

PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

Procurement of Fire Alarm and Detection System

**Sixth Edition
May 2025**

Preface

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

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

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

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

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

- a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.
- b. Specific details, such as the “*name of the Procuring Entity*” and “*address for bid submission*,” should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.
- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms	5
Section I. Invitation to Bid.....	9
Section II. Instructions to Bidders	11
1. Scope of Bid	12
2. Funding Information.....	12
3. Bidding Requirements	12
4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices.....	13
5. Eligible Bidders.....	13
6. Origin of Associated Goods	14
7. Subcontracts	14
8. Pre-Bid Conference	14
9. Clarification and Amendment of Bidding Documents.....	14
10. Documents Comprising the Bid: Eligibility and Technical Components	15
11. Documents Comprising the Bid: Financial Component.....	15
12. Alternative Bids.....	15
13. Bid Prices	16
14. Bid and Payment Currencies	16
15. Bid Security.....	16
16. Sealing and Marking of Bids.....	16
17. Deadline for Submission of Bids.....	17
18. Opening and Preliminary Examination of Bids.....	17
19. Detailed Evaluation and Comparison of Bids	17
20. Post Qualification	17
21. Signing of the Contract.....	18
Section III. Bid Data Sheet	19
Section IV. General Conditions of Contract.....	24
1. Scope of Contract	25
2. Sectional Completion of Works	25
3. Possession of Site	25
4. The Contractor's Obligations	25
5. Performance Security	26
6. Site Investigation Reports.....	26

7.	Warranty	26
8.	Liability of the Contractor	26
9.	Termination for Other Causes	26
10.	Dayworks.....	27
11.	Program of Work.....	27
12.	Instructions, Inspections and Audits	27
13.	Advance Payment.....	27
14.	Progress Payments.....	27
15.	Operating and Maintenance Manuals.....	28
Section V. Special Conditions of Contract		29
Section VI. Specifications.....		32
Section VII. Drawings		38
Section VIII. Bill of Quantities.....		51
Section IX. Checklist of Technical and Financial Documents.....		56

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid



REPUBLIC OF THE PHILIPPINES
Philippine State College of Aeronautics
Piccio Garden, Villamor, Pasay City

INVITATION TO BID
Procurement of Fire Alarm and Detection System

1. The **Philippine State College of Aeronautics (PhilSCA)** through the **Corporate Operating Budget** intends to apply the sum **Thirty-Two Million Pesos (PhP 32,000,000.00)** being the Approved Budget for the Contract (ABC) to payments under the contract for **Bid** entitled **Procurement of Fire Alarm and Detection System/PB2025 – Infra -10**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. PhilSCA now invites bids for the above Procurement Project. Completion of the Works is **90 days after the receipt of Notice to Proceed**. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary *“pass/fail”* criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Prospective Bidders may obtain further information from the Bids and Awards Committee of PhilSCA and inspect the Bidding Documents at the address given below during office hours from 8:00AM to 5:00PM, Monday to Friday except Saturdays, Sundays and Holidays.
5. A complete set of Bidding Documents may be acquired by interested bidders on **May 27, 2025 to June 16, 2025** fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Twenty - Five Thousand Pesos (PhP 25,000.00)**. The Procuring Entity shall allow the bidder to present its proof of payment for the fees be presented in person.
6. The Philippine State College of Aeronautics] will hold a Pre-Bid Conference on June 3, 2025, 1:00 PM at Bids and Awards Committee Office of Building – A, PhilSCA, Piccio Garden, Villamor, Pasay City which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below on or before **June 16, 2025, 12:20 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 14.

9. Bid opening shall be on **June 16, 2025, Monday at 1:00 pm** onwards at the given address below through blended (in person or online). Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. PhilSCA reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder/s.
11. For further information, please refer to:

MR. NOEL E. LAGUI

Head, BAC Secretariat
BAC Office, Building – A, PhilSCA,
Piccio Garden, Villamor, Pasay City
philscabac@gmail.com
09285244731
www.philsca.edu.ph

12. You may visit the website: www.philsca.edu.ph for downloading of Bidding Documents.

Date Posted: **May 27, 2025**

DARBY P. ESPERANZATE

Chairperson, Bids and Awards Committee

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, NFRDI invites Bids for the **Procurement of Fire Alarm and Detection System**, with Project Identification Number **PB2025 – Infra – 10**.

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

2. Funding Information

2.1 The GOP through the source of funding as indicated below for APP CY 2025 in the amount of **Thirty - Two Million Pesos, PhP 32,000,000.00**, inclusive of all applicable government taxes.

