PHILIPPINE BIDDING DOCUMENTS

Government of the
Republic of the Philippines

Procurement of INFRASTRUCTURE PROJECTS

First Edition
May 2025

Preface

These Philippine Bidding Documents (PBD) for the procurement of Infrastructure Projects (hereinafter referred to also as the "Works") through *[Competitive Bidding, Limited Source Bidding, or Competitive Dialogue*[1]*]* have been prepared by the Government of the Philippines (GoP) for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the Government, including government-owned and/or -controlled corporations (GOCC), government financial institutions (GFI), state universities and colleges (SUC), local government units (LGU), and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory[2] use in projects that are financed in whole or in part by the GoP or any foreign government/foreign or international financing institution in accordance with the provisions of the Implementing Rules and Regulations (IRR) of Republic Act No. 12009 (RA No. 12009).

This PBD is 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: (a) the objectives, scope, and expected outputs and/or results of the proposed contract; (b) the eligibility requirements of Bidders; (c) the expected contract duration; and (d) the obligations, duties, and/or functions of the winning bidder.

In order to simplify the preparation of the Bidding Documents for each procurement, the PBD groups the provisions that are intended to be used unchanged in Section II. Instructions to Bidders (ITB) and in Section IV. General Conditions of Contract (GCC). Data and provisions specific to each procurement and contract should be included in Section III. Bid Data Sheet (BDS); Section V. Special Conditions of Contract (SCC); Section VI. Specifications; Section VII. Drawings; and Section VIII. Bill of Quantities. The forms to be used are provided in Section IX. Philippine Bidding Documents Related Forms.

Prudence must be exercised to check the relevance of the provisions of the PBD against the requirements of the specific Works to be procured. In addition, 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, except for the notes introducing Section IX. Philippine Bidding Documents Related Forms, where the information is useful for the Bidder. 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 proposal submission," should be furnished in the BDS and SCC. The final documents should contain neither blank spaces nor options.

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[1] For Second Stage of Competitive Dialogue under Section 29.4.2 of IRR of RA No. 12009.

[2] Unless the Treaty or International or Executive Agreement expressly provides use of foreign government/foreign or international financing institution procurement guidelines.

c) This Preface and the footnotes, or notes in italics included in the Invitation to Bid, BDS, SCC, 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. The Bidding Documents should not contain footnotes except Section IX. Philippine Bidding Documents Related Forms since these provide important guidance to Bidders.

d) The cover page should be modified as required to identify the Bidding Documents and date of issue.

e) The Project title page should be modified as required to identify the Project title and number, name and address of the Procuring Entity.

f) If modifications must be made to the bidding requirements, they can be presented in the BDS. Modifications for specific Project or Contract details should be provided in the SCC as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the BDS or SCC, these terms shall be printed in bold type face on Section II. Instructions to Bidders, and Section IV. General Conditions of Contract, respectively. To facilitate easy reference and completion, clauses from the BDS and SCC shall appear in bold type face in Sections II and IV, respectively.

Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OF BULACAN

Procurement of INFRASTRUCTURE PROJECTS

INFRA-PB-2026-005
Repair / Rehabilitation of 5 Classrooms, Catanghalan ES, Obando, Bulacan

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Glossary of Acronyms, Terms, and Abbreviations

ABC – Approved Budget for the Contract.

ADR – Alternative Dispute Resolution.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

COS – Contract of Service.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

GCC - General Conditions of Contract.

GFI – Government Financial Institution.

GOCC – Government-Owned and/or –Controlled Corporation.

GoP – Government of the Philippines.

GPPB – Government Procurement Policy Board.

HoPE – Head of Procuring Entity.

JO – Job Order.

IRR – Implementing Rules and Regulations.

ITB – Instructions to Bidders.

LCB- Lowest Calculated Bid.

LCRB – Lowest Calculated Responsive Bid.

LGUs – Local Government Units.

LoC – Line of Credit

MAB – Most Advantageous Bid.

MARB – Most Advantageous Responsive Bid.

MEARB – Most Economically Advantageous Responsive Bid.

MYCA – Multi-Year Contracting Authority.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

PSA – Philippine Statistics Authority.

RA No. – Republic Act Number.

SARB – Single Advantageous and Responsive Bid.

SCC - Special Conditions of Contract.

SCRB – Single Calculated and Responsive Bid.

SEARB – Single Economically Advantageous Responsive Bid.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

SRRB – Single Rated and Responsive Bid.

UN – United Nations.

Definition of Terms

Bid – a signed offer, proposal, or quotation submitted by a supplier, manufacturer, distributor, contractor, consultant, or service provider in response to the requirements of the Procuring Entity as stated in the Bidding Documents. (IRR of RA No. 12009, Section 5[c]).

Bidder – a supplier, manufacturer, distributor, contractor, consultant, and service provider, whether public or private, who submits a Bid in response to the requirements of the Procuring Entity as stated in the Bidding Documents. (IRR of RA No. 12009, Section 5[d]).

Bidding Documents – the documents issued by the Procuring Entity as the basis for Bids, furnishing all information necessary to prospective bidder to prepare a Bid for the Goods, Infrastructure Projects, and Consulting Services required by the Procuring Entity. (IRR of RA No. 12009, Section 5[e])

Bill of Quantities – a list of the specific items of the Work and their corresponding unit prices, lump sums, and/or provisional sums.

Consulting Services – services for Infrastructure Projects and other types of projects or activities of the government requiring adequate external technical and professional expertise that are beyond the capability or capacity of the government 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. (IRR of RA No. 12009, Section 5[i]).

Contract – the agreement entered into between the Procuring Entity and the Contractor to execute, complete, and maintain the Works and as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Contract Price – the price stated in the Notice of Award and thereafter to be paid by the Procuring Entity to the Contractor for the execution of the Works in accordance with this Contract.

Contract Time Extension (CTE) – the allowable period for the Contractor to complete the Works in addition to the original Completion Date stated in this Contract.

Contractor – 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.

Days – refers to calendar days; months to calendar months.

Dayworks – varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

Defect – any part of the Works not completed in accordance with the Contract.

Defects Liability Certificate – the certificate issued by the Procuring Entity upon correction of defects by the Contractor.

Defects Liability Period – the one (1) year period between contract completion and final acceptance within which the Contractor assumes the responsibility to undertake the repair of any damage to the Works at its own expense.

Drawings – graphical presentations of the Works. They include all supplementary details, shop drawings, calculations, and other information provided or approved for the execution of this Contract.

Effective Date of the Contract – the date indicated in the contract. However, the Contractor shall commence performance of its obligations only upon receipt of the Notice to Proceed.

Foreign-funded Procurement or Foreign-Assisted Project – refers to the acquisition of Goods, Consulting Services, and the contracting for Infrastructure Projects by the Government of the Philippines which are wholly or partly funded by foreign loans or grants pursuant to a Treaty or International or Executive Agreement.

Funding Source – Organization named in the SCC.

Goods – refer to (i) all items, supplies, and materials, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity; or (ii) general support services which pertain to all types of services except Consulting Services and Infrastructure Projects, such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services. Personnel Services or individual COS or JO engagements do not fall under this definition; (IRR of RA No. 12009, Section 5[n]).

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;” (IRR of RA No. 12009, Section 5[r]).

Lot – refers to one or more infrastructure projects that are grouped or bundled together based on factors, such as scope, location, or other relevant parameters, as determined by the End-User or Implementing Unit of the Procuring Entity. Each lot is distinct within the project and may be awarded as a separate contract.

MARB – refers to the award criteria in the procurement of Infrastructure where the considerations for the award of contract are the eligibility of the bidder, the responsiveness of its bid to the technical requirements, and the most advantageous bid in reference to the highest rated offer based on the quality component of the bid.

Materials – refer to all supplies, including consumables, used by the Contractor for incorporation in the Works.

MEARB – refers to the award criteria in the procurement of Infrastructure where the considerations for the award of contract are the eligibility of the bidder, the responsiveness of its bid to the technical requirements, and the determination of the most economically advantageous bid in reference to the quality-price ratio allocated to the technical and financial components of the bid.

Notice to Proceed – refers to a written notice issued by the Procuring Entity to the Contractor requiring the latter to begin the commencement of the work not later than a specified or determinable date.

Online submission – pertains to the submission of the bid for Infrastructure Projects and the bid envelopes containing the technical and financial components of the bid through electronic means or through the electronic bidding facility of the PhilGEPS, once available.

Permanent Works – refer to all permanent structures and all other project features and facilities required to be constructed and completed in accordance with this Contract which shall be delivered to the Procuring Entity, and which shall remain at the Site after the removal of all Temporary Works.

Plant – refers to the machinery, apparatus, and the like intended to form an integral part of the Permanent Works.

Procuring Entity - the organization acquiring the Infrastructure Project, as named in the SCC.

Project – refers to a specific or identified procurement covering Goods, Infrastructure Projects 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.

Program of Work – refers to the big-picture plan and comprehensive schedule that details construction-related tasks to ensure the timely and efficient delivery of the project.

Site Investigation Reports – refers to those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

Slippage – refers to a delay in work execution occurring when actual accomplishment falls below the target as measured by the difference between the scheduled and actual accomplishment of the Work by the Contractor as established from the work schedule. This is actually described as a percentage of the whole Works.

Simple Infrastructure Projects – refers to construction, improvement, rehabilitation, demolition, repair, restoration, or maintenance of structures, technical facilities and systems with an Approved Budget for the Contract (ABC) not exceeding Ten Million Pesos (PhP 10,000,000.00) built at the community level for the sustenance of lives and livelihoods of the population living in a community and built according to the needs and aspirations of the community population.

Verified Report – the report submitted by the Implementing Unit to the HoPE setting forth its findings as to the existence of grounds or causes for termination and explicitly stating its recommendation for the issuance of a Notice to Terminate.

Section I. Invitation to Bid

Notes on the Invitation to Bid

The Invitation to Bid provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The Invitation to Bid shall be:

a) In line with the principles of transparency and competitiveness and to ensure the widest possible dissemination thereof, all invitations to bid shall be published continuously by the Procuring Entity, for seven (7) calendar days on the Philippine Government Electronic Procurement System (PhilGEPS) website, in any conspicuous place reserved for this purpose in the premises of the Procuring Entity, and on the website or social media platforms of the Procuring Entity, if available, or such other channels as may be authorized by the Government Procurement Policy Board (GPPB), and the website prescribed by the foreign government/foreign or international financing institution, if applicable; and
b) For justifiable reasons, Procuring Entities that cannot publish procurement opportunities on its website, social media platform, or such other channels authorized by the GPPB shall publish its invitation to bid, at least once, in a newspaper of general nationwide circulation.

Apart from the essential items listed in the Bidding Documents, the Invitation to Bid should also indicate the following:

a) The availability of the Bidding Documents, which shall be commence from the time the Invitation to Bid is first published until the deadline for submission and continue until the deadline for 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;
d) The procurement strategy/ies; and
e) The bid award criterion/criteria. (*e.g.*, the application of a margin of preference in bid evaluation)

The Invitation to Bid should be incorporated into the Bidding Documents. The information contained in the Invitation to Bid must conform to the Bidding Documents, particularly to the relevant information in the BDS.

Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OF BULACAN

Invitation to Bid for *INFRA-PB-2026-005*
Repair / Rehabilitation of 5 Classrooms, Catanghalan ES, Obando, Bulacan

1) The ***Department of Education - School Division of Bulacan (DepEd - SDO Bulacan)***, through the ***DepEd FY 2026 General Appropriation Act - Basic Educational Facilities Fund (BEFF)***[3] intends to apply the sum of ***Four Million Eight Hundred Eighty-Two Thousand Thirty-Six Pesos and Twenty-Two Centavos (₱4,882,036.22)*** being the Approved Budget for the Contract (ABC) to payments under the contract for ***INFRA-PB-2026-005 Repair / Rehabilitation of 5 Classrooms, Catanghalan ES, Obando, Bulacan***. Bids received in excess of the ABC shall be automatically rejected at bid opening.

2) The ***DepEd - SDO Bulacan*** now invites bids for ***Repair/Rehabilitation of School Buildings (Batch 1) Repair / Rehabilitation of 5 Classrooms, Catanghalan ES, Obando, Bulacan***.[4] Completion of the Works is required ***Ninety Calendar Days (90 CD)***. Bidders should have completed, within ***five (5) years*** from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders (ITB).

3) Bidding will be conducted through competitive bidding procedures using a non-discretionary "pass/fail" criterion as specified in the IRR, otherwise known as the "New Government Procurement Act (NGPA)".

   Bidding is restricted to Filipino citizens/sole proprietorships, cooperatives, and partnerships or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines.

4) Interested bidders may obtain further information from ***DepEd - SDO Bulacan*** and inspect the Bidding Documents at the address given below from ***8:00 AM to 5:00 PM***.

5) A complete set of Bidding Documents may be acquired by interested bidders on ***August 25, 2026*** from the address below and upon payment of the applicable fee for the Bidding

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[3] Approved Budget for the Contract (ABC) refers to the budget for the contract duly approved by the Head of the Procuring Entity (HoPE), within the authorized amount in the General Appropriations Act (GAA), continuing, and automatic appropriations, or other authorized source of funds, in the case of National Government Agencies (NGAs); the corporate operating budget approved by the governing Boards, pursuant to Executive Order (EO) No. 518, s. 1979, entitled "Establishing a Procedure for the Preparation and Approval of the Operating Budgets of Government Owned or Controlled Corporations, in the case of GOCCs, GFIs, and RA No. 8292, or the "Higher Education Modernization Act of 1997", in the case of SUCs; and the budget for the contract approved by the Sanggunian through an appropriation ordinance in the case of LGUs. For multi-year contracts, for which a Multi-Year Contractual Authority (MYCA) or an equivalent document is required, the ABC shall be the total project cost reflected in the MYCA or equivalent document (Section 5(a), RA No. 12009).

[4] A brief description of the scope of Works should be provided, including quantities, location of project, and other information necessary to enable potential bidders to decide whether or not to respond to the invitation.

Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of ***Five Thousand Pesos (₱5,000.00)***.

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

6) The ***DepEd - SDO Bulacan*** will hold a Pre-Bid Conference on ***September 02, 2026, 10:00 AM*** **at** ***3F Conference Hall, DepEd Schools Division Office of Bulacan***.

7) Bids must be duly received by the Bids and Awards Committee (BAC) Secretariat through manual submission at the address indicated below on or before ***September 14, 2026 at 2:00 PM***. 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 ***September 14, 2026, 2:30 PM*** **at** ***3F Conference Hall, DepEd Schools Division Office of Bulacan***. Bids will be opened in the presence of the Bidders' representatives who choose to attend the activity.

10) All bids shall be accompanied by a Sworn Affidavit of the bidder that it is not related to the HoPE, Procurement Agent if engaged, members of the BAC, the TWG, the BAC Secretariat, the head of the PMO or the End-User or Implementing Unit, and the project consultants, by consanguinity or affinity up to the third civil degree pursuant to Section 81.1 of the IRR of RA 12009.

11) The *DepEd - SDO Bulacan* 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 Section 70 of R.A. No. 12009, without thereby incurring any liability to the affected bidder or bidders.

12) For further information, please refer to:

Dan Harvey D. Castro
Unit Head, Procurement Unit
BAC Secretariat Head
Provincial Capitol Compound, Barangay Guinhawa, City of Malolos, Bulacan
procurement@bulacandeped.com.ph
https://bulacandeped.com.ph

13) You may visit the following websites:

For downloading of Bidding Documents: *https://bulacandeped.com.ph*

August 25, 2026

JAIME T. TUGADE, PhD, CESE, RGC
OIC - Assistant Schools Division Superintendent
BAC Chairperson - Infrastructure

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

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

This Section contains provisions that shall not be changed or modified. Any amendment shall be reflected in Section III. Bid Data Sheet which consists of provisions that supplement, amend, or specify in detail information or requirements included in this Section and which are specific to each procurement.

Matters governing performance of the Contractor, payments under the contract, or those affecting the risks, rights, and obligations of the parties under the contract are not normally included in this Section, but rather under Section IV. General Conditions of Contract (GCC), and/or Section V. Special Conditions of Contract (SCC). If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, prudence must be exercised to avoid contradictions between clauses dealing with the same matter.

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A. General

1) Scope of Bid

1.1 The Procuring Entity named in the **BDS**, invites Bids for the [insert Procurement Project], with Project Identification Number [indicate number].

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

1.2 The winning Bidder will be expected to complete the Works by the intended completion date specified in **SCC** Clause 1.1.

2) Source of Funds

The Procuring Entity has a budget or received funds from the Funding Source named in the **BDS**, and in the amount indicated in the **BDS**. It intends to apply part of the funds received for this Project to cover eligible payments under the contract.

3) Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

3.1 Unless otherwise specified in the **BDS**, the Procuring Entity, as well as Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Procuring Entity:

a) defines, for purposes of this provision, the following terms under existing laws, rules, and regulations:

i) "corrupt practice" means an act by which officials in the public or private sectors improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the government, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in RA No. 3019.

ii) "fraudulent practice" means a misrepresentation of facts for purposes of influencing a procurement process or the execution of a contract to the detriment of the Procuring Entity, which includes collusive practices among Bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition.

iii) "collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels.

iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their

participation in a procurement process, or affect the execution of a contract;

v) "obstructive practice" is

a) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution relative to allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent the latter from disclosing its knowledge of matters relevant to the administrative proceedings or from pursuing such proceedings or investigation; or

b) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.

b) Undertakes to reject a proposal for award upon *prima facie* determination that the Bidder recommended for award has engaged in any of the prohibited practices mentioned in this Clause for purposes of competing for the contract.

3.2 Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause 4.

3.3 Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a Bidder or Contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the **GCC** Clause 36.

4) Conflict of Interest

4.1 All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (f) below:

a) A Bidder has controlling shareholders or beneficial owners in common with another Bidder;

b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;

c) A bidder has the same legally authorized representative as that of another Bidder for purposes of this Bid;

d) A bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process. This may include a firm or an organization that lends, or temporarily seconds, its personnel to firms or organizations that are engaged in consulting services for the preparation related to procurement for or implementation of the project if the personnel would be involved in any capacity on the same project;

e) A bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or

f) A bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

4.2 All Bidding Documents shall be accompanied by an Omnibus Sworn Statement of the Bidder that it is not related, by consanguinity or affinity up to the third civil degree, to the HoPE, Procurement Agent (if engaged), the head of the Project Management Office (PMO), the End-User or Implementing Unit or any members of the Bids and Awards Committee (BAC), Technical Working Group (TWG), and BAC Secretariat.[5]

4.3 The Bidder shall also disclose the ultimate beneficial ownership of the entity it represents. Failure to comply shall be a ground for the automatic disqualification of the bid in consonance with Section 59 of the IRR. For this reason, relationship to the aforementioned persons within the third civil degree of consanguinity or affinity shall automatically disqualify the Bidder from participating in the procurement of contracts of the Procuring Entity notwithstanding the act of such persons inhibiting themselves from the procurement process. This Clause shall apply to the following persons and affiliates:

a) In the case of individuals or sole proprietorships, to the Bidders and their spouses;

b) In the case of partnerships, to the partnership itself and its partners;

c) In the case of cooperatives, to the cooperative itself and members of the board of directors, general manager or chief executive officer;

d) In the case of a partnership, joint venture, or consortium, to the entity itself, its members or partners, as well as any person or entity that is a member of a blacklisted partnership, joint venture, or consortium; and

e) In the case of corporations, a single stockholder, together with their relatives up to the third civil degree of consanguinity or affinity, and their assignees, holding at least twenty percent (20%) of the shares therein, its chairperson and president, shall be blacklisted after they have been

[5] Section 81.1 of the IRR.

determined to hold the same controlling interest in a previously blacklisted corporation or in two corporations that have been blacklisted; the corporations of which they are part shall also be blacklisted.

5) Eligible Bidders

5.1 Only Bids found to be legally, technically, and financially eligible will be evaluated. For procurement of Infrastructure Projects, the following persons shall be eligible to participate in this bidding:

a) Duly licensed Filipino citizens or sole proprietorships;

b) Partnerships duly organized under the laws of the Philippines and of which at least sixty percent (60%) of the interest belongs to citizens of the Philippines;

c) Corporations duly organized under the laws of the Philippines, and of which at least sixty percent (60%) of the outstanding capital stock belongs to citizens of the Philippines;

d) Cooperatives duly organized under the laws of the Philippines; and

e) Persons or entities forming themselves into a Joint Venture (JV), i.e., a group of two (2) or more persons or entities that intend to be jointly and severally responsible or liable for a particular contract; Provided, however, that in accordance with relevant laws, rules, and regulations, Filipino ownership or interest of the joint venture concerned shall be at least sixty percent (60%); Provided, further, that joint ventures in which Filipino ownership or interest is less than sixty percent (60%) may be eligible where the structures to be built require the application of techniques or technologies which are not adequately possessed by a person or entity meeting the sixty percent (60%) Filipino ownership requirement; Provided, furthermore, that in the latter case, Filipino ownership or interest shall not be less than twenty-five percent (25%). For this purpose, Filipino ownership or interest shall be based on the contributions of each of the member of the joint venture as specified in their Joint Venture Agreement (JVA); Provided, finally, that the primary purpose of each member of the joint venture must be similar or related to the requirement of the project to be bid out.

5.2 The Procuring Entity may also invite foreign bidders when provided for under any Treaty or International or Executive Agreement as specified in the **BDS**.

5.3 In accordance with RA No. 4566 or the “Contractors' License Law” as amended by RA No. 11711 or “An Act Further Amending Republic Act No. 4566”, the persons or entities enumerated in Section 52 of the IRR may participate in the procurement of Infrastructure Projects if it has been issued a license by the Philippine Contractors Accreditation Board (PCAB) to engage or act as a contractor.

5.4 The Bidder must have completed an SLCC that is similar to the procurement project to be bid, and whose value must be equivalent to at least fifty percent (50%) of the ABC, adjusted to current prices using the Philippine Statistics Authority (PSA) consumer price indices; Provided, that any change to the fifty

percent (50%) requirement may be allowed, subject to the recommendation of the Procuring Entity, which shall be submitted to the GPPB for consideration; Provided, further, that contractors under Small A and Small B categories without similar experience on the procurement project to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost of their registration based on the guidelines as prescribed by the PCAB.

For foreign-funded procurement, the GoP and the foreign government, or foreign or international financing institution may agree on another track record requirement, as specified in the **BDS**.

Moreover, a contract shall be considered similar to the procurement project if it has the same major categories of work. The Procuring Entity may clarify in the Bidding Documents what is regarded as major categories of work, guided by the principle of proportionality and Fit-for-Purpose approach.

5.5 The SLCC shall be supported by an Owner's Certificate of Final Acceptance issued by the project owner other than the Contractor, or a final rating of at least Satisfactory in the Constructors Performance Evaluation System (CPES), or a similar performance and monitoring system. In the case of contracts with the private sector, an equivalent document shall be submitted.

5.6 The computation of a bidder's NFCC must be at least equal to the ABC to be bid, calculated as follows:

> NFCC = [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started, coinciding with the procurement project to be bid; Provided, That a different formula may be adopted subject to the recommendation of the Procuring Entity, which shall be submitted to the GPPB for consideration.

The value of the domestic bidder's current assets and current liabilities shall be based on the latest AFS submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their latest AFS prepared in accordance with international financial reporting standards.

6) Bidder's Responsibilities

6.1 The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Section IX. Philippine Bidding Documents Related Forms as required in **ITB** Clause 12.1(h)(iv).

6.2 Before submitting their bids, the Bidders are deemed to be knowledgeable of all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect this Project in any way.

6.3 The Bidder undertook the following responsibilities:

a) Took steps to carefully examine and ensure full understanding and comprehension of the Bidding Document, its requirements, clauses, and provisions;

b) Acknowledged all conditions, local or otherwise, affecting the implementation of the contract;

c) Made an estimate of the facilities available and needed for the contract to be bid, if any;

d) Complied with its responsibility to inquire or secure Supplemental Bid Bulletin(s);

e) Ensured that it is not "blacklisted" or barred from bidding by the Government of the Philippines (GoP) or any of its agencies, offices, corporations, or LGUs, including foreign government, or foreign/ international financing institutions whose blacklisting rules have been recognized by the GPPB; by itself or by reason of its relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity;

f) Ensured that each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and that all statements and information provided therein are true and correct;

g) Authorized the HoPE or its duly authorized representative/s to verify all the documents submitted;

h) Ensured that the signatory 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, to sign, and execute the ensuing contract, accompanied by the duly notarized Special Power of Attorney, Board or Partnership Resolution, or Secretary's Certificate, whichever is applicable;

i) Complied with the disclosure provision under Section 81 and 82 of RA No. 12009 and its IRR in relation to other provisions of RA No. 3019;

j) Complied with existing labor laws and standards. Moreover, the Bidder undertakes to:

   i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or Collective Bargaining Agreement (CBA) or arbitration award, if and when applicable.

      In case there is a finding by the Procuring Entity or the Department of Labor and Employment (DOLE) of underpayment or non-payment of workers' wages and wage-related benefits, the Bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of RA No. 12009, without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations;

   ii) Comply with Occupational Safety and Health Standards (OSHS) and correct deficiencies, if any.

In case of imminent danger, injury or death of the worker, the Bidder undertakes to suspend contract implementation pending clearance to resume from the DOLE Regional Office, in compliance with the Work Stoppage Order; and

iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or CBA or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises.

k) Ensured that it 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;

l) Examined all instructions, forms, terms, and specifications in the Bidding Documents;

m) Determined and complied with all matters pertaining to the contract to be bid, including but not limited to: (i) the location and the nature of the contract, project, or work; (ii) climatic conditions; (iii) transportation facilities; (iv) 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 (v) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work; and

n) Ensured that all information in the Bidding Documents, including bid or supplemental bid bulletin(s) issued, are correct and consistent. The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible Bidder out of the data furnished by the Procuring Entity.

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned;

6.4 The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

6.5 Further, the Bidder shall bear all costs associated with the preparation and submission of its bid, and the Procuring Entity shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

In case of failure of bidding, the Bidding Documents fee may be applied in the re-bidding for the same Project.

6.6 Furthermore, the Bidder should be aware that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

7) Origin of Goods and Services

Unless otherwise indicated in the **BDS**, there is no restriction on the origin of Goods, or Contracting of Works or Services other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

8) Subcontracts

8.1 Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Works to an extent as may be approved by the HoPE and as stated in the **BDS**. However, the subcontracted portion shall not exceed fifty (50%), or a different percentage of the ABC, on a per project basis, as approved by the GPPB.

8.2 Subcontracting of any portion of the Project shall not relieve the Bidder from any liability or obligation that may arise from the contract.

8.3 Subcontractors must meet the eligibility criteria as stated in the **BDS** and shall submit the same eligibility documents as the general contractor. Failure of a subcontractor to meet the eligibility criteria does not affect the eligibility of the general contractor for the procurement project. In such case, the portion intended to be subcontracted to the ineligible subcontractor shall be assumed by the general contractor.

8.4 Subcontracting arrangement, if allowed, including the time of submission of the eligibility documents of the subcontractor, shall be disclosed in the **BDS.**

B. Contents of Bidding Documents

9) Pre-Bid Conference

9.1 If so specified in the **BDS**, a pre-bid conference shall be held either at the Procuring Entity's physical address and/or online through videoconferencing, webcasting, or similar technology, or a combination thereof, on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.

9.2 The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids, but not earlier than seven (7) calendar days from the posting of the invitation to bid and other bidding documents on the PhilGEPS website.

9.3 Bidders are highly encouraged to attend the pre-bid conference to fully understand the Procuring Entity's requirements. While non-attendance of the Bidder will in no way prejudice its bid, the Bidder is deemed to know any changes and/or amendments to the Bidding Documents, as may be provided in the Supplemental Bid Bulletin.

The proceedings of the pre-bid conference shall be recorded, and the corresponding minutes shall be prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be made available to prospective Bidders not later than five (5) days upon written request.

9.4 Decisions of the BAC amending any provision of the Bidding Documents shall be issued in writing through a Supplemental Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

10) Clarification and Amendment of Bidding Documents

10.1 Prospective bidders may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to the BAC of the Procuring Entity at the address or electronic mail indicated in the **BDS** or through the electronic bidding facility of PhilGEPS, as may be applicable, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10.2 The BAC shall respond to the said request by issuing a Supplemental Bid Bulletin duly signed by the BAC Chairperson. It shall be made available to all those who have properly secured the Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.

10.3 Supplemental Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.

10.4 Any Supplemental Bid Bulletin issued by the BAC shall also be posted on the PhilGEPS website, in any conspicuous place in the premises of the Procuring Entity, and on the website or social media platforms of the Procuring Entity, if available, or such other channels as may be authorized by the GPPB. It shall be the responsibility of all prospective bidders, including those who have properly secured the Bidding Documents, to inquire and secure Supplemental Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental Bid Bulletin must be accordingly informed by the BAC, and be allowed to modify or withdraw their bids prior to the deadline for the submission and receipt of bids in accordance with ITB Clause 21.

C. Preparation of Bids

11) Language of Bids

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country. The Bidder shall cause the authentication of the translated documents and shall be authenticated by the appropriate Philippine foreign service establishment or post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. However, for Contracting Parties to the Apostille Convention, the documents shall be authenticated through an apostille by the Competent Authority, as defined in Section 20.2.9.2 of the IRR, except for countries identified by the DFA that will still require legalization (red ribbon) by the relevant Embassy or Consulate. The English translation shall govern, for purposes of interpretation of the bid.

12) Documents Comprising the Bid: Technical and Financial Components

12.1 The first bid envelope shall contain the following technical documents, including the eligibility documents:

a) PhilGEPS Certificate of Registration (Platinum Membership) in accordance with Section 20 of the IRR;

b) PCAB License and Registration, in case of Joint Venture (JV);

c) Statement 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;

d) Statement of the Bidder's SLCC, in accordance with **ITB** Clause 5.5.

The SLCC shall be supported by an Owner's Certificate of Final Acceptance issued by the project owner other than the Contractor, or a final rating of at least satisfactory in the CPES, or a similar performance and monitoring system. In case of contracts with the private sector, an equivalent document shall be submitted;

e) NFCC computation in accordance with **ITB** Clause 5.6;

f) Joint Venture Agreement (JVA), if applicable;

g) Bid Security in the prescribed form and amount in accordance with **ITB** Clause 16, and validity period under **ITB** Clause 15;

h) Project Requirements, which shall include the following:

i) Organizational chart of the personnel to be deployed for the procurement project to be bid;

ii) List of Contractor's personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the procurement project to be bid, with their complete qualifications and experience data. These personnel must meet the required minimum years of experience set in the **BDS**;

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

iv) Omnibus Sworn Statement in accordance with Section 54.3 of the IRR.

12.2 The second bid envelope shall contain the Financial Bid Form, which includes the bid prices and the bill of quantities, in accordance with **ITB** Clauses 13.1.

12.3 Whenever necessary, modifications may be made to the foregoing provisions specifically for major and specialized procurement to suit the particular needs of the Procuring Entity, subject to the approval of the GPPB.

12.4 All bids that exceed the ABC shall not be accepted. Unless otherwise indicated in the **BDS**, for foreign-funded procurement, the ABC shall be applied as the ceiling to bid prices provided the following conditions are met:

a) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the Procuring Entity, payment could be made upon the submission of bids.

b) The Procuring Entity has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the Procuring Entity and that the estimates are based on adequate detailed engineering and reflect the quality, supervision and risk, and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.

c) The Procuring Entity has trained cost estimators on estimating prices and analyzing bid variances. In the case of Infrastructure Projects, the Procuring Entity must also have trained quantity surveyors.

d) The Procuring Entity has established a system to monitor and report bid prices relative to ABC and engineer's or Procuring Entity's estimate.

e) The Procuring Entity has established a monitoring and evaluation system for contract implementation to provide feedback on actual total costs of goods and works.

However, the GoP and the foreign government, or foreign or international financing institutions may agree to waive the foregoing conditions.

13) Bid Prices

13.1 The contract shall be for the whole Works, as described in the Bidding Documents, based on the priced Bill of Quantities submitted by the Bidder.

13.2 The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. In case partial bids are allowed in the ITB, bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, the Bill of Quantities, shall be considered non-responsive and shall be automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be provided for.

13.3 For the given scope of work in the contract as awarded, all bid prices shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as specified in GCC Clause 45.

14) Bid Currencies

14.1 All bid prices shall be quoted in Philippine Peso unless otherwise provided in the **BDS**. 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 Daily Reference Exchange Rate Bulletin on the day of the bid opening.[6]

14.2 If so allowed in accordance with **ITB** Clause 14.1, the Procuring Entity, for purposes of bid evaluation and comparing the bid prices, will convert the currencies in which the bid price is expressed to Philippine Peso at the foreign exchange rates.

14.3 Unless otherwise specified in the **BDS**, payment of the contract price shall be made in Philippine Peso.

15) Bid Validity

15.1 Bids shall remain valid for the period specified in the **BDS** which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.

15.2 Should it become necessary to extend the validity of the bids and the bid securities beyond one hundred twenty (120) calendar days, the Procuring Entity concerned shall request in writing all those who submitted bids for such extension before the expiration date therefor. Bidders, however, shall have the right to refuse to grant such extension without forfeiting their Bid Security.

16) Bid Security

16.1 The Bidder, at its option, shall submit a Bid Security in the form and amount as stated in the **BDS**, which may include the following:

Form of Bid Security	**Amount of Bid Security (Not less than the required Percentage of the ABC)**
(a) Cash or cashier's/manager's check issued by a bank. *For biddings conducted by LGUs, the Cashier's or Manager's check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.*	Two percent (2%)
(b) Bank draft/guarantee or irrevocable Letter of Credit issued by a bank; Provided, however, that it shall be confirmed or authenticated by a local bank, if issued by a foreign bank.	Five percent (5%)

[6] RA No. 8183 or "An Act to Assure Uniform Value to Philippine Coin and Currency."

For biddings conducted by LGUs, the Bank Draft/ Guarantee, or irrevocable letter of credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance on as authorized to issue such security.	Five percent (5%)
(d) Bid Securing Declaration	Not Applicable

The Bid Security shall be denominated in Philippine Peso and posted in favor of the Procuring Entity.

16.2 The Bid Security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable Bid Security shall be considered as non-responsive and rejected by the Procuring Entity.

16.3 In no case shall the Bid Security be returned later than the expiration of the bid validity period indicated in the Bidding Documents, unless it has been extended in accordance with Section 57.2 of the IRR. In case the bidder is required to extend its bid validity, the bidder may, at its discretion, substitute a Bid Securing Declaration for the extended period as a replacement of its Bid Security; Provided, that the option to substitute is indicated in the **BDS.**

16.4 Upon signing and execution of the contract, pursuant to **ITB** Clause 29, and the posting of the performance security pursuant to **ITB** Clause 30, the Bid Security of the successful Bidder's Bid Security will be discharged, but in no case later than its validity period as indicated in **ITB** Clause 15.

16.5 The Bid Security may be forfeited based on any of the following grounds, as provided under Rule VIII, X, XI, and XXI of the IRR:

a) If a Bidder:

i) With the Lowest Calculated Responsive Bid (LCRB), Most Economically Advantageous Responsive Bid (MEARB), Most Advantageous Responsive Bid (MARB), Single Calculated and Responsive Bid (SCRB), Single Economically Advantageous Responsive Bid (SEARB), or Single Advantageous Responsive Bid (SARB) withdraws, fails, refuses or is unable to: (i) submit the documents required under Section 66.5 of the IRR; (ii) enter into contract with the Procuring Entity; or (iii) post the required performance security within the period stipulated in the IRR and in accordance with **ITB** Clause 30;

ii) Causes the delay, without justifiable cause, of the screening for eligibility, opening of bids, evaluation and post evaluation of Bids, and awarding of contracts;

iii) Refuses to clarify or validate in writing its bid during post-qualification within a period of seven (7) calendar days from receipt of the request for clarification;

iv) Withdraws a bid, or refuses to accept an award, or refuses or fails to enter into contract with the Procuring Entity without justifiable cause, after the approval of the HoPE for having been the declared LCRB or MEARB, as the case may be;

v) Refuses or fails to furnish performance security within the prescribed time;

vi) Commits of three (3) or more of any of the acts imposed with suspension, as provided under Section 99 of the IRR;

vii) Uses force, fraudulent machinations, coercion, undue influence or pressure on any member of the BAC or any officer or employee of the Procuring Entity to take a particular action for its own favor or gain, or to the advantage of a particular bidder;

viii) Colludes with one (1) or more bidders and submitting different bids as if they were bona fide, when they knew that one or more of them was so much higher than the other that it could not be honestly accepted and that the contract will surely be awarded to the pre-arranged lowest bid;

ix) Maliciously submits different bids through two (2) or more persons, corporations, partnerships, or any other business entity in which it has interest, to create the appearance of competition that does not in fact exist so as to be declared as the winning bidder;

x) Enters into an agreement with other bidder/s which call upon one to refrain from bidding for procurement contracts, or which call for withdrawal of bids already submitted, or which are otherwise intended to secure an undue advantage to any of the bidders;

xi) Fails to faithfully disclose its relationship, regardless of the time of its discovery, with the HoPE, members of the BAC, the TWG, and the BAC Secretariat, the head of the PMO or the End-User or Implementing Unit, and the project consultants of the Procuring Entity, or of the procurement agent, whichever is applicable, by consanguinity or affinity up to the third civil degree pursuant to Section 81 of the IRR;

xii) Submits beneficial ownership information containing false entries;

xiii) Allows the use of one's name or uses the name of another for purposes of public bidding;

xiv) Submits eligibility requirements and bids containing false information or falsified documents or the concealment of such

information that will materially alter the outcome of eligibility screening or any stage of the procurement;

xv) Accesses the contents of any Bid submitted to the Procuring Entity before the opening of bids, without authorization;

xvi) Has any documented attempt to unduly influence the outcome of the bidding;

xv) Employs schemes which stifle or suppress any procurement activity; or

xvi) Commits a third offense imposed with blacklisting under the Act by the same Procuring Entity, or a combination of three (3) violations imposed with blacklisting by the Procuring Entity and other Procuring Entities, as posted on the GPPB portal;

b) If a Winning Bidder:

i) Conducts poor performance or unsatisfactory quality and/or progress of work. Poor performance shall be as follows:

i.i) Negative slippage of fifteen percent (15%) and above within the critical path of the project due entirely to the fault or negligence of the winning bidder; or

i.ii) Non-compliance of the materials and workmanship with the approved specifications arising from the fault or negligence of the winning bidder.

ii) In case it is determined prima facie that the winning bidder has engaged, before or during the implementation of the contract, in the following unlawful deeds and behaviors relative to contract acquisition and implementation:

ii.i) Corrupt, fraudulent, collusive and coercive practices;

ii.ii) Drawing up or using forged documents; or

ii.iii) Using adulterated materials, means or methods, or engaging in production contrary to rules of science or trade.

iii) Assigns or subcontracts the contract or any part thereof or substituting key personnel named in the proposal without prior written approval by the Procuring Entity;

iv) Willfully or deliberately abandons or does not perform the project or contract by the winning bidder resulting in substantial breach thereof without lawful and/or just cause;

v) Has its contract terminated due to its default or unlawful acts; or

vi) Fails to comply with the provision on warranty that requires to repair any noted defect or damage to the Infrastructure Project

due to the use of materials of inferior quality within ninety (90) calendar days from the issuance of the order by the HoPE to undertake such repairs.

17) Format and Signing of Bids

17.1 Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Section IX. Philippine Bidding Documents Related Forms on or before the deadline specified in the **ITB** Clause 19 in two (2) separate sealed bid envelopes which shall be submitted simultaneously, whether through manual or online submission. The first shall contain the technical component of the bid, including the eligibility requirements under **ITB** Clause 12, and the second shall contain the financial component of the bid.

17.2 Forms as mentioned in **ITB** Clause 17.1 must be completed without any alterations to their format. No substitute form shall be accepted.

17.3 Each and every page of the Bid Form, including the Bill of Quantities, under Section IX hereof, shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the bid.

17.4 Any insertions, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

18) Sealing and Marking of Bids

18.1 Bidders shall enclose their technical documents described in **ITB** Clause 12 in one sealed envelope marked “TECHNICAL COMPONENT,”, and the financial component in another sealed envelope marked “FINANCIAL COMPONENT,”, sealing them all in an outer envelope marked “BID.”

18.2 The Bid shall be typed or written in ink and shall be signed by the Bidder or its duly authorized representative/s.

18.3 All envelopes shall:

a) contain the name of the contract to be bid in capital letters;

b) bear the name and address of the Bidder in capital letters;

c) be addressed to the Procuring Entity’s BAC in accordance with **ITB** Clause 18.1;

d) bear the specific identification of this bidding process indicated in the **ITB** Clause 1.1; and

e) bear a warning “DO NOT OPEN BEFORE…” the date and time for the opening of bids, in accordance with **ITB** Clause 19.

18.4 For manually submitted bid envelopes that are not properly sealed and marked, as required in the Bidding Documents, the same shall be accepted; Provided, That the bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. On the other hand, unsealed or unmarked

bid envelopes, or bids that cannot be opened or corrupted in case of online submission, shall be rejected.

The BAC shall assume no responsibility for misplaced or lost contents of the improperly sealed or marked bid, or for its premature opening.

