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.

University of the Philippines
OPEN UNIVERSITY
Los Baños, Laguna

Procurement of INFRASTRUCTURE PROJECTS

Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music System (PABGM) at the International Convention Center

PB No. 26-04-001

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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

University of the Philippines
OPEN UNIVERSITY

Invitation to Bid for *Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music System (PABGM) at the International Convention Center*

1) The **UP Open University (UPOU),** through the Government of the Philippines (GOP) GAA 2025 intends to apply the sum of **Four Million Two Hundred Ninety-One Thousand Six Hundred Fifty Pesos (₱4,291,650.00)** being the Approved Budget for the Contract (ABC) to payments under the contract for **Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music System (PABGM) at the International Convention Center.** Bids received in excess of the ABC shall be automatically rejected at bid opening.

2) The **UP Open University (UPOU)** now invites bids for Supply, Delivery and Installation of CCTV and PABGM. Completion of the Works is required within one hundred twenty (120) calendar days. 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 UP Open University (UPOU) and inspect the Bidding Documents at the address given below from 8:00 AM to 5:00 PM Monday to Thursday at the UPOU Headquarters, Los Baños, Laguna.

5) A complete set of Bidding Documents may be acquired by interested bidders from the address below *and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of* ***Five Thousand Pesos (₱5,000.00)*** only*.*

   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 **UP Open University (UPOU)** will hold a **Pre-Bid Conference** on **28 April 2026, 2:30 PM** through video conferencing via *Zoom Video Conference,* which shall be open to prospective bidders.

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 12 May 2026, 12:00 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 **12 May 2026, 2:00 PM** through video conferencing via *Zoom Video Conference.* Bids will be opened in the presence of the Bidders' representatives who choose to attend the activity.

10 The **UP Open University (UPOU)** 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.

11) For further information, please refer to:

MS. RHONNA MARIE R. VEREÑA
Head, Bids and Awards Committee (BAC) Secretariat
UPOU Headquarters, Los Baños, Laguna
Telephone No.: (049) 536-6001-06 local 210-211
Telefax No.: (049) 536-5991
Email: **bac@upou.edu.ph**

12) You may visit the following websites:

For downloading of Bidding Documents:
https://www.upou.edu.ph/bids-and-awards-committee/

14 April 2026

(SGD) **Dr. FINAFLOR F. TAYLAN**
Chair
Bids and Awards Committee

Section II. Instructions to Bidders

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A. General

1) Scope of Bid

1.1 The Procuring Entity named in the **BDS**, invites Bids for the **Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music System (PABGM) at the International Convention Center**, with Project Identification Number: PB No. 26-04-001.

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.[3]

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

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[3] Section 81.1 of the IRR.

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 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.[4]

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	Five percent (5%)

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

local bank, if issued by a foreign bank. *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.[5]

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

[5] Sec 63.5 of the IRR.

determined for award, subject to the procedure of Notice and Execution of Award.

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[6] of the IRR may be allowed to post Performance Securing Declaration (PSD) as specified in the **BDS.**

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[6] 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.

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

<table>
<tr><th>Form of Performance Security</th><th>Amount of Performance Security (Not less than the Percentage of the Total Contract Price)</th></tr>
<tr><td>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.</td><td rowspan="2">Ten percent (10%)</td></tr>
<tr><td>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.</td></tr>
<tr><td>c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the IC as authorized to issue such security.</td><td>Thirty Percent (30%)</td></tr>
</table>

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

Bid Data Sheet

ITB Clause	
1.1	The Procuring Entity is **UP Open University.** The Project title is ***Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music System (PABGM) at the International Convention Center.*** The identification number of the Contract is PB No. 26-04-001
2	The Funding Source is: 2.1 The GOP through the source of funding as indicated below for *GAA 2025* in the amount of **Four Million Two Hundred Ninety-One Thousand Six Hundred Fifty Pesos (₱4,291,650.00).** 2.2 The source of funding is: a. General Appropriations Act 2025.
3.1	No further instructions.
5.2	Bidding is restricted to eligible bidders as defined in ITB Clause 5.2.
5.4	Contracts similar to the Project refer to contracts which have the same major categories of work.
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 **28 April 2026, 2:30 PM** through video-conferencing/webcasting via **Zoom Video Conference** *(link to be emailed).*
10.1	The Procuring Entity's address is: **MS. RHONNA MARIE R. VEREÑA** Head, Bids and Awards Committee (BAC) Secretariat UPOU Headquarters, Los Baños, Laguna Telephone No.: (049) 536-6001-06 local 210-211 Telefax No.: (049) 536-5991 Email: **bac@upou.edu.ph**

<table>
<tr><td>12.1(h)(ii)</td><td>The minimum work experience requirements for key personnel are the following:

<table>
<tr><th><u>Key Personnel</u></th><th><u>General Experience</u></th></tr>
<tr><td>1. Registered Electrical/Electronic Engineer (with valid license)</td><td>Minimum of 5 yrs</td></tr>
<tr><td>2. Electrician/Electronic Technician</td><td>Minimum of 5 yrs w/ valid NC2 (Electrical Installation and maintenance)</td></tr>
<tr><td>3. CAD Operator</td><td>Minimum of 2 yrs</td></tr>
</table>
</td></tr>
<tr><td>12.1(h)(iii)</td><td>The minimum major equipment requirements are the following:

<table>
<tr><th>A. Tools</th><th>Number of Units</th></tr>
<tr><td>1. Calibrated Insulation Continuity Tester</td><td>Minimum of 1 unit</td></tr>
<tr><td>2. Calibrated Clamp/Multimeter</td><td>Minimum of 1 unit</td></tr>
<tr><td>3. LAN Network Tester</td><td>Minimum of 1 unit</td></tr>
<tr><td>4. Sound Meter</td><td>Minimum of 1 unit</td></tr>
<tr><td>5. Hand tools
a. Grinder
b. Hammer Drill</td><td>
Minimum of 1 unit
Minimum of 1 unit</td></tr>
<tr><td>B. Equipment</td><td></td></tr>
<tr><td>a. Chipping Gun</td><td>Minimum of 1 unit</td></tr>
<tr><td>b. Coring Machine</td><td>Minimum of 1 unit</td></tr>
<tr><td>C. Others</td><td></td></tr>
<tr><td>1. PPE (Personal Protective Equipment) - includes hard hat, safety vest, safety shoes, safety gloves</td><td>Minimum of 5pcs per item</td></tr>
</table>
</td></tr>
<tr><td>12.4</td><td>The ABC is Four Million Two Hundred Ninety-One Thousand Six Hundred Fifty Pesos (₱4,291,650.00). 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) calendar 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, OR any of the following:

a. The amount of not less than ₱85,833.00 (2%) of ABC, if bid security is in cash.
b. The amount of not less than ₱214,582.50 (5%) of ABC if Surety Bond and submit also a certification issued by the Insurance Commission as authorized to issue such security.</td></tr>
<tr><td>16.2</td><td>The Bid Security shall be valid until one hundred twenty (120) calendar days from the date of the opening of bids.</td></tr>
</table>

16.3	Substitution of the bid security is not allowed.
19	The address for submission of bids is **UP Open University, Supply and Property Management Office, UPOU Headquarters, Los Baños, Laguna.** The deadline for **Submission of Bids** is **12 May 2026, 12:00 PM.**
21.5	No further instructions.
22.1	The date and time of **Bid Opening** is **12 May 2026, 2:00 PM**. The place of **Bid Opening** is **via Zoom Video Conference.**
22.2(b)	Not applicable.
25.3 (b)(i)	Not applicable.
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.
25.5 (b)	Bid correction shall be allowed.
25.6	No further instructions.
26.1	The following documents shall be submitted within five (5) calendar days from receipt of Notice of the S/LCB from the BAC: 1. All the eligibility documents supporting its PhilGEPS Certificate of Registration (Platinum Membership) a. Latest Mayor's Permit b. DTI Certificate of Registration, or SEC Registration, or CDA Registration c. Valid Tax Clearance Certificate as finally approved and reviewed by the BIR d. Audited Financial Statement (AFS), stamped "Received" by the BIR or its duly accredited and authorized institutions for Manual submission. For online submission, an email confirmation from the BIR in lieu of the

	manual "Received" stamping under Revenue Memorandum Circular No. 49-2020 or subsequent relevant issuances. 2. Latest Annual Income Tax Return (ITR) and paid through the BIR Electronic Filing and Payment System (eFPS) 3. Business Tax Return Forms 2550Q/2551Q and paid through the BIR Electronic Filing and Payment System (eFPS), within the last six months from the opening of bids 4. Notarized UP System Questionnaire 5. Other appropriate licenses and permits required by law **NOTE:** 6. Duly filed thru Electronic Filing and Payment System (eFPS) of the BIR and duly validated confirmation evidencing the tax payments made with the corresponding Filing Reference Number. 7. Only tax returns filed and taxes paid through the BIR Electronic Filing and Payment System (EFPS) shall be accepted. 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 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.
29.3(f)	The Bidder shall submit additional contract document relevant to the project such as: (1) Letter Certificate to Procuring Entity to be assigned to the contract to be bid, (2) Bio-Data, and (3) Certificate of Employment.
30.2	Not Applicable.
30.3	The Performance Security shall be in the form of: The amount of not less than __________ [insert 30% of *the contract price*] if performance security is Surety Bond and submit also a certification issued by the Insurance Commission.

Section IV. General Conditions of Contract

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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,[7] 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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[7] 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,[8] 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.

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[8] 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.[9]

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.[10]

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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[9] 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.

[10] 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[11] 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

[11] 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.[12]

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:

[12] 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

Special Conditions of Contract

GCC Clause	
1.1	The **Intended Completion Date** is **one hundred twenty (120*) calendar days*** *from the starting date; the starting date being seven (7) calendar days from the issuance of the 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 **UP Open University, UPOU Headquarters, Los Baños, Laguna.**
1.3	The **Site** is located at **UP Open University, UPOU Headquarters, Los Baños, Laguna** and is defined in drawings No. ECE-1 to ECE-6.
1.4	The **Start Date** is upon receipt of the Notice to Proceed. *NOTE: The starting date being seven (7) calendar days from the issuance of the Notice to Proceed.*
1.5	The **Works** consist of *Electrical works.*
2.2	No further instructions.
5.1	The **Procuring Entity** shall give possession of all parts of the Site to the Contractor *upon submission of project work plan consisting of the specific work activities within seven (7) calendar days upon receipt of Notice to Proceed.*
6.5	The Contractor shall employ the following **Key Personnel:** *[List key personnel by name and designation]* *1) Registered Electrical/Electronic Engineer* *2) Electrician/Electronic Technician* *3) CAD operator*
7.1	No further instructions.
8.1	The amount of the advance payment is fifteen percent (15%) of the total contract price to be made in lump sum.
9.1	Materials and equipment delivered onsite but not yet incorporated in the Works shall be included for payment.
9.4	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.
12.7	No further instructions.
13.1	The site investigation reports are: *None*
15.3	No further instructions.

15.5	*In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete or asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:* Five (5) years.
19.2	The Arbitrator is the person appointed jointly by the Procuring Entity and the Contractor: *None*
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) calendar* days from the Notice of Award.
33.3	The period between Program of Work updates is *ten (10) calendar* days from the Notice of Proceed. The amount to be withheld for late submission of an updated Program of Work is one tenth (1/10) of one percent (1%) per day of delay for the current progress billing.
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 *One tenth of one percent (1/10th of 1%) of the cost of the undelivered works/items for everyday of delay.*

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 not later than thirty (30) calendar days prior to conducting the acceptance test. The date by which “as built” drawings are required is thirty (30) calendar days upon the project 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 two percent (2%) of the Contract Price or the non-issuance of the Retention Money.

Section VI. Specifications

TECHNICAL SPECIFICATIONS

AUDIO-VIDEO COMMUNICATIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

1.1.1 Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUBMITTALS

1.2.1 This section specifies the requirements for Audio-Video Communications roughing-ins and outlet for the Proposed UPOU International Convention Center.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 CATV Conduits and Pipes
Wiring connections shall be provided with roughing-ins. PVC Conduits shall be Schedule 40, complete with fittings and accessories I for site conduits. Use Intermediate Metal Conduit (IMC) for building conduits. Complete with all necessary accessories and local materials needed for the system connections.

2.1.2 CATV Wires and Cables
Shall be co-axial RG-6 cable

2.1.3 CATV Outlets
Shall be 16A rated, universal grounding type, wide series with metallic black or metallic gray finish plate cover conforming to IEC/PNS standards. Mounting heights shall be 300mm from the center of device to floor finished level for wall outlets. Install duplex convenience outlets in horizontal position, adjacent to voice/data ports.

PART 3 EXECUTION

3.1 COORDINATION

3.1.1 Contractor shall fully coordinate with the Owner’s Cable TV/Auxiliary equipment provider as required to ensure proper integration and connectivity between systems.

3.1.2 Contractor shall furnish labeled floor plan and excel run sheet to Owner’s Audio-Video Communication provider two weeks prior to occupancy.

3.1.3 Contractor shall furnish and install all patch cords in conjunction with Owner’s Cable TV/Auxiliary provider.

3.1.4 Contractor shall provide adequate technician support when Owner’s Cable TV/Auxiliary provider are planning and installing Cable TV connectivity.

END OF SECTION

BACKGROUND MUSIC AND PUBLIC ADDRESS SYSTEM

PART 1 GENERAL

1.1 WORK INCLUDED

A. Furnish and install a complete and functional Background Music (BGM) and Public Address (PA) System integrated to the Fire Alarm System.

1.2 RELATED WORK

A. All work specified in this Section is subject to the provisions of Section Electronics General Provisions.

B. Refer to the following Sections for related work in connection with the Background Music and Paging System.

Firestopping Materials
Fire Detection and Alarm System

1.3 SCOPE OF THE SPECIFICATION

A. The specification covers the provision, installation and maintenance of the Background Music & Public Address System (BGM/PA) which includes various functional requirements of the system. The specification covers all the emergency requirements under IEC60849 and other emergency requirements enforce in various other countries. The specific requirements for digital announcements and chimes are also part of this specification.

B. Selection and combination of the required network-based system units shall provide the specific functions needed in any individual situation. The system can be extended in functionality and size by adding the required number of compatible units, thereby providing simple and cost-effective solutions.

1.4 SYSTEM DESCRIPTION

A. The work covered in this Section of the Specification includes the furnishing of all labor, equipment, materials and performance of all operations associated with the installation of the background music and paging system as shown on the drawings and as herein specified.

B. The Contractor shall be capable of providing comprehensive digital sound distribution via computer-operated matrix zone set-up and control.

C. All works shall be in accordance with governing Codes and Standards, Drawings, Specifications and all related Bid Documents. If a discrepancy is noted between the documents, this shall be notified to the Project Manager in writing and further clarification shall be given.

D. Any equipment/components not specifically mentioned in the specifications or not shown on the Contract Drawings but deemed necessary for the satisfactory operation of the system shall be provided. All cost for such shall be included in the bid price.

E. All major equipment and materials used for the installation shall be of the same make and type to ensure uniformly of standard and composition. All equipment and components shall be new and the manufacturer's current model.

F. All materials, appliances, equipment, and devices shall be tested, used, and listed by Underwriters Laboratory (UL).

G. All equipment shall be mounted on standard equipment racks.

H. The system shall be provided to perform the following functions:

1. Distribute paging system or announcement that is selectable per zone from the paging microphones.
2. Distribute background music to any combination or individual speaker, either in a single or multiple channels that could be selected locally.
3. Override distributed background music to some areas with the public address & emergency announcement and automatically return to the background music after the announcement.
4. Distribute program material from a radio tuner as part of the multiple channel distribution to selected areas only.
5. Permit distribution of an emergency announcement to select all zones regardless of the volume controller, program selector or source selector settings.
6. Sound pressure level of music shall be 6dB above background noise level and paging system shall be 10dB above background noise level.

I. The Contractor shall submit a detailed schematic wiring diagram showing all component units with type references, gain or loss, designed to operate to give the system performance as specified.

J. The Contractor shall submit a fully technical and mechanical description of every piece of equipment and cables used, including manufacturer's technical literature.

K. The work specified herein shall be coordinated with other trades involved in the construction. All work shall be carefully laid out in advance, coordinating system feature with Electrical, Mechanical, Architectural and Structural features of construction.

L. Overall System Summary:

1. The BGM/PA system shall provide digital audio signal processing and transmission of audio signals via a simple network system. It shall be possible to use the system with or without a PC connected to the network controller. The network controller shall be based on web technology. The system shall be tested and certified to compliant to the IEC60849 specification.
2. The public address and emergency sound system range shall include network controllers, power amplifiers, call stations, audio expanders and both high-and-low lever interfaces for connection to external systems. The system shall be able to monitor all equipment in the system and report faults to the network controller. Each audio input or output equipment shall have a headphone socket for audio monitoring.

The network control shall have a loudspeaker, which can be used for audio monitoring.

3. The PA system has various functions, the most important of which are as below:

   a. The PA system is the medium to make public broadcasts of routine, situational, important and emergency announcements.
   b. The PA system shall provide simultaneous broadcasting of different calls to different locations.
   c. The PA system is also the medium to broadcast background music to all or selected locations.
   d. The PA system shall provide an automatic announcement facility for making routine, situational and emergency announcements.

4. All the main functions shall be provided by the system. The system shall be simple and logical to operate for anyone. The system shall provide a means to give customized indications for the selection buttons of the call stations.
5. The system shall store at least the last 200 fault messages in the memory of the network controller. It shall be possible to log any changes in status of the system in an external PC connected to the Ethernet port of the network controller.

M. System Functions:

1. The system in its complete configuration shall provide the following functions:
   a. Routing of audio from any input to any output. The system shall be freely programmable.
   b. Routing of multiple background music to different zones or audio outputs.
   c. A minimum of 28 simultaneous audio channels shall be available for communication.
   d. The system shall satisfy the emergency specification IEC60849 and shall be tested and certified to be compliant to IEC60849.
   e. The system shall be configurable using the configuration software supplied.
   f. The system shall control and execute calls and other activities according to priority settings.
   g. The system shall monitor the correct operational status of the amplifiers and shall change over to a spare power amplifier in case of a fault.
   h. The loudspeaker lines shall be monitored for short circuit, open circuit and short to ground. The loudspeaker line itself shall be communication medium for the end-of-line unit to the power amplifier.
   i. The system shall include very user-friendly call stations at which the operator can easily determine whether the selected outputs are occupied by higher-or-lower-priority calls. The operator shall also have the option of listening to the chime/pre-recorded announcements via the loudspeaker in the call station.
   j. Each part of the system from the call station microphone capsule to the end of the loudspeaker line shall be monitored. Any faults detected shall be reported to the network controller.

k. The power amplifier channels shall be provided with digital delay for audio outputs. This delay shall be configurable in the configuration software.

N. Compliance:

The system shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

O. System Configuration:

The PA system shall be a networked configuration with the following system configuration:

1. Network controller, which controls and monitors all activities in the system.
2. Call stations, which can initiate any actions in the system.
3. Automatic messages stored in the network controller shall be able to be activated by any of the control inputs or call stations.
4. The amplifier channels shall provide 100V, 70V or 50V audio outputs.
5. The power amplifier types can be 1 x 1000W, 1 x 480W, 4 x 125W or 4 x 60W.
6. Audio expander for providing additional audio inputs, audio outputs, control inputs and control outputs.
7. The system shall have the possibility to provide custom-made call stations using the standard available hardware.
8. The system shall have audio outputs, which can be used for recording of emergency announcements.

P. System Installation and Interconnection:

The following aspects must be taken into account in the installation of the PA/emergency system:

1. The whole building is divided into various functional zones. A functional zone consists of single or multiple public address and emergency sound system zones.
2. The cable connections between the system units shall be arranged in a loop so that in case of a single interruption in the loop the system will still operate normally. The system cable fault shall be reported at the network controller.

Q. Functional Specification:

1. The system shall be designed in such a way that the individual PA/ emergency/functional zone can be addressed.
2. The whole building shall be divided into various emergency zones. An emergency zone shall consist of single or multiple PA zones. There emergency zones shall be individually addressable.
3. Some of the zones shall be designed to have dedicated local music sources. These music sources shall also be located at the zones where the music has to be broadcast. These zones shall be occupied with the local music source only when it is available. If the local music source is not available, the zone shall receive music from the common music channels.

4. It shall be possible to inject power to the system at any part of the system cabling using the network splitter.
5. The network controller, power amplifiers and audio expander shall have a 2 x 16 LCD display to show their own settings.
6. The system shall be able to perform monitoring of all equipment and cabling. Any faults in the system shall be reported to the network controller.
7. The system shall be able to make emergency calls (all calls) even if the network controller has failed.
8. The system shall have built-in and configurable facilities for automatic volume control.
9. It shall be possible to enable and disable any equipment in the system even though it is still physically present in the system.
10. It shall be possible to enable and disable any of the system's inputs and outputs.
11. The power switch of the power amplifiers shall be at the rear of the unit so that accidental switching is avoided.
12. The individual zones shall be able to have different volume settings using a two-time slot. The volume settings shall be different for background music and call.
13. The fans in the units shall be temperature controlled.
14. Is shall be possible to have one start chime and an end chime for a call.
15. The system shall have an internal real time clock.
16. The network controller shall have automatic message storage, with an audio storage capacity depending only on the memory size of the flash card. The message player shall be able to play 4 audio messages simultaneously. The audio messages shall be monitored for presence.
17. The network controller shall be able to route up to 28 audio channels simultaneously through the network using dynamic channel allocation to avoid/minimize any call conflicts in the system.
18. The network controller shall store the last 200 fault messages in the system.
19. The network controller shall be able to be connected to the local area network of the building. The system status can be viewed by authorized users with a valid access user id and password at a PC connected to the local area network.
20. It shall be possible to assemble customized call stations using standard hardware from the system.
21. The background music volume shall be able to be controlled from a call station, for zones, which are pre-assigned to the call station.
22. The control input shall be able to monitor the cable connected to it.
23. The system shall have distributed control inputs, which are freely programmable.
24. The characteristics of the control input shall be configurable for momentary or toggle. The characteristics can be configured using configuration software.
25. The system shall have distributed control outputs, which shall be freely programmable for faults or calls.
26. The power amplifiers shall be able to be placed anywhere in the system as long as the unit address matches with the hardware connections.
27. The power amplifiers shall be provided with control outputs, which can be locked to the amplifier channels (zones) so that these can be used for amplifier channel-related functions such as volume control override.
28. The power amplifiers shall have the provision to connect a 24V DC supply, and the availability of the 24V DC supply shall be monitored.

29. The power amplifiers temperature shall be measured, if the temperature rises above the normal operating level it shall be reported to the network controller.
30. It shall be possible to configure the system in off-line mode. This will allow any modifications in the system configuration to be made in advance and downloaded when there is no activity in the system to avoid disturbances in the system.
31. The operating status of the call station microphone capsule shall be monitored.
32. It shall be possible to monitor the audio output of the power amplifier using the headphone socket of the power amplifier. This display shall show the VU meter reading of all the amplifier channels in the default mode.
33. Faults in the system shall be acknowledged to mute a sounder connected to the audible alarm relay. The fault status shall be set automatically to resolved after the fault has been resolved, then the fault can be reset.
34. The call station shall be able to make a partial call. If a call is partially interrupted by a call with higher priority, the call shall be broadcast to the available zones without any interruption.
35. The call station keypad address shall be assigned with a switch so that in case of any fault the keypad can be replaced without any programming.
36. If a call macro is selected using a keypad key, the call macro associated with the press-to talk button shall be overruled by the selected call macro.
37. It shall be possible to recall the last call with a recall key.
38. The configuration settings shall be able to be downloaded to the PC from the network controller.
39. It shall be possible to have real-time adjustment of the audio processing facility with the user interface.
40. There shall be limited event logging on the network controller with the name of the triggering unit of an activity.
41. Configuration changes in an operational system shall be made on a shadow except for the real-time adjustments. These changes will become effective after saving and rebooting.
42. The user shall be able to give names to pre-recorded messages. The pre-recorded messages shall be stored as a set of wav files.
43. It shall be possible to allocate multiple pre-recorded messages to a selection key, together with the outputs and press-to-talk functions.
44. It shall be possible to create a call macro which is a combination of call activities, properties and destinations that can be used by any call station or control input.
45. The audio input type (line/mic.) shall be assigned in the configuration software.
46. It shall be possible to set the background music volume for individual zones.
47. All calls shall be logged with date, time, initiating unit, key details and destinations in the PC log file.
48. The fault and event file in the network controller shall be a circular file so that no file management is required.
49. The emergency call station shall be able to add zones to a running call.
50. It shall be possible to make emergency announcements even if the network controller is faulty.

