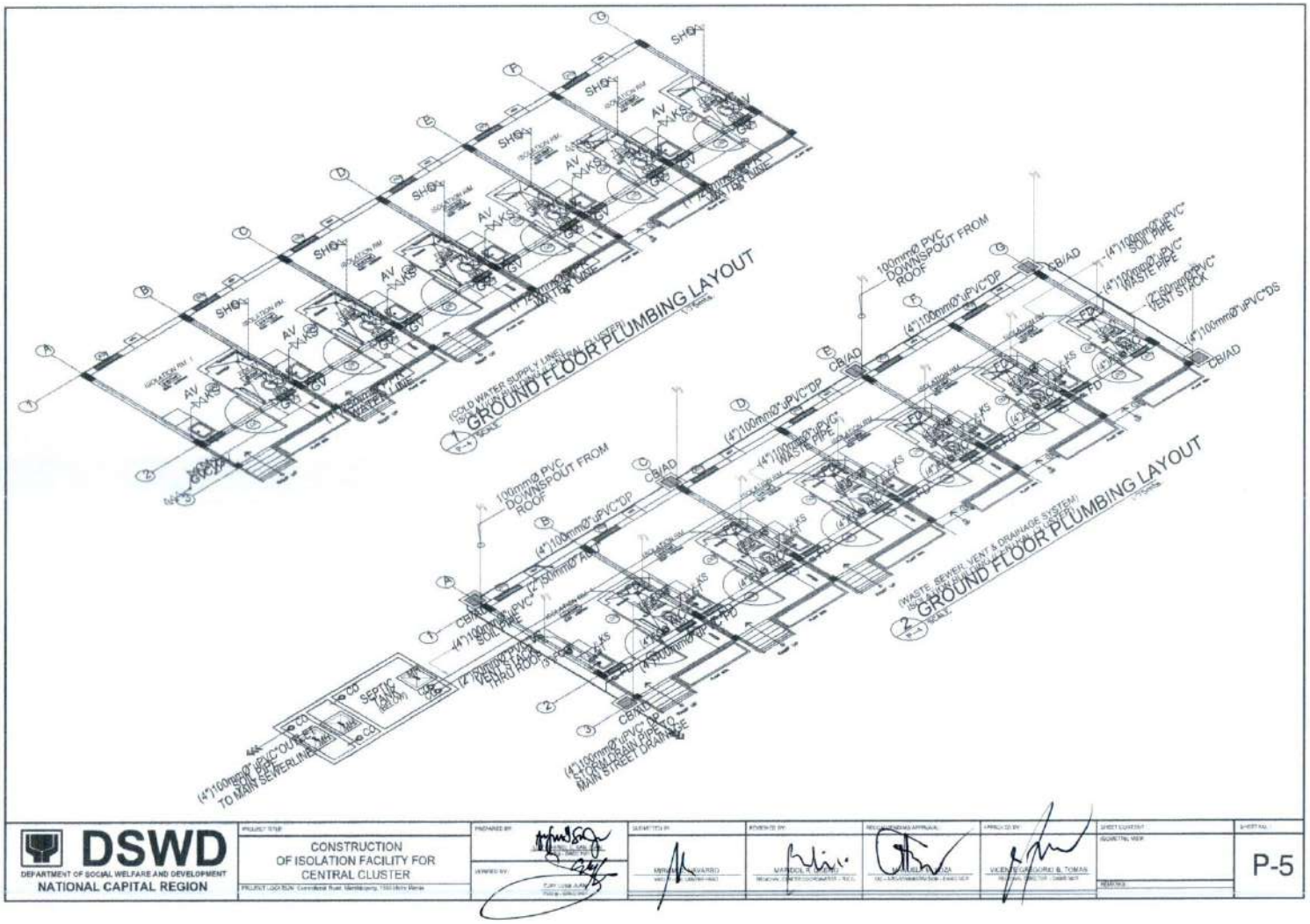
NATIONAL CAPITAL REGION
CONSTRUCTION
OF ISOLATION FACILITY FOR
CENTRAL CLUSTER
P-2


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER
GROUND FLOOR PLUMBING LAYOUT
GROUND FLOOR PLUMBING LAYOUT
P-3


GROUND FLOOR PLUMBING LAYOUT
GROUND FLOOR PLUMBING LAYOUT
SEPTIC VAULT
DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION
OF ISOLATION FACILITY FOR
CENTRAL CLUSTER
P-5

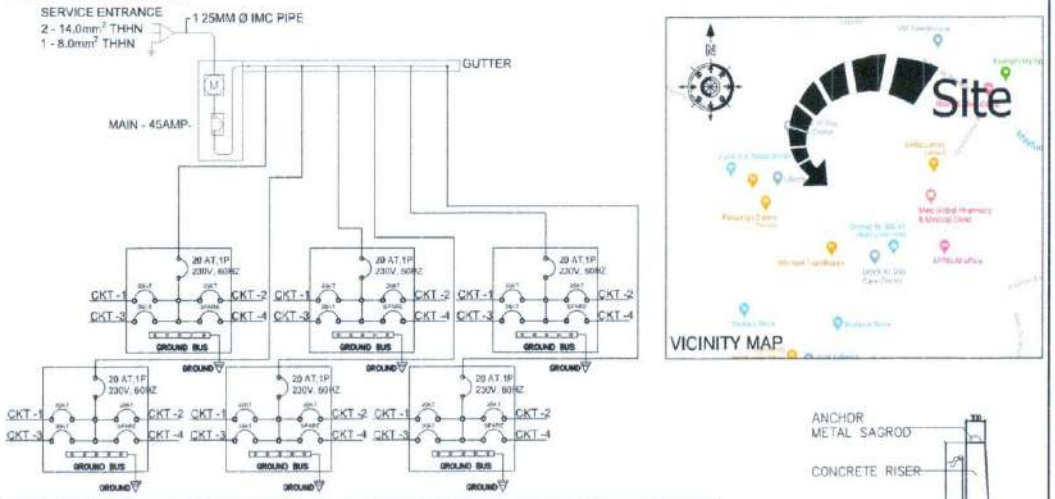
GENERAL NOTES :

1. ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF THE PHILIPPINES, THE PHILIPPINE ELECTRICAL CODE, THE RULES AND REGULATION OF LGU, THE REQUIREMENTS OF THE LOCAL POWER COMPANY AND LOCAL TELEPHONE COMPANY.
2. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER. SERVICE SHALL BE 220V, 1-PHASE, 2W+G
3. ALL EQUIPMENT, DEVICES, MATERIALS AND INSTALLATION METHODS SHALL BE APPLICABLE TO THE DESIGN INTENT/PURPOSE/FUNCTIONAL LOCATION, SITE/AREA CONDITION AND WEATHER.
4. ALL BRANCH CIRCUITS AND FEEDERS SHALL BE INSTALLED AS INDICATED ON PLANS. COMBINATION OF HOMERUNS IN THE SAME SINGLE RACEWAY SHALL NOT BE ACCEPTABLE UNLESS NOTED OTHERWISE.
5. MINIMUM SIZE OF WIRE FOR POWER SHALL BE 3.5 SQ mm. (#12AWG) AWG FOR CONTROL WIRES SHALL BE 2.0 mm DIA. (#14AWG). USE THWN / THW / TW TYPE OF WIRES FOR OUTDOOR OR WET INSTALLATIONS. CONDUITS FOR CONTROL WIRES GOING TO LIGHTING SWITCH/SWITCH BANKS SHALL BE 30 MM (1/2"). MAXIMUM OF ELEVEN (11) CONTROL WIRES PER CONDUIT.
6. MOUNTING HEIGHTS OF DEVICES SHALL BE AS DETAILED IN THE PLANS OR AS DETAILED BY THE ARCHITECT AND/OR AS FOLLOWS:
   - LOCAL SWITCH ------ 1200mm ABOVE FLOOR FINISH LEVEL
   - RECEPTACLES ------ 300mm ABOVE FLOOR FINISH LEVEL
   - ------ 170mm ABOVE COUNTER TOP
7. EXPOSED CONDUIT RUNS SHALL BE INSTALLED PARALLEL TO OR PERPENDICULAR WITH THE BUILDING LINE. DIAGONAL RUN SHALL NOT BE ACCEPTED. ALL BOXES AND CONDUITS SHALL BE RIGIDLY SUPPORTED BY HANGER RODS, ANGLE BARS, U-BOLTS AND METAL CONDUIT CLAMPS. USE OF G.I. WIRE HANGER IS NOT ACCEPTABLE. CONDUIT SUPPORT SHALL BE EVERY 1500mm INTERVAL.
8. USE OF METAL FLEXIBLE CONDUIT SHALL BE LIMITED TO 1000 mm LENGHT ONLY. USE OF MDA TUBE SHALL LIMITED ONLY TO SIX (6) INCHES. USE OF NON-METALLIC FLEXIBLE CONDUIT IS NOT ALLOWED.
9. ALL LIGHTING FIXTURE TRANSFORMERS SHALL BE MOUNTED ON CONCRETE OR NON-COMBUSTIBLE SURFACE ONLY. OTHERWISE USE HANGER RODS, AND ANGLE BARS TO SUPPORT THEM. TRANSFORMER SHALL NOT BE MOUNTED DIRECTLY ON DROP-CEILINGS.
10. FOR SWITCH AND RECEPTACLE BOXES WITH MORE THAN SIX (6) WIRES ENTERING THEM, USE 100 X 100 X 50mm SQUARE BOXES WITH ONE (1) ADAPTER RING.
11. ALL PULLBOXES, SPLICEBOXES AND AUXILIARY OUTLETS SHALL BE GALVA. S.I. SHEET, POWDER COATED FINISH
12. ALL RECEPTACLE OUTLETS SHALL BE PROPERLY GROUNDED TO THE BOX BY MEANS OF GROUNDING LUGS.
13. ALL MOLDED CASE CIRCUIT BREAKER FOR MOTORS SHALL BE INDUSTRIAL TYPE.
14. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULLING WIRES AND SHALL BE CAPPED.
15. EXACT LOCATION AND RATING OF ALL EQUIPMENT TO BE SUPPLIED BY OTHER TRADES SHALL BE COORDINATED WITH THEIR RESPECTIVE TRADE DRAWINGS/PLANS PRIOR TO INSTALLATION.
16. COMMUNICATION AND DATA CIRCUIT RUN SHALL BE SEPARATED BY 150mm MINIMUM DISTANCE FROM POWER CIRCUIT RUN.
17. ADDITIONAL MATERIAL SPECIFICATIONS ASIDE FROM THOSE MENTIONED ELSEWHERE SHALL BE AS FOLLOWS OR APPROVED EQUAL :
   - A. ELECTRICAL CONDUITS
     - MC – PANASONIC, BL GILL
     - EMT – PANASONIC, BL GILL
     - PVC – HELTEX POWER GUARD, SUCRAJO V2000, ATLANTA PERMALINE
   - B1. WIRE & CABLES – PHELPS DODGE, PHILFLEX
   - B2. TELEPHONE CABLES – PHELPS DODGE, PHILFLEX
   - B3. STRUCTURED CABLING SYSTEM – BELDEN BRAND CABLES OR SYSTEM MANUFACTURER'S STANDARDS
   - B4. CABLE TV SYSTEM – BELDEN BRAND CABLES OR SYSTEM MANUFACTURER'S STANDARDS
   - C. ELECTRICAL PANEL
     - ENCLOSURE & ELEMENTS – LJ INDUSTRY, RM ELECTRIC
     - BREAKERS, COMMON INTERNAL TRIP – MITSUBISHI, SIEMENS, SQUARE D, SCHNEIDER
   - D. WIRING DEVICES – PANASONIC, CLIPSAL, BTICINO, TOSHIBA
   - E. FIXTURE BALLAST, ELECTRONIC TYPE – PHILIPS, ELC
   - F. EMERGENCY BATTERY PACK – COMPLIANCE; IEC 61601-2 or UL 924 Stamp Location Listed, NFPA 101 (Life Safety Code), 2-WE and 3-WE POWER DURATION, DUAL LITE, TECHNIC OR MASTER BRAND

SYMBOLS :

- ——— CEILING CIRCUIT RUN IN CEILING
- ——— SAME AS ABOVE EXCEPT EMBEDDED IN WALL OR FLOOR SLAB
- ——— PVC CONDUIT, SIZE AS REQUIRED
- —#—— # INDICATE TO PANELBOARD OR AS INDICATED
- \#w—— WIRING BURIED UP/DOWN
- S SINGLE POLE TOGGLE SWITCH, 15A, 220V, 2S, 3S, ETC INDICATES GANG SWITCHES, SMALL LETTER SUBSCRIPT INDICATES LIGHTS OR DEVICES BEING CONTROLLED. COMBINE MAXIMUM OF THREE (3) TOGGLES ON ONE STANDARD DEVICE PLATE. FOR SWITCH LOCATION WITH MORE THAN NINE (9) TOGGLE, USE SWITCH BANK PLATE.
- S2 SAME AS ABOVE EXCEPT 2-WAY SWITCH
- WOMD X 75W WALL LAMP
- RECESSED DIRECTIONAL LED LIGHTS IN WARM WHITE
- L.E.D.LINEAR LIGHTING (WARM WHITE)
- 2' 18 T8 LED TUBE LIGHT
- 6" x 6" RECESSED CFL WITH DIFFUSER
- DESK LAMP/ TABLE LAMP/ FLOOR LAMP
- DROP LIGHTING FIXTURE
- DUPLEX WALL CONVENIENCE OUTLET, 1P, 230V, 15A, UNIVERSAL SLOTS GROUNDING TYPE, MOUNTED ABOVE COUNTER IF MARKED "C"
- SINGLE WALL CONV. OUTLET FOR REFRIGERATOR, 1P, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.
- SINGLE WALL CONV. OUTLET FOR REFRIGERATOR, 1, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.
- DUPLEX WALL CONV. OUTLET FOR REFRIGERATOR, 1, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.

RISER DIAGRAM



CENTRAL CLUSTER ISOLATION TOTAL LOAD

CKT NO.	CONNECTED LOADS C.O.	L.O.	ACU	OTHER	LOAD DESCRIPTION	TOTAL LOAD	VOLTAGE	AMPERAGE	CIRCUIT BREAKER AT	AF	POLE	SIZE OF WIRES & CONDUITS
1					UNIT 1			5.25				2-8.0 mm² THHN IN 1/2" Ø PVC
2					UNIT 2			5.25				2-8.0 mm² THHN IN 1/2" Ø PVC
3					UNIT 3			5.25				2-8.0 mm² THHN IN 1/2" Ø PVC
4					UNIT 4			5.25				2-8.0 mm² THHN IN 1/2" Ø PVC
5					UNIT 5			5.25				2-8.0 mm² THHN IN 1/2" Ø PVC
6					UNIT 6			5.25				2-8.0 mm² THHN IN 1/2" Ø PVC
								31.50	AMPERE			

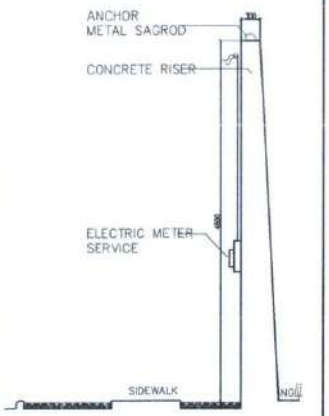
USE MAIN : 45 AMPERE AT 2P, 230V, 60HZ C.B. — SIZE OF WIRE & CONDUIT : 2-14.0mm² THHN IN 2-1/2 Ø IMC PIPE, 1-8.0mm² THHN IN 2-1/2 Ø IMC PIPE

CENTRAL CLUSTER ISOLATION ROOM 1-6

CKT NO.	CONNECTED LOADS C.O.	L.O.	ACU	OTHER	LOAD DESCRIPTION	TOTAL LOAD	VOLTAGE	AMPERAGE	CIRCUIT BREAKER AT	AF	POLE	SIZE OF WIRES & CONDUITS
1		4			LIGHTING LAYOUT	400	230	1.74	20	100	1	2-3.5 mm² THHN IN 1/2" Ø PVC
2	2				CONVENIENCE OUTLET	360	230	1.57	20	100	1	2-3.5 mm² THHN IN 1/2" Ø PVC
3			1		0.75HP ACCU	750	230	3.26	30	100	1	2-3.5 mm² THHN IN 1/2" Ø PVC
4				1	SPARE							
	2	4	1	1		1,510		6.57				

CALCULATION : I (TOTAL) = 1,510 / 230 V @ 100% P. F. = 6.25 AMPERE — SIZE OF WIRE & CONDUIT : 2-8.0mm² THHN IN 2-1/2 Ø IMC PIPE, 1-8.0mm² THHN IN 2-1/2 Ø IMC PIPE

USE MAIN : 20 AMPERE AT 2P, 230V, 60HZ C.B.

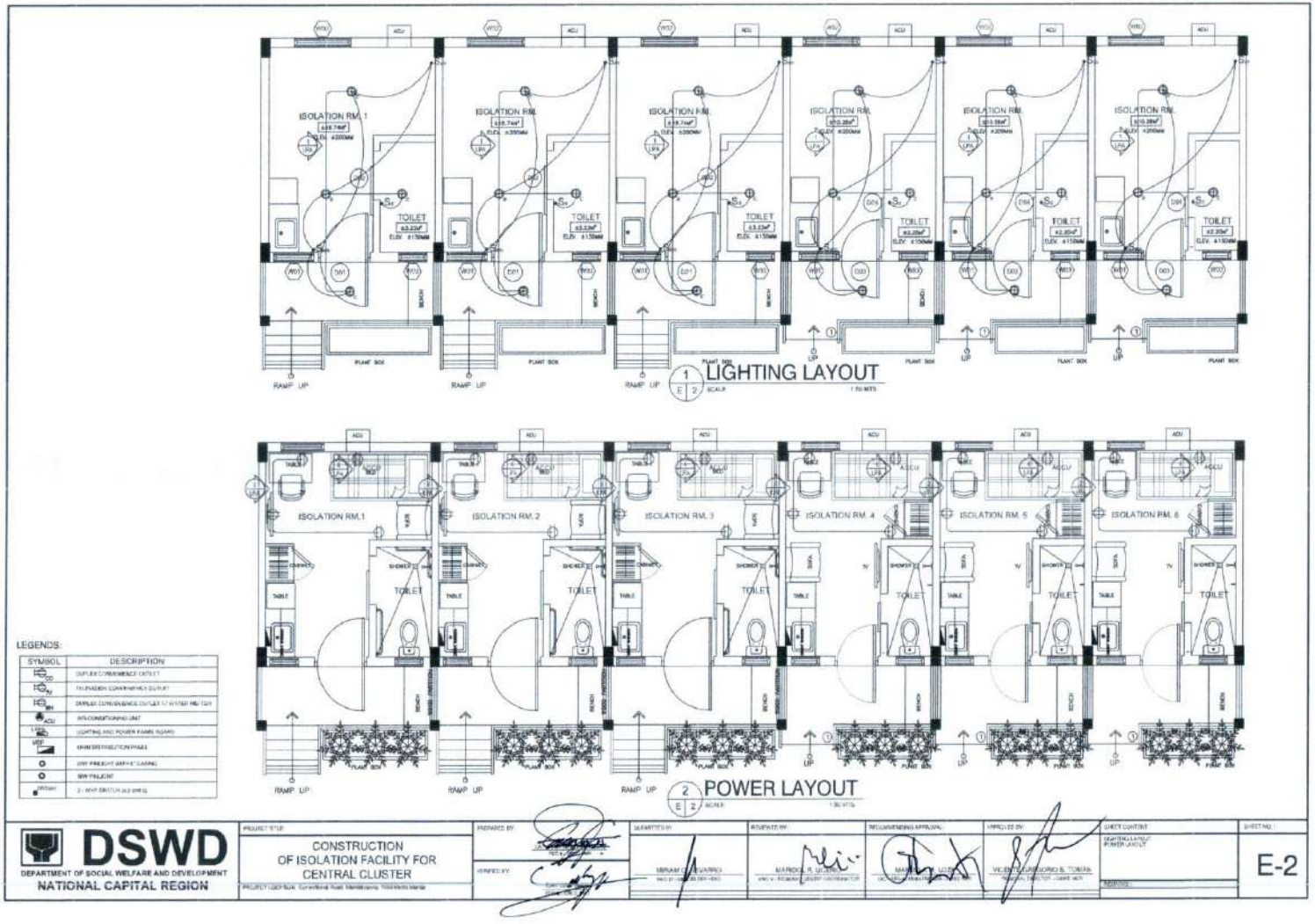


SERVICE ENTRANCE POLE DETAIL

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR CENTRAL CLUSTER

PREPARED BY: | SUBMITTED BY: MIRAFLOR NAVARRO | RECEIVED BY: MARIDEL R. LICERIO | RECOMMENDING APPROVAL: | APPROVED BY: | SHEET CONTENT: VICINITY MAP, RISER DIAGRAM, SERVICE ENTRANCE POLE DETAILS, LOAD COMPUTATION | SHEET NO.: E-1