D. Submission and Opening of Bids

19) Deadline for Submission of Bids

Bids must be received by the Procuring Entity's BAC at the address indicated in the **Invitation to Bid,** or through the e-bidding facility of the PhilGEPS, on or before the date and time indicated in the **BDS**.

20) Late Bids

Bids, including the eligibility requirements, submitted after the deadline shall be rejected by the BAC. The BAC shall record in the Minutes of the Meeting the submission and opening of bids, the Bidder's name, its representative, and the time the late bid was submitted.

21) Modification and Withdrawal of Bids

21.1 Bidders may modify their bids before the deadline for the submission and receipt of bids.

a) For manual submission and receipt of bids, the Bidders shall not be allowed to retrieve their original bid, but shall only be allowed to submit the bid modification by sending another bid, equally sealed, properly identified, linked to its original bid, and marked as a "modification," thereof, and stamped "received" by the BAC. Bid modifications received after the applicable deadline shall not be considered and shall be returned to the bidder unopened.

b) For online submission of bids, the Bidders shall not be allowed to retrieve their original Bid, but shall only be allowed to submit the bid modification, send another Bid equally secured, properly identified labelled as a "modification" of the one previously submitted. The time indicated in the latest bid receipt page generated shall be the official time of submission. Bids modification submitted after the applicable deadline shall not be accepted.

21.2 Bidders may withdraw their bids in writing before the deadline for submission and receipt of bids. Withdrawal of bids after the applicable deadline shall be subject to appropriate sanctions as prescribed in the IRR.

Bidders may also express their intention not to participate in the bidding in writing, which should be received by the BAC before the deadline for submission and receipt of bids. Bidders that withdraw their bids shall no longer be allowed to submit another bid for the same contract, directly or indirectly.

21.3 No bid may be modified after the deadline for submission and receipt of bids. Further, no bid may be withdrawn in the interval between the deadline for submission and receipt of bids, and the expiration of bid validity specified by the Bidder in the Financial Bid Form. Withdrawal of bid during this interval shall

result in the forfeiture of the Bidder's Bid Security pursuant to **ITB** Clause 16.5, and the imposition of administrative sanctions as prescribed by RA No. 12009 and without prejudice to the imposition of civil and criminal sanctions as provided under applicable laws.

Alternative Bids shall be rejected. For this purpose, Alternative Bid shall pertain to an offer made by a bidder in addition or as a substitute to its original bid, which may be included as part of its original bid or submitted separately. A bid with options shall likewise be considered an Alternative Bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.

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.

Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

22) Opening and Preliminary Examination of Bids

22.1 The BAC shall open the bids in public, immediately after the deadline for submission and receipt of bids, as specified in the **BDS**. In case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the submitted Bids and reschedule the opening of Bids on the next working day or at the soonest possible time, through the issuance of a Notice of Postponement to be posted on the PhilGEPS website and the website of the Procuring Entity concerned.

22.2 The manner of opening of the bids for Infrastructure Projects shall depend on the award criterion to be adopted, as follows:

a) For LCRB and MEARB, the BAC shall open the technical and financial proposals on the same day; and

b) For MARB, only the technical proposals shall be opened while the financial proposals shall remain unopened and shall be kept securely by the BAC until the specified time of their opening as indicated in the **BDS**. Only the financial proposals of the bidders who have met the highest technical score for MAB shall be opened.

22.3 The Procuring Entity shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.

22.4 The Bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all

submitted bids. The Abstract of bids, as read, and the minutes of the bid opening shall be made available to the public, upon written request and payment of a specified fee to recover the cost of materials.

22.5 To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all bidders whose bids it has received through mail at its PhilGEPS-registered physical address or official e-mail address. The said notice shall be issued within seven (7) calendar days from the date of the bid opening.

E. Evaluation and Comparison of Bids

23) Process to be Confidential

23.1 Members of the BAC, its staff and personnel, Secretariat, and TWG, as well as Observers, are prohibited from making or accepting any communication with any bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless otherwise allowed in the case of **ITB** Clause 24.

23.2 Any effort by a Bidder to influence the Procuring Entity in the Procuring Entity's decision in respect of bid evaluation, bid comparison or contract award will result in the rejection of the bid.

24) Clarification of Bids

To assist in the evaluation, comparison, and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid that is not in response to the request of the Procuring Entity shall not be considered.

25) Detailed Evaluation and Comparison of Bids

25.1 The Procuring Entity's evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Bill of Quantities.

25.2 The Procuring Entity will undertake the detailed evaluation and comparison of the bids which have passed the opening and preliminary examination of bids, pursuant to **ITB** Clause 22, to determine the Lowest Calculated Bid (LCB), Most Economically Advantageous Bid (MEAB), and Most Advantageous Bid (MAB).

25.3 The award criterion shall be determined as follows:

a) For LCB:

i) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and

ii) The ranking of the total bid prices as so calculated from the lowest to highest, where the bid with the lowest price shall be identified as the LCB.

b) For MEAB, the BAC shall evaluate the quality and price proposals to determine the MEAB using the following steps:

i) The quality proposal together with the price proposal shall be considered in the evaluation of bids. The quality proposals shall be evaluated first using the criteria in the **BDS**. The price proposals of the bids that meet the minimum quality score shall then be opened.

ii) The price and quality proposals shall be given corresponding weights with the price proposal given a minimum weight of fifteen percent (15%) up to a maximum of forty percent (40%). The weight of the quality criteria shall be adjusted accordingly such that their total weight in percent together with the weight given to the price proposal shall be equal to one hundred percent (100%).

iii) To further promote green public procurement, the sustainability of materials or structures with green specifications shall be given greater weight in the evaluation of bids. As approved by the BAC, the exact weights shall be indicated in the **BDS.** The BAC shall rank the bidders in descending order based on the combined numerical ratings of their quality and price proposals. The bidder with the best overall score using the quality-price ratio shall be referred to as the MEAB.

iv) The HoPE shall approve or disapprove the recommendations of the BAC within two (2) calendar days after receipt of the results of the evaluation from the BAC.

The quality component shall be assessed on the basis of criteria with corresponding numerical weights indicated in the **BDS**, which may include qualitative, environmental, or social aspects linked to the subject matter of the contract. These may include any or a combination of the following:

a) Quality and technical merit, including technical competence and a credible track record;

b) Aesthetic and functional design and characteristics;

c) Approach and methodology;

d) Accessibility;

e) Tools and equipment;

f) Social, environmental, economic, and innovative characteristics;

g) Organization, qualification, and experience of employees or staff assigned to perform the contract;

h) Ongoing contracts and work commitments; or

i) Other relevant criteria in relation to the subject Infrastructure Projects to be procured.

c) For MAB

i) The BAC shall evaluate the quality proposals to determine the MAB using the quality components. The quality components shall be

assessed on the basis of the criteria with corresponding numerical weights indicated in the **BDS** to determine the bidder with the highest technical rating.

ii) The second bid envelope of the bidder obtaining the highest technical rating shall be opened. If the financial proposal is equal to or lower than the ABC, the bid shall be accepted and determined as the MAB; otherwise, the same shall be rejected and the bidder will be disqualified.

25.4 In order to eliminate bias in evaluating the quality proposals, it is recommended that the highest and lowest scores for each bidder for each criterion shall not be considered in determining the average scores of the bidders, except when the evaluation is conducted in a collegial manner.

25.5 The BAC shall immediately conduct a detailed evaluation of all bids using non-discretionary criteria in considering the following:

a) Completeness of the bid. Unless the **BDS** allows partial bids, bids not addressing or providing all of the required items in the BDS shall be considered non-responsive and, thus, automatically disqualified.

However, when no price or a zero (0) or a dash (-) is indicated in a required item in the bid form, the same shall be construed that it is being offered for free to the Government, except those required by law or regulations to be provided for; and

b) Arithmetical corrections. The BAC shall consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid correction if expressly allowed in the **BDS**. Any adjustment shall be calculated in monetary terms to determine the calculated prices.

25.6 Based on the detailed evaluation of bids, those that comply with the above-mentioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the LCB, MEAB, or MAB. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered, unless otherwise indicated in the **BDS**.

25.7 The BAC shall evaluate all bids on an equal footing to ensure fair and competitive bid comparison. For this purpose, all bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value-added tax (VAT), income tax, local taxes, and other fiscal levies and duties. Such bids, including said taxes, shall be the basis for the bid evaluation and comparison.

25.8 If so indicated pursuant to **ITB** Clause 1.1, bids may be submitted for individual lots, or for any combination thereof, provided that all bids and combinations of bids 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 prices quoted shall correspond to all of the requirements specified for each lot. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately. The basis for evaluation of lots is specified in **BDS** Clause 25.5 (a).

26) Post - Qualification

26.1 The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the LCB, MEAB, or MAB, as the case may be, complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5 and 12. The Bidder, within a non-extendible period of five (5) calendar days from receipt of notice from the BAC that it submitted the LCB, MEAB, or MAB, shall submit all the eligibility documents supporting its PhilGEPS Certificate of Registration (Platinum Membership), its latest income and business tax returns filed for the preceding quarter which should not be earlier than two (2) quarters from the date of submission and receipt of bid, and other appropriate licenses and permits required by law and stated in the **BDS**.

26.2 Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award; Provided, That in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the Bid Security.

26.3 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clause 12, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion, which shall be completed within a period of twelve (12) calendar days.

26.4 If the BAC determines that the bidder with the LCB, MEAB, or MAB passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, MEARB, MARB, SCB, SEAB, or Single Advantageous Bid (SAB) and recommend to the HoPE the award of contract to the said bidder at its submitted bid price or its calculated bid price, whichever is lower or, in the case of quality-based evaluation procedure, submitted bid price or its negotiated price, whichever is lower.

If, however, the BAC determines that the bidder with the LCB, MEAB, MAB, SCB, SEAB, or SAB fails to meet the post-qualification criteria, it shall immediately notify the Bidder in writing of its post-disqualification and the grounds for such determination.[7]

26.5 Immediately after the BAC has notified the first bidder of its post-disqualification, and notwithstanding any pending request for reconsideration thereof, the BAC shall initiate and complete the same post-qualification process on the bidder with the second LCB, MEAB, or MAB. If the second bidder passes the post-qualification and provided that the request for reconsideration of the first bidder has been denied, the second bidder shall be post-qualified as the bidder with the LCB, MEAB, or MAB.

26.6 If the second bidder, however, fails the post-qualification, the procedure for post-qualification shall be repeated for the bidder with the next LCB, MEAB, or MAB and so on, until the LCRB, MEARB, or MARB, as the case may be, is determined for award, subject to the procedure of Notice and Execution of Award.

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[7] Sec 63.5 of the IRR.

26.7 Within a period not exceeding ten (10) calendar days from the determination by the BAC of the LCRB, MEARB, MARB, SCRB, SEARB, or SARB and the recommendation to award the contract, the HoPE or its duly authorized representative shall approve or disapprove the said recommendation.

26.8 In case of approval, the HoPE or its duly authorized representative shall immediately issue the Notice of Award to the bidder with the LCRB, MEARB, MARB, SCRB, SEARB, or SARB, as the case may be.

In the event that the approving authority shall disapprove the resolution on the award of the contract, such disapproval shall be based only on valid, reasonable, and justifiable grounds as enumerated under Section 70 of the IRR to be expressed in writing. A copy of the decision disapproving the resolution shall be furnished to the BAC and the bidder.

27) Reservation Clause

27.1 Notwithstanding the eligibility or post-qualification of a bidder and without incurring any liability, the HoPE or its duly authorized representative at any stage of the procurement, reserves the right to review its qualifications, reject any and all bids, declare a failure of bidding or not award the contract in the following situations:

a) If it has reasonable grounds to believe that a misrepresentation has been made by the said bidder; or

b) If it has reasonable grounds to believe that there has been a change in the bidder's capability to undertake the project from the time it submitted its eligibility requirements.

Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will adversely affect its capability to undertake the Project so that it no longer meets the prescribed eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and disqualify it from participating further in the bidding process or being awarded the contract.

27.2 Based on the following grounds, the HoPE or its duly authorized representative reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:

a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the bidders, or if the collusion is between or among the bidders themselves, or between a bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition or influences or tends to influence the bidding process;

b) If the BAC is found to have failed in complying with the applicable law or in following the prescribed bidding procedures; or

c) If there are any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the government, in instances where (i) the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HoPE; (ii) the Project is no longer necessary as determined by the HoPE; and (iii) the source of funds for the Project has been withheld or reduced through no fault of the Procuring Entity.

F. Award of Contract

28) Contract Award

28.1 Subject to **ITB** Clause 26, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the LCRB, MEARB, MARB, SCRB, SEARB, or SARB, as the case may be.

28.2 Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the winning Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the Bidder with the LCRB, MEARB, MARB, SCRB, SEARB, or SARB, as applicable, and submitted personally or sent by registered mail or electronically to the Procuring Entity.

28.3 Within ten (10) calendar days from receipt by the winning bidder of the Notice of Award, the following conditions should be complied with before the contract may be awarded:

a) Submission of the following documents:

i) Valid JVA, if applicable;

ii) The SEC Certificate of Registration of the foreign corporation, if applicable; or

iii) Valid PCAB license and registration for the type and cost of the Project for foreign bidders when the Treaty or International or Executive Agreement expressly allows submission of such license and registration as a pre-condition to the Notice of Award.

b) Posting of the performance security in accordance with **ITB** Clause 30; and

c) Signing of the contract as provided in **ITB** Clause 29.

29) Signing of the Contract

29.1 Within ten (10) calendar days from receipt of the Notice of Award, the winning Bidder shall post the required performance security, sign and date the contract, and return it to the Procuring Entity.

29.2 The Procuring Entity shall enter into a contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.

29.3 The following documents shall form part of the contract:

a) Contract Agreement;

b) Bidding Documents;

c) Winning Bidder's bid, including the technical and financial proposals, and all other documents/statements 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;

d) Performance Security;

e) Notice of Award of Contract; and

f) Other contract documents that may be required by existing laws and/or specified in the **BDS**.

30) Performance Security

30.1 To guarantee the faithful performance by the winning bidder of its obligations under the contract, it shall post a performance security prior to the signing of the contract. Furthermore, the successful bidder shall be required to update the performance security posted before to the issuance of a variation order, if any.

30.2 Sectors enumerated under Section 76.1[8] of the IRR may be allowed to post Performance Securing Declaration (PSD) as specified in the **BDS.**

30.3 The performance security shall be in a form selected by the Procuring Entity in the amount indicated in the **BDS**, which shall not be less than the percentage of the total contract price in accordance with the following price schedule:

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[8] Section 76.1. *The GPPB, once data is available from relevant agencies, shall maintain a registry of entities belonging to the following sectors:*
a) Farmers as certified by the Department of Agriculture (DA);
b) Fisherfolk as certified by the Bureau of Fisheries and Aquatic Resources (BFAR);
c) Persons with disabilities as certified by the National Council for Disability Affairs (NCDA) pursuant to RA No. 7277, otherwise known as the Magna Carta for Disabled Persons, as amended;
d) Solo parents as certified by the Department of Social Welfare and Development (DSWD); e) Microenterprises and social enterprises as certified by the MSMED Council;
f) Startups, spin-offs, and other forms of entity involved in science, technology, and innovation activities as certified by the DTI, DICT, NIC or the Department of Science and Technology (DOST), as may be applicable;
g) Cooperatives duly registered with the CDA pursuant to RA No. 6938, otherwise known as the Cooperative Code of the Philippines, as amended; and
h) Other relevant sectors as may be determined by the GPPB to ensure inclusivity and diversity in the procurement process.

Form of Performance Security	Amount of Performance Security (Not less than the Percentage of the Total Contract Price)
a) Cash or Cashier's or Manager's check issued by a bank. *For biddings conducted by LGUs, the cashier's or manager's check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.*	Ten percent (10%)
b) Bank draft or guarantee or irrevocable Letter of Credit issued by a local bank. If issued by a foreign bank, it shall be confirmed or authenticated by a local bank.	
c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the IC as authorized to issue such security.	Thirty Percent (30%)

30.4 The performance security shall be denominated in Philippine Peso and posted in favor of the Procuring Entity, which shall be forfeited in the event it is established that the winning bidder is in default in any of its obligations under the contract.

31) Notice to Proceed

The Procuring Entity shall issue the Notice to Proceed to the winning Bidder not later than three (3) calendar days from the date of approval of the contract by the appropriate signatories. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

32) Protest Mechanism

Decisions of the BAC in all stages of procurement may be protested to the HoPE in accordance with Section 83 of the IRR.

Section III. Bid Data Sheet

Notes on the Bid Data Sheet

This Section is intended to assist the Procuring Entity in providing specific information relative to corresponding clauses in the ITB included in Section II. Instructions to Bidders, and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS the information and requirements relevant to the circumstances of the Procuring Entity, including procurement processing details; the applicable rules regarding bid price and currency; and the bid evaluation criteria that will apply to the bids. In preparing Section III, the following aspects should be checked:

a) Information that specifies and complements provisions of Section II. Instructions to Bidders must be incorporated; and

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

Bid Data Sheet

ITB Clause	
1.1	The Procuring Entity is ***Department of Education - Schools Division of Bulacan (DepEd - SDO Bulacan).*** The Project title is ***Repair / Rehabilitation of 5 Classrooms, Catanghalan ES, Obando, Bulacan***. The identification number of the Contract is ***INFRA-PB-2026-005***.
2	The Funding Source is: 2.1 The GOP through the source of funding as indicated below for ***FY 2026*** in the amount of ***Four Million Eight Hundred Eighty-Two Thousand Thirty-Six Pesos and Twenty-Two Centavos (₱4,882,036.22)***. 2.2 The source of funding is: a. NGA, the General Appropriations Act or Special Appropriations.
3.1	No further instructions.
5.2	Bidding is restricted to eligible bidders as defined in ITB Clause 5.2.
5.4	The required track record shall be the following: Contracts similar to the Project shall be those described as follows: • ***Construction of School Buildings*** • ***Repair/Rehabilitation of School Buildings***
7	No further instructions.
8.1	Subcontracting is not allowed.
8.3	Not applicable.
8.4	Subcontracting is not allowed.
9.1	The Procuring Entity will hold a pre-bid conference for this Project on ***September 2, 2026, 10:00 AM*** **at** ***3F Conference Hall, DepEd Schools Division Office of Bulacan, Provincial Capitol Compound, Barangay Guinhawa, City of Malolos, Bulacan***.
10.1	The Procuring Entity's address is: ***DepEd - Schools Division Office of Bulacan, Provincial Capitol Compound, Barangay Guinhawa, City of Malolos, Bulacan*** ***Dan Harvey D. Castro*** ***Unit Head, Procurement Unit*** ***BAC Secretariat Head***

<table>
<tr><td></td><td>procurement@bulacandeped.com.ph</td></tr>
<tr><td>12.1(h)(ii)</td><td>The minimum work experience requirements for key personnel are the following:

<table>
<tr><th>Key Pesonnel</th><th>General Experience</th><th>Relevant Experience</th></tr>
<tr><td>Project Manager</td><td>5 years</td><td>3 years</td></tr>
<tr><td>Project Engineer</td><td>5 years</td><td>3 years</td></tr>
<tr><td>Project Architect</td><td>5 years</td><td>3 years</td></tr>
<tr><td>Safety Officer II</td><td>5 years</td><td>3 years</td></tr>
<tr><td>Frist Aider</td><td>5 years</td><td>2 years</td></tr>
<tr><td>Construction Foreman</td><td>5 years</td><td>3 years</td></tr>
</table></td></tr>
<tr><td>12.1(h)(iii)</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>Dump Truck</td><td>12 cu.yd.</td><td>1 unit</td></tr>
<tr><td>Cargo/Service Truck</td><td>2-5 mt</td><td>1 unit</td></tr>
<tr><td>One Bagger Mixer</td><td>4-6</td><td>1 unit</td></tr>
<tr><td>H-Frame Scaffolding</td><td>-</td><td>50 sets</td></tr>
<tr><td>Concrete vibrator</td><td>1.5 HP minimum, 25–38 mm diameter flexible shaft</td><td>1 unit</td></tr>
<tr><td>Circular/portable saw</td><td>7-1/4 in., ≥ 1,500 W</td><td>1 unit</td></tr>
<tr><td>Power Sander</td><td>≥ 500 W, orbital/belt type</td><td>1 unit</td></tr>
<tr><td>Electric Drill</td><td>≥ 650 W, variable speed, 13 mm chuck</td><td>2 units</td></tr>
<tr><td>Angle Grinder</td><td>4 in.–5 in., ≥ 900 W</td><td>2 units</td></tr>
<tr><td>Welding Machine</td><td>≥ 300 A, inverter type</td><td>1 unit</td></tr>
<tr><td>Air Compressor</td><td>2–3 HP, tank capacity ≥ 50 L</td><td>1 unit</td></tr>
</table></td></tr>
<tr><td>12.4</td><td>The ABC is Four Million Eight Hundred Eighty-Two Thousand Thirty-Six Pesos and Twenty-Two Centavos (₱4,882,036.22). Any bid with a financial component exceeding this amount shall not be accepted.</td></tr>
<tr><td>14.1</td><td>The bid prices shall be quoted in Philippine Peso.</td></tr>
<tr><td>14.3</td><td>Payment shall be made in Philippine Peso.</td></tr>
<tr><td>15.1</td><td>Bids will be valid for One Hundred Twenty (120) days from bid opening.</td></tr>
<tr><td>16.1</td><td>The Bid Security shall be in the form of a Bid Securing Declaration, and choose at least two (2) from any of the following:

1. The amount of not less than ₱97,640.72 [Insert 2% of ABC], if bid security is in cash.

2. The amount of not less than ₱97,640.72 [Insert 2% of ABC], if bid security is in cashier’s check.

3. The amount of not less than ₱97,640.72 [Insert 2% of ABC], if bid security is in manager’s check.</td></tr>
</table>

	4. The amount of not less than ₱244,101.81 *[Insert 5% of ABC]* if bid security is in bank draft. 5. The amount of not less than ₱244,101.81 *[Insert 5% of ABC]* if bid security is in guarantee. 6. The amount of not less than ₱244,101.81 [insert 5% of ABC] if irrevocable Letter of Credit. 7. The amount of not less than ₱244,101.81 [insert 5% of ABC] if Surety Bond.
16.2	The Bid Security shall be valid until ***January 12, 2027***.
16.3	*In case of extension of bid validity and bid security validity period,* Substitution of the bid security form is allowed. Bid Securing Declaration and the following forms may be used: a) Cash or Cashier's or Manager's Check issued by a Bank. b) Bank draft/guarantee or irrevocable Letter of Credit issued by a Bank: Provided, however, that it shall be confirmed or authenticated by a local Bank, if issued by a foreign bank. c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.
19	The address for submission of bids is ***DepEd - Schools Division Office of Bulacan, Provincial Capitol Compound, Barangay Guinhawa, City of Malolos, Bulacan***. The deadline for submission of bids ***September 14, 2026, 2:00 PM***.
21.5	No further instructions.
22.1	The date and time of bid opening **is** ***September 14, 2026, 2:30 PM***. The place of bid opening is ***3F Conference Hall DepEd - Schools Division Office of Bulacan, Provincial Capitol Compound, Barangay Guinhawa, City of Malolos, Bulacan***.
22.2(b)	Not applicable.

25.3 (b)(i)	The quality component shall be assessed on the basis of criteria with corresponding numerical weights, which may include qualitative, environmental, or social aspects linked to the subject matter of the contract. These may include any or a combination of the following: a) Quality and technical merit, including technical competence and a credible track record; b) Aesthetic and functional design and characteristics; c) Approach and methodology; d) Accessibility; e) Tools and equipment; f) Social, environmental, economic, and innovative characteristics; g) Organization, qualification, and experience of employees or staff assigned to perform the contract; h) Ongoing contracts and work commitments; i) After-sales service and technical assistance; j) Delivery conditions, such as delivery period and delivery process; k) Disposal measures; or l) Other relevant criteria in relation to the subject Goods or Infrastructure Projects to be procured.
25.3 (b)(iii)	*Not applicable*
25.3(b)	*Not applicable*
25.3 (c)(i)	*Not applicable.*
25.5 (a)	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. In all cases, the NFCC computation, if applicable, must be sufficient for all the lots or contracts to be awarded to the Bidder.
25.5 (b)	Bid correction shall be allowed.
25.6	No further instructions.
26.1	*List licenses and permits relevant to the Project and the corresponding law requiring it or state "None."*

29.3(f)	1. Construction schedule and S-curve 2. Manpower schedule 3. Construction methods 4. Equipment utilization schedule 5. Construction safety and health program approved by the DOLE *6.* Program Evaluation and Review Technique (PERT), Critical Path Method (CPM)
30.2	Not applicable
30.3	The Performance Security shall be in the form: *[choose one from any of the following:]* 1) The amount of not less than *10% of the contract price,* if performance security is in cash. 2) The amount of not less than *10% of the contract price,* if performance security is in cashier's check. 3) The amount of not less than *10% of the contract price,* if performance security is in manager's check. 4) The amount of not less than *10% of the contract price* if performance security is in bank draft. 5) The amount of not less than *10%* of *the contract price* if performance security is in guarantee. 6) The amount of not less than *10% of the contract price* if performance security is irrevocable LoC. Or 7) The amount of not less than *30% of the contract price* if performance security is Surety Bond.

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

The GCC in Section IV, read in conjunction with the SCC in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

The GCC herein shall not be altered. Any changes and complementary information which may be needed shall be introduced only through the SCC in Section V.

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1) General Terms

In this Contract, the following terms shall be interpreted as indicated:

1.1 The **Intended Completion Date** refers to the date specified in the **SCC** when the Contractor is expected to have completed the Works. The intended Completion Date may be revised only by the Procuring Entity by issuing an extension of time or an acceleration order.

1.2 The **Procuring Entity** is the party who employs the Contractor to carry out the Works stated in the **SCC**.

1.3 The **Site** is the place provided by the Procuring Entity where the Works shall be executed and any other place or places which may be designated in the **SCC**, or notified to the Contractor by the Procuring Entity as forming part of the Site.

1.4 The **Start Date**, as specified in the **SCC**, is the date when the Contractor is obliged to commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

1.5 **Work(s)** refer to the Permanent Works and Temporary Works to be executed by the Contractor in accordance with this Contract, including (i) the furnishing of all labor, materials, equipment and others incidental, necessary or convenient to the complete execution of the Works; (ii) the passing of any tests before acceptance by the Procuring Entity; (iii) and the carrying out of all duties and obligations of the Contractor imposed by this Contract as described in the **SCC.** In line with this, Temporary Works are works designed, constructed, and installed by the Contractor that are needed for construction or installation of the Permanent Works, which are subsequently removed.

2) Interpretation

2.1 In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of this Contract unless specifically defined. The Procuring Entity will provide instructions clarifying queries about the Conditions of Contract.

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

2.3 The documents forming this Contract shall be interpreted in the following order of priority:

a) Contract Agreement;

b) Bid Data Sheet;

c) Instructions to Bidders;

d) Addenda to the Bidding Documents;

e) Special Conditions of Contract;

f) General Conditions of Contract;

g) Specifications;

h) Bill of Quantities; and

i) Drawings.

3) Governing Language and Law

3.1 This Contract shall be interpreted in accordance with the laws of the Republic of the Philippines.

3.2 This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All correspondence and other documents pertaining to this Contract which are exchanged by the parties shall be written in English.

4) Communications

Communications between parties that are referred to in the Conditions shall be effective only if made in writing. A notice shall be effective only when it is received by the concerned party.

5) Possession of Site

5.1 On the date specified in the **SCC**, the Procuring Entity shall grant the Contractor possession of so much of the Site as may be required to enable it to proceed with 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 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.

5.2 If possession of a portion is not given by the date stated in the **SCC** Clause 1.3, 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 shall be in accordance with **GCC** Clause 44.

5.3 The Contractor shall bear all costs and charges for special or temporary right-of-way required by it in connection with access to the Site. The Contractor shall also provide at its own cost any additional facilities outside the Site required by it for purposes of the Works.

5.4 The Contractor shall allow the Procuring Entity and any person authorized by the Procuring Entity access to the Site and to any place where work in connection with this Contract is being carried out or is intended to be carried out.

6) The Contractor's Obligations

6.1 The Contractor shall carry out the Works properly and in accordance with this Contract. The Contractor shall provide all supervision, labor, Materials, Plant and Contractor's Equipment, which may be required. All Materials and Plant on Site shall be deemed to be the property of the Procuring Entity.

6.2 The Contractor shall commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program of Work submitted by the Contractor, as updated with the approval of the Procuring Entity, and complete them by the Intended Completion Date.

6.3 The Contractor shall be responsible for the safety of all activities on the Site.

6.4 The Contractor shall carry out all instructions of the Procuring Entity that comply with the applicable laws where the Site is located.

6.5 The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the **SCC**, 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.

6.6 If the Procuring Entity asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the Work in this Contract.

6.7 During Contract implementation, the Contractor and its subcontractors shall abide at all times by all labor laws, including child labor related enactments, and other relevant rules.

6.8 The Contractor shall submit to the Procuring Entity for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.

6.9 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the schedule of other contractors particularly when they shall require access to the Site. The Contractor shall also provide facilities and services for them during this period. The Procuring Entity may modify the schedule of other contractors, and shall notify the Contractor of any such modification thereto.

6.10 Should anything of historical or other interest or of significant value be unexpectedly discovered on the Site, it shall be the property of the Procuring Entity. The Contractor shall notify the Procuring Entity of such discoveries and carry out the Procuring Entity's instructions in dealing with them.

7) Subcontracting

7.1 Unless otherwise indicated in the **SCC**, the Contractor shall not subcontract portions of the Works beyond the percentage specified in **BDS** Clause 8.1. If subcontracting is allowed, the arrangement, including the timing for submission of the subcontractor's eligibility documents, shall be disclosed.

7.2 For subcontracting arrangements, the following rules shall apply for both locally-funded projects and to projects financed through Official Development Assistance, except those covered by treaty, or international, or executive agreements:

a) The subcontracted portion of the contract shall be subject to the approval of the HoPE and the following conditions:

i) The subcontracted portion shall not exceed fifty percent (50%), or a different percentage on a per project basis as approved by the GPPB. The threshold percentages fixed herein shall be subject to the periodic review and adjustments as may be deemed appropriate by the GPPB; and

ii) The subcontracted portion shall be limited to components that are not deemed "significant or material" to the project as determined by the Procuring Entity.

b) Subcontracting arrangement, if allowed, including the time of submission of the eligibility documents of the subcontractor, shall be disclosed in the Bidding Documents;

c) Subcontractors must meet the eligibility criteria and shall submit the same eligibility documents as the general contractor.

Failure of a subcontractor to meet the eligibility criteria does not affect the eligibility of the general contractor for the procurement project. In such case, the portion intended to be subcontracted to the ineligible subcontractor shall be assumed by the general contractor;

d) The general contractor shall remain liable for the subcontractor's actions, defaults, delays, and negligence;

e) The general contractor and the subcontractor are obliged to comply with the provisions of the contract and shall share liability, jointly and severally, in cases of violation of safety standards or other labor standards insofar as the subcontracted portion is concerned; and

f) For purposes of post-qualification in accordance with its objective and process under the IRR, the value of the entire completed and accepted Project, including the subcontracted portion, shall be credited as experience of the general contractor. In the case of the subcontractor, the following rules shall apply:

i) The subcontractor shall get credit for one hundred percent (100%) of the value of the subcontracted portion of the project performed;

ii) Subcontractors shall be eligible to concessional windows of GFIs that treat receivables from the government as loan security; the receivables of subcontractors due from their general contractor shall similarly be accepted as loan security by GFIs; and

iii) Contract performance monitoring, such as the use of CPES, among others, shall also be mandatorily applied to the work experience of the subcontractors.

8) Advance Payment

8.1 The Procuring Entity shall make an advance payment on the Contract Price 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**.

8.2 The advance payment shall be made only upon:

i) Written request of the contractor which shall form part of the contract document; and

ii) Submission of an irrevocable standby Letter of Credit of equivalent value from a bank as confirmed by the Procuring Entity; a bank guarantee; or a surety bond callable upon demand issued by a duly licensed surety or insurance company, at the option of the Procuring Entity.

8.3 The advance payment shall be recovered from the Contractor through deductions in amounts equivalent to the percentage of the total contract price that corresponds to the value of the advance payment granted.

8.4 Once a month, Contractors may submit documents, such as Monthly Certificates,[9] to show the progress or partial completion of a project. The Contractor may reduce its standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates, or any equivalent document subject to auditing and accounting rules, in the advance payment.

9) Progress Payments

9.1 Once a month, the Contractor may submit a statement of work accomplished (SWA) or progress billing and corresponding request for progress payment for work accomplished. The SWA should show the amounts which the Contractor considers itself to be entitled to up to the end of the month, to cover (i) the cumulative value of the Works it executed to date, based on the items in the Bill of Quantities, and (ii) adjustments made for approved Variation Orders executed. Alternatively, the Procuring Entity may require in the Bidding Documents that the SWA or progress billing and the corresponding request for progress payment may only be submitted upon actual completion of the Infrastructure Project or a specific portion, segment, milestone or phase thereof.

The Procuring Entity or Project Engineer shall check the Contractor's SWA and certify the amount to be paid to the Contractor as progress payment. Materials and equipment delivered onsite but not yet incorporated in the Works shall not be included for payment, except as otherwise stipulated in the **SCC**.

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[9] Commission on Audit (COA) Circular 2012-001.

9.2 The Procuring Entity shall deduct the following from the certified gross amounts to be paid to the Contractor as progress payment:

a) Cumulative value of the work previously certified and paid for.

b) Portion of the advance payment to be recouped.

c) Retention money in accordance with the conditions of the contract.

d) Amount to cover third-party liabilities.

e) Amount to cover uncorrected discovered defects in the Works.

9.3 Payments shall be adjusted by deducting therefrom the amounts for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Procuring Entity within twenty-eight (28) days from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the Procuring Entity.

9.4 The first progress payment may be paid by the Procuring Entity to the Contractor, as indicated in the **SCC**; Provided, That at least a percentage of the Works has been accomplished as certified by the Procuring Entity and as indicated in the **SCC**.

9.5 Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

10) Payment Documents

10.1 Subject to existing accounting and auditing rules and regulations,[10] the Contractor shall submit to the Procuring Entity monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

10.2 The Procuring Entity shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

10.3 The value of Work executed shall:

a) be determined by the Procuring Entity;

b) comprise the value of the quantities of the items in the Bill of Quantities completed; and

c) include the valuations of approved variations.

10.4 The Procuring Entity may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

[10] COA Circular No. 2012-001.

11) Retention

11.1 The Procuring Entity shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in GCC Clause 11.2. The said amount will serve to guarantee indemnity for uncorrected discovered defects and third-party liabilities arising from this Contract. This retention money shall be utilized if the contractor fails to repair the discovered defects. Should the retention money be insufficient, the PE may forfeit the performance security, which may ultimately lead to the termination of the contract.[11]

11.2 Progress payments are subject to retention of ten percent (10%) referred to as the retention money. Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of the Works, as determined by the Procuring Entity, are completed.

If, after fifty percent (50%) completion, the work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall be imposed, which may be decreased to 5 percent (5%) by the Procuring Entity based on justifiable causes.[12]

11.3 The total retention money shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby Letters of Credit from a bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to Government; Provided, That the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.

11.4 On completion of the whole Works, the Contractor may substitute retention money with an "on demand" Bank guarantee in a form acceptable to the Procuring Entity.

12) Performance Security

12.1 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 winning Contractor shall furnish the performance security in any of the forms prescribed in **ITB** Clause 30 in relation to **BDS** Clause 30.2 and 30.3.

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11 Supreme Court rulings (e.g. New Bian Yek Commercial, Inc. vs. Office of the Ombudsman, et. al., GR No. 169338[2009], and Tondo Medical Center vs. Rante, G.R. No. 230645 [2019] have affirmed this purpose, stating that retention money is a form of security to ensure the satisfactory completion of works and to cover any defects or third-party claims that may arise after project completion.

12 Section 71.2.8 of the IRR.

12.2 The performance security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the contract.

12.3 The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance. In case the performance security issued is valid for a specific period shorter than the term of the contract, including the defects liability period, the same shall be renewed or extended as often as necessary and immediately submitted to the Procuring Entity. In case of approved contract time extensions, the Contractor shall cause the extension of the validity of the performance security to cover the said extensions.

12.4 The performance security may be released by the Procuring Entity after the issuance of the Certificate of Final Acceptance; Provided, That the Procuring Entity has no claims filed against the performance security.

12.5 The Contractor shall post an additional performance security following the amount and form specified in **ITB** Clause 30 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of change orders, extra work orders and supplemental agreements, as the case may be.

12.6 In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the Procuring Entity the use of which, in the judgment of the implementing agency or the Procuring Entity, will not affect the structural integrity of the entire project, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.

12.7 Unless otherwise indicated in the **SCC**, the Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to Act No. 3688[13] 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.

13) Detailed Engineering and Site Investigation Reports

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

13.2 Detailed engineering shall proceed only on the basis of the feasibility or preliminary engineering study made which establishes the technical viability of the project and conformance to land use and zoning guidelines prescribed by existing laws. The findings contained in the feasibility study, if undertaken for the project, shall be examined. If, in the course of this exercise, it is found that amendments would be desirable in the design standards of principal features, as proposed, specific recommendations for such changes shall be supported

[13] Also known as "An Act for the Protection of Persons Furnishing Material and Labor for the Construction Of Public Works".

by detailed justifications, including their effects on the cost, and the economic justifications, if necessary.

13.3 A schedule of detailed engineering activities shall include the following:

a) Survey;

b) Site Investigation;

c) Soils and Foundation Investigation;

d) Construction Materials Investigation;

e) Preparation of Design Plans;

f) Preparation of Technical Specifications;

g) Preparation of Quantity and Cost Estimates;

h) Preparation of Scope of Work;

i) Preparation of Proposed Construction Schedule (and estimated Cash Flow for projects with Schedule over six (6) months;

j) Preparation of Site or Right-of-Way Plans including Schedule of Acquisition;

k) Preparation of Utility Relocation Plan;

l) Preparation and Submission of Design Report;

m) Environmental Impact Statement for critical project, as defined by the Department of Environment and Natural Resources;

n) Preparation of minimum requirements for a Construction Safety and Health Program for the project being considered;

o) Value Engineering Studies; and

p) Preparation of report on asset climate hazards, risk assessment, disaster response strategies, and readiness planning.

13.4 Work under detailed architectural and engineering design shall include, among others, the items stated in Section 8.3 of the IRR.

14) Licenses and Permits

The Procuring Entity may, if requested by the Contractor, assist him in applying for permits, licenses or approvals, which are required for the Works.

15) Contractor's Risk and Warranty Security

15.1 From the time project construction commenced up to final acceptance, the Contractor shall assume full responsibility for any damage or destruction of the works, except those occasioned by force majeure; and the safety, protection, security, and convenience of its personnel, third parties, and the public at large,

as well as the works, equipment, installation and the like to be affected by its construction work.

15.2 The defects liability period for infrastructure projects shall be one (1) year from project completion up to final acceptance by the Procuring Entity. During this period, the Contractor shall undertake the repair works, at its own expense, of any damage to the Works on account of the use of materials of inferior quality, defects in the construction, or due to any violation of the terms of the contract, within ninety (90) calendar days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.

15.3 The defects liability period shall be covered by the performance security of the Contractor required in Section 68 of the IRR, which shall guarantee that the Contractor performs its responsibilities stated in **GCC** Clause 15.1 Unless otherwise indicated in the **SCC**, in case the Contractor fails to comply with the preceding paragraph, the Procuring Entity shall forfeit its performance security, subject its properties to attachment or garnishment proceedings, and may impose the appropriate penalty under Sections 99, 100, and 101 of the IRR. All payables of the GoP in its favor shall be offset to recover the costs.

15.4 The following persons shall be held responsible for "Structural Defects," i.e., major faults or flaws or deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or "Structural Failures," i.e., where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:

a) Contractor – Where Structural Defects or Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the Contractor shall be held liable;

b) Consultants – Where Structural Defects or Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;

c) Procuring Entity's Representatives or Project Manager or Construction Managers and Supervisors – The project owner's representative, project manager, construction manager, and supervisor shall be held liable in cases where the Structural Defects or Failures are due to their willful intervention in altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to noted defects or deficiencies in the design and/or specifications and the use of substandard construction materials in the project;

d) Third Parties - Third Parties shall be held liable in cases where Structural Defects or Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works; and

e) Users - In cases where Structural Defects or Failures are due to abuse or misuse by the End-User or Implementing Unit of the constructed facility and/or non–compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.

15.5 The warranty against Structural Defects or Failures, except those occasioned by force majeure, shall cover the period specified in the **SCC** reckoned from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. On the other hand, such warranty shall likewise be applied against non-structural defects for instances that pertain to faults or deficiencies in non-load bearing components or finishes of the Project, such as minor cracks, leaks, or defects in workmanship or materials, which do not affect the stability or safety of the structure but may impact its appearance, functionality, or usability.

