PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO. CRISTO

Project number:
23-00045

Sixth Edition
July 2020

Preface

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

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

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

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

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

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

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

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

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

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

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

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

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

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

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

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

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

d. Any important bid evaluation criteria.

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

REPUBLIC OF THE PHILIPPINES
QUEZON CITY GOVERNMENT
BIDS AND AWARDS COMMITTEE FOR INFRASTRACTURE & CONSULTANCY

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

May 22, 2023

Invitation to Bid

No.	Project No.	Project Name	Location	Amount	Duration Cal. Days	Office	Source Fund
Buildings – Small A							
1	23-00042	Proposed Construction of Comfort Room at the ICT Room of Villa Verde Elementary School	Sta. Monica	269,069.46	30	Department of Engineering	Special Education Fund
Buildings – Small B							
2	23-00043	Proposed Rehabilitation of Perimeter Fence and Replacement of Main Gate of San Antonio Elementary School	Katipunan	3,112,634.21	60	Department of Engineering	Special Education Fund
3	23-00044	Proposed Rehabilitation of Pugad Lawin High School Covered Court	Bahay Toro	3,796,351.96	60	Department of Engineering	Special Education Fund
4	23-00045	Proposed Upgrading of Electrical System of San Francisco High School	Sto. Cristo	11,060,801.40	90	Department of Engineering	Special Education Fund
5	23-00046	Proposed Construction of Quezon City Health Department Building including Red Cross Office (Phase 2)	Central	16,514,313.39	150	Department of Engineering	Engineering (Supplemental Budget No. 1) Continuing Appropriation
6	23-00047	Proposed Retrofitting of QC Hall Main Building Air Conditioning System (Phase 4)	Central	19,730,460.56	180	Department of Engineering	Engineering (Supplemental Budget No. 1) Continuing Appropriation
7	23-00048	Proposed Rehabilitation and Upgrading of Electrical System at Bagong Silangan Elementary School	Bagong Silangan	24,564,599.68	180	Department of Engineering	Special Education Fund
Buildings – Medium A							
8	23-00049	Proposed Rehabilitation of San Bartolome High School	San Bartolome	50,033,897.53	180	Department of Engineering	Special Education Fund
Flood Control – Small B							
9	23-00050	Proposed Rehabilitation of Trash Rake along Gregorio Araneta Avenue	Manresa and Masambong	9,666,871.52	120	Department of Engineering	OCM-20% Community Development Fund

Roads – Small B							
10	23-00051	Proposed Rehabilitation of Road and Drainage at Camia Alley	Roxas	1,884,758.90	60	Department of Engineering	OCM-20% Community Development Fund
11	23-00052	Proposed Rehabilitation of Pathwalk and Drainage at Tagalog Area along Manunggal Street	Tatalon	4,481,123.28	90	Department of Engineering	OCM-20% Community Development Fund
12	23-00053	Proposed Bike Lane and Sidewalk Improvement at Elliptical Road (Phase 1)	Various Barangay	16,011,226.97	180	Department of Engineering	OCM-20% Community Development Fund
13	23-00054	Proposed Rehabilitation of Road and Drainage at Kasunduan Street and Katarungan Street (Portion only)	Commonwealth	16,725,263.62	180	Department of Engineering	OCM-20% Community Development Fund
Roads – Medium A							
14	23-00055	Proposed Rehabilitation of Road and Drainage at Martan, Sto. Niño and Pilot Drive	Commonwealth	100,608,716.14	180	Department of Engineering	OCM-20% Community Development Fund
Building – Small B							
15	23-00056	Proposed Installation of Booster Pump, Water Tank and Pressure Tank at New SB Building in San Francisco High School	Sto. Cristo	993,398.92	60	Department of Engineering	Special Education Fund

1. The **QUEZON CITY LOCAL GOVERNMENT**, through *funding source of various years* intends to apply the sum stated above being the Approved Budget for the Contract (ABC) to payments under the contract *for the above stated Projects.* Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The **QUEZON CITY LOCAL GOVERNMENT** now invites bids for the above Procurement Project. Completion of the Works is required *as stated above*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

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

4. Interested bidders may obtain further information from **QUEZON CITY LOCAL GOVERNMENT – BAC Secretariat** and inspect the Bidding Documents at the address given below *weekdays from **8:00 am. – 5:00 p.m.***

5. A complete set of Bidding Documents may be acquired by interested bidders on **24 May 2023 (Wednesday)** from given address and website/s below *and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB.* The Procuring Entity shall allow the bidder to present its proof of payment for the fees *presented in person.*

STANDARD RATES:

Approved Budget for the Contract	Maximum Cost of Bidding Documents (in Philippine Peso)
500,000 and below	500.00
More than 500,000 up to 1 Million	1,000.00
More than 1 Million up to 5 Million	5,000.00
More than 5 Million up to 10 Million	10,000.00
More than 10 Million up to 50 Million	25,000.00
More than 50 Million up to 500 Million	50,000.00
More than 500 Million	75,000.00

The following are the requirements for purchase of Bidding Documents;

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

It must be duly received by the BAC Secretariat at 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound.

6. The ***QC- BAC- INFRASTRUCTURE & CONSULTANCY*** will hold a Pre-Bid Conference[1] on **June 5, 2023** at **10:00 AM** at **2nd Floor**, **Procurement Department-Bidding Room, Finance Building**, **Quezon City Hall Compound** or we encourage the prospective bidders to join through our **Virtual Conference (ZOOM APP)** which shall be open to prospective bidders.

   Virtual Conference (ZOOM APP)
   Meeting ID: 854 9489 0133
   Password: 273320

7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before **June 21, 2023 – 9:00 AM**. Late bids shall not be accepted.

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

9. Bid opening shall be on **June 21, 2023 - 1:00 PM** at **2nd Floor**, **Procurement Department-Bidding Room, Finance Building**, **Quezon City Hall Compound** and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

   Virtual Conference (ZOOM APP)
   Meeting ID: 810 3646 5257
   Password: 201522

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

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

11. For further information, please refer to:

    ATTY. DOMINIC B. GARCIA
    OIC, Procurement Department
    2nd Floor, Procurement Department,
    Finance Building, Quezon City Hall Compound
    Elliptical Road, Barangay Central Diliman, Quezon City.
    Tel. No. (02)8988-4242 loc. 8506/8710
    Email Add: bacinfra.procurement@quezoncity.gov.ph
    Website: **www.quezoncity.gov.ph**

12. You may visit the following websites:

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

By:

ARCH. LUCILLE H. CHUA, fuap, piep
Chairperson, BAC-Infra and Consultancy

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

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

1. Scope of Bid

The Procuring Entity, **Quezon City Government** invites Bids for the **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO. CRISTO,** with Project Identification Number **23-00045.**

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

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

2. Funding Information

2.1. The GOP through the source of funding as indicated below for **2023** in the amount of **Eleven Million Sixty Thousand Eight Hundred One Pesos and 40/100 Ctvs. (P 11,060,801.40).**

2.2. The source of funding is:

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

3. Bidding Requirements

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

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

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

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

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or

through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

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

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

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

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

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

6. Origin of Associated Goods

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

7. Subcontracts

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

The Procuring Entity has prescribed that:

a. Subcontracting is not allowed.

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

7.2. *[If subcontracting is allowed during the contract implementation stage, state:]* The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the

implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

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

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address on **June 5, 2023, 10:00 A.M. at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound** and/or we encourage the prospective bidders to join through our **Virtual Conference (ZOOM APP) Meeting ID: 854 9489 0133 Password: 273320**

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

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

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

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

10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

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

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

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

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

a. Philippine Pesos.

15. Bid Security

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

15.2. The Bid and bid security **in no case shall exceed One Hundred Twenty (120) calendar days from the date of opening of bids, unless duly extended by the bidder upon the request of the Head of the Procuring Entity (HoPE) of the Quezon City Local Government**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph **5** of the **IB.**

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

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

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

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

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

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

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

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

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

Bid Data Sheet

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>For this purpose, similar contracts shall refer to contracts which have the same major categories of work.</td></tr>
<tr><td>7.1</td><td>Subcontracting is not allowed.</td></tr>
<tr><td>10.3</td><td>No additional contractor license or permit is required

In addition, eligible bidders shall qualify or comply with the following:

1. Bidders with valid Philippine Contractors Accreditation Board (PCAB)

Type

Building - Small B</td></tr>
<tr><td>10.4</td><td>The minimum work experience requirements for key personnel are the following:

<table>
<tr><th>Qnty.</th><th>Key Personnel</th><th>General Experience</th><th>Relevant Experience</th></tr>
<tr><td>1</td><td>Project-in-Charge</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>General Foreman</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Civil Engineer</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Electrical Engineer</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>Safety Officer</td><td>3 years</td><td>3 years</td></tr>
<tr><td>1</td><td>DPWH duly accredited Materials Engineer</td><td>3 years</td><td>3 years</td></tr>
</table>

In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing personnel shall perform work exclusively for the project until its completion. Please see attached bid forms.</td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table>
<tr><th>Equipment</th><th>Capacity</th><th>Number of Units</th></tr>
<tr><td>Chipping Gun</td><td>-</td><td>1</td></tr>
</table>

In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing equipment shall be used exclusively for the project until its completion. Please see attached bid forms.</td></tr>
<tr><td>12</td><td>[Insert Value Engineering clause if allowed.]</td></tr>
<tr><td>15.1</td><td>The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts:</td></tr>
</table>

	a) The amount of not less than Php 221,216.03 or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or b) The amount of not less than Php 553,040.07 or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.
19.2	**Partial bid is not allowed.** The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20	No additional requirement.
21	**Additional Contract Documents relevant to the Project as required:** **1. Construction Schedule and S-curve,** **2. Manpower Schedule,** **3. Construction Methods,** **4. Equipment Utilization Schedule,** **5. PERT/CPM or other acceptable tools of project scheduling, shall be included in the submission of Technical Proposal.**

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

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

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

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

1. Scope of Contract

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

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

2. Sectional Completion of Works

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

3. Possession of Site

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

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

4. The Contractor's Obligations

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

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

5. Performance Security

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

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

6. Site Investigation Reports

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

7. Warranty

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

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

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

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

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

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

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

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

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

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

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

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

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

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

Special Conditions of Contract

GCC Clause	
2	Completion of work shall be within 90 calendar days.
4.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor upon receipt of the Notice to Proceed.
6	The site investigation reports are: *[list here the required site investigation reports.]*
7.2	*[Select one, delete the other.]* *[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]* Fifteen (15) years. *[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:]* Five (5) years. *[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]* Two (2) years.
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
13	The amount of the advance payment is no more that fifteen percent (15%) of the Contract Price subject to approval by the HOPE and compliance with the conditions under RA 9184 and its IRR.
14	No further instructions.
15.1	The date by which operating and maintenance manuals are required is *thirty (30) days* The date by which "as built" drawings are required as part of final payment
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is ten (10%) percent of the contract price.

Section VI. Specifications

Notes on Specifications

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

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

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

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

Sample Clause: Equivalency of Standards and Codes

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

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

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

Replublika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT
5TH, 6TH, 7TH Floors, QC Civic Center Building "B"
Telephone Nos. 8988-4242 Local 8538

PROJECT TITLE : **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO. CRISTO**

LOCATION : **BARANGAY STO. CRISTO, DISTRICT 1, QUEZON CITY**

TECHNICAL SPECIFICATIONS

OGR. GENERAL REQUIREMENTS

A. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations, and standards. Any works performed contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.

B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.

C. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.

D. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location, to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.

E. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.

F. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.

G. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.

H. Mobilization and Demobilization (if applicable)

1. Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.

2. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.

I. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.

J. Temporary Facilities and Utilities

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

2. Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

3. Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.

4. Temporary enclosure shall be provided around the construction site with adequate guard lights, railings and proper signage.

5. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.

6. Upon completion of the work, the temporary facilities shall be demolished, hauled-out and disposed properly.

K. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.

1. A fully-trained Medical Aide shall be employed permanently on the site who shall be engaged solely to medical duties.

2. The medical room shall be provided with waterproofing; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.

3. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations and suitable notices in the site.

4. Additional safety precautions shall be provided in the event of a pandemic. Protocols set forth by the government shall be strictly followed.

5. Construction safety shall consist construction canopy and safety net.

L. Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.

M. Final cleaning of the work shall be employed prior to the final inspection for the certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance programs

SW. SITE WORKS

A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing work.

B. This Item shall consist of the removal wholly or in part, and satisfactory disposal of all buildings, fences, structures, old pavements, abandoned pipe lines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the Contract. Removal and/or demolition of existing structures shall be done in accordance with safety procedures.

CWS. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORKS

1. Delivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.

2. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

3. Materials

a) Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150).

b) Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.

c) Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loam, dirt and all foreign matters.

d) Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.

4. Proportioning and Mixing

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

Cement: Sand: Gravel
Class "A" - 1: 2: 3
Class "B" - 1: 2: 4
Class "C" - 1: 2 ½

b) Concrete mixture to be used for concrete shall conform with the structural requirements.

c) Mixing – concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

5. Forms

a) General – Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be ¼" (6mm) thick ordinary plywood and form lumber.

b) Cleaning of Forms – before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of mortar, the grout or other foreign material.

c) Removal of Forms – forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

6. Placing Reinforcement:

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

7. Conveying and Placing Concrete:

a) Conveying – concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.

b) Placing – concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.

c) Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolutions of the machine mixer.

d) Consolidation of Concrete – concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.

e) Placing Concrete through reinforcement – In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

8. Curing

a) General – All concrete shall be moist cured for a period not less than seven (7) consecutive days by an approved method or combination applicable to local conditions.

b) Moist Curing – The surface of the concrete shall be kept continuously wet by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing.

9. Finishing

a) Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.

b) Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated.

AW. ARCHITECTURAL WORKS

B. PAINTING WORKS

1. Paint Materials. All types of paint material and other related products shall be subject to test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology.

2. Tinting Colors. Tinting colors shall be first grade quality pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body.

3. Skim coat. Skim coat shall be fine powder type material like kalsomine that can be mixed into putty consistency, with oil-based primers and paints to fill minor surface dents and imperfections.

4. Paint Schedule.

a) Exterior Masonry Wall (plain cement plastered finish to be painted)

i. 1 coat skim coating, 1 coat primer, 2 coats elastomeric paint finish

b) Interior Masonry Wall (plain cement plastered finish to be painted)

i. 1 coat skim coating, 1 coat primer, 2 coats latex paint finish

c) Interior Dry Wall

i. 1 coat primer, 2 coats latex paint finish

d) Ceiling Boards

i. 1 coat primer, 2 coats latex paint finish

e) Slab Soffit

i. 1 coat primer, 2 coats latex paint finish

f) Metal / Steel Surfaces

i. 1 coat primer, 2 coats epoxy enamel finish

5. Surface Preparation. All surfaces shall be in proper condition to receive the finish. Woodworks shall be hand-sanded smooth and dusted clean. All knot-holes pitch pockets or sappy portions shall be sealed with natural wood filler. Nail holes, cracks or defects shall be carefully puttied after the first coat, matching the color of paint.

Interior woodworks shall be sandpapered between coats. Cracks, holes of imperfections in plaster shall be filled with patching compound and smoothed off to match adjoining surfaces.

Concrete and masonry surfaces shall be coated with concrete neutralizer and allowed to dry before any painting primer coat is applied. When surface is dried apply first coating. Hairline cracks and unevenness shall be patched and sealed with approved putty or patching compound. After all defects are corrected apply the finish coats as specified on the Plans (color scheme approved).

Metal shall be clean, dry and free from mill scale and rust. Remove all grease and oil from surfaces. Wash, unprimed galvanized metal with etching solution and allow it to dry. Where required to prime coat surface with Red Lead Primer same shall be approved by the Engineer.

In addition, the Contractor shall undertake the following:

a. Voids, cracks, nick etc. will be repaired with proper patching material and finished flushed with surrounding surfaces.

b. Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer.

c. Panting and varnishing works shall not be commenced when it is too hot or cold.

d. Allow appropriate ventilation during application and drying period

e. All hardware will be fitted and removed or protected prior to painting and varnishing works.

6. Application. Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall have flawed out after application of paint.

Paints made for application by roller must be similar to brushing paint. It must be non-sticky when thinned to spraying viscosity so that it will break up easily into droplets.

Paint is atomized by high pressure pumping rather than broken up by the large volume of air mixed with it. This procedure changes the required properties of the paint.

7. Application shall be as per paint Manufacturer's specification and recommendation.

8. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.

9. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications.

10. All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.

11. 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.

12. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper.

EW. ELECTRICAL WORKS

A. CONDUITS, BOXES AND FITTINGS

1. This item shall consist of the furnishing and installation of the complete conduit work, consisting of electrical conduits; conduit boxes such as junction boxes, pull boxes, utility boxes, octagonal and square boxes; conduit fittings, such as couplings, locknuts and bushings and other electrical materials needed to complete the conduit roughing-in work of this project.

2. All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.

3. All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer.

4. The work to be done under this division of specifications consists of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.

5. All lighting fixtures and lamps are as specified and listed on lighting fixture schedule.

6. All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires, ground rods, clamps, connectors, ground wells and ground wire taps as shown in the approved design.

7. All auxiliary systems such as telephone and intercom system, time clock system, fire alarm system and public address/nurse's call/paging system installations shall be done in accordance with the approved design.

8. Upon completion of the electrical construction work, the contractor • shall provide all test equipment and personnel and to submit written copies of all test results.

9. The contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The contractor shall guarantee that the electrical systems are free from all grounds and from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

B. WIRES AND WIRING DEVICES

1. This Item shall consist of the furnishing and installation of all wires and wiring devices consisting of electric wires and cables, wall switches, convenience receptacles, heavy duty receptacles and other devices shown on the approved Plans but not mentioned in these specifications.

2. Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. Unless specified or indicated otherwise, all power and lighting conductors shall be

insulated for 600 volts. All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.

3. Conductors or wires shall not be drawn in conduits until after the cement piaster is dry and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing wires into conduits, sufficient slack shall be allowed to permit easy connections for fixtures, switches, receptacles and other wiring devices without the use of additional splices.

4. All conductors of convenience outlets and lighting branch circuit homeruns shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panelboards shall not be smaller than 3.5 mm but all homeruns to panelboard more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.

5. All wires of 14mm and larger in size shall be connected to panels and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fastened. They shall not loosen under vibration or normal strain.

6. All joints, taps and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.

7. No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber arid PVC tapes in a manner which will make their insulation as that of the conductor.

8. All wall switches and receptacles shall be fitted with standard Bakelite face plate covers. Device plates for flush mounting shall be installed with all four edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling shall not be permitted. Plates installed in wet locations shall be gasketed.

9. When more than one switch or device is indicated in a single location, gang plate shall be used.

C. POWER LOAD CENTER, SWITCHGEAR AND PANELBOARDS

10. This Item shall consist of the furnishing and installation of the power load center unit substation or low voltage switchgear arid distribution panelboards at the location shown or the approved Plans complete with transformer, circuit breakers, cabinets and all accessories, completely wired and ready for service.

11. All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.

12. Power Load Center Unit Substation. The Contractor shall furnish and install an indoor-type Power Load Center Unit Substation at the location shown on the approved Plans if required. It shall be totally metal-enclosed, dead front and shall consist of the following coordinated component parts:

    a. High Voltage Primary Section. High voltage primary incoming line section consisting of the following parts and related accessories:

        i. One (1) Air-filled Interrupter Switch, 2-position (open-close) installed in a suitable air filled metal enclosure and shall have sufficient interrupting capacity to carry the electrical load. It shall be provided with key interlock with the cubicle for the power fuses to prevent access to the fuses unless the switch is open.

        ii. Three (3)-power fuses mounted in separate compartments within the switch housing and accessible by a hinged door.

iii. One 1) set of high voltage potheads or 3-conductor cables or three single conductor cables.

iv. Lightning arresters shall be installed at the high voltage cubicle if required.

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

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

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

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

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

c. Low Voltage Switchboard Section. The low-voltage switchboard shall be standard modular-unitized units, metal-built, dead front, safety type construction and shall consist of the following:

i. Switchboard Housing. The housing shall be heavy gauge steel sheet, dead front type, gray enamel finish complete with frame supports, steel bracings, steel sheet panelboards, removable rear plates, copper busbars, and all other necessary accessories to insure sufficient mechanical strength and safety. It shall be provided with grounding bolts and clamps.

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

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

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

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

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

Circuit breakers shall each he of the indicating type, providing 'ON' - "OFF and "TRIP" positions of the operating handles and shall each be provided with nameplate for branch circuit designation. The circuit breaker shall be so

designed that an overload or short on one pole automatically causes all poles to open.

d. Low Voltage Switchgear (For projects requiring low-voltage switchgear only). The Contractor shall furnish and install a low-voltage switchgear at the location shown on the plans. It shall be natal-clad, dead front, free standing, safety type construction and shall have copper busbars of sufficient size, braced to resist allowable root mean square (RMS) symmetrical short circuit stresses, and all necessary accessories. The low-voltage switchgear shall consist of the switchgear housing, secondary metering, main breaker and feeder branch circuit.

e. Grounding System. All non-current carrying metallic parts like conduits, cabinets and equipment frames shall be properly grounded in accordance with the Philippine Electrical Code, latest edition.

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

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

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

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

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

13. The Contractor shall install the Power Load Center Unit Substation or Low-Voltage Switchgear and Panelboards at the locations shown on the approved Plans.

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

D. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).

E. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.

F. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.

G. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen.

H. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

I. PANELBOARDS

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

15. Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.

    a. Rated for environmental conditions at installed location.

        i. Indoor Dry and Clean Locations: NEMA, Type 1.

        ii. Outdoor Locations: NEMA, Type 3R.

        iii. Kitchen and Wash-Down Areas: NEMA, Type 4X, stainless steel.

        iv. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA, Type 12.

        v. Outdoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA, Type 5R.

    b. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.

    c. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.

    d. Skirt for Surface-Mounted Panelboards: Same gauge and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.

    e. Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.

    f. Finishes:

        i. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.

        ii. Back Boxes: Galvanized steel Same finish as panels and trim.

        iii. Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.

    g. Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.

16. Incoming Mains Location: Top or Bottom.

17. Phase, Neutral, and Ground Buses:

    a. Material: Hard-drawn copper, 98 percent conductivity.

    b. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.

    c. Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

ALVIN FRANCIS C. ABON
Planning and Programming Division

JOCELYN A. NAONG
Planning and Programming Division

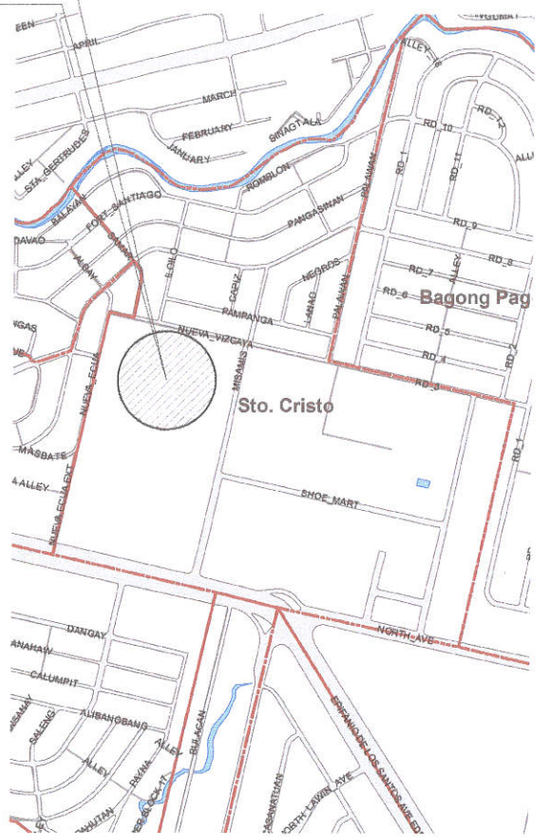
Section VII. Drawings

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

THE SITE

1 VICINITY MAP SCALE: NTS

THE SITE



2 LOCATION MAP SCALE: NTS

TABLE OF CONTENTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓

LOCATION:
BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓

DRAWN BY:
DATE: 12.14.22
CHECKED BY: JOR
REVISION NO.:

SUBMITTED BY:
ENGR. LEO S. DEL ROSARIO
HEAD, PLANNING & PROGRAMMING DIVISION

RECOMMENDING APPROVAL:
ENGR. ISAGANI R. VERZOSA, JR.
OIC, CITY ENGINEERING DEPARTMENT

APPROVED BY:
HON. MA. JOSEFINA G. BELMONTE
CITY MAYOR

SHEET CONTENT: VICINITY MAP, LOCATION MAP

SHEET NO.: AR-01 / 01 / 16

GENERAL NOTES FOR THREE-PHASE SYSTEM

1. ALL WORKS SHALL BE EXECUTED IN ACCORDANCE TO THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, PHILIPPINE ELECTRONICS CODE, THE NATIONAL BUILDING CODE OF THE PHILIPPINES AND OTHER RELATED LAWS AND ORDINANCES OF THIS CITY.

2. ALL WORKS SHALL BE SUPERVISED BY A REGISTERE PROFESSIONAL RELATED TO THE ACTIVITIES BEING UNDERTAKEN.

3. ALL WORKS SHALL BE COORDINATED WITH THE RESPECTIVE TRADES SO TO AVOID CONFLICTS DURING EXECUTION OF ACTIVITES.

4. ALL NECESSARY PERMITS SHALL BE SECURED AND TURNED-OVER TO THE CITY.

5. ALL DRAWINGS AND SPECIFICATIONS SHALL BE CORRECTLY REVIEWED BY THE CONTRACTOR AND SHALL IMMEDIATELY BE INFORMED IF DISCREPANCY (IES) FOUND HEREIN.

6. ALL DIMENSIONS, ELEVATIONS AND REFERENCES, SHALL BE VERIFIED WITH THE ACTUAL CONDITION PRIOR TO EXECUTION.

7. SHOP DRAWINGS SHALL BE PROVIDED AS NECESSARY PRIOR TO THE EXECUTION.

8. ALL WORKS SHALL BE TESTED AND COMMISSIONED AS INDICATED IN THE SPECIFICATIONS WITH THE PRESENCE OF ALL PARTIES INVOLVE/ RESULTS SHALL BE DOCUMENTED PROPERLY.

9. ALL PIPES AND LAYOUT ARE ONLY DIAGRAMMATIC, ACTUAL LAYOUT OF PIPES AND FITTINGS, UNLESS OTHERWISE REQUIRED, SHALL BE PROPERLY CONCEALED.

10. NO PIPES SHALL BE ALLOWED TO BE EMBEDDED IN STRUCTURAL MEMBERS, UNLESS OTHERWISE APPROVED.

11. ALL PIPES, FITTINGS, EQUIPMENT AND FIXTURES SHALL BE INSTALLLED IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.

12. SUPPORTS AND HANGERS SHALL BE PROVIDED ACCORDINGLY.

13. ALL EQUIPMENTS AND FIXTURES SHALL BE ENVIRONMENTAL FRIENDLY.

14. INSTALLATION OF SERVICE ENTRANCE

14.1. THE TYPE OF SERVICE ENTRANCE SHALL BE THREE-PHASE, THREE-WIRE PLUS GROUND, 60 HERTZ, 230V AC NOMINAL.

14.2. THE SERVICE ENTRANCE EQUIPMENT SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE PHILIPPINE ELECTRICAL CODE.

14.3. THE MAIN OVERCURRENT PROTECTION DEVICE SHALL BE OF THERMAL MAGNETIC MCCB IN NEMA 3R WEATHERPROOF ENCLOSURE.

15. INSTALLATION OF LIGHTING AND POWER SYSTEM

15.1. ALL LIGHTING AND CONVENIENCE OUTLET CIRCUITS SHALL BE 3.5 SQ. MM. THHN/THWN COPPER WIRE UNLESS OTHERWISE NOTED. MINIMUM SIZE OF WIRE SHALL BE 3.5 SQ. MM. COPPER WIRE. ALL WIRES AND CABLES SHALL BE COLOR CODED AS FOLLOWS:

PHASE A	- RED
PHASE B	- YELLOW
PHASE C	- BLUE
NEUTRAL	- WHITE
GROUND	- GREEN

15.2. ALL EMBEDDED BRANCH CIRCUITS SHALL BE PVC CONDUITS AND FOR EXPOSED INSTALLATION SHALL BE IMC SUPPORTED BY CONDUIT CLAMPS EVERY 700 MILIMETERS AND/OR CONDUIT HANGER SUPPORTS EVERY 1500 MILIMETERS.

15.3. CONDUITS IN NO CASE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS IN ANY ONE RUN. ALL CONDUIT BENDS SHALL BE FIELD MADE BY USING HYDRAULIC BENDERS. MINIMUM BENDING RADIUS MUST BE IN ACCORDANCE TO THE CODE REQUIREMENTS.

15.4. ALL POWER OUTLETS AND SWITCHES SHALL BE GROUNDING TYPE WITH PARALLEL SLOTS FOR 230 V.

15.5. PROVIDE GROUND FAULT CURRENT INTERRUPTER CIRCUIT BREAKER FOR LOADS MARKED "GFCI" ON THE PLAN.

15.6. ALL METALLIC CONDUITS, SWITCHES, LIGHTING FIXTURES, PANELBOARDS, EQUIPMENTS AND NON-CURRENT CARRYING METAL PARTS SHALL BE PROPERLY GROUNDED AND BONDED.

15.7. THE GROUND RESISTANCE SHALL NOT BE MORE THAN 5 OHMS.

15.8. ALL MOUNTING HEIGHTS FOR WALL MOUNTED DEVICES SHALL BE AS FOLLOWS:

A. LIGHTING SWITCH - 1400 MM ABOVE FLOOR FINISH
B. CONVENIENCE OUTLET - 300 MM ABOVE FLOOR FINISH
- 150MM ABOVE WORKING COUNTER.
C. PANELBOARD AND CABINETS - 1400 MM ABOVE FLOOR FINISH
D. EXIT LIGHT - 150 MM TOP OF DOOR JAMB
E. EMERGENCY LIGHT - 2000 ABOVE FLOOR EMERGENCY

15.1. PULL BOXES SHALL BE WHENEVER NECESSARYTO FACILITATE WIRE PULLING EVEN IF THESE ARE NOT INDICATED ON PLANS.

15.2. FOR EACH SPARE BRANCH CIRCUIT IN PANELBOARD, PROVIDE ONE 20MM DIAMETER EMPTY CONDUIT TERMINATED TO 100MM OCTAGONA; BOX ABOVE CEILING. MINIMUM SIZE OF PULLBOX SHALL BE 150MM X150MM X 100MM.

15.3. ALL CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE WITH INTERRUPTING CAPACITY AS INDICATED IN THE PLANS. PANELBOARDS SHALL BE GALVANIZED SHEET POWDER COATED GAGE 16 MINIMUM.

15.4. FEEDER AND BRANCH CIRCUIT CONDUCTORS IN CABLE TRAYS SHALL BE GROUPED, BONDED AND TAGGED TO INDICATE CLEARLY THE ELECTRICAL CHARACTERISTICS SUCH AS CIRCUIT NUMBER AND PANEL DESIGNATION.

15.5. REFER TO MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR RATINGS AND LOCATIONS OF EQUIPMENT AS WELL AS THEIR CONTROL SEQUENCES AS SPECIFIED AND OR SHOWN UNDER THEIR RESPECTIVE SECTIONS.

15.6. ALL MATERIALS TO BE USED AND THE EQUIPMENT TO BE INSTALLED SHALL BE OF THE BEST QUALITY, BRAND NEW AS SPECIFIED. IT MUST BE APPROVED TYPE FOR THE PARTICULAR LOCATION AND PURPOSE INTENDED.

1 GENERAL NOTES

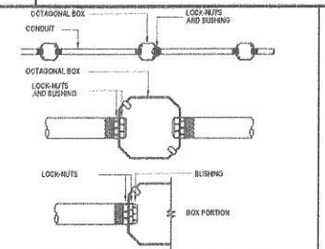
SCALE NTS.