ISOLATION RM. 1
ISOLATION RM. 2
ISOLATION RM. 3
ISOLATION RM. 4
ISOLATION RM. 5
ISOLATION RM. 6
TOILET
RAMP UP
PLANT BOX
BENCH
1 LIGHTING LAYOUT
2 POWER LAYOUT
LEGENDS:
SYMBOL
DESCRIPTION
DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION
OF ISOLATION FACILITY FOR
CENTRAL CLUSTER
E-2

DSWD

DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT

NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PROJECT LOCATION: ELSIE GACHES VILLAGE, FILINVEST ALABANG MUNTINLUPA CITY

DSWD DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT NATIONAL CAPITAL REGION	PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER	PREPARED BY:	SUBMITTED BY:	REVIEWED BY: MAURICE R. LICERIO	RECOMMENDING APPROVAL	APPROVED BY:	SHEET CONTENT: COVER PAGE	SHEET NO.: A-0
		VERIFIED BY:					REMARKS:	

1 PERSPECTIVE
A 1 SCALE 1:500 MTS

2 SITE DEVELOPMENT PLAN
A 1 SCALE 1:1000 MTS

3 VICINITY MAP
A 1 SCALE NTS

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E-3	LIGHTING LAYOUT	

Republic of the Philippines
Department of Public Works
Transportation and
Communications
OFFICE OF THE BUILDING OFFICIAL

District/City/Municipality

Recommending Approval as to LAND USE AND ZONING
Head
Date

Recommending Approval as to LINE AND GRADE
Head
Date

Recommending Approval as to ARCHITECTURAL
Head
Date

Recommending Approval as to STRUCTURAL
Head
Date

Recommending Approval as to SANITARY
Head
Date

Recommending Approval as to ELECTRICAL
Head
Date

Recommending Approval as to MECHANICAL
Head
Date

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PREPARED BY:
VERIFIED BY:
SUBMITTED BY:
REVIEWED BY: MARIDOL R. UCDERO
RECOMMENDING APPROVAL:
APPROVED BY:

SHEET CONTENT: PERSPECTIVE PLAN, VICINITY MAP, SITE DEVELOPMENT PLAN
REMARKS:

SHEET NO.: A-1

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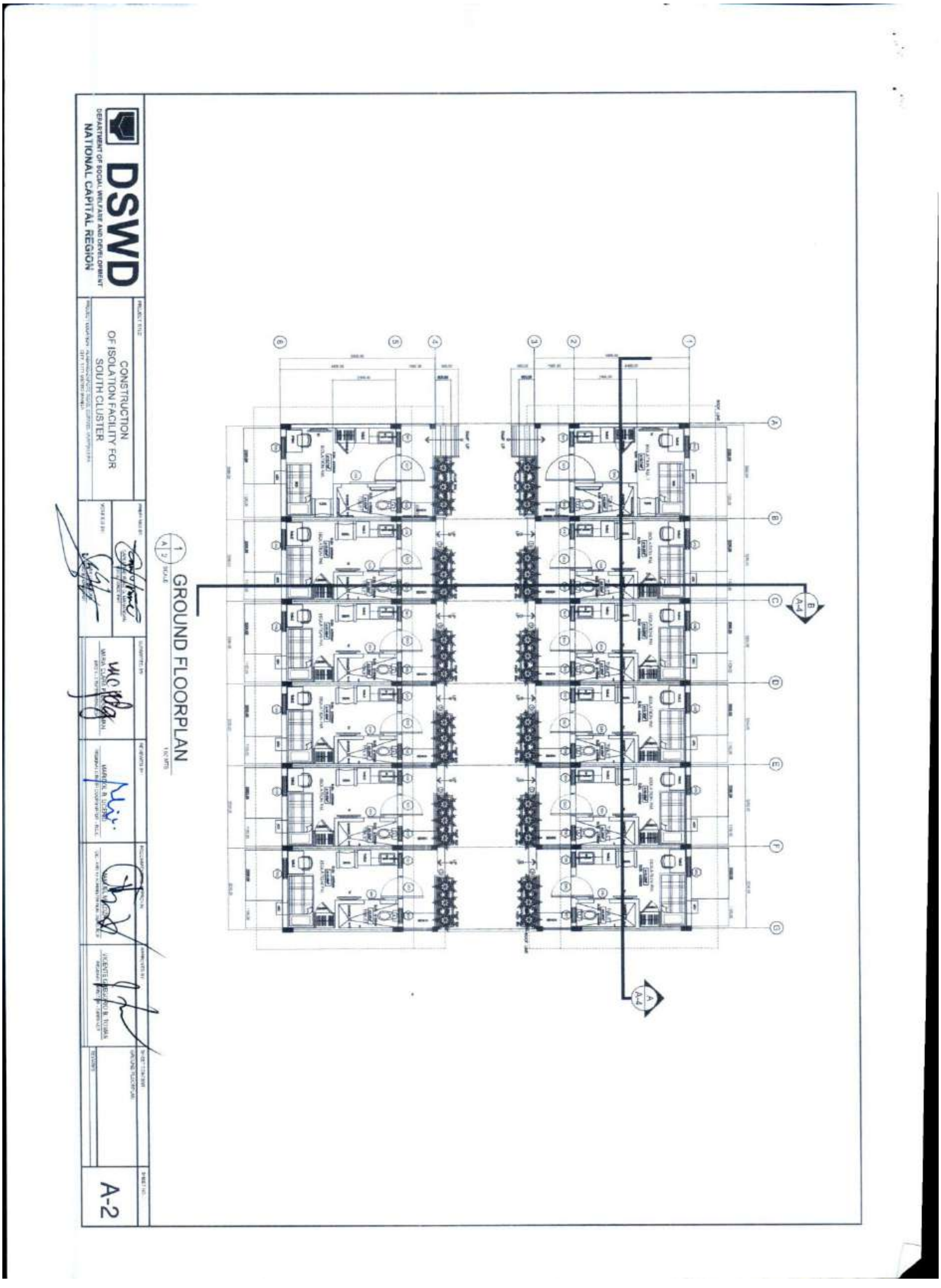
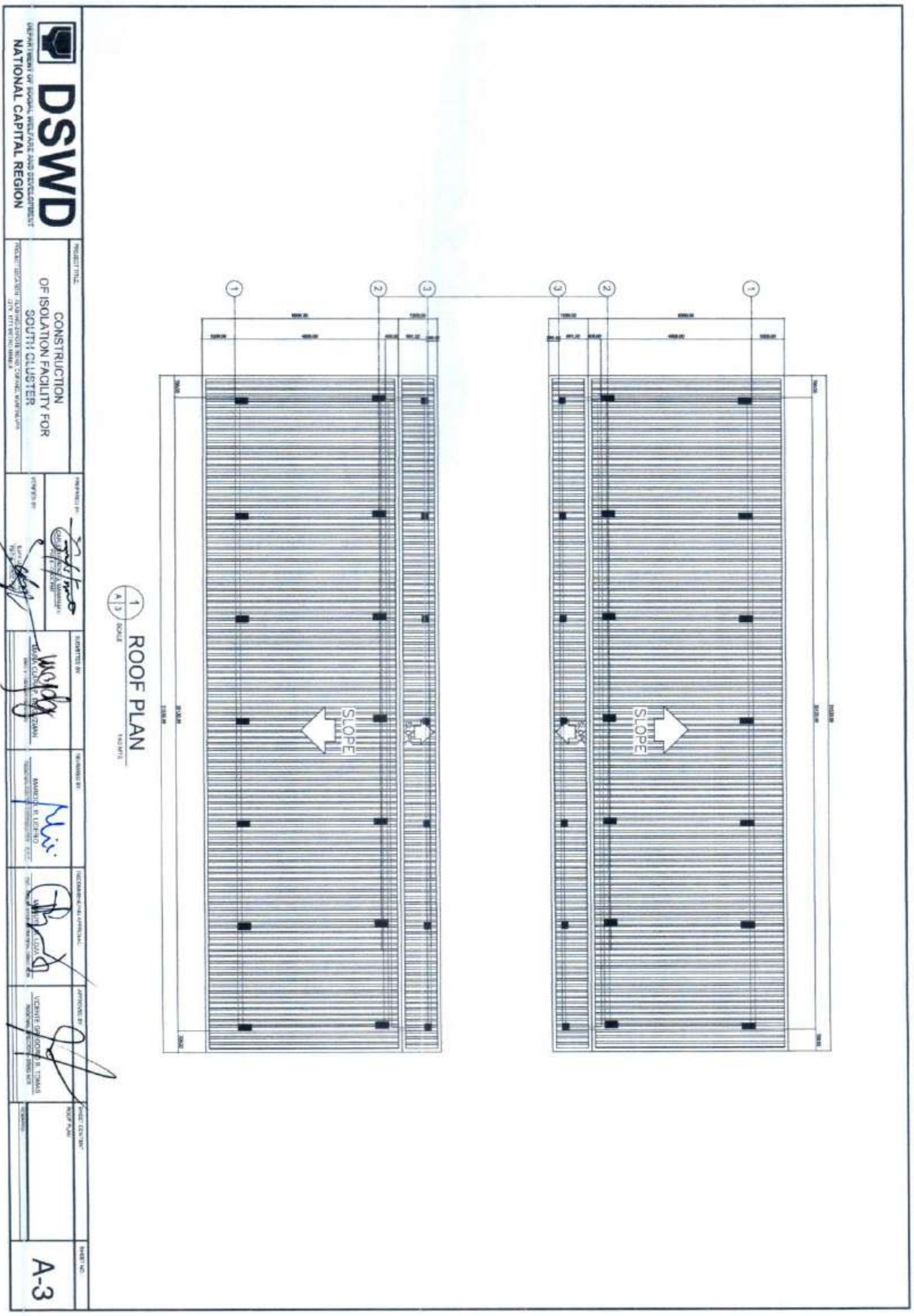
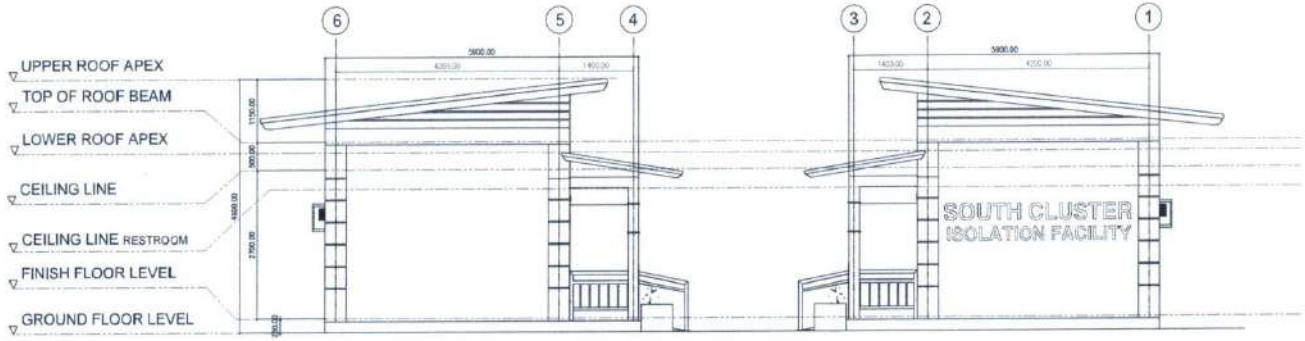

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
GROUND FLOORPLAN
A-2


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
ROOF PLAN
SLOPE
SLOPE
A-3



1 A 4 FRONT ELEVATION

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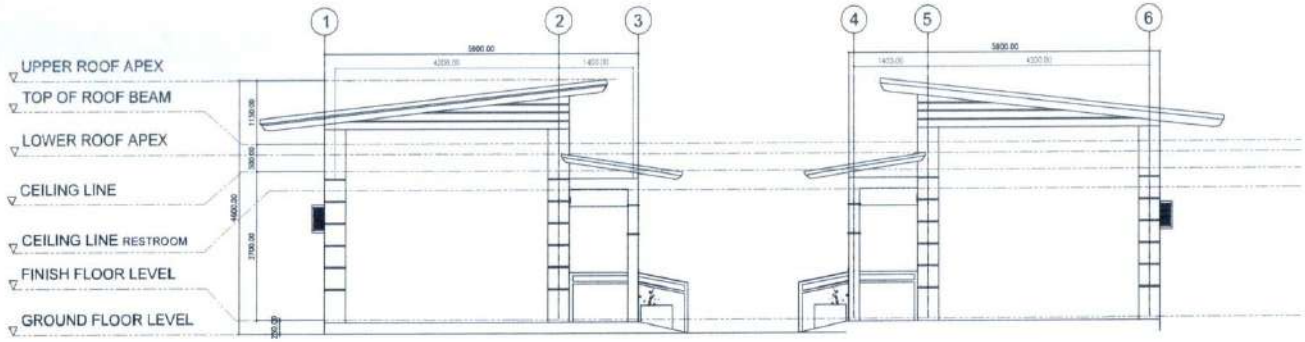


2 A 4 REAR ELEVATION

SCALE 1:50 MTS

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PREPARED BY

SUBMITTED BY

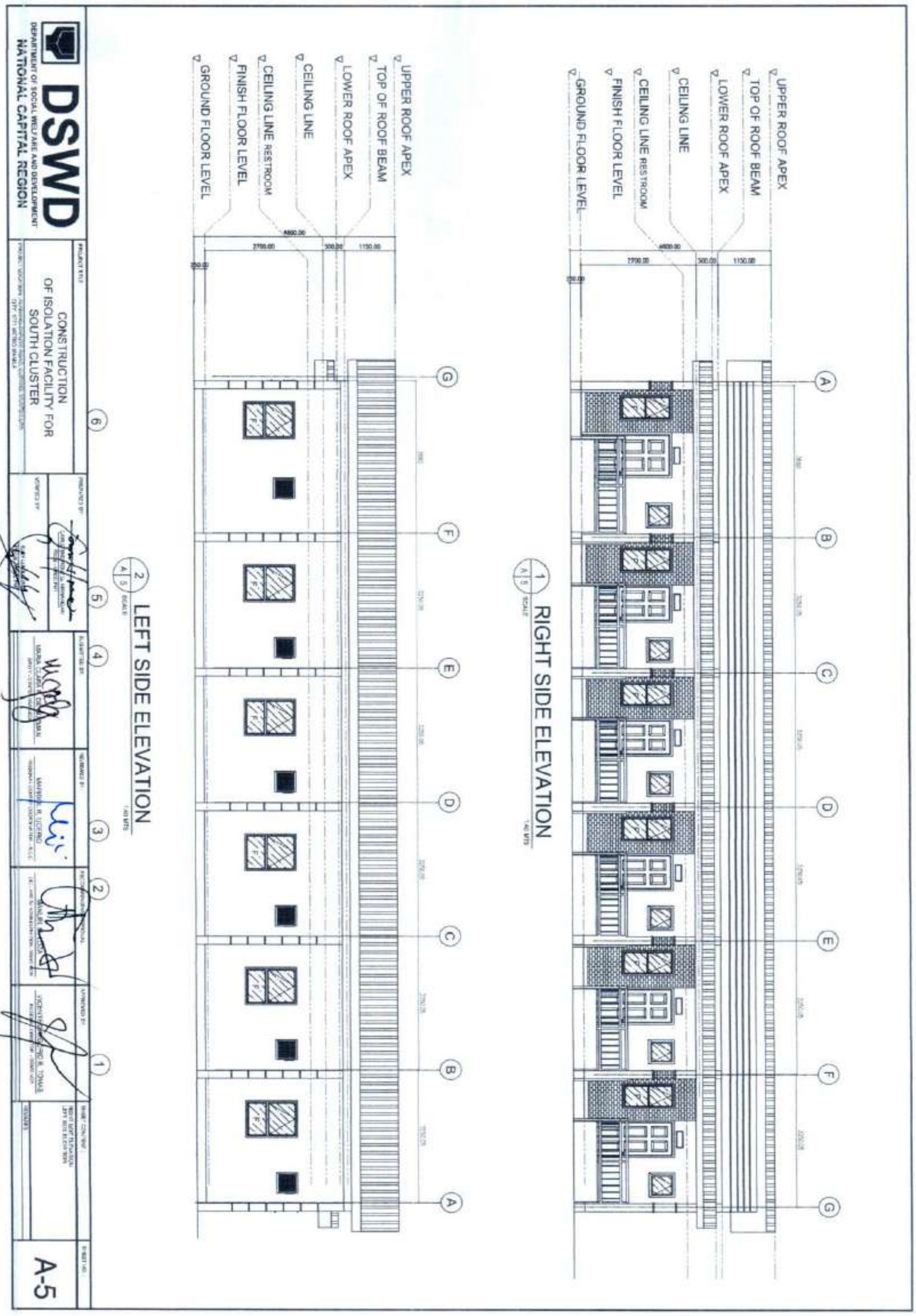
REVIEWED BY

RECOMMENDING APPROVAL

APPROVED BY

SHEET CONTENT
FRONT ELEVATION
REAR ELEVATION
REMARKS

SHEET NO.
A-4


RIGHT SIDE ELEVATION
LEFT SIDE ELEVATION
UPPER ROOF APEX
TOP OF ROOF BEAM
LOWER ROOF APEX
CEILING LINE
CEILING LINE RESTROOM
FINISH FLOOR LEVEL
GROUND FLOOR LEVEL
DSWD
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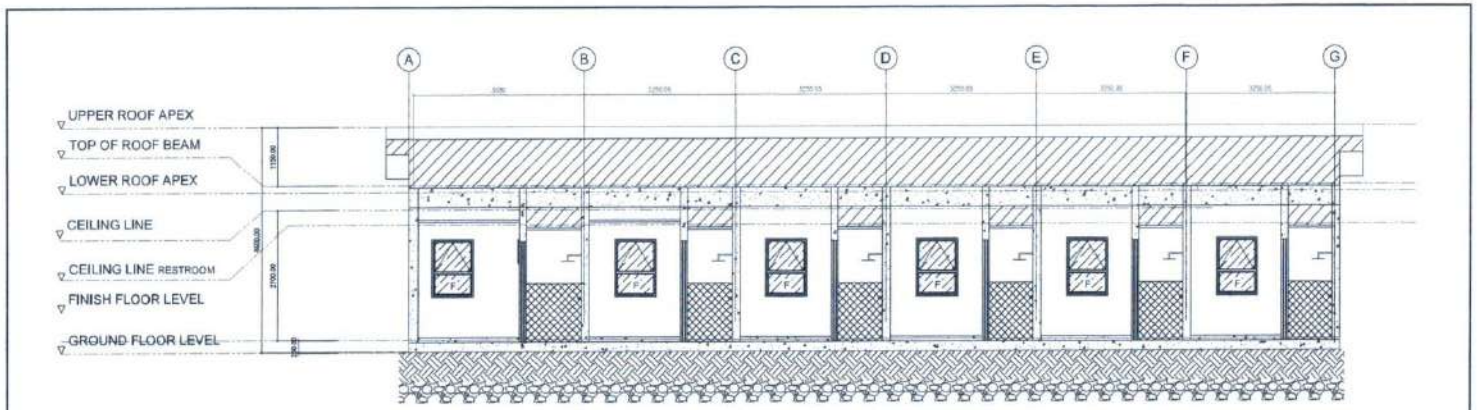
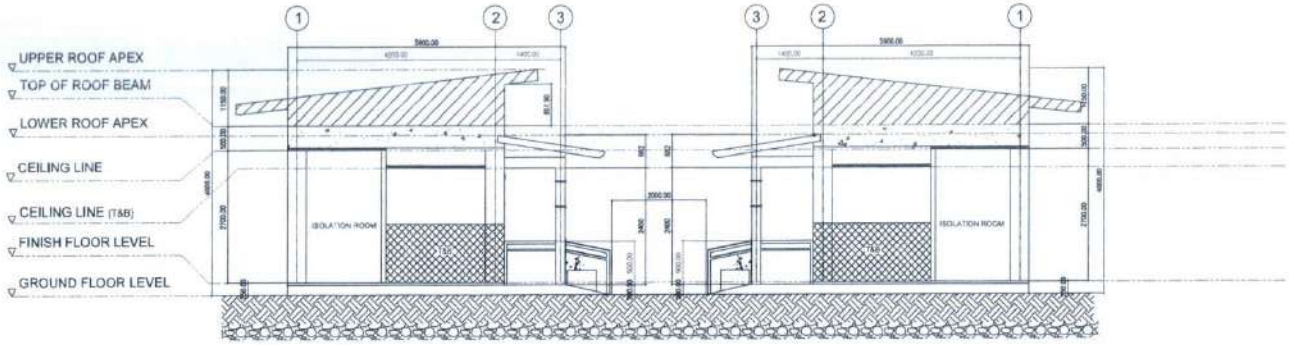
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
A-5