15.6 To guarantee that the Contractor shall perform its responsibilities, it shall be required to post a warranty security, which shall be stated in Philippine Peso, in the form chosen by the Procuring Entity in accordance with the following schedule:

Form of Warranty	**Amount of Warranty Security Not less than the Percentage (%) of Total Contract Price**
(a) Cash or letter of credit issued by bank; Provided, however, that the letter of credit shall be confirmed or authenticated by a local bank, if issued by a foreign bank. For biddings conducted by LGUs, the Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.	Five Percent (5%)
(b) Bank guarantee confirmed by bank. For biddings conducted by LGUs, the bank draft/guarantee may be issued by other banks certified by the BSP as authorized to issue such financial instrument.	Ten Percent (10%)
(c) Surety bond callable upon demand issued by GSIS or any surety or insurance company duly certified by the Insurance Commission	Thirty Percent (30%)

15.7 The warranty security shall be stated in Philippine Peso and shall remain effective within one (1) year from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity, and returned only after the lapse of the said one (1) year period. This one (1) year period shall cover both structural and non-structural defects or failures; Provided, That in cases of structural defects or failures, warranties beyond the one (1) year period shall be subject to applicable laws, rules, and regulations such as the New Civil Code of the Philippines.

15.8 In case of structural/non-structural defects or failure occurring during the applicable warranty period provided in **GCC** Clause 15.5, the Procuring Entity shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the parties found to be liable for expenses incurred therein upon demand, without prejudice to the imposition of administrative sanctions as prescribed by RA No. 12009 and without prejudice to the imposition of civil and criminal sanctions as provided under applicable laws against the responsible persons as well as the forfeiture of the warranty security posted in favor of the Procuring Entity.

16) Procuring Entity's Risk

16.1 From the Start Date until the Certificate of Final Acceptance has been issued, the following are risks of the Procuring Entity:

a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:

i) any type of use or occupation of the Site authorized by the Procuring Entity after the official acceptance of the Works; or

ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed or contracted by it, except the Contractor.

b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

17) Insurance

17.1 The Contractor shall, under its name and at its own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:

a) Contractor's All Risk Insurance, with an exception for Simple Infrastructure Projects, as applicable;

b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;

c) Personal injury or death of Contractor's employees; and

d) Comprehensive insurance for third party liability to Contractor's direct or indirect act or omission causing damage to third persons.

17.2 The Contractor shall provide evidence to the Procuring Entity that the insurances required under this Contract have been effected and shall, within a reasonable time, provide copies of the insurance policies to the Procuring Entity.

17.3 The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall

produce to the Procuring Entity the insurance policies in force including the receipts for payment of the current premiums.

The above insurance policies shall be obtained from any reputable insurance company approved by the Procuring Entity.

17.4 If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance required to be obtained under the terms of this Contract, the Procuring Entity may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Procuring Entity may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the Procuring Entity exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.

17.5 In the event the Contractor fails to observe the above safeguards, the Procuring Entity may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the Procuring Entity may refuse to make the payments under **GCC** Clause 9 until the Contractor complies with this Clause.

17.6 The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Procuring Entity's demand, with a new policy issued by a new insurance company acceptable to the Procuring Entity for any of the following grounds:

a) The issuer of the insurance policy to be replaced has:

i) become bankrupt;

ii) been placed under receivership or under a management committee;

iii) been sued for suspension of payment;

iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies has been cancelled; or

v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

18) Liquidated Damages

18.1 When the Contractor fails to satisfactorily complete the Works under the contract within the specified contract duration, inclusive of duly granted time extensions, if any, the Contractor shall be liable for liquidated damages in an amount equal to at least one-tenth (1/10) of one percent (1%) of the cost of the unperformed portion of the Works for every day of delay.

18.2 In computing liquidated damages, the Procuring Entity shall determine the usability of the project. A project or a portion thereof may be deemed usable

when it starts to provide the desired benefits as certified by the End-User or Implementing Unit and approved by the HoPE.

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

18.4 In case the total sum of liquidated damages reaches ten percent (10%) of the total contract price, the Procuring Entity may rescind or terminate the contract, without prejudice to other courses of action and remedies available under the circumstances.

18.5 If the Intended Completion Date is extended after liquidated damages have been paid, the Procuring Entity shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment schedule.

19) Settlement of Disputes

19.1 Any dispute arising from the implementation of a contract covered by the Act and the IRR shall primarily be resolved and settled amicably by mutual consultation or agreement.

19.2 In case of failure to settle the dispute amicably, the parties may mutually agree in writing to resort to other modes of alternative dispute resolution (ADR) to promote efficiency in the procurement process. Accordingly, they are encouraged to select the most expeditious mode of ADR available.

If arbitration is chosen as the ADR method, this shall be incorporated as a provision in the contract and referred to the Arbitrator specified in the **SCC.**

19.3 If the dispute remains unresolved after exhausting the remedies provided above, it may be submitted to other forms of ADR, such as mediation, conciliation, early neutral evaluation, mini-trial, or any combination thereof, in accordance with RA No. 9285, otherwise known as the "Alternative Dispute Resolution Act of 2004". However, disputes that are within the competence or jurisdiction of the Construction Industry Arbitration Commission shall be referred to the same for resolution.[14]

20) 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.

21) Termination for Breach of Contract

21.1 The Procuring Entity shall terminate the contract for breach thereof when any of the following conditions are present:

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[14] Executive Order No. 1008 (Construction Industry Arbitration Law); and Construction Industry Arbitration Commission Revised Rules of Procedure.

a) Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in accordance with Presidential Decree No. 1870, s. 1983;

b) Due to the Contractor's fault and after the contract time has expired, it has incurred a negative slippage of ten percent (10%) or more in the completion of the work;

c) The Contractor abandons the contract works, plainly demonstrates an intention not to continue the performance of the Contractor's obligations under the contract, refuses or fails to comply with the Procuring Entity's instructions, or fails to proceed expeditiously and without delay despite a written notice by the Procuring Entity;

d) When the Contractor, without reasonable excuse, fails to comply with the Notice of Rejection given by the Project Engineer that, after examination therein, the Infrastructure Project is found to be defective or otherwise not in accordance with the Contract, or a Project Engineer's instruction to conduct remedial work, within 30 days after receiving the said notice;

e) The Contractor does not actually have on the project site the minimum essential equipment listed on the Bid necessary to prosecute the Works in accordance with the approved work plan and equipment deployment schedule as required for the project;

f) The Contractor does not execute the Works in accordance with the contract or persistently or flagrantly neglects to carry out its obligations under the contract;

g) The Contractor neglects or refuses to remove materials or to perform a new work that has been rejected as defective or unsuitable;

h) The Contractor subcontracts any part of the contract works without approval by the Procuring Entity; or

i) The Contractor becomes bankrupt or insolvent; goes into liquidation, administration, reorganization, winding-up, or dissolution; becomes subject to the appointment of a liquidator, receiver, administrator, manager, or trustee; enters into a composition or arrangement with the Contractor's creditors; or any act is done or any event occurs which is analogous to or has a similar effect to any of these acts or events under applicable laws.

21.2 All materials on the Site, Plant, Works, including Equipment paid under this Contract, including those identified by the Procuring Entity in the **SCC** pursuant to GCC Clause 9.1, shall be deemed to be the property of the Procuring Entity if this Contract is terminated because of the Contractor's breach.

22) Termination Due to Force Majeure

22.1 For purposes of this Contract the terms "*force majeure*" and "fortuitous event" may be used interchangeably. In this regard, a fortuitous event or *force majeure* shall be interpreted to mean an event which could not have been foreseen, or though foreseen, was inevitable. It shall not include ordinary

unfavorable weather conditions, and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.

22.2 If this Contract is discontinued by an outbreak of war or by any other similar event entirely outside the control of either the Procuring Entity or the Contractor, the Procuring Entity shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving the certificate and shall be paid for all Works carried out before receiving it and for any Work carried out afterwards to which a commitment was made by the Procuring Entity.

22.3 If the event continues for a period of eighty-four (84) days, either party may then give notice of termination, which shall take effect twenty-eight (28) days after the giving of the notice.

22.4 After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant, in relation to GCC Clause 9.1 and 21.2, adjusted by the following:

(a) any sum to which the Contractor is entitled under **GCC** Clause 30; and

(b) any sum to which the Procuring Entity is entitled.

22.5 The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

23) Termination by Contractor

The Contractor may terminate this Contract with the Procuring Entity if the Works are completely stopped for a continuous period of at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:

a) Failure of the Procuring Entity to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of this Contract;

b) Substantial failure of the Procuring Entity to perform its obligations under the contract, and such failure constitutes a material breach of the Procuring Entity's obligations under the contract;

c) Prolonged suspension by the Procuring Entity, through no fault of the Contractor, which affects the substantial part of the Infrastructure Project; or

d) The prosecution of the Work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.

24) Termination for Convenience

The Procuring Entity, by notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time, if it has determined the existence of any of the following conditions that make contract implementation economically, financially, or technically impractical or unnecessary:

a) If physical and economic conditions have significantly changed so as to render the project no longer economically, financially, or technically feasible, as determined by the HoPE; or

b) The HoPE has determined the existence of conditions that make project implementation impractical or unnecessary, such as, but not limited to, fortuitous events, changes in laws and government policies.

25) Termination for Unlawful Acts

The Procuring Entity may terminate the contract in case it is determined prima facie that the Contractor, including any joint venture partner therein, has engaged, before or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation. These unlawful acts include, but are not limited to, the following:

a) Corrupt, fraudulent, collusive, coercive, and obstructive practices as defined in **ITB** Clause 3.1, unless otherwise specified in the **SCC**;

b) Drawing up or using forged documents;

c) Using adulterated materials, means, or methods, or engaging in production contrary to rules of science or trade; or

d) Any other act analogous to the foregoing.

26) Termination for Other Causes

26.1 The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The HoPE may terminate this Contract for the convenience of the Procuring Entity if physical and economic conditions have significantly changed so as to render the project no longer economically, financially, or technically feasible, as determined by the HoPE; or if the HoPE has determined the existence of conditions that make project implementation impractical or unnecessary, such as, but not limited to, fortuitous events, changes in laws and government policies.

26.2 The Procuring Entity or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.

26.3 Other breaches of Contract shall include, but shall not be limited to, the following:

a) The Contractor stops work for twenty-eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the Procuring Entity;

b) The Procuring Entity instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty-eight (28) days;

c) A payment certified by the Procuring Entity is not paid to the Contractor within eighty-four (84) days from the date of the Procuring Entity's certificate;

d) The Procuring Entity gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Procuring Entity;

e) The Contractor does not maintain a Security, which is required; and

f) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **GCC** 18.

26.4 The Funding Source or the Procuring Entity, as appropriate, will seek the imposition of administrative sanctions as prescribed by RA No. 12009 and without prejudice to the imposition of civil and criminal sanctions as provided under applicable against individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.

26.5 When persons from either party to this Contract gives notice of a fundamental breach to the Procuring Entity in order to terminate the existing contract for a cause other than those listed under **GCC** Clause 26.3, the Procuring Entity shall decide whether the breach is fundamental or not.

26.6 If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

27) Procedures for Termination of Contracts

27.1 The following provisions shall govern the procedures for the termination of this Contract:

a) **Verification** - Upon receipt of a written report of acts or causes which may constitute grounds for termination as aforementioned, or upon its own initiative, the End-User or Implementing Unit shall, within a period of seven (7) calendar days, verify the existence of such grounds and cause the execution of a Verified Report, with all relevant evidence attached;

b) **Notice to Terminate** - Upon recommendation by the End-User or Implementing Unit, the HoPE shall terminate contracts only by written notice to the Contractor conveying the termination of the contract. The notice shall state:

(i) that the Contract is being terminated for any of the grounds aforementioned, and a statement of the acts that constitute the grounds constituting the same;

(ii) the extent of termination, whether in whole or in part;

(iii) an instruction to the Contractor to show cause as to why this contract should not be terminated; and

(iv) special instructions of the Procuring Entity, if any.

The Notice to Terminate shall be accompanied by a copy of the Verified Report;

c) **Show Cause** - Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Contractor shall submit to the HoPE a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the HoPE shall issue an order terminating the contract;

d) **Rescission of Notice of Termination** - The Procuring Entity may, at any time before receipt of the Contractor's verified position paper, withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor's receipt of the notice;

e) **Decision** - Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the HoPE shall decide whether or not to terminate the contract. It shall serve a written notice to the Contractor of its decision and, unless otherwise provided, the contract is deemed terminated from receipt of the Contractor of the notice of the decision. The termination shall only be based on the grounds stated in the Notice to Terminate.

f) **Contract Termination Review Committee (CTRC)** - The HoPE may create a committee to assist him in the discharge of its functions under the IRR. All decisions recommended by the CTRC shall be subject to the approval of the HoPE

g) **Take-over of Contracts** - If a Procuring Entity terminates the contract due to default, insolvency, or for cause, it may enter into a Negotiated Procurement (Take-over of Contracts) pursuant to Section 35.3 of the IRR.

h) **Notice by Contractor** - The Contractor must serve a written notice to the Procuring Entity of its intention to terminate the contract at least thirty (30) calendar days before its intended termination. The contract is deemed terminated if it is not resumed in thirty (30) calendar days after the receipt of such notice by the Procuring Entity.

27.2 Notwithstanding Section 99 of RA No. 12009 and as provided by applicable laws, the Procuring Entity shall impose on Contractors after the termination of the contract, the penalty of suspension for one (1) year for the first offense, suspension for two (2) years for the second offense from participating in the public bidding process, for violations committed during the contract implementation stage, as stated in the **SCC.**

28) Approval of Drawings and Temporary Works by the Procuring Entity

28.1 All Drawings prepared by the Contractor for the execution of the Temporary Works, are subject to prior approval by the Procuring Entity before its use.

28.2 The Contractor shall be responsible for design of Temporary Works.

28.3 The Procuring Entity's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

28.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, when required by the Procuring Entity.

29) Acceleration and Delays Ordered by the Procuring Entity

29.1 When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Procuring Entity will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

29.2 If the Contractor's Financial Proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

30) Contractor's Right to Claim

If the Contractor incurs cost as a result of any of the events under **GCC** Clauses 22, 23 and 24 in relation to **GCC** Clause 20, the Contractor shall be entitled to the amount of such cost. If as a result of any of the said events, it is necessary to change the Works, this shall be dealt with as a Variation.

31) Dayworks

31.1 Subject to **GCC** Clause 40 on Variation Order, and if applicable as indicated in the **SCC**, the Contractor shall determine the Dayworks rates to be included or indicated in the Bid. The Dayworks rates in the Contractor's bid shall be used for small additional amounts of work only when the Procuring Entity has given written instructions in advance for additional work to be paid for in that way.

31.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Procuring Entity. Each completed form shall be verified and signed by the Procuring Entity within two (2) days of the work being done.

31.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms from both the Procuring Entity and Contractor.

32) Early Warning

32.1 The Contractor shall warn the Procuring Entity at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works.

32.2 The Contractor shall cooperate with the Procuring Entity in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Procuring Entity. Should such events or circumstances arise which increase the Contract price or delay the execution of Works, the provisions on variation order shall apply.

33) Program of Work

33.1 Within the time stated in the **SCC**, the Contractor shall submit to the Procuring Entity for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.

33.2 An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

33.3 The Contractor shall submit to the Procuring Entity 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 may withhold the amount stated in the **SCC** from the next payment schedule and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

33.4 The Procuring Entity's approval of the Program of Work shall not alter the Contractor's obligations. A revised Program of Work produced by the Contactor shall show the effect of any approved Variations, and shall include all Variations. The Contractor may revise the Program of Work, based on the Variation Order, and submit it to the Procuring Entity again.

33.5 When the Program of Work is updated, the Contractor shall provide the Procuring Entity with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

34) Management Conferences

34.1 Either the Procuring Entity or the Contractor may require the other to attend a Management Conference. The Management Conference shall review the plans for remaining work and deal with matters raised in accordance with the early warning procedure.

34.2 The Procuring Entity shall record the business of Management Conferences and provide copies of the record to those attending the Conference and to the Procuring Entity. The responsibility of the parties for the actions to be taken shall be decided by the Procuring Entity either at the Management Conference or after the Management Conference. The Procuring Entity shall communicate these responsibilities in writing to all who attended the Conference.

35) Bill of Quantities

35.1 The Bill of Quantities shall contain items of work for the construction, installation, testing, commissioning of work, materials, and labor among others, to be done by the Contractor.

35.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

35.3 If the final quantity of any work item completed differs from the quantity indicated in the Bill of Quantities, and the difference does not exceed twenty-five percent (25%) of the original quantity for that item, the Procuring Entity shall adjust the Contract accordingly.

This shall be allowed only if the total amount of all such changes does not go beyond ten percent (10%) of the total Contract price, subject to applicable laws, rules, and regulations.

35.4 If requested by the Procuring Entity, the Contractor shall provide the Procuring Entity with a detailed cost breakdown of any rate in the Bill of Quantities.

36) Instructions, Inspections and Audits

36.1 The Procuring Entity shall at all reasonable times during construction of the Works be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.

36.2 If the Procuring Entity instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect and the test shows that it does, the Contractor shall pay for the test and any samples. In the absence of any defect, the test shall be a compensation event with no adverse consequences to the contractor.

36.3 The Contractor shall permit the Funding Source named in the **SCC** to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

37) Identifying Defects

The Procuring Entity shall check the Contractor's work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor's responsibilities. The Procuring Entity may instruct the Contractor to check noted defects and test any work that the Procuring Entity considers as substandard and/or defective.

38) Correction of Defects

38.1 The Procuring Entity shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which is one (1) year from project completion up to final acceptance by the Procuring Entity.

38.2 Every time notice of a defect is given, the Contractor shall correct the notified defect within ninety (90) calendar days from the time the HoPE has issued an order to undertake repair.

38.3 The Contractor shall correct the defects which they notice themselves before the end of the Defects Liability Period.

38.4 The Procuring Entity shall certify that all defects have been duly corrected.

39) Uncorrected Defects

39.1 The Procuring Entity shall give the Contractor at least fourteen (14) days' notice of its intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the Procuring Entity may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.

39.2 The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

40) Variation Orders

40.1 Variation Orders may be issued by the Procuring Entity to cover any increase or decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of bidding and the "as staked plans" or construction drawings prepared after a joint survey by the Contractor and the Government after award of the contract.

Provided, That in case of positive or additive Variation Order/s, the cumulative amount thereof shall not exceed ten percent (10%) of the original contract price; Provided, further, That the scope of works shall not be reduced as to accommodate a positive Variation Order. In all cases, the addition of works under Variation Orders should be within the general scope of the project as bid and awarded.

40.2 Any cumulative positive Variation Order beyond ten percent (10%) of the original contract price shall be the subject of another procurement project to be bid out if the Works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the HoPE, upon the recommendation of the End-User or Implementing Unit, may authorize positive Variation Order/s resulting to a cumulative value of the positive Variation Orders beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price.

All progress payments shall first be charged against the advance payment until the latter has been fully exhausted, at the option of the Procuring Entity.

40.3 A Variation Order may either be in the form of a Change Order or Extra Work Order:

a) A Change Order may be issued by the HoPE or duly authorized representative to cover any increase or decrease in quantities of original work items in the contract.

b) An Extra Work Order may be issued by the implementing official to cover the introduction of new work necessary for the completion, improvement or protection of the project which was not included as items of work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work or character provided for in the contract.

40.4 For Variation Orders, the Contractor shall be paid for additional work items whose unit prices shall be derived based on the following:

a) For additional or extra works duly covered by Change Orders involving work items which are exactly the same or similar to those in the original contract, the applicable unit prices of work items original contract shall be used.

b) For additional or extra works duly covered by Extra Work Orders involving new work items that are not in the original contract, the unit prices of the new work items shall be based on the direct unit costs used in the original contract (e.g., unit cost of cement, rebars, form lumber, labor rate, equipment rental, etc.). All new components of the new work item shall be fixed prices; Provided, The same is acceptable to both the Government and the Contractor; Provided further, That the direct unit costs of new components shall be based on the Contractor's estimate as validated by the Procuring Entity concerned via documented canvass in accordance with existing rules and regulations. The direct cost of the new work item shall then be combined with the mark-up factor (i.e., taxes and profit) used by the Contractor in its bid to determine the unit price of the new work item.

40.5 Under no circumstances shall a Contractor proceed to commence work under any Change Order or Extra Work Order unless it has been approved by the HoPE or its duly authorized representative. However, under any of the following conditions, the Procuring Entity's representative or Project Engineer may, subject to the availability of funds and within the limits of its delegated authority, allow the immediate start of work under any Change Order or Extra Work Order:

a) In the event of an emergency where the prosecution of the work is urgent to avoid detriment to public service, or damage to life and/or property; and/or

b) When time is of the essence;

Provided, however, That such approval is valid on work done up to the point where the cumulative increase in value of work on the project which has not yet been duly fully approved does not exceed five percent (5%) of the adjusted original contract price.

Provided, further, That immediately after the start of work, the corresponding Change Order or Extra Work Order shall be prepared and submitted for approval in accordance with the abovementioned rules. Payments for Works satisfactorily accomplished on any Change Order or Extra Work Order may be made only after approval of the same by the HoPE or its duly authorized representative.

Provided, finally, That for a Change Order or Extra Work Order involving a cumulative amount exceeding five percent (5%) of the original contract price, no work thereon may be commenced unless said Change Order or Extra Work Order has been approved by the HoPE or its duly authorized representative.

41) Contract Completion

Once the project reaches an accomplishment of ninety-five percent (95%) of the total contract amount, the Procuring Entity may constitute an inspectorate team to conduct preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to fully complete the project within the approved remaining contract time. This, however, shall not preclude the claim of the Procuring Entity for liquidated damages, if applicable.

42) Suspension of Work

42.1 The Procuring Entity shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to *force majeure* or any fortuitous event or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Procuring Entity or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.

42.2 The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects or activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to the district engineer, regional director, consultant or equivalent official, as the case may be, due to the following:

a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.

b) Requisite construction plans which must be owner furnished are not issued to the Contractor precluding any work called for by such plans.

c) Peace and order conditions that make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police station which has responsibility over the affected area and confirmed by the Department of the Interior and Local Government (DILG) Regional Director.

d) There was a failure on the part of the Procuring Entity to deliver government-furnished materials and equipment as stipulated in the contract.

e) Delay in the payment of Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's claim has been certified by the Procuring Entity's authorized representative that the documents are complete, unless there are justifiable reasons for the delay in payment which shall be communicated in writing to the Contractor.

42.3 In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the effectivity of the order suspending operation and the order to resume work shall be allowed to the Contractor by adjusting the contract time accordingly.

43) Payment on Termination

43.1 If the Contract is terminated because of a breach of Contract by the Contractor, the Procuring Entity shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate, and less the percentage to apply to the value of the work not completed, as indicated in the **SCC**. Additional liquidated damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment

due to the Contractor, the difference shall be a debt payable to the Procuring Entity.

43.2 If the Contract is terminated for the Procuring Entity's convenience, or due to a breach of Contract by the Procuring Entity, the Procuring Entity shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

43.3 The net balance due shall be paid or repaid within twenty-eight (28) days from the notice of termination.

43.4 If the Contractor has terminated the Contract under **GCC** Clauses 23 to 24, the Procuring Entity shall promptly return the Performance Security to the Contractor.

44) Extension of Contract Time

44.1 Should the amount of additional work or other special circumstances warrant the entitlement of the Contractor to an extension of contract time, the Procuring Entity shall determine the amount of such extension; Provided, That the Contractor has notified the Procuring Entity of its claim for extension of contract time prior to the expiration of the contract time, and within thirty (30) calendar days after the additional work has been commenced or the circumstances leading to such claim have arisen, as the case may be, in order to give the Procuring Entity the opportunity to investigate the claim. Failure to provide such notice shall constitute a waiver of such a claim by the Contractor. Upon receipt of full and detailed particulars, the Procuring Entity shall examine the facts and extent of the delay and shall extend the contract time to complete the contract work when, in the Procuring Entity's opinion, the findings of facts justify an extension.

44.2 No extension of contract time shall be granted to the Contractor due to ordinary unfavorable weather conditions and inexcusable negligence of the Contractor to provide the required equipment, supplies, or materials.

44.3 Extension of contract time may be granted only when the affected activities fall within the critical path of the PERT, CPM, Precedence Diagram Method or any other project management tool.

44.4 No extension of contract time shall be granted when the reason given to support the request for extension was already considered in the determination of the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection.

44.5 Extension of contract time may be granted in the cases indicated in the **SCC.**

44.6 The written consent of the bank, or surety or insurance company, as the case may be, must be attached to any request of the Contractor for extension of contract time and submitted to the Procuring Entity for consideration and the validity of the Performance Security shall be correspondingly extended.

44.7 The Procuring Entity shall extend the Intended Completion Date if a Variation is issued which makes it impossible for the Intended Completion Date to be achieved by the Contractor without taking steps to accelerate the remaining work, which would cause the Contractor to incur additional costs. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.

44.8 The Procuring Entity shall decide whether and by how much to extend the Intended Completion Date within twenty (20) days of the Contractor asking the Procuring Entity for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

45) Price Escalation

In the event of an extraordinary increase in prices of specific components of the Infrastructure Project, price escalation may be considered, subject to prior approval of the GPPB. If the cost of construction components increases by more than ten percent (10%) of the unit price of work items, as determined against the prevailing price indices of the PSA, a price escalation may be authorized at a no-loss, no-gain basis, using the appropriate formula prescribed by the GPPB. For the purpose of this Section, the PSA shall ensure that its price indices are region-specific and updated on a monthly basis

46) Completion

The Contractor shall request the Procuring Entity to issue a Certificate of Completion of the Works, and the Procuring Entity will do so upon determining that the work is completed.

47) Taking Over

The Procuring Entity shall take over the Site and the Works within seven (7) days from the date of issuance of a Certificate of Completion; Provided, That it shall not release the Contractor of its responsibilities within the defects liability period.

48) Operating and Maintenance Manuals

48.1 If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the **SCC**.

48.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the **SCC**, or they do not receive the Procuring Entity’s approval, the Procuring Entity shall 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.

The provisions of this Section 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 Section IV. General Conditions of Contract must be incorporated.

b) Amendments and/or supplements to provisions of Section IV. General Conditions of Contract, as necessitated by the circumstances of the specific project, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of Section IV. General Conditions of Contract should be incorporated herein.

Special Conditions of Contract

GCC Clause	
1.1	The **Intended Completion Date** is *Ninety (90) Calendar Days upon receipt of Notice to Proceed.* *NOTE: The contract duration shall be reckoned from the start date and not from contract effectivity date.*
1.2	The **Procuring Entity** is *DepEd - Schools Division Office of Bulacan, Provincial Capitol Compound, Barangay Guinhawa, City of Malolos, Bulacan.*
1.3	The **Site** is located at *Catanghalan Elementary School, Obando, Bulacan,* and is defined in drawings No. *A-1.*
1.4	The **Start Date** *shall be the date of receipt of the Notice to Proceed.*
1.5	The **Works** consist of *Repair/Rehabilitation of Classrooms.*
2.2	*If different dates are specified for completion of the Works by section ("sectional completion"), these dates should be listed here*
5.1	The **Procuring Entity** shall give possession of all parts of the Site to the Contractor *on the date of receipt of the Notice to Proceed.*
6.5	The Contractor shall employ the following **Key Personnel:** *Project Manager* *Project Engineer* *Project Architect* *Safety Officer II* *First Aider* *Construction Foreman*
7.1	No further instructions.
8.1	The amount of the advance payment is *15% of the Contract Price and within 30 days upon receipt of the Notice to Proceed, to be made in lump sum, subject to the request of the contractor.*
9.1	Materials and equipment delivered onsite but not yet incorporated in the Works shall be included for payment.
9.4	The advance payment shall be repaid by the contractor by deducting fifteen percent (15%) from his periodic progress payments a percentage equal to the percentage of the total contract price used for the advance payment.
12.7	No further instructions.
13.1	The site investigation reports are: *None*
15.3	No further instructions.
15.5	*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.
19.2	The Arbitrator is the person appointed jointly by the Procuring Entity and the Contractor: **Atty. Elmer D. Lopez** Attorney III DepEd - Schools Division of Bulacan, Provincial Capitol Compound, Barangay Guinhawa, City of Malolos, Bulacan
20	No additional provision.
25(a)	No further instructions.
27.2	a) Failure of the Contractor, due solely to its fault or negligence, to mobilize and start work or performance within the specified period in the Notice to Proceed ("NTP"); b) Failure by the Contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the Contractor to comply with any written lawful instruction of the Procuring Entity or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited *to* the following: i) Employment of competent technical personnel, competent engineers and/or work supervisors; ii) Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions; iii) Stockpiling in proper places of all materials and removal from the project site of waste and excess materials**,** including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions; iv) Deployment of committed equipment, facilities, support staff and manpower; and v) Renewal of the effectivity dates of the performance security after its expiration during the course of contract implementation. c) Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the Procuring Entity. d) Poor performance by the Contractor or unsatisfactory quality and/or progress of work arising from its fault or negligence as reflected in the CPES rating sheet. In the absence of the CPES rating sheet, the existing performance monitoring system of the Procuring Entity shall

	be applied. Any of the following acts by the Contractor shall be construed as poor performance: i) Negative slippage of fifteen (15%) and above within the critical path of the project due entirely to the fault or negligence of the Contractor; and ii) Quality of materials and workmanship not complying with the approved specifications arising from the Contractor's fault or negligence. e) Willful or deliberate abandonment or non-performance of the project or contract by the Contractor resulting to substantial breach thereof without lawful and/or just cause. In addition to the penalty of suspension, the performance security posted by the Contractor shall also be forfeited.
31.1	Dayworks are applicable at the rate shown in the Contractor's original Bid.
33.1	The Contractor shall submit the Program of Work to the Procuring Entity within *ten (10)* days of delivery from the Notice of Award.
33.3	The period between Program of Work updates is *[insert number]* days. The amount to be withheld for late submission of an updated Program of Work is *[insert amount].*
36.3	The Funding Source is the *Government of the Philippines.*
43.1	The percentage to apply to the value of the work not completed is *1/10 of 1% for everyday of delay prior to the Termination of Contract.*
44.5	a) rainy/unworkable days considered unfavorable for the prosecution of the Works at the site, based on the actual conditions obtained at the site, in excess of the number of rainy/unworkable days pre-determined by the Procuring Entity in relation to the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection, and/or b) major calamities such as exceptionally destructive typhoons, floods and earthquakes, and epidemics, c) delays attributable to the Procuring Entity, such as non-delivery on time of materials, working drawings, or written information to be furnished by the Procuring Entity, non-acquisition of permit to enter private properties or non-execution of deed of sale or donation within the right-of-way resulting in complete paralyzation of construction activities, and d) other meritorious causes as determined by the Procuring Entity and approved by the HoPE such as shortage of construction materials, general labor strikes, and peace and order problems that disrupt construction operations through no fault of the Contractor may be considered as additional grounds for extension of contract time provided,

	they are publicly felt and certified by appropriate government agencies such as DTI, DOLE, DILG, and DND, among others.
48.1	The date by which operating and maintenance manuals are required is *within 7 days after completion.* The date by which "as built" drawings are required is *on the date of completion*.
48.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is *5% of 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 Competitive Bidding, Limited Source Bidding, or Competitive Dialogue, 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 PBD.

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.

Prudence must be exercised 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 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 at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's consent. In the event the Procuring Entity 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.

A. LICENSE AND PERMITS

The Contractor shall secure from the government agencies all necessary licenses and permits needed to proceed with the construction of the Project.

B. TEMPORARY SIGN

The Contractor shall provide suitable sign acceptable to the Owner advertising the work and indicating thereon the names of the Project, the Contractor and the Architect. The sign layout and the text and location of such sign will be approved by the Owner. No other sign or advertising will be permitted.

C. TEMPORARY STRUCTURES AND SERVICES

Temporary Building and Facilities

- Temporary Buildings shall be of a design and materials acceptable to the Owner.

Contractor's Office

- The Contractor shall provide on or near the premises, temporary building for his own use, equipped among other items with at least one telephone.

Field Office

- The Contractor shall provide temporary office building at least 12' 0" wide by 30' 0" long for the use of the field representatives, Architects, at an approved location on or adjacent site. The field office shall be complete with electrical light, power outlets, drinking water, two (2) desks, two chairs, a plan table, a plan rack, filing cabinet, private local telephone line and daily janitorial service, including periodic washing of windows. The Contractor shall pay for all of the above services and facilities except long distance telephone calls.

Toilets

- The Contractor shall provide suitable toilet facilities at approved location (2) with proper enclosures for the use of workmen, and shall maintain some in sanitary operable conditions, all in conformity with the local regulations.

Other Temporary Buildings

- The Contractor shall provide such other temporary building as maybe required for use of his workmen and safe storage of tools and materials. Such structures shall be located only where previously approved.

Temporary Electric Power

- The Contractor shall provide and pay for all light and Owner required for the construction work including all wiring, connections and accessories an all power consumed.

Temporary Water Supply

- The Contractor shall make all necessary arrangements for and provision of water including temporary piping and house extensions required for the construction purposes. He shall obtain and pay for necessary permits and for all water used.

Temporary Parking Facilities

- The Contractor shall provide and maintain in a safe and satisfactory condition temporary facilities for use by workmen employed on the job and for the Owner, the Project Manager and the Architect's use.

Temporary Scaffolding, Hoist, etc.

- The Contractor shall install and operate an adequate number of temporary hoists and shall also furnish and maintain temporary scaffolds, runways, ladders, and the like as required for the proper execution of the work. As soon as the progress of the work will permit, the Contractor shall erect the permanent stair platforms, ramps, catwalks, etc., safeguard and shall provide these and all other permanent parts from damage or defacement during the work.

Removal of Temporary Services and Facilities

- All temporary services and facilities installed by the Contractor shall be removed by the Contractor on completion of this Contract or as directed by the Project Manager. The Contractor shall make any repairs or alterations necessitated by such removal.

D. PROTECTION OF WORK, PROPERTY, AND PERSONS

- The Contractor shall protect the work of employees, equipment at the Owner's property and adjacent property from damage for any cause whatsoever, and shall be responsible

for any damage or injury (including death) due to his act or neglect. These provisions are solely for the benefit of third persons.

- The Contractor as, part of the contract shall provide watchmen and erect all planking bridges, bracings, shorings, sheet piling, lights and warning signs necessary for the public. The Contractor shall provide scaffolds, tarpaulins, and similar items as directed by the Project Manager to protect Owners, equipment and employees and shall if necessary seal off his work so as not to interfere with Owner's business operation.

Watchmen Service

- The Contractor shall provide reputable watchmen service or in lieu thereof, any approved protective service to guard the construction area against vandalism, theft, and mischief. Such service should be in operation at all hours that the Contractor's supervisory staff is not in attendance at the site, 24 hours per day and 7 days per week from the date of Contractor starts work until the date of final acceptance of the work under this Contract.
- Watchmen or approved protective service shall continue uninterrupted during delays in the work such as inclement weather, delays in delivery, and the like. In the event of any official work stoppage of the Project, make immediate arrangements with the Owner regarding watchmen service continuation and cost thereof during the time the work will be stopped. If such official stoppage is found to be due to fault, neglect or improper work performance of the Contractor, or his sub-contractors, the extra cost for watchmen service shall be borne by the Contractor.

The Contractor shall be responsible for any injury loss or damage to any presently existing improvements on the premises caused by him or his employees, agents or any sub-contractors, and in the event of such injury, loss or damage shall promptly make such repairs or replacement as required by the Owner without additional cost to the Owner.

During the progress of the work, the Contractor shall protect all finished work as soon as it is erected and shall maintain such protection until such time they are no longer required.

E. INSPECTION AND TEST

- The Contractor shall permit and facilitate inspection of the work by the Owner, its representatives, the Project Manager, or his authorized representative, and the public authorities having jurisdiction at all times during the progress of the work.
- The Contractor will be responsible for all test and engineering services required by the Specifications. The cost for inspection or tests not required by the specification but which the Owner requires, will be borne by the Owner.
- All tests shall be performed by the testing agency approved by the Owner and shall be in accordance with the current standards of the American Society for Testing and Materials unless otherwise specified by the Owner. The Contractor shall furnish the Owner with 2 copies of the test procedures used.
- Failures of the Owner, the Project Manager or the Architect during the progress work or work not in accordance with the Drawings and Specifications shall not be deemed an acceptance thereof nor waiver of the Owner's right to a proper execution of the Contract work or any part of it. No partial payment of entire occupancy of the premises by the Owner shall be construed to be an acceptance of work or materials which are not strictly in accordance with the Contract Documents, nor a waiver of the Owner's right.

F. CONTRACTOR'S ROAD AND TRAFFIC LIMITATIONS

- Contractor shall make himself fully aware of any restrictive traffic limitations and/or shall comply with request of local authorities in this construction plan and equipment, to and from the site, as routes, entry and exit on site, times of delays, etc.
- Prior to moving equipment or materials to the site, the Contractor shall secure the Project Manager's approval of the specific roadway route on or adjacent to the site to be used. He shall thereafter be limited to the use of said roadways or route unless the Project Manager first approves the use of alternate roadway or routes.

G. SECURITY OF EQUIPMENT AND OPERABLE MACHINERY

- Site-parked mobile equipment and operable machinery, and hazardous parts of the new construction subject to mischief shall be kept locked or otherwise made inoperable whenever left unattended.

H. PESTILENCE CONTROL

- Contractor shall guard against and if necessary exterminate rodents, termites, vermin and other pests. All job personnel shall be required to dispose of garbage and refuse in covered metal containers, which Contractor shall furnish and empty regularly. Should services of extermination firm be necessary, the Contractor shall provide such services.

I. AIR POLLUTION

- Contractor shall comply with the requirements of "The Clean Air Act of 1999" and of local authorities regarding air pollution control: As a general rule, shall be no burning of trash at the site.

J. CLEANING

- The Contractor shall at all times keep the premises from accumulation of waste materials or rubbish caused by his employees, sub-contractors, or the work. At completion of the work he shall remove from the building and site all rubbish, scaffolding and surplus materials and shall leave the work broom clean, unless otherwise specified. If the Contractor fails to keep the premises clean, the Project Manager may remove the waste materials and rubbish; charge the expense of such removal to the Contractor.
- The Contractor shall thoroughly wash and clean all glass, clean hardware, remove stains, spots, smears, marks and dirt from all surfaces; clean fixtures, wash terrazzo, tile floors and all exposed concrete so as to present clean work to the Owner for acceptance.

K. FINAL COMPLETION

- The term final completion, means the completion of all work called for under the Contract to include but not limited to satisfactory operation of all equipment, by means of acceptance tests, correction of all punch list items to the satisfaction of the Owner, the Project manager and/or the Architect, settlement of all claims, if any payment and release of all record of all mechanics materials, men and like lines, delivery of all guarantees, Equipment Operation and Maintenance Manuals; as built drawings, Building certificates prior to occupancy; Electrical permits; all other required approvals and acceptance by the City/Municipality or other authority having jurisdiction and removal of all rubbish, tolls scaffoldings and surplus materials and equipment from the job site.

L. PUNCH LIST

- The list prepared by the Project manager and the Architect of the Contractor's uncompleted defective or uncorrected work.

M. AS BUILT DRAWINGS

- The drawings to be submitted by the Contractor to the Owner, illustrating how the various elements of the work were actually installed during the progress of the construction. As built Drawings shall be approved by the Architect and the Project Manager.
- The Contractor shall keep "as-built" drawings up to date concurrently as the work progresses and not wait until the end of the job to do so.

N. CONNECTING THE WORK

- The Contractor shall do all the cutting, fitting and pitching that may be required to make several parts of the work come together properly and to fit his work to receive or be received by the work of other contractor shown upon, or reasonable implied by the Drawings and Specification. After the other contractor has finished he shall properly complete and finish his work, as the Project Manager shall direct.

O. SAFETY AND ACCIDENT REPORTS

- The Contractor shall take necessary precautions for the safety of all employees; Owner's Representatives, Project Manager and the Architect. The Contractor shall comply with all instructions and Government Safety laws and Building Codes to prevent accident or injury to persons on about or adjacent to the premises as well as for the protection of adjacent property where work is performed. The Contractor shall not excessively loaded.

SOIL POISONING

A. SCOPE OF WORK

- Furnish all labor materials, equipment, plant and other facilities and perform all operations necessary to complete the Soil Poisoning requirement hereinafter specified.
- All work under this Division shall be subject to the General Conditions accompanying these Specifications. The Contractor and the Sub-Contractor for this portion of the work is required to refer especially thereto.

B. APPLICATION

- Thoroughly drench and saturate every lineal meter of excavation for footings and other foundation work with soil poison working solution (F-3, or F-35 by MAPECON or approved equivalent) before pouring of concrete. Soil poisons shall not be applied when soil is excessively wet.
- After grading and leveling the soil and laying of the gravel base for floor slab, flood or soak every square meter of floor area with soil poison working solution before pouring of concrete.
- Prior to landscaping of the lawn, saturate every linear meter of perimeter of the building about three (3) meters wide with soil poison working solutions.
- The application of the chemical solution shall be performed by a competent Pest Controller following the Thropallaxis Method or approved equivalent.

C. WOOD PROTECTION

- Paris Green Solution. Apply one (1) coat solution of 100 grams green powder mixed with 4.40 liters diesel all wood members with minor “Banakal”.
- Spar Varnish. All exposed surfaces of doors, windows, and exterior roof fascia boards shall be painted with a base coat or linseed oil before application of spar vanishes.