LEGEND AND SYMBOLS

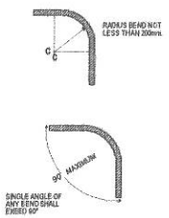
	DISTRIBUTION FEEDER LINE 1 AND 2		EXISTING SERVICE ENTRANCE POST
	PANEL BOARD		EXISTING DISTRIBUTION POST
	SERVICE ENTRANCE CAP		PROPOSED DISTRIBUTION POST
	DUPLEX CONVENIENCE OUTLET		SERVICE ENTRANCE
	300MM X1200MM, 1X18W LED, TROFFER TYPE WITH COMPLETE ACCESSORIES, SURFACE TYPE	M	KILOWATT HOUR METER
	18 LED TUBE LIGHT, BOX TYPE		CIRCUIT HOMERUN
	CEILING FAN	2	2 SETS 3-#PCOL SECONDARY RACK (HEAVY DUTY)
Sa	SWITCH SINGLE GANG		2-#PCOL SECONDARY RACK (HEAVY DUTY)
Sab	SWITCH TWO GANG		3-#PCOL SECONDARY RACK (HEAVY DUTY)
Sabc	SWITCH THREE GANG		
3WS	SWITCH THREE WAY ONE GANG		

2 LEGENDS AND SYMBOLS

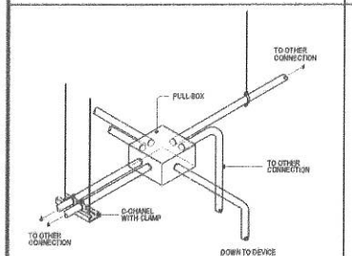
SCALE NTS.



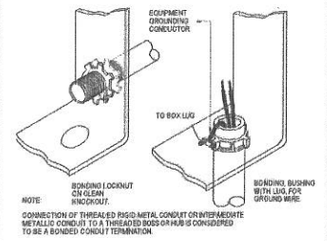
SPOT DETAIL OF CONDUIT RUN AND BOX



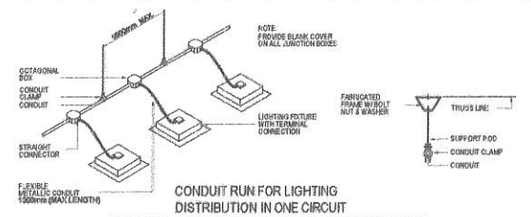
BENDING RADIUS DETAIL



PROPER CONDUIT LAYOUT at PULL BOX



BONDED RACEWAY TERMINATION FOR SHEET METAL



CONDUIT RUN FOR LIGHTING DISTRIBUTION IN ONE CIRCUIT (FOR EXPOSED OR INSIDE DROP-CEILING INSTALLATION)

3 MISCELLANEOUS DETAILS

SCALE NTS.

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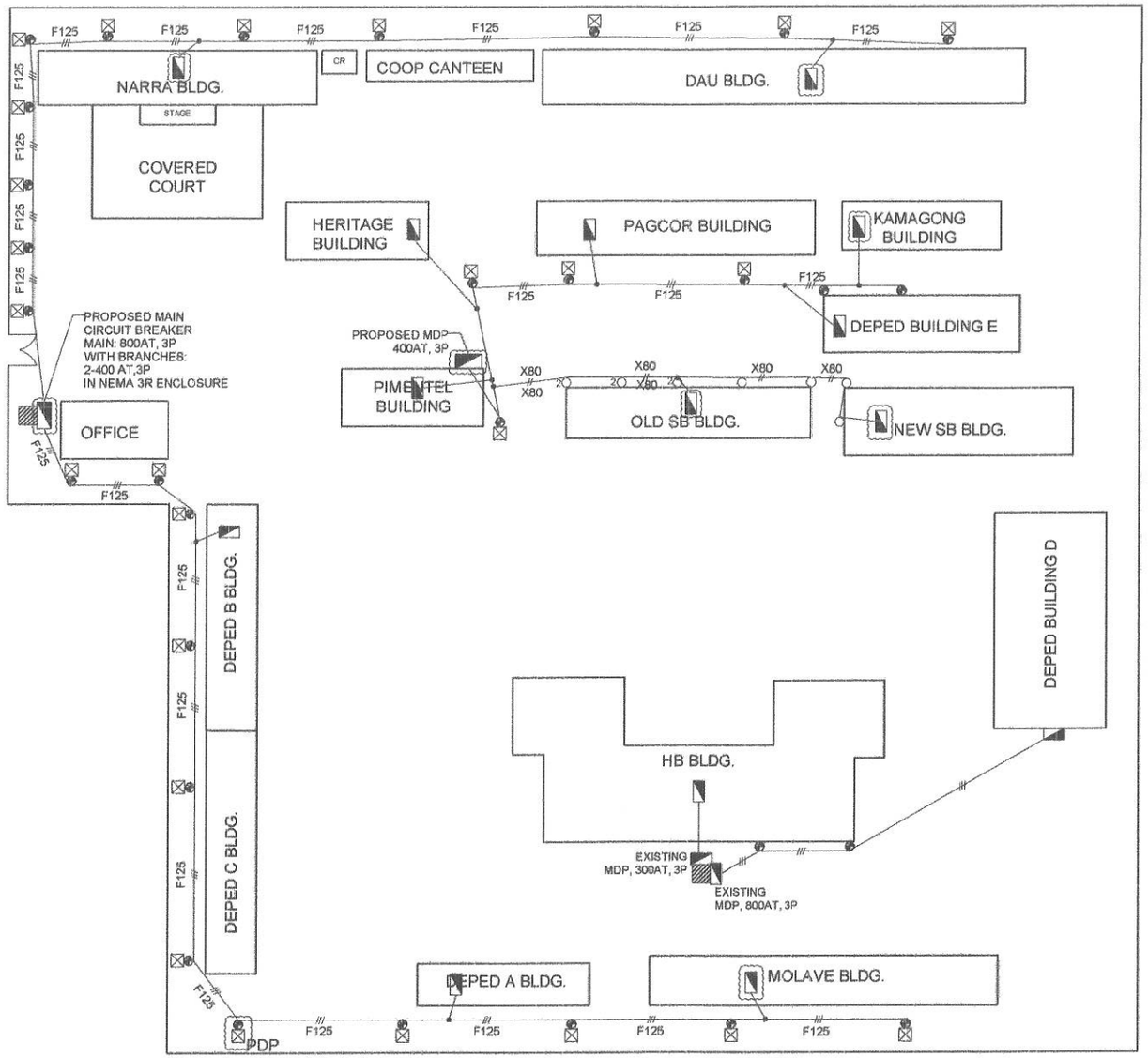
PROJECT TITLE: **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO** ✓	DRAWN BY: GAS ✓	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	DATE: 12.14.22	ENGR. LEO S. DEL ROSARIO, HEAD, PLANNING & PROGRAMMING DIVISION	ENGR. ISAGANI R. VERZOSA, JR., OIC, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE, CITY MAYOR	GENERAL NOTES LEGENDS AND SYMBOLS MISCELLANEOUS DETAILS	EL-01 02 16
	CHECKED BY: JBDR					
	REVISION NO.:					



1 SITE DEVELOPMENT PLAN / PROPOSED FEEDER LAYOUT

SCALE :NTS

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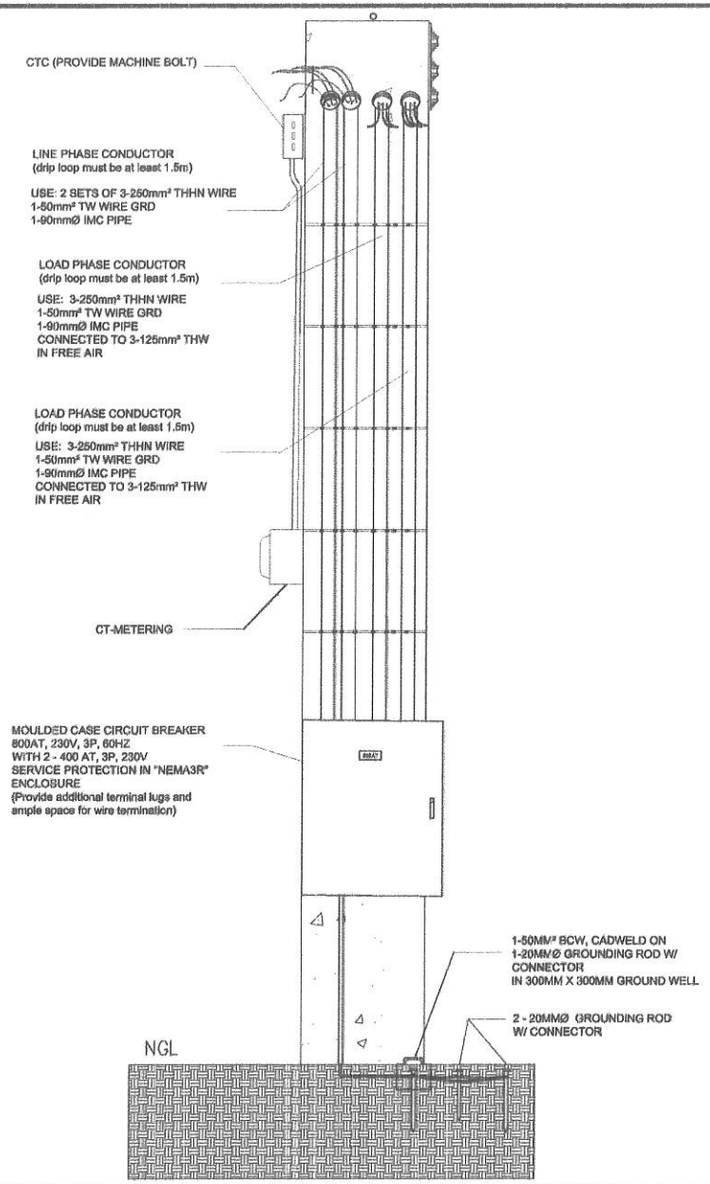
CITY ENGINEERING DEPARTMENT

PROJECT TITLE:	DRAWN BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE: 12.14.22				SITE DEVELOPMENT PLAN / PROPOSED FEEDER LAYOUT	EL-02 03 16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY:	**ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	**ENGR. SAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	**HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR		
	REVISION NO.:					



MAIN CIRCUIT BREAKER

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD			3Ø	AT	SIZE OF	
				AB	BC	CA			WIRES	CONDUITS
1	FEEDER LINE 1	230	53,240	85.40	103.92	42.18		400	3-250.0mm² THHN COPPER WIRE 1-50.0mm² TW GROUND WIRE	IN 90mmØ IMC PIPE
2	FEEDER LINE 2	230	96,110	145.96	126.96	150.96		400	3-250.0mm² THHN COPPER WIRE 1-50.0mm² TW GROUND WIRE	IN 90mmØ IMC PIPE
			149,350	231.36	224.88	193.14				

COMPUTATION :

IT = 1.732 X [(231.36 A)+(0.25 X 8.00)]

IT = 404.19 AMPERES

OVER CURRENT PROTECTION
USE : 800AT, 3P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE: 2 SETS OF 3 - 250.0mm² THHN & 1-50.0mm² TW GROUND WIRE IN 90mmØ IMC PIPE

FEEDER LINE 1

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD			3Ø	AT	SIZE OF	
				AB	BC	CA			WIRES	CONDUITS
1	NARRA BUILDING	230	19,640	85.40				200	2-80.0mm² THHN COPPER WIRE 1-22.0mm² TW GROUND WIRE	IN 50mmØ IMC PIPE
2	CANTEEN	230	5,600			24.35		60	2-14.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmØ IMC PIPE
3	COVERED COURT	230	4,100			17.83		100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmØ IMC PIPE
4	DAU BUILDING	230	23,900		103.92			150	2-50.0mm² THHN COPPER WIRE 1-14.0mm² TW GROUND WIRE	IN 40mmØ IMC PIPE
			53,240	85.40	103.92	42.18				

COMPUTATION :

IT = 1.732 X [(103.92 A)+(0.25 X 8.00)]

IT = 183.46 AMPERES

OVER CURRENT PROTECTION
USE : 400AT, 3P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE: 3 - 250.0mm² THHN & 1-50.0mm² TW GROUND WIRE IN 90mmØ IMC PIPE

FEEDER LINE 2

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD			3Ø	AT	SIZE OF	
				AB	BC	CA			WIRES	CONDUITS
1	MOLAVE BUILDING	230	33,570	145.96				150	2-50.0mm² THHN COPPER WIRE 1-14.0mm² TW GROUND WIRE	IN 40mmØ IMC PIPE
2	DEPED SHS BUILDING	230	34,720			150.96		200	2-80.0mm² THHN COPPER WIRE 1-22.0mm² TW GROUND WIRE	IN 50mmØ IMC PIPE
3	DEPED A BUILDING	230	16,700		72.61			100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmØ IMC PIPE
4	ADMIN BUILDING	230	11,120		48.35			70	2-14.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmØ IMC PIPE
			96,110	145.96	126.96	150.96				

COMPUTATION :

IT = 1.732 X [(150.96 A)+(0.25 X 8.00)]

IT = 264.94 AMPERES

OVER CURRENT PROTECTION
USE : 400AT, 3P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE: 3 - 250.0mm² THHN & 1-50.0mm² TW GROUND WIRE IN 90mmØ IMC PIPE

1 SERVICE ENTRANCE CONCRETE POST DETAILS SCALE :NTS

2 SCHEDULE OF LOADS SCALE :NTS

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CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22	**ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	**ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	**HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR	SERVICE ENTRANCE CONCRETE POST DETAILS SCHEDULE OF LOADS	EL-03 04|16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY: REVISION NO.:					

NARRA BUILDING :
LPP : GROUND-SECOND FLOOR TYPICAL (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	8–LIGHTING FIXTURES	230	400	1.74	15	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	8–LIGHTING FIXTURES	230	400	1.74	15	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	8–LIGHTING FIXTURES	230	400	1.74	15	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	8–LIGHTING FIXTURES	230	400	1.74	15	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	8–LIGHTING FIXTURES	230	400	1.74	15	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	10–LIGHTING FIXTURES	230	500	2.17	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	10–ORBIT FAN	230	1,500	6.52	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	10–ORBIT FAN	230	1,500	6.52	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
11	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
12	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			9,820	42.70			

COMPUTATION :

IT = 42.70 AMP.

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE IN 40mmØ PVC PIPE

CANTEEN / COOP:
LPP : EXISTING

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	16–LIGHTING FIXTURES	230	800	3.48	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	10–CONVENIENCE OUTLET	230	1,800	7.83	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
3	10–CEILING FAN	230	1,500	6.52	15	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	1–REF	230	1,500	6.52	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
5	SPACE	230	—	—	—	—	—
			5,600	24.35			

COMPUTATION :

IT = 24.35 AMP.

OVER CURRENT PROTECTION
USE : 60AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER:
USE : 2 - 14.0mm² THHN & 1-8.0mm² TW GROUND WIRE IN 25mmØ IMC PIPE

NARRA BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	9,820	42.70	100	2–30.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
2	LPPB	230	9,820	42.70	100	2–30.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
			19,640	85.40			

COMPUTATION :

IT = 85.40 AMP

OVER CURRENT PROTECTION:
USE : 200AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2-60.0mm² THHN & 1-22.0mm² TW GROUND WIRE IN 50mmØ IMC PIPE

COVERED COURT :
LPP : (EXISTING)

MOUNTING: NEMA3R

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	10–LIGHTING FIXTURES	230	500	2.17	40	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	6–LIGHTING FIXTURES	230	300	1.31	40	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	10–CONVENIENCE OUTLET	230	1,800	7.83	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	5–FAN	230	750	3.26	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	5–FAN	230	750	3.26	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	SPACE	230	—	—	—	—	—
7	SPACE	230	—	—	—	—	—
			4,100	17.83			

COMPUTATION :

IT = 17.83 AMP.

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ IMC PIPE

DAU BUILDING :
LPPA : GROUND FLOOR (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	6–LIGHTING FIXTURES 2–ORBIT FAN	230	600	2.61	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	6–LIGHTING FIXTURES 2–ORBIT FAN	230	600	2.61	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	6–LIGHTING FIXTURES 2–ORBIT FAN	230	600	2.61	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	6–LIGHTING FIXTURES 2–ORBIT FAN	230	600	2.61	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	6–LIGHTING FIXTURES 2–ORBIT FAN	230	600	2.61	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	15–LIGHTING FIXTURES	230	750	3.26	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	10–CONVENIENCE OUTLET	230	1,800	7.83	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	10–CONVENIENCE OUTLET	230	1,800	7.83	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
10	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
11	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
12	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
13	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
14	SPARE	230	—	—	30	—	—
			16,550	71.98			

COMPUTATION :

IT = 71.98 + (0.25 * 8.00) AMP.

IT = 73.98 AMP.

OVER CURRENT PROTECTION
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE IN 40mmØ PVC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22				SCHEDULE OF LOADS	EL-04 05 16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY: JGN	**ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	**ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	**HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR		
	REVISION NO.:					

DAU BUILDING :
LPPB : GROUND FLOOR (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	15-LIGHTING FIXTURES	230	750	3.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	10-CONVENIENCE OUTLET	230	1,800	7.83	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	10-CONVENIENCE OUTLET	230	1,800	7.83	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			7,350	31.96			

COMPUTATION :

IT = 31.96 AMP.