1 A 6 LONGITUDINAL SECTION
SCALE 1:40 MTS



2 A 6 CROSS SECTION
SCALE 1:40 MTS

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PROJECT LOCATION: ALABANG-ZAPOTE ROAD, CORNER WORDSWORTH ST., CITY OF MUNTINLUPA, METRO MANILA

PREPARED BY:

VERIFIED BY:

SUBMITTED BY: MARIA CLARA [illegible]

REVIEWED BY: MARIBEL R. LUCERO

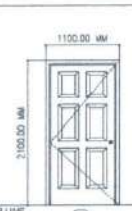
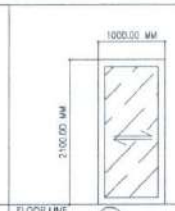
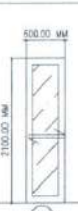
RECOMMENDING APPROVAL:

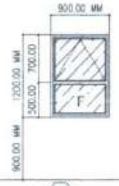
APPROVED BY: VICENTE CRESCENCIO B. TOMAS

SHEET CONTENT: LONGITUDINAL SECTION, CROSS SECTION

REMARKS:

SHEET NO.: A-6

			
FLOOR LINE (D01)	FLOOR LINE (D02)	FLOOR LINE (D03)	FLOOR LINE (D04)
SPECIFICATION: SWING SOLID WOODEN PANEL DOOR IN 50X100MM DOOR JAM W/ LEVER TYPE OF DOOR KNOB AND COMPLETE SET OF LOCKSET (DESIGN VERIFY BY ARCHITECT)	SPECIFICATION: SLIDING GLASS DOOR W/ 6MM THK SMOKED GLASS IN ALUMINUM FRAME (DESIGN VERIFY BY ARCHITECT)	SPECIFICATION: SWING SOLID WOODEN PANEL DOOR IN 50X100MM DOOR JAM W/ LEVER TYPE OF DOOR KNOB AND COMPLETE SET OF LOCKSET (DESIGN VERIFY BY ARCHITECT)	SPECIFICATION: SLIDING GLASS DOOR W/ 6MM THK SMOKED GLASS IN ALUMINUM FRAME (DESIGN VERIFY BY ARCHITECT)
DIMENSIONS : 2.15m X 1.10m	DIMENSIONS : 2.10m X 1.00m	DIMENSIONS : 2.10m X 0.90m	DIMENSIONS : 2.10m X 0.60m
QUANTITY : 8 SETS	QUANTITY : 6 SETS	QUANTITY : 4 SETS	QUANTITY : 4 SETS

		
FLOOR LINE (W01)	FLOOR LINE (W02)	FLOOR LINE (W03)
SPECIFICATION: AWNING WITH FIXED WINDOW IN 6MM THK. CLEAR GLASS IN ANALOK FRAME	SPECIFICATION: AWNING WITH FIXED WINDOW IN 6MM THK. CLEAR GLASS IN ANALOK FRAME	SPECIFICATION: AWNING WITH FIXED WINDOW IN 6MM THK. CLEAR GLASS IN ANALOK FRAME
DIMENSIONS : 1.20m X 0.60m	DIMENSIONS : 0.60m X 0.60m	DIMENSIONS : 1.20m X 0.90m
QUANTITY : 10 SETS	QUANTITY : 10 SETS	QUANTITY : 10 SETS

1 / A7 SCHEDULE OF DOORS AND WINDOWS

SCALE: 1:40 MTS

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE:
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PREPARED BY:

SUBMITTED BY:
MARIA CLARA C. DE LEON

RECOMMENDING APPROVAL:
MARISOL R. TORRIO

APPROVED BY:
VICENTE GREGORIO B. TOMAS

SHEET CONTENT:
SCHEDULE OF DOORS AND WINDOWS

SHEET NO.
A-7

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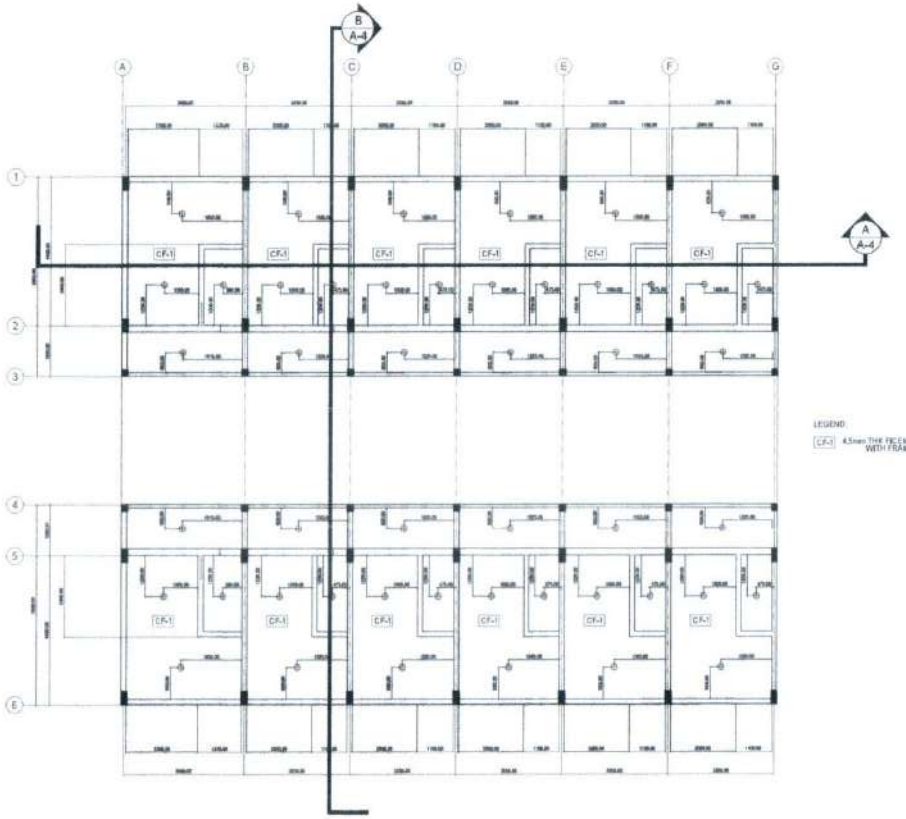
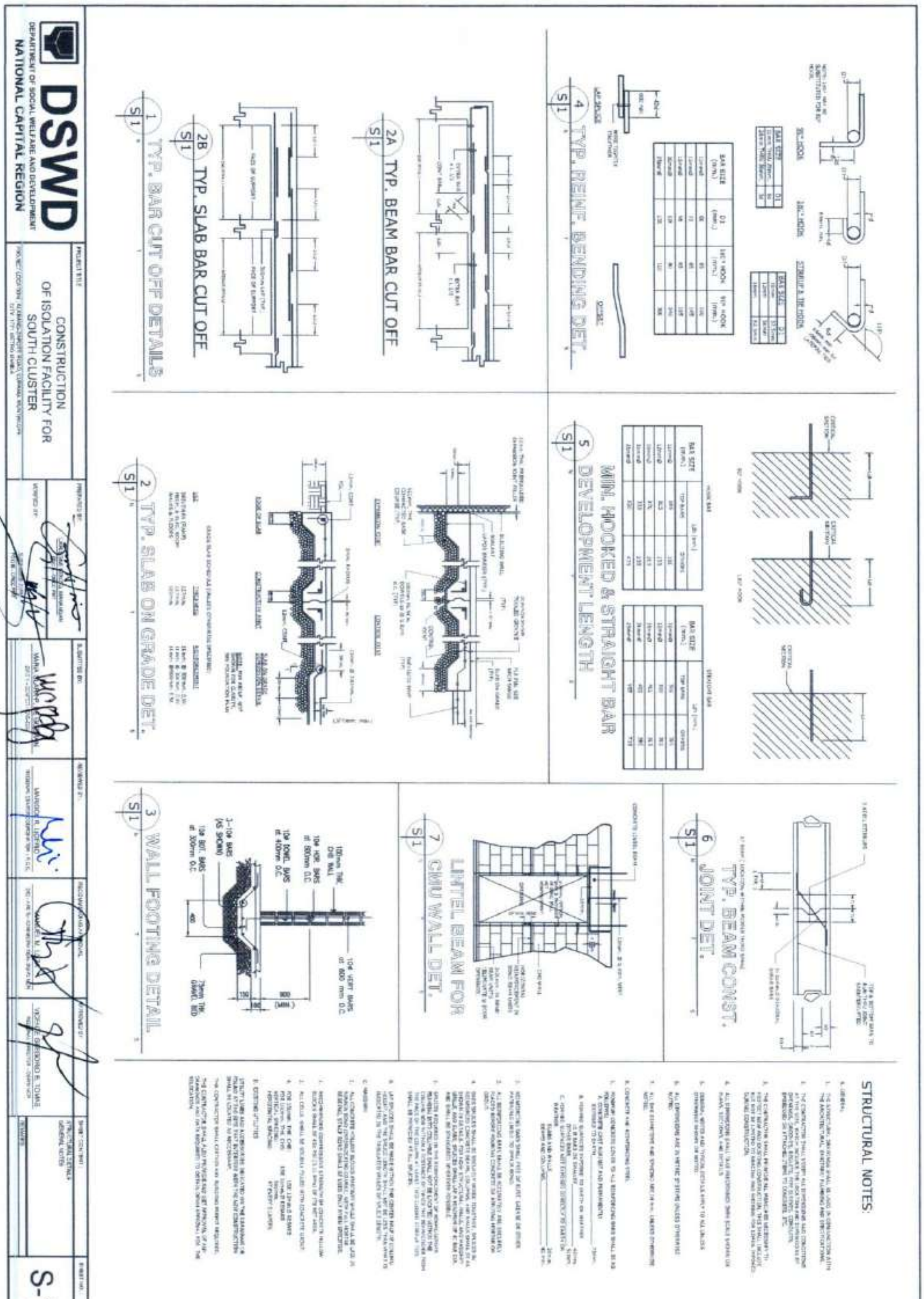


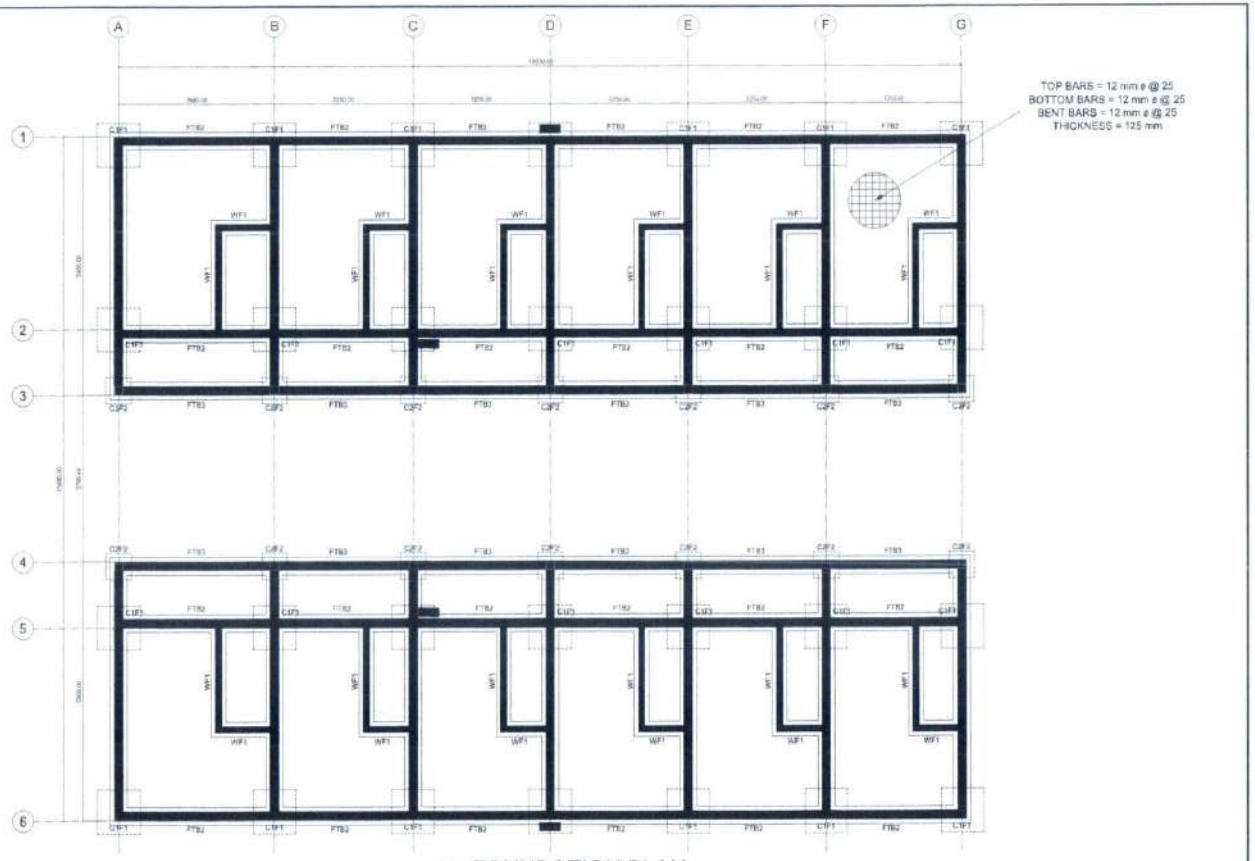
1 / A-8 REFLECTED CEILING PLAN

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

A-8


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
TYP. BAR CUT OFF DETAILS
TYP. SLAB BAR CUT OFF
TYP. BEAM BAR CUT OFF
TYP. REINF. BENDING DET.
MIN. HOOKED & STRAIGHT BAR DEVELOPMENT LENGTH
TYP. SLAB ON GRADE DET.
WALL FOOTING DETAIL
LINTEL BEAM FOR CMU WALL DET.
TYP. BEAM CONST. JOINT DET.
STRUCTURAL NOTES:
S-1



1 / A 1 FOUNDATION PLAN

SCALE

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE
CONSTRUCTION
OF ISOLATION FACILITY FOR
SOUTH CLUSTER

PREPARED BY

SUBMITTED BY

REVIEWED BY

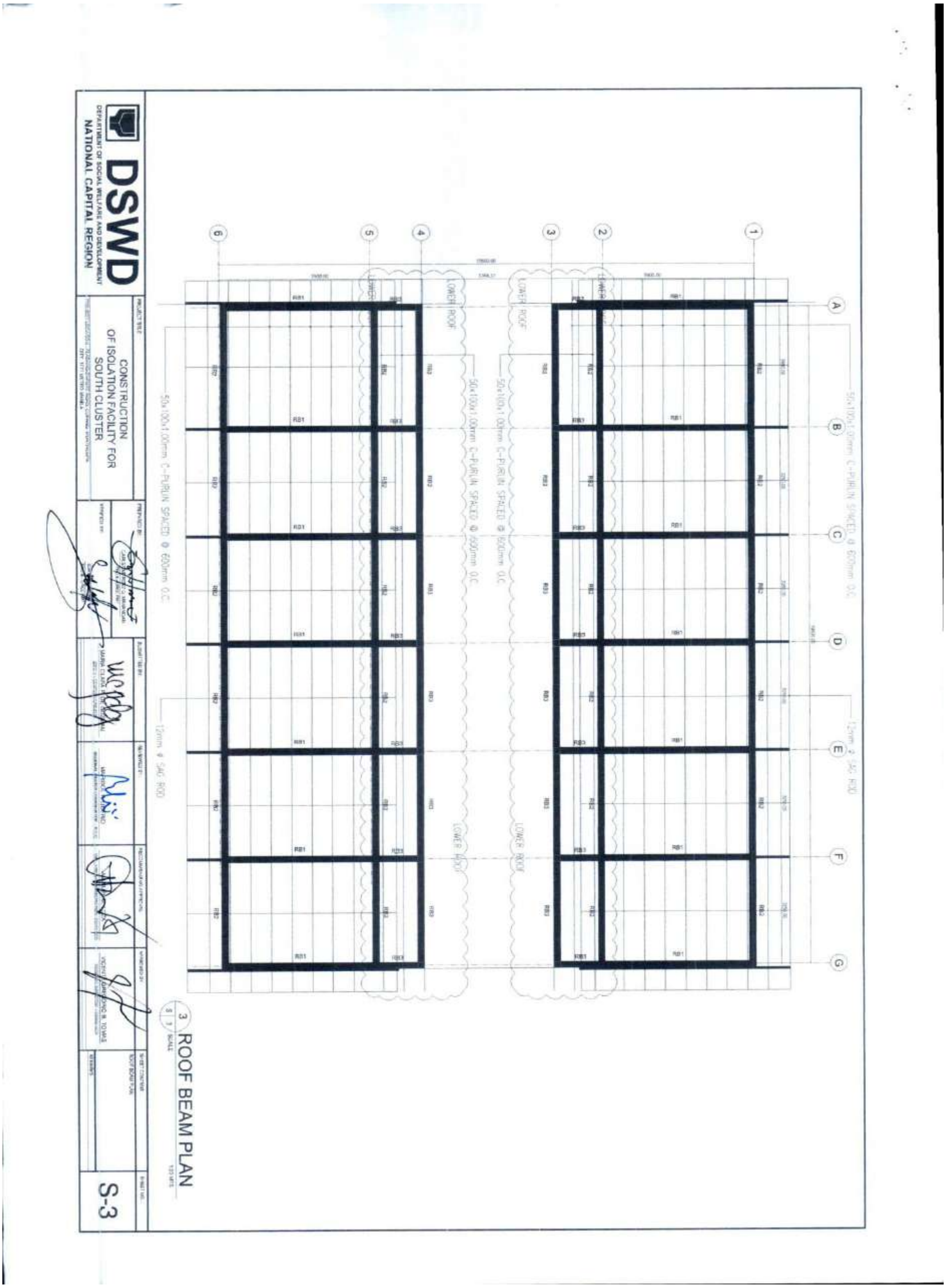
RECOMMENDING APPROVAL

APPROVED BY

SHEET CONTENT
FOUNDATION PLAN

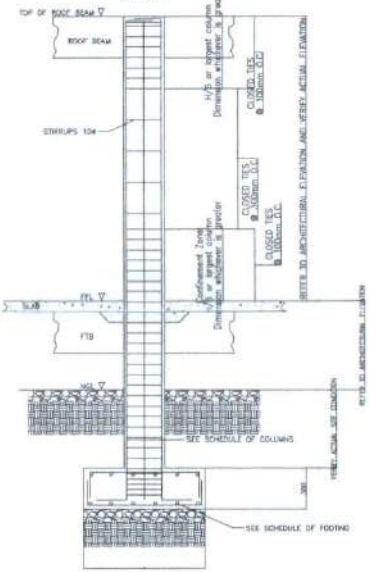
REVISED

SHEET NO.
S-2

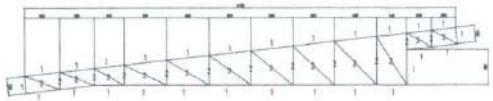


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
ROOF BEAM PLAN
S-3
50x100x1.00mm C-PURLIN SPACED @ 600mm O.C.
12mm ø SAG ROD
LOWER ROOF
RB1
RB2
RB3

PLAN



SECTION
C1F1 DETAIL



T-1

T-1 TRUSS SCHEDULE	
MARK	DESCRIPTION
1	2L-25x25x4mm ANGLE BAR
2	2L-25x25x4mm ANGLE BAR

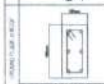
T-2

T-1 TRUSS SCHEDULE	
MARK	DESCRIPTION
1	2L-25x25x4mm ANGLE BAR
2	2L-25x25x4mm ANGLE BAR

SCHEDULE OF FOOTINGS

FTG. MARK	DIMENSIONS L (mm)	W (mm)	T (mm)	REBAR (10ø)	BOTTOM BARS SPACING ALONG - L (mm)	SPACING ALONG - W (mm)	TOP BARS SPACING ALONG - L (mm)	SPACING ALONG - W (mm)	REMARKS
F1	1200	1200	400	16ø	200	200	200	200	ISOLATED
F2	800	800	400	16ø	200	200	200	200	ISOLATED

SCHEDULE OF COLUMN

C-1	C-2
	
	

SCHEDULE OF R.C. BEAMS

BEAM MARK	b (mm)	h (mm)	REBAR (mm)	STEEL REINFORCEMENT LEFT SUPPORT TOP BARS	LEFT SUPPORT BOTTOM BARS	MIDSPAN TOP BARS	MIDSPAN BOTTOM BARS	RIGHT SUPPORT TOP BARS	RIGHT SUPPORT BOTTOM BARS	TIE BARS (mm2)	SIZE	STIRRUPS SPACING (START, 1 METER)	REMARKS
GROUND FLOOR LEVEL													
FTB1	200	300	12ø	3	3	2	2	3	3	2-10mø	10ø	1@50, 9@100, REST @ 300mm O.C.	
FTB2	350	300	12ø	3	3	2	2	3	3	3-10mø	10ø	1@50, 7@100, REST @ 300mm O.C.	
FTB3	350	300	16ø	3	3	2	2	3	3	--	10ø	1@50, 7@100, REST @ 300mm O.C.	
ROOF LEVEL													
RB1	200	200	12ø	3	3	2	2	3	3	2-10mø	10ø	1@50, 9@100, REST @ 300mm O.C.	
RB2	350	200	12ø	3	3	2	2	3	3	3-10mø	10ø	1@50, 7@100, REST @ 300mm O.C.	
RB3	350	200	12ø	3	3	2	2	3	3	--	10ø	1@50, 7@100, REST @ 300mm O.C.	