PREPARATION OF SITE

A. SCOPE OF WORK

- Furnish all labor materials, equipment, plant and other facilities and perform all operations necessary to complete the preparation of site shown and hereinafter specified.
- All work under this division shall be subject to the General Condition, accompanying these Specifications. The Contractor and sub-contractor for this portion of work are required to refer especially thereto.

B. SURVEY

- The Contractor shall stake out the building accurately and shall establish grades and after the approval by the Project Manager and Architects shall be secured before further work is commenced.
- Basic batter boards and basic reference marks as directed by the Project Managers shall be erected at such places where they will not be disturbed during construction.
- Materials shall be stored and work shall be conducted in such manner as to preserve all references approved the Project Manager and the Architect. Reestablishment of lines and grades where necessitated due to negligence of part the contractor shall be done at the expense of the Contractor.
- The Contractor shall construct two (2) permanent benchmarks near the site of construction for the purpose of determining any settlement that may occur during the progress of construction.
- The Contractor shall provide all necessary instruments.

UTILITIES EXCAVATION

A. SCOPE OF WORK

- Furnish all materials, equipment, labor, plant and other facilities to complete all utilities excavating work shown on the drawings and hereinafter specified.
- All Work included under this division shall be subject to the General Conditions accompanying these specifications. The Contractor and sub-contractor are required to refer especially thereto.

B. MATERIALS

- Provide all materials, equipment, labor, plant and other fine granular materials as approved. Soil removed in the excavation process may be used for back fill if meeting the above qualifications approved by the Project Manager.
- Make widths of trenches at bottom and above sufficient for working conditions, including bracing, sheeting and shoring if any should be necessary to adequately protect men at work.
- For pipe, make trench with at bottom between 30 and 40 cm greater than outside diameter of pipe measured at widest point of pipe.
- Make centerline of trench and centerline of pipe and structures coincide.
- Accurately grade bottom of trench to provide uniform bearings; support pipe on undisturbed soil for each length of pipe.
- After grading trench bottom, dig bell holes for bell point pipe. Make bell holes of sufficient size as a minimum to permit accurate caulking work.

- Sheet and shore as necessary. Refer to and conform to specifications for such work required in operations for which this section serves as a reference.
- Take precautions to prevent over-excavation of earth in trench. For rock abode and like solid materials excavate to a minimum over depth of 10cm below required for outside of pipe.
- Correct over depth excavation due to negligence or faulty work of Contractor or for removal of undesired materials as noticed in paragraph H above by back filling with compacted fine granular materials. Stack excavated materials in orderly manner adjacent to work except in street. Stack in manner to divert surface water from running into trench. Remove accumulations of water from trenches by pumping or other approved method.

C. SHEETING AND SHORING

- Provide sheeting and shoring as required to protect trench excavations and provide safe working conditions. This requirement shall be at the sole decision and responsibility of the Contractor including the remedy and satisfactory of all damages and liabilities occasioned by the entire operation.
- Where damage is likely to result from withdrawing sheeting, the sheeting will be ordered to be left in place by the Project Engineer.

D. BACKFILLING

- Do not backfill until underground piping and conduit have been tested and approved by proper authorities or until Project manager authorize back filling.
- Remove bracing, sheeting and shoring before back filling, except such sheeting as Project Manager may require in order to be left in place. Cut off sheeting ordered to be left in place at level of top of pipe.
- Backfill entire depth of trench with damp, compacted sand at following locations.
- Trenches within limits of building and 91 cm outside foundations.
- Trenches under footing, pavements, concrete slabs, sidewalks, utility pipes and other load bearing items and 91 cm beyond.
- Spread sand by hand shoveling in layers not more than 15 cm thick and compact to degree or compaction satisfactory to the Project Manager or his representative but not greater than for fills specified under division SEB, except in streets compact per City Regulations. Carry out spreading and tamping simultaneously in layers.
- Backfill all other trenches with ample sand to top of pipe. Earth, sand, clay and gravel, all constitute approved excavated material. Deposit by hand shoveling in 15 cm thick layers until pipe or conduit has a cover of not less than 30 cm. with earth moving equipment. Make ample allowances for settlement.

- Use water, but not excessive quantities for setting earth or sand backfill.
- Fill settled areas before final inspection and acceptance.

STRUCTURAL EXCAVATION AND BACKFILL

A. SCOPE OF WORK

- Furnish all materials, equipment, labor, plant and other facilities to complete the structural excavation and backfill as shown and hereinafter specified.
- All work included under this division shall be subject to the General Conditions accompanying these Specifications. The Contractor and Sub-Contractor are required to refer especially thereto.
- Examine the list of record of existing utilities and construction, record of the test borings and sub-surface exploration reports and soil samples to determine the conditions under which work will be performed. The record of test borings is not guaranteed to represent all conditions that will be encountered.

B. APPLICABLE CODES AND STANDARDS

- The Standards and Codes applicable to only a portion of the work specified in this section are referenced in the relevant parts and clauses. Standards and codes, which are generally applicable to the work of this section, are listed hereinafter.
- 2.2 AASHTO - American Association of States Highways and Transportation Officials.
- T88 - Mechanical Analysis of Soils
- T90 - Determining the Plastic Limit and Plasticity Index of Soils
- 2.3 ASTM - American Society for Testing and Material

- C33 - Concrete Aggregates
- D1556 - Density of Soil – in – Place by the Sand – Cone Method
- D1557 - Moisture Dust Density relations of soils, using ten-pound rammer and eighteen-dust inch crop.

C. SUBMITTALS

- Samples of any materials or product to be used in the works. They shall be properly marked and accompanied by a letter of transmittal clearly listing the samples, their intended use and locations in the works.
- Test Reports Shop test shall show the results of required shop tests of materials, equipment or system certified in writing by the manufacturer or its authorized representative.

D. TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

- Pumping and Drainage

  Excavate areas so as to afford adequate drainage. Control grading to prevent water running into the excavated areas until the work is complete. Remove water that may interfere with the proper performance of the work or cause ponding.

E. QUALITY CONTROL

- The testing laboratory shall perform all tests and submit reports specified in this section. The testing laboratory shall be responsible for conducting and interpreting the tests; shall state in each report whether or not the test specimens comply with all the requirements of the Contract Documents and specify note the deviation therefrom.
- Testing Materials

  The testing laboratory shall perform all tests herein specified and additional tests as may be required.

  Optimum moisture-maximum density curve for each type of soil encountered in subgrades and fills under pave areas and bulking slabs. Determine maximum densities in accordance with ASTM D1157. Each type of borrow materials shall receive the following:

  a. Material Analysis : AASHT T88

  b. Plasticity index determination : AASHTO T90

  c. Moisture-density curve determination : ASTM D1557
- Testing and Subgrade and Fill Layers

  Subgrade and fill layers shall be approved before construction of any further works thereon. Test of sub-grades and fill layers shall be taken as follows:

  1. Footing subgrades: The design bearing capacities shall be verified by testing each strata of soil on which footings will be placed. The following tests shall be performed as required by the Construction Manager.

     Cohesionless soil, plates bearing test and filled density test.

     For cohesive soil, unconfirmed compression test.
- Paved area and Building Slab Subgrades: The top 12-inch of subgrade resulting from excavation shall have the maximum density of optimum moisture as specified. In fill area, each layer of fill shall meet the required density test of the subgrade for every 3000 ft. square of paved area or building slab but in no case less than three tests shall be made. In each compacted fill layer, make one field density test for every overlaying 3000-ft. square of building slab or paved area, but in no case less than three tests. Field density tests shall be performed in accordance with ASTM D1556 at ASTM D2167.
- Foundation Wall Backfill at least three field density tests ASTM D1556 or ASTM D2167 shall be taken at locations and elevations as directed.

F. PREPARATION

- Clear and grub shrubs, roots, brush, vegetation, rubbish and debris within the construction limit lines, except as otherwise designated to remain or to be relocated.

G. EXCAVATION

- General

  Excavation to the lines and elevations are required. Excavation shall comprise and includes the satisfactory removal and disposal of all materials encountered regardless of the nature of the materials. Make excavations sufficiently large to permit placing and removal of forms, installation of weatherproofing, damp proofing and utilities and to permit inspection.
- Excavation for Footings

Footing subgrades shall be approved before proceeding with construction of piers and footings shall be found on rock or firm understructure at elevations indicated or as shown. Refer to construction notes for required preparations. Subgrades of footings shall be level and free of loose rock, dirt, debris, and standing water prior to acceptance for placing concrete.

- Excavation for Paved Areas, Building Slabs and Structural Members in Cut Areas
  1. Structural Members: Structural members shall include frame slabs, grade beams utility tunnels.
  2. Subgrades: Subgrades shall be approved before proceeding with construction of structural members.
     The top 12 inch of subgrade resulting from excavation shall be free from unsuitable material and have a minimum moisture when cohesive soil are tested in accordance with ASTM D2049.
     If the subgrade thus meet the above requirements, compact the subgrade by rolling with suitable compaction equipment to obtain the density specified.
- Excavation for General Grading
  Excavations made below the elevations shown or specified shall be filled and compacted as hereinafter specified for filing and compacting.
- Excavation for Paved Areas, Building Slabs and Structural Members in fill Areas
  Subsection C applies except that no subgrade recompaction will be required.

H. FILLING AND COMPACTION

- Fill Materials
  Materials for fill and backfill shall be in general fill as herein before specified, obtained from the required excavation on site, if acceptable, or from burrow sources.
- Utilization or Excavated Materials
  Suitable excavated materials for fill and backfill as defined in clause 1 and 2 MATERIALS shall be approved. Materials which are suitable for use as fill under exterior slabs and paving and backfill shall be separated form material which is only suitable for general grading.
- Burrow
  Provide additional materials, if required, at no additional cost. Acceptable burrow shall consist of suitable materials.
- Placing
  Place fill materials in horizontal loose layers in such manner as to produce a uniform thickness of materials. Placement shall start in the deepest area and progress approximately parallel to the finished grade. Thickness of layers before compaction shall not exceed 8 inches for cohesive soils. No fill material shall be placed on areas where free water is standing, or on surfaces which have not been approved.
- Compaction
  Compact each layer of fill with equipment to achieve 95 percent of maximum density at optimum moisture when cohesive soils are tested in accordance with ASTM D1557 or 75 percent of relative density when cohesionless soils are tested in accordance with ASTM D2040.
  In case of cohesive soil, do not compact materials when the moisture content varies more than 3 percent from the optimum moisture content. Maintain moisture content by wetting and drying manipulation. Suspend compaction operation because of rain and other unsatisfactory conditions.
- Gravel fill for Building Slabs
- Provide completion of foundation walls and removal of forms. Clean the excavation of all trash and debris before application of damp proofing or waterproofing and placement of backfill as hereinafter specified for fill operations. Maintain symmetrical backfill loading and compact each layer by hand tampers or other unsatisfactory conditions.
- Do not backfill against foundation or basement walls until compaction or supporting floor construction to top of backfill or to first level above top of backfill. In placing backfill, take special care to prevent wedge action, eccentric or overloading of structure by equipment used in compacting backfill material, and to prevent damage to waterproofing or damp proofing on walls.

- Where subsoil drainage system are installed, place backfill so as to prevent any drainage to the system.
- Place drainage fill top of felt above footing subsoil drains to within 18 inches of finished grade, except as otherwise shown. Place and compaction as necessary to obtain the required densities under paved areas of general as specified herein.

CAST-IN-PLACE CONCRETE

A. SCOPE OF WORK

- Furnish all labor, materials, equipment, plant and other facilities the cast-in-place concrete as shown and hereinafter specified.
- All work under this division shall be subject to the General Conditions accompanying these specifications. The Contractor and Sub-Contractor for this portion of the work required are especially referred thereto.

B. APPLICABLE CODES AND STANDARDS

- The Standards and codes applicable to only a portion of the work specified in the section are referenced in the relevant parts of the clauses. Standards and codes, which are generally applicable to the work of this section, are listed hereinafter.

- American Concrete Institute
  Recommended Practice for Selecting Proportions for Normal Weight Concrete
  Recommended Practice for Evaluation of Compression Test Results of Field
  Specifications for Structural Concrete for Building
  Recommended Practice for Measuring and Placing Concrete
  Recommended Practice for Curing Concrete
  Recommended Practice for Consolidation of Concrete
  Building Code Requirements for Reinforcing Concrete.

- American Society for Testing and Materials
  Making and Curing Concrete Test Specimen in the Field
  Compressive Strength of Cylindrical Concrete Specimens
  Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
  Ready Mixed Concrete
  Slump of Portland Cement Concrete
  Sheet Materials for Curing Concrete
  Fresh Concrete Sampling
  Liquid Membrane – Forming Compounds for Curing Concrete
  Chemical Admixtures for Concrete
  Concrete Made by Volumetric Batching and Continuous Mixing
  Sampling Aggregates
  Reporting Results of Analysis of Water
  Performed Expansion Joint Fillers for Concrete Paving and Structural Construction
  Wire – Cloth Sleeves for Testing Purposes

- Federal Specifications
  Concrete Patching and Leveling Compound

- C – E Corps of Engineers
  Requirements for water for use in Mixing or Curing Concrete
  Rubber Waterstops
  Polyvinylchloride Waterstops
  Expansive Grout

C. SUBMITTALS

- Layout of Proposed Placement

- Placement Schedule Proposed Construction Joint Layout and Sequence of Placement

- Proposed Curing Concrete

- Quality Assurance
  Proof of quality of manufacturer and reliability in field operations. Such proof shall normally constitute evidence that the product/equipment has been manufactured by them over a period of time and has established field service record. It shall include installation locations, dates and years of operating services. If there is no experience for an identical unit it may release to a similar unit by the same manufacturer.

- Samples
  Samples of any materials or product to be used in the works. They shall be properly marked and accompanied by a letter of transmittal clearly listing the samples, their intended use and locations in the work.

- Certificate of Compliance
  Certificate of Compliance shall include materials or Product manufacturer's Statement that the supplied items or systems to the specifications.

- Test Reports
  Shop test shall show the results of required shop test of materials, equipment or system certified in writing by the manufacturer or its representative.
  Field test reports shall show the results of required field test and compliance with approved procedures, certified by the Contractor.

D. TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

- Cement and Admixtures
  Upon the delivery at site of work, cement and admixtures shall be stored separately in dry, weather tight, properly ventilated structure with adequate provision for prevention of absorption of moisture.

- Temperature Control
  The Contractor shall provide facilities and procedures to control or reduce the temperature of all materials used for concrete during hot weather; to such degree of temperature shall not exceed 90 degrees Fahrenheit.

  Concrete Removed from the Structure

  When the results of the strength test of the specimen indicate deficiency in specification requirements or where there is other evidence that the quality of the concrete is below specification requirements, core-boring tests shall be made in conformance with ASTM C42. If deficiency id discovered, the Contractor maybe allowed to make load test at his expense, and results shall be evaluated in conformance with ACI 318, Chapter 2.

- Slump
  Slump test shall be performed in the field under the supervision of the Construction Manager. Slump test shall conform to ASTM C143.

- Sample Concrete Panel
  Sample concrete panel for exposed or painted concrete shall be constructed and submitted for approval by the Construction Manager. The panel shall be not less than 6 ft. by 4 ft. in size. Sample panel shall be protected until acceptance of the complete concrete work. The approved sample shall be representative of the smooth texture concrete finish required in the work.

E. MATERIALS

- Portland Cement

Only one brand of any type of cement shall be used for exposed concrete surfaces of any individual structure.

- Concrete Patching Compound
  PS SS – 1302, type 11, that can be painted without evidence of bleeding and that after final set will be unaffected by high humidity and moisture.

- Aggregates
  Grading requirements shall conform to ASTM C33. Coarse aggregates shall be well graded from fine to coarse within the prescribed limits of the Contract Documents.

- Fine Aggregates
  Fine aggregates shall consist of natural sand, manufactured sand or combination of the two and shall compose of clean, hard and durable spherical or curvical particles.

F. QUALITY CONTROL

- Samples and Testing
  Samples from stock on the site shall be taken by the Contractor in the presence of the construction Manager

  Cement
  The testing laboratory shall test sampled cement. Certify copies of laboratory of cement and shall include all test dates, and testing procedures are in conformance with stored more than four months after being tested shall be tested before use. Cement found unsatisfactory under test shall be immediately removed from the construction site.

  Aggregates
  Aggregates sampling shall conform to ASTM D75. Aggregates shall be sampled and submitted to the Construction manager for testing. No aggregate shall be used until test results are satisfactory to the construction Manager.

  Water
  Water analysis shall be performed in accordance with ASTM D596.

  Admixtures
  Sampling and testing of all admixtures used in concrete mix shall be in accordance with the standard procedure recommended by the testing laboratory. No admixtures shall be used if the test results are unsatisfactory.

- Concrete

  During Place Concrete
  The Contractor shall provide for test purposes three sets of the test specimens taken under the supervision of the Construction Manager from each 50 cu. m or fraction thereof for each class of concrete placed. At least one set of the test specimens for each classes of the concrete shall be provided in each eight-hour shift. Samples shall be secured in accordance with ASTM 172. Test specimens shall be made and cured in accordance with ASTM C39 or ACI 214. Test specimen shall be evaluated for each class of concrete specified in conformance with ACI 318, Chapter 4 Concrete Quality. Specimen may be tested 7 days to 28 days strength of the concrete is established.

  Coarse Aggregates
  Coarse Aggregates shall consist of crushed or uncrushed gravel, crushed stone, or a combination thereof and shall be clean, hard, and compacted particles of maximum nominal size ¾ inch. However, coarse aggregate of greater maximum size may be used provide the requirements of ACI 318, Sec. 3.3.3 are met.

- Water

Water for washing aggregated and for mixing and curing concrete shall be fresh and free from injurious amounts of oil, acid, slate, alkali, organic matter, or other deleterious substances as determined by CDCRD – C400. Chlorides and hardeners shall not exceed specified limits of ASTM D512.

- Admixtures
  Admixtures containing chloride ions or other ions producing deleterious effect shall not be used.

- Vapor Barrier
  Polyethylene sheeting conforming to ASTM E154 and mils thick minimum. Other similar materials having a vapor permanence rating not exceeding 0.5 per as determined by ASTM E96, procedure will be considered.

- Grout
  Damp pack bedding grout mix of one part of Portland cement type 1 and ½ parts of the fine aggregates proportioned by weight and more than 4 – ½ gal. Of water per bag, 94 lb.Of cement.

  Premixed, Non – Shrink Metallic Grout
  "Masterflow" 713 manufactured by Master Builders, Euco – N.S. manufactured by Euclid Chemical Company or an approved equal.

  Premixed Non – Shrink Metallic Grout
  "Embecco 36" manufactured by Master Builders. Premixed manufactured by the Euclid Chemical Company or an approved equal.

  Expansive Grout
  CE CRD – C588, Type A or M, as required.

- Curing Materials

  Impervious Sheeting
  ASTM C171 type optional except that polyethylene sheeting shall be 4 minimum winds the imperious sheeting shall not be used.

  Burlap
  Cloth made of jute or kenaf shall conform to AASHTO M182 and shall weigh a minimum 0.06 Lb. Square foot.

  Membrane Forming Compound
  ASTM C309, Type 1. When non- pigmented compound is used, each shall contain a fugitive dye.

- Hardener
  Floor hardener shall be a colorless aqueous solution containing not less than 20 lb. /gal. of zinc and or magnesium fluosilicate or sodium silicate solution having a specific gravity of 16.7 degrees Baume, "hornoligh" manufactured by A.C. Horn W.R. Grace " Saniseal 50" manufactured by Master Builders, Lapidolite manufactured by Sonneborne Contech, or an approved equal.

- Joint Fillers
  ASTM D1751 performed resilient bituminous type or ASTM D1752, performed sponge rubber.

- Joint Sealant
  ASTM D1190, hot – pour type

- Water Stops

Metallic
Copper conforming to ASTM B370, 20-ounce weight or stainless steel conforming to ASTM 167, 0.037-inch nominal thickness and 6 inch wide.

Non-Metallic
CEO CRD –513 and CRD – 572, ¼ inches minimum thickness and 6 inches wide. Installation Joints – Shown and detailed on the plans

- Expansion Joints – As Shown and Detailed on the Plans

G. CLASSES, USAGE AND PROPORTIONING

- Concrete of the various classes indicated and as required under other section for different usage shall be proportioned and mixed by volumetric batching and continuous mixing in accordance with ASTM C685.

- Retarder Agents
  Water reducing admixtures (plastic and retarder) maybe used subject to the approval of the Construction Manager.

- Trial Designed batches
  Trial designed batches for various classes required shall be the responsibility of the Contractor. Trial mixture having a proportion, consistencies and air contents suitable for the work shall be made based on ACI 211.1, using at least 3 different water cement rations which will produce a range of strength encompassing those required for the work. Trial mixtures shall be designed for maximum permitted slump and air content. The temperature of concrete in each content. The temperature of concrete in each trial batch shall be reported. For each water-cemented ratio at least three strength shall be determined by ACI 301, Chapter 3, and Paragraph 3.8 method 1 or 2.

- Slump
  Slump for vibrated concrete shall be minimum of 2 inch to a maximum of 4 inch as determined by ASTM C143.

H. BATCHING, MIXING, and TRANSPORTING CONCRETE

- Batch Plant
  The plant shall be semi-automatic type and of sufficient capacity not to impair the construction time schedule. The semi-automatic plant is a system where batching weights are set manually and materials are batched automatically.

  Site – Mixed Concrete
  Measuring tolerances, mixing capacity, and time shall be in accordance with ACI 301, Chapter 7, and paragraph 7.2.

- Truck Mixers
  When a truck is used to complete mixing of central plant batch of materials, all water shall be added at mixing speed before completing of mixing. Retempering of concrete will not be permitted. Each truck shall carry a ticket stamped by item clock to show date and time of the loading of each truck was completed.

I. PLACING CONCRETE

- Sequence of Concrete Placement
  To control shrinkage defects placement of concrete for floors shall follow a checker board pattern. Joints line shall cross within middle third of beams, girders, and short spans of slabs, unless otherwise allowed by Construction Manager. Contractor shall submit a construction joint layout and sequence of concrete placement for approval of Construction Manager.

- Preparation of Placing
  Excavation of forms shall be clean, free of debris of foreign materials. Reinforcement and embedded items shall be secured in position and shall be inspected and approved before placing concrete. Runways shall be provided for wheeled concrete handling equipment. Such equipment shall not be wheeled over reinforcement nor shall runways be supported on reinforcement.

- Placing Procedures
  Concrete shall be delivered from central plant of final deposit in a continuous manner in the time interval specified and without segregation or loss of ingredients. Placing shall be suspended when the sun, heat, wind, or limitation of facilities furnished by Contractor prevents proper finishing and curing of concrete. Concrete shall be placed in forms or excavations as close as possible in final position, in uniform approximately horizontal layers not over 12 inch deep unless otherwise directed. Concrete shall not be allowed to drop freely more than 5 feet in unexposed work nor 3 feet in exposed work. For greater drop trunks or other approved means shall be employed. Conduits and pipes shall not be embedded in concrete unless specifically indicated or specified.

- Transformation Time Interval
  Concrete mixed in central plant and transported by non-agitating equipment shall be placed and transported in the forms in 60 minutes.

- Placing in Hot Weather
  Hot weather placing shall be in accordance with recommended practice of ACI 305, except that air temperature, reinforcement and form temperature exceeding 35 degrees C concreting shall be controlled as follows:

  1. Concrete temperature during mix, transporting and placing shall not exceed 32 degrees C otherwise approved by the Construction Manager.

  2. Reinforcing Steel and Forms shall be protected from direct sunrays and shall be cooled with water immediately before concrete placing so that concrete temperature specified can be maintained.

  3. When cold joints tends to form or where surface set and dry too rapidly or plastic shrinkage cracks tend to appear, concrete shall be kept moist by sprays applied shortly after placement and before finishing.

- **Conveying Concrete**
  Concrete may be conveyed by chute, conveyor, or pump if so approved by the Construction Manager. Aluminum chutes or pipelines shall not be used in conveying concrete. Approval will not be given for chutes or conveyors requiring changes in the concrete design mixed for desired operation.

  Chutes and Conveyors
  Chutes shall be steel or steel lined wood, rounded in cross section, rigid in construction protected from overflow and slopes not exceeding one vertical to three horizontals. Conveyors shall be designed to operate assuring uniform flow of concrete without segregation of ingredients, loss of mortar or change in slump.

  Pumps
  Placing concrete by pumping method shall confirm with ACI 304. Pumps shall be operated and maintained so that a continuous stream of concrete is delivered in the forms without air pockets, segregation or change in slump exceeding two inches.

- Placing Through Reinforcement
  Where congestion of steel or other condition make placing of concrete difficult, a trim pipe shall be used. Recommended placing and consolidation practices shall conform to that outline ACI 304 and ACI 309.

J. COMPACTION

- Immediately after placing each layer of concrete shall be compacted by internal concrete vibration supplemented by hand spanding, rodding and tamping or other external vibration of forms will not be permitted. Internal vibrators submerged in concrete shall maintain a minimum frequency of not less than 8000 vibration per minute. The vibrating equipment shall be adequate in quantity and capacity required and shall conform to the requirement of ACI 309.

K. BONDING

- Before depositing new concrete on or against concrete that has set, the surface of the set concrete shall be thoroughly cleaned so as to expose the coarse aggregate. Form shall retighten and all surface moisture.

L. SLABS ON GRADE

- Subgrade under slabs within the building shall be covered with vapor barrier. Edge shall be lapped by not less than 6 inches and seal a pressure sensitive tape not less than 2 inches wide, compatible with the membrane. Concrete shall be placed continuously so that each unit of operation will be monolithic in construction. Concrete shall be placed in alternate checkerboard pattern terminating at crack control joints or maybe limited by expansion and construction joints. Cracks control joints shall be expansion control, or construction joints.

- Control Joints
  Control Joints shall be performed by an insertion of hard pressed fiber guard strips inserted in plastic concrete. The joints shall be 1/8 inch wide and depth equal approximately ¼" of the slab thickness, unless otherwise indicated on the drawings.

- Sealing
  Concrete joints shall be filled with joint sealant except where floor covering is required.

M. SETTING OF BASE PLATE

- After being plumbed and properly positioned, base plates shall be provided with full bearing weight non-shrink grout except where expansive grout is indicated. The grout shall be packed by tamping or ramming with a bar or rod until voids are completely filled. For clearances of two inches or more than expansive grout shall be provided. Mixing and placing shall be in accordance with manufacturer's instructions. Grout shall not be retempered or subject to vibration. Temperature of the grout and the surface receiving the grout shall not exceed 32 degrees C.

N. CONCRETE FINISHES

- Floor and Roof Slabs
  Finish floors and roof slabs surfaces shall be through plane surface without deviation in excess of 8 inches when tested with a 10-foot straight edge. Surface shall be pitched as shown.

- Other Than Floor And Roof Slabs
  Within 12 hours after forms are removed, surface defects shall be prepared as specified hereinafter or as directed by the Construction Manager. Temperature of the concrete ambient air and mortar during repair work including curing shall not exceed 32 degrees C. Fine and loose materials shall be removed. Honeycombed, aggregate pockets, voids over ½ inch diameter and holes left by the reamed wetted, brush coated with neat cement grout and filled with mortar. Holes shall be packed full and all patchwork shall be damped cured for 7-day minimum.

  For surface, which is not to receive architectural finish; the following additional measures shall be taken.

  The concrete shall receive smooth finish by brush coating surface with cement grout composed by volume of one part Portland cement and not more than two parts fine aggregates passing number

30 mesh sieves and mixed with water to consistency of thick paint. Excess grout shall be scraped off with a trowel any visible grout film. The grout shall be kept damp by means of fog spray during setting period.

- Non-Slip Finish
  The concrete shall be screened and flatted to the required finish level with coarse aggregate visible. Abrasive aggregate shall be uniformly sprinkled over flattened surface at a rate recommended by the manufacturer. The surface then shall be steel trowelled to a smooth, even finish that is uniform in texture and appearance. Immediately after curing, cement coating or laitance covering the abrasive aggregate shall be removed by steel be removed by steel brushing, rubbing or light sand blasting to expose abrasive particles.

- Hardener
  Hardener shall be applied to expose interior concrete floor where indicated on the drawing and in accordance with the manufacturer's written installation.

- Curing
  Concrete shall be protected against moisture loss, rapid temperature changes, mechanical injury and injury from wind or flowing water for a period of time corresponding to cementing material used as follows:

  Portland Cement Type I …….. 7days

  1. Monolithic finish
     Slabs shall be screened and flattened with straight edge to bring the surface to the required finish level with coarse aggregates visible. The concrete while still green but sufficiently harder to bear a man's weight without deep imprint shall be wood trowelled to a smooth even dense finish free from blemishes including trowel marks. Rough surface shall be provided for resilient flooring thin – set ceramic tile carpeting where no other finish is specified.

  2. Power machine Finish (option)
     In lieu of hand finishing, an approved power-finishing machine may be used. The preparation of surface by machine shall be in general herein before specified for hand finish. Finish surface shall be free of machine marks, ridges or other blemishes.

  3. Rough Slab Finish
     Tamp the concrete to force the aggregate away from the surface, then screen with a straight edge to produce a uniform surface. Rough slab finish surface shall be provided for ceramic tile, floor toppings, and insulation built-up roofing of terrazzo.

  4. Broom Finish
     The concrete shall be screened and flatted to required finish level with coarse aggregate visible. While concrete is still green, steel or wood trowel to uneven smooth finish and then broom with fiber bristle brush in a direction transverse to that of the maintained traffic broom finish surface shall provide for drive – ways and ramps.

  5. Wood Float
     The preparation of surface shall be in general herein force specified for monolithic finish. While surface is still green, wood float to an even textured surface. Curing procedure shall conform to ACI 308 and ACI 305. During the specified curing period, the concrete shall be maintained in the moist condition and temperature not over 90 degrees F.

CONCRETE REINFORCEMENT

A. SCOPE OF WORK

- Furnish all equipment, labor, plant and other facilities to complete the concrete reinforcement as shown on the drawings and herein specified.

- All work included under this division shall be subject to the General Conditions accompanying these specifications. The Contractor and Sub-Contractor are required to refer especially thereto.

B. APPLICABLE CODES AND STANDARDS

- The Standards and codes applicable to only a portion of the work specified in this section are reference in the relevant parts of clauses. Standards and codes, which are generally applicable to the work of this section, are listed hereinafter.

- ACI American Concrete Institute
  Manual of Standard Practice for Detailing Reinforced Concrete Structures
  Building Code Requirements for Reinforced Concrete

- ASTM – American Society for Testing and Materials

  A185 Welded Steel Wire

  Fabric for Concrete Reinforcement

  A615 Deformed and Plain Billet – Steel Bars for Concrete Reinforcement

- CRSI – Concrete Reinforcing Steel Institute Manual of Standard Practice Placing Reinforcing Bars.

- AWS – American Welding Society Reinforcing Steel Welding Code

C. SUBMITTALS

- Details, Drawings and/or Shop Drawings
  Fabrication installation and assembly drawings for all parts of the work in sufficient detail to enable to check conformity with Contract requirements. Drawings shall show details and dimensions of all component parts including plan and elevation views, cross sections and details.

- Test Reports
  Shop test shall show the results of required test of materials, equipment or systems certified in writing by the manufacturer or its authorized representative.

  Field Test Reports shall show the results of required field test and compliance with the approved procedures, certified by the Contractor.

D. MATERIALS

- Bars: ASTM A615 Grade 60 and Grade 40, 40.

- Bar Mats: ASTM A184, of mesh and bar size indicated on the drawings

- Welded Fabric Wire: ASTM A4976, or mesh and bar size indicated on the drawings.

- Drawn Wire: ASTM A82
- Bar Supports: Comply with CRS – WCRSI " Manual of Standard Practice"

  Interior concealed areas: Class A " Bright Basic"
  Interior exposed Areas: Class C "Plastic Protected.
  Exposed painted or concealed: Class D "Stainless Steel Protected"
  Exterior unpainted or exposed: Class E "Special Stainless Protected"

E. DETAILING AND FABRICATION

- Reinforcement
  Provide concrete reinforcement, which is made from new billet steel and free from rust, dirt, oil and grease and any other foreign substances detrimental to bonding with concrete. Accurately bend or from fabricated bars to the shapes and dimensions shown using methods that will not damage materials. Do not weld unless specially shown or approved by the Construction Manager.

- Identification
  Bundle and tag reinforcement with suitable identification to facilitate sorting transportation to, or storage and placing at the job site.

F. PLACING REINFORCEMENT

- Reinforcement shall be installed as shown.

- Tolerances
  Maintain surfaces clearances dimensions shown, plus or minus ¼ inch. Secure reinforcement with accessories and tie wire to prevent displacement before and during concreting. Do not place concrete if bars are not properly placed with adequate support.

- Dowels
  Secure in position prior to placing concrete

G. SPLICES

- Lap-splices all bars up to 36 mm in accordance with ACI 318, unless otherwise shown. Follow AWS D12.1 recommendations for welded splices where shown.

H. REPAIR

- Remove and replace damaged bars as directed.

CONCRETE FRAMEWORK

A. SCOPE OF WORK

- Furnish all labor, materials, equipment, plant and other facilities to complete the concrete form work as shown and hereinafter specified.

- All work under this division shall be subject to general construction accompanying this specification. The Contractor and Sub-contractor for this portion of the work as required referring specifically thereto.

B. APPLICABLE CODES AND STANDARDS

- The standards and codes applicable to only portion of the work specified in this section are referenced in the relevant parts of clauses. Standards and codes, which are generally applicable to the work of this section, are listed hereinafter.
- ACI – American Concrete Institute

  301 Specifications for Structural Concrete for Buildings

  318 Building Code Requirements for Reinforced Concrete

  347 Recommend Practice for Concrete Formworks (ANSI A 145.1)

- ANSI – American National Standards Institute, Inc.

  A199.1 Construction and Industrial Plywood

- Timber Design Standard – Philippine Association of Civil Engineers (PACE) CP 202, 1965.

C. SUBMITTALS

- Detail Drawings and Shop Drawings for all parts of the work in sufficient detail to enable the Construction Manager to Check conformity with the contract requirements. Drawings shall show the details.

D. QUALITY CONTROL

- Construction

  Construction formworks so that concretes surface comply with ACI 347, Chapter 2 and 3.

- Hydraulic Pressure

  The maximum allowable deflection of forming surface from concrete pressure is length/360 between supports.

E. MATERIALS

- Formworks Materials

  Unless otherwise shown form materials shall be one of the following:

  Plywood; ANSI A199.1 minimum—” in thickness

  Form Lumber

  Fiberglass reinforced plastic

  Steel

- Blockouts and keyways

  Wood or extended expanded polystyrene

- Ties
  Bolt or standard snap ties for snap off 1 inch from surface with minimum working capacity of 3,000 lbs. Maximum size cones shall be —” in diameter.

- Chamfer Strips
  Wood, polyvinyl chloride or neoprene

- Dovetail Anchor Slots
  Standard size, 20 gauge galvanized steel with removable filler installed for abutting masonry and at 24 inch o. c. for facing masonry where shown.

- Flashing Reglets
  26 gauged galvanized sheet, with removable filler and beveled edges.

- Anchoring Inserts
  Approved propriety type inserts for the load capacity and use shown.

- Fabricated Embedments
  Install only as shown and as specified.

- Form Release
  Non-staining, non-reactive rust preventive guaranteed not to affect bond of surface application to concrete.

F. FABRICATION AND ERECTION

- Forms
  Design, construct, erect, support, brace, maintain and remove forms in conformance with the requirements of ACI318 part 1, 2 and 3 exclusive and ACI347 for loads lateral pressure and allowable stresses; in addition to other design parameters such as wind loads.

- Shores
  Shores shall be adjustable by screw jacks or wedges.

- Preparation of Forms
  Clean forms before each use. All steel forms shall be free of rust and scale.

- Form Re-use: The Number of reuses is dependent on the resulting finish quality and is subject to approval.

- Form Joints; Forms shall be butted types.

- External Corner: Chamfered unless noted.

- Cleanouts: Where required provide temporary openings panels in the forms to facilitate cleaning, placing and inspection.

- Cambers: Where specified camber is noted position the forms to maintain hardened concrete lines with specified tolerances measured for camber lines. Camber is to maintain as noted plus or minus 3mm (1/8 inch) until shoring is removed.

- Form Release: Coat removable forms with forms release agent before reinforcing is placed and in accordance with manufacturer's instruction. Remove release agents from reinforcing steel embedment solvents recommended by the manufacturer.

G. STRIPPING AND RESHORING

- General: Do not remove forms or shoring until the concrete members have acquired sufficient strength to support their weight and subsequent construction loads without defection. Forms shall be moved in a manner to assure safety of the structure.

- Time: Form and supports shall remain in place until the concrete has attained sufficient strength to support the loads to be applied but in no case shall they be stripped in less than the following minimum periods.

Columns	-	2 days
Walls	-	2 days
Sides of Beams and Girders	-	2 days
Floor Slabs	-	14 days
Shoring for Beams and Girders	-	14 days
Beam and Girders	-	14days

- Reshore: Reshore immediately after stripping slab, beams and girders that support subsequent formwork. Retain reshore for as many levels as required to combine the liveload capacities of cured floors to support the loads of the subsequent fresh construction loads. Reshore at minimum of two consecutive levels.

MASONRY WORK

A. SCOPE OF WORK

- Furnish all labor, materials, equipment, plant and other facilities and perform all operations on necessary to complete the Masonry Work requirements hereinafter specified.

- All work under this Division shall be subject to the General Conditions accompanying these specifications. The Contractor and Sub-Contractor for this portion of the work are required to refer specifically thereto.

B. MATERIALS

- Concrete Hollow Blocks: Shall be Machine Bilt, Non-Load Bearing (NLB) or approved equivalent. Minimum face shell thickness shall be 1" Nominal face 7" x 17" normal thickness shown. Hold all units in storage for a period of not less than 28 days (including curing period) and do not deliver prior to that time unless strength and other test indicate compliance with this specification.

- Mortar Aggregate: Natural river sand, clean free from soluble salts and organic matter, grades from fine to coarse, compatible with the thickness of joints in which used.

- Cement: Shall be Portland cement/Union Premium or approved equal.

- Mortar:

  General: Mix mortar from 3 to 5 minutes in such quantities as are needed for immediate use. No retampering will be permitted on mortar stiffness because of premature setting. Discard such materials, as well as those that have not been used within one hour after mixing.

  Proportioning: Cement mortar shall be one (1) part Portland Cement and two (2) parts sand by volume but not more than one (1) Portland cement and three (3) parts sand by volume.

C. HANDLING AND STRUCTURE

- Take care in handling masonry units to avoid chipping and breakage. Locate storage piles and stacks so as to avoid being disturbed. Barricade to protect from damage by construction operation. Stack masonry units, reinforcement and other materials on wood blocking above ground.

D. SCAFFOLDING

- Provide all scaffolding required for masonry work, including cleaning down on completion, remove.

E. SAMPLES AND TESTING

- Sample blocks shall be taken at random from every one thousand (1000) blocks delivered. Average strength of concrete hollow blocks shall not be less than 400 lbs. per square inch. Test shall be at the expense of the Contractor.

F. CUTTING AND PATCHING

- Consulting other trades in advance of masonry work and make provision for installation of their work to avoid unnecessary cutting and patching. Experienced masons shall do all cutting and patching.

G. HOLLOW METAL FRAMES

- Fill jamb of all pressed steel hollow frames occurring in masonry walls with mortar and carefully point all joints between metal frames and adjacent masonry and other construction.

H. WALL FLASHING

- Build in wall flashing at base of cavity wall formed to exclude water, bended in and covered with mortar. Keep joints to a minimum but where necessary, lap 6' and seal with plastic cement.

I. LAYING CONCRETE BLOCKS

- Lay units in common bond with uniform coursing and jointing. All concrete block joints shall be uniform thickness, approximately 3/8 tooled concave where exposed and flush cut where concealed, making 16' x 8' course. Butter vertical and horizontal joints full with mortar.

  Bond courses at corners and intersection and tie to abutting walls as per TRU-LOK Specifications.

  Reinforce concrete block walls continuously in two 2) consecutive courses below openings; using TRU-LOK shall be provided at every 16" of vertical wall height for load bearing walls. Lay units full thickness of partition from floor slabs to height shown, and where necessary cut.

GLASS AND GLAZING

A. SCOPE OF WORK

- Furnish all labor equipment, plant and other facilities required to complete all glazing work as shown in the drains and schedule and hereinafter specified.

- All work included under this division shall be subject to the General Conditions accompanying these specifications. The Contractor and the Sub-Contractor for this portion of the work is required to refer especially thereto.

B. GENERAL

- The type and the location of the glass are indicated. Determine the actual size by measuring the opening to be glazed, each piece of glass shall bear the Manufacturer's label giving his name and the quality, type and thickness of the glass. Do not remove label until final cleaning.

C. MATERIALS

- All glass for the aluminum storefront and drops shall be…" thick tinted polish plate glass as indicated in the schedule of windows and shall be those manufactured by the Republic Glass or approved equal.

- Size shall be those shown on the drawings.

D. SHOP DRAWINGS

- The Contractor shall furnish copies of the drawings showing dimensions and details and indicating all necessary items to the Architect for approval.

- Any correction required by the Architect shall be done immediately by the Contractor and corrected copies of drawings affected shall be returned to the Architect. The examination and approval of show drawings by the Architect shall not relieved the Contractor from any

obligation to perform the work strictly in accordance with plans and specifications. The responsibility for errors in shop drawings shall remain with the Contractor.