OVER CURRENT PROTECTION:
USE ; 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE IN 40mmØ PVC PIPE

DAU BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	16,550	71.98	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
2	LPPB	230	7,350	31.96	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
			23,900	103.92			

COMPUTATION :

IT = 103.92 + (0.25 * 9.00) AMP.

IT = 105.92 AMP.

OVER CURRENT PROTECTION:
USE : 150AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 -50.0mm² THHN & 1-14.0mm² TW GROUND WIRE IN 50mmØ IMC PIPE

DEPED BUILDING SHS:
LPP : GROUND-FOURTH FLOOR TYPICAL - (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	12-LIGHTING FIXTURES 4-ORBIT FAN	230	1,200	5.22	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	12-LIGHTING FIXTURES 4-ORBIT FAN	230	1,200	5.22	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	12-LIGHTING FIXTURES 4-ORBIT FAN	230	1,200	5.22	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	12-LIGHTING FIXTURES 4-ORBIT FAN	230	1,200	5.22	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	20-LIGHTING FIXTURES	230	1,000	4.35	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	SPACE	230	—	—	—	—	—
9	SPACE	230	—	—	—	—	—
			8,680	37.74			

COMPUTATION :

IT = 37.74 AMP.

OVER CURRENT PROTECTION:
USE : 70AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ PVC PIPE

DEPED BUILDING SHS :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	8,680	37.74	70	2-14.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
2	LPPB	230	8,680	37.74	70	2-14.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
3	LPPC	230	8,680	37.74	70	2-14.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
4	LPPD	230	8,680	37.74	70	2-14.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
			34,720	150.96			

COMPUTATION :

IT = 150.96 AMP

OVER CURRENT PROTECTION:
USE : 200AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 -80.0mm² THHN & 1-22.0mm² TW GROUND WIRE IN 50mmØ IMC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE: **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO** ✓	DRAWN BY:	SUBMITTED BY: **ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	RECOMMENDING APPROVAL: **ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	APPROVED BY: **HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR	SHEET CONTENT: SCHEDULE OF LOADS
	DATE: 12.14.22				SHEET NO.: EL-05 06 16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY:				
	REVISION NO.:				

DEPED A BUILDING :
LPP : GROUND FLOOR - (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	4–LIGHTING FIXTURES 2–ORBIT FAN	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	4–LIGHTING FIXTURES 2–ORBIT FAN	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	4–LIGHTING FIXTURES 2–ORBIT FAN	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	10–CONVENIENCE OUTLET	230	1,800	7.83	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	FACP	230	1,500	6.52	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			5,300	23.05			

COMPUTATION :

IT = 23.05 AMP.

OVER CURRENT PROTECTION:
USE : 50AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 8.0mm² THHN & 1-5.5mm² TW GROUND WIRE IN 32mmØ PVC PIPE

DEPED A BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	5,300	23.05	60	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
2	LPPB	230	3,800	16.52	60	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
3	LPPC	230	3,800	16.52	60	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
4	LPPD	230	3,800	16.52	60	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
5	SPACE	230	—	—	—	—	—
			16,700	72.61			

COMPUTATION :

IT = 72.61 AMP

OVER CURRENT PROTECTION:
USE : 70AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ PVC PIPE

DEPED A BUILDING :
LPP : SECOND-FOURTH FLOOR TYPICAL - (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	4–LIGHTING FIXTURES 2–ORBIT FAN	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	4–LIGHTING FIXTURES 2–ORBIT FAN	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	4–LIGHTING FIXTURES 2–ORBIT FAN	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	4–CONVENIENCE OUTLET	230	720	3.13	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			3,800	16.52			

COMPUTATION :

IT = 16.52 AMP.

OVER CURRENT PROTECTION:
USE : 50AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 8.0mm² THHN & 1-5.5mm² TW GROUND WIRE IN 32mmØ PVC PIPE

ADMIN BUILDING :
LPP : (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	10–LIGHTING FIXTURES 2–ORBIT FAN	230	800	3.48	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	10–LIGHTING FIXTURES 2–ORBIT FAN	230	800	3.48	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
6	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
7	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
8	1–AIR CONDITIONING UNIT	230	1,840	8.00	30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø PVC PIPE
			11,120	48.35			

COMPUTATION :

IT = 48.35 + (0.25 * 8.00) AMP.

IT = 50.35 AMP.

OVER CURRENT PROTECTION:
USE : 70AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE IN 25mmØ IMC PIPE / 32mmØ PVC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY : GA	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22				SCHEDULE OF LOADS	EL-06 07 16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY: BGR	**ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	**ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	**HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR		
	REVISION NO.:					

MOLAVE BUILDING :
LPP : GROUND FLOOR - THIRD FLOOR TYPICAL (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	18–LIGHTING FIXTURES	230	900	3.91	30	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	18–LIGHTING FIXTURES	230	900	3.91	30	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	12–ORBIT FANS	230	1,800	7.83	30	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	12–ORBIT FANS	230	1,800	7.83	30	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	15–LIGHTING FIXTURES	230	750	3.26	30	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	14–CONVENIENCE OUTLET	230	2,520	10.96	30	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	14–CONVENIENCE OUTLET	230	2,520	10.96	30	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			11,190	48.66			

COMPUTATION :

IT = 48.66 AMP.

OVER CURRENT PROTECTION:
USE : 70AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ PVC PIPE

MOLAVE BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	11,190	48.66	70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
2	LPPB	230	11,190	48.66	70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
3	LPPC	230	11,190	48.66	70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
4	SPARE	230	---	---	30	---	---
			33,570	145.96			

COMPUTATION :

IT = 145.96 AMP

OVER CURRENT PROTECTION:
USE : 150AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 -60.0mm² THHN & 1-14.0mm² TW GROUND WIRE IN 40mmØ IMC PIPE

PAGCOR BUILDING :
LPP : GROUND-FOURTH FLOOR TYPICAL (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	5–CONVENIENCE OUTLET	230	900	3.92	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	5–CONVENIENCE OUTLET	230	900	3.92	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	5–CONVENIENCE OUTLET	230	900	3.92	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	5–CONVENIENCE OUTLET	230	900	3.92	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	10–ORBIT FAN	230	1,500	6.52	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	10–ORBIT FAN	230	1,500	6.52	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
11	SPACE	230	---	---	---	---	---
12	SPACE	230	---	---	---	---	---
			8,600	37.39			

COMPUTATION :

IT = 37.39 AMP.

OVER CURRENT PROTECTION:
USE : 70AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE IN 25mmØ IMC PIPE / 32mmØ PVC PIPE

PAGCOR BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	8,600	37.39	70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
2	LPPB	230	8,600	37.39	70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
3	LPPC	230	8,600	37.39	70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
4	LPPD	230	8,600	37.39	70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
			34,400	149.57			

COMPUTATION :

IT = 149.57 AMP

OVER CURRENT PROTECTION:
USE : 150AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 -60.0mm² THHN & 1-14.0mm² TW GROUND WIRE IN 40mmØ IMC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22				SCHEDULE OF LOADS	EL-07 08 16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY:	**ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	**ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	**HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR		
	REVISION NO.:					

DEPED E BUILDING :
LPP : GROUND FLOOR - FOURTH FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP	AT	SIZE OF	
						WIRES	CONDUITS
1	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	8–CONVENIENCE OUTLET	230	1,440	6.26	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	5–CONVENIENCE OUTLET	230	900	3.92	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	4–ORBIT FAN	230	600	2.61	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	4–ORBIT FAN	230	600	2.61	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	SPACE	230	—	—	—	—	—
			5,240	22.78			

COMPUTATION :

IT = 22.78 AMP.

OVER CURRENT PROTECTION:
USE : 63AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ PVC PIPE

DEPED E BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	5,240	22.78	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
2	LPPB	230	5,240	22.78	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
3	LPPC	230	5,240	22.78	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
4	LPPD	230	5,240	22.78	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
5	SPACE	230	—	—	—	—	—
6	SPACE	230	—	—	—	—	—
			20,960	91.13			

COMPUTATION :

IT = 91.13 AMP

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 -30.0mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ IMC PIPE

OLD BUILDING ;
LPP : GROUND-SECOND FLOOR TYPICAL (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	6–CONVENIENCE OUTLET	230	1,080	4.70	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	6–ORBIT FAN	230	900	3.91	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			3,680	16.00			

COMPUTATION :

IT = 16.00 AMP.

OVER CURRENT PROTECTION:
USE : 60AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ PVC PIPE

OLD BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	3,680	16.00	60	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
2	LPPB	230	3,680	16.00	60	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
			7,360	32.00			

COMPUTATION :

IT = 32.00 AMP

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 -30.0mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ IMC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

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Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO	DATE : 12.14.22	**ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	**ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	**HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR	SCHEDULE OF LOADS	EL-08 09 16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY	CHECKED BY: REVISION NO.:					

SB OLD BUILDING :
LPPA/LPPC : GROUND & THIRD FLOOR TYPICAL (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
2	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
3	6-LIGHTING FIXTURES	230	300	1.31	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
4	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
5	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
6	8-LIGHTING FIXTURES	230	400	1.74	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
7	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	SPARE	230	—	—	30	—	—
10	SPARE	230	—	—	30	—	—
			5,980	26.00			

COMPUTATION :

IT = 26.00 AMP.

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE
IN 32mmØ IMC PIPE / 40mmØ PVC PIPE

SB OLD BUILDING :
LPPB/LPPD : SECOND & FOURTH FLOOR TYPICAL (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
2	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
3	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
4	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
5	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
6	8-LIGHTING FIXTURES	230	400	1.74	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
7	12-CONVENIENCE OUTLET	230	2,160	9.39	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	SPARE	230	—	—	30	—	—
10	SPARE	230	—	—	30	—	—
			7,000	30.44			

COMPUTATION :

IT = 30.44 AMP.

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE
IN 32mmØ IMC PIPE / 40mmØ PVC PIPE

SB OLD BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	5,980	26.00	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
2	LPPB	230	7,000	30.44	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
3	LPPC	230	5,980	26.00	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
4	LPPD	230	7,000	30.44	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
			25,980	112.87			

COMPUTATION :

IT = 112.87 AMP

OVER CURRENT PROTECTION:

USE : 200AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :

USE : 2 -80.0mm² THHN & 1-22.0mm² TW GROUND WIRE
IN 50mmØ IMC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22	ENGR. LEO S. DEL ROSARIO HEAD , PLANNING & PROGRAMMING DIVISION	ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR	SCHEDULE OF LOADS	EL-09 10/16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY: REVISION NO.:					

SB NEW BUILDING :
LPPA/LPPB/LPPC/LPPD : GROUND-FOURTH FLOOR TYPICAL (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
2	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
3	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
4	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
5	6-LIGHTING FIXTURES 2-ORBIT FAN	230	600	2.61	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
6	8-LIGHTING FIXTURES	230	400	1.74	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
7	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	4-CONVENIENCE OUTLET	230	720	3.13	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	SPARE	230	---	---	30	---	---
			7,000	30.44			

COMPUTATION :

IT = 30.44 AMP.

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ IMC PIPE / 40mmØ PVC PIPE

PIMENTEL BUILDING :
MAIN DISTRIBUTION PANEL : (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
2	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
3	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
4	7-LIGHTING FIXTURES	230	350	1.52	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
5	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
7	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
8	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
9	7-LIGHTING FIXTURES	230	350	1.52	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	6-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	8-CONVENIENCE OUTLET	230	1,440	6.26	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			9,220	40.09			

COMPUTATION :

IT = 40.09 AMP.

OVER CURRENT PROTECTION:
USE : 100AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 30mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ IMC PIPE

SB NEW BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	LPPA	230	7,000	30.44	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
2	LPPB	230	7,000	30.44	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
3	LPPC	230	7,000	30.44	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
4	LPPD	230	7,000	30.44	100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 40mmø PVC PIPE
			28,000	121.74			

COMPUTATION :

IT = 121.74 AMP.

OVER CURRENT PROTECTION:
USE : 200AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 -60.0mm² THHN & 1-22.0mm² TW GROUND WIRE IN 50mmØ IMC PIPE

KAMAGONG BUILDING :
MAIN DISTRIBUTION PANEL : (PROPOSED)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF	
						WIRES	CONDUITS
1	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
2	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
3	8-LIGHTING FIXTURES	230	400	1.74	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
4	9-CONVENIENCE OUTLET	230	1,620	7.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	9-CONVENIENCE OUTLET	230	1,620	7.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
7	8-LIGHTING FIXTURES 2-ORBIT FAN	230	700	3.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
8	8-LIGHTING FIXTURES	230	400	1.74	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN PVC MOULDING
9	9-CONVENIENCE OUTLET	230	1,620	7.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	9-CONVENIENCE OUTLET	230	1,620	7.04	20	2-3.5mm² THHN COPPER WIRE 1-3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			10,080	43.83			

COMPUTATION :

IT = 43.83 AMP

OVER CURRENT PROTECTION:
USE : 150AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 50mm² THHN & 1-14.0mm² TW GROUND WIRE IN 40mmØ IMC PIPE / 32mmØ PVC PIPE

MAIN DISTRIBUTION PANEL

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD				AT	SIZE OF	
				AB	BC	CA	3Ø		WIRES	CONDUITS
1	PAGCOR	230	34,400	149.57				150	2-50.0mm² THHN COPPER WIRE 1-14.0mm² TW GROUND WIRE	IN 40mmø IMC PIPE
2	SB OLD	230	25,960			112.87		200	2-80.0mm² THHN COPPER WIRE 1-22.0mm² TW GROUND WIRE	IN 50mmø IMC PIPE
3	SB NEW	230	28,000		121.74			200	2-80.0mm² THHN COPPER WIRE 1-22.0mm² TW GROUND WIRE	IN 50mmø IMC PIPE
4	KAMAGONG	230	10,080	43.83				150	2-50.0mm² THHN COPPER WIRE 1-14.0mm² TW GROUND WIRE	IN 40mmø IMC PIPE
5	DEPED E	230	20,990			91.13		100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmø IMC PIPE
6	PIMENTEL	230	9,220		40.09			100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmø IMC PIPE
7	OLD BUILDING	230	7,360		32.00			100	2-30.0mm² THHN COPPER WIRE 1-8.0mm² TW GROUND WIRE	IN 32mmø IMC PIPE
			135,980	193.40	193.83	204.00				

COMPUTATION :

IT = 1.732 X [(204 A)+(0.25 X 8.00)]

IT = 356.80 AMPERES

OVER CURRENT PROTECTION
USE : 400AT, 3P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 3 - 250.0mm² THHN & 1-50.0mm² TW GROUND WIRE IN 90mmØ IMC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22				SCHEDULE OF LOADS	EL-10 11/16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY:	**ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	**ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	**HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR		
	REVISION NO.:					

HB BUILDING
LPP - GROUND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD AB	BC	CA	3Ø	AT	SIZE OF WIRES	SIZE OF CONDUITS
1	8–LIGHTING FIXTURES	230	600	1.74				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	8–LIGHTING FIXTURES	230	600	1.74				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	8–LIGHTING FIXTURES	230	600			1.74		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	8–LIGHTING FIXTURES	230	600			1.74		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	8–LIGHTING FIXTURES	230	600		1.74			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	15–LIGHTING FIXTURES	230	750		3.26			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	4–CONVENIENCE OUTLET	230	720	3.13				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	4–CONVENIENCE OUTLET	230	720	3.13				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	4–CONVENIENCE OUTLET	230	720			3.13		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	4–CONVENIENCE OUTLET	230	720			3.13		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
11	4–CONVENIENCE OUTLET	230	720		3.13			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
12	4–CONVENIENCE OUTLET	230	720		3.13			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
13	4–ORBIT FANS	230	600	2.61				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
14	4–ORBIT FANS	230	600	2.61				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
15	4–ORBIT FANS	230	600			2.61		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
16	4–ORBIT FANS	230	600			2.61		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			9,470	14.98	11.26	14.96				