1.5 QUALITY ASSURANCE

A. Electronic Components: Comply with latest applicable standards of EIA; Electronics Code of the Philippines; standard industry grade; types and ratings commonly available in local distributor without prior written approval from the Project Manager.

B. Entire system, including mounting, installing, connecting, aligning, testing, and adjusting, to be the responsibility of one Contractor.

1.6 SUBMITTALS

A. The Contractor shall submit a fully technical and mechanical description of every piece of equipment and cables to be used, including manufacturer's technical literature.

B. The Contractor shall provide a description of the methods proposed to show that the actual performance will be in accordance with the specifications for technical performance, including necessary test methods, procedures, and equipment that will be used.

Submit shop drawings to include the following:
1. System diagram
2. Floor plan layouts, sectional view and installation details.

C. Submit samples of cables and other components as required.

D. Submit as-built drawings to include the following
1. Floor plan layouts, sectional view and installation details.
2. List of major components and their place in the system
3. Synopsis of the numbering scheme and cross connect log.

E. Submit O&M manuals, including test results.

1.7 TRAINING

The Contractor shall provide appropriate training for the operation and maintenance of the background music and paging system in accordance with the requirements of Electronics General Provision.

1.8 PRODUCT DELIVERY AND STORAGE

A. Deliver and store background music & public address system equipment in undamaged factory packaging according to the requirements of Electronics General Provision.

B. Store background music & public address system equipment on elevated platforms in a clean, dry location. Protect from dirt, water, construction debris, and traffic.

PART 2 PRODUCTS

2.1 RADIO TUNER

A. Radio tuners shall have digitally synthesized tuning system and can receive both AM and FM signals. The tuner shall meet or exceed the following characteristics:

Frequency Range	:	520-1610Khz (AM) 88-108 MHz (FM)
Useable Sensitivity	:	10.8 dBf (mono)
Signal strength required 50 dB quieting	:	15.9 dBf (mono) 37.3 dBf (stereo)
Capture Ratio	:	1.0 dB
AM Suppression		65 dB
Alternate Channel Selectivity	:	80 dB
Stereo Separation		60 dB at 1 KHz
Total Harmonic Distortion	:	0.05 % (mono) 0.08 % (stereo) At 1 KHz
Signal to Noise Ratio	:	85 dB (mono) 81 dB (stereo)

2.2 DVD/CD PLAYER

A. The DVD/CD Player at least 10 units shall have magazine, or separate tray to hold at least 5 disc at a time.

B. It shall at least have 18-bit, 8 x over sampling rate D/A converter and 3-beam laser pick-up.

C. The disc player shall include, but not limited to the following features:
1. Disc play mode (single disc play/5-disc play) switch
2. Shuffle play (shuffle with 1 disc, shuffle with next random selected disc, etc).
3. 32-Random music selection (from 1-5 discs)
4. 5-way repeat mode (all disc/one disc/one selection/RMS/shuffle)
5. 6 mode time

D. The compact disc player shall meet or exceed the following electrical characteristics:

Frequency Response (Hz)	:	20-20,000 (± 0.5 dB)
Signal-to-noise ratio (dB)	:	100 min.
Harmonic Distortion (% at 1 KHz)	:	0.05 max.
Dynamic Range (dB)	:	88 min.
Channel Separation (dB at 1 KHz)	:	90 min.
Output Level	:	2 Vrms at 50K ohm

2.3 AUDIO MATRIX

The audio expander shall be able to insert external audio signals to the system and extract audio signals from the system. This unit shall be provided with control inputs and control outputs for external interfacing. The audio inputs can be routed to any of the zones or other audio outputs permanently or conditionally. The routing condition can be configured using the configuration software. The audio output can be programmed for extracting audio from any of the audio inputs. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

The equipment can be used as tabletop or 19" rack mounting.

- The audio expander shall have analogue audio inputs. These inputs shall be selectable between microphone and line. The other inputs shall be fixed as line inputs.
- There shall be control inputs, which are freely programmable. These can be programmed for actions to be done in the system and assigned priorities.
- The audio expander shall have analogue audio line outputs
- The audio line outputs shall have a selectable 20kHz monitoring signal.
- It shall have control outputs, which are freely programmable for faults and calls.
- It shall be possible to use the microphone/line input like a call station input if it is programmed conditionally to any control input.
- The 2 x 16-character display and rotary control shall provide the possibility to carry out status enquiries belonging to that particular unit. The display shall show the VU meter reading when the audio monitoring mode is selected. The audio output can be monitored by connecting a headphone to the headphone socket. The fault status of the unit shall be monitored continuously and reported back to the network controller.
- The control input shall be programmable for momentary or toggle operation. This selection can be made in the configuration software.
- Each control input shall have the ability to monitor the cable between the control input and the external switch for open and short circuits.
- The control output shall have break and make contacts.
- The audio expander shall be designed for redundant network wiring.

A. Interfaces
   1. System network connection.

B. Indications and Controls
   1. 2 x 16-character LCD display for status display.
   2. Rotary control for selection of system enquiry mode and change in volume for the headphone or internal speaker.
   3. Power supply ON/OFF switch and indication.

C. Inputs
   1. Control inputs
   2. Selectable analogue audio inputs between line and mic.
   3. Analogue line level audio inputs

D. Outputs
   1. Control outputs
   2. Analogue line level audio outputs
   3. Headphone output

2.4 POWER AMPLIFIERS

A. Power amplifier(500W)

The main function of the power amplifier is the amplification of audio signals for the loudspeakers. It shall be possible to select the output voltage between 100V, 70V or 50V by changing jumpers. The power amplifiers are provided with a 2 x 16-character display for status display. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

The equipment can be used as tabletop or 19" rack mounting.

- The power amplifiers shall have auxiliary audio inputs.
- The audio input of the power amplifier can be selected as automatic volume control input.
- The control inputs are freely programmable. These can be programmed for actions to be initiated in the system and can be assigned with priorities.
- The control output shall be freely programmable and can be programmed for faults and calls.
- The 2 x 16-character display and rotary control on the front panel are used for status enquiries and monitoring functions. The display shall show the VU meter reading when the audio monitoring mode is selected. The audio output can be monitored by connecting a headphone to the headphone socket. Status changes of the unit shall be monitored continuously and reported to the network controller for fault/status reporting.
- The control input can be programmed for momentary or toggle operation. This selection can be made in the configuration software.
- The control input shall have the ability to monitor the cable between the control input and the external switch against open and short circuits.
- The power amplifier shall be designed for redundant network wiring.
- The amplifier monitoring and changeover facility shall be incorporated in the power amplifier. The changeover relays shall be included in the unit.
- The unit shall incorporate digital audio processing possibilities for parametric equalization and of shelving equalization and audio delay.

1. Interfaces
   a. System network connection.

2. Indications and Controls
   a. 2 x 16-character LCD display for status display
   b. Rotary control for selection of system enquiry mode and change in volume for the headphone
   c. Power supply ON/OFF switch on the back

3. Inputs
   a. Control inputs
   b. Audio inputs

4. Outputs
   a. Selectable 100V, 70V or 50V outputs for each power amplifier. An additional fixed 50V output shall be provided for each amplifier channel.
   b. Control output
   c. Amplifier channel outputs
   d. Headphone output

B. Power Amplifier (250W)

The main function of the power amplifier is the amplification of audio signals for the loudspeakers. It shall be possible to select the output voltage between 100V, 70V or 50V by changing jumpers. The power amplifiers are provided with a 2 x 16-character display for status display. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

The equipment can be used as tabletop or 19" rack mounting.

- The power amplifiers shall have auxiliary audio inputs with microphone/line level selection.
- The audio input of the power amplifier can be selected as automatic volume control input.
- The control inputs are freely programmable. These can be programmed for actions to be initiated in the system and can be assigned with priorities.
- The control outputs shall be freely programmable and can be programmed for faults and calls.
- The 2 x 16-character display and rotary control on the front panel are used for status enquiries and monitoring functions. The display shall show the VU meter reading when the audio monitoring mode is selected. The audio output can be monitored by connecting a headphone to the headphone socket. Status changes of the unit shall be monitored continuously and reported to the network controller for fault/status reporting.
- The control input can be programmed for momentary or toggle operation. This selection can be made in the configuration software.
- The control input shall have the ability to monitor the cable between the control input and the external switch against open and short circuits.
- The power amplifier shall be designed for redundant network wiring.
- The amplifier monitoring and changeover facility shall be incorporated in the power amplifier. The changeover relays shall be included in the unit.
- The unit shall incorporate digital audio processing possibilities for parametric equalization and of shelving equalization and audio delay.

1. Interfaces
   a. System network connection

2. Indications and Controls
   a. 2 x 16-character LCD display for status display
   b. Rotary control for selection of system enquiry mode and change in volume for the headphone
   c. Power supply ON/OFF switch on the back

3. Inputs
   a. Control inputs
   b. Audio inputs

4. Outputs
   a. Selectable 100V, 70V or 50V outputs for each amplifier channel. An additional fixed 50V output shall be provided for each amplifier channel.

b. Control outputs
c. Amplifier channel outputs
d. Headphone output

C. Power Amplifier (125W)

The main function of the power amplifier is the amplification of audio signals for the loudspeakers. It shall be possible to select the output voltage between 100V, 70V or 50V by changing jumpers. The power amplifiers are provided with a 2 x 16-character display for status display. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

The equipment can be used as tabletop or 19" rack mounting.

- The power amplifiers shall have auxiliary audio inputs with microphone/line level selection.
- The audio input of the power amplifier can be selected as automatic volume control input. The control inputs are freely programmable. These can be programmed for actions to be initiated in the system and can be assigned with priorities.
- The control outputs shall be freely programmable and can be programmed for faults and calls.
- The 2 x 16-character display and rotary control on the front panel are used for status enquiries and monitoring functions. The display shall show the VU meter reading when the audio monitoring mode is selected. The audio output can be monitored by connecting a headphone to the headphone socket. Status changes of the unit shall be monitored continuously and reported to the network controller for fault/status reporting.
- The control input can be programmed for momentary or toggle operation. This selection can be made in the configuration software.
- The control input shall have the ability to monitor the cable between the control input and the external switch against open and short circuits.
- The power amplifier shall be designed for redundant network wiring. The amplifier monitoring and changeover facility shall be incorporated in the power amplifier. The changeover relays shall be included in the unit.
- The unit shall incorporate digital audio processing possibilities for parametric equalization and of shelving equalization and audio delay.

1. Interfaces
   a. System network connection

2. Indications and Controls
   a. 2 x 16-character LCD display for status display
   b. Rotary control for selection of system enquiry mode and headphone volume
   c. Power supply ON/OFF switch on the back

3. Inputs
   a. Control inputs
   b. Audio inputs

4. Outputs
   a. Selectable 100V, 70V or 50V outputs for each amplifier channel. An additional fixed 50V output shall be provided for each amplifier channel

b. Control outputs
c. Amplifier channel outputs
d. Headphone output

D. Power Amplifier (60W)

The main function of the power amplifier is the amplification of audio signals for the loudspeakers. It shall be possible to select the output voltage between 100V, 70V or 50V by changing jumpers. The power amplifiers are provided with 2 x 16-character display for status display. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

The equipment can be used as tabletop or 19" rack mounting

- The power amplifiers shall have auxiliary audio inputs with microphone/line level selection.
- The audio input of the power amplifier can be selected as automatic volume control input.
- The control inputs are freely programmable. These can be programmed for actions to be initiated in the system and can be assigned with priorities.
- The control outputs shall be freely programmable and can be programmed for faults and calls.
- The 2 x 16-character display and rotary control on the front panel are used for status enquiries and monitoring functions. The display shall show the VU meter reading when the audio monitoring mode is selected. The audio output can be monitored by connecting a headphone to the headphone socket. Status changes of the unit shall be monitored continuously and reported to the network controller for fault/status reporting.
- The control input can be programmed for momentary or toggle operation. This selection can be made in the configuration software.
- The control input shall have the ability to monitor the cable between the control input and the external switch against open and short circuits.
- The power amplifier shall be designed for redundant network wiring.
- The amplifier monitoring and changeover facility shall be incorporated in the power amplifier. The changeover relays shall be included in the unit.
- The unit shall incorporate digital audio processing possibilities for 3 sections of parametric equalization and 2 sections of shelving equalization and audio delay.

1. Interfaces
    a. System network connection.

2. Indications and Controls
    a. 2 x 16-character LCD display for status display.
    b. Rotary control for selection of system enquiry mode and change in volume for the headphone.
    c. Power supply ON/OFF switch on the back.

3. Inputs
    a. Control inputs
    b. Audio inputs

4. Outputs
    a. Selectable 100V, 70V or 50V outputs for each amplifier channel. An additional fixed 50V output shall be provided for each amplifier channel.
    b. Control outputs
    c. Amplifier channel outputs
    d. Headphone output

2.5 CALL STATION BASIC

The call station is used for making a manual or pre-recorded call to any pre-assigned zones or executing a predefined action. The call station shall have one key. The call station shall have a fixed microphone to transmit speech over the network and a press-to-talk key. The call station shall also have a headset socket. Once the headset is connected the microphone will be muted. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

- The call station shall have a speech filter with a cut-off frequency at 340Hz to improve intelligibility and prevent clipping of the audio input on low-frequency signals.
- The call station unit can be connected with a maximum of 16 call station keypad units via serial data communication links.
- The power supply to the call station keypad units shall be provided from the call station.
- The call station shall have a volume control for the monitoring loudspeaker at the call station. The volume control shall also control the volume of the headset.
- The call station shall be programmable for momentary actions on make contact and toggle actions without repeat on make contact.
- It shall be possible to assign 256 priorities.
- Analogue-to-digital audio conversion shall be performed at the call station.
- The call station shall also have a digital signal processor, which can be used for audio processing. It can be used to adjust sensitivity, limiter and parametric equalizer.
- The monitoring loudspeaker shall be on when that particular call station activates a chime or pre-recorded message, and will be switched off when its own live audio channel is open.

A. Interfaces

1. System network connection
2. Serial data and power supply interfaces for call station keypad units
3. Headset socket
   a. Number of connectors: 1 or 2
   b. Position: Front
   c. Type: 3.5mm jack
   d. Maximum cable length: 1.5m
   e. Audio: Mono microphone signal, mono earphone signal

B. Indications and Controls

1. The call station has three 2-color LEDs. These LEDs are used for the following indications:
   a. Power on and no system/call station fault
   b. Power not available
   c. Fault in the system and power on
   d. Call station fault and power on
   e. Chime on or pre-recorded message
   f. Ready to talk/live speech
   g. No call status to display
   h. Emergency announcement is on in the system. Possible to make normal calls to the zones which are not involved (emergency) indication has priority over other indications)
   i. Lower-priority calls are on or reserved (to all or some of the pre-assigned zones of the PTT key of the call station and selected zones of the call station keypad unit if installed)
   j. Calls with higher or the same priority (not emergency) are on or reserved (to all or some of the pre-assigned zones of the PTT key of the call station and selected zones of the call station keypad unit if installed)
   k. No predefined or selected zones are in use or reserved by the system, nor is an emergency announcement being made

2. Volume control for loudspeaker/headset

2.6 CALL STATION KEYPAD

The call station keypad is used in combination with the call station basic unit for making a manual or pre-recorded call to any pre-assigned zones or executing a predefined action. The call station keypad shall have 8 keys (minimum). The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

- The call station keypad keys can be programmed for the following actions:

  - ➢ Control system functions: recall of selection, live speech call, cancel selection, BGM off, BGM volume control, programmable key for any action.
  - ➢ Select resources: BGM selection, pre-recorded message selection, attention and alarm tone selection.
  - ➢ Zone selection, system control output
- Each key at the call station keypad shall have 2 colour LEDs.

- The call station keypad shall be provided with in and out connections for serial data

and power supply.
- The keys are to be provided with a label slot for indicating the name of the action assigned to that particular key
- The power supply for the call station keypad shall be provided from the call station basic unit.
- The call station keypad key can be programmed for momentary or toggle operation.

A. Interfaces

1. Serial data and power supply interfaces for call station keypad units/call station basic.

B. Indications and Controls

The call station keypad has one 2-color LED per key. These LEDs are used for the following indications:

1. INDICATION 1..8
   a. The selected resources are occupied by a lower-priority call
   b. The selected resources are occupied by a call with higher or equal priority.
   c. The selected resources are available/reserved for executing an action from that particular station

2. KEY 1..8
   a. Nothing is active, no LED indication. A function is still active, LED indication is still on.
   b. Function(s) is(are) activated, LED indication goes on.

2.7 CALL STATION KIT

The call station kit is used for making custom-made (emergency) call stations. The call station kit shall be suitable for making manual or pre-recorded calls to any pre-assigned zones or executing predefined actions. The call station kit shall have one control input and a headset socket. Once the headset is connected the microphone input will be muted. It shall be possible to connect an external power supply to the call station kit. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

- The call station kit shall have a speech filter with a cut-off frequency at 340Hz to improve intelligibility and prevent clipping of the audio input on low-frequency signals.
- The call station kit can be connected with a maximum of 16 call station keypads or keypad kits via serial data communication links.
- The power supply to the call station keypad (kit) units shall be provided from the call station.
- The call station kit shall have a volume control input, and the volume control shall apply to both the monitoring loudspeaker and the headset.
- The call station kit control input shall be programmable for momentary or toggle.
- It shall be possible to assign 256 priorities.
- Analogue-to-digital audio conversion shall be performed at the call station kit.
- The call station kit shall also have a digital signal processor, which can be used for audio processing. It can be used to adjust sensitivity, limiter and parametric equalizer.

A. Interfaces

1. System network connection
2. Serial data and power supply interfaces for call station keypad units
3. Headset socket
   a. Number of connectors : 1 or 2
   b. Position : Front
   c. Type : 3.5 mm jack
   d. Maximum cable length : 1.5m
   e. Audio : Mono microphone signal, mono earphone signal

4. Backup supply input
5. Control inputs.

B. Indications and Controls

1. The call station kit has five colour LED outputs. These LED outputs are used for the following indications.
   a. Power on, no system/call station tool kit
   b. Power not available
   c. Fault in the system and power on
   d. Call station kit error and power on
   e. No error status
   f. Chime on or pre-recorded message playing
   g. Ready to talk/live speech
   h. No call status to display
   i. Emergency announcement is on in the system. Possible to make normal calls to the zones which are not involved (emergency indication has precedence over other indications)
   j. Lower-priority calls are on to all or some of the pre-assigned zones of the PTT key of the call station and selected zones of the call station extension unit, if installed)
   k. Calls with higher or the same priority (not emergency) are on (to all or some of the pre-assigned zones of the PTT key of the call station and selected zones of the call station extension unit, if installed)
   l. No calls are being made to the predefined zones (nor are emergency announcements being made)

2. Volume control for loudspeaker/headset
3. Connection for the control input

2.8 CALL STATION KEYPAD KIT

The call station keypad kit is used in combination with a call station kit or call station a predefined action. The call station keypad has 8 input connections and 16 output connections. The input and outputs are freely programmable. The unit shall be certified to be compliant to IEC60849 and compliant to other relevant local standards.

- The call station keypad kit keys can be programmed for the following actions:
  - Control system functions: recall of selection, live speech call, cancel selection, BGM off, BGM volume control, programmable key for any action.
  - Select resources: BGM selection, pre-recorded message selection, attention and alarm tone selection.
  - Zone selection, system control output selection

- Each key at the call station keypad kit shall have two related contacts.

- The call station keypad kit shall be provided with input and outputs for the serial connection.
- The power supply for the call station keypad kit can be provided from the call station.
- The call station keypad kit key can be programmed for momentary or toggle operation.

A. Interfaces
1. System network connection
2. Serial data and power supply interfaces for call station keypad units

B. Indications and Controls
1. The call station keypad shall have 16 control outputs, which are programmable for any zone status, function status or faults.
2. The input to the call station can be programmed for all the functions specified for the call station keypad.
3. Call macros can be assigned to any of the inputs of the call station keypad kit.
4. Once the control input is used for any function, the control output will be linked to the specific action to be initiated by that input.

2.9 LINE SUPERVISION SET

The system shall use the same loudspeaker line for communicating with the end-of-loudspeaker-line unit. The monitoring principle shall not be based on DC current or impedance measurement.

- The line monitoring unit shall be incorporated in the power amplifier unit itself to avoid any non-monitored parts of the cable.
- Loudspeaker line monitoring shall be provided without any additional wiring.
- The tone generator for loudspeaker monitoring shall be incorporated in the amplifier so that a single failure of the tone generator will not affect the monitoring of other amplifier channels.
- Loudspeaker line monitoring can be switched on/off from the configuration software.
- The power for the end-of-line monitoring units shall be supplied from the power amplifier.

2.10 CONFIGURATION/DIAGNOSTIC AND LOGGING SOFTWARE

A. Configuration Software

The configuration software is used for configuring the system. The configuration software shall be located in the network controller except for the file transfer facilities. Any PC with Internet Explorer version 5.0 or above will be able to connect to the network controller to access the configuration and logging functions. No special software shall need to be installed in the PC for configuration or logging. The system shall be able to operate without the configuration PC. The configuration software shall be required only during the installation and when changes are to be made in the existing system.

Fault enquiries can be made via the diagnostic section of the web interface. The configuration software shall be designed in such a way that even first-time users can navigate through the configuration easily.

1. Configuration of system access rights. There are three authorization levels:
    a. Administrator
    b. Installer
    c. User
2. The access rights for these three levels are different.
3. Configuration of call macro. Call macro is the function that allows the user to program different functions and/or actions that can be assigned to any inputs such as control input, call station or audio input. A single call macro can be assigned to multiple inputs. The call macro will define:
    a. Start chime
    b. Audio input
    c. Message(s) – sequence of messages, number of repetitions, interval
    d. End chime

4. Zone grouping allows the user to group zones covering the same types of areas.
5. In the zone configuration, zone-related items such as amplifier channel outputs, audio outputs and control outputs shall be grouped.
6. The power amplifier shall be linked to a spare power amplifier so that if there is a fault in the main power amplifier its functions shall automatically be taken over by the spare power amplifier. The ratio of main power amplifiers to spare power amplifiers shall be configured according to the specific requirements of the installation.
7. The configuration of all equipment inputs and outputs shall be carried out using configuration software.
8. All audio inputs and outputs shall have audio processing facilities. The audio processing facility shall allow the user to perform parametric equalisation with high- and low-pass filters for inputs and outputs, and gain and limiter adjustments for inputs only.
9. The power amplifier audio inputs shall be selectable between microphone and line
10. The delay can be configured for each amplifier channel individually.
11. The level of the 20kHz monitoring signal shall automatically be adjusted for proper monitoring of the loudspeaker line.
12. The call station keypad shall be programmable for different functions. Details of the functions for which the keys can be programmed are shown in the call station keypad section.
13. It shall be possible to define the call station as an emergency call station to provide additional functions such as the possibility to add zones or audio outputs during the call.
14. It shall be possible to configure a control input for a sequence of functions.
15. The call station basic/call station keypad/call kit/call station keypad kit shall be programmable for the functions specified in their respective sections in the configuration software.
16. The control input shall be able to be configured for monitoring of cables connected to it for open and short circuit.
17. It shall be possible to configure each zone for 2 time-based volume settings.
18. The BGM sources shall be assigned to music channels, which can be configured for different zones/audio outputs.