2.2 The source of funding is:

- a. GOCC and GFIs, the proposed Corporate Operating Budget.

3 Bidding Requirements

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

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

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

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

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex “I” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5 Eligible Bidders

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

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

- 5.3 For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4 The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6 Origin of Associated Goods

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

7 Subcontracts

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

The Procuring Entity has prescribed that **subcontracting is not allowed**.

8 Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address below and/or through videoconferencing/webcasting} as indicated in paragraph 6 of the **IB**.

9 Clarification and Amendment of Bidding Documents

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

10 Documents Comprising the Bid: Eligibility and Technical Components

- 10.1 The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 10.2 If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3 A valid special PCAB License in case of Joint Ventures, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4 A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5 A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11 Documents Comprising the Bid: Financial Component

- 11.1 The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 11.2 Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3 For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.
- 11.4

12 Alternative Bids

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

13 Bid Prices

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

14 Bid and Payment Currencies

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

14.2 Payment of the contract price shall be made in Philippine Pesos.

15 Bid Security

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

15.2 The Bid and bid security shall be valid until **120 calendar days from the date of bid opening**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16 Sealing and Marking of Bids

Each Bidder shall submit **one (1) original and three (3) copies** of the first and second components of its Bid. Every page must be signed by the authorize bidder's representative.

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

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy

of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

17 Deadline for Submission of Bids

The Bidders shall submit on the specified date and time its physical address as indicated in paragraph 7 of the **IB**.

18 Opening and Preliminary Examination of Bids

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

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

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

19 Detailed Evaluation and Comparison of Bids

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

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

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

20 Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR

Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21 Signing of the Contract

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

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause																																														
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: • Building Construction/Improvement/Rehabilitation/Repair with/of Installation of Fire Detection and Alarm System; or • Installation of Fire Detection and Alarm System • The statement of SLCC shall be accompanied by a Certificate of Final Acceptance issued by the owner, or a final rating of at least Satisfactory in the Constructors Performance Evaluation System (CPES). In the case of contracts with the private sector, an equivalent document shall be submitted. (Section 23.4.2.5 of the Revised IRR of Republic Act No. 9184). • completed within the last five (5) years prior to the deadline for the submission and receipt of bids.																																													
7.1	Subcontracting is not allowed																																													
10.3	PCAB License, Category “B” with a classification Electrical Work and with at least size range of Small B. For Joint Venture Bidders, a Joint License issued by the PCAB pursuant to Section 38 of Republic Act No. 4566, and not the PCAB license and registration individually issued to each joint venture partner must be submitted. Failure of the Joint Venture Bidders to submit a Joint License may be a ground for its disqualification despite the submission of the individual licenses of each joint venture partner.																																													
10.4	The key personnel must meet the required minimum years of experience set below: <table><tr><th>1</th><th></th><th>Design Phase:</th><th>Certifications</th><th>Relevant Experience</th></tr><tr><td></td><td>Personnel</td><td></td><td></td><td></td></tr><tr><td></td><td>1</td><td>Professional Mechanical Engineer</td><td>Holder of Valid PRC and PTR ID</td><td>12 - year experience</td></tr><tr><td></td><td>1</td><td>Professional Electronic Communication Engineer</td><td>Holder of Valid PRC and PTR ID</td><td>10 - year experience</td></tr><tr><td></td><td>1</td><td>Professional Electrical Engineer</td><td>Holder of Valid PRC and PTR ID</td><td>12 - year experience</td></tr><tr><td>2</td><td></td><td>Construction Phase:</td><td>Certifications</td><td>Relevant Experience</td></tr><tr><td></td><td>1</td><td>Registered Mechanical Engineer</td><td>Holder of Valid PRC and PTR ID</td><td>5 - year experience</td></tr><tr><td></td><td>1</td><td>Registered Electrical Engineer</td><td>Holder of Valid PRC and PTR ID</td><td>5 - year experience</td></tr><tr><td></td><td>1</td><td>Electronic Communication Engineer</td><td>Holder of Valid PRC and PTR ID</td><td>5 - year experience</td></tr></table>	1		Design Phase:	Certifications	Relevant Experience		Personnel					1	Professional Mechanical Engineer	Holder of Valid PRC and PTR ID	12 - year experience		1	Professional Electronic Communication Engineer	Holder of Valid PRC and PTR ID	10 - year experience		1	Professional Electrical Engineer	Holder of Valid PRC and PTR ID	12 - year experience	2		Construction Phase:	Certifications	Relevant Experience		1	Registered Mechanical Engineer	Holder of Valid PRC and PTR ID	5 - year experience		1	Registered Electrical Engineer	Holder of Valid PRC and PTR ID	5 - year experience		1	Electronic Communication Engineer	Holder of Valid PRC and PTR ID	5 - year experience
1		Design Phase:	Certifications	Relevant Experience																																										
	Personnel																																													
	1	Professional Mechanical Engineer	Holder of Valid PRC and PTR ID	12 - year experience																																										
	1	Professional Electronic Communication Engineer	Holder of Valid PRC and PTR ID	10 - year experience																																										
	1	Professional Electrical Engineer	Holder of Valid PRC and PTR ID	12 - year experience																																										
2		Construction Phase:	Certifications	Relevant Experience																																										
	1	Registered Mechanical Engineer	Holder of Valid PRC and PTR ID	5 - year experience																																										
	1	Registered Electrical Engineer	Holder of Valid PRC and PTR ID	5 - year experience																																										
	1	Electronic Communication Engineer	Holder of Valid PRC and PTR ID	5 - year experience																																										