COMPUTATION

IT = 1.732 x 14.96VA

IT = 26.91 AMPERES

OVER CURRENT PROTECTION
USE : 100AT, 3P, 230V MOLDED CASE CIRCUIT BREAKER IN NEMA 1

MAIN FEEDER :
USE : 3 - 30.0mm² THHN & 1-8.0mm² TW GROUND WIRE IN 40mmØ PVC PIPE/32mmØ IMC PIPE

HB BUILDING
LPP - SECOND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD AB	BC	CA	3Ø	AT	SIZE OF WIRES	SIZE OF CONDUITS
1	6–LIGHTING FIXTURES	230	300	1.30				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	6–LIGHTING FIXTURES	230	300	1.30				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	6–LIGHTING FIXTURES	230	300			1.30		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	6–LIGHTING FIXTURES	230	300			1.30		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	8–LIGHTING FIXTURES	230	400		1.74			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	8–LIGHTING FIXTURES	230	400		1.74			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	15–LIGHTING FIXTURES	230	750	3.26				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	4–CONVENIENCE OUTLET	230	720	3.13				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	4–CONVENIENCE OUTLET	230	720			3.13		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	4–CONVENIENCE OUTLET	230	720			3.13		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
11	4–CONVENIENCE OUTLET	230	720		3.13			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
12	4–CONVENIENCE OUTLET	230	720		3.13			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
13	4–CONVENIENCE OUTLET	230	720	3.13				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
14	4–ORBIT FANS	230	600	2.61				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
15	4–ORBIT FANS	230	600			2.61		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
16	4–ORBIT FANS	230	600			2.61		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
17	4–ORBIT FANS	230	600		2.61			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
18	SPACE	230	----					----	----	----
			9,470	14.73	12.35	14.96				

COMPUTATION :

IT = 1.732 x 14.73VA

IT = 25.52 AMPERES

OVER CURRENT PROTECTION
USE : 100AT, 3P, 230V MOLDED CASE CIRCUIT BREAKER IN NEMA 1

MAIN FEEDER :
USE : 3 - 30.0mm² THHN & 1-8.0mm² TW GROUND WIRE IN 40mmØ PVC PIPE/32mmØ IMC PIPE

DEPED D BUILDING :
LPP : GROUND FLOOR - FOURTH FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF WIRES	SIZE OF CONDUITS
1	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	8–LIGHTING FIXTURES	230	400	1.74	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	10–LIGHTING FIXTURES	230	500	2.18	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	8–CONVENIENCE OUTLET	230	1,440	6.26	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	5–CONVENIENCE OUTLET	230	900	3.92	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	8–ORBIT FAN	230	1,200	5.22	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	8–ORBIT FAN	230	1,200	5.22	20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	SPACE	230	----	----	----	----	----
			6,440	28.00			

COMPUTATION :

IT = 28.00 AMP

OVER CURRENT PROTECTION:
USE : 63AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE : 2 - 14mm² THHN & 1-8.0mm² TW GROUND WIRE
IN 32mmØ PVC PIPE

HB BUILDING
LPP - THIRD-FOURTH FLOOR TYPICAL (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO:	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD AB	BC	CA	3Ø	AT	SIZE OF WIRES	SIZE OF CONDUITS
1	6–LIGHTING FIXTURES	230	300	1.31				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
2	6–LIGHTING FIXTURES	230	300	1.31				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
3	6–LIGHTING FIXTURES	230	300			1.31		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
4	6–LIGHTING FIXTURES	230	300			1.31		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
5	15–LIGHTING FIXTURES	230	700		3.26			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
6	4–CONVENIENCE OUTLET	230	720		3.13			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
7	4–CONVENIENCE OUTLET	230	720	3.13				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
8	4–CONVENIENCE OUTLET	230	720	3.13				20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
9	4–CONVENIENCE OUTLET	230	720			3.13		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
10	4–CONVENIENCE OUTLET	230	720			3.13		20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
11	4–ORBIT FANS	230	600		2.61			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
12	8–ORBIT FANS	230	1,200		5.22			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø PVC PIPE
			7,030	8.66	14.22	8.36				

COMPUTATION :

IT = 1.732 x 14.22VA

IT = 24.63 AMPERES

OVER CURRENT PROTECTION
USE : 75AT, 3P, 230V MOLDED CASE CIRCUIT BREAKER IN NEMA 1

MAIN FEEDER :
USE : 3 - 14.0mm² THHN & 1-8.0mm² TW GROUND WIRE IN 32mmØ PVC PIPE/25mmØ IMC PIPE

HB BUILDING
MAIN MAIN DISTRIBUTION PANEL (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMPERE LOAD AB	BC	CA	3Ø	AT	SIZE OF WIRES	SIZE OF CONDUITS
1	GROUND FLOOR	230	9,470	14.96	11.26	14.96		100	3–30.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø IMC PIPE
2	SECOND FLOOR	230	9,470	14.73	12.35	14.96		100	3–30.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø IMC PIPE
3	THIRD FLOOR	230	7,030	8.66	14.22	8.36		100	3–30.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø IMC PIPE
4	FOURTH FLOOR	230	7,030	8.66	14.22	8.36		70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 25mmø IMC PIPE
5	AIR CONDITIONING UNIT	230	5,750	12.00				70	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 25mmø IMC PIPE
6	CCTV	230	1,000			6.52		30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø IMC PIPE
7	FDAS	230	1,000			6.52		30	2–5.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 20mmø IMC PIPE
8	OTHER LOADS	230	1,000		6.52			20	2–3.5mm² THHN COPPER WIRE 1–3.5mm² TW GROUND WIRE	IN 25mmø IMC PIPE
				58.45	58.57	56.60				

COMPUTATION :

IT = 1.732 X [(58.60 A)+(0.25 X 8.00)]

IT = 105.31 AMPERES

OVER CURRENT PROTECTION
USE : 300AT, 3P, 230V MOULDED CASE CIRCUIT BREAKER

MAIN FEEDER :
USE: 3 - 150.0mm² THHN & 1-30.0mm² TW GROUND WIRE IN 80mmØ IMC PIPE

DEPED D BUILDING :
MAIN DISTRIBUTION PANEL: GROUND FLOOR (EXISTING)

MOUNTING: NEMA1, SURFACE MOUNTED WITH GRAY POWDERED COATED FINISH

CKT. NO.	LOAD DESCRIPTION	VOLTS	VA	AMP.	AT	SIZE OF WIRES	SIZE OF CONDUITS
1	LPPA	230	6,440	28.00	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
2	LPPB	230	6,440	28.00	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
3	LPPC	230	6,440	28.00	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
4	LPPD	230	6,440	28.00	63	2–14.0mm² THHN COPPER WIRE 1–8.0mm² TW GROUND WIRE	IN 32mmø PVC PIPE
5	SPACE	230	----	----	----	----	----
6	SPACE	230	----	----	----	----	----
			25,760	112.00			

COMPUTATION :

IT = 112.00 AMP

OVER CURRENT PROTECTION:
USE : 160AT, 2P, 230V MOULDED CASE CIRCUIT BREAKER

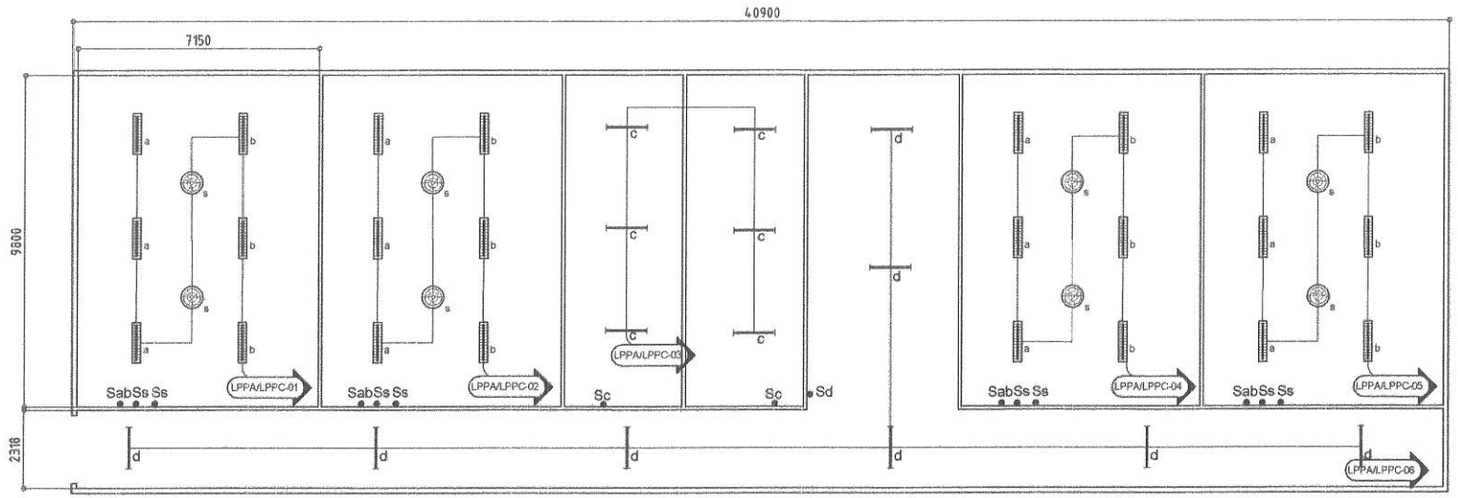
MAIN FEEDER :
USE : 2 -50.0mm² THHN & 1-14.0mm² TW GROUND WIRE
IN 40mmØ IMC PIPE

1 SCHEDULE OF LOADS

SCALE :NTS

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

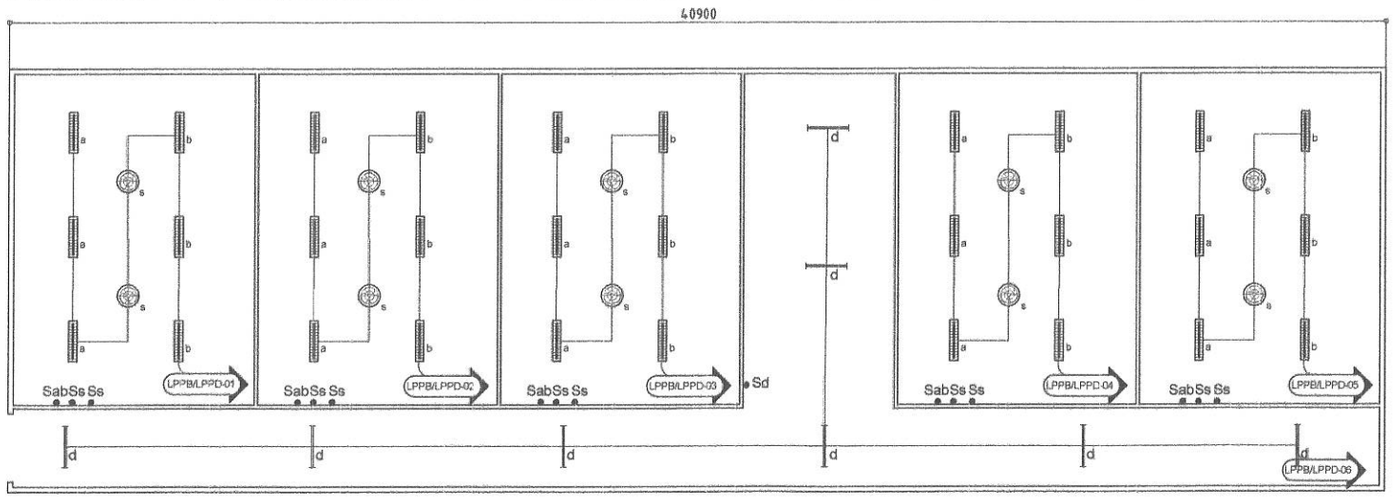
PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22				SCHEDULE OF LOADS	EL-11 12/16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY:	ENGR. LEO S. DEL ROSARIO ✓ HEAD , PLANNING & PROGRAMMING DIVISION	ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR		
	REVISION NO.:					



NOTE:
1. REWIRING AND REPLACEMENT OF LIGHTING FIXTURES AND WIRING DEVICES

1 GROUND AND THIRD FLOOR LIGHTING LAYOUT (TYPICAL)
(SB HALL OLD BUILDING)

SCALE 1:150M.



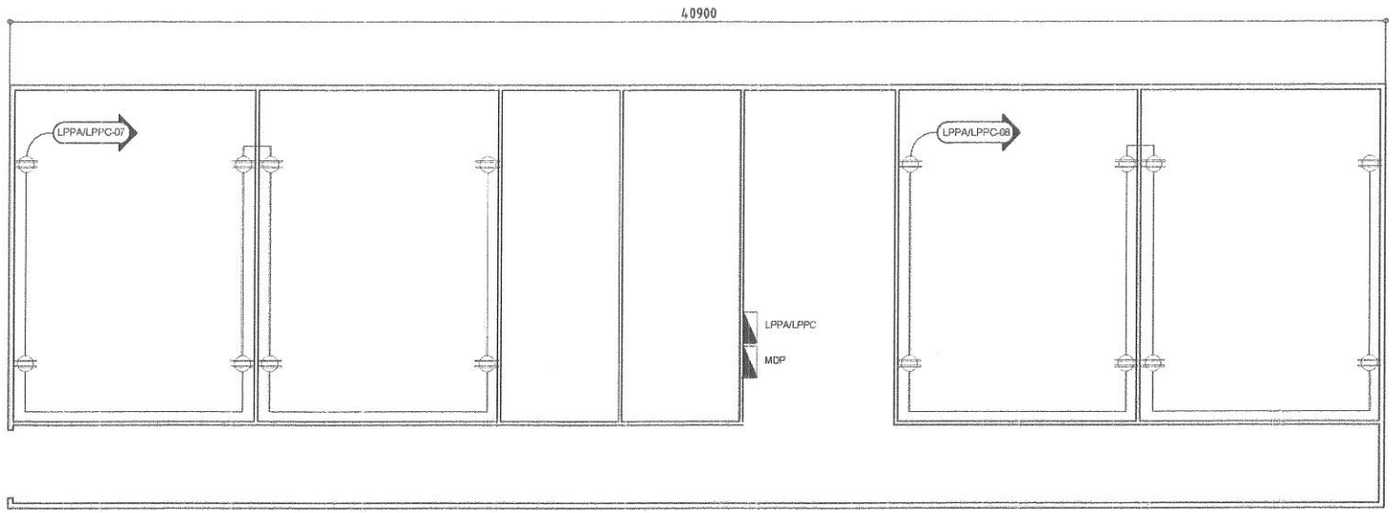
NOTE:
1. REWIRING AND REPLACEMENT OF LIGHTING FIXTURES AND WIRING DEVICES

2 SECOND AND FOURTH FLOOR LIGHTING LAYOUT (TYPICAL)
(SB HALL OLD BUILDING)

SCALE 1:150M.

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

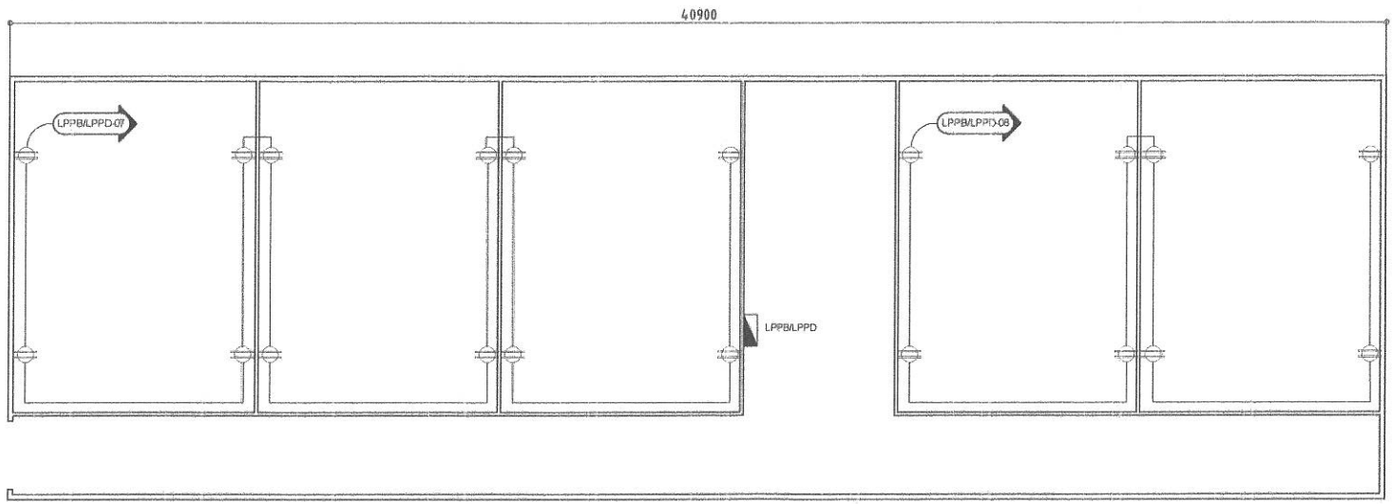
PROJECT TITLE:	DRAWN BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE: 12.14.22	ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR	SB OLD BUILDING LIGHTING LAYOUT	EL-12 13/16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY: JCR REVISION NO.:					



NOTE:
1. REWIRING AND REPLACEMENT OF OUTLETS
2. REPLACEMENT OF PANEL BOARD

1 GROUND AND THIRD FLOOR POWER LAYOUT (TYPICAL)
(SB HALL OLD BUILDING)

SCALE 1:150M.