B. Diagnostic and Logging Software

The diagnostic & logging software has the main function of monitoring and recording the status of all the units in the PA system. It shall log all events such as calls and status changes of system units, and provide a current view of the system status. This software section can be used for real-time logging by connecting a PC with web browser.

1. Modes of enquiry
   a. General events
   b. Specific
      1) Individual unit status
      2) Call logging
      3) Fault logging
2. This part of the software shall be capable of monitoring the following functions:
   a. The fault status of the equipment
   b. Any status changes in the system
3. View historical log stored in the network controller
4. View logged events of monitored external devices
5. Control audible and visual fault indicators via the PC
6. Individual unit status shall be displayed in the individual unit status screen.
7. The alarm can be acknowledged and reset. The acknowledgment and reset actions are logged
8. View the last 200 faults, which are stored on the network controller

B.1 Continuous Remote Logging of Multiple Systems

- A separate stand-alone PC-program shall allow for continuous logging of events and faults from up to four systems on a single network in a single view via a TCP/IP network connection the relevant systems.

2.11 TERMINAL BLOCKS

A. Cable terminal blocks shall be arranged in accordance with the group of speakers, areas and function. These shall be capable of terminating 1.5mm copper wires and shall be conveniently located in the upper or lower portion of the rack.

2.12 POWER SUPPLY

A. The main power supply provided to the Equipment Rack for use of the Public Address and Background Music System shall be as follows:

Voltage	:	220V ± 6% single phase 2 wire, 60Hz
Power Supply	:	4 N° 13A switched socket outlets
Frequency Characteristics	:	20 – 20,000Hz

B. The Contractor shall make due allowance by providing all necessary power supply units, voltage regulators, spike eliminators, step down transformers, rectifiers, relays, radio suppresser, converters, etc. to ensure that all his equipment will perform completely and satisfactorily.

C. All necessary power supply required for the operation of amplifiers, speaker, sound equipment, devices, controls etc. after the main power supply point, shall be supplied and installed by the Contractor.

2.13 EQUIPMENT RACK

A. All equipment such as power amplifiers, DVD/CD Player, tuner, etc. shall be mounted onto a standard equipment rack.

B. All inputs shall be of an interchangeable modular type such that the individual modules can be mounted in mixer frames, or in mixed power amplifiers.

C. All system and peripheral units shall be properly matched with the equipment rack and provided compact neat installation.

D. Forced ventilation fans shall be incorporated for the equipment rack.

E. All wiring within the rack shall be fixed securely without strain. For the purpose of certification, all wires shall be numbered and/or color-coded. The wiring shall be formed in a neat and systematic manner, with cable supported clear of panels and without crossovers.

F. All incoming and outgoing signal sources from the equipment racks to the microphone station and speaker zone shall be inter-connected via approved type of plugs and sockets.

2.14 CEILING MOUNTED LOUDSPEAKERS

A. All ceiling mounted loudspeakers shall be suitable for both voice and music broadcasting and shall be recess mounted in the false ceiling. Where there is no false ceiling, surface type shall be provided.

B. The loudspeakers shall be 150mm diameter in public areas having viscous-damped cone and ceramic magnet.

C. They shall have at least a frequency range of 100 Hz to 16,000 Hz at rated output.

D. Flux density shall be at least 10,000 gauss.

E. The loudspeakers shall have an output impedance of 8 ohms and power output tappings of 1.5, 3 and 6 watts (max.)

F. The sound pressure level shall be at least 90 dB at 1w, 1m.

G. Each loudspeaker shall be equipped with a line-matching transformer. Transformer shall be provided for each speaker with power tap settings for 100V lines. Insertion loss of the transformers shall not exceed 1 dB.

H. Circular and recessed baffle grilles with torsion spring mounted shall be provided for each loudspeaker in public areas. Construction shall be a minimum of 2mm steel with a white finish trim, matt black baffle grilles and acoustic enclosure. A sample shall be submitted to the Project Manager for the approval of the Consultant.

2.15 WALL MOUNTED BOX SPEAKER

A. The wall mounted box speaker shall come complete with matching transformer, connector and necessary mounting brackets. All metal parts shall be protected against rust and corrosion.

B. The finishing color of the box speaker shall be able to match with the wall and shall be approved by the Engineer.

C. The technical performance of the speaker shall meet the following:

91 dB Sound Pressure Level	:	1 Watt, 1 Meter
Coverage Angle	:	180o
Frequency Response	:	100 Hz - 10,000 Hz
Power Output (max.)	:	10-12W
Output Voltage	:	100V

2.16 VOLUME CONTROL (Wherever applicable)

A. Volume control shall be provided with appropriate wall plates, flush mounting over standard utility box and appropriate size of junction box.

B. Irrespective of the control position, it shall be capable to make the impedance of the circuit constant.

C. Where common line transformer shall be required, the volume control capacity shall be suitable for each speaker or group of speakers for adjustment of the volume from zero to full load as required for the room or area in question.

2.17 WIRING

A. Wiring shall be in accordance with National Codes (e.g. NEC Article 760) and as recommended by the manufacturer of the system. All wires and cables shall comply with the requirements of the Underwriters Laboratories, the ASTM and ICEA or local agencies responsible. The size of conductor shall not be less 1.25 mm^2 as indicated on the plans.

B. Wiring and terminals cabinets shall be permanently tagged and identified with metal phenolic tags attached by nylon ties.

PART 3 EXECUTION

3.1 INSTALLATION

A. General

1. An authorized representative of the manufacturer of the system shall install and be responsible for the satisfactory operation and certification of the complete system
2. Properly co-ordinate services of the various trades, carefully co-ordinate levels, work sequence, accessibility of various services.
3. All works shall be conducted under the supervision of company trained personnel, and shall be responsible for supervising the installation to the endorsement of the Project Manager.
4. All wirings inside panels and trunkings are to be properly grouped, strapped and fixed in location by endorsed type cable strap.
5. All wiring to be labeled with numbering markers on both ends which correspond to the numbering scheme of the shop drawings. All edges of the panel, support, frame etc. to be properly rounded off to prevent damage to the insulation. All wiring shall be terminated.

6. Proper segregation shall be maintained throughout for cable wiring carrying different voltage range. All signal and power cables shall be furnished with cable markers for distinguishing from other cables.

B. Electrical Power

1. Fabricate and install 3-wire isolated ground AC power strips in all floor mounted equipment racks, each with an adequate number of receptacles for all equipment served plus two additional utility receptacles. Provide separate 20A circuits for signal processing equipment and power amplifiers, distributing power amplifier loads such that no circuit draws more than 12A maximum under full power conditions.
2. Provide isolated ground receptacles for all power strips. Isolate AC power grounds from the power strip ducting and equipment racks, gather all grounds to a common $8mm^2$ bus, and terminate the ground bus to the equipment rack unipoint ground busbar with an $8mm^2$ minimum insulated cable.

C. Cabling:

1. Provide identical conductor color coding for all cables furnishing identical functions throughout the systems, isolate all audio and video lines from the conduit systems. Insulate shield drain wires with insulating heat-sink tubing.
2. All cables shall be run in conduits. The space factor for cables installed in conduit shall not exceed 40%.

D. Labeling:

1. Labels in general shall be made from white "Traffolite" laminated white/black/white and suitably engraved with black lettering in English.
2. Labels shall be fixed by screws.
3. Each of the sound rack, wall plate and interfacing termination cabinet shall be labeled on the front cover indicating the field equipment controlled by the unit.
4. Cables shall be labeled at appropriate locations for identification.
5. All equipment items, device plates, equipment rack panels, devices, controls, receptacles, and cables shall be labeled as to the function performed and the area served. Exact dimension of the lettering shall suit particular item of the equipment and shall be submitted to the Project Manager for approval.

E. Equipment Racks

1. Arrange equipment to prevent temperatures form rising above 37.7°C with ambient room temperature of 21°C. Mount perforated ventilation panels above, below and between each power amplifier and at top and bottom of each equipment rack.
2. Locate equipment having operator employed controls and indicators centered at 150mm above the floor. Locate patch panels at least 75cm above the floor.
3. Install equipment to provide free access to all equipment terminations. Installation requiring the de-mounting or de-energizing of equipment for access to terminations is not acceptable.

4. Install hinges on any chassis over which mounts wired components for contractor fabricated equipment items. Dress and secure associated wiring.
5. Ventilation slots covered by vermin proof mesh shall be provided between each equipment for adequate ventilation.
6. Allow sufficient space for cooling of power amplifier heat sink.

3.2 TESTING AND COMMISSIONING

A. Perform loop continuity test and megger test on all single core and multicore cable with electronic components and equipment removed.

B. Test all equipment and system according to manufacturer's recommended procedure.

C. Check proper connection and labeling of all system wiring.

D. For main background music equipment rack, adjust the system to proper condition and output levels. Check operation of all equipment. Check and adjust output levels of all pre-amp and amplifiers so that they are not operated in saturation conditions.

E. Check that all connectors and plugs are compatible and the complete microphone cassette player, amplifier and speaker can operate in harmony without mismatch.

F. Check zoning operation of speaker system under emergency override conditions.

At the final inspection, a factory-trained representative of the manufacturer of the major equipment shall repeat all the above tests. In addition, the representative shall demonstrate that the systems function properly in every respect. The demonstration shall be made in the presence of the Project Manager

END OF SECTION

VIDEO SURVEILLANCE
CLOSED CIRCUIT TELEVISION (IP-CCTV) SYSTEM

PART 1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and Electronics General Provisions of the Contract apply to this Section.

1.2 SUMMARY

Section includes a closed circuit television system consisting of cameras, digital video recorder, gigabit switch, data transmission wiring, and a control station with its associated equipment.

1.3 DEFINITIONS

A. AGC: Automatic Gain Control
B. BNC: Bayonet Neill-Concelman - type of connector
C. B/W: Black and White
D. CCD: Charge-Coupled Device
E. FTP: File Transfer Protocol
F. IP: Internet Protocol
G. LAN: Local Area Network
H. MPEG: Moving Picture Experts Group
I. NTSC: National Television System Committee
J. PC: Personal Computer
K. PTZ: Pan-Tilt-Zoom
L. RAID: Redundant Array of Independent Disks
M. TCP: Transmission Control Protocol – connects hosts on the Internet
N. WAN: Wide Area Network

1.4 PERFORMANCE REQUIREMENTS

A. Seismic Performance: Video Surveillance System shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
   1. The term “withstand” means “the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event.”

1.5 SUBMITTALS

A. Product Data: For each type of product indicated. Include dimensions and the date on features, performance, electrical characteristics, ratings, and finishes.
B. Show Drawings: For video surveillance. Include plans, elevations, sections, details, and attachments to other work.
   1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
   2. Functional Block Diagram: Show single-line interconnections between components for signal transmission and control. Show cable types and sizes.
   3. Dimensioned plan and elevations of equipment racks, control panels, and consoles. Show access and workspace requirements.
   4. UPS: Sizing calculations.
   5. Wiring Diagrams: For power, signal, and control wiring.
C. Equipment List: Include every piece of equipment by model number, manufacturer, serial number, location, and date of original installation. Add pretesting record of each piece of equipment, listing name of person testing, date of test, set points of adjustments, name and description of the view of preset positions, description of alarms, and description of unit output responses to an alarm.
D. Seismic Qualification Certificates: For video surveillance, cameras, camera-supporting equipment, accessories, and components, from manufacturer.
   1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
   2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
   3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
E. Field quality-control reports.
F. Operation and Maintenance Data: For cameras, power supplies, infrared illuminators, monitors, video tape recorders, digital video recorders, gigabit

switches, video switches, and control-station components to include in emergency, operation, and maintenance manuals.

1. List of spare parts and replacement components recommended to be stored at the site for ready access.

G. Warranty: Sample of special warranty.

1.6 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Products referenced under this section establish the minimum acceptable standards of products quality, features and performance.

1. Codes
    a. Philippine Electrical Code (Latest Edition)
    b. Philippine Electronics Code (PECE) Vol. 1 and 2
    c. Philippine Fire Code-IRR no.9514 (PFC Revised Edition)
    d. National Fire Protection Code (NFPC)
    e. Applicable Local Ordinances
    f. National Building Code of the Philippines (Latest Edition)

2. Standards
    a. Underwriter's Laboratory (UL)
    b. American Society of Testing and Materials (ASTM)
    c. National Electrical Manufacturers Association
    d. National Fire Protection Association (NFPC)
    e. Institute of Electrical and Electronics Engineers (IEEE)
    f. American National Standards Institute (ANSI)
    g. International Electro-Technical Commission (IEC)
    h. Factory Mutual – Building Insurers (FM Global)
    i. International Standard Organization (ISO: 9000)
    j. Other Internationally Accepted Standards

C. Engineer In-Charge shall be a duly registered Electronics Engineer under the supervision of a Professional Electronics Engineer as required by RA 9292 and the Revised National Building Code.

1.7 PROJECT CONDITIONS

A. Environmental Conditions: Capable of withstanding the following environmental conditions without mechanical or electrical damage or degradation of operating capability:

1. Control Station: Rated for continuous operation in ambient temperatures of 60 to 85 deg F (16 to 29 deg C) and a relative humidity of 20 to 80 percent, non-condensing.
2. Interior, Controlled Environment: System components, except central-station control unit, installed in air-conditioned temperature-controlled interior environments shall be rated for continuous operation in ambient temperatures of 36 to 122 deg F (2 to 50 deg C) dry bulb and 20 to 90 percent relative humidity, non-condensing. Use NEMA 250, Type 1 enclosures.
3. Interior, Uncontrolled Environment: System components installed in non-air-conditioned temperature-controlled interior environments shall be rated for continuous operation in ambient temperatures of 0 to 122 deg F (minus 18 to plus 50 deg C) dry bulb and 20 to 90 percent relative humidity, non-condensing. Use NEMA 250, Type 3R enclosures.

4. Exterior Environment: System components installed in locations exposed to weather shall be rated for continuous operation in ambient temperatures of minus 30 to plus 122 deg F (minus 34 to plus 50 deg C) dry bulb and 20 to 90 percent relative humidity, condensing. Rate for continuous operation when exposed to rain as specified in NEMA 250, winds up to 85 mph (137 km/h). Use NEMA 250, Type 3R enclosures.
5. Hazardous Environment: System components located in areas where fire or explosion hazards may exist because of flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers shall be rated, listed, and installed according to NFPA 70.
6. Corrosive Environment: System components subject to corrosive fumes, vapors, and wind-driven salt spray in coastal zones. Use NEMA 250, Type 6P enclosures.
7. Security Environment: Camera housing for use in high-risk areas where surveillance equipment may be subject to physical violence.

1.8 WARRANTY

B. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of cameras, equipment related to camera operation, and control-station equipment that fail in materials or workmanship within specified warranty period.
   1. Warranty Period: 3 years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 SYSTEM REQUIREMENTS

A. Video-signal format shall comply with High Definition standards.

B. Surge Protection: Protect components from voltage surges originating external to equipment housing and entering through power, communication, signal, control, or sensing leads. Include surge protection for external wiring of each conductor's entry connection to components.
   1. Minimum Protection for Power Connections 120 V and More: Auxiliary panel suppressors.
   2. Minimum Protection for Communication, Signal, Control, and Low-Voltage Power Connections: as recommended by manufacturer for type of line being protected.

C. Tamper Protection: Tamper switches on enclosures, control units, pull boxes, junction boxes, cabinets, and other system components shall initiate a tamper-alarm signal when unit is opened or partially disassembled. Control-station, control-unit alarm display shall identify tamper alarms and indicate locations.

2.2 STANDARD CAMERAS

A. Color Camera: (IP)
   1. Open IP standards.
   2. Power Over Ethernet: IEEE 802.3af compliant
   3. Video Resolution: HDTV 1080p, 25/30 FPS.
   4. Video Compression: H.264, MPEG-4 and/or Motion JPEG.
   5. Signal-to-Noise Ratio: Not less than 50 dB, with camera AGC off.
   6. With AGC, manually selectable on or off.

7. Sensitivity: Camera shall provide usable images in low-light conditions, delivering an image at a scene illumination of 0.59 lux (color) and/or 0.08 lux (B/W).
8. Sensitivity: Cameral shall deliver 1-V peak-to-peak video signal at the minimum specified light level. Illumination for the test shall be with lamps rated at approximately 2500-K color temperature, and with camera AGC off.
9. Manually selectable modes for backlight compensation or normal lighting.
10. Scanning Synchronization: Determined by external synch over UTP 4-pair cable.
11. White Balance: Auto-tracing white balance, with manually settable fixed balance option.
12. Tampering alarm enabled.

B. Automatic Color Dome Camera (IP): Assembled and tested as a manufactured unit, containing dome assembly, color camera, motorized pan and tilt, zoom lens, and receiver/driver.

1. Open IP standards.
2. Video Resolution: HDTV 480, 720,1080p, 25/30 FPS.
3. Video Compression: H.264, MPEG-4 and/or Motion JPEG.
4. Storage: Capable of SD card recording.
5. Signal-to-Noise Ratio: Not less than 50 dB, with camera AGC off.
6. With AGC, manually selectable on or off.
7. Sensitivity: Camera shall provide usable images in low-light conditions, delivering an image at a scene illumination of 1 lux (color) and/or 0.3 lux (B/W).
8. Sensitivity: Camera shall deliver 1-V peak-to-peak video signal at the minimum specified light level. Illumination for the test shall be with lamps rated at approximately 2500-K color temperature, and with camera AGC off.
9. Manually selectable modes for backlight compensation or normal lighting.
10. Pan and Tilt: Direct-drive motor, 360-degree rotation angle, and 180-degree tilt angle. Pan-and-tilt speed shall be controlled by operator. Movement from present positions shall be not less than 300 degrees per second.
11. Preset Positioning: Eight user-definable scenes, each allowing 16-character titles. Controls shall include the following:
    a. In “sequence mode,” camera shall continuously sequence through preset positions, with dwell time and sequencing under operator control.
    b. Motion detection shall be available at each camera position.
    c. Up to four preset positions may be selected to be activated by an alarm. Each of the alarm positions may be programmed to output a response signal.
12. Scanning Synchronization: Determined by external synch over UTP 4-pair cable. Camera shall revert to internally generated synchronization on loss of external synch signal.
13. White Balance: Auto-tracing white balance, with manually settable fixed balance option.
14. Motion Detector: Built-in digital.
15. Tampering alarm enabled.

2.2 REINFORCED DOME/BULLETT CAMERAS

A. Manufacturers: Subject to compliance with requirements:

B. Camera (IP): Designed for high-abuse locations, with a weathertight surface mounting, impact-resistance polycarbonate dome, and heavy-gage, 6061 T6 aluminum body.

1. Suitable for exterior environment, rated for continuous operation in ambient temperatures of -40ºF to +122ºF (-40ºC to +50ºC) dry bulb and up to 85 percent relative humidity.
2. Open IP standards.
3. Power Over Ethernet: IEEE 802.3af compliant
4. Video Resolution: HDTV 1080p, 25/30 FPS.
5. Video Compression: H.264, MPEG-4 and/or Motion JPEG.
6. Storage: Capable of SD card recording.
7. Signal-to-Noise Ratio: Not less than 50 dB, with camera AGC off.
8. With AGC, manually selectable on or off.
9. Sensitivity: Camera shall provide usable images in low-light conditions, delivering an image at a scene illumination of 6 lux at f/2.0.
10. Scanning Synchronization: Determined by external synch over the coaxial cable. Camera shall revert to internally generated synchronization on loss of external synch signal.
11. White Balance: Auto-tracing white balance.
12. Tampering alarm enabled.

2.4 LENSES

A. Manufacturers: Subject to compliance with requirements:

B. Description: Optical-quality coated lens, designed specifically for video-surveillance applications and matched to specified camera. Provide color-corrected lenses with color cameras.
   1. Auto-Iris Lens: Electrically controlled iris with circuit set to maintain a constant video level in varying lighting conditions.
   2. Fixed Lens: With calibrated focus ring.
   3. Zoom Lens: Motorized, remote-controlled unit, rated as "quiet operating." Features include the following:
      a. Electrical Leads: Filtered to minimize video signal interference.
      b. Motor Speed: Variable.
      c. Lens shall be available with preset positioning capability to recall the position of specific scenes.

2.5 CAMERA-SUPPORTING EQUIPMENT

A. Manufacturers: Subject to compliance with requirements:

B. Minimum Load Rating: Rated for load in excess of the total weight supported times a minimum safety factor of two:

C. Mounting Brackets for Fixed Cameras: Type matched to items supported and mounting conditions. Include manual pan-and-tilt adjustment.

D. Protective Housings for Fixed and Movable Cameras: Steel or 6061 T6 aluminum enclosures with internal camera mounting and connecting provisions that are matched to camera/lens combination and mounting and installing arrangement of camera to be housed.
   1. Camera Viewing Window: Polycarbonate or Lexan window, aligned with camera lens.
   2. Duplex Receptacle: Internally mounted.
   3. Alignment Provisions: Camera mounting shall provide for field aiming of camera and permit removal and reinstallation of camera lens without disturbing camera alignment.
   4. Built-in, thermostat-activated heater and blower units. Units shall be automatically controlled so the environmental limits of the camera equipment are not exceeded.
   5. Sun shield shall not interfere with normal airflow around the housing.

6. Mounting bracket and hardware for wall or ceiling mounting of the housing. Bracket shall be of same material as the housing; mounting hardware shall be stainless steel.
7. Finish: Housing and mounting bracket shall be factory finished using manufacturer's standard finishing process suitable for the environment.
8. Enclosure Rating: NEMA 3R

2.6 MONITORS

A. Manufacturers: Subject to compliance with requirements:

B. Color:
1. Metal cabinet units designed for continuous operation.
2. Screen Size (Diagonal Dimension): 21” minimum
3. Resolution: up to 1080p HD.
4. Minimum Front Panel Devices and Controls: Power switch; power-on indicator; and brightness, contrast, color, and tint controls.
5. Degaussing: Automatic.
6. Mounting: Single, 14-inch (356-mm), vertical, EIA 19-inch (483-mm) electronic equipment rack or cabinet complying with CEA 310-E.
7. Electrical: 220-V ac, 60 Hz.

2.7 VIDEO MANAGEMENT SERVERS

A. Manufacturers: Subject to compliance with requirements:

B. Description: Digital, time-lapse type, full-frame and motion recorder, with removable hard drive.
1. Recording: minimum of 90 days retention at 25fps
2. Resolution: 480, 720, 1080p
3. Camera Capacity: can support minimum of 100 cameras.
4. VMS Capable, can support unlimited license.
5. Storage: must be able to extend storage up to 190TB for future expansion.
6. Compression: H.264 or MPEG-4.
7. Time and Date Generator: Records time (hr:min:sec) and date legend of each frame.
8. Audio Recording: 70 to 7000 Hz. Phone and microphone input; phone output.
9. Mounting: Standard 19-inch (483-mm) rack complying with CEA 310-E.
10. Must have the capability to access NVR video feed using web base, IOS devices and android devices.
11. For Windows Network Video Management server, the system must run on Windows 2012 server.