1/S4 STRUCTURAL DETAILS
SCALE 1:70 M/S

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PREPARED BY: ENGR. JOSE ANTONIO C. DE GUZMAN, JR.

SUBMITTED BY: MARIA CLARA P. DE GUZMAN

RECOMMENDED FOR APPROVAL: MARIBEL R. LUCERO

APPROVED BY: VICENTE GREGORIO R. TOMAS

SHEET CONTENT: COLUMN FOOTING DETAIL, SCHEDULE OF FOOTING, SCHEDULE OF COLUMN, SCHEDULE OF R.C. BEAMS

SHEET NO.: S-4

REMARKS:

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GENERAL NOTES :

1. ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF THE PHILIPPINES, THE PHILIPPINE ELECTRICAL CODE, THE RULES AND REGULATION OF LGU THE REQUIREMENTS OF THE LOCAL POWER COMPANY AND LOCAL TELEPHONE COMPANY.
2. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER. SERVICE SHALL BE 220V, 1-PHASE, 2W+G
3. ALL EQUIPMENT, DEVICES, MATERIALS AND INSTALLATION METHODS SHALL BE APPLICABLE TO THE DESIGN INTENT/PURPOSE/FUNCTION, SITE/AREA CONDITION AND WEATHER.
4. ALL BRANCH CIRCUITS AND FEEDERS SHALL BE INSTALLED AS INDICATED ON PLANS. COMBINATION OF ROMEXRUN IN THE SAME SINGLE RACEWAY SHALL NOT BE ACCEPTABLE UNLESS NOTED OTHERWISE.
5. MINIMUM SIZE OF WIRE FOR POWER SHALL BE 3.5 SQ mm. (#12AWG) AND FOR CONTROL WIRES SHALL BE 2.0 mm DIA. (#14AWG). USE THWN / THW / TW TYPE OF WIRES FOR OUTDOOR OR WET INSTALLATIONS. CONDUITS FOR CONTROL WIRES GOING TO LIGHTING SWITCH/SWITCH BOARD SHALL BE 20 MM (1/2") M. MAXIMUM OF ELEVEN (11) CONTROL WIRES PER CONDUIT.
6. MOUNTING HEIGHTS OF DEVICES SHALL BE AS DETAILED IN THE PLANS OR AS DETAILED BY THE ARCHITECT AND/OR AS FOLLOWS:
   LOCAL SWITCH ------ 1,370mm ABOVE FLOOR FINISH LEVEL
   RECEPTACLES ------ 300mm ABOVE FLOOR FINISH LEVEL
   ------ 170mm ABOVE COUNTER TOP
7. EXPOSED CONDUIT RUNS SHALL BE INSTALLED PARALLEL TO OR PERPENDICULAR WITH THE BUILDING LINE. DIAGONAL RUN SHALL NOT BE ACCEPTED. ALL BOXES AND CONDUITS SHALL BE RIGIDLY SUPPORTED BY HANGER RODS, ANGLE BARS, U-BOLTS AND METAL CONDUIT CLAMPS. USE OF G.I. WIRE HANGER IS NOT ACCEPTABLE. CONDUIT SUPPORT SHALL BE EVERY 1500mm INTERVAL.
8. USE OF METAL FLEXIBLE CONDUIT SHALL BE LIMITED TO 1000 mm LENGHT ONLY. USE OF MICA TUBE SHALL LIMITED ONLY TO SIX (6) INCHES. USE OF NON-METALLIC FLEXIBLE CONDUIT IS NOT ALLOWED.
9. ALL LIGHTING FIXTURE TRANSFORMERS SHALL BE MOUNTED ON CONCRETE OR NON-COMBUSTIBLE SURFACE ONLY. OTHERWISE USE HANGER RODS, AND ANGLE BARS TO SUPPORT THEM. TRANSFORMER SHALL NOT BE MOUNTED DIRECTLY ON DROP-CEILINGS.
10. FOR SWITCH AND RECEPTACLE BOXES WITH MORE THAN SIX (6) WIRES ENTERING THEM, USE 100 X 100 X 50mm SQUARE BOXES WITH ONE (1) ADAPTER RING.
11. ALL PULLBOXES, SPLICEBOXES AND AUXILIARY GUTTERS SHALL BE GAUGE G.I. SHEET, POWDER COATED FINISH.
12. ALL RECEPTACLE OUTLETS SHALL BE PROPERLY GROUNDED TO THE BOX BY MEANS OF GROUNDING LUGS.
13. ALL MOLDED CASE CIRCUIT BREAKER FOR MOTORS SHALL BE INDUSTRIAL TYPE.
14. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULLING WIRES AND SHALL BE CAPPED.
15. EXACT LOCATION AND RATING OF ALL EQUIPMENT TO BE SUPPLIED BY OTHER TRADES SHALL BE COORDINATED WITH THEIR RESPECTIVE TRADE DRAWINGS/PLANS PRIOR TO IMPLEMENTATION.
16. COMMUNICATION AND DATA CIRCUIT RUN SHALL BE SEPARATED BY 100mm MINIMUM DISTANCE FROM POWER CIRCUIT RUN.
17. ADDITIONAL MATERIAL SPECIFICATIONS ABIDE FROM THOSE MENTIONED ELSEWHERE SHALL BE AS FOLLOWS OR APPROVED EQUAL :
   A. ELECTRICAL CONDUITS
      IMC – PANASONIC, MN GILL
      EMT – PANASONIC, MN GILL
      PVC – WELTECK POWER DUCTS, EMERALD VISSID, KUANTA PERMALINE
   B1. WIRE & CABLES – PHELPS DODGE, PHILFLEX
   B2. TELEPHONE CABLES – PHELPS DODGE, PHILFLEX
   B3. STRUCTURED CABLING SYSTEM – BELDEK BRAND CABLES OR SYSTEM MANUFACTURER'S STANDARDS
   B4. CABLE TV SYSTEM – BELDEK BRAND CABLES OR SYSTEM MANUFACTURER'S STANDARDS
   C. ELECTRICAL PANEL
      ENCLOSURE & ELEMENTS – MITSUBISHI, SIEMENS, SQUARE D, SCHNEIDER
      BREAKERS, COMMON INTERNAL TRIP – PANASONIC, ECLIPSE, BTICINO, TOSHIBA
   D. WIRING DEVICES – PHILIPS, G.E.
   E. FIXTURE BALLAST, ELECTRONIC TYPE – COMPLIANCE: IEC 61261-2 or UL 924 Some Location Listed, MTPK 101 (Life Safety Code), T-HE and T-HP POWER DURATION, EQUAL LITE, TRIDONIC OR APPROVED BRAND
   F. EMERGENCY BATTERY PACK

SYMBOLS :

- BRANCH CIRCUIT RUN IN CEILING
- SAME AS ABOVE EXCEPT EMBEDDED IN WALL OR FLOOR SLAB
- PVC CONDUIT, SIZE AS REQUIRED
- HOMERUN TO PANELBOARD OR AS INDICATED
- WIRING TURNED UP/DOWN
- S – SINGLE POLE TOGGLE SWITCH, 15A, 300V, 1.5, 1.2, ETC INDICATES GANG SWITCHES, SMALL LETTER SUBSCRIPT INDICATES LIGHTS OR DEVICES BEING CONTROLLED. COMBINE MAXIMUM OF THREE (3) TOGGLES OR ONE STANDARD DEVICE PLATE. (TOP SWITCH LOCATION WITH MORE THAN ONE (2) TOGGLE USE SWITCH GANG PLATE.
- S3 – SAME AS ABOVE EXCEPT 3-WAY SWITCH
- WP/WT – WEMPO X 150 WALL LAMP
- RECESSED DIRECTIONAL LED LIGHTS IN WARM WHITE
- LED/NEON LIGHTING (WARM WHITE)
- TRACK LIGHT
- 6" x 6" RECESSED CFL WITH DIFFUSER
- DESK LAMP/ TABLE LAMP/ FLOOR LAMP
- DROP LIGHTING FIXTURE
- DUPLEX WALL CONVENIENCE OUTLET, 1P., 220V, 15A, UNIVERSAL SLOTS GROUNDING TYPE, MOUNTED ABOVE COUNTER IF MARKED "C"
- SINGLE WALL CONV. OUTLET FOR REFRIGERATOR, 1P., 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.
- SINGLE WALL CONV. OUTLET FOR REFRIGERATOR, 1, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.
- DUPLEX WALL CONV. OUTLET FOR REFRIGERATOR, 1, 230V, 15A, GROUNDING TYPE, UNIVERSAL SLOTS.

ISOLATION FACILITY (SOUTH CLUSTER)

DSWD NCR, ELSIE GACHES VILLAGE

VICINITY MAP

SCALE: NTS

SOUTH CLUSTER ISOLATION ROOM 1-12

CKT NO.	PHASE L-1	PHASE L-2	PHASE L-3	ACU	OTHER	DESCRIPTION	TOTAL LOAD	VOLTAGE	AMPERAGE	CIRCUIT BREAKER AT	AF	POLE	SIZE OF WIRES & CONDUITS
1			4			LIGHTING LAYOUT	400	230	1.74	25	100	1	2-3.5 mm² THWN IN 1/2" Ø PVC
2						CONVENIENCE OUTLET	360	230	1.57	25	100	1	2-3.5 mm² THWN IN 1/2" Ø PVC
3					1	1.5 HP AIR CON	750	230	3.26	30	100	1	2-5.5 mm² THWN IN 3/4" Ø PVC
4						SPARE							
	2	4	7	1	1		1,510		6.57				

CALCULATION: I (TOTAL) = 1,510 / 230 V @ 80% PF = 6.25 AMPERES

USE MAIN: 30 AMPERES AT 2P, 230V, 60HZ CB

SIZE OF WIRE & CONDUIT 2-5.5 mm² THWN IN 2 1/2" Ø IMC PIPE, 1-5.5 mm² THWN IN 2 1/2" Ø IMC PIPE

LEGEND

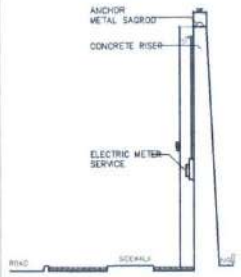
1. WATER DISTRIBUTION SYSTEM
   - CWL – COLD WATER LINE
   - CWR – COLD WATER RISER
   - GV – GATE VALVE
   - CV – CHECK VALVE
   - WM – WATER METER
2. SEWER WASTE AND VENT SYSTEM
   - SP / WP – SOIL PIPE / WASTE PIPE
   - VP / VAP – VENT PIPE / VENT AT CEILING
   - DP – STORM DRAIN PIPE
   - DS – DRAINAGE STACK / DOWNSPOUT
   - VS – VENT STACK EXTENDED THROUGH ROOF
   - RD – ROOF DRAIN
   - FDO / SDO – FLOOR CLEANOUT / GROUND CLEANOUT
   - CDO – CEILING CLEAN-OUT
   - FD – FLOOR DRAIN
   - CB – CATCH BASIN
   - AD – AREA DRAIN
3. FIRE PROTECTION SYSTEM
   - FPWL – FIRE PROTECTION WATER LINE (GREY PIPE)
   - S – SPRINKLER STANDPIPE

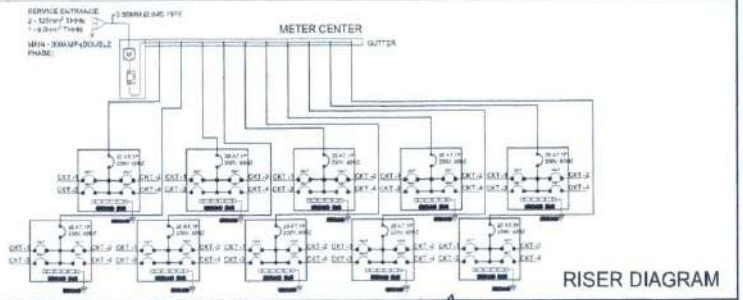
SOUTH CLUSTER ISOLATION TOTAL LOAD

CKT NO.	C.O.	L.O	ACU	OTHER	LOAD DESCRIPTION	TOTAL LOAD	VOLTAGE	AMPERAGE	CIRCUIT BREAKER AT	AF	POLE	SIZE OF WIRES & CONDUITS
1					UNIT 1			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
2					UNIT 2			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
3					UNIT 3			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
4					UNIT 4			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
5					UNIT 5			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
6					UNIT 6			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
7					UNIT 7			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
8					UNIT 8			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
9					UNIT 9			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
10					UNIT 10			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
11					UNIT 11			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
12					UNIT 12			5.25				2-5.5 mm² THWN IN 1/2" Ø PVC
								63.00	AMPERE			

USE MAIN : 60AMPERE AT 2P, 230V, 60HZ CB

SIZE OF WIRE & CONDUIT 22.0mm² THWN IN 2 1/2" Ø IMC PIPE, 1-8.0mm² THWN IN 2 1/2" Ø IMC PIPE





RISER DIAGRAM

DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PREPARED BY: ARLENE MAE D. BARRIOQUINTAN, Engr. – PROPONENT

VERIFIED BY: ENGR. ROLLY M. ARAY – DSWD-NCR

SUBMITTED BY: MARIA CLARA P. [illegible] – DPDO II - CONSTRUCTION

REVIEWED BY: MARIBOK R. LIGERO – REGIONAL LEAD FOR INFRASTRUCTURE - ALLIED

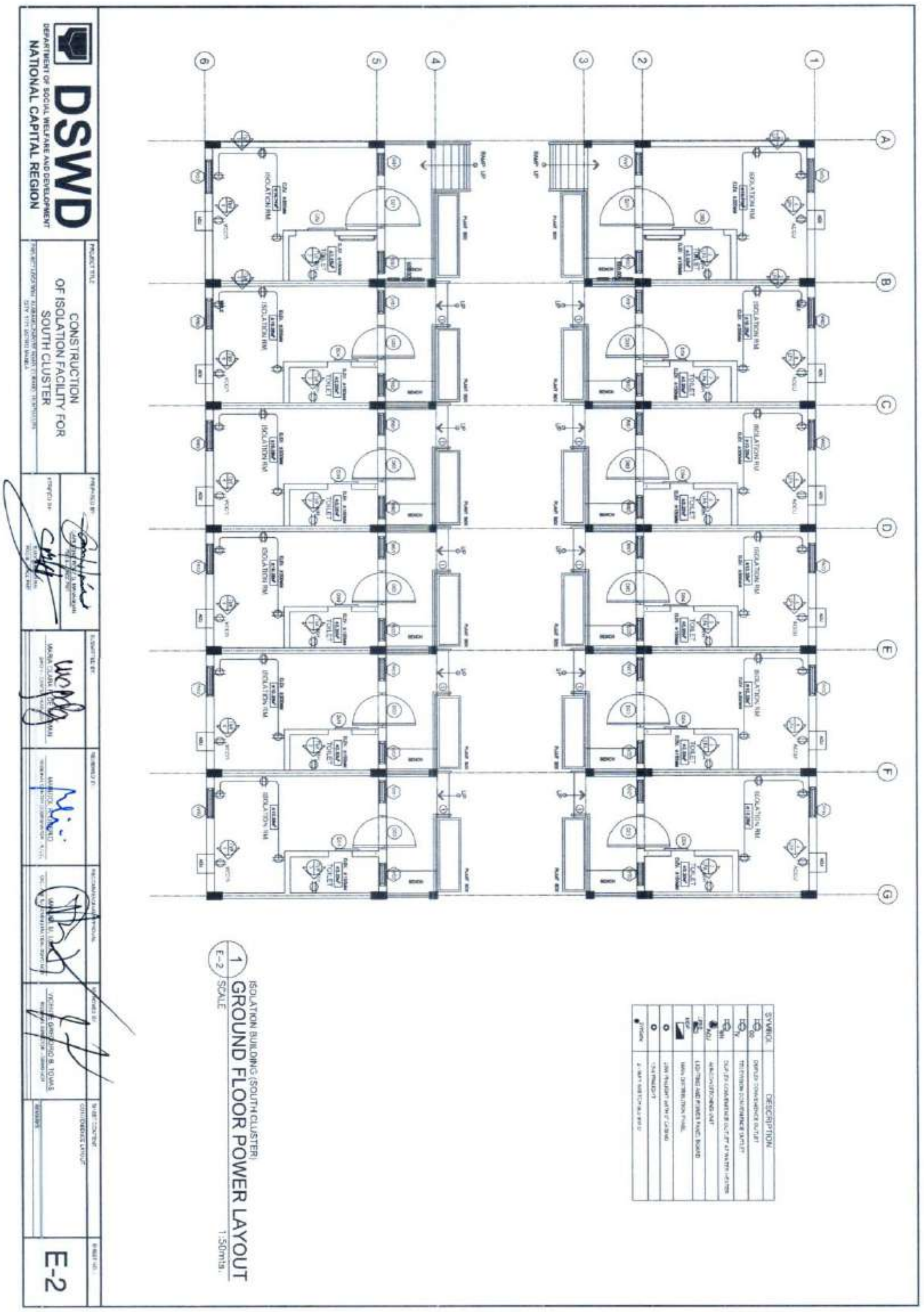
RECOMMENDING APPROVAL: MARIA CLARA P. [illegible] – DPDO II - CONSTRUCTION

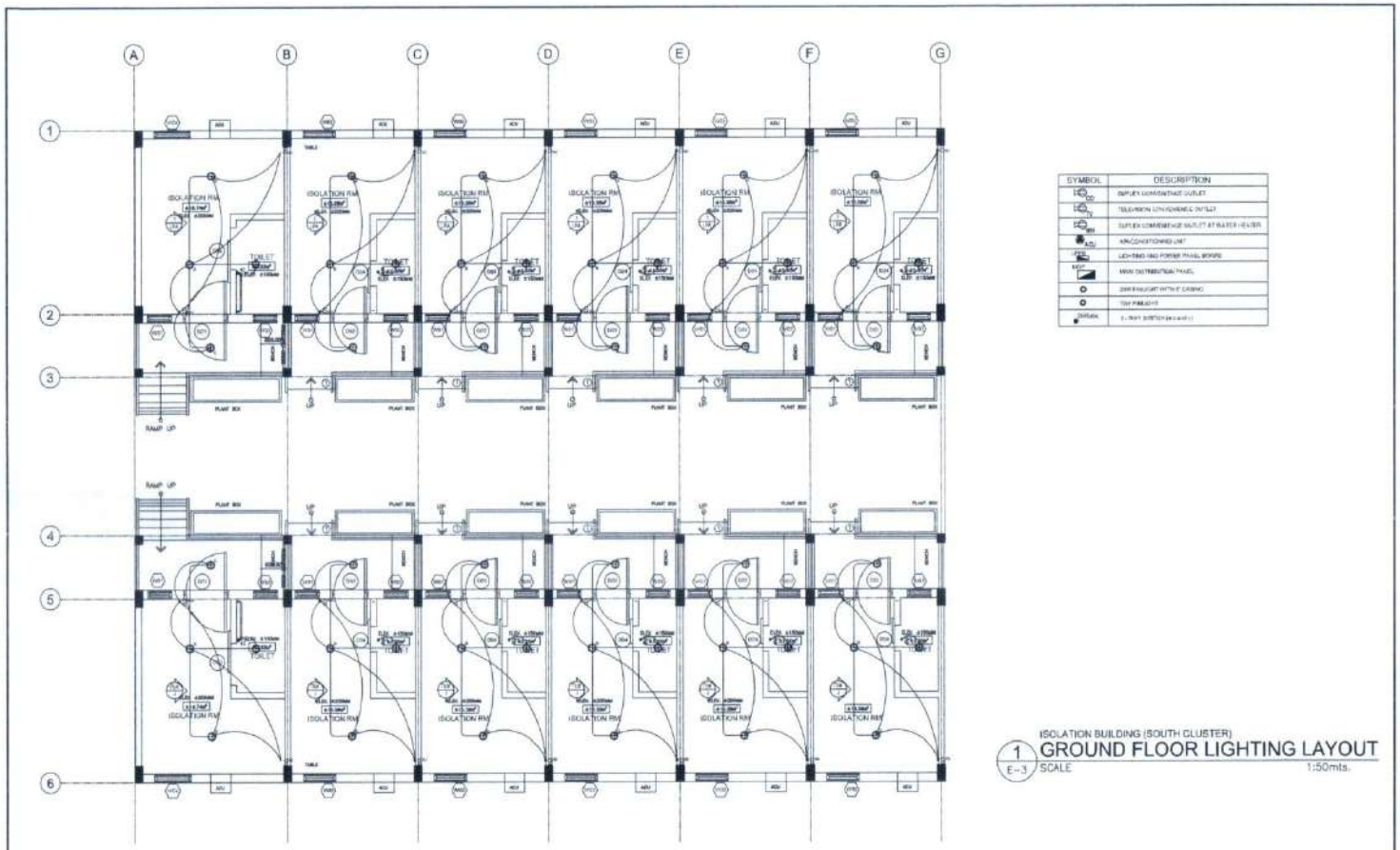
APPROVED BY: LIZARETE BRIGIDO-HUB B. TOMAS – OIC - DIRECTOR IV

SHEET CONTENT: SCOPE OF WORK, GENERAL NOTES, LEGEND, SYMBOLS, SCHEDULE, RISER DIAGRAM

REMARKS:

SHEET NO.: E-1


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION
OF ISOLATION FACILITY FOR
SOUTH CLUSTER
ISOLATION BUILDING (SOUTH CLUSTER)
GROUND FLOOR POWER LAYOUT
1:50mts.
SYMBOL
DESCRIPTION
E-2



ISOLATION BUILDING (SOUTH CLUSTER)

1 / E-3 GROUND FLOOR LIGHTING LAYOUT

SCALE 1:50mts.