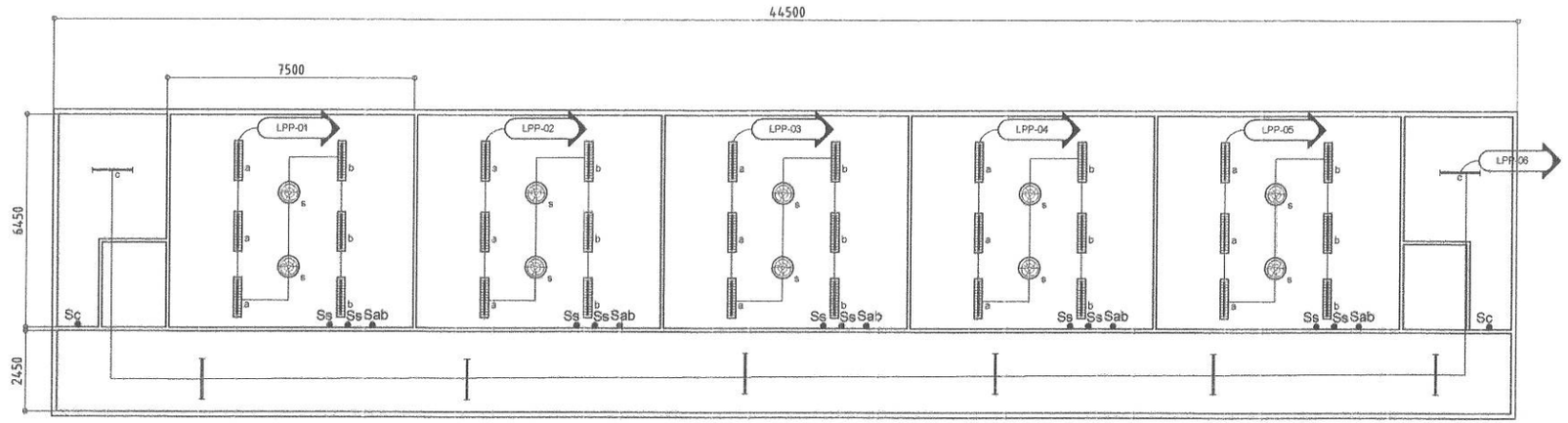


NOTE:
1. REWIRING AND REPLACEMENT OF OUTLETS
2. REPLACEMENT OF PANEL BOARD

2 SECOND AND FOURTH FLOOR POWER LAYOUT (TYPICAL)
(SB HALL OLD BUILDING)

SCALE 1:150M.

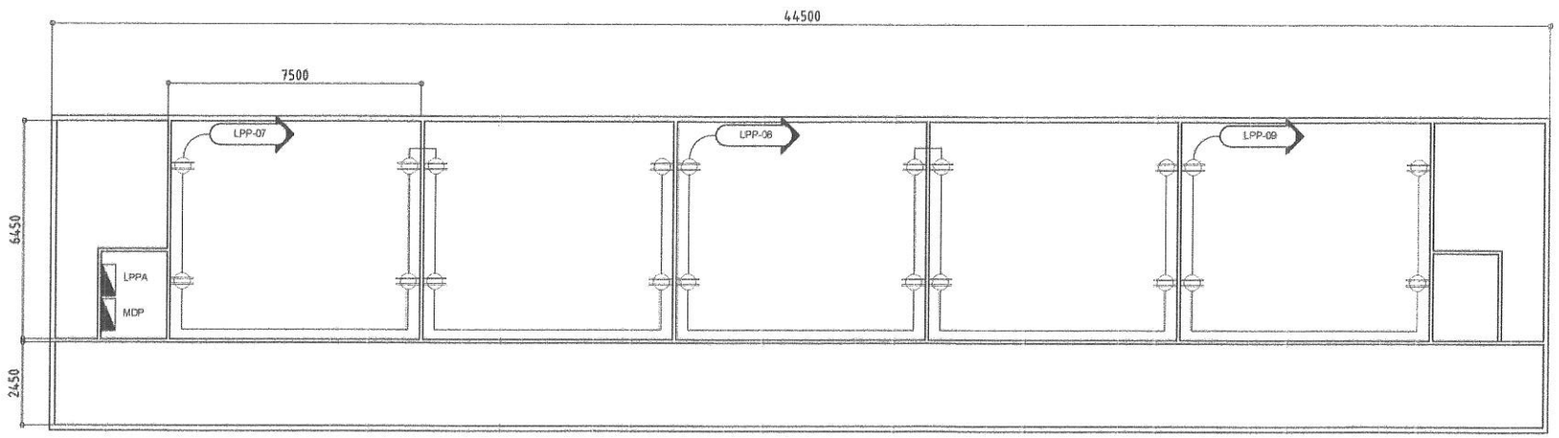
Republika ng Pilipinas Lungsod ng Quezon **CITY ENGINEERING DEPARTMENT**	PROJECT TITLE: **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO** ✓ LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	DRAWN BY: LEA DATE: 12.14.22 CHECKED BY: JGN REVISION NO.:	SUBMITTED BY: ENGR. LEO S. DEL ROSARIO HEAD, PLANNING & PROGRAMMING DIVISION	RECOMMENDING APPROVAL: ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	APPROVED BY: HON. MA. JOSEFINA G. BELMONTE CITY MAYOR	SHEET CONTENT: SB OLD BUILDING POWER LAYOUT	SHEET NO.: EL-13 14/16



NOTE:
1. REWIRING AND REPLACEMENT OF LIGHTING FIXTURES AND WIRING DEVICES

1 GROUND TO FOURTH FLOOR LIGHTING LAYOUT (TYPICAL)
(SB HALL NEW BUILDING)

SCALE 1:150M.



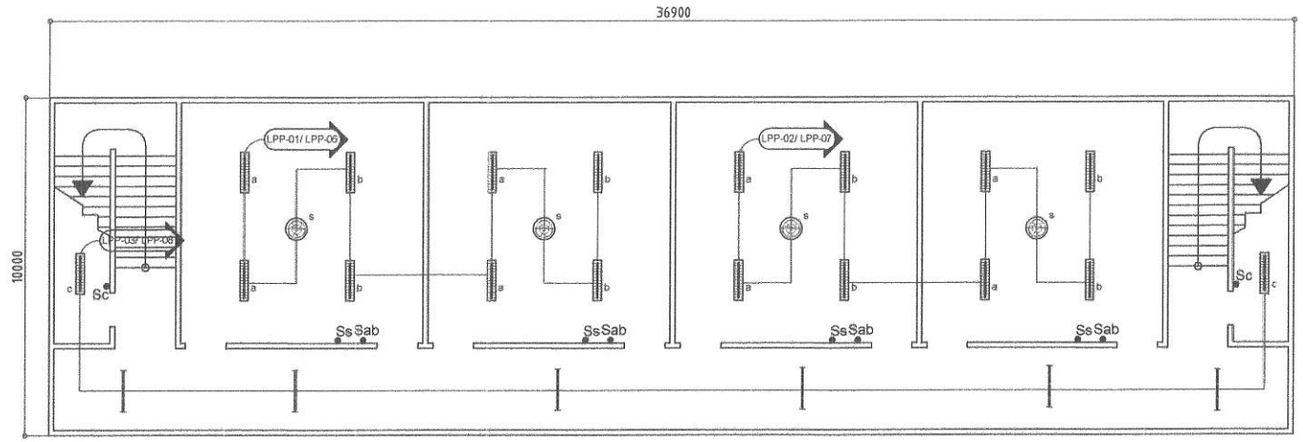
NOTE:
1. REWIRING AND REPLACEMENT OF OUTLETS
2. REPLACEMENT OF PANEL BOARD

2 GROUND TO FOURTH FLOOR POWER LAYOUT (TYPICAL)
(SB HALL NEW BUILDING)

SCALE 1:150M.

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

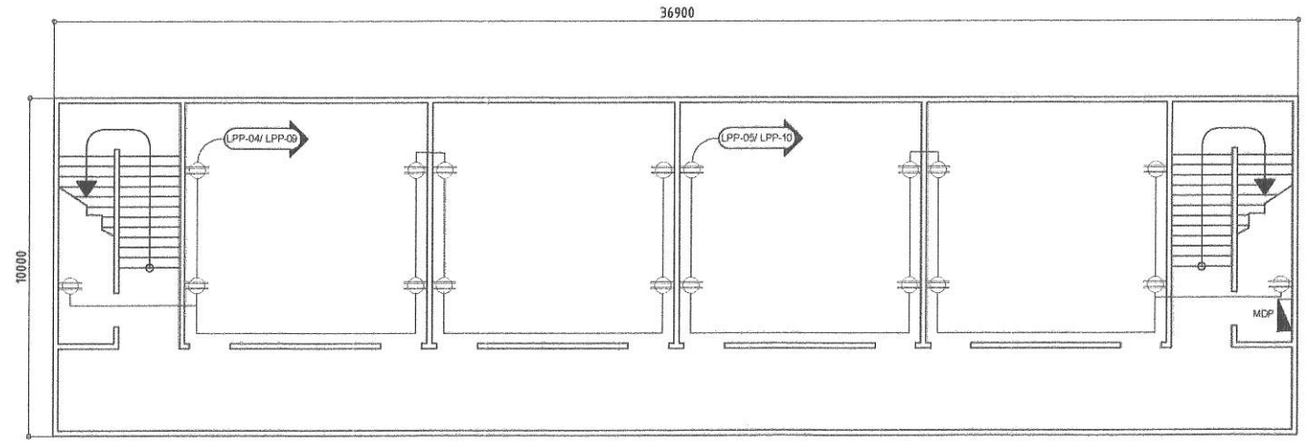
PROJECT TITLE: **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO** ✓	DRAWN BY: CEA	SUBMITTED BY: **ENGR. LEO S. DEL ROSARIO** HEAD , PLANNING & PROGRAMMING DIVISION	RECOMMENDING APPROVAL: **ENGR. ISAGANI R. VERZOSA, JR.** OIC, CITY ENGINEERING DEPARTMENT	APPROVED BY: **HON. MA. JOSEFINA G. BELMONTE** CITY MAYOR	SHEET CONTENT: SB HALL NEW BUILDING LIGHTING AND POWER LAYOUT	SHEET NO.: EL-14 (15/16)
	DATE: 12.14.22					
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY:					
	REVISION NO.:					



NOTE:
1. REWIRING AND REPLACEMENT OF LIGHTING FIXTURES AND WIRING DEVICES

1 GROUND TO SECOND FLOOR LIGHTING LAYOUT (TYPICAL) (KAMAGONG BUILDING)

SCALE 1:150M.



NOTE:
1. REWIRING AND REPLACEMENT OF OUTLETS
2. REPLACEMENT OF PANEL BOARD

2 GROUND TO SECOND FLOOR POWER LAYOUT (TYPICAL) (KAMAGONG BUILDING)

SCALE 1:150M.

Republika ng Pilipinas
Lungsod ng Quezon
CITY ENGINEERING DEPARTMENT

PROJECT TITLE :	DRAWN BY :	SUBMITTED BY:	RECOMMENDING APPROVAL :	APPROVED BY :	SHEET CONTENT	SHEET NO.
PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL AT BARANGAY STO.CRISTO ✓	DATE : 12.14.22	ENGR. LEO S. DEL ROSARIO HEAD , PLANNING & PROGRAMMING DIVISION	ENGR. ISAGANI R. VERZOSA, JR. OIC, CITY ENGINEERING DEPARTMENT	HON. MA. JOSEFINA G. BELMONTE CITY MAYOR	KAMAGONG BUILDING LIGHTING AND POWER LAYOUT	EL-15 16 16
LOCATION: BARANGAY STO.CRISTO, DISTRICT 1, QUEZON CITY ✓	CHECKED BY: REVISION NO.:					

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

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

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

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

Daywork Schedule

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

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

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

Provisional Sums

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

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

Signature Box

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

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

PROJECT TITLE: **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL**

LOCATION : BARANGAY STO. CRISTO, DISTRICT 1, QUEZON CITY

PROJECT NO. : 23 - 00045

DURATION : Ninety (90) Calendar Days

BREAKDOWN OF COST

ITEM CODE	ITEM OF WORK (Description)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
GR	GENERAL REQUIREMENTS				
OGR	OTHER GENERAL REQUIREMENTS				
I	UPGRADING OF MAIN SERVICE ENTRANCE				
II	DAU BUILDING				
III	NARRA BUILDING				
IV	MOLAVE BUILDING				
V	SB OLD BUILDING				
VI	SB NEW BUILDING				
VII	KAMAGONG BUILDING				

TOTAL COST ₱ _____

LUMP SUM BID IN WORDS : _____

_____

Contractor : _____

BILL OF QUANTITIES
(Building Construction/Rehabilitation Project)

PROJECT TITLE : **PROPOSED UPGRADING OF ELECTRICAL SYSTEM OF SAN FRANCISCO HIGH SCHOOL**

LOCATION : **BARANGAY STO. CRISTO, DISTRICT 1, QUEZON CITY**

PROJECT NO. : **23 - 00045**

DURATION : **Ninety (90) Calendar Days**

SCOPE OF WORKS :

GR	**General Requirements** include billboard(s).
OGR	**Other General Requirements (Non - O.C.M.)** include, but not limited to:
1	Clearing, hauling and disposal of construction materials and debris.
2	Temporary water facility.
3	Temporary electrical system including electric meter/sub-meter and connections.
4	Scaffolding for general use (rental).
I	**Upgrading of Main Service Entrance**
I-EW	Electrical Works:
1	Installation of roughing-ins and wirings.
2	Installation of system devices, components, panelboards, and accessories.
I-UTI	Utility and Ancillary Works
1	Installation of earth pit and distribution post
II	**Dau Building**
II-EW	Electrical Works:
1	Installation of roughing-ins and wirings.
2	Installation of system devices, components, panelboards, and accessories.
III	**Narra Building**
III-EW	Electrical Works:
1	Installation of roughing-ins and wirings.
2	Installation of system devices, components, panelboards, and accessories.
IV	**Molave Building**
IV-EW	Electrical Works:
1	Installation of roughing-ins and wirings.
2	Installation of system devices, components, panelboards, and accessories.
V	**SB Old Building**
V-SW	Site Works
1	Chipping of Concrete Wall for electrical works.
2	Clearing and cleaning for painting preparation.
V-CWS	Civil / Structural Works
1	Masonry Works includes restoration of concrete.
V-AW	Architectural Works
1	Painting Works include interior walls.
V-EW	Electrical Works:
1	Installation of roughing-ins and wirings.
2	Installation of system devices, components, panelboards, and accessories.
VI	**SB New Building**
VI-SW	Site Works
1	Chipping of Concrete Wall for electrical works.
2	Clearing and cleaning for painting preparation.

VI-CWS	Civil / Structural Works
1	Masonry Works includes restoration of concrete.
VI-AW	Architectural Works
1	Painting Works include interior walls.
VI-EW	Electrical Works:
1	Installation of roughing-ins and wirings.
2	Installation of system devices, components, panelboards, and accessories.

VII	**Kamagong Building**
VII-SW	Site Works
1	Chipping of Concrete Wall for electrical works.
2	Clearing and cleaning for painting preparation.
VII-CWS	Civil / Structural Works
1	Masonry Works includes restoration of concrete.
VII-AW	Architectural Works
1	Painting Works include interior walls.
VII-EW	Electrical Works:
1	Installation of roughing-ins and wirings.
2	Installation of system devices, components, panelboards, and accessories.
O	**Others (included in O.C.M)**
1	Provision of construction, health and safety such as safety gears, medicine kit, etc.
2	Preparation of shop drawings, as necessary.
3	Preparation of as-built plans (signed and sealed by the respective professional(s)).
4	Testing and commissioning works shall be performed as per standard procedures.