	1	Material Engineer DPWH Accredited	Holder of Valid PRC and PTR ID	5 - year experience																																								
	1	Fire Safety officer	Certification	5 - year experience																																								
	1	Safety Officer 3 DOLE Accredited	Certification	5 - year experience																																								
	3	Safety Officer 1 DOLE Accredited	Certification	5 - year experience																																								
	2	First Aider or Nurse	Certification / valid PRC	2 - year experience																																								
	2	Security Guards	with valid License	1 - year experience																																								
	1	Foreman		10 - year experience																																								
	6	Welder	With NC 2	3 - year experience																																								
	6	Electrician	With NC 2	3 - year experience																																								
	2	Mason / Carpentry		3 - year experience																																								
	20	Laborers / Helper		3 - year experience																																								
	1	Painter		3 - year experience																																								
	10.5	The minimum major equipment requirements are the following: <u>Equipment</u> <u>Capacity</u> <u>Number of Units</u> <table><tr><td>3</td><td>(Quantity)</td><td>Equipment and Tools</td></tr><tr><td></td><td>1</td><td>Service Vehicle</td></tr><tr><td></td><td>1</td><td>6 wheeler vehicle</td></tr><tr><td></td><td>4</td><td>Threading Machine</td></tr><tr><td></td><td>4</td><td>Cut off Machine</td></tr><tr><td></td><td>2</td><td>Chain block with five tons capacity</td></tr><tr><td></td><td>2</td><td>Jack Hammer</td></tr><tr><td></td><td>3</td><td>Chipping Gun</td></tr><tr><td></td><td>4</td><td>Welding Machine 300mps</td></tr><tr><td></td><td>2</td><td>Welding Machine 200mps</td></tr><tr><td></td><td>5</td><td>Grinder</td></tr><tr><td></td><td>2</td><td>Press drill</td></tr><tr><td></td><td>5</td><td>Power drill</td></tr></table>				3	(Quantity)	Equipment and Tools		1	Service Vehicle		1	6 wheeler vehicle		4	Threading Machine		4	Cut off Machine		2	Chain block with five tons capacity		2	Jack Hammer		3	Chipping Gun		4	Welding Machine 300mps		2	Welding Machine 200mps		5	Grinder		2	Press drill		5	Power drill
	3	(Quantity)	Equipment and Tools																																									
	1	Service Vehicle																																										
	1	6 wheeler vehicle																																										
	4	Threading Machine																																										
	4	Cut off Machine																																										
	2	Chain block with five tons capacity																																										
	2	Jack Hammer																																										
	3	Chipping Gun																																										
	4	Welding Machine 300mps																																										
	2	Welding Machine 200mps																																										
	5	Grinder																																										
	2	Press drill																																										
	5	Power drill																																										
12	[Insert Value Engineering clause if allowed.]																																											