2.8 NETWORK SWITCHES

A. Manufacturers: Subject to compliance with requirements:

B. Device Performance: Provides Gigabit Uplink Connectivity and IEEE 802.3af compliant for PoE camera availability.
1. Ports:
   a. Auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type; Auto-MDIX; Duplex, half or full only.
   b. RJ45 serial console.
   c. Auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only.
   d. Open mini-GBIC (SFP) slots

2. Processor: 300 MHz, 16MB flash, 128MB SDRAM; packet buffer size: 1 MB.
3. Performance: Up to 13.0 million pps throughput, 17.6 Gbps routing/switching capacity, table size for 8000 entries.
4. Mounting: Standard 19-inch (483-mm) rack complying with CEA 310-E.

C. Architectural:
1. Each Camera and each Relay Server shall have an IP address on a Network (i.e. LAN, WAN, VPN).
2. All control commands shall be transmitted over the network using TCP/IP protocol.
3. Video shall be transmitted over the network from each Camera to a Relay Server, where it shall be relayed to Viewers.
4. Control commands shall be communicated over the network to the Relay Server using a single set of commands made available in a fully documented HTTP API.
5. Relay Server shall translate HTTP API commands to the required protocol for designated devices and send these commands to these devices.
6. Video temporarily and/or permanently saved shall be stored on one or more disk drives in the Relay Server, on cameras in the system, or on other computers or storage devices with mapped drives on the network.
7. The video system shall be scalable from one to hundreds of cameras by adding Relay Servers.
8. System administration functions must be achieved from a web browser from either local or remote locations.
9. Viewing of video shall be through a PC or other client device accessing a Relay Server.

2.9 VIDEO ANALYTICS AND MOTION SENSORS

A. Manufacturers: Subject to compliance with requirements:

B. Device Performance: Detect changes in video signal within a user-defined protected zone. Video inputs shall be composite video as defined in SMPTE 170M. Provide an alarm output for each video input.
1. Detect movement within protected zone of intruders wearing clothing with a reflectivity that differs from that of background scene by a factor of two. Reject all other changes in video signal.
2. Modular design that allows for expansion or modification of number of inputs.
3. Controls:
   a. Size of detection zones.
   b. Sensitivity of detection of each protected zone.
4. Mounting: Standard 19-inch (483-mm) rack complying with CEA 310-E.

2.10 CONTROL STATIONS

A. Manufacturers: Subject to compliance with requirements:

B. Description: Heavy-duty, freestanding, modular, metal furniture units arranged to house electronic equipment. Coordinate component arrangement and wiring with components and wiring of other systems.

C. Equipment Mounting: Standard 19-inch (483-mm) rack complying with CEA 310-E.

D. Normal System Power Supply: 220 V, 60 Hz, through a locked disconnect device and an isolation transformer in central-station control unit. Central-station control unit shall supply power to all components connected to it unless otherwise indicated.

E. Power Continuity for Control Station: Batteries in power supplies of central-station control units and individual system components shall maintain continuous system operation during outages of both normal and backup ac system supply.

1. Batteries: Rechargeable, valve-regulated, recombinant, sealed, lead-acid type with nominal 10-year life expectancy. Capacity adequate to operate portions of system served including audible trouble signal devices for up to four hours and audible and visual alarm devices under alarm conditions for an additional 10 minutes.
2. Battery Charger: Solid-state, fully automatic, variable-charging-rate type. Charger shall recharge fully discharged battery within 24 hours.

G. Annunciation: Indicate change in system condition and switching of system or component to backup power.

2.11 PERFORMANCE REQUIREMENTS (CONTRACTOR TO QUALIFY)

1. Face Recognition Software and Database Management complete with Servers.
2. Vehicle Plate Recognition Software and Database Management complete with Servers.
3. Video Forensic software feature.

2.12 SIGNAL TRANSMISSION COMPONENTS

A. The type of horizontal cables to be used for work location shall be minimum of Cat6, 4-pair Unshielded balanced Twisted Pair (UTP), CM Rated using RJ-45 for connectors.

2.13 SERVER AND WORKSTATION SPECIFICATIONS

The network reporting terminal shall be a high performance desktop computer with printer.

The system shall be capable of supporting simultaneous operator workstation connections using A TCP/IP local area network (LAN) subject to hardware capacity on the server computer.

The high performance desktop computer shall consist of the following as a minimum requirements:

A. - Intel Quad Core 3.0 GHz Processor or higher
- 4 GB DDR2 RAM
- 1GB VRAM (Video Adaptor Card)
- 1TB HDD (Not the Storage sytem)
- At least 1 Ethernet Port 10/100 RJ 45
- Serial: Moxa 8 Port x RS232 DB9 (PCI)1 x RS232 DB9 on board
- Keyboard; mouse and CD Rom Drive
- Latest Windows Operating System and System Software.
- Supports SQL Engine
- 21’ Color LCD Monitor

B. Provide Laserjet Color Printer

2.14 NETWORK ACCESS STORAGE (NAS) SYSTEMS

A. Interface: ETHERNET

B. Number of Drive Bays: 8 hot-swappable 3.5-inch SATA II/SATA III

C. Memory: 4GB ECC DDR III
D. Processor: Dual-core 2.3GHz Intel® 64-bit processor
E. Networking: Two (2) 10/100/1000 Base-TX (Gigabit Ethernet)
F. External Ports:
- One (1) USB 2.0 (front)
- Two (2) USB 2.0 (rear)
- One (1) VGA (rear)
- One (1) PS/2 keyboard (rear)
- One (1) PS/2 mouse (rear)
- Male DE-9 serial (rear)

G. Hard Drive Capacity: 3.5-inch HDD 2TB, 3TB, 4TB for preconfigured models
H. Power: 100V to 240V AC, 50/60Hz, dual 250W redundant power supplies
I. Power Supply and Power Management:
- Redundant hot-swap PSU
- Sleep mode for power saving
- Scheduled power on/off
- Wake-on-LAN

J. Cooling Management: Three (3) hot-swappable fans
K. Transfer Rate: 200MB/s reads and writes or better
L. Network Protocols and Services: CIFS/SMB, NFS v3, AFP, HTTP(s), FTP, sFTP, iSCSI, Print server, failover and load balancing (LACP 802.3ad), Wuala file system integration (W:/ network drive), Active Directory™
M. Certifications: VM Ware Ready
N. Raid:
- RAID 0, 1, 5, 6, 10
- Hot spare
- SimplyRAID™ technology with mixed capacity support, volume expansion and migration

O. Management:
- Web-based interface through http/https
- Hardware monitoring (S.M.A.R.T., casing cooling and temperature, CPU and RAM load)
- Log management and email notification
- NAS OS Installer for diskless setup, data recovery and restore to factory settings
- Product discovery with Seagate Network Assistant

P. Media Streaming:
- UPnP DLNA A/V media adapter-compatible
- Photo browser and audio streaming through Web interface
- iTunes™ (DAAP) server

Q. Back-Up Solution
- PC to NAS: using client software (Time Machine™, Windows® Backup, etc.)
- NAS to DAS: scheduled, automatic, and restore
- NAS to NAS: scheduled, encrypted, compressed, and automatic to local or remote NAS

R. Remote Access:
- Web-based
- Android and iOS app
- Wuala Secure Cloud Service: Manage cloud, remote, and local storage from a single interface; secure remote access from PC, Mac, iOS, Android

S. Client OS Supported:
- Windows 8 (32-bit/64-bit)
- Windows 7 (32-bit/64-bit)

- Windows Vista (32-bit/64-bit)
- Windows XP
- Windows Server 2012
- Windows Server 2008 R2
- Windows Server 2008
- Mac OS 10.6 and later

T. Browser Supported: Latest version of Chrome, Firefox and Safari; Internet Explorer 8, 9, and 10

U. Language: English

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine pathway elements intended for cables. Check raceways and other elements for compliance with space allocations, installation tolerance, hazards to camera installation, and other conditions affecting installation.

B. Examine roughing-in for LAN, WAN, and IP network before device installation considering 40% fill.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 WIRING

A. Comply with requirements Electronics General Specifications.

B. Wiring Method: Install cables in raceways unless otherwise indicated.
   1. Except raceways are not required in accessible indoor ceiling spaces and attics.
   2. Except raceways are not required in hollow gypsum board partitions.
   3. Conceal raceways and wiring except in unfinished spaces.

C. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools.

D. Splices, Taps, and Terminations: For power and control wiring, use numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

E. For LAN connection and fiber-optic and copper communication wiring, comply with IT Passive Specification.

F. Grounding: Provide independent-signal circuit grounding recommended in writing by manufacturer.

3.3 VIDEO SURVEILLANCE SYSTEM INSTALLATION

A. Install cameras and infrared illuminators level and plumb.

B. Install cameras with 84-inch- (2134-mm-) minimum clear space below cameras and their mountings. Change type of mounting to achieve required clearance.

C. Set pan unit and pan-and-tilt unit stops to suit final camera position and to obtain the field of view required for camera. Connect all controls and alarms, and adjust.

D. Install power supplies and other auxiliary components at control stations unless otherwise indicated.

E. Install tamper switches on components indicated to receive tamper switches, arranged to detect unauthorized entry into system-component enclosures and mounted in self-protected, inconspicuous positions.

F. Avoid ground loops by making ground connections only at the control station.
   1. For 12-and 24-V dc cameras, connect the coaxial cable shields only at the monitor end.

G. Identify system components, wiring, cabling, and terminals according to Electronics General Provisions.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test and adjust components, assemblies and equipment installations, including connections.

B. Perform tests and inspections.
   1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies and equipment installations, including connections and to assist in testing.

C. Tests and inspections:
   1. Inspection: Verify that units and controls are properly installed, connected and labeled and that interconnecting wires and terminals are identified.
   2. Pretesting: Align and adjust system and pretest components, wiring and functions to verify that they comply with specified requirements. Conduct tests at varying lighting levels, including day and night scenes as applicable. Prepare video surveillance equipment for acceptance and operational testing as follows:
      a. Prepare equipment list described in "Submittals" Article.
      b. Verify operation of auto-iris lenses.
      c. Set back-focus of fixed focal length lenses. At focus set to infinity, simulate nighttime lighting conditions by using a dark glass filter of a density that produces a clear image. Adjust until image is in focus with and without the filter.
      d. Set back-focus of zoom lenses. At focus set to infinity, simulate nighttime lighting conditions by using a dark glass filter of a density that produces a clear image. Additionally, set zoom to full wide angle and aim camera at an object 50 to 75 feet (17 to 23 m) away. Adjust until image is in focus from full wide angle to full telephoto, with the filter in place.
      e. Set and name all present positions; consult Owner's personnel.
      f. Set sensitivity of motion detection.
      g. Connect and verify responses to alarms.
      h. Verify operation of control-station equipment.
   3. Test Schedule: Schedule tests after pretesting has been successfully completed and system has been in normal functional operation for at least 14 days. Provide a minimum of 10 days notice of test schedule.
   4. Operational Tests: Perform operational system test to verify that system complies with Specifications. Include all modes of system operation. Test equipment for proper operation I all functional modes.

D. Video surveillance system will be considered defective if it does not pass tests and inspections.

E. Prepare test and inspection reports.

3.5 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose. Tasks shall include, but are not limited to the following:

1. Check cable connections.
2. Check proper operation of cameras and lenses. Verify operation of auto-iris lenses and adjust back-focus as needed.
3. Adjust all present positions; consult Owner's personnel.
4. Recommend changes to cameras, lenses and associated equipment to improve Owner's use of video surveillance system.
5. Provide a written report of adjustments and recommendations

3.6 CLEANING

A. Clean installed items using methods and materials recommended in writing by manufacturer.

B. Clean video-surveillance-system components, including camera-housing windows, lenses and monitor screens.

3.7 DEMONSTRATION

A. Owner's maintenance personnel to Adjust, operate and maintain video-surveillance equipment.

END OF SECTION

OUTLINE SPECIFICATIONS

Project Title: Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music System (PABGM) at the International Convention Center

Location: UPOU Headquarters, Maahas, Los Baños, Laguna

DIVISION 1 – GENERAL REQUIREMENTS

General. It is declared and acknowledged intention and meaning to provide and secure the Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music (PABGM) at the **UPOU International Convention Center located at UP Open University (UPOU) Headquarters, Los Baños, Laguna**, complete and ready for use.
1.1 Complete Temporary Facilities and Warehouse
1.2 Complete Supply of Health, Safety and Security
1.3 Supply and Installation of Project Signs, complete
1.4 Drawings and As-built plans (signed and sealed)
1.5 Tools and equipment, including scaffoldings

DIVISION 27 – COMMUNICATIONS

27.1 STRUCTURED CABLING/LOCAL AREA NETWORK

27.1.1 Structured Cabling Conduits and Pipes

Wiring connections shall be provided with roughing-ins. PVC Conduits shall be Schedule 40, complete with fittings and accessories for site conduits. Use Intermediate Metal Conduit (IMC) for building conduits for site conduits. Complete with all necessary accessories and local materials needed for the system connections.

27.1.2 Structured Cabling Requirements

Shall be L5ZH rating conduit/trunking for fire rating with environmental classification of Class 1 for all cables and connecting hardware

A. Optical Fiber

Shall be multi-mode optical fiber category OM3 in accordance with EIA 568B for vertical (backbone) cabling and shall be installed in a hierarchical star topology with 24 core fiber use for all backbones both horizontal and vertical.

B. Fiber Optical Connector

Shall be in accordance with CENELEC standards, LC type fiber optical connectors for LAN installation in pull proof design, complying to dimensional requirements of the Fiber Optic Connector intermateability standards.

C. Connectors for A4 Twisted Pair Outlets

Shall be Category 6, RJ45 connector, 4 pair twisted copper connectors

D. Fiber Splices

Shall be fusion splices for permanent splices with insertion loss complying to: Fusion Splice: insertion loss < 0.1 DB and mechanical insertion loss <0.3 dB.

E. Copper Splices

Shall be UL listed, complying in accordance to ANSI/TIA/EIA requirements for balanced cabling connecting hardware with IDC-connectors accommodating 22 AWG through 24 AWG conductors.

27.1.3 Cabinet Racks

A. Free Standing Cabinets/Racks

Shall be 19" adjustable four post type rack, complete with side panels and removable back plates

B. Wall Mounted Cabinets/Racks

Shall be 19" adjustable four-post type rack with lockable front door and cross-sectional perforation for ventilation.

C. Grounding and Earthing of Cabinets

Shall be 2 AWG copper conductor attached to the telecommunication grounding busbar (TGB)

27.1.4 Patch Panels

A. Fiber Optic Patch Panels

Shall be pre-mounted connectors provided with fusion spliced single mode pigtails of 24 duplex LC adaptors (1U) and 48 duplex LC adapter (2U) with standard length of 3 meters. Complying with ANSI/TIA/EIA 604 intermateability standards complete with accessories including splice cassette expanders, fusion protection sleeves and protection sleeves holders.

B. Patch Panels for Category 6 RJ 45 Connector

Shall be 1.48 no. RJ45 connectors (2V) pre-mounted /rJ45 connectors C8P8C modular connectors in plastic material component, high impact, flame retardant and UL listed thermoplastic material. Horizontal copper cabling shall be RJ45 (Cat. 6).

27.1.5 Power Strips/Panels inside the Cabinet

Shall be equipped with a minimum of 2 power strips with minimum of six per power strip in a power outlet, connected to electrical power supply for IT.

27.1.6 LAN Accessories

Structured cabling system shall be complete with all necessary accessories and other products needed for the system.

Note: For complete specification refer to Section 271100 "Structured Cabling System and Local Area Network System" of the Technical Specification. Submit product catalog, shop drawings and materials sample for Architect's approval.

27.8 PUBLIC ADDRESS AND BACKGROUND MUSIC

27.8.1 PA/BGM System Conduits and Pipes

Wiring connections shall be provided with roughing- ins. PVC Conduits shall be Schedule 40, complete with fittings and accessories for site conduits. Use Intermediate Metal Conduit (IMC) for building conduits. Complete with all necessary accessories and local materials needed for the system connections.

27.8.2 Wiring Device

Shall be in accordance with National Codes (e.g. NEC Article 760) and as recommended by the manufacturer of the system. All wires and cables shall comply with the requirements of the Underwriters Laboratories, the ASTM and ICEA or local agencies responsible. The size of conductor shall not be less than 1.25 mm2 as indicated on the plans.

27.8.3 Background Music and Public Address System Components:

Shall be certified compliant to IEC 60849 and compliant to other relevant local standards. Its system configuration shall be a network controller which control and monitor all activities in the system that includes the following components:

- Radio Tuner
- DVD/CD/MP3 Player and Bluetooth
- Audio Matrix
- Power Amplifiers
- Paging Controller with Speaker Selector (10-Zones)
- Call Station Basic
- Call Station Keypad
- Call Station Kit
- Call Station Key Pad Kit
- Line Supervision Set
- Configuration/Diagnostic and Logging Software
- Terminal Blocks
- Power supply
- Equipment Rack
- Ceiling mounted Loud Speakers
- Wall Mounted Box Speakers
- Volume control
- UPS

Note: For complete specification refer to Section 275116 Background Music and Public Address System of the Technical Specification. Submit product catalog, shop drawings and materials sample for Architect's approval.

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

28.1 VIDEO SURVEILLANCE

Note: Refer to Technical Specification for Standard Requirements on CCTV Cameras.

28.1.1 CCTV Conduits and Pipes

Wiring connections shall be provided with roughing-ins. PVC Conduits shall be Schedule 40, complete with fittings and accessories for site conduits. Use Intermediate Metal Conduit (IMC) for building conduits. Complete with all necessary accessories and local materials needed for the system connections.

28.1.2 Video Surveillance System Requirements

Shall comprise of the following system requirements:

- Video resolution format shall be compatible with High Definition (HD) and Full HD Standards.
- Surge Protection – with a minimum protection for power connectors of 120V and more.
- Tamper Protection: Tamper switches on enclosures, control units, pull boxes, junction boxes, cabinets, and other system components shall initiate a tamper-alarm signal when a unit is opened or partially disassembled. Control-station, control-unit alarm display shall identify tamper alarms and indicate locations.

28.1.3 Video Surveillance Equipment

Shall comprise of the following equipment and other system requirements that are UL listed and or CE approved:

- Colored Camera (IP Type)
- Automatic Color Dome Camera (IP Type)
- Reinforced Dome Cameras (IP Type)
- Lenses – optical quality coated lenses designed specifically for Video Surveillance application.
- Camera Supporting Equipment
    - Monitoring bracket for fixed cameras
    - Protective housing for fixed and movable cameras
- Monitors – 28" minimum
- Network Video Recorder
- Network Switches – Gigabit Uplink Connectivity and IEEE 802.3af compliant for PoE Camera
- Control Stations
- Signal Transmission Components

Refer to Section 282300 "Close Circuit Television (IP – CCTV System)" of the Technical Specification for required capacities and equipment. Submit product catalog, shop drawings and materials sample for Submit brochures and sample for Owner's approval upon the recommendation of the Architect.

DIVISION 01

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.2 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this section.

1.3 SUMMARY

1.2.1 Section includes requirements for temporary utilities, support facilities and security and protection facilities.

1.2.2 Temporary Facilities shall include but not limited to the following:

a. Temporary water service and distribution.
b. Temporary electric power and lighting services.
c. Temporary heating, cooling and ventilation.
d. Temporary telephone and service data.
e. Temporary facilities including drinking water.
f. Storm and sanitary sewer.
g. Storm water pollution control.

1.2.3 Support facilities include but shall not be limited to the following:

a. Field Office – General Contractor
b. Storage and Fabrication sheds.
c. Dewatering facilities and drains.
d. Temporary enclosure.
e. Temporary stairs, lifts and hoists.
f. Temporary project identification signs.
g. Temporary exterior lighting.
h. Collection and disposal of waste and clearing.
i. Temporary environmental controls.
j. Temporary barracks for on-site laborers/man power.

1.2.4 Security and protection facilities include, but not limited to the following:

a. Temporary fire protection.
b. Security for site and agency.
c. Barricades, warning signs and lights.
d. Enclosure fence.
e. Environmental protection and traffic ways.

1.3 USE CHARGES

Installation and removal and use charges for temporary facilities shall be included in the General Conditions cost unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner’s construction forces, Architect, occupants of the project, testing agencies, and authorities having jurisdictions. Hoisting equipment and permanent elevators are exempted from this provision.

1.4 INFORMATIONAL SUBMITTALS

1.4.1 Site Plan: The contractor shall submit shop drawings showing temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

1.4.2 Implementation and Termination Schedule: Within twenty-one (21) days of the date established for commencement of the Work, the contractor shall submit a schedule indicating implementation and termination of each temporary utility.

1.4.3 Fire Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate contractor personnel responsible for management of fire-prevention program.

1.4.4 Moisture Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.

a. Describe delivery, handling and storage provisions for materials subject to water absorption or water damage.

b. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed work, and replacing water-damage work.

c. Indicating sequencing of work that requires water, such as sprayed fire-resistive materials, plastering and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.

1.4.5 Dust and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust and HVAC control measures proposed for use, proposed locations and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate.

1.5 QUALITY ASSURANCE

1.5.1 Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:

a. Building and fire code requirements.

b. Health and safety regulations.

c. Utility company regulations.

d. Police, fire department, and rescue squad rules.

e. Environmental protection regulations.

1.5.2 Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alteration, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA 200 "Recommended Practice for Installing and Maintaining Temporary Electric Power at Construction Sites."

1.5.3 Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."

1.5.4 Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

1.6.1 Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, the Owner’s Representative will direct the change over from use of temporary service to use of permanent service.

1.6.2 Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 General: Provide new materials. If acceptable to the Architect, the General Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.

2.1.2 Lumber and Plywood: Comply with requirements in Division 06 Section 06 10 00 "Rough Carpentry."

2.1.3 For signs and directory boards, provide 3/4-inch exterior grade, Grade A-B Fir plywood. Mount sign on preservative treated Fir posts.

a. Project sign shall be 4' x 8' painted and supported on 4-inch x 4-inch posts, of a design to be provided by the Owner via the Project Architect.

b. Vision Barriers: Provide minimum 1/2-inch thick exterior plywood.

c. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch thick exterior plywood.

2.1.4 Paint: Comply with requirements of Division 09 Section 099100 "Painting."

a. For sign and directory boards applying graphics, provide exterior-grade alkyd gloss enamel over exterior primer unless otherwise indicated.

2.1.5 Tarpaulins: Provide waterproof, fire-resistant, tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.

2.1.6 Water: Provide potable water approved by local health authorities.

2.1.7 Enclosure Fencing: Provide G.A. 26 pre-painted roofing sheets for walls with 100mm diameters G.I. pipe for columns/post coated with water-based epoxy paint.

2.2 EQUIPMENTS

2.2.1 General: Provide new equipment. If acceptable to the Architect, the Construction Manager may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.

a. The General Contractor shall furnish tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and similar work or material necessary to insure convenience and safety in the execution of the Contract except where this is otherwise specified in any Specification Section. All such items shall meet the approval of the Owner but responsibility for design, strength and safety shall remain with the General Contractor. All such items shall comply with local regulations and applicable codes, statutes, rules and regulations, including compliance with the requirements of the Accident Prevention in the Construction under the Labor Code of the Philippines.

b. Staging, exterior and interior, required for the execution of this Contract, shall be furnished, erected, relocated if necessary and removed by the General Contractor. Staging shall be maintained in a safe condition without charge to and for the use of all trades as needed.

2.2.2 Water Hoses: Provide 3/4-inch, heavy-duty, abrasion-resistant, flexible rubber hoses with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge and backflow preventers.