E. INSTALLATION OF GLASS

- General: Employ only skilled labor. Set glass without springing, accurately fitted and carefully set using setting and spacer blocks in accordance with the recommendation of the glass manufacturer. Set all glass before final painting. Take every precaution to insure first-glass free from edge chips cracks or other defects and all glazing materials properly installed to meet approval.

- Examination of Surfaces: Before commencing the setting examines surfaces and report to the Architect in writing any defect in it. Commencement of work shall indicate the acceptance of the surface as satisfactory.

- Breakage: The Contractor shall be responsible for all glass broken because of faulty setting and shall be replaced at his expense.

- Expansion: Allow for expansion of glass as per manufacturer's recommendation.

F. GUARANTEE

- Furnish guarantee to Owner as per requirements of the General Conditions for the period of one year after date of final acceptance of building.

WATERPROOFING

1. SCOPE OF WORK

- Furnish all materials, equipment, labor, plant and other facilities to complete all waterproofing works as shown on the plans and hereinafter specified.

- All work included under this division shall be subject to the General Conditions accompanying these specifications. The Contractor and Sub-Contractor are required to refer especially thereto.

2. WATERPROOFING OF PARAPET AND ROOFDECK

- Materials

- Materials shall be Cold Applied Waterproofing or approved equivalent.

- Applications

  The concrete surface shall be wood troweled smooth, firm, dry, clean and free of loose or foreign materials and without any projects, indention and other imperfections. Cabinets shall be installed in the angle formed by the floor and adjoining vertical wall. All drainage connection shall be set to permit free flow of water.

  On this concrete surface, apply 2 coats of Cold Applied Waterproofing to a roofdeck and vertical wall to a height of 10" (250mm) unless otherwise shown on the drawings surrounding the area to be waterproofed.

  Sprinkler fine sand topping

  Apply 2 base coats of Cold Applied Waterproofing and apply 2 topcoats of 2mm thick of Polyethylene sheet.

  The installation of the waterproofing shall be done by an approved roofing contractor by the manufacturer.

No substitution of materials shall be made unless authorized in writing by the Architect prior to starting the work of waterproofing.

All materials composing the waterproofing underlayment shall be delivered into the job in unopened bags, pails and packages clearly labeled by the manufacturer's name.

- All the request of the Architect, the Contractor shall deliver to the Architect the following:

  Samples of the materials proposed for use as waterproof underlayment, clearly labeled as to brand name manufacturer's name.

  The manufacturer's complete printed specifications for the application of the materials.

C. FLOOR HARDENER

(For Transformer vaults room. Emergency Genset, Electrical Room, Pump Room and elevator machine room.)

- The concrete floor shall be monolithically finished with "Koradur" non-ferrous colored floor hardener in accordance with manufacturer's specifications for heavy-duty floor of 1.00 lbs. of "Korudur" per square foot of floor area. Colors to be approved by the Architect.

D. WATERPROOFING OF ALL EXTERIOR WALLS

- Materials

  Class B concrete
  Thoro-Seal White

- Application

  Pour all holes of exterior concrete hollow blocks with class B concrete (coarse, aggregates shall be of such size so that no voids are formed) with Thoro-Seal White of the type recommend by the manufacturer.

E. GUARANTEE

- The Contractor shall guarantee that work specified in this division shall be free from defects of materials and workmanship for period of five (5) years from the date of acceptance.

- The Contractor shall make good all damages or failures resulting from the use of defective materials and poor workmanship.

- The following failures will be considered as defective work.

  Leakage
  Peeling of waterproofing materials
  Delaminating of plies
  Air bubbles

- Approved Equal Brand
  Other approved equal brands shall be those that are representative by well-established firms to insure the period of guarantee.

HARDWARE

A. SCOPE OF WORK

- Furnish all labor equipment, and other facilities required to complete the installation of hardware as shown on the drawings and hereinafter specified.

- All work included under this division shall be subject to the General Conditions Accompanying these specifications. The Contractor and Sub-Contractor for this portion of the work are required to refer specifically thereto.

- The intent of the specifications is to cover the complete hardware requirements for this building, and any hardware called for in the specifications not shown on the drawings or vice versa shall be furnished the same as if it were shown on the drawings and called for in the specifications. Also any hardware which has been omitted from both drawings and specifications but is evidently necessary for complete building shall be finished the same as if it were shown on the drawings and called for in the specification.

B. GENERAL

- Determine the quality of hardware to be furnished from the drawings and schedules. Provide all complete finish hardware for doors and other movable parts of the building with exception of items specified elsewhere or not included.

- The hardware herein specified are given as a means of describing the type, materials, strength, design, quality, weight, mechanical constructions, operation and requirements to which such hardware shall conform.

- It is the responsibility of the contractor to thoroughly check the drawings and specifications and to furnish all required materials whether specifically mentioned or not.

C. FINISHING

- Hardware finishes specified are in accordance with U.S. Standard finishes flush bolts, push plates, pulls, and knobs and other finishing hardware shall be polished chromium plated over nickel or brass (US 26/625).

D. PROTECTION

- After hardware has been properly fitted exposed items such as door knobs, escutcheons, plates, locks, etc. shall be removed after final coat has been applied. All hardware unless to be painted over, that are not removed after painting shall be properly masked.

E. HARDWARE LOCATION

- Unless otherwise specified locate hardware as follows;
  Doorknobs shall be 39” from finished floor level to center knob.
  Push plates shall be 50” from finish floor level to center of push plate.

  Door pulls shall be 40” from finish floor level to grip center.
  Cylinder dead lock shall be 55” from finish floor level to center of lock.
- Butt Hinges : the number of butt hinges to be furnished for each door shall be determined as follows :

  For door 5’-0” high less, provide two (2) butts.
  For door 5’-0” high less than 7’-0” high provide three (3) butts.
  For doors over 7’-0”high unless otherwise required, provide additional one (1) butt for every 2’-0” or fraction thereof.

  For metal doors, provide four (4) heavy duty hinges per cash. Butt hinges shall be 8” from top and bottom of door to center of hinges and the rest equally spaced.

F. HARDWARE SCHEDULE

- Refer to schedule on drawings

G. GUARANTEE

- Furnish guarantee to the owner as per requirements of the General Conditions for one year after date of final acceptance of building.

ROOFING WORKS

A. SCOPE OF WORK

- The work under this division shall include all labor equipment; plant and other facilities and the satisfactory performance of all work necessary to complete all the roofing works as shown on the drawings and hereinafter specified.

- All work included under this division shall include all labor equipment, plant and other facilities and the satisfactory performance of all work necessary to complete all the roofing works as shown on the drawings and hereinafter specified.

- All work included under this division shall be subject to the General Conditions accompanying this specifications. The Contractor and Sub-Contractor for this portion of the work are required to refer especially thereto.

B. ROOFING MATERIALS

- All roofing materials including accessories will be supplied by the Contractor.

C. INSTALLATION

- Lay roofing sheets as per manufacturer's recommendations with overlaps oriented following storm wind direction. Manufacturer's installation details.

- All roofing works shall be done by experienced tinsmiths known to the Contractor.

- Rat proofing works shall be in accordance with ordinances of the National Building Code and its Implementing Rules.

- All welded and solded connection in the roofing shall be painted by red lead paint then painted to match color of roofing sheets.

D. GUARANTEE

- Furnish guarantee to the owner as per requirements of the general conditions for period of one year after date of final acceptance.

PAINTING

A. SCOPE OF WORK

- Furnish all labor materials, equipment, plans and facilities to complete all painting and varnishing as shown and hereinafter specified.

- The Contractor shall examine the specification for the various other trades and shall thoroughly familiarize himself with the items and surfaces of work to be included.

- All work included under this division shall be subject to the General Conditions accompanying these specifications. The Contractor and Sub-Contractor for this portion of work are required to refer especially thereto.

B. GENERAL

- This work includes interior and exterior painting and finishing of all items as required to produce a finished painting job throughout all of the areas affected by work under this contract, except items which are specifically excluded.

- Complete color scheme for the painting of the building (exterior and interior) shall be furnished by the Architect to the Contractor. Color schemes samples required by these specifications and/or by the Architect shall be submitted by the Contractor for approval at his expense.

- All exposed work shall be protected while the building is being painted. The floor steps and all other surfaces not to be painted shall be well protected during painting by sufficient covers. Any stains, dirt, smear, etc. shall be removed by the Contractor to the satisfaction of the Architect.

C. SURFACES NOT TO BE PAINTED NOR VARNISHED

- Neither paint nor varnish shall be applied on finish like glazed tiles, glass, plastic, brass, bronze, aluminum and other corrosive metal finishes.

D. MATERIALS

- Make and Certificate of Origin and Quality

- All paint materials shall meet the requirements of the Standard Specifications of the Standardization Committee on Suppliers and shall be delivered on the site in the original containers, with label intact and seal unbroken.

- The manufacturer's certificate of origin and quality shall be submitted to the Architect for inspection and approval before using any of the paint materials herein specified.

- Use materials only as specified by manufacturer's direction on label of container unless otherwise specified herein.

- Paint materials only as specified by manufacturer's direction on label of container unless specified herein.

- Paint materials such as linseed oil, shellac, turpentine etc., shall be pure, higher quality and should bear identifying label on container.

- The use of white zinc (lithopone) shall not be allowed.
- Pigment for Tinting

- Tinting color for oil paint shall be color -in-oil, ground in pure linseed oil, and of the highest grade obtainable.
- Colors shall be non-fading.

- Color pigments shall be used to produce the exact shades of paint, which shall conform to the approved color scheme of the finish coat. The first coat shall be white.

E. INSPECTION OF SURFACES

- The Contractor shall inspect all surfaces to be painted and all defects shall be remedied before starting work. Commencing of work by the Contractor indicates his acceptance of the surface.

- No work shall be started unless the Contractor shall have made certain as to the dryness of surfaces. Tests shall be made, in the presence of the Architect or his representative, to verify dryness of surfaces to be painted.

F. PREPARATION OF SURFACE

- All concrete shall be allowed to weather for two months before painting.

- Clean all surfaces to be painted and varnished off loose dirt and dust before painting is started. Do the customary amount of sanding in the Architect's opinion to produce a surface suitable to receive paint or varnish.

- Inspect all surfaces with regards to their suitability to receive a finishing. In the event that imperfection due to materials of workmanship appear on any surfaces after the application of the paint the cost of any correction shall be borne by the Contractor. Damages to any painted or varnished finish due to carelessness or negligence of others shall be corrected.

- Touch all knots, pitch streaks and soppy spots with shellac or other approved sealer. Putty nail holes, cracks, etc. after the first coat with non-shrinking putty of a color to match that of the finish.

- Wash all metal surfaces with benzene, mineral spirits, or detergent to remove any dirt or grease before applying materials. Where rust or scale is present, wire brush or sandpaper cleans before painting. Where shop coats of paint have become marred clean, and touch up with a compound designed for this purpose, or approved acid solution before applying the first coat of paint.

- Prepare masonry surfaces to be painted by removing all dirt, dust, oil and grease stain sand efflorescence. The method of surface preparation shall be left to the discretion of the Contractor provided that the result is satisfactory to the Architect. Masonry surfaces to be painted shall be free from alkali and thoroughly dry before paint is applied.

- Before applying succeeding coats, primers, and undercoats shall be completely integral and performing the function for which they are specified. Properly prepare and touch up all scratches, abrasions, or any other disfigurement and remove any foreign matter before proceeding with the following coat.

- Do not apply final coat on interior work until after others are finished with their work in any given area in normal sequence and all materials and debris removed, and the premises left in satisfactory broom clean condition as approved.

- Remove or protect hardware, hardware accessory plates, lighting, fixtures and similar items placed prior to paintings or remove protection upon completion of each space. Disconnect equipment adjacent to walls where necessary move to permit painting of all wall surfaces, and following completion of painting, replace and reconnect.

- Paint the backsides of access panels, removable or hinged covers and the like.

- All wood shall be sanded lightly with #00 Sandpaper between coats. Paint coats shall be thoroughly dry before sanding.

G. WORKMANSHIP

- All painting and varnish works shall be done in workmanlike manner by skilled house painter only.

- All materials shall be evenly applied, so as to form a film of uniform thickness, free from sags, runs, crawls, or other defects. The use of heavy brush (nylon brushes for oil paints)

is required. Light brushes shall not be permitted. Paint shall be thoroughly stirred so as to have the pigment evenly in suspension while paint is being applied.

- In general, or unless otherwise specified, and/ or instructed by the Architect due to actual conditions on the job, no less than 48 hours' time shall elapse between application of succeeding coats. Each of paint shall be allowed to dry thoroughly and inspected for approval before the succeeding coat is applied.

- No oil painting shall be done in damp weather.

- Except where otherwise noted or specified all paints shall be applied in three coats (priming body and finish coats). Each coat shall be roller applied (except as otherwise noted) spread evenly and in full covering body.

- No work shall be done in conditions unsuitable for the production of good results. No painting or varnishing on woodwork shall be done while plastering is in processor is drying.

- Surfaces which cannot be satisfactorily finished on the number of coats specified shall have additional coats or such preparation coats and subsequent coated as many as may require to produced satisfactory finished work without additional cost to the Owner.

- Spray gun application shall be used where indicated in the color schedule.

- All parts of molding and ornaments shall be left clean and true to details.

- All finishes shall be uniform as to sheen color and texture, except when glazing is required.

- The Painting Contractor since he is the last tradesman on the project shall include in his work all final clean up and washing of glass, spots on floors, hardware fixtures, etc.

H. PAINTING SCHEDULE

- The type of paint specified are intended to illustrate the quality and are taken from paint catalogue equivalent materials from manufacturers listed herein, which the Contractor desires to use other than those specified should accompany proposal with such request in writing for approval by the Architect. Give manufacturers name, specific name of each product offered as a substitute. After the award, no substitution of materials for those mentioned in the accepted proposal will be permitted. Other brands of paint and primer are the following: Dutch Boy; Sinclair; Sherwin Williams; Boysen; General Paint and Finch.

Exterior Concrete Walls

Cement Plaster over Concrete give:

- 1 Coat Concrete Primer
- 1 Coat Concrete Sealer
- 1 Coat Latex Flat Paint (Primer)
- 1 Coat Latex Flat Paint (Finishing)

Exterior and Interior Work

Metal steel doors, frames, railings, balusters, and grating give:

Coat Primer Paint
Coats Quick Drying Enamel

Apply one generous coat of "Raincheck "water repellant by spraying on all exposed non-painted concrete finish.

Interior work

- Plywood walls (painted) give: (Roller Painted)

  1 Coat flat wall enamel washable paint after which putty all over and sand smooth
  1 Coat interior Primer Sealer
  1 Coat paint (Flat Enamel Paint)
- Plywood ceiling give: (Roller Painted)

  1 Coat Flat Enamel Paint
  1 Coat Sealer
  1 Semigloss Enamel Paint

- Cement plaster and sunblasted finish over concrete and hollow concrete blocks, give:

  1 coat interior primer sealer
  coats Flat Wall enamel washable paints:

I. GUARANTEE

- The Contractor shall guarantee his work for a period of one (1) year from date of the acceptance. Under such guarantee, the Contractor shall make good any defect due to faulty materials or workmanship caused by him by without any additional cost to the Owner for the period specified.

WOOD AND PLASTICS

A. SCOPE OF WORK

- Furnish all materials and equipment and perform labor required to complete wooden framing and related rough carpentry work as indicated in the drawings and/or specified herein.

- Include in the works, nailing strips, scaffoldings, plates, straps, joists, hangers, rods, dowels, rough hardware, fasteners, and other miscellaneous iron and steel items pertinent to rough carpentry work.

B. STORAGE AND PROTECTION

- Stack framing lumber to insure against deformation and maintain proper ventilation.

- Protect Lumber from elements.

- Lumber in contact with concrete masonry shall be coated with two (2) coats of asphalt, applied hot.

- Temporary Protection

  Provide and maintain temporary protection of the work as required to safeguard completed or partially completed work during the progress.

  Provide all the necessary rough stairs, ladders, runways, for convenient access to all parts of the building until other permanent facilities are in place.

C. SCOPE OF WORK

- Lumber

  Moisture content – not to exceed 18 percent

Grade and Trade Mark – required on each piece of lumber. All lumber including scaffoldings, conforming to 63 % stress grade lumber in accordance to the requirements of the National Structural Code of the Philippines, Volume 1, latest edition.

Refer to summary of Materials and Finishes

Substitution of Lumber

Any lumber equally good for the purpose intended may be substituted for kinds specified, provided however, that the substitution be authorized in writing by the Architect.

D. ROUGH HARDWARE AND METAL FASTENERS

- Plates, straps, nails, spikes, bolts, joists, hangers, rods, dowels, fasteners, and miscellaneous iron steel items shall be of sizes and types to rigidly secure member in place.

- Execution

  Fit carefully mortise and tenon joists of all framing including tongues and grooves of sheathing. Anchor all frames coming in contact with concrete, unless otherwise specified, by means of 20 D nails, spaced not more than 0.20 m (8”) apart all around the contact surfaces. Plane and dress side of frames that will receive the wallboards or sidings.

  Wood nailers shall be in accordance with detail drawings or mentioned herein, nailing strips shall be 1” x 2” at 16 inches on centers both ways. Fasten securely by expansion bolts or other approved device at every (2) feet on center.

  Make all exposed nails countersunk. Do scrubbing, metering and joining accurately and neatly to conform to data

MILLWORK

A. SCOPE OF WORK

- Furnish materials and equipment and perform labor required to complete wooden jambs and doors and ceiling panels and related rough carpentry work indicated in the drawings and/or specified herein. Coordinate work with all other trades.

B. STORAGE AND PROTECTION

- Protect millwork against dampness during and after delivery.

- Do not bring in interior finish, including doors into building until plaster thoroughly dry.

C. PRODUCTS

- Lumber

  Kiln dried, selected, quarter sawn containing not more than 12 % moisture, free from imperfections impairing its strength, function and appearance with the same shade, color, grain configuration.

  Trademark is required in each piece of lumber.

- Plywood

  For interior plywood, use class B plywood whose species and thickness conform to schedule and drawings.

- Finish Hardware

D. EXECUTION

- Workmanship

  Make all wood finish and millwork true to details clean and sharply defined.

  Set panels to allow free movement in case of swelling shrinkage.

  Conceal means of fastening various parts together.

E. FINISH

- Mill fabricates and erects interior finish as indicated on the drawings. Machine sand at the mill and hand smooth at the job.
- Separate with ¼ inch stone-cut joints all interior trims set against concrete masonry or wood.
- Make joints tight and in a manner to conceal shrinkage. Secure trim with fine finishing nails, screws, or glue where required.
- Set nails for putty stopping.
- Make window and door trim single length.
- Meter molding at corner, cope at angles.

F. WOOD JAMBS

- Set doorframes plumb and level and brace until built-in.
- Anchor wood frames to masonry with approved metal anchors on each side of jamb. Place top and bottom anchors 8 inches from head to floor.

G. WOOD SHELVING

- Each shelf shall be supported on a continuous wood cleat at walls.
- Secure cleats to masonry walls be expansion bolt or approved fastening device.

H. HARDWARE

- Accurately fit and install all required finish hardware items.
- If surface-applied hardware is fitted and applied before painting, remove all such items, except butts, and reinstall after painting work is completed.

WOOD DOORS

A. SCOPE OF WORK

- Furnish all materials and equipment and perform labor required to complete flush doors / panel doors.

B. SAMPLES

- Submit sample corner sections of wood doors and jamb for approval of the Architect.

C. PROTECTION

- Protect door adequately from scratches, and other stains with heavy building appear

D. PRODUCTS

- Fabricates

  Assemble joints and doors with water resistant glue. Keep door under pressure until glue has thoroughly set.

  Sand smooth finish doors. Provide with joints and clean cured molding.

  Keep faces free from defects or machine marks that will show through the finish.

  Flush doors Hollow Core

  Provide doors with cross bending/solid section and edging. Make face veneer first quality-selected plywood or lawanit as indicated in the drawings or as specified herein.

E. EXECUTION

- Installation

  Cut, trim and fit each door to each frame and hardware accurately.

  Give allowance for painter's finish and possible swelling or shrinkage.

  Provide not more than 1/8-inch clearance at lock end hanging styles and not more than ¼ inch at bottom.

  Round all corners to 1/16-inch radius. Level slight lock and rail edge.

  All doors shall operate freely and all hardware shall be properly adjusted and functioning.

GLASS JALOUSIE / STEEL / ANALOK WINDOWS AND FRAMES

A. SCOPE OF WORK

- Unless otherwise specified, the Contractor or his Sub-Contractor shall furnish all materials, tools, equipment apparatus, transportation, labor, supervision, management, and incidentals necessary and required for the completion and satisfactory performance of work in strict accordance with this section of the specification and the applicable drawings, subject to the terms and conditions of the Contractor.

B. SHOP DRAWINGS AND SAMPLES

- The Contractor shall before proceeding with the manufacture/assembly glass jalousie/steel windows prepare and submit complete manufacturing and installation drawings in full size and in triplicate, together with samples of member, section and hardware to be used for the approval of the Architect. Windows to be manufactured shall conform to the approved drawings and samples.

- Submit shop drawings of metal windows for approval. The drawings shall show complete details of construction, anchorage and samples.

- Guarantee

All steel works shall be guaranteed for one year from final acceptance of the Owner and the Architect.

C. PRODUCTS

- All members shall be hot-rolled new billet steel with frame and ventilator section not less than 25mm deep from front to back. Frame members to be of equally designed section only at points where called for by the detail drawings and continuous angle pins, as indicated on drawings shall be furnished. For frame at sills, zee type section of special design. With offset permitting downtrend left of the vent member to set flush when vent is in a fully closed position shall be used. Ventilator member shall have integral weathering baffles providing double flat weathering contacts of not less than 6mm width on all four sides of the vent. Muntin shall be 22mm x 25mm rolled to a section.

D. EXECUTION

- Construction

- Corners of vent shall be metered, electrically butt-welded and ground smooth. Corners of frame and all other window, joints and intersection of muntin with frame and vent members shall be coped and electrically welded. Muntin bars except where ventilators are to be continuous from head to sill and from jamb to jamb. Muntin cross joints shall be rigidly and neatly interlocked with faces flushed. Frame section and vent sills shall have weep-holes to provide drainage. Continuous weather drips shall be provided where required at the heads for side hinges ventilators or door. Windows and doors shall be designed for glazing from the outside with wire glazing clips and steel casement putty. All units shall be prepared for and supplied with necessary standard hardware, and for screen plans or drawings.

- Mullions

  Rolled-steel T–bars, pipes, plate or other formed section or a combination of the as shown on drawings shall be furnished where two or more window units are installed in the same opening.

- Installation

  No window unit shall be allowed, in any case, to be installed in place in the formwork previous to pouring concrete. Instead, grooves for grouting shall be caused to be formed along the side and heads of wall openings as indicated on detail.

  Windows shall be erected and prepared openings by experienced window erection men. They be set plumb and true securely wedged and anchored as shown on detailed drawings and held in alignment during construction. All contacts between window and door wall units and adjacent steel including mullions shall be tightly sealed or bedded in mastic or approved sealing compound applied by the Contractor Ventilators shall be carefully adjusted before glazing.

  Standard anchors, clips, and mullions, bolts or screws shall be provided by the window manufacturer provided suitable sinkages and frames for all mortised or counter-sunk hardware and insert steel reinforcement drilled and tapped for attaching all hardware. Frames in masonry shall have steel adjustable anchors for each jamb, spaced approximately 0.60m on center. Provide special anchors for securing to concrete as detailed.
  Steel Doorframes or jambs formed to details shown with rebates to receive the doors. Make allowance of not more than 3mm clearance for doors. Neatly form all returns and edge. Frames shall be smooth and free from warp and buckle, the finish work shall be strong and rigid, neat in appearance and free from corners, and shall be reinforced and may be metered, their full length welded length and dressed of flush on the exposed surface. Meters shall be well formed and in true alignment. Set frames properly and braced against

displacement during construction operation. During masonry work, grout the jambs solidly with masonry mortar. Protect all metal frames during construction.

- Field Painting

  Prior to or immediately after steel windows has been erected and before glazing, one coat of oil-based metal protective paint shall be applied. A second coat shall be applied after putty has dried and set, not sooner than 3 weeks after glazing.

- Glass and Glazing

  Windows shall be glazed from the outside, using steel grade sash compound. Glass panels shall be bed-putted secured in place by copper-covered spring wire glazing clips furnished by the door manufacturer, and then face-puttees to a neat trim line. Glass shall be 6mm thick, clear, American or European made, unless other thickness is indicated on the drawings or as specified in the Schedule of Windows.

CEMENT FINISHES

A. SCOPE OF WORK

- Furnish materials and equipment and perform labor required to complete all plain cement, plaster finish.

- Samples

  Submit test panels for Architect's approval before execution of the work.

B. EXECUTION

- Plain cement plaster finish

  Provide all walls indicated with three coats of cement plasters (scratch coat, brown coat, finish coat). Mix each coat in the proportion of 1 part Portland Cement to Three parts sand by volume.

  Apply the scratch coat with sufficient materials and pressure to insure a good bond and then scratch to a rough surface. Provide a thickness of 3/8-inch scratch coat.

  Apply brown coat one day after applying scratch coat, with a thickness of 3/8 inch and level to a flat even surface. When stiff enough, trowel with a wooden float and cross hatch or broom lightly and evenly to secure a good mechanical bond for the finish coat. Wet the surface and keep from drying out for at least three days.

  Apply finish coat seven days after the application of brown coat. Provide thickness of 1/8 inch. Keep the finish coat damp but not saturated for a period of seven days.

CERAMIC TILEWORK

A. SCOPE OF WORK

- Furnish materials equipment and perform labor required to complete all types of tile works.

- Samples

- Submit samples of floor and wall tiles including all required beads and moldings.

B. EXECUTION

- Application of scratch coat.

  Thoroughly dampen but not saturated, surfaces of masonry or concrete walls before applying the scratch coat. Make surface areas appear slightly damp. Allow no free water on the surface.

  On masonry, first apply a thin coat with pressure, then bring it out sufficient to compensate for the major irregularities on the masonry surfaces to a thickness of not less than ¼ inch at any point.

  Evenly rake scratch coats, but not dash coats, to provide good mechanical key for subsequent coats before the mortar applied by dashing until it has hardened.

  On surfaces, not sufficiently rough to provide good mechanical key, dash on the first coat with whisk brown or otherwise disturb mortar applied by dashing until it has hardened.

- Floor Tile Installation on Mortar Bed

  Before spreading the setting bed, establish lines of borders and center the field work in the both directions to permit the pattern to be laid with a minimum of cut tiles.

  Clean concrete sub-floor then moistens but not soaked. Afterwards, sprinkle dry cement over the surface and spread the mortar on the setting bed.

  Mix mortar and one part Portland Cement to three parts sand. Tamp to assure good cover the entire area and screened to provide a smooth and level bed at proper height and slope.

  Pitch floor to drains as required.

  After setting bed has set sufficiently to be worked over, sprinkle dry cement over the surface and lay tile.

  Keep tile joints parallel and straight over the entire area by using straight edge.

  Tamp the tiles solidly onto the bed using wood blocks of size to ensure solid bedding free from depressions.

  Lay tiles from centerlines outward and make adjustment at walls.

- Wall the installation on mortar bed.

  Before application of mortar bed, dampen the surface of the scratch coat evenly to obtain uniform suction.

  Use temporary or spot grounds to control the thickness of the mortar bed. Fill out the mortar bed even with grounds and rod it to a true plane.

  Apply the mortar bed over an area no greater than can be covered with tile while the coat is still plastic.

  Allow no single application of mortar to be ¼ inch thick.

  Completely immerse wall tiles in clean water and soak of at least ½ hour. After removal, stack tiles on edge long enough to drain off excess water. Re-soak and drain individual tiles that dry along edges.

  Apply a bond coat 1/32 – 1/16 inches which to the plastic setting bed or to the back of each sheet or tile.

  Press tiles firmly into the bed and beat into place within one hour.

Lay tile fields in rectangular block areas not exceeding 25 by 25 inches.

- Grouting

  After tile has sufficiently set, force a maximum of grout into joints by trowel, brush or finger application
  .
  Before grout sets, strike or tool the joints of cushion-edgetile to the depth of the cushion

  Fill all joints of square-edged tile flush with the surface of the tile. Fill all gaps and slips.

  During grouting, clean all excess grout off with clean burdock, cloth or sponge.

- Cleaning

  Sponge and wash tile thoroughly with clean water after the grout had stiffened. Then clean by rubbing with damp cloth or sponge and polish

  Clean with dry cloth.

RESILIENT TILE FLOORING

A. SCOPE OF WORK

- Summary

  The General Conditions apply to all work under this section of the specification.

- Unless otherwise specified, the Contractor shall furnish all materials, tool, equipment, apparatus, appliances, transportation, labor, supervision, management and incidentals necessary and required for the completion and satisfactory performance of work in strict accordance with this section of the Specifications and the applicable drawings, subject to terms and conditions of the Contractor.

B. PRODUCTS

- Vinyl Tiles

  Details and color schemes to be determined by Architect.

- Tile Adhesive

  As manufacturer's specifications.

- Floor Divider Strips

  Heavy top strips, brass ¼ inch top thickness with an offset or projection below the top of the strip and extending it from one side.

C. EXECUTION

- Preparation of surface

  Clean the floor thoroughly of all dirt, grease, paint drops, etc. leaving a surface suitable for the installation of the vinyl tile the resulting concrete surface therefore, shall be smooth, even thoroughly dry and clean, before a layer of the manufacturer's adhesive is laid to receive the tile in accordance with the manufacturer's primer.
  If the Engineer so requires, because of the concrete surface conditions, the manufacturer's primer shall prime the concrete surface.

- Laying Vinyl Tile Workmanship

  The Vinyl Tiles shall be laid according to details and color scheme approved by the consulting Architect and shall be carefully matched and the seams cut. All seams and edges shall be cemented carefully smug fit with the manufacturer's adhesive for the purpose. The surface of the finish floor shall be left smooth, clean and in first class condition.

  Only experienced men shall be employed in this work.

  All borders shall follow the line of the permanent fixtures and the width of the border may vary to allow for variations in the dimensions of rooms, size of tiles and design selected. The tiles shall but against the base floor level. Approved metal moldings shall be provided at door openings and such points where so required.
  Do not begin work until work of other trades including painting has been completed.

- Floor divider metal

  Floor divider strips (heavy top strip), ¼ inch thickness with an offset or projection below the top of the strip and extending from it on one side, shall be laid straight and true between Vinyl Tile flooring and other floor finishes like cement, terrazzo, granolithic, tile, etc. This projection provides a bearing surface for a vinyl tile and brass strips to the flush. Where jointing occurs at door openings, strips shall be set directly under center of doors.

- Cleaning, Waxing, and Polishing

  At completion of the work, the Contractor shall clean all Vinyl Tile works, remove all cement dirt or other foreign substances.

  Apply two coats of water emulsion wax and polish each coat to produce a well-polished finish.

  Do not permit traffic on finished floors unless they are protected with heavy papers.

- Adjustments

  The installation shall be thoroughly inspected and all necessary adjustment shall be made within one-month time.

  Tiles that have not "seated" in level glance with surrounding tiles shall have heat applied locally or quickly rolled to surrounding floor tile level. Repair tile showing minor fracture, shall have heat locally applied and then quickly rolled.

  Tiles showing broken corners or fracture line entirely across their surface shall be warmed and then removed. Substitute new tile of same color and thickness.

WROUGHT IRON GRILLES

A. SCOPE OF WORK

- Furnish all labor materials, equipment, plant and other facilities necessary for fabrication, delivery and installation of all security grill work shown on drawings and as herein specified.

- All work under this division shall be subject to the General Conditions accompanying these specifications. The Contractor and the Sub-Contractor for this portion of the work is required to refer thereto.

B. GENERAL

- The Contractor shall furnish and installs all wrought iron grillwork indicated on the drawings or specified herein.

C. FABRICATION

- All work is to be first quality, by experienced craftsman and fabricated in a shop capable of producing the higher grade of metal work and whose principal business is the manufacturer of architectural metals.

- All joints and splices shall be electrically welded and ground smooth.
- Before delivery to the job site, all wrought iron grille work shall be shop painted with a coat of rust inhibitive primer such as red lead.

- All seams shall be ground smooth.

D. INSTALLATION

- All work shall rigidly install in a first-class manner done by experienced mechanics.

E. GUARANTEE

- Furnish guarantee to Owner per requirements of the General Conditions for period of one year after date of final acceptance of building.

SPECIFICATIONS FOR STRUCTURAL WORKS

Working Drawings

- This "General Notes & Specifications for Structural Works" shall form a part of the Structural Plans.
- In the interpretation of these structural plans, indicated dimensions shall govern and distances or sizes shall not be scaled for construction purposes.
- In cases of conflict in details or dimensions between the Architectural and Structural Plans, refer to the Engineer or his authorized representative for final decision.
- In cases of conflict between the Structural Plans and the General Notes and Specifications, the Plans shall govern.

A. DESIGN LOADS

- Dead Loads

The design loads unless otherwise specified in the structural plans are as follows:

Concrete	150 pcf
Partitions (As reflected on plan)	20 psf (minimum)
Concrete Topping	25 psf
Ceiling Utilities/Mechanical/Electrical/ Plumbing	5 psf

The Architect and building contractor shall get the approval of the Structural Engineer for any loading different from exceeding these loads.

The Concrete Hollow Block partition and R.C. walls as indicated in the structural plans. Additional CHB and R.C. walls shall be subject to the approval of the Structural Engineer.

- Live Loads

The design live loads unless otherwise specified in the plans are 50 psf:

Classrooms	40 psf
Corridor / Stair	100 psf
Roof	20 psf

These design live loads shall never be exceeded at any time during the life of the structure without the written consent of the Structural engineer.

It shall be the responsibility of the Owner of the building to get the approval of the Structural Engineer of any live load that will be imposed on any area of the building different from and or exceeding the design live loads specified herein.

No portion of the building shall be used as temporary storage of construction materials in excess of the design live loads with the consent of the Structural Engineer.

- Earthquake Loads

  The design earthquake loads are as per the provision of the "Uniform Building Code (USA) 1994 Edition" for Earthquake Zone 4. These loads are assumed to be statically applied to the structure.

- Wind Loads

  The design wind loads are as per the provision of the "National Structural Code for Building (PHIL) 2001"

- Equipment Loading

  Equipment not indicated in the plans shall be not installed without the approval of the Structural Engineer.

  The manufacturer shall submit equipment data specifying the weight, and its reaction at the base, and its vibration characteristics.

B. REINFORCED CONCRETE CONSTRUCTION

- Cement shall conform to Portland Cement ASTM C150.

- Concrete aggregates shall conform to ASTM C33 except the aggregates failing to meet these specifications but which have produced concrete of adequate strength and durability may be used to the approval of the Structural Engineer.

- Water used in mixing concrete shall be clean and free from injurious amounts of oil, acids, alkalis, salts, organic material or other substances deleterious to concrete or steel. In addition, the mixing water for pre-stressed concrete shall not contain deleterious amounts of chloride ion.

- Reinforcing bars shall conform to ASTM A615.

- Admixtures to be used in concrete shall be subject to prior approval by the Structural Engineer.

- Cement and aggregates shall be stored in such a manner as to prevent their deterioration or the intrusion of foreign matter.

  Concrete cylinder samples for strength tests of each glass of concrete shall be taken not less than twice a day nor less than once for each 50 cum. of concrete or for each 490 sq.m. of surface area place. The cylinder samples for strength tests shall be taken cured and tested in accordance with ASTM C172, ASTM C31, and ASTM C39.

- Acceptance of Concrete

  Concrete poured will be considered satisfactory if the average of all sets of these consecutive strength test falls below the required fc' and not individual strength test falls below the required fc' by more than 500 psi.

- Core tests and load tests

  If individual tests of laboratory cured cylinder samples produced strength more than 500 psi below fc' core test and or load tests may be resorted subject to the approval by the Structural Engineer.

- Mixing of Concrete

  All concrete shall be mixed until there is a uniform distribution of the materials and shall be discharged completely before the mixer is recharged.

- Conveying of Concrete

  Concrete shall be conveyed from the mixer to the place of final deposit by methods that will prevent the separation or loss of materials.

- Depositing of Concrete

  Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to re handling or flowing.

- Curing

  Concrete shall be maintained in a moist condition for at least 7 days after placing. Wet burlap may be laid over the slab constantly applied with water.

C. CONCRETE MIXES

Unless otherwise indicated in the drawings, the minimum 28-day cylinder compressive strength shall be as follows:

a) Foundation ---------- fc' = 3000 psi
b) Columns ---------- fc' = 3000 psi
c) Slab on Fill ---------- fc' = 3000 psi
d) Suspended beam & Slab ---------- fc' = 3000 psi
e) All others ---------- fc' = 2000 psi

D. FOOTINGS

- Assumed allowable soil bearing capacity, in the absence of soil investigation report, is 2000 psf. The Contractor shall verify actual soil condition at site.

- Existing underground pipes, tunnels, etc., shall be brought to the attention of the Structural Engineer for evaluation.

- An excavation adjacent to an existing structure shall be provided with adequate sheet piling by the Contractor. The sheet piles shall be properly designed to resist earth and water pressure as well as surcharge loading on the footings of the adjacent existing structures.

- Unless otherwise detailed in the plans CHB wall footing shall be as per figures on Sheet SS-1.

- RC Slab on fill other than pressure slab @ basement shall be .125m thick with 10-mm bars at 0.30 m.o.c. each way unless otherwise indicated in the plans.
- All earth fill supporting ground slabs for flooring, parking, sidewalk, etc., shall be compacted to 90% proctor in layers of 0.30m. Unless otherwise specified by the Structural Engineer.

E. REINFORCED CONCRETE BEAMS

- Unless otherwise noted in the plans or specifications camber all RC beams at least 6 mm (1/4") for every 4500mm (15') of clear span except cantilevers which shall be 19mm (3/4") for every 3000 mm (10') of clear span.

- If there are two or more layers of reinforcing bars, use 25-mm separators spaced at 0.90 m.o.c. In no case shall there be less than two separators between layers of bars.

- If beam reinforcing bars end in a wall, the clear distance for the bar to the farther face of the wall shall be not less than 5 bar diameters. The reinforcing bar shall terminate on a standard 90 degrees hook.

- Beam reinforcing bars supporting slab reinforcement shall be 25 mm from the bottom of the finish.

- When a beam crosses a girder, rest beam bars on top of the girder bars. At column intersection girder bars shall be on top of beam bars.

- Lengths of bar cut off and bar clearances shall be as specified in Sheet S-1.

- Top bar splices shall be located at mid-span and bottom bar splices at column supports. Unless otherwise indicated in the plans splice lengths shall follow those given for development length as per figure on Sheet S-1.

F. REINFORCED CONCRETE SLABS

- Unless otherwise noted in plans or specifications, camber all R.C. slabs 3mm (1/8") per 3000 mm (10') of shorter span.

- If slabs are reinforced both ways, bar along the shorter span shall be placed below those along the long span at the center and over the longer span bars near the supports.

- Lengths of bar cut off shall be as specified in Sheet SS-1.

- Concrete covering shall be 18 mm for top and bottom bars.

- Unless otherwise specified by the Engineer, bar chairs shall be provided at least 600 mm. each way to support top and bottom bars separately.

G. REINFORCED CONCRETE COLUMNS

- Unless otherwise indicated, the column pedestal embedded in the ground shall be 50 mm. larger than the column as per plan at the basement floor level, or ground floor level if there is no basement.

- Construction joints in columns shall be located at the top of the pedestal (basement floor line, or ground floor line if there is no basement) or at least a distance above the floor equal to the maximum dimension of the column or 1/6 story height.

- All ties shall be fastened to column vertical reinforcement by means of wires at all intersection portions of ties and columns rebar.

- Not more than one-half (1/2) of the total number of bars shall be spliced at the same level. The lap be 1.3 ld of the bar development length. Splices shall be staggered at a distance of at least 40 bar diameters.

- Column bar splice lengths shall follow those tabulated for development on Sheet SS-1.

- Lap welded splice maybe used ion lieu of the above. The capacity of the weld provided shall be 125% larger than the tensile capacity of the bigger bar being spliced. No butt-welded splices are allowed unless otherwise permitted by the Structural Engineer.

- Confinement ties shall be provided on all columns at beam column intersections as shown in S-1.

H. REINFORCED CONCRETE WALLS

- Unless otherwise indicated in the plans, the R.C. wall horizontal bars shall be inside the vertical bars – (retaining wall).
- Reinforcing bars shall have at least 30mm concrete clearance except in 100-mm wall or less where they shall be at the center.

- Carry vertical bar 600 mm above floor level to provided for splices when necessary. Elsewhere stop at 50 mm. below the top of the slab, the bar shall terminate on a standard 90-degree hook.

- Horizontal and vertical bars conforming to ASTM A615 shall have a minimum splice lapping and wired with No. 16 G.I. wire provided that splices in adjacent bars are staggered at least 1.50 m.o.c. Not more than one-half (1/2) of the total number of bars shall be spliced at the same line. Splices shall be staggered a distance of at least 40 bar diameters.

- All opening on walls or slabs less than 300mm thick shall be reinforced as per Figure on Sheet SS-1.