15.1	The bid security shall be in any of the following forms and amounts: a. Notarized Bid Securing Declaration using the form prescribed in the Bidding Documents. b. Not less than 2% of the ABC or PhP 640,000.00, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit. Bidders who opt to submit a bid security in the form of cash and/or cashier's/manager's check shall deposit the said bid security to the GSIS Cashier, in coordination with the GBAC Secretariat, prior to the submission of bids. The Official Receipt issued by the GSIS Cashier shall be submitted as part of the Technical Component. If a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank will be submitted, it shall be confirmed or authenticated by a Universal or Commercial Bank. c. Not less than 5% of the ABC or PhP 1,600,000.00, if bid security is in Surety Bond. It shall be accompanied by a certification from the Insurance Commission stating that the surety or insurance company is authorized to issue such instruments.
16	Bidders are required to submit one (1) original copy and three (3) triplicate copies (COPY 1, COPY 2 and COPY 3) of the eligibility & technical documents described in Section II. Instructions to Bidders (ITB) Clause 10 marked "TECHNICAL COMPONENT", and their financial documents described in ITB Clause 11 in another sealed envelope marked "FINANCIAL COMPONENT", sealing them all in an outer envelope marked "BID". All pages of the original and duplicate copies must be properly signed (wet signature) by the bidder's authorized representative. Further, all envelopes shall: a) contain the name of the contract to be bid in capital letter; b) bear the name and address of the Bidder in capital letters; c) be addressed to the Procuring Entity's BAC in accordance with Section I. Invitation to Bid Clause 9; d) bear the specific identification of the Project indicated in ITB Clause 1; and e) bear a warning "DO NOT OPEN BEFORE..." the date and time for the opening of bids, in accordance with the aforementioned date and time. Please be reminded that pursuant to Section 25.9 of the 2016 Revised IRR of R.A No. 9184, unsealed or unmarked bid envelopes shall be rejected. However, bid envelopes that are not properly sealed and marked, as required in the Bidding Documents, shall be accepted, provided that the bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.
19.1	The bid amount shall be evaluated based on the unit cost reflected in the Bill of Quantities. The Detailed Cost Estimate shall contain the detailed computation of the unit costs used in the Bill of Quantities. In case of discrepancies, the unit cost in the Bill of Quantities shall prevail, in accordance with Section 32.2.3 of the 2016 Revised IRR of RA 9184. The amended/corrected Detailed Cost Estimate

	will be submitted during contract implementation, if warranted
19.2	Partial bid is not allowed
19.3	The computation of a prospective bidder's NFCC must be at least equal to the ABC to be bid, pursuant to Section 23.4.2.6 of the 2016 Revised IRR of RA No. 9184.
20	<i>[List licenses and permits relevant to the Project and the corresponding law requiring it, e.g. Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone, etc.]</i>
20.1	Refer to Section VIII. Checklist of Post-Qualification Documents/ Requirements.
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling. Copy of the Bidding Documents, including bid bulletins (if any), obtained from GSIS and signed on every page by the winning bidder's authorized representative.

Section IV. General Conditions of Contract

1. Scope of Contract

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

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

2. Sectional Completion of Works

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

3. Possession of Site

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

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

4. The Contractor's Obligations

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

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

5. Performance Security

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

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

7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the SCC.

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

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

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

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

- 15.1. If required, the Contractor will provide “as built” Drawings and/or operating and maintenance manuals as specified in the **SCC**.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity’s Representative’s approval, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Special Conditions of Contract

GCC Clause	
2	<i>[If different dates are specified for completion of the Works by section, i.e. “sectional completion,” these dates should be listed here.]</i> Completion of the Works is 90 days after receipt of NTP.
4.1	<i>[Specify the schedule of delivery of the possession of the site to the Contractor, whether full or in part.]</i> The Procuring Entity shall give possession of all parts of the site to the Contractor beginning on the date effectivity of contract until the date of its termination and/or project completion
6	The site investigation reports are: Site inspection is required and must secure a certificate of inspection from the center to include in the bidding documents
7.2	<i>[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]</i> Fifteen (15) years.
10	No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within 15 days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is 0.001% of the contract price per day of delays
13	The amount of the advance payment is 15% of the total contract price and schedule of payment. The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum. The advance payment shall be made only upon the submission to and acceptance by the procuring entity of an irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the Insurance Commission and

	confirmed by the procuring entity. The advance payment shall be repaid by the contractor by deducting fifteen percent (15%) from his periodic progress payments a percentage equal to the percentage of the total contract price used for the advance payment. The contractor may reduce his standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates in the advance payment.
14	Payments to the CONTRACTOR will be made only for the actual accomplishment and/or material utilized, which may be subdivided into progress percentages of the total area of all the structure certified by the PhilSCA as performed by the CONTRACTOR in accordance with the plans, specifications and program of works/construction schedule.
15.1	The date by which operating and maintenance manuals are required is within 30 calendar days after project completion. The date by which “as built” drawings are required is within 15 calendar days after project completion.
15.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is 5% of the Contract Amount.