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
GR	**GENERAL REQUIREMENTS**				
SPL7	Billboard (1.20m x 2.40m in Plywood)	1	piece	₱	₱
				MATERIALS COST GR	₱
				LABOR COST GR	
				DIRECT COST GR	₱
OGR	**OTHER GENERAL REQUIREMENTS**				
OGR01	Clearing and Cleaning for Hauling Disposal	2	t.l	₱	₱
OGR0301	Temporary Water Facility (For Renovation)	1	unit		
OGR0302	Temporary Electrical Facility (Rehabilitation)	1	unit		
	Subtotal OGR02c - OGR0302 (Materials)				₱
OGR05	Scaffolding (Rental)	239	sq.m.	₱	₱
	Subtotal OGR01 - OGR05 (Labor)				₱
				MATERIALS COST GR	₱
				LABOR COST GR	
				DIRECT COST GR	₱
I	**UPGRADING OF MAIN SERVICE ENTRANCE**				
I-EW	Electrical Works				
EW01	Pipes				
EW0102	25mmØ PVC Pipe	2	piece	₱	₱
EW0118	90mmØ IMC Pipe	6	piece		
EW05	Fittings and Accessories				
EW05011	25mmØ PVC Adaptor	4	piece		
EW05023	25mmØ PVC Locknut and Bushing	4	pair		
EW05039	90mmØ IMC Elbow	5	piece		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW05049	90mmØ IMC Locknut and Bushing	20	pair		
EW05145	125mm² Ø Solderless Connector with Two-Bolt	28	pair		
EW05149	250mm² Ø Solderless Connector with Two-Bolt	18	pair		
EW05161	90mmØ Weatherproof Entrance Cap, Diecast Type	6	piece		
EW05166	Secondary Rack with 2-Spool, Heavy Duty	10	assy		
EW05164	Secondary Rack with 3-Spool, Heavy Duty	28	assy		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW12	Grounding System				
EW1202	20mm Ø x 3000mm Grounding Rod with Ground Clamp	4	set		
EW1216	Powder for GT Connection	1	tube		
EW1203	Oval Eyebolt with Nut	1	piece		
EW09	Wires and Cables				
EW0901	THHN Wires				
EW090117	250mm² THHN Wire	90	l.m.		
EW0902	THW Wires				
EW090213	125mm² THW Wire	1901	l.m.		
EW0903	TW Wires				
EW090309	50mm² TW Wire	30	l.m.		
EW0904	Bare Copper Wires (Stranded)				
EW090409	50mm² Bare Copper Wire	20	l.m.		
EW13	Panel board				
	Main Circuit Breaker				
ASSY	Main: 800AT, 3P, 230V, MCCB Branches: 2-400AT, 3P, 230V Enclosure: NEMA 3R with Ground Terminals and Terminal Lugs	1	assy		
ASSY 40118	Main Distribution Panel Main: 400AT, 3P, 230V, MCCB Branches: 2-200AT, 2P, 230V 2-150AT, 2P, 230V 3-100AT, 2P, 230V Enclosure: NEMA 3R with Ground Terminals and Terminal Lugs	1	assy		
EW16	Pipe Hangers and Supports				
EW1602	Vertical Layout of Pipe	15	l.m.		
MC	Miscellaneous and Consumables				
MC/G	(Common Items)				
MC/G06	Hacksaw Blade	3	piece		
MC/G13	All Around Sealant	7	tube		
MC/G18	Waste Cloth	4	kg		
MC/G37	G.I. Tie Wire, Ga.16 (for Wire / Cable Pulling)	4	kg		
MC/E	(Electrical Works)				
MC/E01	Electrical Tape	15	roll		
MC/E04	Rubber Tape	10	roll		
MC/E12	16mmØ Nylon Rope	30	l.m.		
				Materials Cost I-EW	₱
				Labor Cost I-EW	
				Direct Cost I-EW	₱
I-UTI	Utility and Ancillary Works				
I-SW	Site Works				
106	Excavation for utility works	4	cu.m.	₱	₱
				Labor Cost I-UTI	₱

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
I-CWS	Civil / Structural Works				
UT010302	Earth Pit 0.30m x 0.30m x 0.30m	1	unit	₱	₱
UT010401	Distribution Post 0.40m x 0.40m x 6.00m	1	unit		
				Direct Cost I-CWS	₱

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
				MATERIALS COST I	₱
				LABOR COST I	
				DIRECT COST I	₱
II	**DAU BUILDING**				
II-EW	Electrical Works				
EW01	Pipes				
EW0104	40mmØ PVC Pipe	2	piece	₱	₱
EW0115	50mmØ IMC Pipe	1	piece		
EW05	Fittings and Accessories				
EW05004	40mmØ PVC Elbow	2	piece		
EW05013	40mmØ PVC Adaptor	2	piece		
EW05025	40mmØ PVC Locknut and Bushing	2	pair		
EW05036	50mmØ IMC Elbow	1	piece		
EW05046	50mmØ IMC Locknut and Bushing	2	pair		
EW05056	50mmØ IMC Coupling	2	piece		
EW05158	50mmØ Weatherproof Entrance Cap	1	piece		
EW09	Wires and Cables				
EW0901	THHN Wires				
EW090107b	30mm² THHN Wire	10	l.m.		
EW090109	50mm² THHN Wire	40	l.m.		
EW0903	TW Wires				
EW090304b	8.0mm² TW Wire	5	l.m.		
EW090305b	14.0mm² TW Wire	20	l.m.		
EW13	Panel Board				
ASSY.	Main: 150AT, 2P, 230V Branches: 2 - 100 AT, 2P, 230V Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	1	assy		
ASSY.	Main: 100AT, 2P, 230V Branches: 8 - 20 AT, 2P, 230V 6 - 30 AT, 2P, 230V Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	1	assy		
ASSY	Main: 100AT, 2P, 230V Branches: 8 - 20 AT, 2P, 230V Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	1	assy		
EW16	Pipe Hangers and Supports				
EW1602	Vertical Layout of Pipe	5	l.m.		
MC	Miscellaneous and Consumables				
MC/G	(Common Items)				
MC/G06	Hacksaw Blade	1	piece		
MC/G13	All Around Sealant	1	tube		
MC/G14	Solvent Cement, 400cc	1	can		
MC/G18	Waste Cloth	1	kg		
MC/G37	G.I. Tie Wire, Ga.16 (Wire / Cable Pulling)	1	kg		
MC/E	(Electrical Works)				
MC/E01	Electrical Tape	2	roll		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
				MATERIALS COST II	₱
				LABOR COST II	
				DIRECT COST II	₱
III	**NARRA BUILDING**				
III-EW	Electrical Works				
EW01	Pipes				
EW0115	50mmØ IMC Pipe	1	piece	₱	₱

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW05	Fittings and Accessories				
EW05036	50mmØ IMC Elbow	1	piece		
EW05046	50mmØ IMC Locknut and Bushing	2	pair		
EW05056	50mmØ IMC Coupling	2	piece		
EW05158	50mmØ Weatherproof Entrance Cap	1	piece		
EW09	Wires and Cables				
EW0901	THHN Wires				
EW090109	80mm² THHN Wire	40	l.m.		
EW0903	TW Wires				
EW090305b	22.0mm² TW Wire	20	l.m.		
EW13	Panel Board				
ASSY	Main: 200AT, 2P, 230V Branches: 2 - 100 AT, 2P, 230V Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	1	assy		
EW16	Pipe Hangers and Supports				
EW1602	Vertical Layout of Pipe	5	l.m.		
MC	Miscellaneous and Consumables				
MC/G	(Common Items)				
MC/G06	Hacksaw Blade	1	piece		
MC/G13	All Around Sealant	1	tube		
MC/G14	Solvent Cement, 400cc	1	can		
MC/G18	Waste Cloth	1	kg		
MC/G37	G.I. Tie Wire, Ga.16 (for Wire / Cable Pulling)	1	kg		
MC/E	(Electrical Works)				
MC/E01	Electrical Tape	2	roll		
				MATERIALS COST III	₱
				LABOR COST III	
				DIRECT COST III	₱
IV	**MOLAVE BUILDING**				
IV-EW	Electrical Works				
EW01	Pipes				
EW0114	40mmØ IMC Pipe	1	piece	₱	₱
EW05	Fittings and Accessories				
EW05035	40mmØ IMC Elbow	1	piece		
EW05045	40mmØ IMC Locknut and Bushing	2	pair		
EW05055	40mmØ IMC Coupling	2	piece		
EW05157	40mmØ Weatherproof Entrance Cap	1	piece		
EW09	Wires and Cables				
EW0901	THHN Wires				
EW090109	50mm² THHN Wire	40	l.m.		
EW0903	TW Wires				
EW090305b	14.0mm² TW Wire	20	l.m.		
EW13	Panel Board				
ASSY.	Main: 150AT, 2P, 230V Branches: 3 - 70AT, 2P, 230V	1	assy		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
	1 - 30AT, 2P, 230V, Spare Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs				
EW16	Pipe Hangers and Supports				
EW1602	Vertical Layout of Pipe	5	l.m.		
MC	Miscellaneous and Consumables				
MC/G	(Common Items)				
MC/G06	Hacksaw Blade	1	piece		
MC/G13	All Around Sealant	1	tube		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
MC/G14	Solvent Cement, 400cc	1	can		
MC/G18	Waste Cloth	1	kg		
MC/G37	G.I. Tie Wire, Ga.16 (for Wire / Cable Pulling)	1	kg		
MC/E	(Electrical Works)				
MC/E01	Electrical Tape	2	roll		
				MATERIALS COST IV	₱
				LABOR COST IV	
				DIRECT COST IV	₱
V	**SB OLD BUILDING**				
V-SW	Site Works				
DEMV001	Chipping of Concrete Wall (Electrical Works)	3	cu.m.	₱	₱
SW03	Clearing and Cleaning for Painting Preparation	47	sq.m.		
				Direct Cost V-SW (Labor)	₱
V-CWS	CIVIL / STRUCTURAL WORKS				
CWSMA	Masonry Works				
CWSMA13	Restoration of Concrete (Electrical Works)	50	sq.m.	₱	₱
				Materials Cost V-CWS	₱
				Labor Cost V-CWS	
				Direct Cost V-CWS	₱
V-AW	Architectural Works				
AWP	Painting Works				
AWP0101	Flat Latex Paint Finish (Interior Walls)	53	sq.m.	₱	₱
				Materials Cost V-AW	₱
				Labor Cost V-AW	
				Direct Cost V-AW	₱
V-EW	Electrical Works				
EW01	Pipes				
EW0101	20mmØ PVC Pipe	288	piece	₱	₱
EW0104	40mmØ PVC Pipe	20	piece		
EW0106	65mmØ PVC Pipe	3	piece		
EW0115	50mmØ IMC Pipe	1	piece		
EW04	Mouldings				
EW0403	16mm x 16mm x 2.44m Rectangular PVC Moulding	726	piece		
EW05	Fittings and Accessories				
EW05001	20mmØ PVC Elbow	198	piece		
EW05004	40mmØ PVC Elbow	4	piece		
EW05006	65mmØ PVC Elbow	2	piece		
EW05010	20mmØ PVC Adaptor	354	piece		
EW05013	40mmØ PVC Adaptor	8	piece		
EW05015	65mmØ PVC Adaptor	2	piece		
EW05022	20mmØ PVC Locknut and Bushing	354	pair		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW05025	40mmØ PVC Locknut and Bushing	8	pair		
EW05027	65mmØ PVC Locknut and Bushing	2	pair		
EW05036	50mmØ IMC Elbow	1	piece		
EW05046	50mmØ IMC Locknut and Bushing	2	pair		
EW05056	50mmØ IMC Coupling	2	piece		
EW05143	80mm² Ø Solderless Connector with Two-Bolt	2	pair		
EW05158	50mmØ Weatherproof Entrance Cap	1	piece		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW06	Boxes and Fabricated Pullbox				
EW0601	50mm x 100mm PVC Utility Box	148	piece		
EW0602	100mm x 100mm PVC Junction Box with Cover	206	piece		
EW09	Wires and Cables				
EW0901	THHN Wires				
EW090102a	3.5mm² THHN Wire	36	roll		
EW090107b	30mm² THHN Wire	120	l.m.		
EW090111	80mm² THHN Wire	130	l.m.		
EW0903	TW Wires				
EW090302a	3.5mm² TW Wire	18	roll		
EW090304b	8.0mm² TW Wire	60	l.m.		
EW090306b	22mm² TW Wire	10	l.m.		
EW10	Wiring Devices and Other Fixtures				
EW1002	Convenience Outlet with Grounding, Two-Gang	72	piece		
EW1015	Switch with Plate and Cover, One-Gang	8	piece		
EW1016	Switch with Plate and Cover, Two-Gang	18	piece		
EW11	Lighting fixtures (Energy Efficient)				
EW11067	Surface Mounted Box Type Lighting Fixture with 1-18W Daylight LED Tube	44	set		
EW11038	300mm x 1200mm, 1 x 18W LED, Troffer Type, with Complete Accessories, Surface Mounted Type	108	set		
EW11140	Orbit Fan with Selector Switch	36	set		
EW13	Panel Board				
ASSY. 6456 1981	Main: 200AT, 2P, 230V Branches: 4 - 100 AT, 2P, 230V Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	1	assy		
ASSY.	LPPA/LPPB/LPPC/LPPD Main: 100AT, 2P, 230V Branches: 8 - 20 AT, 2P, 230V 2 - 30 AT, 2P, 230V , Spare Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	4	assy		
EW16	Pipe Hangers and Supports				
EW1601	Horizontal Layout of Pipe	500	l.m.		
EW1602	Vertical Layout of Pipe	5	l.m.		
MC	Miscellaneous and Consumables				
MC/G	(Common Items)				
MC/G06	Hacksaw Blade	8	piece		
MC/G13	All Around Sealant	12	tube		
MC/G14	Solvent Cement, 400cc	8	can		
MC/G17	Torch with Butane	2	piece		
MC/G18	Waste Cloth	7	kg		
MC/G37	G.I. Tie Wire, Ga.16 (Wire / Cable Pulling)	7	kg		
MC/E	(Electrical Works)				
MC/E01	Electrical Tape	10	roll		
MC/E03	Pulling Lubricant	3	can		
MC/E04	Rubber Tape	8	roll		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
				Materials Cost V-EW	₱
				Labor Cost V-EW	
				Direct Cost V-EW	₱
				MATERIAL COST V	₱
				LABOR COST V	
				DIRECT COST V	₱