- At wall intersections and corners, the anchorage length provided shall be as shown on Figure on SS-1.

I. C.H.B. WALLS

- Unless otherwise specified, the vertical and horizontal reinforcements for CHB shall be as indicated in the standard details.

- Lintel beams to be used shall be (t x 0.20m.) reinforced by 4-12 mm bars with 10 mm at 300 mm o.c. ties where “t” is the CHB wall thickness.

- Lintel beam shall be provided at top of CHB wall openings. It shall extend at least 200mm beyond the openings.

- For high walls, lintel beams shall be provided at 3000mm o.c.

- For long walls, stiffener columns shall be provided at 3000mm o.c.

- Where CHB walls adjoin R.C. Columns and beams, provide dowels on R.C. column and beams prior to pouring to match CHB wall reinforcement. The dowels shall be 12mm bars at 600 mm. o.c.

- Where columns and beams have been poured without the CHB wall dowels, provided ½” dia bolts at 400mm o.c. These anchors shall be drilled and grouted w/ conc. Epoxy. No chipping off of concrete columns and beams is allowed unless permitted by the Engineer.

J. STRUCTURAL TOLERANCE

Unless otherwise specified by the Engineer, the following are the acceptable structural tolerances for cast-in-place concrete construction. All dimensions, which are not within the required tolerances, shall be corrected prior to pouring of concrete. Tolerances for pre-cast concrete construction shall be ½ of the values given below:

a) Cross sectional dimensions and location of reinforcement, pre-stressing steel and pre-stressing steel ducts.

Dimensions less than 200 mm	-	+ 6mm
200mm to 600 mm	-	+ 9mm
Over 600mm	-	+ 12mm

b) Member lengths or height (Max. limitation = 12mm) - 6mm per 3.0 meters

c) Deviation from straight line (Sweep and or plumpness) - 6mm per 3.0 meters

d) Locations of bar cut-off or bonds - + 50mm

K. CONCRETE PROTECTIONS FOR REINFORCEMENT

The following minimum concrete cover shall be provided for reinforcing bars. For bar bundles, the minimum cover shall equal the equivalent diameter of the bundled bars needed but not be more than 2 inches on the tabulated minimum whichever is greater.

- Cast-in-place concrete (pre-stressed concrete construction)

a) Cast against and permanently Exposed to earth — 75 mm

b) Exposed to earth or weather
20mm dia. and larger — 50 mm

c) Not exposed to weather or in contact with ground, Slabs walls and joints.

36 mm dia. and smaller	19mm
No. 14 and No. 18	38mm
Beams, girders and columns	
Principal reinforcements, ties	
Stirrups or spirals	38mm

L. REINFORCING BARS

- All reinforcing bars shall be deformed conforming to ASTM A615-68 unless otherwise noted in the plans the minimum yield strength of the reinforcing bars to be used corresponding to the structural member shall be as enumerated below:

a) fy = 33,000 psi for 12mm & smaller sizes
b) fy = 40,000 psi for 16mm & larger sizes

- Splice and anchorage lengths requirements follow those set for development length (ld) as shown in SS-1 unless otherwise indicated in the plans or approved by the Structural Engineer.

- Equivalent metric size bars when used shall be as per tabulations below:

No. 3	10mm∅
No. 4	12mm∅
No. 5	16mm∅
No. 6	20mm∅
No. 8	25mm∅

No. 9	28mm∅
No. 10	32mm∅
No. 11	36mm∅

M. STANDARD HOOK

- A standard hook for rebars if required shall be either of the following:

  A semicircular turn plus an extension of at least 4-bar diameter but not less than 62mm at the free end of the bar.

  A 90-degree turn plus an extension of at least 12 bars diameter at the free end of the bar.

- Minimum diameter of bend measured on the inside of the bar shall be as follows :

10mm∅ to 25mm∅	- 6 bar diameter
28mm∅ to 36mm∅	- 8 bar diameter
No.14 to 18	- 10 bar diameter

N. WELDED SPLICES

- Lap welded splices when used shall develop a resistance equal to at least 125 percent of the tensile capacity of the bar being spliced.

- Butt-welded splice when used shall be considered 75% efficient. The remaining 50% capacity to develop 125 percent of the tensile capacity of the bar shall be provided for by an additional welded lap splice connection on the same joint.

- The Contractor for approval shall submit details of all welded splices by the Structural Engineer.

- Only certified welders shall be allowed to perform welding operations. These welders shall be subject to the approval of the Work Engineers.

- Testing of welds shall be by X-ray Method (non-destructive tests) unless otherwise directed by the Structural Engineer.

- Connection of crossing bars by track welding is not permitted.

PLUMBING WORKS

A. GENERAL

- **Scope of Work**

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

  Water distribution and supply pipes to equipment and plumbing fixtures.

  Install storm drainage system which include canopy drain, roof downspout, junction boxes and connection to storm drain or to open channel or to on the low ground.

  Provide oil, waste and vent pipes system and connection to septic tank and connection of outlet waste line to nearest existing storm drain.

Install plumbing fixtures, fittings, trims and accessories for the toilets.

Leakage tests of water supplies, sanitary and storm drainage system.

Pressure test of newly installed water system.

Disinfecting of water distribution system.
Submit certificate of test on installed equipment and piping system.

Secure all permits and licenses as required.

Prepare and submit reproducible Final As-built plans and (4) set of white prints signed and sealed by Registered Sanitary Engineer or Master Plumber.

Furnish a written one-year warranty on the plumbing and equipment installation.

Investigate and coordinate with other trades of all possible conflicts of plumbing works with others.

- Coordinate with Other Trades

  The Contractor is required to refer to the General Conditions and to all architectural, structural, electrical and mechanical plans and specifications and shall investigate all possible interference and conditions affecting this work.

- Responsibility

  The contractor and all persons or Companies providing or both for this project are specially referred to the General Conditions of the Specifications and the various other contract documents, which may affect the completion of any work of the other trades. In the absence of complete agreement among the Sub-contractors of the General Contractor (Authorized by the Owner), supply dealers, or others affected by the construction, the General Contractor is to be held responsible for the Coordination and completion of all the works.

- Drawings and Specification

  The General Drawings and these Specifications are complementary to each other and any labor or materials whether called for or both if necessary for the successful operation of any particular type of fixtures or equipment specified under this contract shall be furnished and installed without additional cost to the Owner.

- Intent

  It is not intended that the drawings shall show every pipe, fitting, valve and appliance. All such items, whether specifically mentioned or not, or indicated on drawings, shall be furnished and installed necessary to complete the system in accordance with the best practice of the plumbing trade and to the satisfaction of the Owner/Architect.

- Permits and Inspection

  The Contractor shall obtain and pay for all permits bonds and inspection fees and shall be responsible for all penalties incurred by himself or his agents.

- Workmanship

  All works shall be performed in first class and neat workmanship by plumbers and their work shall be satisfactory to the Architect and to the Owner.

- Code to be followed

All plumbing work to be done shall be in accordance with the National Plumbing Code of the Philippines and with the requirements of all applicable laws of the Republic and all local codes and ordinances.

B. MATERIALS

- Approved Materials

  Within 30 days after the award of contract, the Contractor shall submit for the Owner's Representative approval, four (4) copies of all equipment and materials he proposes to use under this contract.

  After written approval of the above list, and before purchase of any equipment or material, the Contractor shall submit for approval four (4) complete sets of detailed information consisting of manufacturer's bulletins, shop drawings and part list of equipment and the materials to be provided under this contract.

  The Contractor shall assume the cost of and the entire responsibility for any change in the work as shown on the Contract, which maybe occasioned by approval of materials other than specified.

- Standard for Materials

  All materials shall conform to the standard listed below:

  Centrifugal cast iron pipe - ANSI A21.6
  Cast iron soil pipe fitting - ANSI A21.6
  Black Iron Pipe - ASTM a 53 Standard, Schedule 40
  Malleable Iron Fittings - ASTM A – 338
  PVC pipe and fittings - ASTM - D 1784, CS 256 for water
  Pressure pipes, sanitary II, Series 1000 for waste and vent pipes.
  Union patent (malleable iron, for ferrous pipes): U.S. Federal Specifications
  WW U – 531. Type B Zinc – coated.
  Non-reinforced concrete sewer, storm drain and culvert pipe - ASTM C–14-82
  Galvanized Iron Pipe - ASTM A – 53, Schedule 40
  Reinforced concrete culvert, storm drain and sewer pipe - ASTM C 76-84
  Cement - ASTM C150 – 86 Type I
  Deformed reinforcement bar - ASTM A496

- Alternate Materials

  Use of any materials, device, fixtures and appurtenances not specified in these specifications maybe allowed, provided that such alternate item has been approved in writing by the Owner's Representative and Contractors claim for its suitability. The cost for testing shall be paid for by the Contractor.

  Test shall be done by any agency approved by the Owner's Representative and in accordance with generally accepted standards. In the absence of such standards, the Owner's Representative may specify the test procedure.

  To any substitution, all health and safety requirements shall be observed.

  The Contractor shall, together with his bid, submit a list of materials which he intends to use in list of the materials specified in the contract documents which he believes he cannot supply and stating the reason for the substitution. Material shown in this list shall be installed as specified and no further request for substitution shall be made except when he can show a valid reason.

  Request for substitution shall be accompanied by:

  - Reason for substitution;
  - Certificate of test indicating quality of substitute materials;

- Cost comparison with materials originally specified.

- Identification of materials

  Each length pipe, each fitting, trap, fixture and device used in the plumbing and piping system shall be cast, stamped or indelibly marked on name, the weight, the type, the class of product when as required but the standard mentioned in the Sub-section 2.2 mentioned above.
  All plumbing fixtures and materials installed without the above trademarks shall be removed and replaced with properly marked fixtures and fittings without any extra cost to the Owner.

- Materials schedule

PIPE AND FITTINGS MATERIALS

ITEMS	GIP Sch. 40 Standard	PVC Sanitary II Series 1000	Cast Iron Pipe (CIP)	CU Type L
A. Plumbing	X (indoor)			
1. Cold water supply				
2. Hot water supply				X
3.Outdoor Sanitary Sewer system		X		
4. Indoor House drain System			X	
5. Downspout	X			
6. Soil, waste	(Sch.20)			
7. Vent		X		

Legend:
GI - Galvanized Iron Pipe
PVCP - Polyvinyl Chloride Pipe
CIP - Cast Iron Pipe
Cu Type L - Copper Pipe

- **Notes:**

  Where uneven settlement at pipe joints is likely to occur, use Gilbault joint or the other suitable flexible fittings.

  GI pipe when buried underground shall be given corrosion protection (painted with coal tar enamel and wrapped with non-water absorbent and painted again with coal tar enamel and wrapped with non-water absorbent felt).

Gate Valves and Check Valves

Of Valves	Disc	Stem	Body	Connection	Standards	Remarks
75 mm (3") and Larger check Valves,10.5 kgs/cm^2 (150 psi)	Swing Disc	-	Iron with Bronze Trim	Flanged	AWWA c.500-71	
63mm (2-1/2") and sma-ller check valves, 10.5 kgs/sq.cm. (150psi) Working pressure.	Lift Disc	-	All Bronze	Female Threaded	Federal WW-V-58	
75mm (3") and larger Gate valves exposed 10.5 kg/sq.cm.(150psi) working pressure.	-	Rising	Iron with Bronze Trim	Flanged	AWWA c.500-71	

63mm (2-1/2") and smaller gate valves 10.5kg/sq.cm. (150psi) working pressure.	-	OS&Y	All Bronze	Federal Female Threaded	Specs WW-V-58	
75mm (3") and larger gate valves 10.5 kgs/sq.cm (150 psi) working pressure.	-	-	IBBM	AWWA	-	For use with pumping install.

- **Notes:**

  Swing Check valves 75mm and larger shall be provided with spring or weighty load control attached to flap disc axle.

  When valves are placed or located in a box or compartment the valve stem shall be non-rising but provided with VALVE OPEN and CLOSE indicator attached to stem.

Hose Bibbs

Hose bibb shall be size 13mm (1/2") male and 19mm (3/4") hose thread, bronze body conforming to ASTM Specification B62 suitable for cold water pressure up to 10.5 kg/cm (150psi), equal or similar to No. 58 Chicago hose valve screwed connections, with rubber composition disc, American Standard Taper Pipe Thread on the inlet and standard hose thread on male outlet.

Pipe Hangers

- Horizontal Runs:
- Adjustable mild steel or malleable iron pipe hangers
- Vertical Runs:
- Mild steel clamp or collars
- Hangers for water and vent pipes:
- For 63mm (2-1/2") and larger: Band Type 6.285mm x 32.5 mm (¼" x 1¼") flat mild steel black iron with round iron rod with plates and knots.
- For 50mm (2") and smaller: Split Ring Type with 9.4mm (3/8") iron rods with inserts, plates and knots, toggle bolt clamps expansion shield.

Jointing

- Cold Water Lines:
- Flanged Joints Gasket "Garlock" of equal Screwed Joints: U.S.
- Federal Specification GG – P –251.
- Sanitary Drainage Lines: Lead and oakum CISP, PVC cement or
- Rubber ring for PVC.
- Storm Drainage Lines:
- Cement mortar for concrete drain pipes, PVC cement for PVC pipes.
- Dissimilar Pipes: Adapter fittings shall be used.

Drains

- Similar or equal to "ASA" Model No.- 40B, with Type 125mm
- Strainer or approved equal.
- Floor drains (at toilets/baths): "ASA" Model No. – 40B, with Type 125mm strainer or approved equal.
- Balcony drains: ASA No. 40 – 9A
- Roof Drains: ASA No.10 – 8.2

Outdoor Pipe Lines, Appurtenances

- Sewer Junction Boxes
- -2000 psi reinforced concrete with pre-cast R.C. cover provided 2 recessed steel lifting eyes.
- Area- Drain Catch Basin – 2000 psi R.C. with cast iron grating cover.
- Storm Drain Junction Boxes – 2000 psi R.C. cover provided 2
- Recessed lifting eyes.
- Sewer Pipe Concrete Encasement – 3000psi R.C.

Float Valve

- Shall be hydraulically operated, pilot controlled diaphragm actuated, single seated with disc. Valve shall open wide when float is at low water level and close drip type when float is high level. Class 125 Cast Iron body with bronze trim.

Testing of Materials

Samples of various types and kinds of materials shall be approved by the Owner's Representative before any work is started. During the progress of work, a sufficient number of samples to ascertain the quality, maybe tested and the cost of such samples shall be included in the price bid by the Contractor. Results of test shall be submitted to the architect for evaluation at least working days before materials is due for installation the job.

C. INSTALLATION

- General

Cutting and repairing

The work shall be laid out in advance and any cutting of construction shall be done with the written permission of the Owner's Representative or his authorized representative. Roughing in for pipes and fixtures shall be carried out along with the construction of the building of structure. Openings shall be left in walls and floors of proper sizes correctly located for the pipes but the contractor shall do any additional cutting needed in case of error or omission and shall properly replace any concrete work or flashing around the pipes as maybe required without additional cost to the Owner.

All items to be embedded in concrete shall be thoroughly cleaned free from all rust, scale and paint.

Protection

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

Installation

The work throughout shall be executed in accordance with the best practice of the trade and in the best and true manner under the direction of the licensed Sanitary Engineer or Master Plumber and to the satisfaction of the Owner's Representative who will interpret the intent of the contract drawings and specifications and shall have the power to eject any work or materials which are not in full accordance herewith.

The piping in any location shall be closed-up, furred-in, or Covered before the examination and testing of it by the government inspector, Owner or their representative.

- Plumbing Fixtures and Equipment:

  All bids to be considered shall include installation of all plumbing fixtures shown on the drawing and specified by the Owner's Representative.

  All plumbing fixtures and equipment shall be installed free and open in a manner to prove easy access for cleaning and shall be furnished with all brackets, cleats, plates and anchor required to support the fixtures and equipment rigidly in place.

  After installation of a any or all the plumbing fixtures for the building, same shall be kept clean and in working order and shall not be used by any one until the building has been formally turned over to and accepted by the Owner.

  Fixtures, fittings, trims, faucets, escutcheon, traps and waste pipes that are exposed to view in finished spaces shall be brushed, with polished chromium plating or nickel finish, unless otherwise specified.

  The Plumbing Contractor shall be responsible for the supply of fixture fittings (or trims) which are not provided with the fixture but required for the complete installation. All fixtures shall be carefully checked to determine the items that must be provided to complete the installation.

  All fixtures shall be provided with the individual shut-off valve so that any fixture maybe separately controlled without affecting other fixtures supplied from the same distribution line.

  All flushometer valves shall be equipped with vacuum breaking devices.

- Fittings

  All change in size of soil waste and drain lines shall be made with reducing fittings or reducers.

  Where it becomes necessary to use short-radius fittings in any other locations, prior written approval of the Architect shall be obtained.

  No fitting or connections that offers abnormal obstruction to flow shall be used.

  Enlargement of a 75mm (3") closet bend or stub to a 100mm (4") pipe is acceptable.

- Cleanout Plugs and Traps

  Cleanout Plugs

  Cleanout installed in connection with cast iron-bell and spigot shall consist of a long – sweep quarter bend, or one or two eight-bends extended to an easily accessible place, or where indicated on the drawings.
  An extra-heavy, cast brass ferrule with counter-sunk tap screw cover shall be caulked into the hub of the fittings and shall be even or level with finish floor or wall.

  Where clean-outs in connection with thread pipes are indicated and are accessible, they shall be cast-iron drainage T pattern 90 degree branch fittings with the extra heavy brass screw plugs of the same size as the pipe up to, and including 100mm (4").

  Traps

  Every plumbing fixtures connected to the sanitary drainage system shall be equipped with a trap. Traps are specified to be supplied with the fixture, i.e. water closets and urinals.

  Each trap shall be placed as near to the fixture as possible.

Traps installed on hub and spigot type shall be extra-heavy cast iron.

Traps installed on threaded type shall be recessed drainage pattern.

- Sleeves and Supports

General

Pipe sleeves, pipes support, and fixture shall be furnished and set, and the Contractor shall be responsible for their proper permanent locations.
Pipes shall no be permitted to pass through columns, footings, beams or ribs unless noted on the drawings or with the written approval of the Owner's Representative.

Pipe Sleeves

Pipe sleeves shall be installed and properly secured in place at all points where pipes pass through masonry of concrete.

Pipe sleeves except sleeves through footings shall be sufficient diameter to provide approximately ¼" clearance around the pipe or insulation.

Pipe sleeves in walls and partition shall be cast-iron or steel pipe.

Flashing sleeves shall be installed where pipes pass through waterproofing membrane.

The sleeves shall be provided with an integral flashing flange or a clamping device to which a flashing shield can be clamped or soldered.

The space between the pipe sleeve shall be made watertight by inserting packed-oakum and filling the remaining space with poured lead or epoxy and caulking thoroughly.

Escutcheon shall be installed around all exposed pipes except water closet starts or bends passing through finished floors, walls or ceilings. Escutcheons shall be of sufficient outside diameter to cover the sleeve opening and shall fit snugly around the pipe. Escutcheons shall be cast–brass chrome plated of the approved size and make, provided with a set screw to properly hold escutcheons in place.

Fixtures and Equipment Supports and Fastening

All fixtures and equipment shall be supported and fastened in a safe and satisfactory manner.

Inserts shall be securely anchored and the anchors shall be properly filled with mortar. Inserts shall be installed even or level with finish wall and shall be completely concealed with the fixtures and installed.

Where through bolts are used, they shall be provided plates or washers at the back and set so the heads, nuts, cap nuts and screw heads shall be chromium plated and shall be provided with chrome plated brass washer.

Use a water closet floor flange for mounting fixtures with an appropriate ball wax as gasket. Use stainless steel bolt and knots to fasten the flange and foot of the water closet.

- Hangers, Anchors, Guide Inside Buildings

All piping shall be rigidly supported by means of approved hangers and support. Piping shall be supported to maintain required position and pitching of lines to prevent vibration and to secure piping in place and shall be so arranged as to provide space for expansion and contraction.

Hangers shall conform to the standard details but the contractor may, if he elects use other commercial hangers having parts not lighter than indicated on the details, provided that he has obtained prior to written approval of the engineer. Chains, straps, perforated bars or wire hangers will not be permitted.

Inserts shall be cast-iron steel and shall be of type to receive a machine bolt in one horizontal direction and shall be installed before the concrete is poured.

Vertical runs of pipe shall be supported by mild steel clamps or collars spaced not more than two floors apart.

Schedule of hangers on water piping shall be as shown on the detailed plan.

- Ceilings, Plates, and Flashing:

  Floor, Walls and Ceiling Plates:

  Where uncovered or exposed pipes through floor, finish walls or finished ceilings, they shall be fitted with chromium plated steel plates.

  Plates shall be large enough to completely close the hole around the pipe and shall be squared, octagonal, or round with the less dimension not less than 38mm (1 ½") larger than the diameter of the pipe.

- Joints and Connections

  Fixture connections:

  Closet bolts shall not be less than 6mm (1/4") in diameter and shall be equipped with chromium plated cap nuts washers.

  The system shall hold this water for a full 30 minutes during which time there shall be drop more than 100mm (4").

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

- Pressure Test for Water System

  Upon completion of the roughing-in and before setting fixtures, the entire hot and cold water piping system shall be tested at a hydrostatic pressure one-and-half times the expected working pressure in the system when in operation, and proved tight this pressure (but not less than10.57 kg/cm or 150 psi) for a period of two hours.

  Where the portion of the water piping system is concealed before completion, this portion shall be tested separately in a manner similar to the described for the entire system and in the presence of the Owner's Representative.

- Leakage Test for the Water System

  Leakage test shall be conducted after the satisfactory completion of the pressure test and shall consist of an examination of all joints for leakage test for the completed pipeline.

  The pressure to be maintained during the test shall be the designed working pressure of the system.

  Leakage test shall be made only after the minimum of 24 hours after the pipe to be tested has been filled with water. No test shall be made until at least 7 days after the last concrete thrust or reaction backing has been cast with standard cement.

The duration of each leakage test shall be two hours unless otherwise specified by the Architect.

Each section of pipeline shall be slowly filled with water and the specified test pressure, measured at the point of lowest elevation, shall be applied by means of a positive displacement type pump, in manner satisfactorily to the Owner's Representative.
Before starting the leakage test, all air shall be expelled from the pipe. All exposed pipes, fittings and valves, joints shall be examined for leakage during the test.

ALLOWABLE LEAKAGE RATE PER 100 JOINTS PER OR PIPE DIAMETER AT PRESSURE STIPULATED.

PRESSURE		LEAKAGE RATE	
PSI	Kg/cm^2	Liters/Hour	Liters/2Hour
50	3.50	1.45	2.90
75	5.30	1.75	3.50
100	7.00	2.05	4.10
125	8.80	2.30	4.60
150	10.50	2.50	5.00
200	14.00	2.90	5.80

- Defective Work

  If inspection or test shows any defect, such work or materials shall be replaced and the inspection and test repeated until satisfactory to the Owner's Representative.

  All repairs to piping shall be made of new materials at the expense of the Contractor.

  No caulking of screw joints or holes will be accepted.

- Disinfection of Water Distribution System

  The entire water system shall be thoroughly flushed and disinfected with chlorine before it is placed in operation.

  Chlorinating materials shall be either liquid chlorine or hypochlorite, as specified, and shall be introduced into the water lines in a manner approved by the Owner's Representative.

  The chlorine dosage shall be such as to provide not less than 50mg per liter of available chlorine.

  Following a contact period of not less than 24 hours, the heavily chlorinated water shall be flushed from the system with clean water until the residual chlorine content is not greater than 2 tenths (0.02) mg/L. All valves in water lines being sterilized shall be closed several times during the testing period.

- Disinfection of Water Tanks

  The water tanks and reservoir shall be thoroughly finished and disinfected with chlorine before it is placed in operation.

  Chlorinating materials shall be liquid chlorine or hypochlorite, as specified and shall be introduced into the water tanks and reservoir by swabbing and approved protection for the worker's safety shall be provided during the swabbing work.

  The chlorine dosage shall be such as to provide not less than 50 parts per million (50ppm) of available chlorine.

Following a contact period of not less than a period of 24 hours, the heavily chlorinated water shall be flushed from the system with clean water until the residual chlorine content is not greater than two tenths (0.02ppm).

- Refer to Structural Specification for Reinforcement

- Painting

  All exposed soil, waste and vent piping of cast-iron is asphalt or tar coated shall be given two coats of shellac and two coats of oil enamel finish coating.

  Color Code

  All exposed piping, shall be adequately and durably identified by distinctive color paints as follows:

Cold water pipe	-	Blue
Hot water pipe	-	Blue with Red bands at 1.00m on center
Aluminum	-	Gray Green
Storm water pipe	-	Orange
Sewerage pipe	-	Black
Vent pipe	-	Gray

E. GUARANTEE

- The Plumbing Contractor shall furnish to the Owner a written guarantee covering the satisfactory operation of the plumbing installation in all its part for a period of one year after date of acceptance. During this period the plumbing contractor shall repair or replace any defective work and pay for any repair or replacement cost.

F. WATER RESERVOIRS

- Piping, fittings, and miscellaneous metal works

  Furnish and install all pipes, fittings, valves, specials, pipe supports, miscellaneous metal works and all required appurtenances as shown in the plans and as required to make the entire water tank piping system operable.

  All materials furnished and installed shall be new and guaranteed free from defects, in design materials and workmanship.

  Adequate protection, measures shall be provided to protect pipe, fittings, valves and all other materials from damage and injury during storage and installation.

  Wall pipe sleeves shall be cast-iron seepage ring or anchor ring.

- Manhole Frame Cover

  All casting for manhole frames shall tough gray iron, free from wraps, cracks, holes, swells, and cold shuts, and approximately 3.2mm (1/8”) thick.

  All casting shall conform to the requirements of ASTM Standard A-48 for gray iron casting.

- Ladder Rungs

  Ladder rungs inside the reservoir shall be 19mm (3/4”) diameter round bars, stainless steel for outside the reservoir, shall be cast iron and as shown in the drawing They shall be placed on the walls as shown in the drawings.

- Installation

  All pipes shall be carefully placed and supported at the proper lines and grades and where possible shall be sloped to permit complete draining.
  Piping runs shown in the drawings shall be followed as closely as possible, except for minor adjustments to avoid architectural and/or structural features. If major relocation is required they shall be subjected to the approval of the Architect.

  Piping shall be properly supported by suitable anchors, brackets, or hangers. Vertical pipes shall be anchored by suitable galvanized steel traps. Pipes supports shall be provided as shown on the plans and whatever else necessary to prevent strain on joints to facilitate taking down pipes.

  Carefully inspect all pipes and fittings before installation. Inspection of pipes shall include light tapping with a hammer to detect cracks or defects. No pipe, fittings or valves are cracked or show defects shall be used.

  All pipes and fittings shall be carefully cleaned immediately before installation. Every open end of a pipe shall be carefully capped or plugged before leaving the work.

- Pipe Jointing

  Flanged Pipe shall true to length. Joints shall be made up square with even pressure upon the gaskets and must be perfectly watertight. Gasket shall fit the outside dimension of the pipe accurately so that surplus materials projects out into the flow area. The completed joint shall be smooth and properly aligned.

- Pipe Through Walls

  All equipment shall be supplied from reputable firms engaged in the manufacture of each particular item. The entire assembly when installed shall be given a start-up and test run to prove that all specifications have met before acceptance. The test duration shall be 24 hours.

G. EQUIPMENT

- All equipment shall be supplied from the reputable firms engage in the manufacture of each particular item. The entire assembly when installed shall be given a start-up and test run to prove that all specifications have met before acceptance. The test duration shall be 24 hours.

- The equipment and installation shall be guaranteed for a period of at least one-year trouble free operation.

H. PUMPS

- General

  The specification herein stated is basic guides only. Another items not so indicated but which are obviously necessary for the proper operation of the system as intended shall be supplied and installed, in accordance with accepted engineering standards.

  Manual of operation and maintenance and list of spare parts shall be supplied together with the equipment.

  The supplier shall submit at least four (4) copies of pumps performance curves showing among others, the pump rating and the pump efficiency, properly marked out.

  Accessories to be supplied for each pump shall include non-slam type check valve (Cla-val), two vibration insulators and two gate valves, of size as the pump suction and another

discharge and rated 68 kg/cm^2 (150psi) for each pump and pipe fittings necessary for complete installation.

Price quoted shall include cost of delivery of all quoted items to the jobsite, proper installation and pump and motor installation dimension drawings.

The brands, names and place of manufacture of pumps, motors, valves, controls and all accessories where applicable shall be indicated in the quotation. Include also a description of the pump impellers being offered.

A metal name plate indicating in indelible letters for the correct specifications of the pump and motors shall be properly attached to the assembly at a location such that the information written thereon can be conveniently read by all concerned.

- Booster Pumps for the Hydro-pneumatic System

  Number of units: Two identical units.

  Capacity of each unit: As shown in the drawings.

  Type: Centrifugal horizontal-end suction vertical split, coupled to an electric motor in common base, suitable for pumping domestic water supply.

  Electric Motor Drive: 230 V, 3 Phase, 60 cycles open drip proof.

  Motor Controls: Reduced voltage magnetic starter, H-O-A switches over load relays, alternators and pressure switch to stop and start the pumps at high and low pressure cut-off/cut-in and liquid level detector at reservoir to prevent pump from running dry.

  Accessories: Vibration insulating hose connection at suction and discharge line and pressure relief valve at discharge only.

- Pressure Tanks

  Vertical Tank, stainless steel and 100 psi rating. The tank capacity is shown in the drawing. Provide with accessories as relief valve, sight glass tube level indicator encased in copper or stainless steel tubing, fully automatic air volume controller device, pressure gauge (in100man dial face diameter), cocks, pressures switch and drain valve.

I. As-Built Drawings

The plumbing Contractor, shall mark down with the red pencil on the two sets of plumbing plans all the revision, omissions, and or additions to various plumbing installation, drawings as the construction progress. One set of the plans as marked shall be submitted to the Architect after completion of the work.

Before the final payment is made to the Contractor, he shall submit to the Owner, As-Built drawing incorporating all the change made and noted in the marked plans retained by him. The As-Built Drawings shall be prepared on reproducible form.

The Plumbing Contractor shall prepare and submit the As-Built Drawings without extra cost to the Owner.

J. Miscellaneous

- Throughout the construction period, open ends of all installed pipelines shall be kept closed by temporary plugs. Drainage lines shall not be kept closed by temporary plugs. Drainage lines shall not be used to conduct dirty construction wash-water, especially those with cement, to avoid possible clogging.

- The contractor shall provide a temporary fire protection system, at each building during the construction period. This shall be of sufficient capacity to put out any fire that maybe break out at any of the building floors due to the construction operations. This is in addition to temporary extinguisher required.

- A temporary potable water supply shall be available to construction workers at each building floor as the construction work progress.

- A temporary human excreta disposal system shall be provided by the Contractor to serve the workers during the construction period.

ELECTRICAL WORKS

I. GENERAL PROVISIONS:

A. WORK DESCRIPTION, GENERAL:

- The work to be done under this specification consist of fabrication, complete details of the electrical works at the subject premises and all work and materials incidental to the proper completion of the installation except those portions of the work which are expressly stated to be done by others.

- All works shall be in accordance with governing codes and regulations and with the specifications.

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

- These specifications are intended to provide a broad outline of the required installation but are not intended to include all details of design and construction.

B. CODES, INSPECTION, PERMITS AND FEES

- The work under this contract is to be installed according to the latest requirements of the following:

    1. Philippine National Building Code
    2. Philippine Electrical Code
    3. Electric Cooperative in that areas

- All construction permits and fees required for these works shall obtain by and at the expense of the Contractor. The Contractor shall furnish the Architect, the Engineers and the Owner of the final certificate of inspection and approval from the concerned government authorities after the completion of the work. The Contractor shall prepare all shop drawings, as-built plans and other paper work required by the approving authorities.

- The Contractor shall secure approval from authorities of all plans for construction.

C. RECORD OF DRAWINGS

- The contractor shall record all deviations of the actual installation based on the contract drawings. Upon completion of work, the Contractor shall submit two copies of the as-built drawings indicating the work installed and finished including new information (revisions) not originally shown in the contract drawings to the Engineers for the approval as to

conformance with the design concepts and compliance with pertinent code provisions. After such approval, the Contractor shall submit the as-built drawings original to the Owner.

D. COORDINATION

- Coordinate timing of installation with work of other trades.
- Systems provided shall be completed and operable and shall include required accessories fastenings and supports.
- Determine required locations, arrangements and quantities of equipment and materials from drawings, schedules and specifications.
- All equipment shall be installed in strict compliance with manufacturer's recommendations.
- On certain items of equipment specified on other contracts requiring electrical connections, the Contractor shall provide such connections as required.

E. MINOR MODIFICATIONS

- The plans as drawn are based upon architectural plans and details. Show conditions as accurately as possible to indicate them to scale. The plans do not show all fittings necessary to fit the building conditions. The location of outlets, apparatus, and equipment shown on the plan are just approximated. The Contractor shall be responsible for the proper location in order to make them fit, with architectural details and instructions from engineers representative at the site.

F. GUARANTEE

- The Contractor shall guarantee that the electrical system is free from all grounds, from all-defective workmanship and materials that will remain in good condition for a period of one year from the date of acceptance of work. This Contractor at his own expense shall repair any defects appearing within the aforementioned period.
- The Contractor shall indemnify and save the Owner, the Architect and the Engineers from and against all liability for damage arising from injuries or disabilities to persons or damage to property occasioned by an act or omissions of the Contractor or any of his subcontractors including any and all expenses, legal or otherwise which maybe incurred by the Owner, the Architect or the Engineers in the defense of any claim, action and suit.

G. APPROVALS, SUBSTITUTIONS, Etc.

- Wherever hereafter the word "Approval" or "Approved" (make, type, size, arrangement, etc.) are used specifically with regard to manufactured items, etc., or wherever it is desired to substitute a different make or type, all information pertinent to the adequacy and adaptability of the proposed apparatus, shall be submitted to the engineers for their approval before the apparatus is ordered or installed.

H. SUB-CONTRACTS, Etc.

- This Contractor shall be held fully responsible for the work of any sub-contractor or manufacturer performing work for or supplying materials as it is intended that the entire electrical work when finally delivered to the Owner shall be ready in every respect for satisfactory and efficient operation.

I. WORKMANSHIP

- The work throughout shall be executed in the best and most thorough manner to the satisfaction of the Architect and Engineers, who will jointly interpret the meaning of the

drawings and specifications and shall have power to reject any works and materials which in their judgement are not fully in accordance therewith.

II BASIC MATERIALS AND METHODS

A. GENERAL

- Furnish and install all conduits, joints, outlet boxes, wires and miscellaneous materials required for wiring, as specified herein and as shown on drawings.
- Furnish and install all power and control wiring to all equipment except as otherwise specified.
- Perform test and adjustments and submit specific reports herein.

B. POLYVINYLCHLORIDE CONDUIT

- General: Standard trade size, heavy wall, manufactured to NEMA TC – 2 type rated for 90-degree C cable.
- Materials: Polyvinyl chloride conduit extruded use Atlanta or approved equivalent.
- Nominal Size: 20mm diameter minimum.
- Couplings and Fittings:
- Use Limitations

  As specified in the latest edition of the PEC.
  Not permitted where subject to mechanical damage
- Pulling Hardware: flat fish tape with ball and flexible leather or polyethylene or manila rope. Use of steel pulling cable not permitted.

C. CONDUIT INSTALLATION

- General: Install in accordance with applicable codes and recognized standard of good practice.
- Actual routing subject to approval
- Joints: Make with approved couplings and unions to provide electrically continuous and moisture tight systems.

D. CONDUCTOR INSTALLATION

- Place all wiring, in a raceway or types indicated. Provide all required and indicated accessories for proper installation of all wiring
- Splicing:

  Permissible only in junction boxes or similar accessible location. Number of splices held to absolute minimum.

E. DISTRIBUTION PANEL BOARD-FUSIBLE SWITCH

- General: Furnish and install distribution and power panel boards as indicated in the panel board schedule and where shown on the drawings. Panel boards shall be dead front safety types, equipped with quick-break fusible branch switches and approved for service

entrance. The acceptable manufacturers of the panel board are General Electric and Square “D” or approved equal.

- Fusible switches: All fusible branch switches shall be quick-make, quick-break, with visible blades and dual horsepower ratings. Switch handles shall physically indicate ON and OFF position. Such handles shall be able to accept three padlocks having heavy duty industrial type shackles. Covers shall be interlocked with the switch handles to prevent opening in the ON position. A means shall be provided to allow authorized personnel to release the interlock for inspection purposes when a switch is ON. A cardholder providing circuit identification shall be mounted on each branch switch. Switches shall be provided with a BussmanFusetron fuses or as noted on the drawings.

- Bussing Assembly: Panel board bus structure and main lugs or main switch shall have current ratings as shown on the board schedule. The bus structure shall accommodate plug-on or bolted branch switches and motor starters as indicated in the panel board schedule without modification to the bus assembly. Provide solid neutral (S/N) assembly when required.
- Equipment Rating: Switches and panel board bus structure shall be safe and without failure withstand short circuits on the systems capable of delivering up to 50,000 amperes RMS symmetrical, unless otherwise noted.

- Cabinet: Panel board assembly shall be enclosed in a steel cabinet. The rigidity and gauge of steel is to be as specified in UL Standard for Cabinets. The size of wiring gutters shall be in accordance with UL Standard. Cabinets shall be equipped with a front door and shall be full finish steel with rust inhibiting primer and baked enamel finish.

F. PANEL AND BOX

- Box, plain steel front, complete with hinged door, polished metal catch and lock Manufacturer’s standard finish. Repair any damage to finish in a manner acceptable to the engineer.

- Mounting: Flush and surface required.

- Cardholder on inside of the door with clear plastic cover and complete type written schedule of panel branch circuits. Leave spare circuits blank.

- Nameplate: Required at each panel.

- Installation: As shown, maximum distance from the floor to the highest breaker (centerline) shall be 1.8m. Provided mounting materials required make connections specified as shown. Use collars around mounting bolts or equivalent means to provide air space between panels and walls.

- Warranty: A warranty for a period of one year shall be provided for failure of components resulting from normal use and/or factory defects.

G. SERVICE ENTRANCE

- Service Voltage: 230V, single phase, 2 wire, 60 Hz.

- Installation: Contractor shall furnish and install the complete service entrance, conduits and accessories.

- Conduits: Use RSC “NICHI” or approved equal.

III. LIGHTING

A. GENERAL

- Furnish, install and wire all equipment and materials required for complete lighting system as specified as shown.

B. LIGHTING FIXTURES

- Fluorescent Fixture: housing - #22 gauge, B. I. Sheet formed, screw with machine stove bolt and/or welded.

- Fluorescent Fixture Ballast: 230V, high power factor, rapid start, manufactured by Philips, G. E. or approved equal.

- Wiring:

  General: Fixture wiring shall comply with fixture manufacturer's recommendation and PEC requirements.

  Incandescent Fixtures: Use type TF wire in unwired fixtures. Minimum wire size 3.5mm″.

- Location: Approximately as shown. Modify to avoid other equipment or structural components. Provide necessary conduits, wire, fittings and miscellaneous materials.

C. COORDINATION

- Coordination installation of all lighting fixtures with work of other trades

- Coordination exact location of fixtures with respect to suspended ceiling layout to achieve uniformity.

D. SHOP DRAWINGS AND SAMPLES

- Prepare and submit for approval before manufacturing the following:

  Fabrication drawings
  Sample of each fixtures

E. WARRANTY

- All fixture components shall be covered with a warranty for a period of one year against failure resulting from normal use and/or factory defects.

F. GENERATOR

- General

  The generator shall be _____ Kw standby duty, single phase, 2w, 60Hz, 1800 RPM, 240V, and shall have two bearings of the sleeve type and shall be direct connected to the engine flywheel with a flexible coupling. The generator shall have full armature winding. The transient voltage drop on sudden application of 100% rated load shall be less than 15%.

  Voltage Regulator shall be of the same manufacturer as generator, with manual/automatic switch.

  Generator shall be open drift-proof construction with an over all efficient of at least 90% of at full load.

  The generator shall have full rated neutral brought out at the terminals for system use.

- Conduits and Fittings:

  Conduits in general shall be Intermediate Metallic Conduit (IMC).

  No Conduits shall be used in any system smaller than 15mm internal diameter electric trade size, nor shall have more than four (4) 90 degrees bends in any one run and where necessary, pull boxes shall be provided as directed.

  No wire shall be pulled into any conduits until the conduit system is completed in all details, in the case of concealed work until all rough plastering machinery has been completed, and in the exposed work until the conduit work has completed in every detail.

- Wires and Cables

  All wire shall be copper; soft drawn and annealed shall be of 98% conductivity, shall be smooth and true of cylindrical form and vibration shall be within 1% of the actual size.

  All wires and cables shall comply with the requirements of UL as they apply to the particular usage.

  All wires and cables shall be as manufactured by Phelps Dodge, American Wires and Cables, or approved equal.
  THHN/THWN can be used for the same size of wires provided the allowable current do not exceed that of

  All wires 8 mm″ and larger shall be stranded copper.

  For power system, no wire smaller than 3.5 mm″ shall be used except for control leads unless otherwise specified.

- Installation

  Installation shall conform to the requirement of the code.