Section VI. Specifications

1. Name and Description of the Project:

Procurement of Fire Alarm and Detection System

This project is the Procurement of Fire Protection Automatic Sprinkler System, and Fire Detection Alarm System with the technical specifications, shop drawings and method statement for fire protection works in accordance to the Fire Code of the Philippines.

2. Objective of the Project:

- a. To ensure safety of the occupants of the building especially employees and clients of PhilSCA during fire;
- b. To protect possible lost/damages to property of PhilSCA during an incident;
- c. To control the possible spread of fire in case of fire accident.

A. For Automatic Fire Sprinkler

1. Scope of the Project and Delivery Time/Completion:

1. Supply, delivery and installation	• Mobilization of manpower and equipment/tools at PhilSCA main campus located at Piccio Garden, Villamor Pasay City • Sign and seal of Construction plans for Automatic Fire Sprinkler System prior to application of various permits • Secure various permits and clearances as required by the Office of the Building Official, Bureau of Fire Protection and other local agencies • Fabrication of brackets and angle bar including accessories • Installation of BI seamless sprinkler pipe shall be per approved plans and specs • Installation of sprinklers head shall be per approved plans and specs • Leak testing and pressure testing shall be per approved plans and specs • Installation, testing and commissioning • Performance of other activities necessary to complete the system • Cleaning and hauling-out works and demobilization
2. Installation Schedule	Monday to Sunday or per coordination with end-user/s
3. Installation Period	Ninety (90) calendar days upon receipt of Notice of PNE 32 or availability of project site

2. General Notes:

- a. All works shall conform to the provisions (latest edition) of the Fire Code of the Philippines and the applicable local ordinance/s;
- b. Any proposed change or deviation from the original mechanical/layout plans or specifications either initiated by the mechanical contractor, the end-user or due to actual site condition, must be submitted to PhilSCA (in the form of shop drawings) for approval prior to implementation;
- c. The contractor should coordinate his works closely with the works of other trades concerned (i.e. Architectural, Civil, Electrical and other owner Furnished Material).
- d. Installation of works shall be done in neat workmanship and like manners. All improperly set works, rough finishes or other works not in accordance with the approved layouts and scope of works as determined by PhilSCA or technical representative/s shall be removed and replaced within seven (7) calendar days by the contractor at no extra cost;
- e. The contractor shall provide all the necessary components or accessories, e.g., brackets, clamps, fasteners, etc., to ensure the safe, normal and efficient operation of the installed fire Sprinkler system.
- f. The contractor shall properly account and turn-over all dismantled/ replaced materials to the Planning Office or its authorized representative/s;
- g. The contractor shall exercise extreme caution and be responsible in the hauling/transfer, installation, testing and commissioning of the equipment to prevent damage to PhilSCA properties. The corresponding cost to repair or replace in the school equipment, facilities including parts and components damaged or lost by the contractor or its workers during the course of the project shall be deductible/chargeable to the Sprinkler contractor;
- h. The contractor shall restore works on all affected areas. It includes rectification of ceiling opening affected by Installation of sprinkler system, retouching of affected d and/or damaged areas and other miscellaneous wall such as block-outs, foundations, walls, etc. as required in the specifications;
- i. The contractor shall be held directly responsible for any injury to person and/or damage to PhilSCAs property arising from the act, whether partial, contributory, or due entirely to the fault, negligence and/or dishonesty of the contractor's personnel in the course of their duties;
- j. The contractor shall maintain cleanliness of all workplace at all times. They shall clean the affected areas immediately after each workday;
- k. The contractor shall conduct familiarization seminar/training to orient the end-user on the basic concept, functions, operation and maintenance of the equipment installed;
- l. The Sprinkler contractor is required to submit the names of Its worker who will conduct or inspect the Installation. As maybe required, identification cards shall be presented;

- m. The contractor or Its engineer/foreman shall coordinate with the Planning Office or Its authorized representative/s to discuss the work activities prior to implementation of this project;
- n. The contractor shall strictly observe PhilSCA's existing rules and regulations and shall be subject to College' standard security policies and procedures while inside PhilSCA premises;
- o. The contractor shall provide the standard warranty servicing for all Installed equipment and its components (checking and testing at least twice within the warranty period). The schedule of said activities and the names of authorized representatives shall be submitted to the Planning Office or its authorized representative prior to servicing.
- p. Should the contractor fail to provide the required warranty servicing within the warranty period per submitted schedule of activities, the contractor agrees, without invalidating the provisions of the warranty that PhilSCA may opt to contract the services of another contractor/installer for the servicing of the equipment and components. The corresponding cost that will be incurred for the servicing shall be deducted from the contractor's retention money;