2.2.3 Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.

2.2.4 Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.

2.2.5 Lamps and Light Fixtures: Provide general service CFL/Fluorescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures when exposed to moisture.

2.2.6 Temporary Field Offices: Provide prefabricated or mobile units with lockable entrances, operable windows, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading.

2.2.7 Temporary Toilet Units: The Owner will allow the toilets located in [submit shop drawings for approval of location] for General Contractor's use. If others are needed, provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

2.2.9 Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.

a. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

2.3 TEMPORARY FACILITIES MATERIALS SPECIFICATION

2.3.1 Temporary Field Office

2.3.1.1 ***Container Van*** **-** Shall be 20 ft. x 8ft x 8.6ft container van, elevated from existing natural grade line @ 300mm height (minimum).

2.3.1.2 **Windows** – Shall be 6mm thick clear annealed sliding glass windows on a tubular type aluminum framing complete with hardware and accessories.

2.3.1.3 ***Doors*** – Shall be 800mm x 2100mm steel doors complete with door knob, hardware and accessories.

2.3.1.4 ***Flooring*** – Shall be 1.5mm thick x 300mm x 300mm asbestos-free vinyl composition tile made of organic vinyl resins, plasticizers and additives as binders and natural limestone as fillers.

2.3.1.5 ***Ceiling*** – Shall be 12mm-13mm thick recessed edge, sag resistant plasterboard, coated with plain, matte finish 100% water-based acrylic latex paint with excellent hiding, durability and dirt pick-up resistance on a light steel framing system. Provide 50mm thick fiberglass insulation.

2.3.1.6 ***Wall –*** Shall be G.I. steel plate wall (container van wall) coated with water-based acrylic epoxy paint finish.

2.3.1.7 ***Air Conditioning System*** - Shall be 1Hp, 11,000 BTU/H, wall mounted of quiet operation type, complete with thermostatic controls, vibration isolators and other standard accessories.

2.3.1.8 ***Lighting Fixtures*** - Shall be 3 sets of 1-36 watts T-8 daylight linear fluorescent lamp, electronic ballast and lamp holder, energy saving type.

2.3.2 Temporary Toilet Facilities

2.3.1.1 ***Windows*** **-** Shall be 6mm thick clear annealed jalousie glass windows on aluminum framing complete with hardware and accessories.

2.3.1.2 ***Doors*** - Shall be 600mm x 2100mm polyvinyl chloride PVC doors with bottom louvers complete with door knob, hardware and accessories.

2.3.1.3 **Flooring –** Shall be 7mm thick x 200mm x 200mm ceramic tiles with medium resistance to abrasion.

2.3.1.4 ***Ceiling*** - 12mm-13mm thick recessed edge, sag and moisture resistant plasterboard, coated with plain, matte finish 100% water-based acrylic latex paint with excellent hiding, durability and dirt pick-up resistance on a light steel framing system.

2.3.1.5 ***Wall*** – Shall be 150mm thick CHB interior cement plaster finish coated semi-gloss latex paint.

2.3.1.6 **Roofing** – Shall be gauge 24, corrugated G.I. roofing sheet.

2.3.1.7 ***Lighting Fixture*** – Shall be surface mounted 15 watts CFL bulb with ungrounded receptacle.

2.3.1.8 **Toilet Fixtures**

a. *Water Closet* - Shall be vitreous porcelain, floor mounted, closed-coupled elongated front single flush button-type water closet with seat cover, pre-installed tank fittings and two-bolt caps, complete with anti-bacterial technology fittings and accessories.

b. *Urinal* - Shall be white vitreous china, washout flush action wall hung urinal with flushing rim extending from wall, back inlet, push button flush valve and widened sides, complete with fittings and accessories.

c. *Lavatory* - Shall be white vitreous porcelain wall mounted wash basin, regular color, with half pedestal cover, complete with chrome plated brass P-trap, angle valve and pop-up drain.

d. *Floor Drain* - Shall be 100mm x 100mm Polished Stainless Steel with lift-up cover.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

3.1.2 Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.1.3 Storm Water Pollution Control:

a. Assume responsibility for storm water pollution control; conform to the permit requirements.

b. Conform to the Storm water Pollution Control Plan included in the Contract Documents or use another plan, prepared at the General Contractor's expense, which has been approved by the Owner and the Local Building officer.

c. Sign and cause to be signed by each appropriate subcontractor, the Certification Statement required by the General Permit.

d. Provide, maintain, and monitor a rain gauge on the site; monitoring shall include maintaining a log of the readings. The rain gauge shall remain the property of the General Contractor.

3.2 TEMPORARY UTILITY INSTALLATION

3.2.1 General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.

a. Arrange with company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.

b. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.

c. Obtain easements to bring temporary utilities to the site where the Owner's easements cannot be used for that purpose.

d. Use Charges: If cost or use charges for temporary facilities are specified by this section to be borne by the Owner the cost or use charges for temporary facilities will be borne not longer than 30 days after final acceptance of the project.

3.2.2 Temporary Water Service and Distribution:

a. Install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.

Sterilization: Sterilize temporary water piping prior to use.

b. Water for construction purposes may be taken from the existing service. The General Contractor shall provide connections, approved backflow prevention device, meter and pipe to the water main or nearest hydrant, subject to the approval of the Owner. Upon completion of work, the General Contractor shall remove the temporary connections and backfill if necessary. If new water service is installed before construction is complete, the new system may be used provided it is returned to the Owner in as-new condition. The General Contractor shall pay for the water used, as metered.

c. Connect to existing facilities, through an approved backflow prevention device; extend branch piping with outlets so that water is available by use of hoses. Owner will pay for water used. The General Contractor shall not waste water or use faulty equipment. The General Contractor shall provide, at his own expense, all connections, extensions and other apparatus required for use of such services. Upon completion of the Contract, the General Contractor shall disconnect temporary extensions and return utility to its original condition.

3.2.3 Temporary Electric Power and Lighting Services:

a. Power and lighting may be taken from the power company's nearest pole with temporary poles, if needed, to extend the line to project. If permanent power lines have been installed before beginning project, then temporary lines can be brought in from the last pole.

b. Provide service required for construction with branch wiring and distribution boxes located to provide power and lighting by construction-type extension cords. Meter shall be provided and installed by the General Contractor.

c. The General Contractor shall pay all costs of temporary power and light.

d. Power Distribution System: Install wiring overhead and rise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125 Volts, ac 20 Ampere rating, and lighting circuits may be nonmetallic sheathed cable where overhead and exposed for surveillance.

e. Temporary Lighting: When overhead floor or roof deck has been installed, provide temporary lighting with local switching. Install and operate temporary lighting that will fulfill security and protection requirements without operating the entire system. Provide temporary lighting that will provide adequate illumination for construction operations and traffic conditions.

3.2.4 Temporary Telephone Service and Data:

Provide temporary telephone service throughout the construction period for all personnel engaged in construction activities. Install telephone on a separate line for each temporary office and first aid station. General Contractor shall provide telephone service in his office. It is preferred that the General Contractor use a cellular phone. Basic service and local calls will be paid for by the General Contractor. Toll calls will be paid for by the respective users.

a. Separate Telephone Lines: Provide additional telephone lines for the following:

Where an office has more than two (2) occupants, install a telephone for each additional occupant or pair of occupants.

Provide dedicated telephone lines for a separate fax machine.

b. At each telephone, post a list of important telephone numbers.

3.2.5 Temporary Sanitary Facilities, Including Drinking Water:

Temporary sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

a. Provide toilet tissue, wash basins with water, soap and paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material. The General Contractor shall maintain the facilities in a sanitary condition.

b. Toilets: Use of pit-type privies will not be permitted. Provide separate facilities for male and female personnel.

3.2.6 Storm and Sanitary Sewer:

If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully.

a. Filter out excessive amounts of soil, construction debris, chemicals, oils, and similar contaminants that might clog sewers or pollute waterways before discharge.

b. Connect temporary sewers to the municipal system, as directed by sewer department officials.

c. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.

3.2.7. Storm Water Pollution Control: Provide earthen embankments and similar barriers in and around excavations and sub-grade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

3.3 SUPPORT FACILITIES INSTALLATION

3.3.1 General: Locate field offices, storage sheds, and other temporary construction and support facilities in designated area as shown on the Contract Documents. The location of the trailers on the Drawings is diagrammatic in nature. Final placement of the trailers is to be approved by the Owner's Representative.

a. Maintain support facilities until Final Completion. Remove prior to Final Completion with permission from the Owner.

Field Offices: Provide insulated, weather tight temporary offices of sufficient size to accommodate required office personnel at the Project Site. Keep all offices clean and orderly, sweep weekly and remove rubbish on a daily basis. Furnish and equip offices as follows:

3.3.2 The General Contractor shall provide an office for their own use and a method to contact them by e-mail and telephone at any point and time.

3.3.3 General Contractor Provided Field Offices/Equipment: The General Contractor shall provide an office for their own use and a method to contact them by e-mail and telephone at any point and time. The General contractor shall supply the Owner's Representative and the Owner office or trailer with a water cooler for hot and cold water.

3.3.4 Storage and Fabrication Sheds:

Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.

a. Storage sheds for tools, materials and equipment shall be weather tight with heat, lighting and ventilation for products requiring controlled conditions.

b. Remove temporary materials, equipment services and construction before Substantial Completion.

c. Clean and repair damage caused by installation or use of temporary facilities. Restore existing facilities used during construction to specified or original condition.

3.3.5 Temporary Roads and Paving:

a. Provide paving for pedestrian access and parking for field office.

b. Coordinate temporary paving development with sub-grade grading, compaction, installation and stabilization of sub-base and installation of base and finish courses of permanent paving.

c. Install temporary paving to minimize the need to rework the installations and to result in permanent roads and paved areas without damage or deterioration when occupied by the Owner.

d. Extend temporary paving in and around the construction area as necessary to accommodate delivery and storage of materials, equipment usage, administration, and supervision.

3.3.6 Dewatering Facilities and Drains: For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual Sections, comply with dewatering requirements of applicable Division 31 Sections. Where feasible, utilize the same facilities. Maintain the site, excavations, and construction free of water.

3.3.7 Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.

a. Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25-sq ft or less with plywood or similar materials.

b. Close openings through floor or roof decks and horizontal surfaces with load-bearing, wood-framed construction.

c. Where temporary enclosure exceeds 100-sq ft in area, use UL-labeled, fire-retardant-treated material for framing and main sheathing.

3.3.8 Temporary Lifts, Hoists and Elevator Use:

a. Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

b. Refer to Division 14 Sections for elevators.

3.3.9 Temporary Project Identification Signs: Prepare project identification and other signs of size indicated. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative-treated wood or steel. Do not permit installation of unauthorized signs.

3.3.10 Project Sign: Engage an experienced sign painter to apply graphics. Comply with details to be furnished by the Owner's Representative.

a. Temporary Tripod Frame: For groundbreaking ceremonies only, provide a temporary tripod for the sign illustrated and described below. Make the tripod of 12 ft long 2" x 4"s (Stud Grade), beveled and bolted at the top. Provide approximately 5-ft between legs at grade. Provide a 6-ft long, 2" x 4" seat for the sign; locate 5-ft above grade and nail in place. Nail sign at four (4) places where edges intersect tripod legs. Drive a 24" long, pointed 2" x 4" stake into the earth next to each leg and nail to legs.

b. Project Sign: The General Contractor shall contact the Owner's Representative for the proper wording for the project sign.

3.3.11 Temporary Exterior Lighting: Install exterior yard and sign lights so signs are visible when Work is being performed.

3.3.12 Collection and Disposal of Waste and Cleaning:

a. Collect waste within the contract limit line from construction areas daily. Provide separate containers for proper waste recycling. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than seven (7) days during normal weather or three (3) days when the temperature is expected to rise above 80º degrees F. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

b. Maintain areas under General Contractor control free of waste materials, debris and rubbish. Maintain in a clean and orderly condition.

c. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces before closing the space.

d. Periodically clean interior areas before start of surface finishing and continue cleaning on an as-needed basis.

e. Control cleaning operations so that dust and other particulates will not adhere to wet or newly coated surfaces.

3.3.13 Temporary Environmental Controls: Construction Manager is to provide the following controls.

a. Rodent and Pest Control: Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the Project will be free of pests and their residues at materials.

b. Dust Control (construction and demolition).

c. Noise Control.

d. Erosion and Sediment Control.

e. Pollution Control.

f. Traffic Control.

3.3.14 Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished permanent stairs with a protective covering of plywood or similar material so finishes will be undamaged at the time of acceptance.

3.4 SECURITY PROTECTION AND FACILITIES INSTALLATION

3.4.1 Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Owner.

3.4.2 Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations."

a. Provide and locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.

b. Store combustible materials in containers in fire-safe locations.

c. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire-exposure areas.

d. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

e. The General Contractor, during construction, shall be responsible for loss or damage by fire to the work of the Contract until completion. Any fire used within the structure for working purposes shall be extinguished when not in use. Bitumen or tar shall be melted on the ground only. No flammable material shall be stored in the structure in excess of amounts allowed by the authorities. No gasoline shall be stored in or close to the building at any time. The General Contractor shall assign a responsible employee to be in charge of fire protection measures.

f. If an EPDM or other single-ply roof is included in the work that requires cleaning of mating surfaces of laps with gasoline, limit amount of gasoline on roof to two (2) gallons which shall be in UL listed containers. Also provide one 30 B:C fire extinguisher within 75 feet of any point on the roof.

3.4.3 Permanent Fire Protection: At the earliest feasible date in each area of the Project, complete installation of the permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.

3.4.4 Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.

a. Provide covered walkways as required by governing authorities for public rights-of-way and for public access to existing buildings.

b. Provide temporary, insulated, weather tight closures at openings to the exterior to provide acceptable working conditions and protection for materials, to allow for temporary heating and to prevent entry of unauthorized persons. Provide doors with self-closing hardware and locks.

c. Barriers and enclosures shall be in conformance with code requirements. Do not block egress from occupied buildings unless necessary to further the work of the Contract. In this case, secure the Owners approval of an alternate egress plan.

3.4.5 Enclosure Fences: Before excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated on the Construction Documents, or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.

3.4.6 Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Provide keys to the Owner's Representative.

a. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

3.4.7 Protection:

a. Protect buildings, equipment, furnishings, grounds and plantings from damage. Any damage shall be repaired or otherwise made good at no expense to the Owner.

b. Provide protective coverings and barricades to prevent damage. The General Contractor shall be held responsible for, and must make good at his own expense, any water or other type of damage due to improper coverings. Protect the public and building personnel from injury.

c. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.

d. Provide protective coverings for walls, projections, jambs, sills and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects and storage. Prohibit traffic and storage on waterproofed and roofed surfaces and on lawn and landscaped areas.

e. Provide temporary partitions and ceilings to separate work areas from Agency-occupied areas to prevent penetration of dust and moisture into Agency-occupied areas and equipment. Erect framing and sheet materials with closed joints and sealed edges at intersections with existing surfaces.

3.4.8 Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result.

3.5 OPERATION, TERMINATION AND REMOVAL

3.5.1 Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

3.5.2 Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

a. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a twenty-four (24) hour basis where required to achieve indicated results and to avoid possibility of damage.

b. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

3.5.3 Termination and Removal: Unless the Architect/OR requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

a. Materials and facilities that constitute temporary facilities are the General Contractor's property. The Owner reserves the right to take possession of project identification signs.

b. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at the temporary entrances, as required by the governing authority.

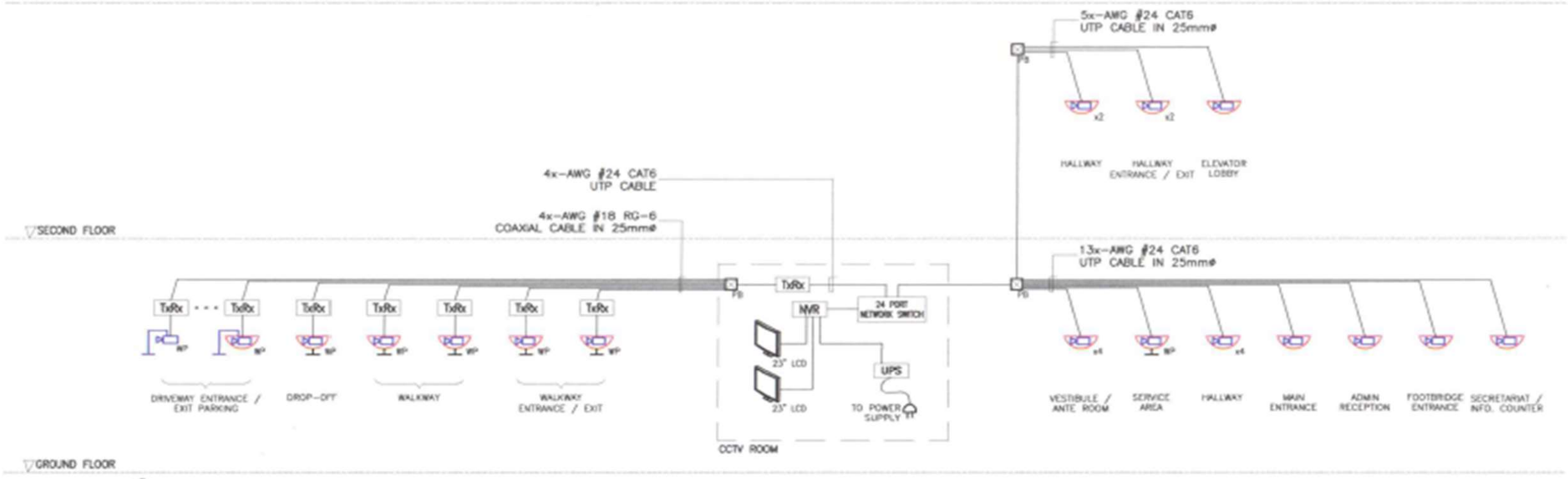
c. At Substantial Completion, clean and renovate permanent facilities used during the construction period including, but not limited to, the following:

Replace air filters and clean inside of ductwork and housings.

Replace significantly worn parts and parts subject to unusual operating conditions.

Replace lamps burned out or noticeably dimmed by hours of use.

END OF SECTION



A / A 10A CCTV SYSTEM SCHEMATIC DIAGRAM

SCALE NTS

GENERAL NOTES:

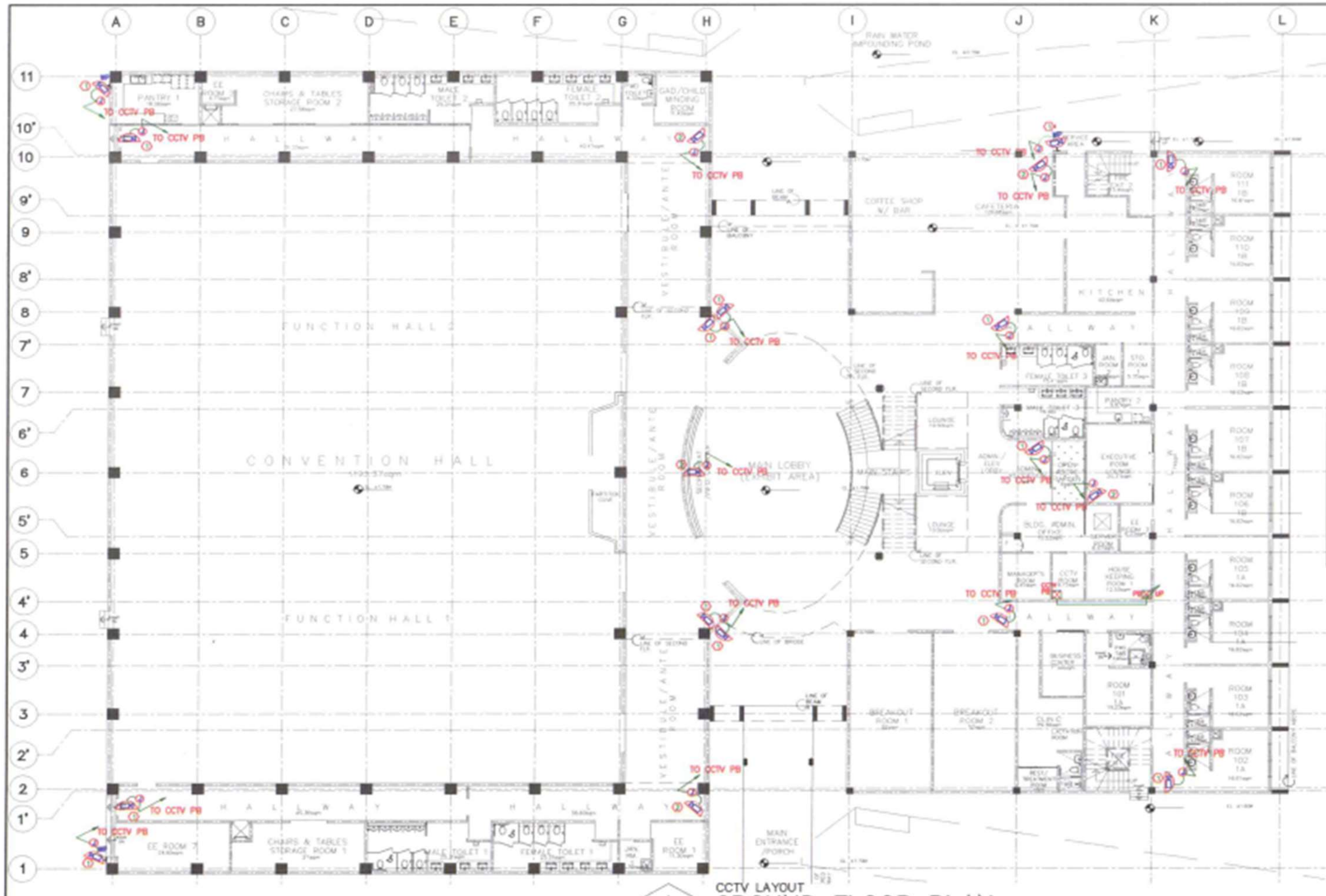
1. WIRING SHALL BE IN CONCEALED CONDUIT/TRUNKING UNLESS OTHERWISE SPECIFIED.
2. THE SPECIALTY CONTRACTOR SHALL BE RESPONSIBLE FOR THE LABELING OF ALL EQUIPMENT THROUGHOUT THE INSTALLATION.
3. THE SPECIALTY CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING OF ALL CABLE/CONDUIT PENETRATION OPENINGS BETWEEN FLOOR SLAB AND WALLS ETC. WITH APPROVED FIRE RATING MATERIAL/SEALANT.
4. ALL CABLES TO BE LAID IN HD uPVC PIPES SHALL BE ENCASED IN CONCRETE WHEN LAID ACROSS THE DRIVEWAY.
5. THE SPECIALTY CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPOTENTIAL GROUNDING/ALL METAL PARTS COMPLETED BY THE OTHER SUB-CONTRACTORS TO THE NEAREST BONDING TO ELECTRICAL PANEL.
6. THE SPECIALTY CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT FOR SATISFACTORY COMPLETION OF THE ENTIRE TELECOMMUNICATION INSTALLATION AS GENERALLY DESCRIBED IN THE SPECIFICATION AND/OR SHOWN ON DRAWINGS.
7. ALL LOCATIONS OF EQUIPMENT AND CABLE ROUTES SHOWN ON THE DRAWING ARE INDICATIVE ONLY. THE EXACT LOCATIONS MUST BE COORDINATED ON SITE BEFORE INSTALLATION. FULLY COORDINATED SHOP DRAWINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE COMMENCEMENT OF WORK.
8. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF PHILIPPINE ELECTRICAL/ELECTRONICS, EIA AND BICSI CODE. THEY SHALL BE PAINTED WITH A COAT OF ANTI-RUST PAINT AND TWO COATS OF SEMI-GLOSS TEAK PAINT OF BEST QUALITY TO THE APPROVAL OF THE CONSULTANT.
9. ALL DISTRIBUTION FRAME CONDUITS WHICH ARE EXPOSED SHALL BE PAINTED WITH A COAT OF RUST-RESISTING PRIMER AND TWO COATS OF ELECTRIC ORANGE OR AS SPECIFIED BY THE ARCHITECT.
10. EACH CIRCUIT SHALL BE TESTED FOR GROUNDS AND SHORTS BY MEANS OF INSULATION RESISTANCE TESTING INSTRUMENT APPLYING A VOLTAGE OF NOT LESS THAN 500V D.C. ON CIRCUIT UNDER TEST.
11. CABLES FOR ESSENTIAL CIRCUITS SUCH AS EMERGENCY LIGHTING CIRCUITS & FIRE FIGHTING EQUIPMENT CIRCUITS ETC. SHALL NOT BE DRAWN INTO THE SAME CONDUIT INTENDED FOR NORMAL CIRCUITS AS PER PEC.
12. ALL TELECOMMUNICATION OUTLET, TELCO EQUIPMENT, ETC., LOCATIONS SHOWN ARE INDICATIVE AND APPROXIMATE ONLY AND THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH THE ARCHITECT AND OR THE INTERIOR DESIGNER, AS WELL AS EQUIPMENT SUPPLIERS.
13. THE SPECIALTY CONTRACTOR SHALL OBTAIN APPROVAL FROM STRUCTURAL ENGINEERS FOR PENETRATION THROUGH RC. BEAMS AND FLOOR SLABS PRIOR TO CONSTRUCTION.
14. ALL CONDUITS LAYOUT AND INSTALLATION METHODS SHALL BE IDENTICAL IN ALL ROOMS AS MUCH AS POSSIBLE.
15. TESTING CERTIFICATES SHALL BE PROVIDED BY THE SPECIALTY CONTRACTOR PRIOR TO FINAL TURNOVER.
16. ALL MATERIALS/CABLES TO BE USED AND INSTALLATION METHOD SHALL COMPLY WITH THE TECHNICAL SPECIFICATION, STANDARDS, CODE OF PRACTICE AND AUTHORITY REQUIREMENT.
17. THE SPECIALTY CONTRACTOR IS REQUIRED TO SUBMIT DETAILS OF FINAL ARRANGEMENT AND DIMENSIONAL LAYOUT OF ALL ITEMS EQUIPMENT IN RESPECTIVE ROOMS TO SUIT SITE CONDITIONS, ETC. FOR REVIEW BY THE CONSULTANT BEFORE COMMENCEMENT INSTALLATION.
18. TELECOMMUNICATION OUTLET SHALL BE CATEGORY 6 OR OTHERWISE STATED.
19. ALL ELECTRICAL/ELECTRONICS EQUIPMENT & ACCESSORIES THAT ARE EXPOSED OR LESS THAN 2.0m AWAY FROM WATER SOURCES SHALL BE OF WEATHERPROOF TYPE.
20. COLOR FOR ALL TELECOMMUNICATION FACE PLATES SHALL BE AS PER ARCHITECT'S/INTERIOR DESIGNER'S SELECTION.
21. THE SPECIALTY CONTRACTOR SHALL NOTE THE POSITIONS OF TELECOM POINTS, AS SHOWN ON DRAWINGS. THE ACTUAL POSITIONS SHALL BE BASED ON THE ARCHITECT'S OR INTERIOR DESIGNER'S DRAWING. THE ELECTRICAL CONTRACTOR IS DEEMED TO HAVE ALLOWED IN HIS TENDER PRICE FOR ALL NECESSARY SITE ADJUSTMENT TO SUIT THE FINAL POSITIONS.
22. THE SPECIALTY CONTRACTOR SHALL LIAISE WITH OTHER CONTRACTOR TO ENSURE THAT POWER SUPPLIES FOR ALL EQUIPMENT ARE ADEQUATELY PROVIDED TO SUIT THE SYSTEM REQUIREMENTS.
23. SPECIALTY CONTRACTOR SHALL LIAISE WITH INTERIOR DESIGNER/ARCHITECT ON THE EXACT LOCATIONS & MOUNTING HEIGHTS (IF APPLICABLE) OF OUTLETS, MAIN DISTRIBUTION FRAME, INTERMEDIATE DISTRIBUTION FRAME BEFORE LAYING THE CONDUITS.
24. REFER TO SPECIFICATION FOR FULL DETAILS OF EQUIPMENT AND SPECIFICATIONS.
25. THE ELECTRONICS WORKS SHALL BE UNDER THE IMMEDIATE SUPERVISION OF A DULY LICENSED ELECTRONICS ENGINEER AUTHORIZED AS PER R.A. 9292.