DSWD

DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT

NATIONAL CAPITAL REGION

PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER

PREPARED BY:

VERIFIED BY:

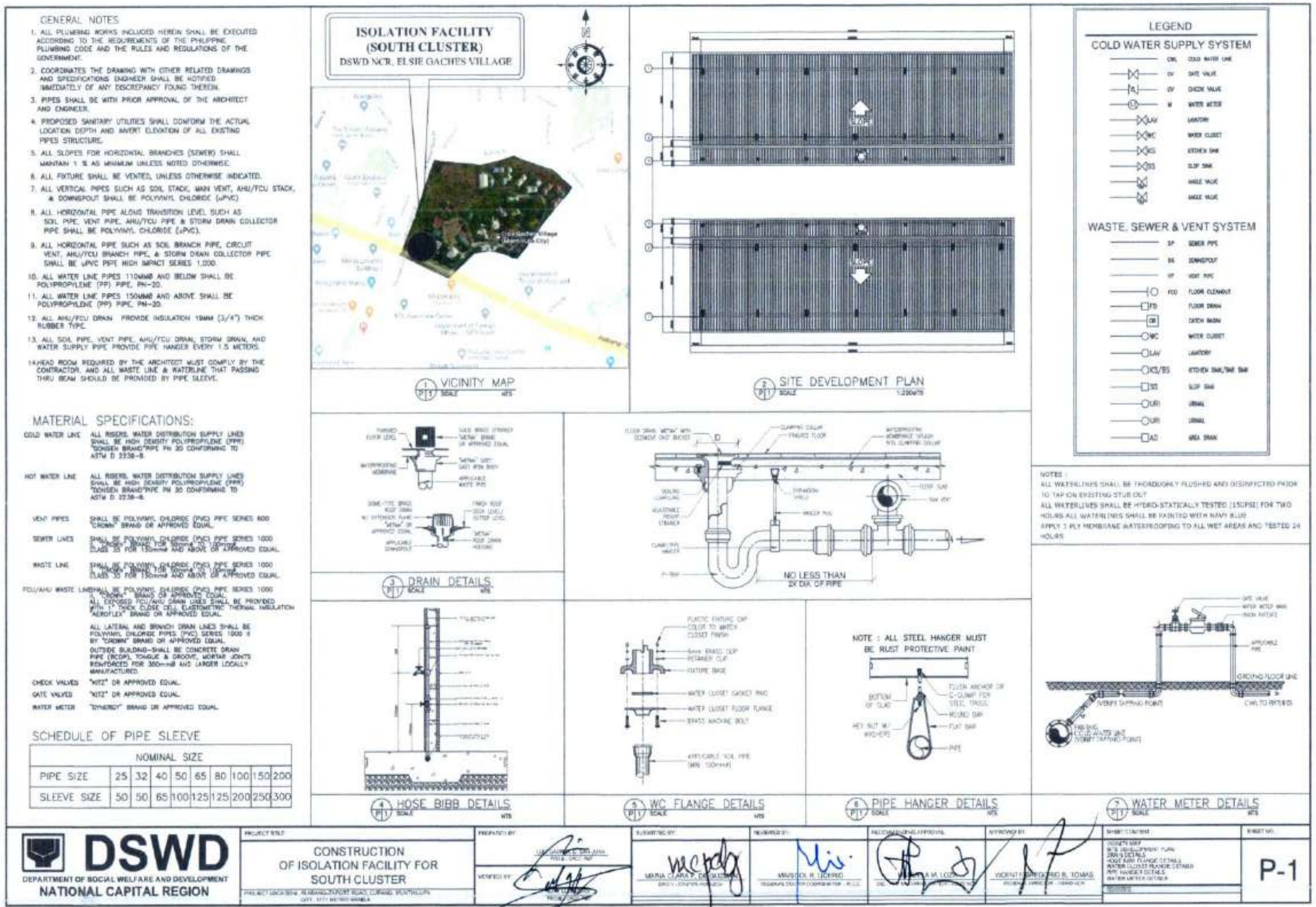
SUBMITTED BY: MARIA CLARA V. DELA CRUZ

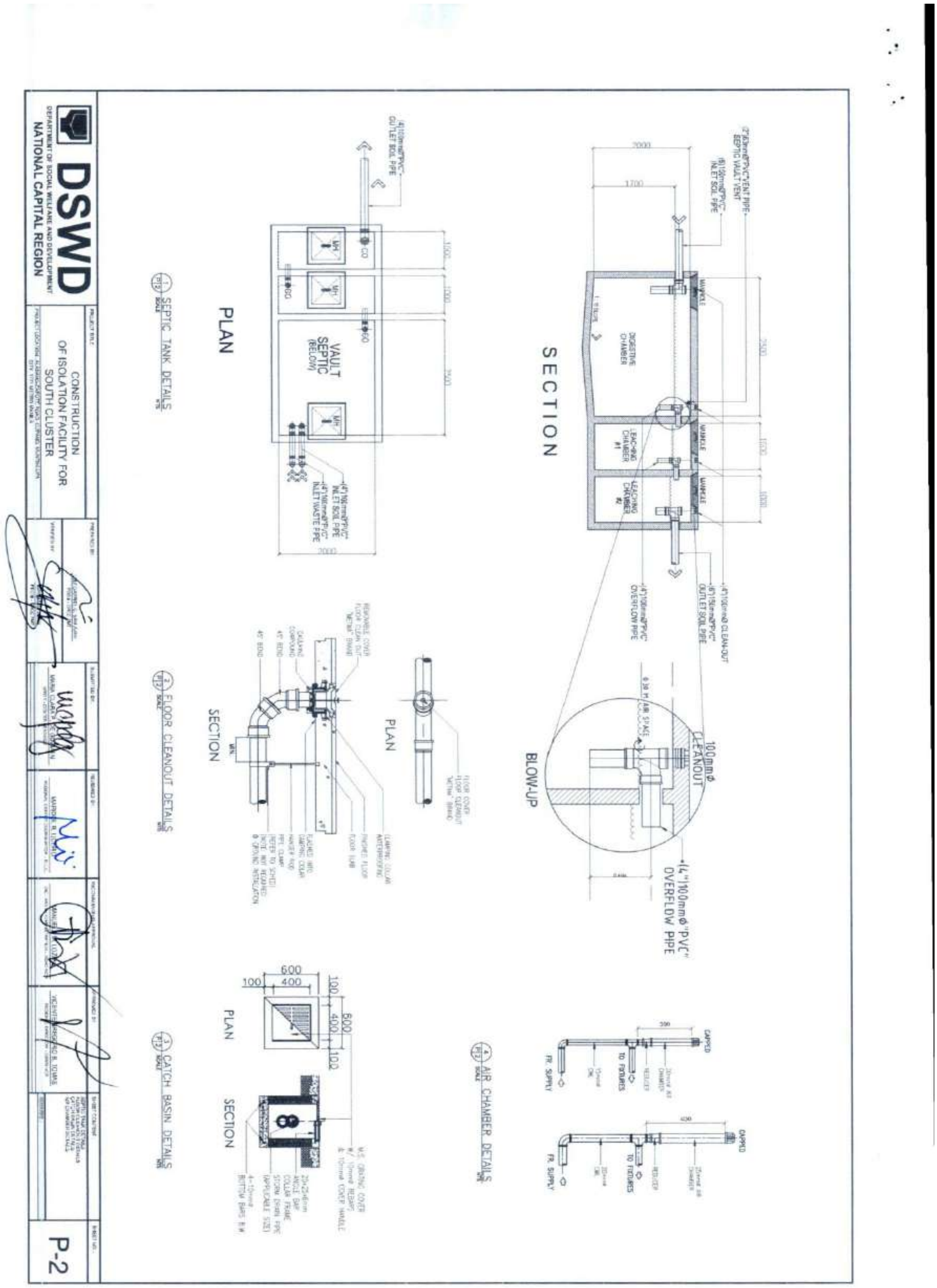
RECOMMENDED FOR APPROVAL: MARINOL R. LICHAO

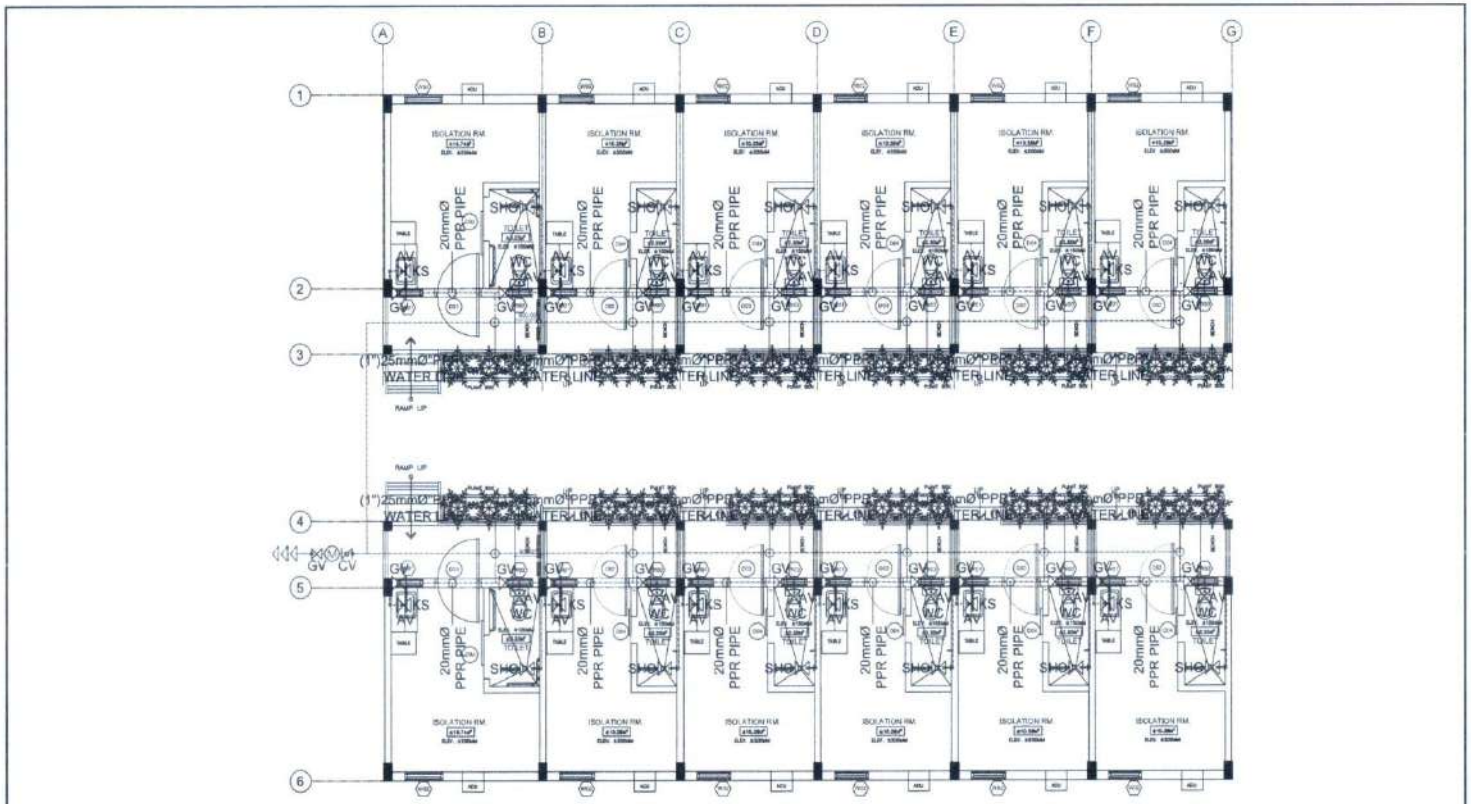
APPROVED BY: VICENTE GREGORIO B. TOMAS

SHEET CONTENT: LIGHTING LAYOUT

SHEET NO.: E-3


GENERAL NOTES
1. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE PHILIPPINE PLUMBING CODE AND THE RULES AND REGULATIONS OF THE GOVERNMENT.
2. COORDINATES THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
3. PIPES SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT AND ENGINEER.
4. PROPOSED SANITARY UTILITIES SHALL CONFORM THE ACTUAL LOCATION DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES STRUCTURE.
5. ALL SLOPES FOR HORIZONTAL BRANCHES (SEWER) SHALL MAINTAIN 1 % AS MINIMUM UNLESS NOTED OTHERWISE.
6. ALL FIXTURE SHALL BE VENTED, UNLESS OTHERWISE INDICATED.
7. ALL VERTICAL PIPES SUCH AS SOIL STACK, MAIN VENT, AHU/FCU STACK, & DOWNSPOUT SHALL BE POLYVINYL CHLORIDE (uPVC)
8. ALL HORIZONTAL PIPE ALONG TRANSITION LEVEL SUCH AS SOIL PIPE, VENT PIPE, AHU/FCU PIPE & STORM DRAIN COLLECTOR PIPE SHALL BE POLYVINYL CHLORIDE (uPVC).
9. ALL HORIZONTAL PIPE SUCH AS SOIL BRANCH PIPE, CIRCUIT VENT, AHU/FCU BRANCH PIPE, & STORM DRAIN COLLECTOR PIPE SHALL BE uPVC PIPE HIGH IMPACT SERIES 1,000.
10. ALL WATER LINE PIPES 110MMØ AND BELOW SHALL BE POLYPROPYLENE (PP) PIPE, PN-20.
11. ALL WATER LINE PIPES 150MMØ AND ABOVE SHALL BE POLYPROPYLENE (PP) PIPE, PN-20.
12. ALL AHU/FCU DRAIN PROVIDE INSULATION 19MM (3/4") THICK RUBBER TYPE.
13. ALL SOIL PIPE, VENT PIPE, AHU/FCU DRAIN, STORM DRAIN, AND WATER SUPPLY PIPE PROVIDE PIPE HANGER EVERY 1.5 METERS.
14. HEAD ROOM REQUIRED BY THE ARCHITECT MUST COMPLY BY THE CONTRACTOR. AND ALL WASTE LINE & WATERLINE THAT PASSING THRU BEAM SHOULD BE PROVIDED BY PIPE SLEEVE.
MATERIAL SPECIFICATIONS:
COLD WATER LINE ALL RISERS, WATER DISTRIBUTION SUPPLY LINES SHALL BE HIGH DENSITY POLYPROPYLENE (PPR) "DONSEN BRAND"PIPE PN 20 CONFORMING TO ASTM D 2239-8.
HOT WATER LINE ALL RISERS, WATER DISTRIBUTION SUPPLY LINES SHALL BE HIGH DENSITY POLYPROPYLENE (PPR) "DONSEN BRAND"PIPE PN 20 CONFORMING TO ASTM D 2239-8.
VENT PIPES SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 600 "CROWN" BRAND OR APPROVED EQUAL.
SEWER LINES SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 "CROWN" BRAND FOR 50mmØ TO 100mmØ CLASS 35 FOR 150mmØ AND ABOVE OR APPROVED EQUAL.
WASTE LINE SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 "CROWN" BRAND FOR 50mmØ TO 100mmØ CLASS 35 FOR 150mmØ AND ABOVE OR APPROVED EQUAL.
FCU/AHU WASTE LINE SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000 "CROWN" BRAND OR APPROVED EQUAL. ALL EXPOSED FCU/AHU DRAIN LINES SHALL BE PROVIDED WITH 1" THICK CLOSE CELL ELASTOMETRIC THERMAL INSULATION "AEROFLEX" BRAND OR APPROVED EQUAL.
ALL LATERAL AND BRANCH DRAIN LINES SHALL BE POLYVINYL CHLORIDE PIPES (PVC) SERIES 1000 4 BY "CROWN" BRAND OR APPROVED EQUAL.
OUTSIDE BUILDING-SHALL BE CONCRETE DRAIN PIPE (RCDP), TONGUE & GROOVE, MORTAR JOINTS REINFORCED FOR 300mmØ AND LARGER LOCALLY MANUFACTURED.
CHECK VALVES "KITZ" OR APPROVED EQUAL.
GATE VALVES "KITZ" OR APPROVED EQUAL.
WATER METER "SYNERGY" BRAND OR APPROVED EQUAL.
SCHEDULE OF PIPE SLEEVE
NOMINAL SIZE
PIPE SIZE 25 32 40 50 65 80 100 150 200
SLEEVE SIZE 50 50 65 100 125 125 200 250 300
ISOLATION FACILITY
(SOUTH CLUSTER)
DSWD NCR, ELSIE GACHES VILLAGE
1 VICINITY MAP
2 SITE DEVELOPMENT PLAN
3 DRAIN DETAILS
NO LESS THAN 2X DIA. OF PIPE
4 HOSE BIBB DETAILS
5 WC FLANGE DETAILS
NOTE : ALL STEEL HANGER MUST BE RUST PROTECTIVE PAINT
6 PIPE HANGER DETAILS
7 WATER METER DETAILS
LEGEND
COLD WATER SUPPLY SYSTEM
CWL COLD WATER LINE
GV GATE VALVE
CV CHECK VALVE
M WATER METER
LAV LAVATORY
WC WATER CLOSET
KS KITCHEN SINK
SS SLOP SINK
ANGLE VALVE
ANGLE VALVE
WASTE, SEWER & VENT SYSTEM
SP SEWER PIPE
DS DOWNSPOUT
VP VENT PIPE
FCO FLOOR CLEANOUT
FD FLOOR DRAIN
CB CATCH BASIN
WC WATER CLOSET
LAV LAVATORY
KS/BS KITCHEN SINK/BAR SINK
SS SLOP SINK
URI URINAL
URI URINAL
AD AREA DRAIN
NOTES :
ALL WATERLINES SHALL BE THOROUGHLY FLUSHED AND DISINFECTED PRIOR TO TAP ON EXISTING STUB OUT
ALL WATERLINES SHALL BE HYDRO-STATICALLY TESTED (150PSI) FOR TWO HOURS ALL WATERLINES SHALL BE PAINTED WITH NAVY BLUE
APPLY 3 PLY MEMBRANE WATERPROOFING TO ALL WET AREAS AND TESTED 24 HOURS
DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
PROJECT TITLE
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
PREPARED BY
VERIFIED BY
SUBMITTED BY
REVIEWED BY
RECOMMENDING APPROVAL
APPROVED BY
SHEET CONTENT
SHEET NO.
P-1


DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
SECTION
DIGESTIVE CHAMBER
LEACHING CHAMBER #1
LEACHING CHAMBER #2
MANHOLE
2000
1700
2500
1000
BLOW-UP
100mmØ CLEANOUT
AIR SPACE
Ø1/4"100mmØ "PVC" OVERFLOW PIPE
PLAN
VAULT SEPTIC (BELOW)
SEPTIC TANK DETAILS
PLAN
SECTION
FLOOR CLEANOUT DETAILS
PLAN
SECTION
600
400
100
CATCH BASIN DETAILS
CAPPED
TO FIXTURES
FR. SUPPLY
AIR CHAMBER DETAILS
P-2