3. Qualification and Documentary Requirements

	Qualification	Documentary Requirements
A	Must have at least two (2) completed project from 2020 up to present and at least three (3) years' experience in the installation of Fire Protection System.	Copy of Contracts
B	Must have a Philippine Contractors Accreditation Board (PCAB) License with at least size range of Small B.	Copy of PCAB License

4. Billing Requirements

Documents	Completion	Due Date of Submission
1. As-built plans (signed and sealed by PNE) - 2 sets	Must have at least two (2) completed project from 2020 up to present and at least three (3) years' experience in the installation of Fire Protection System	Upon Completion
2. Schedule of Maintenance/Monitoring Activities	Must have a Philippine Contractors Accreditation Board (PCAB) License with at least size range of Small B.	Upon Completion
3. Warranty Certificate	Warranty Certificate with inclusive date. One (1) year warranty against factory/manufacturing defects on equipment, components and parts supplied and against faulty workmanship to	Upon Completion

	commence upon receipt of final turn-over and acceptance documents.	
4. Training Certificate	Certificate that proves that the contractor conducted familiarization seminar/training to orient the end- user on the basic concept, functions and operation of the equipment Installed	Upon Completion
5. Approved Permits and Clearances	Various permits and clearances as required by the office of the Building Official, Bureau of Fire Protection and other agencies In the event that a new or additional permits/clearances are required by the various agencies, the Sprinkler contractor shall be responsible to secure same	Upon Completion

B. For Fire Pump House, Cistern Tank, Water Pump and Electric Supply

1. Scope of the Project and Delivery Time/Completion:

1. Supply, delivery and Installation	Mobilization of manpower and equipment/tools at PhilSCA, Piccio Garden, Villamor Pasay City Construction of Fire Pump House and Cistern Tank including water pumps in accordance with the plans and specifications. The existing cistern tank will use . Install new electrical lines for the fire pump and jockey pump with complete accessories. Provide electrical plans and specifications. Cleaning and hauling-out works and demobilization
2. Installation Schedule	Monday to Sunday or per coordination with end-user/s
3. Installation Period	Ninety (90) calendar days upon receipt of Notice of PMED or availability of project site

2. General Notes:

- a. All works shall conform to the provisions (latest edition) of the National Building Code of the Philippines and the applicable local ordinance/s;

- b. In line with the Colleges' policy the winning contractor/supplier are required to use appropriate equipment, hand tools and personal protective gears during the implementation of project;
- c. Any proposed change or deviation from the original plans and specifications either initiated by the contractor, the end-user or due to actual site condition, must be submitted to PhilSCA (In the form of shop drawings) for approval prior to Implementation;
- d. The construction works shall be in coordination with the General Contractor of the building;
- e. The contractor should coordinate his works closely with the works of other trades concerned (I.e. Architectural, Electrical and other Owner Furnished materials Contractors);
- f. Construction works shall be done in neat workmanship and like manners. All properly set works, rough finishes or other works not in accordance with the approved layouts and scope of works as determined by PhilSCA technical representative/s shall be removed and replaced within seven (7) calendar days by the contractor at no extra cost;
- g. The contractor shall be held directly responsible for any injury to person and/or damage to PhilSCA's property arising from the act, whether partial, contributory, or due entirely to the fault, negligence and/or dishonesty of the contractor's personnel in the course of their duties;
- h. The contractor shall be liable for any structural deviation of the building that may occur prior to the construction of Cistern Tank and Pump House Room;
- i. The contractor shall maintain cleanliness of all workplace at all times. They shall lean the affected areas immediately after each workday;
- j. The contractor is required to submit the names of its worker who will conduct or inspect the installation. As maybe required, identification cards shall be presented;
- k. The contractor or its engineer/foreman shall coordinate with the Planning Office or its authorized representative/s to discuss the work activities prior to Implementation of this project;
- l. The contractor shall strictly observe PhilSCA existing rules and regulations and shall be subject to the Banks standard security policies and procedures while inside the school premises; and will pay for the utilities like electric and water consumption.

3. Qualification and Documentary Requirements

	Qualification	Documentary Requirements
A	Have at least two (2) completed project from 2020 up to present and at least two (2) year experience with the same scope of works as construction of Pump House or Cistern Tank for Automatic Fire Sprinkler System	Copy of Contracts Copy of Purchase Orders, etc.