QUANTITY	LOCATION		LABEL ON LAYOUT / PLAN	PURPOSE / AIM OF VIEW	CAMERA LENS SCHEDULE			CAMERA ENCLOSURE	CAMERA MOUNTING
	LEVEL	GRID			OBJECT DISTANCE (M)	LENS TYPE -SIZE	FOCAL LENGTH (mm)		
1	GF	1, A	1	MONITOR-PERIMETER	25	CCD-1/3"	4	DOME	WALL MOUNTED-WP
1	GF	1, A	1	MONITOR-HALLWAY EXIT DOOR	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	10, A	1	MONITOR-HALLWAY EXIT DOOR	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	11, A	1	MONITOR-PERIMETER	25	CCD-1/3"	4	DOME	WALL MOUNTED-WP
1	GF	1, H	2	MONITOR-HALLWAY	10	CCD-1/3"	2.8	DOME	CEILING MOUNTED
1	GF	4, H	1	MONITOR-VESTIBULE & MAIN ENTRANCE	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	6, H	2	SECRETARIAT MAIN LOBBY	8	CCD-1/3"	2.8	DOME	CEILING MOUNTED
1	GF	8, H	1	MONITOR-VESTIBULE & ENTRANCE FROM FOOT BRIDGE	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	10, H	2	MONITOR-HALLWAY	10	CCD-1/3"	2.8	DOME	CEILING MOUNTED
1	GF	4, J	1	MONITOR-LOBBY LOUNGE	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	6, J	1	MONITOR-ADMIN LOBBY	3	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	8, J	1	MONITOR-LOBBY LOUNGE	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	10, J	2	MONITOR-CAFETERIA	10	CCD-1/3"	2.8	DOME	CEILING MOUNTED
1	GF	10, J	1	MONITOR-SERVICE AREA EXIT	4	CCD-1/3"	4	DOME	WALL MOUNTED-WP
1	GF	5, J	2	MONITOR-EXEC. RM. LOUNGE	3	CCD-1/3"	2.8	DOME	CEILING MOUNTED
1	GF	2, K	1	MONITOR-HALLWAY IN HOTEL	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF	10, K	1	MONITOR-HALLWAY IN HOTEL	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	2F	6, G-H	1	MONITOR-BRIDGEWAY	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	2F	4, J	1	MONITOR-HALLWAY	8	CCD-1/3"	4	DOME	CEILING MOUNTED
1	2F	6, J	1	MONITOR-ELEVATOR LOBBY	3	CCD-1/3"	4	DOME	CEILING MOUNTED
1	2F	7, J	1	MONITOR-HALLWAY	8	CCD-1/3"	4	DOME	CEILING MOUNTED
1	2F	2, K	1	MONITOR-HALLWAY IN HOTEL	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	2F	10, K	1	MONITOR-HALLWAY IN HOTEL	10	CCD-1/3"	4	DOME	CEILING MOUNTED
1	GF		1	CONVENTION LANE PARKING SPACE		CCD-1/3"	4	DOME	POLE MOUNTED-WP
1	GF		1	CONVENTION BLDG. DRIVEWAY ENTRY		CCD-1/3"	4	BULLET	POLE MOUNTED-WP
1	GF		1	DROP-OFF POINT		CCD-1/3"	4	DOME	WALL MOUNTED-WP
1	GF		1	CONVENTION BLDG. DRIVEWAY EXIT		CCD-1/3"	4	BULLET	POLE MOUNTED-WP
1	GF		1	ICT LANE PARKING DRIVEWAY		CCD-1/3"	4	DOME	POLE MOUNTED-WP
1	GF		1	UTILITY BLDG. SERVICE ENTRY		CCD-1/3"	4	DOME	POLE MOUNTED-WP
1	GF		1	BUS PARKING		CCD-1/3"	4	DOME	POLE MOUNTED-WP

A / A 10A CCTV-LENS SCHEDULE

SCALE NTS

PRINCIPAL ARCHITECT:	PROJECT TITLE:	OWNER:	ENDORSED BY:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.:
AR. MARK JOSEPH B. ARCE	SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER	UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY (UPOU)	DR. MARLOE B. SUNDO FDA/PROJECT MANAGER, CHAIR, TWG, UPOU	DR. JEAN A. SALUDADEZ VICE CHANCELLOR FOR F&A, UPOU	DR. JOANE V. SERRANO CHANCELLOR, UPOU		ECE-1 FEB 2026
	LOCATION: UPOU CAMPUS, LOS BAÑOS, LAGUNA						



CCTV LAYOUT
GROUND FLOOR PLAN

A
A 10B

SCALE 1:250M

LEGEND	DESCRIPTION
NVR	NETWORK VIDEO RECORDER
TxRx	ETHERNET OVER COAX TRANSCEIVER
UPS	1KVA, 230V, 1Ø, UPS WITH 15MIN. BACK-UP
MDF	MAIN DISTRIBUTION FRAME
IDF	INTERMEDIATE DISTRIBUTION FRAME
	UNIVERSAL INFORMATION OUTLET, SINGLE PORT (VOICE) WALL MOUNTED
	UNIVERSAL INFORMATION OUTLET, SINGLE PORT (DATA) WALL MOUNTED
IPTV	UNIVERSAL INFORMATION OUTLET, SINGLE PORT (IPTV) WALL MOUNTED
	UNIVERSAL INFORMATION OUTLET, DUAL PORT (VOICE/DATA) WALL MOUNTED
	UNIVERSAL INFORMATION OUTLET, DUAL PORT (DATA) WALL MOUNTED
WAP	WIRELESS ACCESS POINT, LAN OUTLET RJ45, SINGLE PORT, CEILING MOUNTED
	CEILING MOUNTED FIXED CCTV CAMERA (DOME TYPE)
WP	WALL MOUNTED CCTV CAMERA (DOME TYPE) WEATHERPROOF
WP	POLE MOUNTED CCTV CAMERA (DOME TYPE) WEATHERPROOF
WP	POLE MOUNTED CCTV CAMERA (BULLET TYPE) WEATHERPROOF
PB	PULLBOX
t	DENOTES NUMBER OF CABLES IN IMC PIPE

ABBREVIATIONS

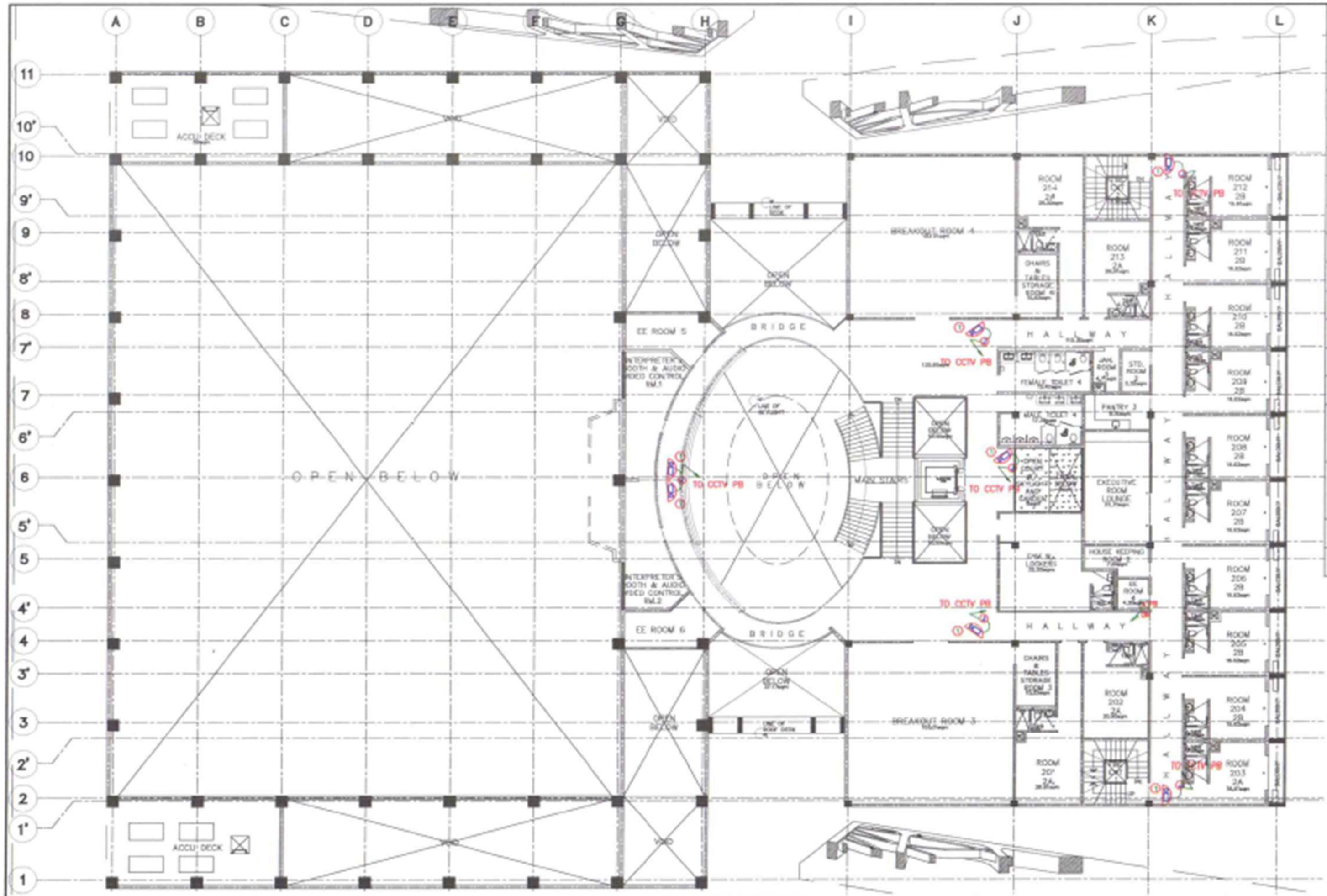
MDF MAIN DISTRIBUTION FRAME
CAT CATEGORY
IMC INTERMEDIATE METALLIC CONDUIT
PVC POLYVINYL-CHLORIDE CONDUIT
AWG AMERICAN WIRE GAUGE
UPS UNINTERRUPTIBLE POWER SUPPLY
PACU PRECISION AIR-CONDITIONING UNIT
CCTV CLOSED CIRCUIT TELEVISION
NVR NETWORK VIDEO RECORDER
POE POWER OVER ETHERNET
UTP UNSHIELDED TWISTED PAIR
WAP WIRELESS ACCESS POINT
IPTV INTERNET PROTOCOL TELEVISION

NOTES FOR CCTV

1. THE PURPOSED OF THIS SCHEMATIC IS TO PROVIDE THE GENERAL CONCEPT AND PRINCIPLE OF THE PROPOSED CCTV SURVEILLANCE SYSTEM.
2. CONTRACTOR TO PROVIDE COMPLETE CCTV SURVEILLANCE SYSTEM TO INCLUDE ALL WIRING AND ACCESSORIES, DEVICES, EQUIPMENT AND SOFTWARE, WHICH INCLUDE LICENSE PLATE RECOGNITION AND VIDEO ANALYTICS AS MAY DEEM NECESSARY FOR A SUCCESSFUL OPERATION OF THE SYSTEM.
3. MAXIMUM NUMBER OF CAT6 CABLES INSIDE IMC PIPE SHALL BE:

#24 AWG CAT6	20MMØ	25MMØ	32MMØ
	4	6	9

PRINCIPAL ARCHITECT:	PROJECT TITLE:	OWNER:	ENDORSED BY:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.:
AR. MARK JOSEPH B. ARCE	SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER	UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY (UPOU)	DR. MARLOE B. SUNDO PDA/PROJECT MANAGER, CHAIR, [illegible] UPOU	DR. JEAN A. SALUDADEZ VICE CHANCELLOR FOR NLA, UPOU	DR. JOANE V. SERRANO CHANCELLOR, UPOU		ECE-2 DATE: FEB 2026
	LOCATION: UPOU CAMPUS, LOS BAÑOS, LAGUNA						



CCTV LAYOUT

SECOND FLOOR PLAN

A / A 10C

SCALE 1:250M

LEGEND	DESCRIPTION
NVR	NETWORK VIDEO RECORDER
TxRx	ETHERNET OVER COAX TRANSCEIVER
UPS	1KVA, 230V, 1Ø, UPS WITH 15MIN. BACK-UP
MDF	MAIN DISTRIBUTION FRAME
IDF	INTERMEDIATE DISTRIBUTION FRAME
	UNIVERSAL INFORMATION OUTLET, SINGLE PORT (VOICE) WALL MOUNTED
	UNIVERSAL INFORMATION OUTLET, SINGLE PORT (DATA) WALL MOUNTED
IPTV	UNIVERSAL INFORMATION OUTLET, SINGLE PORT (IPTV) WALL MOUNTED
	UNIVERSAL INFORMATION OUTLET, DUAL PORT (VOICE/DATA) WALL MOUNTED
	UNIVERSAL INFORMATION OUTLET, DUAL PORT (DATA) WALL MOUNTED
WAP	WIRELESS ACCESS POINT, LAN OUTLET RJ45, SINGLE PORT, CEILING MOUNTED
	CEILING MOUNTED FIXED CCTV CAMERA (DOME TYPE)
WP	WALL MOUNTED CCTV CAMERA (DOME TYPE) WEATHERPROOF
WP	POLE MOUNTED CCTV CAMERA (DOME TYPE) WEATHERPROOF
WP	POLE MOUNTED CCTV CAMERA (BULLET TYPE) WEATHERPROOF
PB	PULLBOX
t	DENOTES NUMBER OF CABLES IN IMC PIPE

ABBREVIATIONS

MDF	MAIN DISTRIBUTION FRAME
CAT	CATEGORY
IMC	INTERMEDIATE METALLIC CONDUIT
PVC	POLYVINYL-CHLORIDE CONDUIT
AWG	AMERICAN WIRE GAUGE
UPS	UNINTERRUPTIBLE POWER SUPPLY
PACU	PRECISION AIR-CONDITIONING UNIT
CCTV	CLOSED CIRCUIT TELEVISION
NVR	NETWORK VIDEO RECORDER
POE	POWER OVER ETHERNET
UTP	UNSHIELDED TWISTED PAIR
WAP	WIRELESS ACCESS POINT
IPTV	INTERNET PROTOCOL TELEVISION

NOTES FOR CCTV

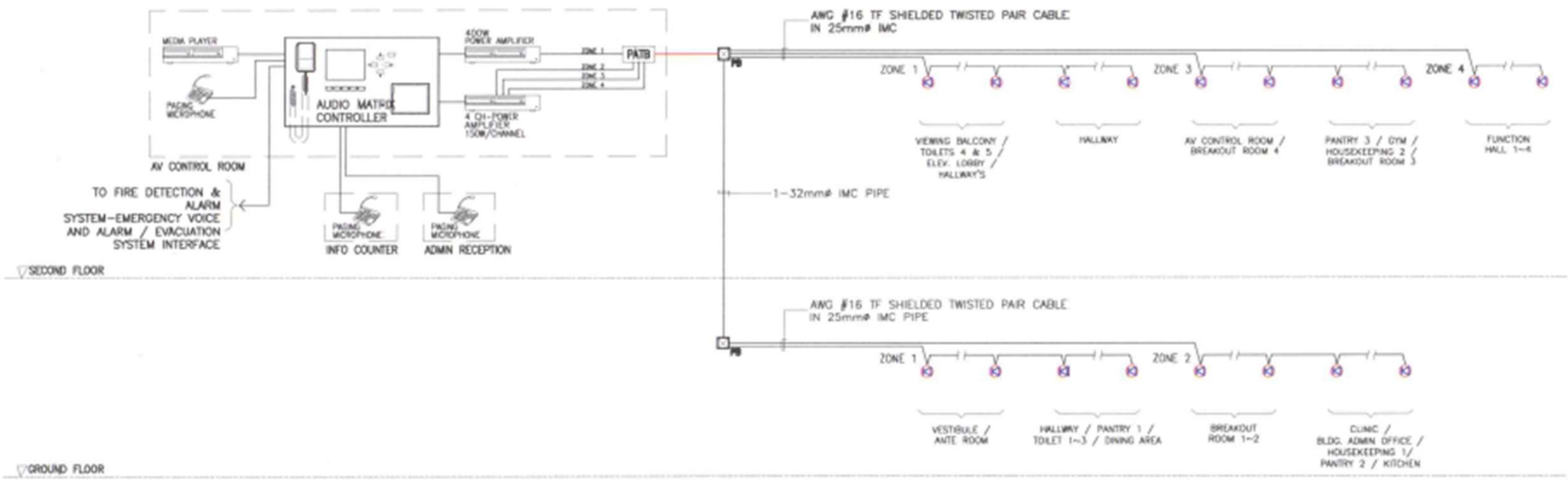
1. THE PURPOSED OF THIS SCHEMATIC IS TO PROVIDE THE GENERAL CONCEPT AND PRINCIPLE OF THE PROPOSED CCTV SURVEILLANCE SYSTEM.
2. CONTRACTOR TO PROVIDE COMPLETE CCTV SURVEILLANCE SYSTEM TO INCLUDE ALL WIRING AND ACCESSORIES, DEVICES, EQUIPMENT AND SOFTWARE, WHICH INCLUDE LICENSE PLATE RECOGNITION AND VIDEO ANALYTICS AS MAY DEEM NECESSARY FOR A SUCCESSFUL OPERATION OF THE SYSTEM.
3. MAXIMUM NUMBER OF CAT6 CABLES INSIDE IMC PIPE SHALL BE:

#24 AWG CAT6	20MMØ	25MMØ	32MMØ
	4	6	9

PRINCIPAL ARCHITECT:	PROJECT TITLE:	OWNER:	ENDORSED BY:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.:
AR. MARK JOSEPH B. ARCE	SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER LOCATION: UPOU CAMPUS, LOS BAÑOS, LAGUNA	UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY (UPOU)	DR. MARLOE B. SUNDO PDA/PROJECT MANAGER, CHAIR, TWG, UPOU	DR. JEAN A. SALUDADEZ VICE CHANCELLOR FOR F&A, UPOU	DR. JOANE V. SERRANO CHANCELLOR, UPOU		ECE-3 DATE: FEB 2026

GENERAL NOTES:

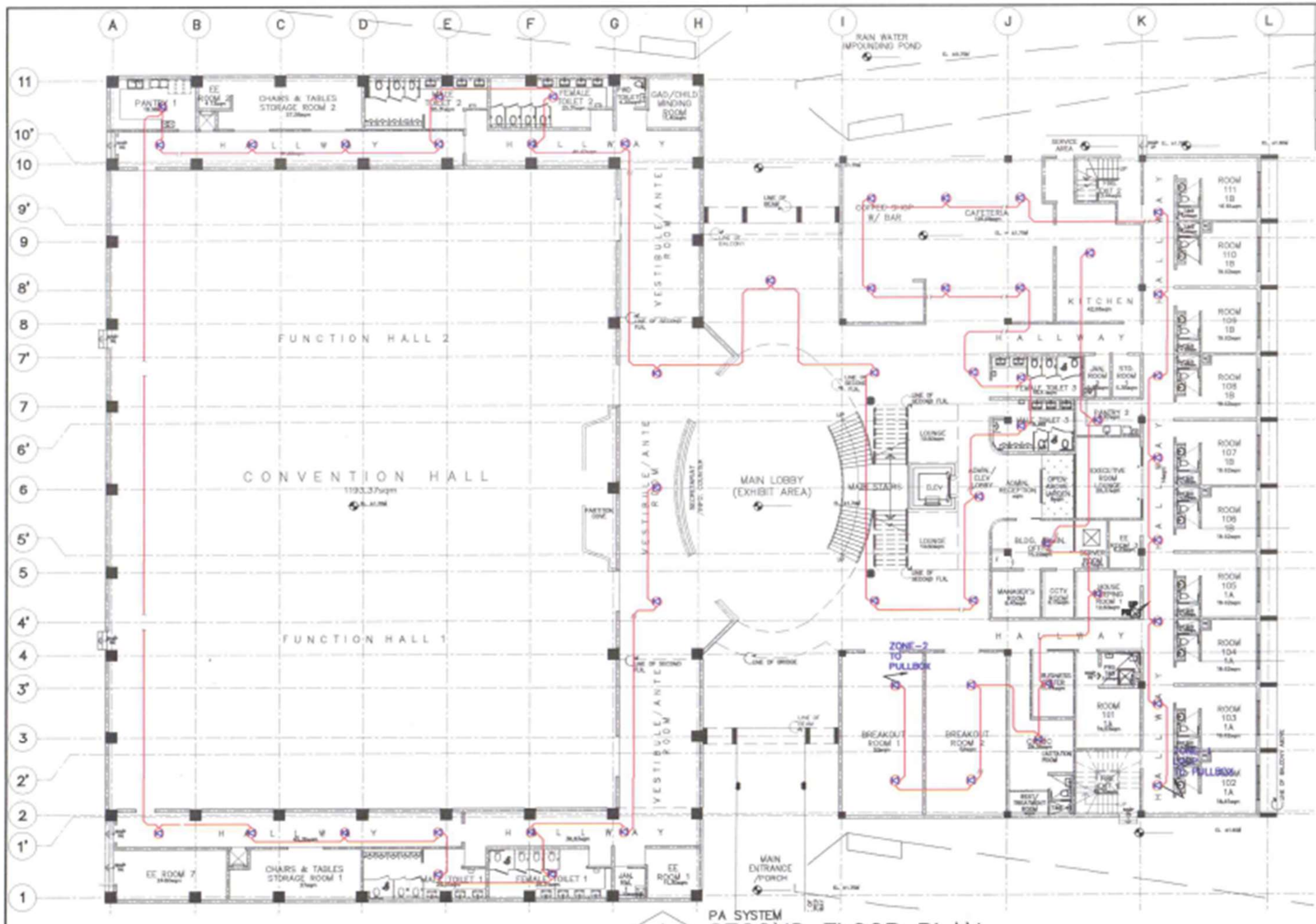
1. WIRING SHALL BE IN CONCEALED CONDUIT/TRUNKING UNLESS OTHERWISE SPECIFIED.
2. THE SPECIALTY CONTRACTOR SHALL BE RESPONSIBLE FOR THE LABELING OF ALL EQUIPMENT THROUGHOUT THE INSTALLATION.
3. THE SPECIALTY CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING OF ALL CABLE/CONDUIT PENETRATION OPENINGS BETWEEN FLOOR SLAB AND WALLS ETC. WITH APPROVED FIRE RATING MATERIAL/SEALANT.
4. ALL CABLES TO BE LAID IN HD uPVC PIPES SHALL BE ENCASED IN CONCRETE WHEN LAID ACROSS THE DRIVEWAY.
5. THE SPECIALTY CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPOTENTIAL GROUNDING/ALL METAL PARTS COMPLETED BY THE OTHER SUB-CONTRACTORS TO THE NEAREST BONDING TO ELECTRICAL PANEL.
6. THE SPECIALTY CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT FOR SATISFACTORY COMPLETION OF THE ENTIRE TELECOMMUNICATION INSTALLATION AS GENERALLY DESCRIBED IN THE SPECIFICATION AND/OR SHOWN ON DRAWINGS.
7. ALL LOCATIONS OF EQUIPMENT AND CABLE ROUTES SHOWN ON THE DRAWING ARE INDICATIVE ONLY. THE EXACT LOCATIONS MUST BE COORDINATED ON SITE BEFORE INSTALLATION. FULLY COORDINATED SHOP DRAWINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE COMMENCEMENT OF WORK.
8. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF PHILIPPINE ELECTRICAL/ELECTRONICS, EIA AND BICSI CODE. THEY SHALL BE PAINTED WITH A COAT OF ANTI-RUST PAINT AND TWO COATS OF SEMI-GLOSS TEAKPAINT OF BEST QUALITY TO THE APPROVAL OF THE CONSULTANT.
9. ALL DISTRIBUTION FRAME CONDUITS WHICH ARE EXPOSED SHALL BE PAINTED WITH A COAT OF RUST-RESISTING PRIMER AND TWO COATS OF ELECTRIC ORANGE OR AS SPECIFIED BY THE ARCHITECT.
10. EACH CIRCUIT SHALL BE TESTED FOR GROUNDS AND SHORTS BY MEANS OF INSULATION RESISTANCE TESTING INSTRUMENT APPLYING A VOLTAGE OF NOT LESS THAN 500V D.C. ON CIRCUIT UNDER TEST.
11. CABLES FOR ESSENTIAL CIRCUITS SUCH AS EMERGENCY LIGHTING CIRCUITS & FIRE FIGHTING EQUIPMENT CIRCUITS ETC. SHALL NOT BE DRAWN INTO THE SAME CONDUIT INTENDED FOR NORMAL CIRCUITS AS PER PEC.
12. ALL TELECOMMUNICATION OUTLET, TELCO EQUIPMENT, ETC., LOCATIONS SHOWN ARE INDICATIVE AND APPROXIMATE ONLY AND THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH THE ARCHITECT AND OR THE INTERIOR DESIGNER, AS WELL AS EQUIPMENT SUPPLIERS.
13. THE SPECIALTY CONTRACTOR SHALL OBTAIN APPROVAL FROM STRUCTURAL ENGINEERS FOR PENETRATION THROUGH RC. BEAMS AND FLOOR SLABS PRIOR TO CONSTRUCTION.
14. ALL CONDUITS LAYOUT AND INSTALLATION METHODS SHALL BE IDENTICAL IN ALL ROOMS AS MUCH AS POSSIBLE.
15. TESTING CERTIFICATES SHALL BE PROVIDED BY THE SPECIALTY CONTRACTOR PRIOR TO FINAL TURNOVER.
16. ALL MATERIALS/CABLES TO BE USED AND INSTALLATION METHOD SHALL COMPLY WITH THE TECHNICAL SPECIFICATION, STANDARDS, CODE OF PRACTICE AND AUTHORITY REQUIREMENT.
17. THE SPECIALTY CONTRACTOR IS REQUIRED TO SUBMIT DETAILS OF FINAL ARRANGEMENT AND DIMENSIONAL LAYOUT OF ALL ITEMS EQUIPMENT IN RESPECTIVE ROOMS TO SUIT SITE CONDITIONS, ETC. FOR REVIEW BY THE CONSULTANT BEFORE COMMENCEMENT INSTALLATION.
18. TELECOMMUNICATION OUTLET SHALL BE CATEGORY 6 OR OTHERWISE STATED.
19. ALL ELECTRICAL/ELECTRONICS EQUIPMENT & ACCESSORIES THAT ARE EXPOSED OR LESS THAN 2.0m AWAY FROM WATER SOURCES SHALL BE OF WEATHERPROOF TYPE.
20. COLOR FOR ALL TELECOMMUNICATION FACE PLATES SHALL BE AS PER ARCHITECT'S/INTERIOR DESIGNER'S SELECTION.
21. THE SPECIALTY CONTRACTOR SHALL NOTE THE POSITIONS OF TELECOM POINTS, AS SHOWN ON DRAWINGS. THE ACTUAL POSITIONS SHALL BE BASED ON THE ARCHITECT'S OR INTERIOR DESIGNER'S DRAWING. THE ELECTRICAL CONTRACTOR IS DEEMED TO HAVE ALLOWED IN HIS TENDER PRICE FOR ALL NECESSARY SITE ADJUSTMENT TO SUIT THE FINAL POSITIONS.
22. THE SPECIALTY CONTRACTOR SHALL LIAISE WITH OTHER CONTRACTOR TO ENSURE THAT POWER SUPPLIES FOR ALL EQUIPMENT ARE ADEQUATELY PROVIDED TO SUIT THE SYSTEM REQUIREMENTS.
23. SPECIALTY CONTRACTOR SHALL LIAISE WITH INTERIOR DESIGNER/ARCHITECT ON THE EXACT LOCATIONS & MOUNTING HEIGHTS (IF APPLICABLE) OF OUTLETS, MAIN DISTRIBUTION FRAME, INTERMEDIATE DISTRIBUTION FRAME BEFORE LAYING THE CONDUITS.
24. REFER TO SPECIFICATION FOR FULL DETAILS OF EQUIPMENT AND SPECIFICATIONS.
25. THE ELECTRONICS WORKS SHALL BE UNDER THE IMMEDIATE SUPERVISION OF A DULY LICENSED ELECTRONICS ENGINEER AUTHORIZED AS PER R.A. 9292.



A / A 10D PUBLIC ADDRESS SYSTEM SCHEMATIC DIAGRAM

SCALE NTS

PRINCIPAL ARCHITECT:	PROJECT TITLE:	OWNER:	ENDORSED BY:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.:
AR. MARK JOSEPH B. ARCE	SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER	UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY (UPOU)	DR. MARLOE B. SUNDO FOA/PROJECT MANAGER, CHAIR, BAC, UPOU	DR. JEAN A. SALUDADEZ VICE CHANCELLOR FOR F&A, UPOU	DR. JOANE V. SERRANO CHANCELLOR, UPOU		ECE-4
REG. NO. / PTR. NO. / TIN / DATE	LOCATION: UPOU CAMPUS, LOS BAÑOS, LAGUNA						DATE: FEB 2026

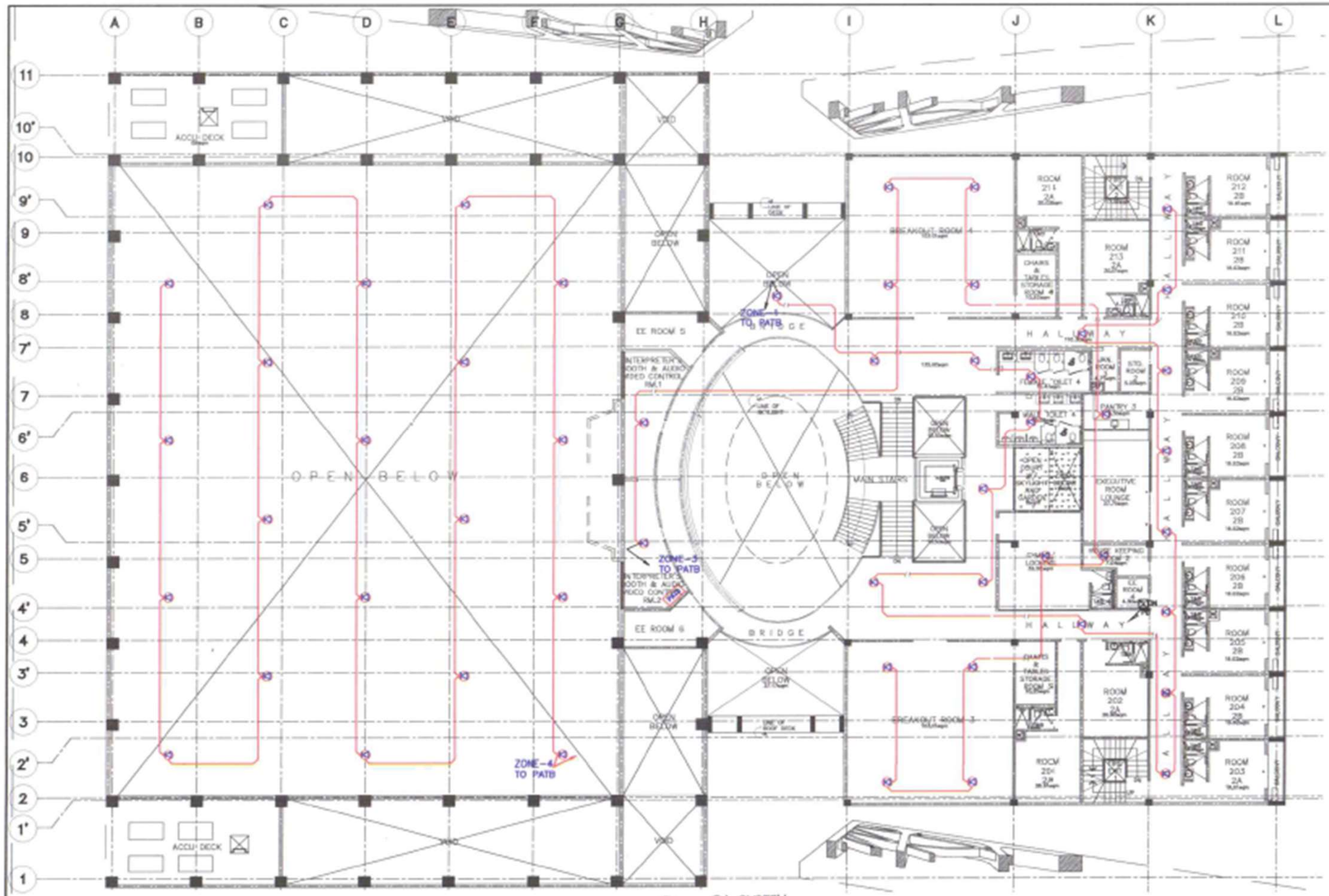


LEGEND	DESCRIPTION
PACP	PUBLIC ADDRESS CONTROL PANEL
PATB	PUBLIC ADDRESS TERMINAL BOX
(speaker symbol)	CEILING MOUNTED SPEAKER, 6W
PB	PULLBOX

PA SYSTEM
SECOND FLOOR PLAN

A / A 10E — SCALE 1:250M

PRINCIPAL ARCHITECT:	PROJECT TITLE:	OWNER:	ENDORSED BY:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.:
AR. MARK JOSEPH B. ARCE	SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER	UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY (UPOU)	DR. MARLOE B. SUNDO PDA/PROJECT MANAGER CHAIR, TWG UPOU	DR. JEAN A. SALUDADEZ VICE CHANCELLOR FOR R&A, UPOU	DR. JOANE V. SERRANO CHANCELLOR UPOU		ECE-5 DATE: FEB 2026
	LOCATION: UPOU CAMPUS, LOS BAÑOS, LAGUNA						



PA SYSTEM

SECOND FLOOR PLAN

A / A 10F

SCALE 1:250M

PRINCIPAL ARCHITECT:	PROJECT TITLE:	OWNER:	ENDORSED BY:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.:
AR. MARK JOSEPH B. ARCE	SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER	UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY (UPOU)	DR. MARLOE B. SUNDO PDA/PROJECT MANAGER CHAIR, TWG UPOU	DR. JEAN A. SALUDADEZ VICE CHANCELLOR FOR FA UPOU	DR. JOANE V. SERRANO CHANCELLOR, UPOU		ECE-6 DATE FEB 2026
	LOCATION: UPOU CAMPUS, LOS BAÑOS, LAGUNA						

Section VIII. Bill of Quantities

DETAILED CONSTRUCTION ESTIMATE WORKSHEET (DCEW)

Project : **SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER**	Prepared / Estimated by:		Submitted by:	Date:
		Name w/ Signature & Designation		
Location : UPOU Headquarters, Maahas, Los Baños, Laguna	Certified Correct:		Address of Bidder:	
Subject : **BILL OF MATERIALS AND COST ESTIMATES** (DETAILED CONSTRUCTION ESTIMATE WORKSHEET)			Estimated Project Cost:	0.00
		Name & Signature of General Manager	No. of Days to Complete:	120 CALENDAR DAYS

ITEM NO.	ITEM OF WORK	UNIT	QTY.	DIRECT COST: MATERIALS PER UNIT	MAT'L .COST	LABOR PER UNIT	LABOR COST	SUB-TOTAL DIRECT COST	UNIT COST (PHP)
I.	**GENERAL REQUIREMENTS**								
	A. Construction Aid								
	1. Temporary Office, Sheds, Storage, Fence, Barricades etc.	lot	1.00		0.00		-	0.00	0.00
	2. Temporary Power and Water Supply	lot	1.00		0.00	-	-	0.00	0.00
	3. Shop Drawing and As Built Plan	lot	1.00	-	-		-	0.00	0.00
	4. Tools and equipment including scaffoldings (rental only)	lot	1.00	-	-		-	0.00	0.00
II.	**COMMUNICATIONS**								
	A. Supply and Installation of Audio-Video Systems complete with all necessary accessories, and Testing and Commissioning as shown on drawings and in accordance with the specifications to make the system operational.								
	1. Floor Box, 200mm x 300mm	sets	4.00		0.00		-	0.00	0.00
	2. Control Cable	l.m.	32.00		0.00		-	0.00	0.00
	3. VGA Cable	l.m.	84.00		0.00		-	0.00	0.00
	4. Audio Cable	l.m.	84.00		0.00		-	0.00	0.00
	5. HDMI Cable	l.m.	82.00		0.00		-	0.00	0.00
	B. Complete Supply and Installation of Public Address and Background Music System complete with all necessary accessories, testing and commissioning as shown on drawings and in accordance with the specifications to make the system operational.								
	1. Ceiling Mounted Loudspeakers 6W with fire dome	sets	103.00		0.00		-	0.00	0.00
	2. Public Address Control Panel	sets	1.00		0.00		-	0.00	0.00
	3. Equipment Rack complete with ventillation fan	sets	1.00		0.00		-	0.00	0.00
	4. 2x250W 2 Channels Digital Power Amplifier	sets	1.00		0.00		-	0.00	0.00
	5. Voice Evacuation System Remote Paging Station	sets	3.00		0.00		-	0.00	0.00
	6. Media Player (CD, DVD, Bluray, USB, AM/FM)	sets	4.00		0.00		-	0.00	0.00
	7. 500W 10 Zones Voice Evacuation System Host	pc/s	1.00		0.00		-	0.00	0.00
	8. 10 Channels PA System Sequence Controller	pc/s	1.00		0.00		-	0.00	0.00
	9. Uninterruptible Power Supply, 1KVA, 7-10mins Backup Time	pc/s	1.00		0.00		-	0.00	0.00
	10. Power Distribution Unit with 8 Sockets	sets	1.00		0.00		-	0.00	0.00

ITEM NO.	ITEM OF WORK	UNIT	QTY.	DIRECT COST				SUB-TOTAL DIRECT COST	UNIT COST (PHP)
				MATERIALS		LABOR			
				PER UNIT	MAT'L .COST	PER UNIT	LABOR COST		
III.	**ELECTRONIC SAFETY AND SECURITY**								
A.	Supply and Installation of Equipment and Devices for CCTV System as shown in drawings and in accordance with the specifications to make the system operational								
	1. IP Cameras								
	1.1. 2MP Dome Network Camera, Hi-Watch, 30m IR, Fixed Focal, IP67	pcs	26.00		0.00		-	0.00	0.00
	1.2. 4MP Dome Network Camera, Hi-Watch, 30m IR, Fixed Focal, IP67	pcs	6.00		0.00		-	0.00	0.00
	1.3. Wall mount	pcs	3.00		0.00		-	0.00	0.00
	1.4. Cat 6 UTP Patch Cord, Blue, 1m	sets	8.00		0.00		-	0.00	0.00
	2. Network Video Recorder								
	2.1. 16-channel 4K Acusense Network Video Recorder, Pro, 2 SATA	pcs	2.00		0.00		-	0.00	0.00
	2.2. 8TB Hard Disk Drive, Skyhawk	pcs	4.00		0.00		-	0.00	0.00
	3. Surveillance Monitoring								
	3.1. 28" 4K WLED backlight Monitor"	pcs	2.00		0.00		-	0.00	0.00
	3.2. Wall-mounted bracket	pcs	2.00		0.00		-	0.00	0.00
	3.3. HDMI Cable 5m	pcs	2.00		0.00		-	0.00	0.00
	4. Main Distribution Frame								
	4.1. 24-Ports Cat 6 UTP Patch Panel, Loaded	sets	2.00		0.00		-	0.00	0.00
	4.2. 19" Horizontal Cable Organizer, 1RU	sets	2.00		0.00		-	0.00	0.00
	4.3. Smart Switch, 28-Port Gigabit with 24-Port PoE+, JetStream™	pcs	2.00		0.00		-	0.00	0.00
	4.4. Cat 6 UTP Patch Cord, Blue, 1m	sets	34.00		0.00		-	0.00	0.00
	4.5. Uninterruptible Power Supply, 1200VA, 5mins Backup Time, AT Series	pcs	1.00		0.00		-	0.00	0.00
	4.6. 18RU Floor Mount Data Cabinet, 1000*600*600mm	sets	1.00		0.00		-	0.00	0.00
	4.7. Power Distribution Unit, 485*45*45mm, with 8 Sockets	sets	1.00		0.00		-	0.00	0.00
	4.8. Fan, 120*120*38mm	sets	2.00		0.00		-	0.00	0.00
B.	Supply and Installation of Wiring Materials including Miscellaneous Items and Accesories for the Complete Installation of the CCTV System as shown in drawings and in accordance with the specifications to make the system operational								
	1. Wires and Cables								
	1.1. CAT6 UTP Solid Cable 305/box Light Grey 24AWG	m	4,270.00		0.00		-	0.00	0.00
	1.2. 3.5mm² AWG #12 THHN Wire Conventional Stranded, Black	m	450.00		0.00		-	0.00	0.00
	1.3. 3.5mm² AWG #12 THHN Wire Conventional Stranded, Red	m	400.00		0.00		-	0.00	0.00
	2. Pipes and Conduits								
	2.1. 15 mmØ EMT Pipe, 1/2"	sets	530.00		0.00		-	0.00	0.00
	2.2. 15 mmØ EMT Coupling, Compression Type, 1/2"	sets	530.00		0.00		-	0.00	0.00
	2.3. 15 mmØ EMT Connector, Compression Type, 1/2"	sets	390.00		0.00		-	0.00	0.00
	2.4. 15 mmØ Locknut, 1/2"	sets	390.00		0.00		-	0.00	0.00
	2.5. 15 mmØ Bushing, 1/2"	sets	390.00		0.00		-	0.00	0.00
	2.6. FMC ½" (15mmØ)	m	90.00		0.00		-	0.00	0.00
	2.7. Straight Connector ½" (15mmØ)	pcs	60.00		0.00		-	0.00	0.00
	3. Junction Box								
	3.1. Octagonal box 4" x 4" x 2-1/8" Deep, 1/2" & 3/4" Knockout	pcs	195.00		0.00		-	0.00	0.00
	3.2. Octagonal box blank cover 4" x 4" heavy duty, with 1/2" k.o	pcs	195.00		0.00		-	0.00	0.00
	3.3. Square box 4" x 4" x 2-1/8" Deep, 1/2" & 3/4" Knockout	pcs	10.00		0.00		-	0.00	0.00
	3.4. Square box blank cover 4"x4" heavy duty, with 1/2" k.o	pcs	10.00		0.00		-	0.00	0.00
	3.5. Enclosure Box (300x300x150mm) ga. #16, powder coated gray color, Hinge type cover with pushlock	pcs	2.00		0.00		-	0.00	0.00
IV.	**OTHERS**								