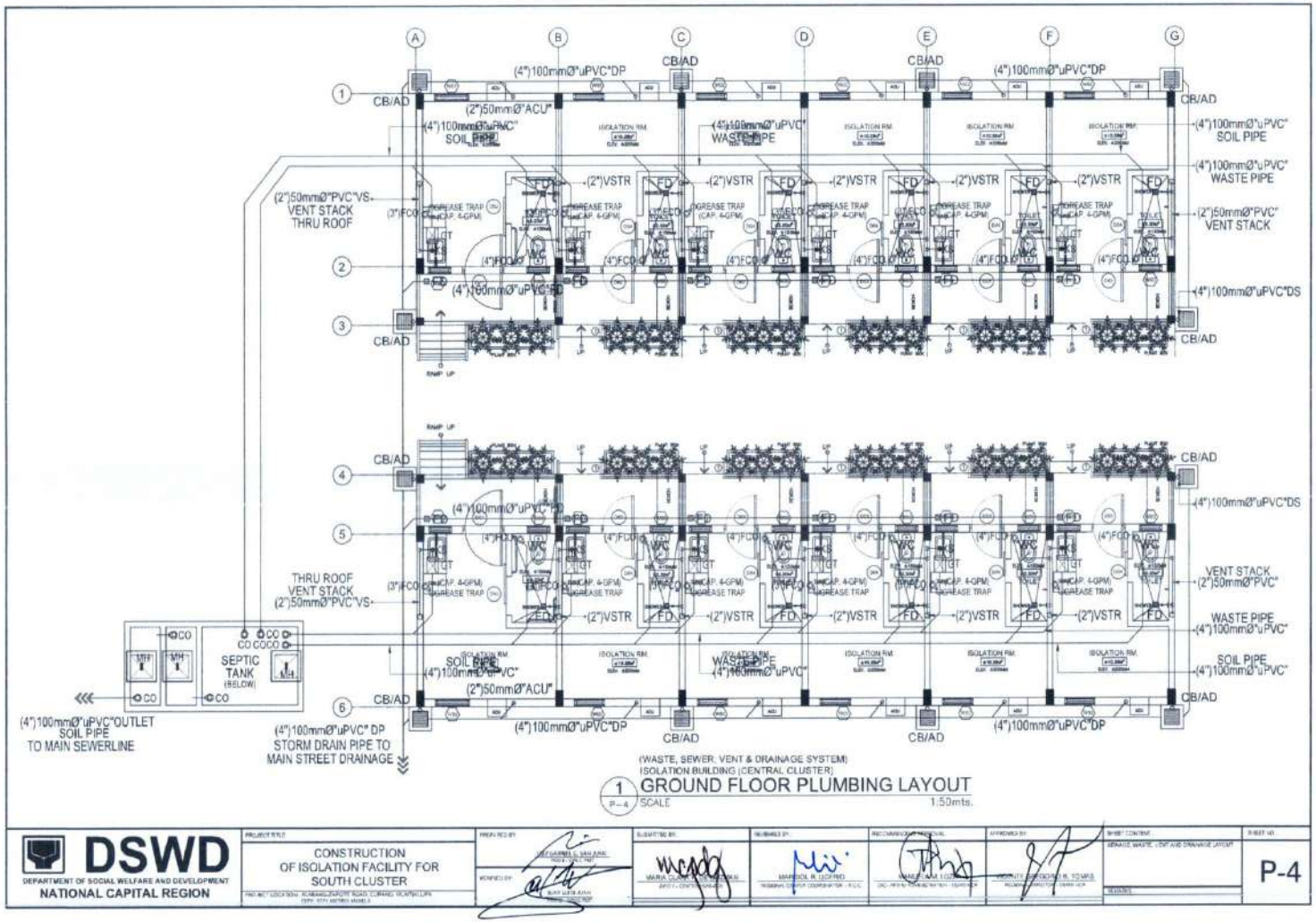


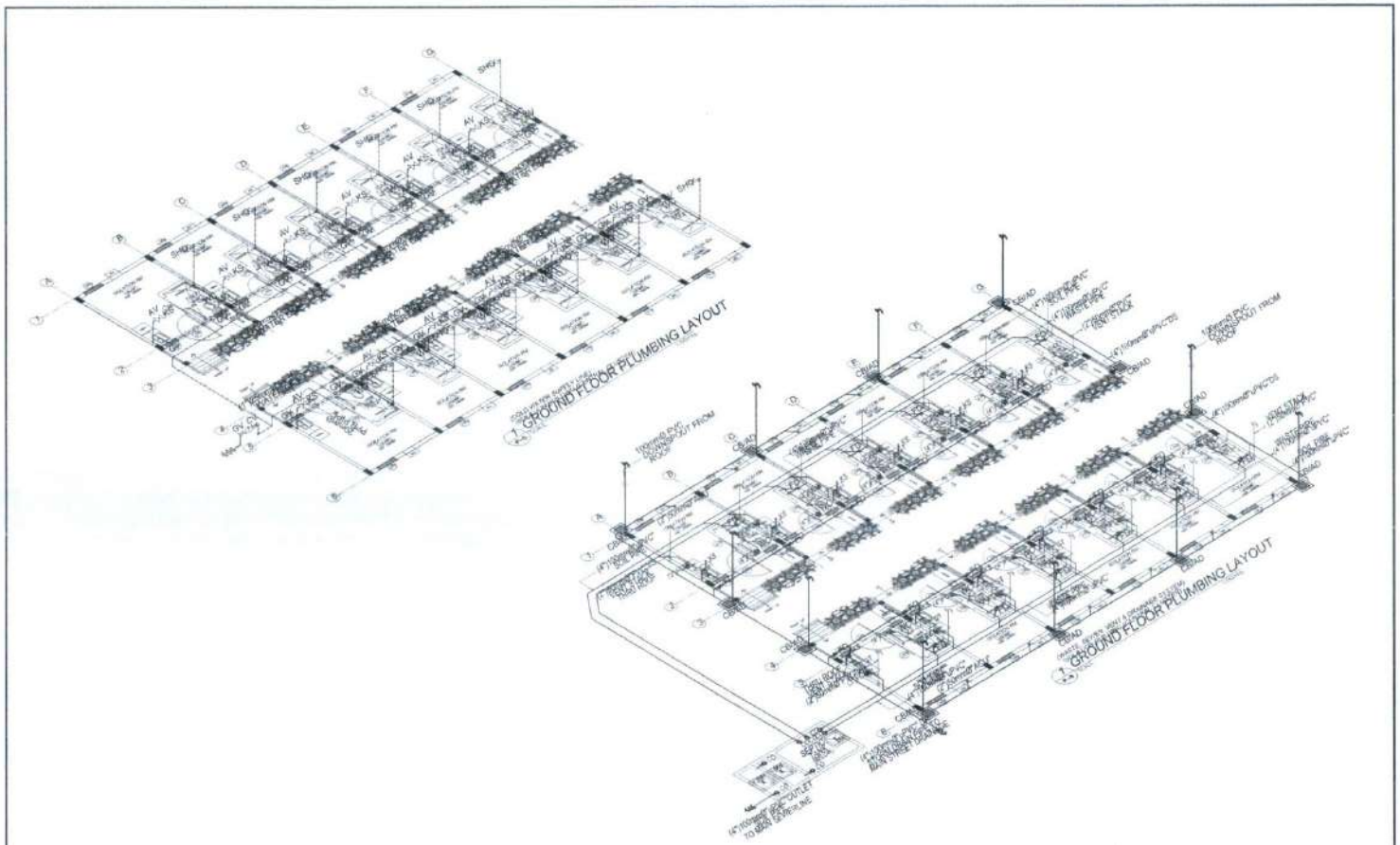
(COLD WATER SUPPLY LINE)
ISOLATION BUILDING (CENTRAL CLUSTER)

1/P-3 GROUND FLOOR PLUMBING LAYOUT

SCALE 1:50mts.

DSWD DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT NATIONAL CAPITAL REGION	PROJECT TITLE: CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER	PREPARED BY:	SUBMITTING BY: MARIA CLARA T. DE GUZMAN	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY: VICENTE GREGORIO B. TOMAS	SHEET CONTENT: COLD WATER LINE LAYOUT	SHEET NO. P-3


(4")100mmØ"uPVC"DP
CB/AD
(2")50mmØ"ACU"
(4")100mmØ"uPVC" SOIL PIPE
(4")100mmØ"uPVC" WASTE PIPE
(2")50mmØ"PVC"VS VENT STACK THRU ROOF
(2")VSTR
GREASE TRAP (CAP. 4-GPM)
(3")FCO
(4")FCO
(4")100mmØ"uPVC"DS
RAMP UP
THRU ROOF VENT STACK (2")50mmØ"PVC"VS
SEPTIC TANK (BELOW)
MH
CO
(4")100mmØ"uPVC"OUTLET SOIL PIPE TO MAIN SEWERLINE
(4")100mmØ"uPVC" DP STORM DRAIN PIPE TO MAIN STREET DRAINAGE
(WASTE, SEWER, VENT & DRAINAGE SYSTEM)
ISOLATION BUILDING (CENTRAL CLUSTER)
1 P-4 GROUND FLOOR PLUMBING LAYOUT
SCALE 1:50mts.
DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION
CONSTRUCTION OF ISOLATION FACILITY FOR SOUTH CLUSTER
P-4



DSWD
DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT
NATIONAL CAPITAL REGION

CONSTRUCTION
OF ISOLATION FACILITY FOR
SOUTH CLUSTER

P-5

Section VIII. Bill of Quantities

Bill of Quantities

Name of Project: Construction of Isolation Facilities of the DSWD-NCR

LOT 1 – Construction of Isolation Facility for North Cluster with Detailed Engineering Design at Reception and Study Center for Children (RSCC)

Location of the Project: No. 4 Misamis Extension Bago Bantay, Quezon City

Project Duration: One Hundred (100) Calendar Days

Total Project Cost: Php6,396,000.00

DETAILED BREAKDOWN OF COMPONENT COST FOR EACH ITEM										
ITEM NO.	**DESCRIPTION**		**%**	**QTY**	**DIRECT COST**					
					UNIT	**MATERIAL**	**LABOR**	**EQUIPMENT**	**UNIT COST**	**TOTAL**
Part I	GENERAL REQUIREMENTS									
	Mobilization/Demobilization				lot					
	Permits				lot					
	Bonds and Insurance				lot					
	Temporary Water and Electricity Consumption				lot					
	Admin/Management Cost/Safety and Health				lot					
	As Built				lot					
	TOTAL of PART I	as Submitted								
	Project Component ID.									
Part A	EARTHWORKS									
	Excavation & Soil Protection									
	Excavation				cum					
	Soil Protection				liter					
	Enbankment & Compaction				cum					
	Gravel Bedding - 4" thick				cum					
	4.0 mil Thick Polyurethane Sheet & Perporated PVC Pipe with Geotextile Sack				rolls					

	Perporated PVC Pipe with Geotextile Sack (per linear meter)				pcs					
	Hauling of excess material off the site				lot					
	TOTAL of PART A	as Submitted								
Part B	**REINFORCEMENT WORKS**									
	Footing Ǿ20				kgs					
	Footing Tie Beam Ǿ16				kgs					
	Wall Footing Ǿ12				kgs					
	Strirrups Ǿ10				kgs					
	Column Ǿ16				kgs					
	Slab on Fill Ǿ12				kgs					
	Beams Ǿ16				kgs					
	Lintel Beam Ǿ12				kgs					
	Septic Tank Ǿ16				kgs					
	Entrance Post				kgs					
	Countertop				kgs					
	TOTAL of PART B	as Submitted								
Part C	**FORMWORKS**									
	Footing Tie Beam (20 x 30)				sqm					
	Column (20 x 40)				sqm					
	Slab on Fill				sqm					
	Beams (20 x 40)				sqm					
	Lintel Beam				sqm					
	Septic Tank				sqm					
	Entrance Post				lot					
	Countertop				lot					
	TOTAL of PART C	as Submitted								
Part D	**CONCRETE WORKS**									
	Foundation (1 x 1 x .3)				cum					

	Footing Tie Beam				cum					
	Column (.2 x .4 x 3.2)				cum					
	Slab on Fill incl. Stairs and Ramp				cum					
	Beams				cum					
	Lintel Beam				cum					
	Septic Tank				cum					
	Entrance Post				cum					
	Countertop				cum					
	TOTAL of PART D	as Submitted								
Part E	**MASONRY WORKS**									
	6" Concrete Hollow Block				pcs					
	4" Concrete Hollow Block				pcs					
	Others:									
	a. Exterior Plastering				sqm					
	b. Interior Plastering				sqm					
	d. Preparationof Door and Window openings				lm					
	e. Catch Basin and Concrete cover				sqm					
	f. Plant Box				sqm					
	TOTAL of PART E	as Submitted								
Part F	**CEILING WORKS**									
	Supply and Installation of Ceiling Works - Room - 4ft x 8ft, 4.5mm thickness				pcs					
	Supply and Installation of Ceiling Works - Toilet - (Board) - 4ft x 8ft, 4.5mm thickness				pcs					
	Supply and Installation Ceiling works - Soffit -				pcs					

	(Board) - 4ft x 8ft, 4.5mm thickness									
	Supply and Installation Ceiling works - Exterior Inside - (Board) - 4ft x 8ft, 4.5mm thickness				pcs					
	Supply and Installation of Double Metal Frames - 19mm x 50mm, 0.4mm thickness				pcs					
	Supply and Instalation of Wall Angles - 25mm x 25mm, 0.4mm thickness				pcs					
	TOTAL of PART F	as Submitted								
Part G	**PAINTING WORKS**									
	Exterior Wall coverage 3 coats with fiber mesh				sqm					
	Interior Wall inclu. Baseboard coverage 3 coats				sqm					
	Ceiling Interior - Room coverage 3 coats				sqm					
	Ceiling Interior - Toilet coverage 3 coats				sqm					
	Ceiling Exterior - Inside coverage 3 coats				sqm					
	Supply and Installation Ceiling works - Soffit coverage 3 coats				sqm					
	Trusses									
	- 1st Coating (Preimere)				gal					
	Door - D1 - Main Door (Varnish) inclu. 12 doors 210cm x 100cm				sqm					
	TOTAL of PART G	as								

		Submitted								
Part H	**ROOFING WORKS**									
	Supply and Installation of GA # 24 or 0.60 mm thick color roof				sqm					
	Supply and Installation of C-Purlins				lm					
	Supply and Installation of Insulation				rolls					
	Supply and Installation of G.I. Wire (Diagonal with 30cm spacing)				lot					
	Supply and Installation of Angle Bar 2x2 40mm x 40mm x 6mm thick (double Angle attach)				lm					
	TOTAL of PART H	as Submitted								
Part I	**ARCHITECTURAL WORKS**									
	Supply and installation of Door and Jambs									
	a. D1 - Tanguile Door and Jamb - 210cm x 100cm				pcs					
	Supply and Installation of Sliding Door.									
	a. D2 - Sliding Glass Door Smoke Finish with aluminum Framing - 210cm x 100cm				pcs					
	b. D2 - Sliding Glass Door Smoke Finish with aluminum Framing - 210cm x 60cm				pcs					
	Supply and Installation of Windows									

	a. W1 - One (1) Fix and One (1) Awning Type with mosquito screen Glass Window Aluminum Frame using 6mm thk 900cm x 1200cm				pcs					
	b. W2 -Awning Type with mosquito screen Glass Window on Aluminum Frame using 6mm thk 600cmx600cm				pcs					
	c. W3 - One (1) Awning, One (1) Fix Type with mosquito screen Glass Window Aluminum Frame using 6mm thk 1200cm x 1200cm				pcs					
	Supply and installation of lockset and closer									
	a. D1 - Main Door				pcs					
	Supply and Installation of Stainless Handrails at Toilet (PWD) 25mm diameter x 24inches Length				pcs					
	Supply and Installation of Gi. Pipe 2" schd 40 1x1 at Ramp (PWD) 6meters per pcs				lm					
	TOTAL of PART I	as Submitted								
Part J	TILING WORKS									
	Tiling Works inclu. Groats									
	Supply and Installation of Rooms - 400cm x 400cm				sqm					
	Supply and Installation Toilet - Wall - 300cm x 600cm				sqm					
	Supply Installation				sqm					

	Toilet - Floor - 300cm x 300cm									
	Supply and Installation of Lavatory Granite Tiles - 600cm x 1200cm				sqm					
	TOTAL of PART J	as Submitted								
Part K	**PLUMBING WORKS**									
	Roughing In									
	Soil Stack Line & Vent Stack Line									
	2" Pvc Vent Stack				pcs					
	2" Elbow Pvc Vent Stack 90 deg				pcs					
	4" uPVC Pipe Drain (3m per pcs)				pcs					
	Drainage & Sanitary Line									
	6" uPVC Pipe Drain				pcs					
	4" uPVC Pipe Drain (3m per pcs)				pcs					
	Floor Drain				pcs					
	Water Line & Water Line Fittings									
	PPR white Ø20mm				pcs					
	Check Valve				pcs					
	Water Meter				pcs					
	Gate Valve				pcs					
	Supply and Installation of Plumbing Fixtures									
	- Water Closet with Bidet				pcs					
	- Telephone shower with Faucet				pcs					
	- Stainless Sink with Faucet				pcs					
	Supply and Installation Steel Drain 0.1m x 1.2m				sets					
	TOTAL of PART J	as Submitt								

		ed								
Part L	**ELECTRICAL WORKS**									
	Roughins Ins									
	- Power Outlets				pcs					
	- Switches				pcs					
	- Entrance Post				pcs					
	Supply and Installation Junction Box / Utility Box				pcs					
	Supply and Installation Wiring for Power and Lighting System									
	Supply and Installation of Wiring for Power (Two (2) stranded and One (1) Grounding)				lm					
	Supply and Installation of Wiring for Lightings (Two (2) stranded and One (1) Grounding)				lm					
	Supply and Installation Battery Operated Smoke Alarm				pcs					
	Supply and Installation Lighting Fixtures									
	a. Indoor - LED pinlight 4" - 20 watts (Day Light)				pcs					
	b.Outdoor - LED pinlight 6" - 30 watts (Day Light)				pcs					
	b.Toilet - LED pinlight 4" - 10 watts (Day Light)				pcs					
	Supply and Installation Electrical Devices (Outlet and Switches)									
	a. Outlet									
	a.a One (1) socket - Universal - Acu				pcs					

	a.b Two (2) socket-Universal - Outlet				pcs					
	b. Switches									
	b.a One (1) Gang				pcs					
	b.b Three (3) Gang				pcs					
	b.c Two (2) Gang - Heavy Duty with cover				pcs					
	Supply and Installation Panel Board and Circuit Breakers									
	- Panel Board with Cabinets for Rooms				pcs					
	- Main Distributional Panel for Perimeter				pcs					
	Testing and Commisioning (all neccesary test conducts)				lot					
	Supply and Installation Wiring of Entrance Post inclu. Two (2) Stranded and One (1) Grounding				lm					
	Supply and Installation of Entrance Cap				pcs					
	TOTAL of PART L	as Submitted								
Part M	MECHANICAL WORKS									
	Supply and Installation of Airconditioning Unit (0.75HP Window Type - Inverter)				units					
		as Submitted								
	TOTAL of PART M									
GRAND TOTAL										

Certified Correct:

Name of Company

Signature of Bidder or Authorized Representative

Name and Designation

Date

PLEASE USE THIS PRESCRIBED FORMAT IN THIS BID FORM

Bill of Quantities

Name of Project: Construction of Isolation Facilities of the DSWD-NCR

LOT 2 – Construction of Isolation Facility for Central Cluster with Detailed Engineering Design at Jose Fabella Center (JFC)

Location of the Project: Correctional Road, Brgy. Addition Hills, Mandaluyong City

Project Duration: Ninety (90) Calendar Days

Total Project Cost: Php3,198,000.00

DETAILED BREAKDOWN OF COMPONENT COST FOR EACH ITEM										
ITEM NO.	DESCRIPTION		%	QTY	DIRECT COST					
					UNIT	MATERIAL	LABOR	EQUIPMENT	UNIT COST	TOTAL
Part I	GENERAL REQUIREMENTS									
	Mobilization/Demobilization				lot					
	Permits..				lot					
	Bonds and Insurance				lot					
	Temporary Water and Electricity Consumption				lot					
	Admin/Management Cost/Safety and Health				lot					
	As Built				lot					
	TOTAL of PART I	as Submitted								
Project Component ID	Project Component ID.									
Part A	EARTHWORKS									
	Excavation & Soil Protection									
	Excavation				cum					
	Soil Protection				liter					
	Enbankment & Compaction				cum					
	Gravel Bedding - 4" thick				cum					
	4.0 mil Thick Polyurethane Sheet &				rolls					