4. Billing Requirements

Documents	Completion	Due Date of Submission
1. Test Results	Flood Test for a duration of 7 calendar days with a maximum of SP tolerance duly noted by the MED representative.	Upon Completion
2. As-built plans (signed and sealed by PME and PECE) - 2 sets	Complete Plans showing the location of the Installed Fire Sprinkler System	Upon Completion
3. Warranty Certificate	Warranty Certificate with inclusive dates. One (1) year warranty against faulty workmanship to commence upon receipt of final turn-over and acceptance documents. Five (5) years warranty for the waterproofing.	Upon Completion

Prepared by:

ENGR. JEROME C. MIRANDA

Planning Officer/Personnel-In-Charge, IDP

Approved:

Prof. MARWIN M. DELA CRUZ, PH. D.

Presidents

Section VII. Drawings

GENERAL NOTES

- ALL WORKS HEREIN SHALL COMPLY WITH THE LATEST PROVISIONS OF THE LATEST EDITION OF THE FIRE CODE OF THE PHILIPPINES AND REGULATIONS WITH THE RULES AND REGULATIONS OF THE NATIONAL AND LOCAL AUTHORITIES CONCERNED IN THE ENFORCEMENT OF FIRE CODE LAW.
- ALL WORKS SHALL BE DONE UNDER THE IMMEDIATE SUPERVISION OF THE DULY QUALIFIED AND COMPETENT MECHANICAL ENGINEER.
- ALL MATERIALS AND EQUIPMENT TO BE USED SHALL BE NEW UL / FM & NFPA APPROVED TYPE FOR LOCATION AND PURPOSES.
- THE FIRE EXTINGUISHER SHALL BE FOR ALL PURPOSED FIRE USES AS MANUFACTURED BY COMPETENT SUPPLIER UL / FM APPROVED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL GOVERNMENT AND LOCAL CONSTRUCTION PERMITS AND ALL REQUIRED FEES.
- ALL PIPES ARE IN MILLIMETERS AND ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- ALL EQUIPMENT, FIRE PUMPS AND ACCESSORIES SHALL BE UL / FM AND NFPA 20 APPROVED.
- COORDINATE THE DRAWINGS WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY ANY DISCREPANCIES FOUND HEREIN.
- WORKMANSHIP: THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST AND MOST THOROUGH MANNER KNOWN TO TRADE AND TO THE SATISFACTION OF THE OWNER OR ENGINEER IN CHARGE.

NOTES

- SENSORS (FLOW SWITCHES AND LOW WATER LEVEL SENSOR FOR ZONE ACTIVATION) SHALL BE INCLUDED IN THE CONTRACT. WIRING FROM THESE DEVICES TO THE SPRINKLER ANNUNCIATOR PANEL SHALL BE DONE BY ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE AFFECTIVE TRADE CONTRACTOR.
- FIRE PUMP RUNNING CONDITION OF THE FIRE PUMP CONTROL PANEL SHALL CAUSE THE OPERATION OF THE BUILDING FIRE ALARM SYSTEM (FIRE ALARM SYSTEM). ACTIVATION OF THE LOW WATER LEVEL SWITCH IN THE STORAGE TANK SHALL CAUSE A TROUBLE ALARM CONDITION IN THE FIRE ALARM SYSTEM.
- INSTALLATION OF THE SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH THE NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER.
- INSTALLATION OF FIRE PUMP SHALL BE IN ACCORDANCE WITH NFPA 20 STANDARD FOR THE INSTALLATION OF FIRE PUMPS.
- INSTALLATION FIRE PUMPS SHALL BE IN ACCORDANCE WITH THE NFPA 20-400 HOSE VALVES SHALL BE PRESSURE REDUCING TYPE OR SHALL BE PROVIDED WITH PRESSURE RESTRICTING DISC.