ITEM NO.	ITEM OF WORK	UNIT	QTY.	DIRECT COST				SUB-TOTAL DIRECT COST	UNIT COST (PHP)
				MATERIALS		LABOR			
				PER UNIT	MAT'L .COST	PER UNIT	LABOR COST		
	A. Hangers, Supports, Sleeves and Taggings	lot	1.00		0.00		-	0.00	0.00
	B. Civil Works including Chipping and Coring Works	lot	1.00	-	-		-	0.00	0.00
	C. Restoration Works	lot	1.00	-	-		-	0.00	0.00
	D. Testing of Wires, System Programming, Testing and Commissioning	lot	1.00	-	-		-	0.00	0.00
	INITIAL GRAND TOTAL				*0.00*		*0.00*	*0.00*	

SUMMARY OF BREAKDOWN OF TOTAL LUMPSUM BID PRICE

Project : **SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER**

A.	ESTIMATED DIRECT COST						
	A.1.	Materials and Equipment Cost (exclusive of VAT)	P	0.00			
	A.2.	Labor Cost and Equipment Rental (exclusive of VAT)	P	0.00			
		SUB - TOTAL (EDC)	P		0.00		
	A.3.	Mobilization and Demobilization (1 % of EDC)	P		0.00		
		TOTAL A	P			0.00	
B.	INDIRECT COST						
	B.1.	Mark-up					
		B.1.1. Overhead expenses, unforeseen contingencies					
		miscellaneous expenses [(A) * OCM%]	P				
		B.1.2. Contractor's profit [(A) * P%]	P				
		SUB-TOTAL (B.1.)	P		0.00		
	B.2.	Taxes					
		B.2.1. 12% VAT of [(A) + (B.1)]	P	0.00			
		B.2.2. Municipal Tax					
		(per Municipal Tax of Los Baños)	P				
		SUB-TOTAL (B.2.)	P		0.00		
		TOTAL B	P			0.00	

TOTAL APPROVED BUDGET FOR CONSTRUCTION	P	**0.00**
(Amount in words)		

Submitted by:

(Name of Bidder)

(Date)

Legend:

-should be filled-up

Section IX. Philippine Bidding Documents Related Forms

TABLE OF CONTENTS

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE (Original and Copy 1)

Class "A" Documents

Legal Documents

(a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 20.2.9 of the IRR;

Technical Documents

(b) Statement of the bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**

(c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules. The SLCC should be at least 50% of the ABC.; **and**

(d) Philippine Contractors Accreditation Board (PCAB) License: **Small B (minimum size range); Specialty-Electro Mechanical Work or Electrical Work; Category C or D (minimum license category)**
or Special PCAB License in case of Joint Ventures **and** registration for the type and cost of the contract to be bid; **and**

(e) Bid Security: Original copy of Notarized Bid Securing Declaration or Cash, or if in the form of a Surety Bond (submit also a certification issued by the Insurance Commission as authorized to issue such security); **and**

(f) Project Requirements, which shall include the following:
1. Organizational chart for the contract to be bid;
2. Key personnel's (1) Letter Certificate to Procuring Entity to be assigned to the contract to be bid, (2) Bio-Data, and (3) Certificate of Employment:

Key Personnel	General Experience
1. Registered Electrical/Electronic Engineer (with valid license)	Minimum of 5 yrs
2. Electrician/Electronic Technician	Minimum of 5 yrs w/ valid NC2 (Electrical Installation and maintenance)
3. CAD Operator	Minimum of 2 yrs

3. 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**

A. Tools	Number of Units
1. Calibrated Insulation Continuity Tester	Minimum of 1 unit
2. Calibrated Clamp/Multimeter	Minimum of 1 unit
3. LAN Network Tester	Minimum of 1 unit
4. Sound Meter	Minimum of 1 unit
5. Hand tools	

a. Grinder b. Hammer Drill	Minimum of 1 unit Minimum of 1 unit
B. Equipment	
a. Chipping Gun	Minimum of 1 unit
b. Coring Machine	Minimum of 1 unit
C. Others	
1. PPE (Personal Protective Equipment) - includes hard hat, safety vest, safety shoes, safety gloves	Minimum of 5pcs per item

(g) Original duly signed Omnibus Sworn Statement (OSS);
and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; **or** Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

(h) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

(i) 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.

(j) Affidavit of Site Inspection

I. FINANCIAL COMPONENT ENVELOPE (Original and Copy 1)

(k) Original of duly signed and accomplished Bid Form; **and**
(l) Duly signed Detailed Construction Estimates Worksheet (DCEW); **and**
(m) Duly signed Summary of Breakdown of Total Lump Sum Bid Prices; **and**
(n) Cash Flow by Quarter and Payments Schedule.

Notes:
The prescribed documents in the checklist are mandatory to be submitted in the Bid.

STATEMENT OF ALL ONGOING GOVERNMENT & PRIVATE CONTRACTS INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED

Business Name : ______________________________

Business Address : ______________________________

Name of Contract	Date of Contract	Duration of Contract	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work		Contractor's Role		a. Total Contract Value at Award b. Total Contract Value at Completion c. Date of Completion	% of Accomplishment		Value of Outstanding Works
						Description	%		Planned	Actual	
Government											
Private											
										Total Cost	

Note: This statement shall be supported with:

1. Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory.
2. Notice of Award and/or Notice to Proceed

Submitted by : ______________________________

(Printed Name & Signature)

Designation : ______________________________

Date : ______________________________

STATEMENT OF BIDDER'S SINGLE LARGEST COMPLETED CONTRACT (SLCC) SIMILAR TO THE CONTRACT TO BE BID

Business Name : ______________________________

Business Address : ______________________________

Name of Contract	Date of Contract	Duration of Contract	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work		Contractor's Role		a. Total Contract Value at Award b. Total Contract Value at Completion c. Date of Completion	% of Accomplishment		Value of Outstanding Works
						Description	%		Planned	Actual	
Government											
Private											
									Total Cost		

Note: This statement shall be supported with:

1. Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory.
2. Notice of Award and/or Notice to Proceed

Submitted by : ______________________________

(Printed Name & Signature)

Designation : ______________________________

Date : ______________________________

Bid Form for Procurement of Infrastructure Projects

[Note: The duly accomplished form shall be submitted with the Bid]

BID FORM

Project Identification No.: *PB No. 26-04-001*

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]

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 _______.

SECRETARY'S CERTIFICATE

I, ________________________________, a duly elected and qualified Corporate Secretary of ____________________________, a corporation duly organized and existing under and by virtue of the law of the __________________________________, DO HEREBY CERTIFY, that:

I am familiar with the facts herein certified and duly authorized to certify the same;

At the regular meeting of the Board of Directors of the said Corporation duly convened and held on ______________ at which meeting a quorum was present and acting throughout, the following resolutions were approved, and the same have not been annulled, revoked and amended in any way whatever and are in full force and effect on the date hereof:

RESOLVED, that ________________________be, as it hereby is, authorized to participate in the bidding for "**Supply, Delivery and Installation of Closed-Circuit Television (CCTV) and Public Address and Background Music System (PABGM) at the International Convention Center", Project Identification PB No. 26-04-001** by the **UP Open University** and that if awarded the project shall enter into a contract with the **UP Open University**; and in connection therewith hereby appoint _______________________, acting as duly authorized and designated representatives of __________________, are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent ______________________ in the bidding as fully and effectively as the _________________________________ might do if personally present with full power of substitution and revocation and hereby satisfying and confirming all that my said representative shall lawfully do or cause to be done by virtue hereof;

RESOLVED FURTHER THAT, the ___________________ hereby authorizes its President to:

(1) execute a waiver of jurisdiction whereby the _________________ hereby submits itself to the jurisdiction of the Philippine government and hereby waives its right to question the jurisdiction of the Philippine courts;

(2) execute a waiver that the ___________________________ shall not seek and obtain writ of injunctions or prohibition or restraining order against the AFP or any other agency in connection with this project to prevent and restrain the bidding procedures related thereto, the negotiating of and award of a contract to a successful bidder, and the carrying out of the awarded contract.

WITNESS the signature of the undersigned as such officer of the said ___________________ this ____________________.

____
(Corporate Secretary)

ACKNOWLEDGMENT

SUBSCRIBED AND SWORN to before me this _____ day of _____________, 20___ affiant exhibited to me his/her Government Issued ID No. ______________ issued on _________________ at _____________________, Philippines.

Notary Public
Until 31 December 20____
PTR No._______________
Issued at:_______________
Issued on:_______________
TIN No. ________________

Doc. No. _______
Page No. _______
Book No. _______
Series of _______.

SPECIAL POWER OF ATTORNEY

I, ________________________________, President of _________________, a corporation incorporated under the laws of _______________________________ with its registered office at ____, by virtue of Board Resolution No. _____________ dated ___________________, has made, constituted and appointed _________ true and lawful attorney, for it and its name, place and stead, to do, execute and perform any and all acts necessary and/or represent _______________________________ in the bidding of ___________________________________ as fully and effectively as corporation might do if personally present with full power of substitution and revocation and hereby confirming all that said representative shall lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, I have hereunto set may hand this _______ day of __________________, 20____ at _______________________.

____
Affiant

Signed in the Presence of:

____________________________ ________________________

ACKNOWLEDGMENT

REPUBLIC OF THE PHILIPPINES)
QUEZON CITY)SS.

BEFORE ME, a Notary Public for and in Quezon City, Philippines, this _______ day of _______________, 20______, personally appeared:

NAME	Government Issued ID NO.	ISSUED AT/ON
__________________________	_______________________	____________________
__________________________	_______________________	____________________

known to me and known to be the same person who executed the foregoing instrument consisting of ________ ( ) pages, including the page whereon the acknowledgments is written and acknowledged before me that the same is his free and voluntary act and deed and that of the Corporation he represents.

WITNESS MY HAND AND NOTARIAL SEAL, at the place and on the date first above written.

Notary Public
Until 31 December 20____
PTR No._______________
Issued at:_______________
Issued on:_______________
TIN No. ________________

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.: ***PB No. 26-04-001***

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 _______

NET FINANCIAL CONTRACTING CAPACITY

The computation of a prospective bidder's Net Financial Contracting Capacity (NFCC) must be at least equal to the ABC to be bid (₱4,291,650.00), calculated as follows:

ABC: ₱4,291,650.00	Year 20__
Current Assets	
Minus: Current Liabilities	
Sub Total	
Multiplied by value of K	
Sub Total	
Minus: Value of outstanding services under ongoing contracts including awarded contracts yet to be started coinciding with the contract to be bid	
NFCC	

NFCC = [(current asset minus current liabilities) (15)] minus value of all outstanding or uncompleted portions of the projects under ongoing contracts including awarded contracts yet to be started coinciding with the contract to be bid.

NFCC = PhP______________________________

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements submitted to the BIR.

Submitted by:

____
Name of Supplier / Distributor / Manufacturer

____
Signature of Authorized Representative
Date : _____________________________

NOTE:

1. If Partnership or Joint Venture, each Partner or Member Firm of Joint Venture shall submit the above requirements.

JOINT VENTURE AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

That this JOINT VENTURE AGREEMENT is entered into by and between ___________, of legal age, ______________________________ owner/proprietor of ___________________________
(civil status)
and a resident of _________________________.

- and -

________________________, of legal age, _______________, owner/proprietor of
(civil status)
_____________________ a resident of _____________________________________.

THAT both parties agree to join together their manpower, equipment, and what is need to facilitate the Joint Venture to participate in the Eligibility, Bidding and Undertaking of the here-under stated project to be conducted by the UP Open University.

NAME OF PROJECT	CONTRACT AMOUNT

That both parties agree to be jointly and severally liable for the entire assignment.

That both parties agree that ____________________ and/or __________________ shall be the Official Representative of the Joint Venture, and is granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the bidding as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation.

THAT this Joint Venture Agreement shall remain in effect only for the above stated Project until terminated by both parties.

Done this _____ day of ______, in the year of our Lord _____.

ACKNOWLEDGMENT

SUBSCRIBED AND SWORN to before me this _____ day of _____________, 20___ affiant exhibited to me his/her Government Issued ID No. ______________ issued on _________________ at _____________________, Philippines.

Notary Public
Until 31 December 20____
PTR No.________________
Issued at:_______________
Issued on:_______________
TIN No. ________________

Doc. No. _______
Page No. _______
Book No. _______
Series of _______.

CONSTRUCTOR'S ORGANIZATIONAL CHART FOR THE CONTRACT

Submit Copy of the Organizational Chart that the Constructor intends to use to execute the Contract if awarded to it. Indicate in the chart the names of the **All Key Personnel for the Project.**

Attach the required Proposed Organizational Chart for the Contract as stated above

Note: This organization chart should represent the "Constructor's Organization" required for the Project, and not the organizational chart of the entire firm.

QUALIFICATION OF KEY PERSONNEL PROPOSED TO BE ASSIGNED TO THE CONTRACT

Bidder's Name: ____________________________________

Bidder's Address: __________________________________

		Registered Electrical/Electronic Engineer	Electrician/Electronic Technician	CAD Operator		
Name						
Address						
Date of Birth						
Employed Since						
Experience						
(a) Total Experience (Years)	Required					
	Actual					
(b) Experience in Similar Project (Years)	Required					
	Actual					
Previous Employment						
Education						
PRC Registration & License/ Accreditation/ Certification (as required)						

Note: This form is applicable to all required List of Key Personnel for the Contract to Bid

Submitted by: ____

(Printed Name & Signature)

Designation: _____________________________________

Date: ____

CONTRACTOR'S LETTER-CERTIFICATE TO PROCURING ENTITY

[Date of Issuance]

Dr. FINAFLOR F. TAYLAN
Chair, Bids and Awards Committee (BAC)
UP Open University
UPOU Headquarters, Los Baños, Laguna

Dear Sir/Ma'am:

Supplementing our Organizational Chart for the Contract, we have the honor to submit herewith, and to certify as true and correct, the following pertinent information:

1. That I/we have engaged the services of ___*(Name of Employee/Key Personnel)*___, to be the ___*(Designation)* of the ___*(Name of Contract)*_____________________________, who is a ___*(Profession)*___ with Professional License Certificate No. _______ issued on ____________________ and who has performed the duties in the construction of the Contracts enumerated in the duly filled Form ______.

2. The said Engineer/Employee/Key Personnel shall be designated by us as our *(Designation)* to personally perform the duties of the said position in the above-mentioned Project, if and when the same is awarded in our favor.

3. That said Engineer/Employee/Key Personnel shall employ the best care, skill and ability in performing his duties in accordance with the Contract Agreement, Conditions of Contract, Plans, Specifications, Special Provisions, and other provisions embodied in the proposed contract.

4. That said Engineer/Employee/Key Personnel shall be personally present at the jobsite to supervise the phase of the construction work pertaining to this assignment as *(Designation)*, all the time.

5. That, in order to guarantee that said Engineer/Employee/Key Personnel shall perform his duties properly and be personally present in the Job Site, he is hereby required to secure a certificate of appearance for the Procuring Entity Engineer/Authorized Representative at the end of every month.

   That, in the event that I/we elect or choose to replace said *(Designation)* with another Engineer/Employee/Key Personnel, the Procuring Entity will be accordingly notified by us in writing at least twenty one (21) days before making the replacement. We will submit to the Procuring Entity, for prior approval, the name of the proposed new *(Designation)*, his qualifications, experience, and list of projects undertaken and other relevant information.

6. That any willful violation on my/our part of the herein conditions may prejudice my/our standing as a reliable contractor in future bidding of the Procuring Entity.

Very truly yours,

____
(Name and Signature of Authorized Representative of Bidder)

CONCURRED IN:

____
(Name and Signature of Employee/Key Personnel)

____
(Address)

BIO-DATA OF KEY PERSONNEL

Give the detailed information of the following personnel who are scheduled to be assigned as full-time field staff for the project. ***Fill out a form for each person.***

- Authorized Managing Officer / Representative

- Sustained Technical Employee

1. Name: ____

2. Date of Birth: ____

3. Nationality: ____

4. Education and Degrees: ___________________________________

5. Specialty: ____

6. Registration: ____

7. Length of Service with the Firm: _____ Year from____ (months) _____ (year)

   to____ (months) _____ (year)

8. Years of Experience: ____

9. If Item 7 is less than ten (10) years, give name and length of service with previous employers for a ten (10)-year period (attached additional sheet/s), if necessary:

Name and Address of Employer	Length of Service
__________________________	_____ year(s) from _______ to ______
__________________________	_____ year(s) from _______ to ______
__________________________	_____ year(s) from _______ to ______

10. Experience:

This should cover the past ten (10) years of experience. (Attached as many pages as necessary to show involvement of personnel in projects using the format below).

1. Name: ____

2. Name and Address of Owner: ____

3. Name and Address of the Owner's Engineer: _________________________________
   (Consultant)

4. Indicate the Features of Project (particulars of the project components and any other particular interest connected with the project): ________________________________

5. Contract Amount Expressed in Philippine Currency: ___________________________

6. Position: ____

7. Structures for which the employee was responsible: ____________________________

8. Assignment Period: from _______ (months) _______ (years)
: to _______ (months) _______ (years)

____
Name and Signature of Employee/Key Personnel

It is hereby certified that the above personnel can be assigned to this project, if the contract is awarded to our company.

_______________________________ __________________________________
(Place and Date) (Bidder's Authorized Representative)

KEY PERSONNEL'S CERTIFICATE OF EMPLOYMENT

[Date of Issuance]

Dr. FINAFLOR F. TAYLAN
Chair, Bids and Awards Committee (BAC)
UP Open University
UPOU Headquarters, Los Baños, Laguna

Dear Sir/Ma'am:

I am ____(Name of Nominee)____ a licensed __(profession)__ with Professional License No. ______________ issued on ___(date of issuance)___ at ___(place of issuance)___.

I hereby certify that (Name of Bidder) has engaged my services as (Designation) for (Name of the Contract), if awarded to it.

As ____(Designation)_____, I supervised the following completed projects similar to the Contract under bidding):

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
___________________	________________	______________	_______________
___________________	________________	______________	_______________
___________________	________________	______________	_______________
___________________	________________	______________	_______________

At present, I am supervising the following projects:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
___________________	________________	______________	_______________
___________________	________________	______________	_______________
___________________	________________	______________	_______________
___________________	________________	______________	_______________

In case of my separation for any reason whatsoever from the above-mentioned Contractor, I shall notify the ______(Name of the Procuring Entity)______ at least twenty one (21) days before the effective date of my separation.

As _(Designation), I know I will have to stay in the job site all the time to supervise and manage the Contract works to the best of my ability, and aware that I am authorized to handle only one (1) contract at a time.

I do not allow the use of my name for the purpose of enabling the above-mentioned Contractor to qualify for the Contract without any firm commitment on my part to assume the post of (Designation) therefor, if the contract is awarded to him since I understand that to do so will be a sufficient ground for my disqualification as (Designation) in any future (Name of the Procuring Entity) bidding or employment with any Contractor doing business with the (Name of the Procuring Entity) .

____
(Signature)

DRY SEAL

Republic of the Philippines)
________________________) S.S.

SUBSCRIBED AND SWORN TO before me this _________ day of _________ 20__ affiant exhibiting to me his Government Issued ID No. _________ issued on _____________ at _______________.

Notary Public
Until December 31, 20___

Doc. No. ________;
Page No. ________;
Book No. ________;
Series of _________;

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:

A. Tools	**Number of Units**
1. Calibrated Insulation Continuity Tester	Minimum of 1 unit
2. Calibrated Clamp/Multimeter	Minimum of 1 unit
3. LAN Network Tester	Minimum of 1 unit
4. Sound Meter	Minimum of 1 unit
5. Hand tools a. Grinder b. Hammer Drill	 Minimum of 1 unit Minimum of 1 unit
B. Equipment	
a. Chipping Gun	Minimum of 1 unit
b. Coring Machine	Minimum of 1 unit
C. Others	
1. PPE (Personal Protective Equipment) - includes hard hat, safety vest, safety shoes, safety gloves	Minimum of 5pcs per item

Note: This statement shall be supported with Proof of ownership such as Certified copy of the Official Receipt of each item listed or an Affidavit of ownership.

Certified Correct:

____
Signature Over Printed Name of the Authorized Representative

CASH FLOW BY QUARTER AND PAYMENT SCHEDULE

PARTICULAR	% WT.	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
ACCOMPLISHMENT					
CASH FLOW					
CUMULATIVE ACCOMPLISHMENT					
CUMULATIVE CASH FLOW					

SUBMITTED BY:

____

Name of Bidder

____

(Printed Name and Signature of Authorized Managing Officer)

____

____

Date

AFFIDAVIT OF SITE INSPECTION

This is to certify that this Company, through its authorized representative, _______________, has conducted the inspection of the site for the project "_________________________________" located at UP Open University Headquarters, Los Baños, Laguna, on this ______ day of __________________ 20__, in connection with our desire to participate in the bidding for the above project.

____

(Printed Name & Signature of Bidder)

ACKNOWLEDGMENT

SUBSCRIBED AND SWORN to before me this _____ day of _____________, 20___ affiant exhibited to me his/her Government Issued ID No. ______________ issued on _________________ at _____________________, Philippines.

Notary Public
Until 31 December 20____
PTR No.______________
Issued at:______________
Issued on:______________
TIN No. ________________

Doc. No. _______
Page No. _______
Book No. _______
Series of _______.

Sealing and Marking of Bids:

Submission of hard copies to the BAC Secretariat Address:

One Original Copy and Copy 1 of the Technical and Financial components.

PROCEDURE:

1. The Technical Components (TC) of the Bid should be enclosed in envelope and must be labelled, sealed and signed as follows:

SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER – TECHNICAL COMPONENT - ORIGINAL & COPY 1

[NAME AND ADDRESS OF THE BIDDERS]
BIDS AND AWARDS COMMITTEE SECRETARIAT
UP OPEN UNIVERSITY
UPOU HEADQUARTERS, LOS BAÑOS, LAGUNA
REFERENCE NO. PB No. 26-04-001
"DO NOT OPEN BEFORE 12 May 2026, 2:00 PM"

2. The Financial Components (FC) of the Bid should be enclosed in another envelope and must labelled, sealed and signed as follows;

SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER – FINANCIAL COMPONENT - ORIGINAL & COPY 1

[NAME AND ADDRESS OF THE BIDDERS]
BIDS AND AWARDS COMMITTEE SECRETARIAT
UP OPEN UNIVERSITY
UPOU HEADQUARTERS, LOS BAÑOS, LAGUNA
REFERENCE NO. PB No. 26-04-001
"DO NOT OPEN BEFORE 12 May 2026, 2:00 PM"

3. The TC and FC envelopes should be enclosed in one mother envelope and must be labelled, sealed and signed as follows:

SUPPLY, DELIVERY AND INSTALLATION OF CLOSED-CIRCUIT TELEVISION (CCTV) AND PUBLIC ADDRESS AND BACKGROUND MUSIC SYSTEM (PABGM) AT THE INTERNATIONAL CONVENTION CENTER

[NAME AND ADDRESS OF THE BIDDERS]
BIDS AND AWARDS COMMITTEE SECRETARIAT
UP OPEN UNIVERSITY
UPOU HEADQUARTERS, LOS BAÑOS, LAGUNA
REFERENCE NO. PB No. 26-04-001
"DO NOT OPEN BEFORE 12 May 2026, 2:00 PM"

Republic of the Philippines

gppb

Government Procurement Policy Board