	Perporated PVC Pipe with Geotextile Sack									
	Perporated PVC Pipe with Geotextile Sack (per linear meter)				pcs					
	Hauling of excess material off the site				lot					
	TOTAL of PART A	as Submitted								
Part B	REINFORCEMENT WORKS									
	Footing Ǿ20 & Ǿ16				kgs					
	Footing Tie Beam Ǿ16				kgs					
	Wall Footing Ǿ12				kgs					
	Column Ǿ16				kgs					
	Stirrups Ǿ10				kgs					
	Slab on Fill Ǿ12 (including pathwalk to gate)				kgs					
	Beams Ǿ16				kgs					
	Lintel Beam Ǿ12				kgs					
	Septic Tank Ǿ16				kgs					
	Entrance Post				kgs					
	Countertop				kgs					
	TOTAL of PART B	as Submitted								
Part C	FORMWORKS									
	Footing Tie Beam (20 x 30)				sqm					
	Column (20 x 40)				sqm					
	Slab on Fill				sqm					
	Beams (20 x 40)				sqm					
	Lintel Beam				sqm					
	Septic Tank				sqm					
	Entrance Post				sqm					
	Countertop				sqm					
	TOTAL of PART C	as Submitted								
Part	CONCRETE WORKS									

D										
	Foundation (1 x 1 x .3)				cum					
	Footing Tie Beam				cum					
	Column (.2 x .4 x 3.2)				cum					
	Slab on Fill incl. Stairs and Ramp				cum					
	Beams				cum					
	Lintel Beam				cum					
	Septic Tank				cum					
	Entrance Post				cum					
	Countertop				cum					
	TOTAL of PART D	as Submitted								
Part E	MASONRY WORKS									
	6" Concrete Hollow Block				pcs					
	4" Concrete Hollow Block				pcs					
	Others:									
	a. Exterior Plastering				sqm					
	b. Interior Plastering				sqm					
	c. Preparationof Door and Window openings				lm					
	e. Catch Basin and Concrete cover				sqm					
	f. Plant Box				sqm					
	TOTAL of PART E	as Submitted								
Part F	CEILING WORKS									
	Supply and Installation of Ceiling Works - Room - 4ft x 8ft, 4.5mm thickness				pcs					
	Supply and Installation of Ceiling Works - Toilet - (Board) - 4ft x 8ft, 4.5mm thickness				pcs					
	Supply and Installation Ceiling works - Soffit - (Board) - 4ft x 8ft, 4.5mm thickness				pcs					

	Supply and Installation of Double Metal Frames - 19mm x 50mm, 0.4mm thickness				pcs					
	Supply and Instalation of Wall Angles - 25mm x 25mm, 0.4mm thickness				pcs					
	TOTAL of PART F	as Submitted								
Part G	PAINTING WORKS									
	Exterior Wall coverage 3 coats with fiber mesh				sqm					
	Interior Wall inclu. Baseboard coverage 3 coats				sqm					
	Ceiling Interior - Room coverage 3 coats				sqm					
	Ceiling Interior - Toilet coverage 3 coats				sqm					
	Ceiling Exterior - Inside coverage 3 coats				sqm					
	Supply and Installation Ceiling works - Soffit coverage 3 coats				sqm					
	Trusses									
	- 1st Coating (Preimere)				gal					
	Door - D1 - Main Door (Varnish) inclu. 6 doors 210cm x 100cm				sqm					
	TOTAL of PART G	as Submitted								
Part H	ROOFING WORKS									
	Supply and Installation of GA # 24 or 0.60 mm thick color roof				sqm					
	Supply and Installation of C-Purlins				lm					
	Supply and Installation of Insulation				rolls					
	Supply and Installation of G.I. Wire (Diagonal with 30cm spacing)				lot					

	Supply and Installation of Angle Bar 2x2 40mm x 40mm x 6mm thick (double Angle attach)				lm					
	TOTAL of PART H	as Submitted								
Part I	ARCHITECTURAL WORKS									
	Supply and installation of Door and Jambs									
	a. D1 - Tanguile Door and Jamb - 210cm x 100cm				pcs					
	Supply and Installation of Sliding Door.									
	a. D2 - Sliding Glass Door Smoke Finish with aluminum Framing - 210cm x 100cm				pcs					
	b. D2 - Sliding Glass Door Smoke Finish with aluminum Framing - 210cm x 60cm				pcs					
	Supply and Installation of Windows									
	a. W1 - One (1) Fix and One (1) Awning Type with mosquito screen Glass Window Aluminum Frame using 6mm thk 900cm x 1200cm				pcs					
	b. W2 -Awning Type with mosquito screen Glass Window on Aluminum Frame using 6mm thk 600cmx600cm				pcs					
	c. W3 - One (1) Awning, One (1) Fix Type with mosquito screen Glass Window Aluminum Frame using 6mm thk 1200cm x 1200cm				pcs					
	Supply and installation of lockset and closer									
	a. D1 - Main Door				pcs					

	Supply and Installation of Stainless Handrails at Toilet (PWD) 25mm diameter x 24inches Length				pcs					
	Supply and Installation of Gi. Pipe 2" schd 40 1x1 at Ramp (PWD) 6meters per pcs				lm					
	TOTAL of PART I	as Submitted								
Part J	TILING WORKS									
	Tiling Works inclu. Groats									
	Supply and Installation of Rooms - 400cm x 400cm				pcs					
	Supply and Installation Toilet - Wall - 300cm x 600cm				pcs					
	Supply Installation Toilet - Floor - 300cm x 300cm				pcs					
	Supply and Installation of Lavatory Granite Tiles - 600cm x 1200cm				pcs					
	TOTAL of PART J	as Submitted								
Part K	PLUMBING WORKS									
	Soil Stack Line & Vent Stack Line									
	2" Pvc Vent Stack				pcs					
	2" Elbow Pvc Vent Stack 90 deg				pcs					
	4" uPVC Pipe Drain (3m per pcs)				pcs					
	Drainage & Sanitary Line									
	4" uPVC Pipe Drain				pcs					
	4" uPVC Pipe Drain (3m per pcs)				pcs					
	Floor Drain				pcs					
	Water Line & Water Line Fittings									

	PPR white Ø25mm				pcs					
	PPR white Ø20mm				pcs					
	Check Valve				pcs					
	Water Meter				pcs					
	Gate Valve				pcs					
	Supply and Installation of Plumbing Fixtures									
	- Water Closet with Bidet				pcs					
	- Telephone shower with Faucet				pcs					
	- Stainless Sink with Faucet				pcs					
	TOTAL of PART J	as Submitted								
Part L	ELECTRICAL WORKS									
	Roughins Ins									
	- Power Outlets				pcs					
	- Switches				pcs					
	- Entrance Post				pcs					
	Supply and Installation Junction Box / Utility Box				pcs					
	Supply and Installation Wiring for Power and Lighting System									
	Supply and Installation of Wiring for Power (Two (2) stranded and One (1) Grounding)				lm					
	Supply and Installation of Wiring for Lightings (Two (2) stranded and One (1) Grounding)				lm					
	Supply and Installation Battery Operated Smoke Alarm				pcs					
	Supply and Installation Lighting Fixtures									
	a. Indoor - LED pinlight 4" - 20 watts (Day Light)				pcs					

	b.Toilet - LED pinlight 4" - 10 watts (Day Light)				pcs					
	Supply and Installation Electrical Devices (Outlet and Switches)									
	a. Outlet									
	a.a One (1) socket - Universal - Acu				pcs					
	a.b Two (2) socket- Universal - Outlet				pcs					
	b. Switches									
	b.a One (1) Gang				pcs					
	b.b Three (3) Gang				pcs					
	Supply and Installation Panel Board and Circuit Breakers									
	- Panel Board with Cabinets for Rooms				pcs					
	- Main Distributional Panel for Perimeter				pcs					
	Testing and Commisioning (all neccesary test conducts)				lot					
	Supply and Installation Wiring of Entrance Post inclu. Two (2) Stranded and One (1) Grounding				lm					
	Supply and Installation of Entrance Cap				pcs					
	TOTAL of PART L	as Submitted								
Part M										
	Supply and Installation of Airconditioning Unit (0.75HP Window Type - Inverter)				unit					
	TOTAL of PART M	as Submitted								
GRAND TOTAL										

Certified Correct:

Name of Company

Signature of Bidder or Authorized Representative

Name and Designation

Date

PLEASE USE THIS PRESCRIBED FORMAT IN THIS BID FORM

Bill of Quantities

Name of Project: Construction of Isolation Facilities of the DSWD-NCR

LOT 3 – Construction of Isolation Facility for South Cluster with Detailed Engineering Design at Elsie Gaches Village (EGV)

Location of the Project: Filinvest Alabang, Muntinlupa City

Project Duration: One Hundred (100) Calendar Days

Total Project Cost: Php5,330,000.00

DETAILED BREAKDOWN OF COMPONENT COST FOR EACH ITEM										
ITEM NO.	DESCRIPTION		%	QTY	DIRECT COST					
					UNIT	MATERIAL	LABOR	EQUIPMENT	UNIT COST	TOTAL
Part I	GENERAL REQUIREMENTS									
	Mobilization/Demobilization				lot					
	Permits				lot					
	Bonds and Insurance				lot					
	Temporary Water and Electricity Consumption				lot					
	Admin/Management Cost/Safety and Health				lot					
	As Built				lot					
	TOTAL of PART I	as Submitted								
Project Component ID	Project Component ID.									
Part A	EARTHWORKS									
	Excavation & Soil Protection									
	Excavation				cum					
	Soil Protection				liter					
	Enbankment & Compaction				cum					
	Gravel Bedding - 4" thick				cum					

	4.0 mil Thick Polyurethane Sheet & Perporated PVC Pipe with Geotextile Sack				rolls					
	Perporated PVC Pipe with Geotextile Sack (per linear meter)				pcs					
	Hauling of excess material off the site				lot					
	TOTAL of PART A	as Submitted								
Part B	REINFORCEMENT WORKS									
	Footing Ǿ16				kgs					
	Footing Tie Beam Ǿ12				kgs					
	Wall Footing Ǿ10				kgs					
	Column Ǿ12				kgs					
	Stirrups Ǿ10				kgs					
	Slab on Fill Ǿ12				kgs					
	Beams Ǿ12				kgs					
	Lintel Beam Ǿ12				kgs					
	Septic Tank Ǿ12				kgs					
	Entrance Post				kgs					
	Countertop				kgs					
	TOTAL of PART B	as Submitted								
Part C	FORMWORKS									
	Footing Tie Beam (20 x 30)				sqm					
	Column (20 x 40)				sqm					
	Slab on Fill				sqm					
	Beams (20 x 40)				sqm					
	Lintel Beam				sqm					
	Septic Tank				sqm					
	Entrance Post				sqm					
	Countertop				sqm					
	TOTAL of PART C	as Submitted								

Part D	CONCRETE WORKS									
	Foundation (1 x 1 x .3)				cum					
	Footing Tie Beam				cum					
	Column (.2 x .4 x 3.2)				cum					
	Slab on Fill incl. Stairs and Ramp				cum					
	Beams				cum					
	Lintel Beam				cum					
	Septic Tank				cum					
	Entrance Post				cum					
	Countertop				cum					
	TOTAL of PART D	as Submitted								
Part E	MASONRY WORKS									
	6" Concrete Hollow Block				pcs					
	4" Concrete Hollow Block				pcs					
	Others:									
	a. Exterior Plastering				sqm					
	b. Interior Plastering				sqm					
	c. Preparationof Door and Window openings				lm					
	e. Catch Basin and Concrete cover				sqm					
	TOTAL of PART E	as Submitted								
Part F	CEILING WORKS									
	Supply and Installation of Ceiling Works - Room - 4ft x 8ft, 4.5mm thickness				pcs					
	Supply and Installation of Ceiling Works - Toilet - (Board) - 4ft x 8ft, 4.5mm thickness				pcs					
	Supply and Installation Ceiling works - Soffit - (Board) - 4ft x 8ft, 4.5mm thickness				pcs					

	Supply and Installation of Double Metal Frames - 19mm x 50mm, 0.4mm thickness				pcs					
	Supply and Instalation of Wall Angles - 25mm x 25mm, 0.4mm thickness				pcs					
	TOTAL of PART F	as Submitted								
Part G	PAINTING WORKS									
	Exterior Wall coverage 3 coats with fiber mesh				sqm					
	Interior Wall inclu. Baseboard coverage 3 coats				sqm					
	Ceiling Interior - Room coverage 3 coats				sqm					
	Ceiling Interior - Toilet coverage 3 coats				sqm					
	Ceiling Exterior - Veranda coverage 3 coats				sqm					
	Supply and Installation Ceiling works - Soffit coverage 3 coats				sqm					
	Trusses									
	- 1st Coating (Preimere)				gal					
	Door - D1 - Main Door (Varnish) inclu. 6 doors 210cm x 100cm				sqm					
	TOTAL of PART G	as Submitted								
Part H	ROOFING WORKS									
	Supply and Installation of GA # 24 or 0.60 mm thick color roof				sqm					
	Supply and Installation of C-Purlins				lm					

	Supply and Installation of Insulation				rolls					
	Supply and Installation of G.I. Wire (Diagonal with 30cm spacing)				lot					
	Supply and Installation of Angle Bar 2x2 25mm x 25mm x 4mm thick (double Angle attach)				lm					
	TOTAL of PART H	as Submitted								
Part I	ARCHITECTURAL WORKS									
	Supply and installation of Door and Jambs									
	a. D1 - Tanguile Door and Jamb - 210cm x 100cm				pcs					
	Supply and Installation of Sliding Door.									
	a. D2 - Sliding Glass Door Smoke Finish with aluminum Framing - 210cm x 100cm				pcs					
	b. D2 - Sliding Glass Door Smoke Finish with aluminum Framing - 210cm x 60cm				pcs					
	Supply and Installation of Windows									
	a. W1 - One (1) Fix and One (1) Awning Type with mosquito screen Glass Window Aluminum Frame using 6mm thk 900cm x 1200cm				pcs					
	b. W2 -Awning Type with mosquito screen Glass Window on Aluminum Frame using 6mm thk 600cmx600cm				pcs					
	c. W3 - One (1) Awning, One (1) Fix Type with mosquito screen Glass Window Aluminum Frame using 6mm thk 1200cm x 1200cm				pcs					

	Supply and installation of lockset and closer									
	a. D1 - Main Door				pcs					
	Supply and Installation of Stainless Handrails at Toilet (PWD) 25mm diameter x 24inches Length				pcs					
	Supply and Installation of Gi. Pipe 2" schd 40 1x1 at Ramp (PWD) 6meters per pcs				lm					
		as Submitted								
	TOTAL of PART I									
Part J	TILING WORKS									
	Tiling Works inclu. Groats									
	Supply and Installation of Rooms - 400cm x 400cm				pcs					
	Supply and Installation Toilet - Wall - 300cm x 600cm				pcs					
	Supply Installation Toilet - Floor - 300cm x 300cm				pcs					
	Supply and Installation of Lavatory Granite Tiles - 600cm x 1200cm				pcs					
	TOTAL of PART J	as Submitted								
Part K	PLUMBING WORKS									
	Soil Stack Line & Vent Stack Line									
	2" Pvc Vent Stack				pcs					
	2" Elbow Pvc Vent Stack 90 deg				pcs					
	4" uPVC Pipe Drain (3m per pcs)				pcs					
	Drainage & Sanitary Line									
	4" uPVC Pipe Drain				pcs					

	4" uPVC Pipe Drain (3m per pcs)				pcs					
	Floor Drain				pcs					
	Water Line & Water Line Fittings									
	PPR white Ø25mm				pcs					
	PPR white Ø20mm				pcs					
	Check Valve				pcs					
	Water Meter				pcs					
	Gate Valve				pcs					
	Supply and Installation of Plumbing Fixtures									
	- Water Closet with Bidet				pcs					
	- Telephone shower with Faucet				pcs					
	- Stainless Sink with Faucet				pcs					
	TOTAL of PART J	as Submitted								
Part L	ELECTRICAL WORKS									
	Roughins Ins									
	- Power Outlets				pcs					
	- Switches				pcs					
	- Entrance Post				pcs					
	Supply and Installation Junction Box / Utility Box				pcs					
	Supply and Installation Wiring for Power and Lighting System									
	Supply and Installation of Wiring for Power (Two (2) stranded and One (1) Grounding)				lm					
	Supply and Installation of Wiring for Lightings (Two (2) stranded and One (1) Grounding)				lm					
	Supply and Installation Battery Operated Smoke Alarm				pcs					
	Supply and Installation Lighting Fixtures									

	a. Indoor - LED pinlight 4" - 20 watts (Day Light)				pcs					
	b.Toilet - LED pinlight 4" - 10 watts (Day Light)				pcs					
	Supply and Installation Electrical Devices (Outlet and Switches)									
	a. Outlet									
	a.a One (1) socket - Universal - Acu				pcs					
	a.b Two (2) socket- Universal - Outlet				pcs					
	b. Switches									
	b.a One (1) Gang				pcs					
	b.b Three (3) Gang				pcs					
	Supply and Installation Panel Board and Circuit Breakers									
	- Panel Board with Cabinets for Rooms				pcs					
	- Main Distributional Panel for Perimeter				pcs					
	Testing and Commissioning (all necessary test conducts)				lot					
	Supply and Installation Wiring of Entrance Post inclu. Two (2) Stranded and One (1) Grounding				lm					
	Supply and Installation of Entrance Cap				pcs					
	TOTAL of PART L	as Submitted								
Part M										
	Supply and Installation of Airconditioning Unit (0.75HP Window Type)			12.00						
	TOTAL of PART M	as Submitted								
GRAND TOTAL										

Certified Correct:

Name of Company

Signature of Bidder or Authorized Representative

Name and Designation

Date

PLEASE USE THIS PRESCRIBED FORMAT IN THIS BID FORM

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

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

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

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

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

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
or

☐ (b) 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;
and

☐ (c) 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).

Technical 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; **and**

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

☐ (h) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**

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

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

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

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

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

☐ (k) Original duly signed Omnibus Sworn Statement (OSS);
and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

☐ (f) The prospective bidder's audited financial statements, showing, among others, The Supplier's Audited Financial Statements for year 2020 and 2019 (in comparative form or separate form):

- Independent Auditor's Report
- Balance Sheet (Statement of Financial Position) and
- Income Statement (Statement of Comprehensive Income)

Each of the above statements must have stamped **"received"** by the Bureau of Internal Revenue (BIR) or its duly accredited institutions.

☐ (l) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

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

II. FINANCIAL COMPONENT ENVELOPE

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

Other documentary requirements under RA No. 9184

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

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

☐ (q) Cash Flow by Month.

BIDDING FORMS

Bid Form
(PER LOT)

Date: _____

Invitation to Bid No: 21-08-18

To: **DEPARTMENT OF SOCIAL WELFARE AND DEVELOPMENT**
National Capital Region
389 San Rafael cor Legarda Street, Manila

Gentlemen and/or Ladies:

Having examined the Bidding Documents including Supplemental/Bid Bulletin Numbers *[insert numbers]*, the receipt of which is hereby duly acknowledged, I/We, the undersigned, offer to render service for the project **Construction of Isolation Facilities of the DSWD-NCR under Design and Build** in conformity with the said Bidding Documents for the sum of ***[total Bid amount in words and figures] or the total calculated bid price, as evaluated and corrected for computational errors, and other bid modifications in accordance with the Price Schedules*** attached herewith and made part of this Bid. 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 or in the Price Schedules,

If our Bid is accepted, we undertake:

a. to deliver the services in accordance with the delivery schedule specified in the Schedule of Requirements of the Philippine Bidding Documents (PBD);

b. to provide a performance security in the form, amounts, and within the times specified in the PBDs;

c. to abide by this Bid for the Bid Validity Period specified in **BDS** and it shall remain binding upon us at any time before the expiration of that period.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:[1]

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity

(if none, state "None")

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon me/us.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

I/We understand that you are not bound to accept the Lowest Calculated Bid or any Bid you may receive.

I/We certify/confirm that we comply with the eligibility requirements pursuant to the PBDs.

The undersigned is authorized to submit the bid on behalf [name of bidder] as evidence by the attached [state the written authority].

We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Name:_____

Legal Capacity:_____

Signature:_____

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

Date:_____

Annex I

Statement of Single Largest Completed Contract of Similar Nature Within the Last Three (3) Years Prior to the Date of Submission and Receipt of Bids, equivalent to at least Fifty percent (50%) of the ABC of this project.