  Testing

  The generator set shall receive the manufacturer's factory load testing prior to delivery.

  Prior to acceptance of the installation, equipment shall be tested on site for 8 hrs. Continuous operation without any failure to show it is free of any defects will easily start and be subjected to full load test or that load that is available at the job site. Should failure occur during the testing, the Contractor shall rectify the deficiencies and shall repeat testing procedure at his own expense and to the satisfaction of the owner.

  On completion, of the installation, a factory trained supplier or dealer's representative shall perform start-up based on operating instructions book.

SPECIALTY WORKS

A. STRUCTURAL STEEL WORKS

Scope:

- This section includes structural steel work complete.

General:

- Connection for which details are not indicated shall be deigned in accordance with the “American Institute of Steel Construction Manual of Sheet Construction” and shall be welded and bolted.

Requirements.

- Handling, shipping and storing of steel work.

- All materials shall be handled shipped and stored in a manner that will prevent distortion or other damage. Materials shall be stored in a clean location and keep properly drained. All damage materials shall be replaced or repaired by at the expense of the Contractor.

- Anchor bolts and sag rods shall conform to ASTM A 307 and applicable portions of A 36.

- Structural carbon steel for plates, angles, or shapes shall conform to ASTM specification A36.

- Cold-formed, light gauge structural member shall be formed from sheet or strip not less than 5mm thick and conforming to “Specifications for the Designed Light Gauge Cold-Form Steel Structural Members” of the American Iron and Steel Institute.

- Saddle shall be standard manufactured products of section shown and shall be heat treated, extruded aluminum alloy 6063-TS, conforming to ASTM Specification B221.
- Expansion shields shall be of the style, type and size suited for the intended use. Shields shall be accurately recessed and unless otherwise indicated shall be not less than 50mm into concrete or masonry.

- Bolts, nuts and washers shall be zinc-coated, regular commercial grade size as indicated and shall conform to ASTM specification A307.

- Power driven nails shall be steel, especially formulated to produce high ductility and hardness and capable of being explosively driven through the medium to be attached.

- Welding electrodes and rods for manual welding shall conform to AWS Specification A5.1 860.

- Expanded metal lath shall be as indicated and shall be of the close mesh, heavy duty and rigid type.

- Nails shall be common or finishing of the proper sizes for the intended use and shall be of the best commercial standard.

- Stainless steel and anchor clips, bolts and plates shall be of configuration and sizes shown and shall conform to the best commercial standard as approved.

- Workmanship and finish shall be equal to the best practice of modern shops for the respective work. Exposed surfaces shall have the smooth finish; sharp and well defined lines. Section shall be well framed to shape and size with the sharp lines and angles; curved work shall be sprung evenly to curves. All necessary rivets, lags and brackets shall be provided so that the work can be assembled in a neat and substantial manner. Holes for bolts and screws shall be drilled. Fastenings shall be concealed where practicable. Thickness of metal and details of assembly and supports shall provide ample strength and stiffness. Joints exposed to the weather shall be formed to exclude worker. Metal work shall be provided with proper clearances. Works shall be fabricated and installed in a manner that will provide for expansion and contraction, prevent the shearing of bolts, screws and other fastening, insure rigidity and provide close fitting of sections.

- Inserts and sleeves. Inserts of suitable and approved type shall be furnished and installed where necessary for the support of piping, mechanical equipment or apparatus, or other work. Steel pipe sleeves of suitable types and size shall be provided where indicated and where required for all pipe passing through floors, roofs or walls.

- Anchors and bolts shall be provided where indicated and where necessary for fastening work in place. They shall be embedded in the concrete and masonry as the work progresses and shall be spaced about 61cm on centers, unless otherwise indicated or specified. Sizes, kinds and spacing of anchors not indicated or specified shall be necessary for their purposes. All anchor and anchor bolts in exterior walls and in area exposed to weather shall be zinc coated, all those in other location shall be coated heavily bituminous paint.

Structure's subject to static loading.

- Holes for bolts shall be drilled or sub-punched and reamed except that where the thickness of the material is not greater than the nominal diameter of the bolt plus 3mm, the holes may be punched full size.

Common bolts.

- Bolts transmitting shear shall be threaded to such a length that not more than one thread would be within the grip of the metal. The bolts shall be of such length that they will extend entirely through the nuts with the beveled end outside the nut. Bolt heads and nuts shall be drawn tight against the work with a suitable wrench not less than 38 cm long. Bolt heads shall be tapped with a hammer while the nut is being tightened.

Shop Painting

- All structural steel work, except zinc coated surfaces and steelwork to be embedded in concrete or mortar, shall be shop painted. Surfaces to be welded shall be not coated within 75mm of the weld, prior to welding. Surfaces shall thoroughly dry and clean when the paint is applied. No painting shall be done in wet weather except undercover; the temperature shall be above 45 degrees F but not over 90 degrees F. Paint shall be applied thoroughly. Surfaces that will be concealed or inaccessible after assembly shall be painted prior to assembly.

Cleaning

- Except as modified herein, surfaces shall be cleaned to bare metal by a suitable blasting process. Surfaces that maybe damaged by blasting shall be cleaned to bare metal by powered wire brushing or other mechanical means. Surface that will be enclosed from the weather and subject to exposure no more corrosive than an indoor atmosphere controlled for human comfort, maybe cleaned by wire brushing or other manual or mechanical means for removal of loose mill scale, rust, dirt and grease. Baring surfaces, including contact surfaces within friction type joints shall not be painted or galvanized but shall be coated with rust preventive coating applied, applied in the shop. The coating shall be removed just prior to field erection using a remover approved by the rust preventive manufacturer. The surfaces when assembled shall be free from rust, greases, dirt and other foreign matter.

Pre-treatment

1. Except as modified herein, immediately after cleaning surfaces shall be coated with coat of pre-treatment coating applied to a dry film thickness of 0.3 to 0.5 mil or be given a crystalline phosphate base coating shall be applied only to blast-cleaned bare metal surfaces.

Match marking

- Members and component part of structures shall be assembled and match marked prior to erection to ensure accurate assembly and adjustment of position on final erection. Painted assembly markings shall be removed from any surface to be welded or riveted. Scratch or notch marks shall be located in a manner that will not affect the strength of member or cause concentrations of stress.

Erection

1. General. Except as modified herein, erection shall be done in accordance with the applicable specifications and standards of the AISC “Manual of Steel Construction”. Erecting equipment shall be suitable for the work and shall be in first class condition. Where parts cannot be assembled, or fitted properly as results of errors in fabrication or of deformation due to handling or transportation, such condition shall be reported immediately to the construction architect/engineer and his approval of the method correction obtained The correction shall be made in his presence. Bent or damaged parts shall be rejected. Steelwork shall drain properly. Pockets in structure exposed to the weather shall be filled with waterproof materials. Safety belts and lines shall be used by workers on high structures, unless safe working platforms or safety nets are provided.

Assembly.

- The frame of steel structure shall be carried up true as shown and all match markings shall be followed. Temporary bracing shall be used wherever necessary to support all loads to which the structure maybe subjected, including equipment and operation thereof and piles of materials. Such bracing shall be left in a place as long as maybe required for safety. The various members forming parts of a completed frame after being assembled shall be aligned and adjusted accurately before being fastened. Fastening of splices of compression members shall be done after the abutting surfaces have been brought completely into contact. No riveting, welding or bolting shall be done until match of the structure has been stiffened and aligned properly. Bearing surfaces and surfaces, which will be in permanent contact, shall be cleaned before the members are assembled. As erection progress, the works shall be bolted or welded sufficiently to take care of all dead load, wind and erection stresses. Splices will be permitted only where indicated. Erection bolts used in welded construction maybe tightened securely and left in place, if removed, the holes shall be filled with plug welds.

Field Welding

Shall be as specified for shop fabrication of welded construction. Any shop paint on surfaces adjacent to joints to be field-welded shall be wire-brushed to reduce the paint film to a minimum.

Field Painting

All exposed surfaces of steelwork shall be shop painted. Surfaces where the shop coat of paint to be damaged shall be retouched using the same system as the original shop painting. Surfaces, which will be in contact after erection except when in contact with bolted and welded connections, shall be given one finish coat before erection. The cleaning, pre-treatment and priming of welds and the areas adjacent thereto shall be done promptly after the acceptance of the weld and shall be as specified under the shop painting.

B. FIRE ALARM SYSTEM

- Furnish and install a Fire Alarm system as manufactured by Edwards or approved equal as described in this specification and indicated in the drawings. The system is to be wired and installed in accordance and left in the first class operating conditions.
- Operation: At each stairway, exits and other locations shown in the plans, there shall be non-coded fire alarm station. At each location where shown, there shall be a bell or horn operating in any station and shall cause all sounding devices to operate continuously until the fire alarm station has been restored to normal. It shall also be possible for those in authority to transmit a test signal in any station. The station and sounding devices shall be connected to a control panel, which shall permit a small supervisory current to pass through the entire system. A trouble bell shall also be provided and shall sound continuously in the event of failure of the main power supply source or a ground fault at each installation wearing circuits.
- Equipment: Install where shown a flush non-coded manual fire alarm station. Flush station shall mount on standard outlet boxes with single gang cover.

- Install where shown on plans and under dome vibrating bell. Size and number of signals to be located so that they may be heard by all occupants of the building.
- The Electrical Contractor shall provide and install smoke detectors, wiring and connection flow switches. The fire alarm panel shall be factory wired to accept this and any other devices specified herein or as shown on the drawings.
- Fire Extinguishers

  Furnish and install eight (8) units of fire extinguishers, brand Stallion, 10 lbs. Per unit, mounted at 1.2 high at locations specified by the Consultant/Architect, four (4) units at the first floor and four (4) units at the second floor.

DIGEST SPECIFICATION

1. Soil Poisoning Mapecon/Chlordane Solution F-3 orF-5 or approved equivalent.

2. Wood Preservation Cuprinol/Solignum or approvedequivalent.

3. Roofing Works 0.40mm thick Long-Span Roofing,Corrugated, Pre-painted

4. Concrete Works

a. Portland Cement Island, Republic or any equivalent brand but consistent
b. Rebars Structural grade conforming toBureau of Product Standard andASTM specifications
c. Tie wires Gauge 16 commercial G.I. wires

5. Masonry Works Non-load Bearing6" THK CHB, 4" THK CHB

6. Finishing Works

a. Glazed and Vitrified tiles Vitrified or Ceramic Tiles for toilet walls and floor, "Mariwasa, Fil-Hispano" or approved equivalent.
b. Paints "Davies"/"Boysen" Quick-Dry, Latex,Red Lead Primer and Enamel Paintsor approved quivalent.

7. Plumbing Works

a. PPR PN16 (COLD) "Wavin, Thermovar, Bugatti" or approved equivalent with ISOstandard
b. PPR PN20 (HOT) "Wavin, Thermovar, Bugatti" orapproved equivalent with ISOstandard
c. G.I. Pipes "Mayer" Galvanized Iron, Gauge #40 approved equivalent
d. Drainage, Waste, Vent PVC pipes Polyvinyl Chloride for DWV System with ISO Standard or approved equivalent.
e. Water Closet "Saniware, Karat", 1.6 GPF Round Front or approved equivalent.
f. Lavatory "Saniware Monica, Sarah" Wall-Hung Type Lavatory or approved equivalent
g. Tissue Holder "Saniware, Sabrina" Porcelain Coated Tissue Holder or approved equivalent.
h. Faucets "Price Pfister", Nickel-Plated, Plain or approved equivalent.
i. Floor & Roof drain Stainless Steel, beehive type with detachable stainless strainer.

8. Electrical Works

a. Wires Type as specified, "Columbia","Philflex", American Wires & Cables" or approved equivalent.
b. Pipes & Fittings Rigid Steel Conduits (RSC) & Fittings or Intermediate Metal Conduit (IMC) & Fiitings: "Nitchi" or approved equivalent. PVC Conduits (Thick-walled type) & Fittings: "Neltex, Emerald, Moldex" or approved equivalent.
c. Wiring Devices "Panasonic" or approved equivalent. (Convenience Outlet/Switch) Convenience outlet shall be grounding type
d. Lighting Fixture Lamp: T5 "Philips, G.E or approved equivalent. Ballast: Electronic type Lampholder: Heavy duty type
e. Pinlight Housing: 6" dia. aluminum withmirrorized reflector" Lamp: Compact fluorescent, PL type
f. Panelboard Branch circuit protection: Bolt-ontype (20AT – 70AT) "GE"Westinghouse, "Fuji", Mitsubishi","Square-D" or approved equivalentMain protection: Molded case type(for

100AT and above), OR Bolt-ontype (for 30AT – 70AT) “GE”Westinghouse, “Fuji”, Mitsubishi”,“Square-D” Enclosure: Dead-front, Nema-1 (forindoor); Nema-3R (for outdoor);flush or surface-mounted with appropriate ground terminals

g. Junction Box 4 x 4 PVC with cover & screw
h. Utility Box 2 x 4 PVC with cover & screw
i. Pull box Size as required; Nema-3R or Ga.#16 with cover and appropriate knock-outs, painted (1 coat primer; 2coats gray paint)

9. Hardwares

a. Lock set “Schlage, Alpha”, or approved equivalent. Lever type for Classroom doors and Toilet door for Person with Disability (PWD)
b. Door Hinges “Stanley”, Loose pin, wrought steel button tip ball, or approved equivalent.

10. Carpentry Works

a. Panel Doors Tanguile, Kiln Dried (1 ¾” thk.)
b. Flush Doors Hollow core (1 ¾” thk) with Two face marine plywood, for toilet Doors Tanguile Kiln Dried (1 ¾” thk)
c. Door Jambs 2” x 6” (50mm x 150mm)Tanguile/Guijo/Yacal
d. Windows (Front) Clear Glass panel blades in Jalouplus casing with transom(satin-finish) on 2” x 6” Tanguile/Guijo sill.
e. Windows (Rear) For Multi-storey; Steel CasementWindows with ¼” thick clear glass
f. Chalkboards ¼” thk. Lawanit Paint Finish on 2”x2”Tanguile, Kiln Dried Studs

Section VII. Drawings

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

Section VIII. Bill of Quantities

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).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors (refer to **GCC** Clause 7) 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 winning 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 its signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of its 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.

PROGRAM OF WORKS

BILL OF QUANTITIES

REPAIR 2026 - REGION III - BULACAN - 002

School	**: CATANGHALAN ELEMENTARY SCHOOL**	**Date:**	September, 2026
School I.D	**: 104962**	**Budget Allocation:**	**4,882,036.22**
Region	**: REGION III**	**Engineering and Administrative Overhead:**	**0.00**
Division	**: BULACAN**	**Approved Budget for the Contract:**	**4,882,036.22**
Project Title : **PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS - BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m), BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m), BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)**		**Completion Period:**	90 Calendar Days
		Minimum Required Manpower:	
		General Foreman / Welder / Carpenter	
		Helper / Mason / Painter	
Location : **Obando, Bulacan**		**Minimum Required Equipment:**	
		Hand Tools / Welding Machine	
		One-Bagger Mixer / Bar Cutter	

Item No.	Description	% of Total	Unit	Quantity	Direct Cost		Adjusted Unit Cost	Adjusted Total Cost
					Total Cost	Unit Cost		
(1)	(2)	(3)	(4)	(5)	(6)	(7) (6) / (5)	(8) (9) / (5)	(9)
A.	**Temporary Facilities**							
A.1	Temporary Facilities		Month	3.00				
B.	**Other General Requirements**							
SPL 1	Project Billboard		Each	1.00				
SPL 2	Construction Safety and Health		Month	3.00				
C.	**Mobilization and Demobilization**							
C.1	Mobilization and Demobilization		Ls	1.00				
1.0000	**Earthworks**							
1 (b)	Structural Excavation		cu m	3.20				
1 (c)	Backfilling of Excavated Materials		cu m	1.92				
1 (d)	Gravel Bedding G-1		cu m	0.29				
1 (e)	Embankment		cu m	91.00				
2.0000	**Concreting Works (3000 psi)**							
2 (b)	Structural Concrete (Footing and Slab on Fill)		cu m	14.28				
2 (c)	Structural Concrete (Footing Tie Beam, Column, Suspended Slab, Girder/ Beam)		cu m	1.08				
3.0000	**Rebar Works**							

Item No.	Description	% of Total	Unit	Quantity	Direct Cost		Adjusted Unit Cost	Adjusted Total Cost
					Total Cost	Unit Cost		
3 (a)	Reinforcing Steel Bar, Grade 40		kg	603.82				
4.0000	**Formworks**							
4 (a)	Installation and Removal of Formworks		sq m	12.80				
5.0000	**Masonry Works**							
5 (c)	Masonry (150 mm CHB)		sq.m	36.75				
	Finishing Works							
5 (d)	Plain Cement Plaster Finish		sq.m	73.50				
6.0000	**Fabricated Materials and Hardware**							
6 (a)	Removal of Door with Jamb		set	9.00				
6 (b)	Removal of Window with Jamb		sq m	46.80				
6 (c)	Hollow Core Flush Door		sq m	3.78				
6 (d)	Metal Door		sq m	17.01				
6 (e)	Jalousie Window (Glass)		sq.m	17.40				
6 (f)	Frames (Jambs, Sill, Head, Transoms, and Mullions)		set	25.00				
6 (h)	Steel Casement Window		sq.m	16.80				
7.0000	**Steel Works**							
7 (c)	Structural Steel Roof Truss		kgs	2,857.55				
7 (d)	Structural Steel Purlins		kg	1,411.20				
7 (e)	Metal Structure Accessories (Steel Plates)		kgs	688.41				
7 (f)	Metal Structure Accessories (Anchor Bolts)		pc	64.00				
7 (g)	Metal Structure Accessories (Sag Rods)		pc	240.00				
7 (h)	Metal Structure Accessories (Turn Buckle)		pc	24.00				
7 (i)	Metal Structure Accessories (Cross Bracing)		pc	24.00				
8.0000	**Roofing Works**							
8 (a)	Removal of Metal Roofing		sq m	504.00				
8 (b)	Pre - painted Metal Sheets (Corrugated, Long Span, above 0.427 BMT		sq m	504.00				
8 (e)	Fabricated Metal Roofing Accessory (Ridge/ Hip Rolls/ Flashing/ Counter Flashing/ Valley Roll)		pc	57.00				
9.0000	**Ceiling and Carpentry Works**							
9 (a)	Removal of Wooden Truss/ Beams		bd.ft.	603.98				
9 (b)	Removal of Purlins		bd.ft.	1,049.60				
9 (d)	Removal of Ceiling		sq m	423.70				
9 (f)	4.5mm Fiber Cement Board on Metal Frame Ceiling		sq m	423.70				
9 (i)	Blackboard		sq.m	23.04				
10.0000	**Electrical Works**							
10 (a)	Conduit, Boxes and Fitting		Ls	1.00				
10 (b)	Wires and Wiring Devices		Ls	1.00				
10 (c)	Lighting Fixture/ Fixture		Ls	1.00				
10 (d)	Panel Board and Cabinets		Ls	1.00				
11.0000	**Plumbing Works**							

Item No.	Description	% of Total	Unit	Quantity	Direct Cost		Adjusted Unit Cost	Adjusted Total Cost
					Total Cost	Unit Cost		
11 (a)	Waterline Works		Ls	1.00				
12.0000	**Sanitary Works**							
12 (a)	Sewer Line Works		Ls	1.00				
12 (b)	Sanitary/ Plumbing Fixtures		Ls	1.00				
13.0000	**Painting Works**							
13 (a)	Masonry Painting		sq.m	1,188.49				
13 (b)	Wooden Painting		sq.m	41.58				
13 (c)	Metal Painting		sq m	34.20				
14.0000	**Tile Works**							
14 (a)	Glazed Tiles		sq.m	21.50				
14 (b)	Unglazed Tiles		sq.m	254.94				
		100.00%				**Total Construction Cost**		

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DETAILED COST ESTIMATE

(TOTAL CONSTRUCTION COST/ ABC)

REPAIR 2026 - REGION III - BULACAN - 002

PROJECT : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

SCHOOL : CATANGHALAN ELEMENTARY SCHOOL
LOCATION : Obando, Bulacan
OWNER **: DEPARTMENT OF EDUCATION**

CONTRACT DURATION : **90 CD**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UP		VAT (5%)	TOTAL INDIRECT COST	ADJUSTED TOTAL COST	ADJUSTED COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) (6) + (7)	(9) (5) x (8)	(10) 5% [(5) + (9)]	(11) (9) + (10)	(12) (5) + (11)	(13) (12) / (
A.	**Temporary Facilities**											
A.1	Temporary Facilities	3.00	Month		0%							
B.	**Other General Requirements**											
SPL 1	Project Billboard	1.00	Each									
SPL 2	Construction Safety and Health	3.00	Month		0%							
C.	**Mobilization and Demobilization**											
C.1	Mobilization and Demobilization	1.00	Ls		0%	0%						
1.0000	**Earthworks**											
1 (b)	Structural Excavation	3.20	cu m									
1 (c)	Backfilling of Excavated Materials	1.92	cu m									
1 (d)	Gravel Bedding G-1	0.29	cu m									
1 (e)	Embankment	91.00	cu m									
2.0000	**Concreting Works (3000 psi)**											
2 (b)	Structural Concrete (Footing and Slab on Fill)	14.28	cu m									
2 (c)	Structural Concrete (Footing Tie Beam, Column, Suspended Slab, Girder/ Beam)	1.08	cu m									
3.0000	**Rebar Works**											
3 (a)	Reinforcing Steel Bar, Grade 40	603.82	kg									
4.0000	**Formworks**											
4 (a)	Installation and Removal of Formworks	12.80	sq m									
5.0000	**Masonry Works**											
5 (c)	Masonry (150 mm CHB)	36.75	sq.m									
	Finishing Works											

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UP		VAT (5%)	TOTAL INDIRECT COST	ADJUSTED TOTAL COST	ADJUSTED COST
					OCM	PROFIT	%	VALUE				
5 (d)	Plain Cement Plaster Finish	73.50	sq.m									
6.0000	**Fabricated Materials and Hardware**											
6 (a)	Removal of Door with Jamb	9.00	set									
6 (b)	Removal of Window with Jamb	46.80	sq m									
6 (c)	Hollow Core Flush Door	3.78	sq m									
6 (d)	Metal Door	17.01	sq m									
6 (e)	Jalousie Window (Glass)	17.40	sq.m									
6 (f)	Frames (Jambs, Sill, Head, Transoms, and Mullions)	25.00	set									
6 (h)	Steel Casement Window	16.80	sq.m									
7.0000	**Steel Works**											
7 (c)	Structural Steel Roof Truss	2,857.55	kgs									
7 (d)	Structural Steel Purlins	1,411.20	kg									
7 (e)	Metal Structure Accessories (Steel Plates)	688.41	kgs									
7 (f)	Metal Structure Accessories (Anchor Bolts)	64.00	pc									
7 (g)	Metal Structure Accessories (Sag Rods)	240.00	pc									
7 (h)	Metal Structure Accessories (Turn Buckle)	24.00	pc									
7 (i)	Metal Structure Accessories (Cross Bracing)	24.00	pc									
8.0000	**Roofing Works**											
8 (a)	Removal of Metal Roofing	504.00	sq m									
8 (b)	Pre - painted Metal Sheets (Corrugated, Long Span, above 0.427 BMT	504.00	sq m									
8 (e)	Fabricated Metal Roofing Accessory (Ridge/ Hip Rolls/ Flashing/ Counter Flashing/ Valley Roll)	57.00	pc									
9.0000	**Ceiling and Carpentry Works**											
9 (a)	Removal of Wooden Truss/ Beams	603.98	bd.ft.									
9 (b)	Removal of Purlins	1,049.60	bd.ft.									
9 (d)	Removal of Ceiling	423.70	sq m									
9 (f)	4.5mm Fiber Cement Board on Metal Frame Ceiling	423.70	sq m									
9 (i)	Blackboard	23.04	sq.m									
10.0000	**Electrical Works**											
10 (a)	Conduit, Boxes and Fitting	1.00	Ls									
10 (b)	Wires and Wiring Devices	1.00	Ls									
10 (c)	Lighting Fixture/ Fixture	1.00	Ls									
10 (d)	Panel Board and Cabinets	1.00	Ls									
11.0000	**Plumbing Works**											
11 (a)	Waterline Works	1.00	Ls									
12.0000	**Sanitary Works**											
12 (a)	Sewer Line Works	1.00	Ls									

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UP		VAT (5%)	TOTAL INDIRECT COST	ADJUSTED TOTAL COST	ADJUSTED COST
					OCM	PROFIT	%	VALUE				
12 (b)	Sanitary/ Plumbing Fixtures	1.00	Ls									
13.0000	**Painting Works**											
13 (a)	Masonry Painting	1,188.49	sq.m									
13 (b)	Wooden Painting	41.58	sq.m									
13 (c)	Metal Painting	34.20	sq m									
14.0000	**Tile Works**											
14 (a)	Glazed Tiles	21.50	sq.m									
14 (b)	Unglazed Tiles	254.94	sq.m									
	TOTAL CONSTRUCTION COST											

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BACK UP QUANTITY COMPUTATION

REPAIR 2026 - REGION III - BULACAN - 002

PROJECT : **PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS - BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m), BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m), BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)**

LOCATION : **Obando, Bulacan**

OWNER : **DEPARTMENT OF EDUCATION**

A FACILITIES FOR THE ENGINEER

A.1	Provision of Field Office for the Engineer (Rental Basis)	*see item DUPA* =	3.00	mos.

B OTHER GENERAL REQUIREMENTS

SPL1	Project Billboard / Signboard	*see item DUPA* =	1.00	ea.
SPL2	Occupational Safety and Health	*see item DUPA* =	3.00	mos.
C.1	Mobilization / Demobilization	*see item DUPA* =	1.00	l.s.

1 (b) Structural Excavation = 3.20 cu.m.

	L		W		D		Qty		Volume		Wastage		Total Volume
CR EXTENSION	6.40	x	0.50	x	0.50	x	2.00	=	3.20	+		=	3.20

1 (c) Backfilling of Excavated Materials = 1.92 cu.m.

	L		H		thk		Qty		Volume		Swell Factor		Total Area
CR EXTENSION	6.40	x	0.50	x	0.30	x	2.00	=	1.92	+		=	1.92

1 (d) Gravel Bedding G-1 = 0.29 cu.m.

	L		H		thk		Qty		Volume		Swell		Total Area
CR EXTENSION	2.00	x	1.20	x	0.05	x	2.00	=	0.24	+	0.05	=	0.29

1 (e) Embankment = 91.00 cu.m.

	L		H		thk		Qty		Volume		Swell Factor		Total Area
CR EXTENSION	2.00	x	1.20	x	1.00	x	2.00	=	4.80	+	1.20	=	6.00
2CL DECS	8.00	x	8.50	x	0.50	x	2.00	=	68.00	+	17.00	=	85.00

2 (b) Structural Concrete (Footing and Slab on Fill) = 14.28 cu.m.

	L		W		thk		Qty		Volume		Wastage		Total Area
Elevation of Flooring													
2CL DECS	8.00	x	8.50	x	0.10	x	2.00	=	13.60	+	0.68	=	14.28
CR Flooring	2.00	x	1.20	x	0.10	x	2.00	=	0.48	+	0.02	=	0.50
CR Wall footing	6.40	x	0.50	x	0.20	x	2.00	=	1.28	+	0.06	=	1.34

2 (c) Structural Concrete (Footing Tie Beam, Column, Suspended Slab, Girder/ Beam) = 1.08 cu.m.

	L		W		H		Qty		Volume		Wastage		Total Area
CR Roof Beam	6.40	x	0.20	x	0.40	x	2.00	=	1.02	+	0.05	=	1.08

2 (h) Ramp on Fill = - cu.m.

	L		H		thk		Qty		Volume		Wastage		Total Area
	1.00	x	1.50	x	0.10	x		=	-	+	-	=	-

3 (a) Reinforcing Steel Bar, Grade 40 = 603.82 kg

	Dia	W/m		L		Qty/set		Total Qty		Weight		Wastage		Total Weight
CR Wall Ftg	12	0.89	x	0.60	x	32.00	x	2.00	=	34.18	+	1.71	=	35.88
CR Wall Ftg	10	0.89	x	6.40	x	3.00	x	2.00	=	34.18	+	1.71	=	35.88
CR Roof Beam	12	0.62	x	6.40	x	4.00	x	2.00	=	31.74	+	1.59	=	33.33
CR Roof Beam	10	0.62	x	1.00	x	16.00	x	2.00	=	19.84	+	0.99	=	20.83
CR Flooring	10	0.62	x	2.00	x	3.00	x	2.00	=	7.44	+	0.37	=	7.81
CR Flooring	10	0.62	x	1.20	x	5.00	x	2.00	=	7.44	+	0.37	=	7.81
2CL DECS	10	0.62	x	8.00	x	21.25	x	2.00	=	210.12	+	21.01	=	231.13
2CL DECS	10	0.62	x	8.50	x	20.00	x	2.00	=	210.12	+	21.01	=	231.13

4 (a) Installation and Removal of Formworks = 12.80 sq.m.

	L		H		Qty		Area		Wastage		Total Area
CR Roof Beam	6.40	x	1.00	x	2.00	=	12.80	+	-	=	12.80

5 (c) Masonry (150 mm CHB)												=	36.75	sq.m.
	L		H		Qty		Area		Wastage		Total Area			
Door jambs installation	5.20	x	0.15	x	9.00	=	7.02	+	0.35	=	7.37			
Window jambs small	5.80	x	0.15	x	2.00	=	1.74	+	0.09	=	1.83			
Window jambs big	8.20	x	0.80	x	4.00	=	26.24	+	1.31	=	27.55			
CR Walls	4.40	x	3.50	x	2.00	=	30.80	+	1.54	=	32.34			

5 (d) Plain Cement Plaster Finish												=	73.50	sq.m.

6 (a) Removal of Door with Jamb												=	9.00	set

6 (b) Removal of Window with Jamb												=	46.80	sq.m.
	L		H		Qty		Area x 2		Wastage		Total Area			
Rear Windows	4.80	x	1.50	x	2.00	=	28.80	+	-	=	28.80			
Front Windows	3.00	x	1.50	x	2.00	=	18.00	+	-	=	18.00			

6 (c) Hollow Core Flush Door												=	3.78	sq.m
	L		H		Qty		Area		Wastage		Total Area			
CR Doors	0.90	x	2.10	x	2.00	=	3.78	+	-	=	3.78			

6 (d) Metal Door												=	17.01	sq.m
	L		H		Qty		Area		Wastage		Total Area			
Main Doors														
2CL DECS	0.90	x	2.10	x	4.00	=	7.56	+	-	=	7.56			
2CL DepEd Std	0.90	x	2.10	x	4.00	=	7.56	+	-	=	7.56			
Canteen	0.90	x	2.10	x	1.00	=	1.89	+	-	=	1.89			

6 (e) Jalousie Window (Glass)												=	17.40	sq.m
	L		H		Qty		Area		Wastage		Total Area			
Front Windows														
2CL DECS	3.00	x	1.50	x	2.00	=	9.00	+	-	=	9.00			
2CL Deped std	1.40	x	1.50	x	4.00	=	8.40	+	-	=	8.40			

6 (f) Frames (Jambs, Sill, Head, Transoms, and Mullions)						=	25.00	set
	count		qty		total			
Door Jambs	1.00	x	9.00	=	9.00			
Window Big	4.00	x	2.00	=	8.00			
Window Small	2.00	x	4.00	=	8.00			

6 (h) Steel Casement Window												=	16.80	sq.m
	L		H		Qty		Area		Wastage		Total Area			
Rear Windows														
2CL DECS	3.00	x	1.50	x	2.00	=	9.00	+	-	=	9.00			
2CL Deped std	2.60	x	1.50	x	2.00	=	7.80	+	-	=	7.80			
2CL Deped std	1.40	x	1.50	x	2.00	=	4.20	+	-	=	4.20			

7 (c) Structural Steel Roof Truss												=	2,857.55	kg
		L		wt/m		Qty		Weight		Wastage		Total Weight		
DECS	L2x2x6mm	39.20	x	4.80	x	8.00	=	1,505.28	+	58.19	=	1,563.47		
DECS	L2x2x5mm	39.20	x	3.93	x	8.00		1,232.45	+	61.62	=	1,294.07		

7 (d) Structural Steel Purlins												=	1,411.20	kgs
		L		wt/m		Qty		Weight		Wastage		Total Weight		
DECS	2x4x1.5	24.00	x	2.80	x	20.00	=	1,344.00	+	67.20	=	1,411.20		
+ Canteen														

7 (e) Metal Structure Accessories (Steel Plates)								=	688.41	kgs
	L		W		thk	Qty	Weight	Wastage	Total Weight	

	Gusset Plate 6mm	0.30	x	0.30	x	0.006	x	128.00	=	542.59	+	27.13	=	569.72			
	Base Plate 10mm	0.30	x	0.30	x	0.010	x	16.00	=	113.04	+	5.65	=	118.69			

7 (f)	Metal Structure Accessories (Anchor Bolts)												=	64.00	pcs		
		Qty/grid		# of Col		Total											
	20mm x 300mm	8.00	x	8.00	=	64.0											

7 (g)	Metal Structure Accessories (Sag Rods)												=	240.00	pcs		
		Qty/bay		# of Bay		Total											
		40.00	x	6.00	=	240											

7 (h)	Metal Structure Accessories (Turn Buckle)												=	24.00	pcs		
		Qty/bay		# of Bay		Total											
		4.00	x	6.00	=	24.0											

7 (i)	Metal Structure Accessories (Cross Bracing)												=	24.00	pcs		
		Qty/bay		# of Bay		Total											
		4.00	x	6.00	=	24.0											

8 (a)	Removal of Metal Roofing												=	504.00	sq.m		
		L		W		Qty		Area		Wastage		Total Area					
	2CL DECS	17.00	x	11.50	x	1.00	=	195.50	+	-	=	195.50					
	2CL DEPED	19.00	x	12.00	x	1.00	=	228.00	+	-	=	228.00					
	Canteen	7.00	x	11.50	x	1.00	=	80.50	+	-	=	80.50					

8 (b)	Pre - painted Metal Sheets (Corrugated, Long Span, above 0.427 BMT												=	504.00	sq.m		
		L		H		Qty		Area		Wastage		Total Area					
	2CL DECS	17.00	x	11.50	x	1.00	=	195.50	+	-	=	195.50					
	2CL DEPED	19.00	x	12.00	x	1.00	=	228.00	+	-	=	228.00					
	Canteen	7.00	x	11.50	x	1.00	=	80.50	+	-	=	80.50					

8 (e)	Fabricated Metal Roofing Accessory (Ridge/ Hip Rolls/ Flashing/ Counter Flashing/ Valley Roll)												=	57.00	pc		
		L		L/pc		Qty		Wastage		Total Qty							
	RIDGE ROLL																
	2CL DECS	17.00	/	2.20	=	7.73	+	0.39	=	9.00							
	2CL DEPED	19.00	/	2.20	=	8.64	+	0.43	=	10.00							
	Canteen	7.00	/	2.20	=	3.18	+	0.16	=	4.00							
	FLASHING																
	2CL DECS	23.00	/	2.20	=	10.45	+	0.52	=	11.00							
	2CL DEPED	24.00	/	2.20	=	10.91	+	0.55	=	12.00							
	Canteen	21.00	/	2.20	=	9.55	+	0.48	=	11.00							

9 (a)	Removal of Wooden Truss/ Beams												=	603.98	bd.ft		
		L'		W"		H"		Qty		Bd.ft.							
	Top Chord	32.80	x	2.00	x	6.00	x	7.00	=	229.60							
	Bottom Chord	31.82	x	2.00	x	6.00	x	7.00	=	222.71							
	Web	32.50	x	2.00	x	4.00	x	7.00	=	151.67							

9 (b)	Removal of Purlins												=	1,049.60	bd.ft		
		L'		W"		H"		Qty		Bd.ft.							
	Purlins	78.72	x	2.00	x	4.00	x	20.00	=	1,049.60							

9 (c)	Removal of Partition												=	-	sq.m.		
		L		W		Qty		Area									
	2CL BLSB III	8.00	x	1.00	x		=	-									

9 (d)	Removal of Ceiling												=	423.70	sq.m.		
		L		W		Qty		Area									
	INTERIOR CEILING																
	2CL DECS	8.00	x	7.00	x	2.00	=	112.00									

2CL DEPED	9.00	x	7.00	x	2.00	=	126.00						
Canteen	7.00	x	6.00	x	1.00	=	42.00						
EXTERIOR CEILING													
2CL DECS	16.00	x	2.70	x	1.00	=	43.20	+	11.00	=	54.20		
2CL DEPED	18.00	x	2.70	x	1.00	=	48.60	+	11.00	=	59.60		
Canteen	7.00	x	2.70	x	1.00	=	18.90	+	11.00	=	29.90		

9 (f)	4.5mm Fiber Cement Board on Metal Frame Ceiling											=	423.70 sq.m.
		L		W		Qty		Area					
	INTERIOR CEILING												
	2CL DECS	8.00	x	7.00	x	2.00	=	112.00					
	2CL DEPED	9.00	x	7.00	x	2.00	=	126.00					
	Canteen	7.00	x	6.00	x	1.00	=	42.00					
	EXTERIOR CEILING												
	2CL DECS	16.00	x	2.70	x	1.00	=	43.20	+	11.00	=	54.20	
	2CL DEPED	18.00	x	2.70	x	1.00	=	48.60	+	11.00	=	59.60	
	Canteen	7.00	x	2.70	x	1.00	=	18.90	+	11.00	=	29.90	

9 (i)	Blackboard											=	23.04 sq.m.
		L		H		Qty		Area					
	Blackboards	4.80	x	1.20	x	4.00	=	23.04					

10 (a)	Conduit, Boxes and Fitting	=	1.00 Ls
		Qty	
	Electrical Conduit uPVC, 15mmØ	466.67	
	RSC 20mmØ	2.00	
	Entrance Cap 20mm dia.	2.00	
	Junction Box, 4" x 4" G.I.	49.00	
	Utility Box, 2" x 4" G.I.	29.00	

10 (b)	Wires and Wiring Devices	=	1.00 Ls
		Qty	
	3.5 mm² THHN Wire, Stranded	2,800.00	
	8.0 mm² THHN Wire, Stranded	150.00	
	Electrical Tape	6.00	

10 (c)	Lighting Fixture/ Fixture		=	1.00 Ls
		Qty		
	Duplex Convenience Outlet, Grounding Type, 20A, 250V	20.00	5.00	CL
	3 Single Pole Wall Switches in One Switch Plate (10 AMP, 230V)	5.00		
	FL 2 x 40W Industrial Type	30.00		
	Wall Fan, 60W, 230V, 60Hz	10.00		
	1 -18W, 230V, 60Hz AC, Compact Fluorescent Lighting Fixture with Medium Base Keyless Type Porc	5.00		

10 (d)	Panel Board and Cabinets	=	1.00 Ls
		Qty	
	Panel Box, Circuit Breaker and Grounding System		
	Panel Box, Flush Type, 4 Branches	2.00	
	Circuit Breaker, 40A 2P	2.00	
	Circuit Breaker, 20A 2P	6.00	
	Grounding System		
	Grounding Rod, 2.4m x 16mm dia.	2.00	

11 (a)	Waterline Works	=	1.00 Ls
		Qty	
	Faucet, Hose Bibb, Brass 1/2"Ø	2.00	
	Teflon Tape	5.00	
	PP-R Pipe 1"Ø x 4.0m	2.00	
	PP-R Pipe 3/4"Ø x 4.0m	2.00	

PP-R Elbow 90° x 1"Ø	8.00	
PP-R Elbow 90° x 3/4"Ø	12.00	
PP-R Tee, 3/4"Ø	6.00	
PP-R Tee Reducer, 1" x 3/4"Ø	2.00	
PP-R Plug, 3/4"Ø	2.00	
PP-R Coupling, 1"Ø	2.00	
PP-R Coupling Reducer, 1" x 3/4"Ø	2.00	
Check Valve, Horizontal, 1"Ø	2.00	
Gate Valve, 1"Ø	2.00	

12 (a) Sewer Line Works = 1.00 Ls

	Qty
PVC Sanitary Pipe 4"Ø x 3.0m	2.00
PVC Sanitary Pipe 2"Ø x 3.0m	2.00
PVC Sanitary Wye 4" x 4"	2.00
PVC Sanitary Elbow 1/8 x 4"Ø	6.00
PVC Sanitary Elbow 90° x 4"Ø	6.00
PVC Sanitary Elbow 90° x 2"Ø	6.00
PVC Sanitary Tee 4" x 4"	2.00
PVC Sanitary Tee 2" x 2"	2.00
Brass Cleanout 4" x 4"	2.00
PVC Cement	1.00

12 (b) Sanitary/ Plumbing Fixtures = 1.00 Ls

	Qty
Water Closet 1.6gpf with Accessories	2.00
Water Closet Flange	2.00
Lavatory, Pedestal Type with Accessories	2.00
S.S. Floor Drain 4" x 4"	2.00
Two Chambe Septic Tank	1.00

13 (a) Masonry Painting = 1,188.49 sq.m.