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
VI	**SB NEW BUILDING**				
VI-SW	Site Works				
DEMV001	Chipping of Concrete Wall (Electrical Works)	3	cu.m.	₱	₱
SW03	Clearing and Cleaning for Painting Preparation	47	sq.m.		
				Direct Cost VI-SW (Labor)	₱
VI-CWS	CIVIL / STRUCTURAL WORKS				
CWSMA	Masonry Works				
CWSMA13	Restoration of Concrete (Electrical Works)	50	sq.m.	₱	₱
				Materials Cost VI-CWS	₱
				Labor Cost VI-CWS	
				Direct Cost VI-CWS	₱
VI-AW	Architectural Works				
AWP	Painting Works				
AWP0101	Flat Latex Paint Finish (Interior Walls)	53	sq.m.	₱	₱
				Materials Cost VI-AW	₱
				Labor Cost VI-AW	
				Direct Cost VI-AW	₱
VI-EW	Electrical Works				
EW01	Pipes				
EW0101	20mmØ PVC Pipe	289	piece	₱	₱
EW0104	40mmØ PVC Pipe	20	piece		
EW0106	65mmØ PVC Pipe	5	piece		
EW0115	50mmØ IMC Pipe	1	piece		
EW04	Mouldings				
EW0403	16mm x 16mm x 2.44m Rectangular PVC	659	piece		
EW05	Fittings and Accessories				
EW05001	20mmØ PVC Elbow	160	piece		
EW05004	40mmØ PVC Elbow	4	piece		
EW05006	65mmØ PVC Elbow	2	piece		
EW05010	20mmØ PVC Adaptor	750	piece		
EW05013	40mmØ PVC Adaptor	8	piece		
EW05015	65mmØ PVC Adaptor	2	piece		
EW05022	20mmØ PVC Locknut and Bushing	750	pair		
EW05025	40mmØ PVC Locknut and Bushing	8	pair		
EW05027	65mmØ PVC Locknut and Bushing	2	pair		
EW05036	50mmØ IMC Elbow	1	piece		
EW05046	50mmØ IMC Locknut and Bushing	2	pair		
EW05056	50mmØ IMC Coupling	2	piece		
EW05143	80mm² Ø Solderless Connector with Two-Bolt	2	pair		
EW05158	50mmØ Weatherproof Entrance Cap	1	piece		
EW06	Boxes and Fabricated Pullbox				
EW0601	50mm x 100mm PVC Utility Box	160	piece		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW0602	100mm x 100mm PVC Junction Box with Cover	215	piece		
EW09	Wires and Cables				
EW0901	THHN Wires				
EW090102a	3.5mm² THHN Wire	32	roll		
EW090107b	30mm² THHN Wire	120	l.m.		
EW090111	80mm² THHN Wire	210	l.m.		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW0903	TW Wires				
EW090302a	3.5mm² TW Wire	16	roll		
EW090304b	8.0mm² TW Wire	60	l.m.		
EW090306b	22mm² TW Wire	15	l.m.		
EW10	Wiring Devices and Other Fixtures				
EW1002	Convenience Outlet with Grounding, Two-Gang	80	piece		
EW1015	Switch with Plate and Cover, One-Gang	8	piece		
EW1016	Switch with Plate and Cover, Two-Gang	20	piece		
EW11	Lighting fixtures (Energy Efficient)				
EW11067	Surface Mounted Box Type Lighting Fixture with 1-18W Daylight LED Tube	32	set		
EW11038	300mm x 1200mm, 1 x 18W LED, Troffer Type, with Complete Accessories, Surface Mounted Type	120	set		
EW11140	Orbit Fan with Selector Switch	40	set		
EW13	Panel Board				
ASSY	Main: 200AT, 2P, 230V Branches: 4 - 100 AT, 2P, 230V Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	1	assy		
ASSY	LPPA/LPPB/LPPC/LPPD Main: 100AT, 2P, 230V Branches: 9 - 20 AT, 2P, 230V 1 - 30 AT, 2P, 230V , Spare Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	4	assy		
EW16	Pipe Hangers and Supports				
EW1601	Horizontal Layout of Pipe	500	l.m.		
EW1602	Vertical Layout of Pipe	5	l.m.		
MC	Miscellaneous and Consumables				
MC/G	(Common Items)				
MC/G06	Hacksaw Blade	8	piece		
MC/G13	All Around Sealant	10	tube		
MC/G14	Solvent Cement, 400cc	8	can		
MC/G17	Torch with Butane	2	piece		
MC/G18	Waste Cloth	6	kg		
MC/G37	G.I. Tie Wire, Ga.16 (for Wire / Cable Pulling)	6	kg		
MC/E	(Electrical Works)				
MC/E01	Electrical Tape	10	roll		
MC/E03	Pulling Lubricant	3	can		
MC/E04	Rubber Tape	8	roll		
				Materials Cost VI-EW	₱
				Labor Cost VI-EW	
				Direct Cost VI-EW	₱
				MATERIAL COST VI	₱
				LABOR COST VI	
				DIRECT COST VI	₱

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
VII	**KAMAGONG BUILDING**				
VII-SW	Site Works				
DEMV001	Chipping of Concrete Wall (Electrical Works)	2	cu.m.	₱	₱
SW03	Clearing and Cleaning for Painting Preparation	35	sq.m.		
		Direct Cost VII-SW (Labor)			₱

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
VII-CWS	CIVIL / STRUCTURAL WORKS				
CWSMA	Masonry Works				
CWSMA13	Restoration of Concrete (Electrical Works)	34	sq.m.	₱	₱
				Materials Cost VII-CWS	₱
				Labor Cost VII-CWS	
				Direct Cost VII-CWS	₱
VII-AW	Architectural Works				
AWP	Painting Works				
AWP0101	Flat Latex Paint Finish (Interior Walls)	34	sq.m.	₱	₱
				Materials Cost VII-AW	₱
				Labor Cost VII-AW	
				Direct Cost VII-AW	₱
VII-EW	Electrical Works				
EW01	Pipes				
EW0101	20mmØ PVC Pipe	572	piece	₱	₱
EW0105	50mmØ PVC Pipe	10	piece		
EW0114	40mmØ IMC Pipe	1	piece		
EW04	Mouldings				
EW0403	16mm x 16mm x 2.44m Rectangular PVC	678	piece		
EW05	Fittings and Accessories				
EW05001	20mmØ PVC Elbow	25	piece		
EW05005	50mmØ PVC Elbow	3	piece		
EW05010	20mmØ PVC Adaptor	208	piece		
EW05014	50mmØ PVC Adaptor	4	piece		
EW05022	20mmØ PVC Locknut and Bushing	208	pair		
EW05026	50mmØ PVC Locknut and Bushing	4	pair		
EW05035	40mmØ IMC Elbow	1	piece		
EW05045	40mmØ IMC Locknut and Bushing	2	pair		
EW05055	40mmØ IMC Coupling	2	piece		
EW05141	50mm² Ø Solderless Connector with Two-Bolt	2	pair		
EW05157	40mmØ Weatherproof Entrance Cap	1	piece		
EW06	Boxes and Fabricated Pullbox				
EW0601	50mm x 100mm PVC Utility Box	42	piece		
EW0602	100mm x 100mm PVC Junction Box with Cover	62	piece		
EW09	Wires and Cables				
EW0901	THHN Wires				
EW090102a	3.5mm² THHN Wire	14	roll		
EW090109	50mm² THHN Wire	60	l.m.		
EW0903	TW Wires				
EW090302a	3.5mm² TW Wire	7	roll		
EW090305b	14.0mm² TW Wire	30	l.m.		
EW10	Wiring Devices and Other Fixtures				
EW1002	Convenience Outlet with Grounding, Two-Gang	18	piece		
EW1015	Switch with Plate and Cover, One-Gang	4	piece		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW1016	Switch with Plate and Cover, Two-Gang	8	piece		
EW11	Lighting fixtures (Energy Efficient)				
EW11067	Surface Mounted Box Type Lighting Fixture with 1-18W Daylight LED Tube	36	set		
EW11038	300mm x 1200mm, 1 x 18W LED, Troffer Type, with Complete Accessories, Surface Mounted Type	12	set		
EW11140	Orbit Fan with Selector Switch	8	set		

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
EW13	Panel Board				
ASSY. 6456	Main: 150AT, 2P, 230V Branches: 10 - 20 AT, 2P, 230V Enclosure: NEMA 1 with Ground Terminals and Terminal Lugs	1	assy		
EW16	Pipe Hangers and Supports				
EW1601	Horizontal Layout of Pipe	500	l.m.		
EW1602	Vertical Layout of Pipe	5	l.m.		
MC	Miscellaneous and Consumables				
MC/G	(Common Items)				
MC/G06	Hacksaw Blade	4	piece		
MC/G13	All Around Sealant	8	tube		
MC/G14	Solvent Cement, 400cc	5	can		
MC/G17	Torch with Butane	2	piece		
MC/G18	Waste Cloth	5	kg		
MC/G37	G.I. Tie Wire, Ga.16 (Wire / Cable Pulling)	5	kg		
MC/E	(Electrical Works)				
MC/E01	Electrical Tape	8	roll		
MC/E03	Pulling Lubricant	2	can		
MC/E04	Rubber Tape	5	roll		
				Materials Cost VII-EW	₱
				Labor Cost VII-EW	
				Direct Cost VII-EW	₱
				MATERIAL COST VII	₱
				LABOR COST VII	
				DIRECT COST VII	₱

SUMMARY

ITEM CODE	WORK DESCRIPTION AND SCOPE OF WORKS	TOTAL COST
OGR	OTHER GENERAL REQUIREMENTS	₱
	TOTAL ESTIMATED COST A	₱
GR	GENERAL REQUIREMENTS	₱
I	UPGRADING OF MAIN SERVICE ENTRANCE	
II	DAU BUILDING	
III	NARRA BUILDING	
IV	MOLAVE BUILDING	
V	SB OLD BUILDING	
VI	SB NEW BUILDING	
VII	KAMAGONG BUILDING	
Note: Strictly enforce health	**TOTAL DIRECT COST B**	₱
	Overhead, Contingencies and Miscellaneous Expenses (OCM)	

ITEM CODE	WORK DESCRIPTION & SCOPE OF WORKS	QTY.	UNIT	UNIT COST	TOTAL COST
Strictly enforce health protocol relative to the latest applicable DPWH Memorandum.	PROFIT				
	TOTAL ESTIMATED COST B				₱
	TOTAL DIRECT COST A				₱
	TOTAL ESTIMATED COST B				
	TOTAL ESTIMATED COST				₱
	VAT				
	TOTAL APPROVED BUDGET FOR THE CONTRACT				₱

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);
and

☐ (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 *(please see attached prescribed forms required by the QC – BAC for Infrastructure and Consultancy)*; **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 with an attached Notice of Award, Notice to Proceed, Contract and Certificate of Acceptance *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*; **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 *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*;

☐ c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment

lessor/vendor for the duration of the project, as the case may be *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*; **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.

Additional Technical Requirements:

- ☐ Certificate of Site Inspection or Affidavit of Site Inspection as part of Omnibus Sworn Statement
- ☐ Affidavit of Undertaking for Key Personnel and Equipment *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy)*
- ☐ Equipment Utilization Schedule
- ☐ Manpower Schedule
- ☐ Construction Schedule and S-Curve
- ☐ PERT-CMP
- ☐ Construction Methods

Financial Documents

☐ (l) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**

☐ (m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC) *(please see attached prescribed form required by the QC – BAC for Infrastructure and Consultancy).*

Class "B" Documents

☐ (n) 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

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

Other documentary requirements under RA No. 9184

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

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

☐ (r) Cash Flow by Quarter.

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date : _____

Project Identification No. : _____

To: [name and address of Procuring Entity]

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

a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract];*

b. We offer to execute the Works for this Contract in accordance with the PBDs;

c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;

d. The discounts offered and the methodology for their application are: *[insert information]*;

e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties],* which are itemized herein and reflected in the detailed estimates,

f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;

g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines[1] for this purpose;

h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;

i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

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[1] currently based on GPPB Resolution No. 09-2020

k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity*].*

l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal Capacity: _____

Signature: _____

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

Date: _____

Bid Securing Declaration Form

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

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

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

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f),of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.

3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:

    a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
    b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
    c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

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

Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

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

AFFIDAVIT

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

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

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

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

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

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

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

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

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

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

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

   [If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

   [If a partnership or cooperative:] None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project

Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

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

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:

   a. Carefully examining all of the Bidding Documents;
   b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
   c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
   d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project].*

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

11. We pledge that the project will be completed in accordance and congruency with the approved plans and programs.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

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

Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between *[name and address of PROCURING ENTITY]* (hereinafter called the "Entity") and *[name and address of Contractor]* (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute *[name and identification number of contract]* (hereinafter called "the Works") and the Entity has accepted the Bid for *[contract price in words and figures in specified currency]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, *viz.*:

   a. Philippine Bidding Documents (PBDs);
   - i. Drawings/Plans;
   - ii. Specifications;
   - iii. Bill of Quantities;
   - iv. General and Special Conditions of Contract;
   - v. Supplemental or Bid Bulletins, if any;

   b. Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

   Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

   c. Performance Security;

   d. Notice of Award of Contract and the Bidder's conforme thereto; and

   e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. **Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.**

3. In consideration for the sum of *[total contract price in words and figures]* or such other sums as may be ascertained, *[Named of the bidder]* agrees to *[state the object of the contract]* in accordance with his/her/its Bid.

4. The *[Name of the procuring entity]* agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

[Insert Name and Signature] *[Insert Name and Signature]*

[Insert Signatory's Legal Capacity] *[Insert Signatory's Legal Capacity]*

for: *for:*

[Insert Procuring Entity] *[Insert Name of Supplier]*

Acknowledgment

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

LIST OF ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS

NAME OF CONTRACTOR: _____

PROJECT TITLE (Name of the Contract) & EXACT PROJECT LOCATION	DATE OF CONTRACT	CONTRACT DURATION	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR, PARTHNER IN A JV) and PERCENTAGE OF PARTICIPATION	TOTAL CONTRACT VALUE AT AWARD	DATE OF COMPLETION or ESTIMATED COMPLETION TIME	TOTAL CONTRACT VALUE AT COMPLETION *IF APPLICABLE*	PERCENTAGE		VALUE OF OUTSTANDING WORKS (IN PHP)
									ACTUAL ACCOMPLISHMENT	PLANNED ACCOMPLISHMENT	
									TOTAL AMOUNT (Php) OF OUTSTANDING WORKS		

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

LIST OF ALL AWARDED BUT NOT YET STARTED GOVERNMENT AND PRIVATE CONTRACTS OF THE BIDDER

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

PROJECT TITLE & EXACT LOCATION	MAJOR SCOPE OF WORKS & DATE STARTED	NAME AND ADDRESS OF PROJECT OWNER	CONTRACT PRICE (PHP) AS AWARDED	DATE OF SCHEDULED COMPLETION	ROLE OF BIDDER IN THE CONTRACT SOLE CONTRACTOR / SUB-CONTRACTOR/PARTNER IN A
		TOTAL AMOUNT OF CONTRACT (Php)			

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

SINGLE LARGEST COMPLETED CONTRACT SIMILAR TO THE CONTRACT TO BE BID

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

PROJECT TITLE (Name of the Contract) & EXACT PROJECT LOCATION	DATE OF CONTRACT	CONTRACT DURATION	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR, PARTHNER IN A JV) and PERCENTAGE OF PARTICIPATION	TOTAL CONTRACT VALUE AT AWARD	DATE OF COMPLETION or ESTIMATED COMPLETIONTIME	TOTAL CONTRACT VALUE AT COMPLETION IF APPLICABLE

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

LIST OF MAJOR EQUIPMENT TO BE USED FOR THE PROJECT

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

TYPE	DESCRIPTION / CAPACITY	SERIAL NO.	YEAR ACQUIRED	PRESENT LOCATION (SPECIFIC ADDRESS)	STATUS OF AVAILABILITY (OWNED/LEASED)

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

A. LIST OF KEY CONSTRUCTION PERSONNEL TO BE ASSIGNED TO THE PROJECT

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

NAME	POSITION	AGE	EDUCATIONAL ATTAINMENT	TYPE OF CONSTRUCTION EXPERIENCE	NO.OF YEARS WITH THE CONTRACTOR	PROFESSION	PRC NO.

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

NAME OF BIDDER: _____

CURRENT ASSETS*		PHP	
(LESS) CURRENT LIABILITIES*	(LESS)	PHP	
NETWORTH		PHP	
NETWORTH x 15	x 15	PHP	
(LESS) VALUE OF ALL OUTSTANDING ON-GOING CONTRACTS**	(LESS)	PHP	
(LESS) VALUE OF ALL AWARDED BUT NOT YET STARTED CONTRACTS AS OF DATE**	(LESS)	PHP	
NET FINANCIAL CONTRACTING CAPACITY		PHP	

NOTES: * CURRENT ASSETS AND LIABILITIES BASED ON AUDITED FINANCIAL STATEMENT FOR THE PRECEDING CALENDAR YEAR SUBMITTED TO B.I.R.

** BASED ON LIST OF ON-GOING AND AWRDED BUT NOT YEY STARTED CONTRACTS SUBMITTED

REPUBLIC OF THE PHILIPPINES)

_____) S. S.

AFFIDAVIT OF UNDERTAKING

I, _____, of legal age, Filipino, _____ ***[OFFICER OR REPRESENTATIVE]*** _____

with office address at _____ after having been duly sworn to in accordance with law, hereby voluntary depose and state:

That I am duly authorized representative of the **[Name of Bidder** _____to execute this undertaking as evidenced by Secretary's Certificate and Board Resolution.

That **[Name of Bidder]** bidding for the (Name of Project)

That relative to the aforementioned Project, the [Name of Bidder] hereby undertake that the equipment to be use and the key personnel to be assign shall exclusively be used and will only perform to the said project until its completion.

That I am executing this affidavit to attest to the truth of the foregoing and in compliance with the submission of the technical requirements for the public bidding of the said project.

IN WITNESS HEREOF, I have hereunto signed my name below this _____ day of_____, _____ at _____.

AFFIANT FURTHER SAYETH NAUGHT.

_____

Affiant

SUBSCRIBED AND SWORN TO BEFORE ME this ___ day of _____, _____ in _____,

affiant exhibiting to me his/her _____ issued at _____ on _____.

Doc. No. ;
Page No. ;
Book No. ;
Series of 2020

_____

Notary Public


Republic of the Philippines
gppb
Government Procurement Policy Board