LOT 1 - Construction of Isolation Facility for North Cluster with Detailed Engineering Design at Reception and Study Center for Children (RSCC)

Name of Client and Complete Address	Name of the Contract	Date of the Contract	Kinds of Goods	Amount of Contract	Duration of Contract

Any of the following documents must be attached:

a. End-user's Acceptance/Completion; **or**
b. Copy of official receipt(s) **or**
c. Copy of Sales Invoice and Collection Receipt issued for the contract, if completed, which shall be attached to the statements.

{Note: Failure to submit any of the following supporting documents shall be a ground for disqualification}

Certified Correct:

_____
Name of Company

_____
Signature of Bidder or Authorized Representative

_____
Name and Designation

_____
Date

PLEASE USE THIS PRESCRIBED FORMAT IN THIS BID FORM

Annex I

Statement of Single Largest Completed Contract of Similar Nature Within the Last Three (3) Years Prior to the Date of Submission and Receipt of Bids, equivalent to at least Fifty percent (50%) of the ABC of this project.

LOT 2 - Construction of Isolation Facility for Central Cluster with Detailed Engineering Design at Jose Fabella Center (JFC)

Name of Client and Complete Address	Name of the Contract	Date of the Contract	Kinds of Goods	Amount of Contract	Duration of Contract

Any of the following documents must be attached:

a. End-user's Acceptance/Completion; **or**
b. Copy of official receipt(s) **or**
c. Copy of Sales Invoice and Collection Receipt issued for the contract, if completed, which shall be attached to the statements.

{Note: Failure to submit any of the following supporting documents shall be a ground for disqualification}

Certified Correct:

_____
Name of Company

_____
Signature of Bidder or Authorized Representative

_____
Name and Designation

_____
Date

PLEASE USE THIS PRESCRIBED FORMAT IN THIS BID FORM

Annex I

Statement of Single Largest Completed Contract of Similar Nature Within the Last Three (3) Years Prior to the Date of Submission and Receipt of Bids, equivalent to at least Fifty percent (50%) of the ABC of this project.

LOT 3 - Construction of Isolation Facility for South Cluster with Detailed Engineering Design at Elsie Gaches Village (EGV)

Name of Client and Complete Address	Name of the Contract	Date of the Contract	Kinds of Goods	Amount of Contract	Duration of Contract

Any of the following documents must be attached:

a. End-user's Acceptance/Completion; **or**
b. Copy of official receipt(s) **or**
c. Copy of Sales Invoice and Collection Receipt issued for the contract, if completed, which shall be attached to the statements.

{Note: Failure to submit any of the following supporting documents shall be a ground for disqualification}

Certified Correct:

_____
Name of Company

_____
Signature of Bidder or Authorized Representative

_____
Name and Designation

_____
Date

PLEASE USE THIS PRESCRIBED FORMAT IN THIS BID FORM

Annex II

Statement of All Ongoing Government and Private Contracts (Including Contracts Awarded but not yet Started)

1. All on-going contracts (including contracts awarded but not yet started, ***if ANY***)

Name of Client and Complete Address	Name of the Contract	Date and Status of the Contract	Kinds of Goods	Amount of Goods	Value of Outstanding Contracts	Purchase Order No./ or Date of Contracts	Duration of Contract

[Note: The following documents must be available upon request of the Bids and Award Committee (BAC) or designated Technical Working Group (TWG) during Post-Qualification to support this statement: (a) Contract or Purchase Order, (b) Notice of Award and (c) Notice to Proceed]

Instructions:

1. Statement of all on going contracts including those awarded but not yet started (government and private contracts which may be similar or not similar to the project being bid).
2. If there is no ongoing contract including those awarded but not yet started as of the aforementioned period, state none or equivalent term.
3. The total amount of the ongoing and awarded but not yet started contracts should be consistent

with those used in the Net Financial Contracting Capacity (NFCC).

Certified Correct:

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

_____

Date

****No attachments required****

PLEASE USE THE PRESCRIBED FORMAT IN THIS BID FORM

Annex III

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.
x----------x

BID-SECURING DECLARATION
Invitation to Bid: [Insert reference number]

To: [Insert name and address of the Procuring Entity]

I/We[2], the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any 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 9184; without prejudice to other legal action the government may undertake.***

3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:

   (a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;

   (b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;

   (c) I am/we are declared as the bidder with the Lowest Calculated and Responsive Bid/Highest Rated and Responsive Bid[3], 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'S
AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]

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

1 Pursuant to GPPB Resolution No. 16-2020 dated 16 September 2020

Annex IV

(Bidder's Company Letterhead)

Construction of Isolation Facilities of the DSWD-NCR under Design and Build Scheme

Invitation to Bid (ITB) No.21-08-18

Approved Budget for the Contract (ABC) – **(Total ABC of the LOTs which a bidder opts to bid)**

CERTIFICATE OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

(Please show figures at how you arrived at the NFCC)

This is to certify that our **Net Financial Contracting Capacity (NFCC)** is _____ _____(**Php**_____) which is at least equal to the total ceiling price we are bidding. The amount is computed as follows:

CA	=	Current Assets	₱
Less:			-
CL	=	Current Liabilities	₱
		Sub-Total 1	₱
			X 15
		Sub-Total 2	₱
Less:			-
C	=	Value of all outstanding or uncompleted portions of the projects under on-going contracts, including awarded contracts yet to be started coinciding with the contract for this Project	₱
		NFCC	₱

Issued this _____ day of _____, 2021.

_____

Name of Company

_____

Signature of Bidder or Authorized Representative

_____

Name and Designation

_____

Date

*** This document must be attached to the Technical Component Envelope ***

Note:

1. The phrase "value of the bidder's current assets and current liabilities" shall be based on the data submitted to the BIR, which refers to the values of the current assets and current liabilities reflected in the Audited Financial Statements.
2. The value of all outstanding or uncompleted contracts refers to those listed in Annex II.
3. The detailed computation must be shown using the formula provided above.
4. The NFCC computation must be at least equal to the ABC of the project

PLEASE USE THIS PRESCRIBED FORMAT IN THIS BID FORM

Annex V

Omnibus Sworn Statement

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

A F F I D A V I T

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 following responsibilities as a Bidder:

   a) Carefully examine all of the Bidding Documents;

   b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;

   c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and

   d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

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

_____
Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ___ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used],

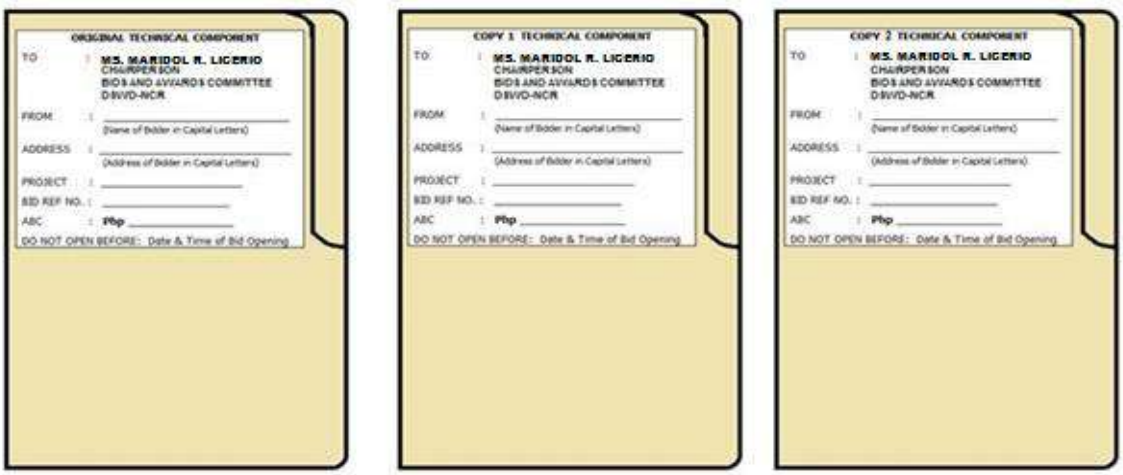
with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ____ at _____.

Witness my hand and seal this ___ day of *[month] [year]*.

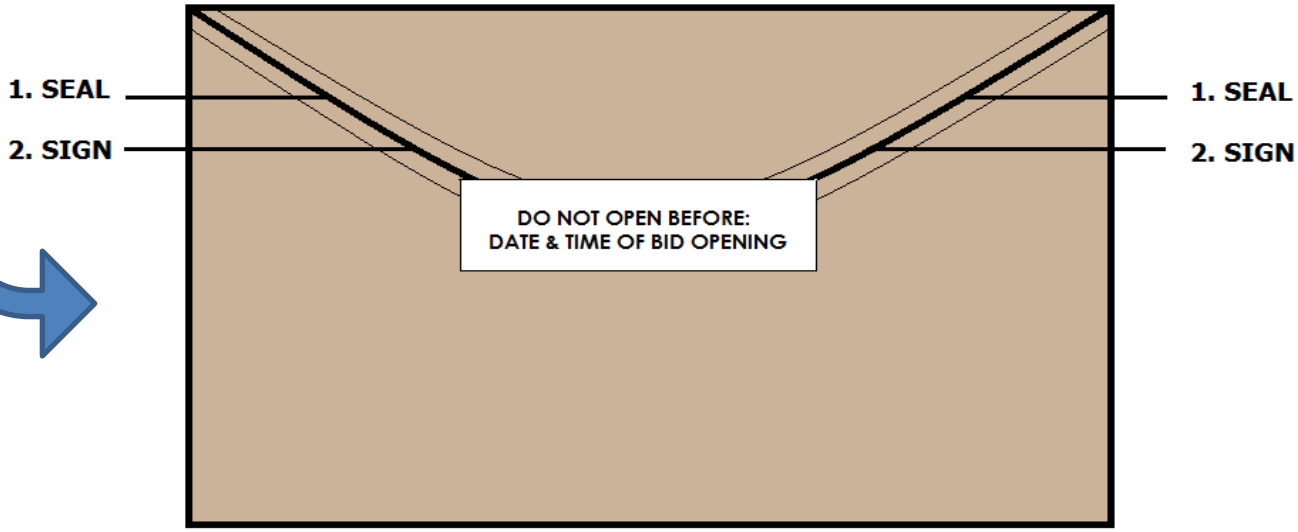
NAME OF NOTARY PUBLIC
Serial No. of Commission _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. _____ *[date issued], [place issued]*
IBP No. _____ *[date issued], [place issued]*

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

Annex VI-A


ORIGINAL TECHNICAL COMPONENT
COPY 1 TECHNICAL COMPONENT
COPY 2 TECHNICAL COMPONENT
TO : MS. MARIDOL R. LIGERIO
CHAIRPERSON
BIDS AND AWARDS COMMITTEE
DSWD-NCR
FROM :
(Name of Bidder in Capital Letters)
ADDRESS :
(Address of Bidder in Capital Letters)
PROJECT :
BID REF NO. :
ABC : Php
DO NOT OPEN BEFORE: Date & Time of Bid Opening


TECHNICAL COMPONENT ENVELOPE
TO : MS. MARIDOL R. LICERIO
CHAIRPERSON
BIDS AND AWARDS COMMITTEE
DSWD-NCR
FROM :
(Name of Bidder in Capital Letters)
ADDRESS :
(Address of Bidder in Capital Letters)
PROJECT :
BID REF NO.:
ABC : Php
DO NOT OPEN BEFORE: Date & Time of Bid Opening


1. SEAL
2. SIGN
1. SEAL
2. SIGN
DO NOT OPEN BEFORE:
DATE & TIME OF BID OPENING

Annex VI-B

FINANCIAL COMPONENT ENVELOPE

TO : MS. MARIDOL R. LICERIO
CHAIRPERSON
BIDS AND AWARDS COMMITTEE
DSWD-NCR

FROM : _____
(Name of Bidder in Capital Letters)

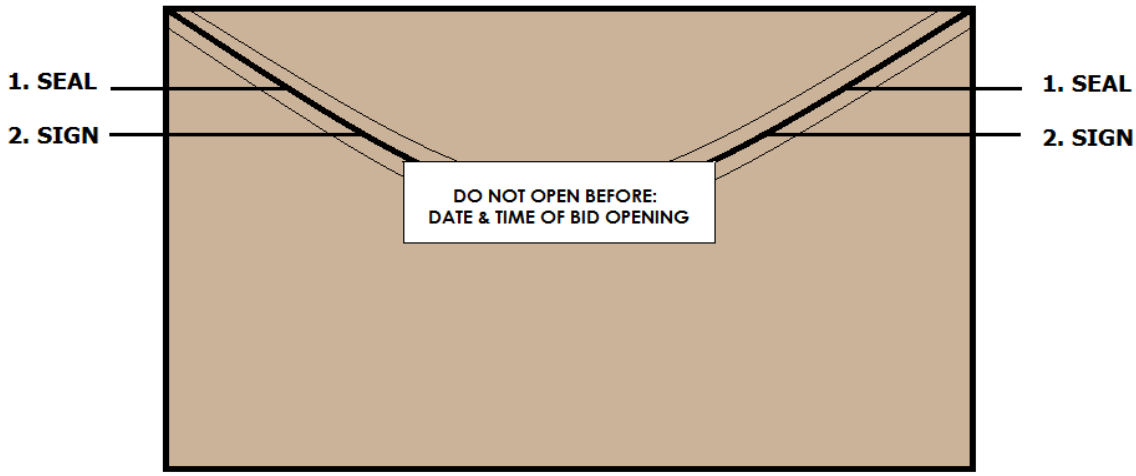
ADDRESS : _____
(Address of Bidder in Capital Letters)

PROJECT : _____

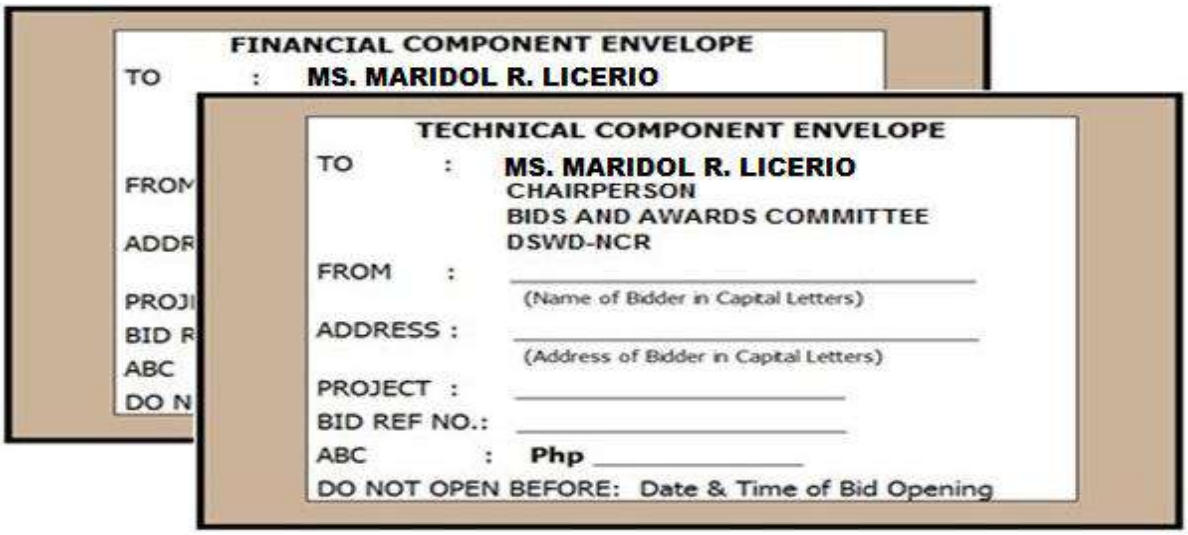
BID REF NO.: _____

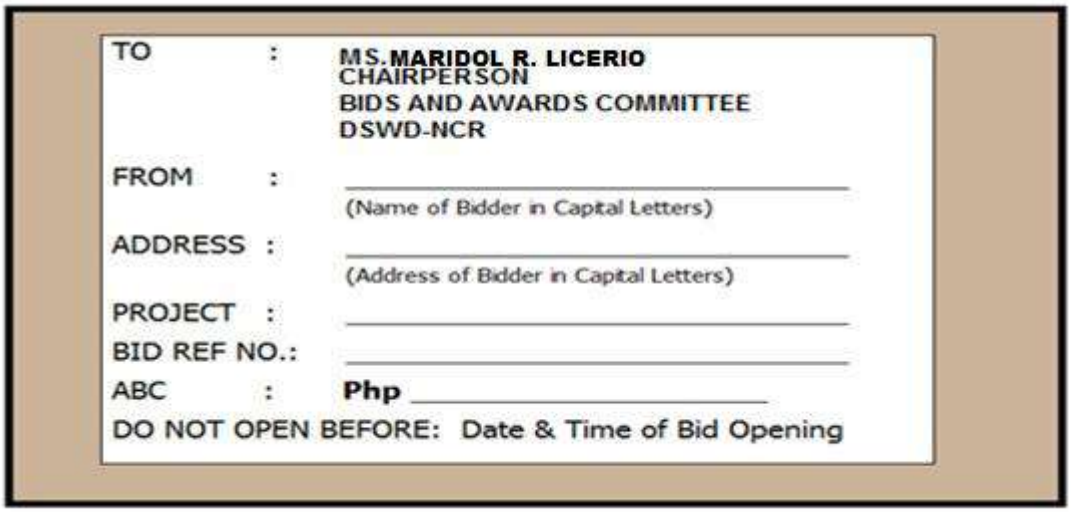
ABC : **Php** _____

DO NOT OPEN BEFORE: Date & Time of Bid Opening



Annex VI - C


FINANCIAL COMPONENT ENVELOPE
TO : MS. MARIDOL R. LICERIO
TECHNICAL COMPONENT ENVELOPE
TO : MS. MARIDOL R. LICERIO
CHAIRPERSON
BIDS AND AWARDS COMMITTEE
DSWD-NCR
FROM :
(Name of Bidder in Capital Letters)
ADDRESS :
(Address of Bidder in Capital Letters)
PROJECT :
BID REF NO.:
ABC : Php
DO NOT OPEN BEFORE: Date & Time of Bid Opening


TO : MS. MARIDOL R. LICERIO
CHAIRPERSON
BIDS AND AWARDS COMMITTEE
DSWD-NCR
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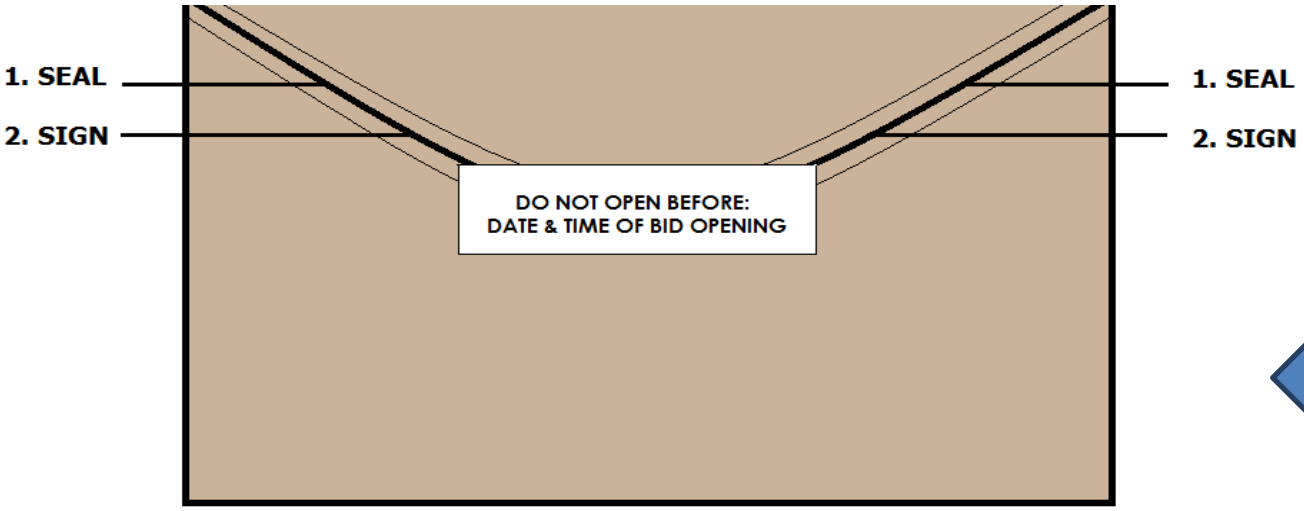
DO NOT OPEN BEFORE: Date & Time of Bid Opening


1. SEAL
2. SIGN
1. SEAL
2. SIGN
DO NOT OPEN BEFORE:
DATE & TIME OF BID OPENING


Republic of the Philippines
gppb
Government Procurement Policy Board