	Front	+	Rear	+	Sides	x	No. of sides	=	Length	x	Height	=	Area x 2
2CL DECS	16.00	+	16.00	+	7.00	x	3.00	=	53.00	x	3.00	=	318.00
2CL DepEd	18.00	+	18.00	+	7.00	x	3.00	=	57.00	x	3.00	=	342.00
Canteen	7.00	+	7.00	+	6.00	x	2.00	=	26.00	x	3.00	=	156.00
CEILING													423.70
less openings												=	- 51.21

13 (b) Wooden Painting = 41.58 sq.m.

	Area x 2		
Doors	=	41.58	

13 (c) Metal Painting = 34.20 sq.m.

	L	W	Qty	Area
Steel Windows			=	34.20

14 (a) Glazed Tiles = 21.50 sq.m.

	L		H		Qty		Area		Wastage		Total Area
Comfort Rooms	6.40	x	1.60	x	2.00	=	20.48	+	1.02	=	21.50

14 (b) Unglazed Tiles = 254.94 sq.m.

	L		W		Qty		Area		Wastage		Total Area
Comfort rooms	2.00	x	1.20	x	2.00	=	4.80	+	0.24	=	5.04
Classrooms	8.00	x	7.00	x	2.00	=	112.00	+	5.60	=	117.60
Classrooms	9.00	x	7.00	x	2.00	=	126.00	+	6.30	=	132.30

Prepared:

CARL PAULO A. FERNANDO
Engineer III, Education Facilities

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: A.1

Description: **Temporary Facilities**

Quantity: 3.00
Output : 1.00
Unit: Month

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Rental of Office/ Storage House (including light and water)	Month	3.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (Ocm)			0 % of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: SPL 1

Description: **Project Billboard**

Quantity: 1.00
Output: 1.00
Unit: Each

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	4.00		
	Skilled Laborer	1	4.00		
	Unskilled Laborer	1	4.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	8' x 8' Tarpaulin, 2 sets	sq ft	64.00		
	Good Lumber (Frames)	bd.ft	48.00		
	Assorted CW Nails	kg	1.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (Ocm)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: SPL 2

Description: **Construction Safety and Health**

Quantity: 3.00
Output : 1.00
Unit: Month

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Safety Officer	1	240.00		
	First Aider	1	240.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	First Aid Kit	Ls	1		
	Personal Protective equipment (PPE)				
	Safety Helmet	man - days	10		
	Safety Shoes	man - days	10		
	Safety Gloves	man - days	25		
	Signages and Barricades				
	PPE Signage (4' x 8')	set	1		
	Safety First (4' x 4')	set	1		
	Warning Signs (2' x 3')	set	1		
	Caution Tape, 100 ft	roll	1		
	Sub-Total (Materials)			Php	

D.	**Direct Cost (A+B+C)**	**Php**	
E.	Overhead,Contingencies and Miscellaneous (Ocm)	0 % of D.	
F.	Contractor's Profit	___% of D.	
G.	Value Added Tax (VAT)	5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**	**Php**	
I.	Adjusted Unit Cost (H/Quantity)	Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: C.1

Description: Mobilization and Demobilization

Quantity: 1.00
Output : 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	96.00		
	Unskilled Laborer	12	96.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Self Loading Truck and Accessories	1	96		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (Ocm)			0% of D.	
F.	Contractor's Profit			0% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 1 (b)

Description: **Structural Excavation**

Quantity: 3.20
Output per hour: 20.00
Unit: cu m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	0.16		
	Unskilled Laborer	3	0.16		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Backhoe (0.80 cu.m.)	1	0.16		
	Dump Truck (12 cu.yd.)	2	0.16		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 1 (c)

Description: **Backfilling of Excavated Materials**

Quantity: 1.92
Output per hour: 9.84
Unit: cu m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	0.20		
	Unskilled Laborer	3	0.20		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Plate Compactor (5hp)	1	0.15		
	Backhoe (0.80 cu.m.)	1	0.15		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 1 (d)

Description: **Gravel Bedding**

Quantity: 0.29
Output per hour: 1.20
Unit: cu m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	0.24		
	Unskilled Laborer	3	0.24		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Plate Compactor (5hp)	1	0.12		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Gravel Bedding G-1 (with 5% Shrinkage Factor)	cu.m	0.30		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 1 (e)

Description: **Embankment**

Quantity: 91.00
Output per hour: 9.84
Unit: cu m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	9.25		
	Unskilled Laborer	3	9.25		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Plate Compactor (5hp)	1	6.94		
	Backhoe (0.80 cu.m.)	1	6.94		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Embankment Material (with 25% shinkage factor)	cu.m	113.75		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 2 (b)

Description: **Structural Concrete (Footing and Slab on Fill)**

Quantity: 14.28
Output per hour: 0.357
Unit: cu m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	40.00		
	Skilled Laborer	1	40.00		
	Unskilled Laborer	4	40.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	One - bagger Mixer	1	40.00		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Portland Cement	bag	128.52		
	Washed Sand	cu.m.	7.14		
	Crushed Gravel 3/4"	cu.m.	14.28		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 2 (c)

Description: **Structural Concrete (Footing Tie Beam, Column, Suspended Slab, Girder/ Beam)**

Quantity: 1.08
Output per hour: 0.270
Unit: cu m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	3.98		
	Skilled Laborer	1	3.98		
	Unskilled Laborer	4	3.98		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	One - bagger Mixer	1	3.98		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Portland Cement	bag	9.68		
	Washed Sand	cu.m.	0.54		
	Crushed Gravel 3/4"	cu.m.	1.08		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS - BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m), BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m), BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 3 (a)

Description: **Reinforcing Steel Bar, Grade 40**

Quantity: 603.82
Output per hour: 143.438
Unit: kg

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	4.21		
	Skilled Laborer	3	4.21		
	Unskilled Laborer	12	4.21		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Bar Cutter	1	2.10		
	Bar Bender	1	2.10		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	#16 G.I. Tie Wire	kg	12.08		
	Reinforcing Steel Bar, Grade 40	kg	603.82		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 4 (a)

Description: **Installation and Removal of Formworks**

Quantity: 12.80
Output per hour: 3.24
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Installation				
	Construction Foreman	1	3.95		
	Skilled Laborer	2	3.95		
	Unskilled Laborer	4	3.95		
	Stripping				
	Construction Foreman	1	1.62		
	Unskilled Laborer	6	1.62		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Good Lumber - 3 uses	bdft	92.03		
	Ordinary Plywood - 3 uses	pc.	4.44		
	Assorted CWN	kg.	2.69		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 5 (c)

Description: **Masonry (150 mm CHB)**

Quantity: 36.75
Output per hour: 3.180
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	11.56		
	Skilled Laborer	2	11.56		
	Unskilled Laborer	3	11.56		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	One - bagger Mixer	1	11.56		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	CHB 6" thk	pcs	477.75		
	Portland Cement	bags	25.73		
	Washed Sand	cu.m	3.10		
	10mm x 6m RSB	kgs	119.07		
	G.I. Tie Wire	kgs	1.84		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 5 (d)

Description: **Plain Cement Plaster Finish**

Quantity: 73.50
Output per hour: 7.125
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	10.32		
	Skilled Laborer	2	10.32		
	Unskilled Laborer	4	10.32		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Portland Cement	bags	24.26		
	Washed Sand	cu.m	1.98		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 6 (a)

Description: **Removal of Door with Jamb**

Quantity: 9.00
Output per hour: 2.00
Unit: set

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	4.50		
	Skilled Laborer	1	4.50		
	Unskilled Laborer	1	4.50		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 6 (b)

Description: **Removal of Window with Jamb**

Quantity: 46.80
Output per hour: 2.88
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	16.25		
	Skilled Laborer	1	16.25		
	Unskilled Laborer	1	16.25		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 6 (c)

Description: **Hollow Core Flush Door**

Quantity: 3.78
Output per hour: 0.32
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	0	11.81		
	Skilled Laborer	0	11.81		
	Unskilled Laborer	0	11.81		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Flush Door	sq.m	3.78		
	Hinges, Standard 3-1/2" x 3-1/2"	pa	-		
	Entrance, Lever Lockset	set	-		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 6 (d)

Description: **Wooden Panel Door**

Quantity: 17.01
Output per hour: 0.32
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	53.16		
	Skilled Laborer	1	53.16		
	Unskilled Laborer	2	53.16		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Metal Door	sq.m	17.01		
	Hinges, Standard 3-1/2" x 3-1/2"	pa	-		
	Entrance, Lever Lockset	set	-		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 6 (e)

Description: **Jalousie Window (Glass)**

Quantity: 17.40
Output per hour: 0.27
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	64.44		
	Skilled Laborer	1	64.44		
	Unskilled Laborer	1	64.44		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Jalousie Window with Clear Glass Blades on JalouPlus Type Silver Colored Frame	sq.ft	187.20		
	Security Grilles	sq.ft	187.20		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 6 (f)

Description: **Frames (Jambs, Sill, Head, Transoms, and Mullions)**

Quantity: 25.00
Output: 0.50
Unit: set

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	50.00		
	Skilled Laborer	1	50.00		
	Unskilled Laborer	1	50.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	2x5 Bended G.I. Metal Jamb	set	25.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 6 (h)

Description: **Steel Casement Window**

Quantity: 16.80
Output per hour: 0.18
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	93.33		
	Skilled Laborer	1	93.33		
	Unskilled Laborer	1	93.33		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Steel Encased Clear Glass Window with Grilles	sq.m	16.80		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 7 (c)

Description: **Structural Steel Roof Truss**

Quantity: 2857.55
Output per hour: 85.00
Unit: kgs

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Fabrication				
	Construction Foreman	1	33.62		
	Skilled Laborer	2	33.62		
	Unskilled Laborer	2	33.62		
	Erection				
	Skilled Laborer	3	16.47		
	Unskilled Laborer	3	16.47		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Welding Machine	1.00	25.21		
	Cutting Outfit	1.00	8.40		
	Truck Mounted Crane (20 - 25mT)	1.00	16.47		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	L 50 x 50 x 6mm	kg	1,563.47		
	L 50 x 50 x 5mm	kg	1,294.07		
	Acetylene	kg	31.43		
	Oxygen	kg	62.87		
	Welding Rod	kg	57.15		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 7 (d)

Description: **Structural Steel Purlins**

Quantity: 1411.20
Output per hour: 90.45
Unit: kg

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	15.60		
	Skilled Laborer	2	15.60		
	Unskilled Laborer	4	15.60		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Welding Machine	2	15.60		
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	2" x 4" x 1.5mm C - purlins	kg	1,481.76		
	Welding Rod	kg	28.22		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 7 (e)

Description: **Metal Structure Accessories (Steel Plates)**

Quantity: 688.41
Output per hour: 12.995
Unit: kgs

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1.00	52.98		
	Skilled Laborer	1.00	52.98		
	Unskilled Laborer	1.00	52.98		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Steel Plate 1.20m x 2.40m x 6mm thk	kg	569.72		
	Steel Plate 1.20m x 2.40m x 10mm thk	kg	118.69		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 7 (f)

Description: **Metal Structure Accessories (Anchor Bolts)**

Quantity: 64.00
Output: 1.00
Unit: pc

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1.00	6.40		
	Skilled Laborer	1.00	6.40		
	Unskilled Laborer	1.00	6.40		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Anchor Bolt with Nuts and Washer, 20mmØ x 50mm x 300mm	pc	64.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 7 (g)

Description: **Metal Structure Accessories (Sag Rods)**

Quantity: 240.00
Output: 1.00
Unit: pc

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	24.00		
	Skilled Laborer	1	24.00		
	Unskilled Laborer	1	24.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	12mmØ Sag Rods with Standard Nuts and Washers	pc	240.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 7 (h)

Description: **Metal Structure Accessories (Turn Buckle)**

Quantity: 24.00
Output: 1.00
Unit: pc

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	3.60		
	Skilled Laborer	1	3.60		
	Unskilled Laborer	1	3.60		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Turn Buckle 16 mmØ	pc	24.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 7 (i)

Description: **Metal Structure Accessories (Cross Bracing)**

Quantity: 24.00
Output: 1.00
Unit: pc

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Fabrication				
	Construction Foreman	1	6.00		
	Skilled Laborer	1	6.00		
	Unskilled Laborer	1	6.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Plain Round Bar 16mmØ x 6m	pc	24.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 8 (a)

Description: **Removal of Metal Roofing**

Quantity: 504.00
Output per hour: 19.167
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	26.30		
	Skilled Laborer	1	26.30		
	Unskilled Laborer	2	26.30		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 8 (b)

Description: **Pre - painted Metal Sheets (Corrugated, Short Span/ Long Span, below 0.427 BMT/ above 0.427 BMT**

Quantity: 504.00
Output per hour: 2.076
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	242.77		
	Skilled Laborer	1	242.77		
	Unskilled Laborer	2	242.77		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	G.I. Long-Span Roofing, Corrugated, Pre-Painted, 1220mm x 0.5mm BMT	sq m	113.40		
	Fascia Board, Fiber Cement 12" x 8'	pc	74.00		
	L 20 x 20 x 2mm	kg	222.09		
	L 38 x 38 x 4.5mm	kg	819.20		
	3" Flat head Countersunk screw	pc	1,184.00		
	J-Bolt (6mm dia.)	pc	809.60		
	Teckscrew 2-¾"	pc	907.20		
	Roof Sealant	L	3.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 8 (e)

Description: **Fabricated Metal Roofing Accessory (Ridge/ Hip Rolls/ Flashing/ Counter Flashing/ Valley Roll)**

Quantity: 57.00
Output per hour: 10.00
Unit: pc

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	5.70		
	Skilled Laborer	1	5.70		
	Unskilled Laborer	1	5.70		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	G.I. Flashing, Preformed, Pre-Painted, 0.610m x 2.440m x 0.5mm BMT	pc	34.00		
	G.I. Ridge Roll, Preformed, Pre-Painted, 0.610m x 2.440m x 0.5mm BMT	pc	23.00		
	Blind Rivets	pc	684.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 9 (a)

Description: **Removal of Wooden Truss/ Beams**

Quantity: 603.98
Output per hour: 105.000
Unit: bd.ft.

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	5.75		
	Skilled Laborer	2	5.75		
	Unskilled Laborer	4	5.75		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project :	PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS - BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m), BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m), BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)
Location:	Obando, Bulacan
Item:	9 (b)
Description:	**Removal of Purlins**

Quantity: 1049.60
Output per hour: 100.000
Unit: bd.ft.

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	10.50		
	Skilled Laborer	2	10.50		
	Unskilled Laborer	4	10.50		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 9 (d)

Description: **Removal of Ceiling**

Quantity: 423.70
Output per hour: 21.000
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	20.18		
	Skilled Laborer	1	20.18		
	Unskilled Laborer	2	20.18		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 9 (f)

Description: **4.5mm Fiber Cement Board/ 4.5mm Marine Plywood/ 6.0mm Marine Plywood/ 6.0 mm Ordinary Plywood on Metal Frame Ceiling**

Quantity: 423.70
Output per hour: 1.243
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	340.87		
	Skilled Laborer	1	340.87		
	Unskilled Laborer	2	340.87		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	4.5mm Fiber Cement Board/ 4.5mm Marine Plywood/ 6.0mm Marine Plywood/ 6.0 mm Ordinary Plywood on Metal Frame Ceiling	pc	148.00		
	Metal Carrying Channel (12mm x 38mm x 5m x 0.8mm thk	pc	166.00		
	Metal Double Furring Channel (19mm x 50mm x 3m x 0.5mm thk	pc	568.00		
	Wall Angle 1" x 1" x 10'	pc	101.00		
	Preformed Wire Clip	pc	2543.00		
	Rod Suspension Hanger with Adjustment Spring	pc	424.00		
	Steel Angle	pc	424.00		
	Fascia Board, Fiber Cement 12" x 8'	pc	80.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 9 (i)

Description: **Blackboard** **(2 sets each)**

Quantity: 23.04
Output per hour: 0.776
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	29.69		
	Skilled Laborer	1	29.69		
	Unskilled Laborer	2	29.69		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	S4S Lumber, Kiln Dried, Tanguile	bd.ft	296.00		
	Plywood, Ordinary 1/2" x 4' x 8'	pc	8.00		
	Finishing Nails	kg	4.00		
	CWN, Assorted	kg	8.00		
	Concrete Nails	kg	4.00		
	MDF Board	pc	8.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 10 (a)

Description: **Conduit, Boxes and Fitting**

Quantity: 1.00
Output per hour: 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	32.00		
	Skilled Laborer	1	32.00		
	Unskilled Laborer	1	32.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Electrical Conduit uPVC, 15mmØ	pc	466.67		
	RSC 20mmØ	pc	2.00		
	Entrance Cap 20mm dia.	pc	2.00		
	Junction Box, 4" x 4" G.I.	pc	49.00		
	Utility Box, 2" x 4" G.I.	pc	29.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 10 (b)

Description: **Wires and Wiring Devices**

Quantity: 1.00
Output per hour: 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	240.00		
	Skilled Laborer	2	240.00		
	Unskilled Laborer	4	240.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	3.5 mm² THHN Wire, Stranded	m	2,800.00		
	8.0 mm² THHN Wire, Stranded	m	150.00		
	Electrical Tape	pc	3.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 10 (c)

Description: **Lighting Fixtures/ Fixtures**

Quantity: 1.00
Output per hour: 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	48.00		
	Skilled Laborer	1	48.00		
	Unskilled Laborer	2	48.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Duplex Convenience Outlet, Grounding Type, 20A, 250V	set	20.00		
	3 Single Pole Wall Switches in One Switch Plate (10 AMP, 230V)	set	5.00		
	FL 2 x 40W Industrial Type	set	30.00		
	1 -18W, 230V, 60Hz AC, Compact Fluorescent Lighting Fixture with Medium Base Keyless Type Porcelain Receptacle	set	5.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 10 (d)

Description: **Panel Board and Cabinets**

Quantity: 1.00
Output per hour: 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	8.00		
	Skilled Laborer	1	8.00		
	Unskilled Laborer	2	8.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Panel Box, Circuit Breaker and Grounding System				
	Panel Box, Flush Type, 4 Branches	set	2.00		
	Circuit Breaker, 40A 2P	set	2.00		
	Circuit Breaker, 20A 2P	set	6.00		
	Grounding System				
	Grounding Rod, 2.4m x 16mm dia.	pc	2.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
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BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 11 (a)

Description: **Waterline Works**

Quantity: 1.00
Output per hour: 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	24		
	Skilled Laborer	1	24		
	Unskilled Laborer	2	24		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Faucet, Hose Bibb, Brass 1/2"Ø	pc	5.00		
	Teflon Tape	roll	2.00		
	PP-R Pipe 1"Ø x 4.0m	pc	2.00		
	PP-R Pipe 3/4"Ø x 4.0m	pc	8.00		
	PP-R Elbow 90˚ x 1"Ø	pc	12.00		
	PP-R Elbow 90˚ x 3/4"Ø	pc	6.00		
	PP-R Tee, 3/4"Ø	pc	2.00		
	PP-R Tee Reducer, 1" x 3/4"Ø	pc	2.00		
	PP-R Plug, 3/4"Ø	pc	2.00		
	PP-R Coupling, 1"Ø	pc	2.00		
	PP-R Coupling Reducer, 1" x 3/4"Ø	pc	2.00		
	Check Valve, Horizontal, 1"Ø	pc	2.00		
	Gate Valve, 1"Ø	pc	-		

	Sub-Total (Materials)	Php	
D.	**Direct Cost (A+B+C)**	**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)	___% of D.	
F.	Contractor's Profit	___% of D.	
G.	Value Added Tax (VAT)	5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**	**Php**	
I.	Adjusted Unit Cost (H/Quantity)	Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
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BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 12 (a)

Description: **Sewer Line Works**

Quantity: 1.00
Output : 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	8		
	Skilled Laborer	1	8		
	Unskilled Laborer	2	8		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	PVC Sanitary Pipe 4"Ø x 3.0m	pc	2.00		
	PVC Sanitary Pipe 2"Ø x 3.0m	pc	2.00		
	PVC Sanitary Wye 4" x 4"	pc	2.00		
	PVC Sanitary Elbow 1/8 x 4"Ø	pc	6.00		
	PVC Sanitary Elbow 90˚ x 4"Ø	pc	6.00		
	PVC Sanitary Elbow 90˚ x 2"Ø	pc	6.00		
	PVC Sanitary Tee 4" x 4"	pc	2.00		
	PVC Sanitary Tee 2" x 2"	pc	2.00		
	Brass Cleanout 4" x 4"	pc	2.00		
	PVC Cement	can	1.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
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BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 12 (b)

Description: **Sanitary/ Plumbing Fixtures**

Quantity: 1.00
Output : 1.00
Unit: Ls

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	16		
	Skilled Laborer	1	16		
	Unskilled Laborer	1	16		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Water Closet 1.6gpf with Accessories	set	2		
	Water Closet Flange	set	2		
	Lavatory, Pedestal Type with Accessories	set	2		
	S.S. Floor Drain 4" x 4"	set	2		
	Two Chamber Septic Tank (2.5m x 1.5m x 1.2m)	set	1		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 13 (a)

Description: **Masonry Painting**

Quantity: 1188.49
Output per hour: 2.10
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	565.95		
	Skilled Laborer	2	565.95		
	Unskilled Laborer	1	565.95		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Neutralizer	gal	24.00		
	Latex, Flat	gal	96.00		
	Masonry Putty	gal	60.00		
	Latex, Semi Gloss	gal	96.00		
	Acri Color	qrt	6.00		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
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BLDG #2: TWO (2) - CLASSROOM SCHOOL BUILDING (DEPED STD) - (7m x 9m),
BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 13 (b)

Description: **Wooden Painting**

Quantity: 41.58
Output per hour: 1.89
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	22.00		
	Skilled Laborer	2	22.00		
	Unskilled Laborer	1	22.00		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Enamel, Flatwall	gal	2.08		
	Enamel, Semi Gloss	gal	3.33		
	Glazing Putty	gal	2.08		
	Paint Thinner	gal	0.42		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
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BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 13 (c)

Description: **Metal Painting**

Quantity: 34.20
Output per hour: 2.00
Unit: sq m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	17.10		
	Skilled Laborer	2	17.10		
	Unskilled Laborer	1	17.10		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Primer, Zinc Chromate	gal	1.37		
	Enamel Paint	gal	3.42		
	Paint Thinner	gal	34.20		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
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BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 14 (a)

Description: **Glazed Tiles and Trims**

Quantity: 21.50
Output per hour: 1.37
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	15.75		
	Skilled Laborer	5	15.75		
	Unskilled Laborer	5	15.75		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Glazed Tiles/ Granite Tiles/ Synthetic Granite Tiles	sq.m	22.579		
	Cement	bag	6.989		
	Sand	cu.m	0.559		
	Tile Grout 5 kg/bag	bag	2.688		
	Tile Adhesive 25 kg/bag	bag	5.376		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

DETAILED UNIT PRICE ANALYSIS

Project : PROPOSED REPAIR AND REHABILITATION OF SCHOOL BUILDINGS -
BLDG. #1 TWO (2) - CLASSROOM SCHOOL BUILDING (DECS TYPE) - (7m x 8m),
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BLDG #3: ONE (1) - CCANTEEN BUILDING - (6m x 7m)

Location: Obando, Bulacan

Item: 14 (b)

Description: **Unglazed Tiles/ Granite Tiles/ Synthetic Granite Tiles**

Quantity: 254.94
Output per hour: 1.95
Unit: sq.m

A.	Designation of Personnel	No. of Person	No. of Hours	Hourly Rate	Amount
	Construction Foreman	1	130.74		
	Skilled Laborer	5	130.74		
	Unskilled Laborer	5	130.74		
	Sub-Total (Labor)			Php	
B.	**Name / Capacity (Equipment)**	**No. of Units**	**No. of Hours**	**Hourly Rate**	
	Sub-Total (Equipment)			Php	
C.	**Name / Specification (Materials)**	**Unit**	**Quantity**	**Unit Cost**	
	Unglazed Tiles/ Granite Tiles/ Synthetic Granite Tiles	sq.m	267.687		
	Cement	bag	82.856		
	Sand	cu.m	6.628		
	Tile Grout 5 kg/bag	bag	31.868		
	Tile Adhesive 25 kg/bag	bag	63.735		
	Sub-Total (Materials)			Php	
D.	**Direct Cost (A+B+C)**			**Php**	
E.	Overhead,Contingencies and Miscellaneous (OCM)			___% of D.	
F.	Contractor's Profit			___% of D.	
G.	Value Added Tax (VAT)			5% of (D+E+F)	
H.	**Adjusted Total Cost (D+E+F+G)**			**Php**	
I.	Adjusted Unit Cost (H/Quantity)			Php	

Section IX. Philippine Bidding Documents Related Forms

Notes to the Philippine Bidding Document Related Forms

The Bidder shall complete and submit with its Bid the **Bid Form**, together with the Bill of Quantities, detailed estimates that include a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid, and Cash Flow by Quarter, in accordance with **ITB** Clause 13, and all those requirements indicated in the Bidding Documents and the format set out in this Section.

When requested in the BDS, the Bidder should provide the **Bid Security**, either in the form included hereafter or in another form acceptable to the Procuring Entity, pursuant to **ITB** Clause 16.

The **Contract Form**, when it is finalized at the time of contract award, should incorporate any correction or modification to the accepted Bid resulting from price corrections. The needed attachments, as aforementioned which form part of the contract should be modified accordingly.

The **Omnibus Sworn Statement** must be completed by all Bidders in accordance with **ITB** Clause 4.3. Failure to do so and submit it with the Bid shall result in the rejection of the Bid and the Bidder's disqualification.

The **Performance Securing Declaration and Bank Guarantee Form for Advance Payment** shall be completed only by the successful Bidder in accordance with one of the forms indicated herein or in another form acceptable to the Procuring Entity and pursuant to **GCC** Clause 12 and its corresponding SCC provision.

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Bid Form for Procurement of Infrastructure Projects

[Note: The duly accomplished form shall be submitted with the Bid]

BID FORM

Project Identification No.: *[Insert number]*

To: [Name of Procuring Entity]

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

a) I/We have no reservation to the PBD, including the Supplemental Bid Bulletins, for the Procurement Project *[Project Title]*;

b) I/We offer to execute the Works for this Contract in accordance with the PBD;

c) The total price of our Bid in words and figures, excluding any discount offered below, is *[insert information]*

d) The discounts offered and the methodology for their application, if any, are: *[insert information*]; *or indicate N/A if no discount offered]*

e) The total bid price in words and figures, after applying the applicable discount, 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 in the Detailed Estimates.

f) This Bid shall remain valid within a period stated in the PBD, and it shall be binding upon me/us at any time before the expiration of that period;

g) If our bid is accepted, I/we commit to enter to a contract and provide a performance security in the form, amounts, and within the times prescribed in the PBD, and hereby acknowledge the consequences under the IRR of RA No. 12009 on forfeiture of Bid Security or enforcement of Bid Securing Declaration and on Blacklisting.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon the Bidder.

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

I/We certify/confirm that we comply with the eligibility requirements pursuant to the PBD.

The undersigned is authorized to submit the bid on behalf of *[Name of the Bidder]* as evidenced by the attached *[State the Written Authority]*.

I/We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Duly authorized to sign the Bid for and behalf of:

[Insert Bidder's Name]

[Signature over Printed Name]
[Position/Designation]
[Date]

Contract Form

[Note: The duly accomplished form is not required to be submitted with the Bid but shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT FOR [Insert Project Title]

THIS CONTRACT executed on the _____ day of _____ 20_____ between:

[Name of Procuring Entity], a government agency of the Republic of the Philippines, hereinafter called "the Entity";

-and-

[Name of Contractor] Filipino of legal age or a company duly organized and existing under the laws of [city and country], with principal office at [insert address], hereinafter called "the Contractor".

WHEREAS**,** the Entity invited Bids for certain goods and ancillary services, particularly *[Brief description of Project]*;

WHEREAS, the Contractor submitted a responsive bid and was awarded the contract for the procurement in the total amount of ***[****Contract price in words and figures, including currency],* hereinafter referred to as the "Contract Price."

NOW, THEREFORE, for and in consideration of the foregoing premises, the parties hereby agree as follows:

1) Unless otherwise stated, terms and expressions used in this Contract shall have the same meanings as those assigned to them in the Conditions of Contract, which form an integral part of this Contract.

2) The following documents as required by the Implementing Rules and Regulations of Republic Act No. 12009 shall be deemed to form and be read and construed as integral part of this Contract, *viz.*:

    a) Philippine Bidding Documents (PBD);

        i. Drawings/Plans;
        ii. Scope of Work;
        iii. Invitation to Bid;
        iv. Instructions to Bidders;
        v. Bid Data Sheet;
        vi. 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;
        vii. Bill of Quantities;
        viii. General and Special Conditions of Contract;
        ix. Supplemental Bid Bulletins, if any; and
        x. Other contract documents that may be required by existing laws and/or the Entity.

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

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 PBD, such as but not limited to the Notice to Proceed and Warranty Security.

3) In consideration of the Contract Price of *[Contract Price in words and figures],* or such other sums as may be determined in accordance with the terms of the Contract, the Supplier agrees to deliver and perform the items and related services for the *[Project Title]* described herein in accordance with the terms and conditions specified in the Contract and its annexed documents.

4) The *[Name of the Procuring Entity]* agrees to pay the above-mentioned sum to the Supplier in accordance with the schedule and manner provided in the Bidding Documents and its annexes.

5) Any dispute, difference, or claim arising out of or relating to this Contract, including its existence, validity, interpretation, breach, or termination thereof, may be submitted to arbitration or other form of alternative dispute resolution in accordance with the applicable law, such as Republic Act (RA) No. 9285 (Alternative Dispute Resolution Act of 2004) or Executive Order No 1008, series 1985 (Construction Industry Arbitration Law).

IN WITNESS WHEREOF**,** the parties hereto have caused this Contract to be executed in accordance with the laws of the Republic of the Philippines on the day and year first above written

For the Procuring Entity Head of the Procuring Entity or Duly Authorized Representative	*For the Bidder* Duly authorized to sign the Contract for and behalf of *[Bidders Name]*:
[Signature over Printed Name][Position/Designation] *[Date]*	*[Signature over Printed Name]* *[Position/Designation]* *[Date]*

Signed in the presence of:

[Name and Signature]	*[Name and Signature]*
Witness – Procuring Entity	*Witness- Supplier*

ACKNOWLEDGMENT

BEFORE ME, A Notary Public for and in the _____, City/Province of _____, this _____ day of _____, 20_____, personally appeared the above-named persons who have satisfactorily proven to me their identity, through their identifying documents written below their names and signatures, that they are the same persons who executed and voluntarily signed the foregoing instrument consisting of ____ pages, including this page where this Acknowledgement is written, which they acknowledged before me as their free and voluntary act and deed.

WITNESS MY HAND AND SEAL this ___ day of *[month] [year].*

NAME OF NOTARY PUBLIC
Notarial Commission No. _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*

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

Omnibus Sworn Statement Form

[Note: The duly accomplished form shall be submitted with the Bid]

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

OMNIBUS SWORN STATEMENT

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

1) *Select one, delete the others:*
   - *If sole proprietorship:* I am the sole proprietor or authorized representative of *[Name of Bidder]* with office address at *[Address of Bidder]*;

   - *If 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]*;

   - *If individual consultant not registered under a sole proprietorship, in case of Consulting Services:* I am the individual consultant or authorized representative of *[Name of Bidder]* with office address at *[Address of Bidder]*;

2) *Select one, delete the others:*

   - *If 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 *[Project Title]* of the *[Name of the Procuring Entity][insert* "as supported by the attached duly notarized Special Power of Attorney" *for authorized representative]*;

   - *If 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 *[Project Title]* of the *[Name of the Procuring Entity]*, as supported by the attached duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, whichever is applicable*;*

   - *If individual consultant not registered under a sole proprietorship, in case of Consulting Services:* As the individual consultant 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 *[Project Title]* of the *[Name of the Procuring Entity]*, as

supported by the attached duly notarized Special Power of Attorney *for authorized representative*;

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;

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 others:*

- *If sole proprietorship :* The *[Name of Bidder]* and its spouse are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

- *If partnership :* The partnership itself and the partners of *[Name of Bidder]* are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

- *If cooperative:* The cooperative itself and members of the board of directors, general manager, or chief executive officer of *[Name of Bidder]* are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

- *If corporation, or joint venture:* The corporation or joint venture itself, and officers, directors, and controlling stockholders of *[Name of Bidder]* are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

- *If individual consultant not registered under a sole proprietorship, in case of Consulting Services:* The individual consultant and its spouse are not related by consanguinity or affinity up to the third civil degree to the Head of the Procuring

Entity, Procurement Agent (if engaged), End-User or Implementing Unit, project consultants, head of the Project Management Office, or the members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat;

7) It is understood that failure to faithfully disclose its relationship with the HoPE, members of the BAC, the TWG, and the BAC Secretariat, the head of the PMO or the end-user unit or implementing unit, and the project consultants of the Procuring Entity, or of the procurement agent by consanguinity or affinity up to the third civil degree, as well as its submission of beneficial ownership information containing false entries shall be subject to blacklisting under Section 100 of the IRR of RA No. 12009, without prejudice to criminal and civil liabilities under applicable laws, including their accessory penalties, if any.

   Select one, delete the rest:

   - *In case of corporations: [Name of Bidder]* declares its beneficial ownership information consistent with its updated General Information Sheet or Beneficial Ownership Declaration Form or any other document duly submitted to the SEC and has maintained a valid and updated file therein in compliance with Sections 20.2.9.1, 81, and 82 of the IRR of Republic Act (RA) No. 12009.

   - *In case of Foreign Bidders: [Name of Bidder]* submitted an appropriate equivalent document in English issued by the country of the bidder concerned in accordance with Section 20.2.9.2 of the IRR of RA No. 12009.

8) *[Name of Bidder]* complies with existing labor laws and standards; and

9) *[Name of Bidder]* is aware of and has undertaken the following responsibilities as a Bidder:
   a) Carefully examine all of the Bidding Documents;
   b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
   c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
   d) Inquire or secure Supplemental Bid Bulletin(s) issued for the *[Project Title]*.

10) *[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.

11) In case advance payment was made or given to *[Name of Bidder]*, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability under existing laws.

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

Duly authorized to sign the Bid for and behalf of:

[Insert Bidder's Name]

[Affiant's Signature over Printed Name]
[Position/Designation]
[Date]

JURAT

SUBSCRIBED AND SWORN to before me this _____ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

WITNESS MY HAND AND SEAL this ___ day of *[month] [year].*

NAME OF NOTARY PUBLIC
Notarial Commission No. _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*

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

Bid Securing Declaration Form

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

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

BID SECURING DECLARATION

Project Identification No.: *[Number]*

To: *[Insert name 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 shall enter into contract with the Procuring Entity and furnish the required performance security within ten (10) calendar days as indicated in the Bidding Documents, from receipt of the Notice of Award;

   b) I/we will be automatically disqualified from bidding for any procurement contract with any Procuring Entity upon receipt of your Blacklisting Order; and

   c) I/We will pay the applicable fine 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 52.2 (a), 63.2, 69.1 and 100, except 100.3 (c), of the IRR of RA No. 12009; without prejudice to other legal action the government may undertake;

	Applicable Fine
a) in the case of a single bidder	i) two percent (2%) of the Approved Budget for the Contract (ABC); or ii) the difference between the evaluated bid price and the ABC whichever is higher
b) in the case of multiple bidders	i) two percent (2%) of the ABC; or ii) the difference between the evaluated bid prices with the

	bidder with Lowest Calculated/Highest Rated Bid and the bidder with the next Lowest Calculated/Highest Rated Bid, and so on whichever is higher
c) in case of violations committed prior to the opening of the financial envelope	i) a fixed amount of two percent of the ABC,

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

   a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;

   b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;

   c) I am/we are declared the bidder with the *[Insert Award Criterion[1]]* 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]*.

Duly authorized to sign the Bid for and behalf of:

[Insert Bidder's Name]

[Signature over Printed Name]
[Position/Designation]
[Date]

JURAT

SUBSCRIBED AND SWORN to before me this _____ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

WITNESS MY HAND AND SEAL this ___ day of *[month] [year].*

NAME OF NOTARY PUBLIC
Notarial Commission No. _____
Notary Public for _____ until _____
Roll of Attorneys No. _____
PTR No. __, *[date issued], [place issued]*
IBP No. __, *[date issued], [place issued]*

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

SWORN AFFIDAVIT OF ELIGIBILITY AND BENEFICIAL OWNERSHIP

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

I [insert name], of legal age, married, Filipino, and with office address at [insert address], after having been duly sworn in accordance with the law, hereby depose and state that:

1. That I am the [position] and duly authorized representative of [company name], a corporation duly organized and existing under the laws of the Republic of the Philippines, registered with the Securities and Exchange Commission (SEC) under Company Registration No. [number];

2. That the corporation is duly registered with the Philippine Government Electronic Procurement System (PhilGEPS) and is participating in the procurement activities of the Department of Education - Schools Division of Bulacan (DepEd - SDO Bulacan);

3. That in compliance with Section 20.2.9.1 and Section 82 of the Implementing Rules and Regulations (IRR) of Republic Ace No. 12009, otherwise known as the New Government Procurement Act (NGPA), and PhilGEPS Advisory No 2025-007, the Corporation has submitted its latest General Information Sheet (GIS), duly received by the Securities Exchange Commission (SEC), reflecting its Beneficial Ownership Information (BOI), and has maintained the same valid and updated in the Philippine Government Electronic Procurement System (PhilGEPS). That the following are the beneficial owner/s of the Corporation, as reflected in its latest SEC-filed GIS:

COMPLETE NAME (Surname, Given Name, Middle Name, Extension)	**SPECIFIC RESIDENTIAL ADDRESS**	**NATIONALITY**	**DATE OF BIRTH**	**TAX IDENTIFICATION NO.**	**% OF OWNERSHIP/ % OF VOTING RIGHTS**	**TYPE OF BENEFICIAL OWNER (Direct/ Indirect)**
-Nothing Follows-						

4. That the above beneficial ownership information is true and correct based on the Corporation's official and most recent records submitted to the SEC;

5. That the Corporation is eligible to participate in the government procurement under R.A. No. 12009, and none of its directors, officers, or beneficial owners are disqualified under existing laws, rules, and regulations;

6. That I undertake to immediately inform the DepEd - SDO Bulacan and submit an updated GIS and affidavit should there be any changes in the Corporation's beneficial ownership or control structure;

7. That this Affidavit is executed to attest to the truth of the foregoing statements and in compliance with the submission requirements for the bidding documents of the DepEd - SDO Bulacan, pursuant to the provisions of the Republic Act No. 12009, its Implementing Rules and Regulations (IRR), and relevant GPPB issuances.

IN WITNESS WHEREOF, I hereunto set my hands this ____ day of _____, _____, at _____, Philippines.

Name : **[NAME]**
Position : **[Position]**
Company : **[Company Name]**

JURAT

SUBSCRIBED AND SWORN to before me this _____ day of _____ at _____, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert ID], with his/her photograph and signature appearing thereon, with no. [ID number].

WITNESS MY HAND AND SEAL this ___ day of _____.

Doc No. _____
Page No. _____
Book No. _____
Serves of _____

Republic of the Philippines
Department of Education
REGION III
Schools Division of Bulacan

CERTIFICATE OF SITE INSPECTION

This is to certify that _____ of
(name of representative)

_____ has inspected the site for the proposed
(name of company/ contractor/ bidder)

Repair / Rehabilitation of 5 Classrooms, Catanghalan ES, Obando, Bulacan

under FY 2026 on _____.
(date)

_____
Principal

Concurred:

CARL PAULO A. FERNANDO
Engineer III
Division Engineer

Section X. CHECKLIST OF TECHNICAL AND FINANCIAL DOCUMENTS

I. TECHNICAL COMPONENT ENVELOPE

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
(a.1) Valid SEC or DTI Certificate with By Laws
(a.2) Valid Mayor's Permit
(a.3) Valid Tax Clearance
(a.4) Valid PCAB License
(a.5) Audited Financial Statement duly received by the BIR

☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid supported by
☐ Notices of Award, or
☐ Contracts, or
☐ Notices to Proceed;

☐ (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules supported by
☐Certificate of Acceptance/Final Acceptance and/or Constructors Performance Evaluation System (CPES) with a final rating of at least Satisfactory
☐Certificate of Completion
☐Notices to Proceed
☐Contract
☐Notice of Award

☐ (d) Special PCAB License in case of Joint Ventures (if applicable); **and** registration for the type and cost of the contract to be bid; **and**

☐ (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration; **and**

☐ (f) Organizational chart for the contract to be bid;

☐ (g) 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;

☐ (h) List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

☐ (i) Original duly signed Omnibus Sworn Statement (OSS);
(i.1) Original Notarized Secretary's Certificate *in case of a corporation*, partnership, or cooperative;
(i.2) 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

☐ (j) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC)

☐ (k) 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.

☐ (l) If applicable, duly notarized Sworn Disclosure of Beneficial Ownership with (j.1) SEC General Information Sheet

☐ (m) Duly signed Certificate of Site Inspection

II. FINANCIAL COMPONENT ENVELOPE

☐ (n) Original of duly signed and accomplished Financial Bid Form; **and**
☐ (o) Original of duly signed Bid Prices in the Bill of Quantities;
☐ (p) Duly accomplished Detailed Estimates Form, including a **summary sheet** indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid;
☐ (q) Cash Flow by Quarter.


Republic of the Philippines
gppb
Government Procurement Policy Board