SEQUENCE OF OPERATION

- WHEN THE SYSTEM PRESSURE AT THE MAIN DISCHARGE OF LINE DECREASES DUE TO LEAKAGES IN THE PIPING SYSTEM, THE JOCKEY PUMP (JP) WILL AUTOMATICALLY START TO MAINTAIN THE PRESSURE IN THE SYSTEM IN ACCORDANCE WITH THE FOLLOWING SET POINTS.
CUT IN - LOWER THAN 120 PSI
CUT OUT - 120 PSI
- A FURTHER DECREASE IN THE SYSTEM PRESSURE DUE TO THE ACTIVATION OF ONE OR MORE SPRINKLER HEADS, FIRE HOSE CABINETS WILL CAUSE THE FIRE PUMP (FP-1) TO START AUTOMATICALLY IN ACCORDANCE WITH THE FOLLOWING SET POINTS.
CUT IN - 80 PSI
CUT OUT - MANUAL
- AN ELECTRICALLY OPERATED AUDIBLE ALARM SHALL BE ACTIVATED WHEN ANY OF THE FOLLOWING CONDITIONS EXIST, AUTOMATICALLY IN ACCORDANCE WITH THE FOLLOWING SET POINTS.
A. FIRE PUMP IS RUNNING
B. FIRE PUMP CONTROLLER MAIN SWITCH IS DE-ACTIVATED OR IN MANUAL POSITION.

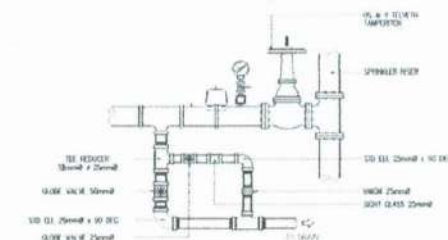
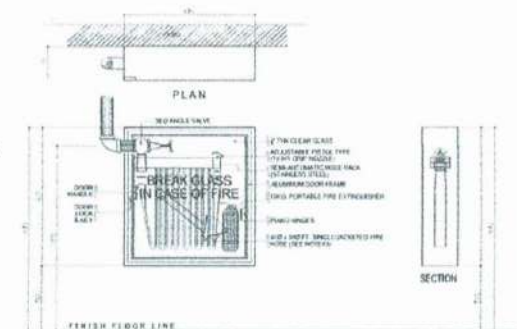
LEGEND:

FP	FIRE PUMP	CV	GATE VALVE
JP	JOCKEY PUMP	CV	CHECK VALVE
SH	SPRINKLER HEAD	TV	TEST VALVE
UR	UPRIGHT HEAD	DV	DRAIN VALVE
SW	SIDE WALL HEAD	PG	PRESSURE GAUGE
DSPR	DRAIN STAND PIPE RISER	XM	CROSS MAIN PIPE
FHC	FIRE HOSE CABINET		

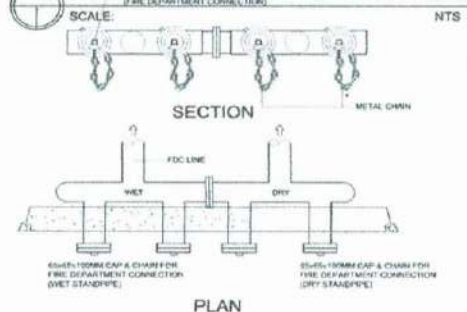
EQUIPMENT & FIRE HOSE CABINET SCHEDULE:

QTY	DESCRIPTION	UNIT	QTY	UNIT	QTY	UNIT
1	FIRE HOSE CABINET (7.5 FT. X 1.5 FT. X 1.5 FT.)	NO.	1	NO.	1	NO.
1	FIRE PUMP (500 GPM) WITH 100' HOSE AND 1" NO. 10 HOSE	NO.	1	NO.	1	NO.
1	JOCKEY PUMP (250 GPM) WITH 100' HOSE AND 1" NO. 10 HOSE	NO.	1	NO.	1	NO.

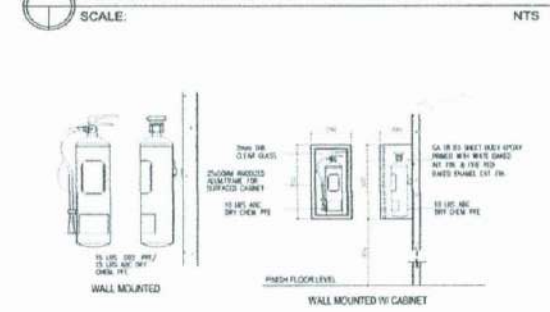
EQUIP.	CAPACITY	QTY	TYPE
FIRE PUMP	500GPM	1 SET	VERTICAL RUNNING PUMP
JOCKEY PUMP	250GPM	1 SET	



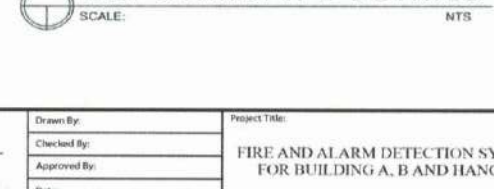
FIRE HOSE CABINET DETAILS



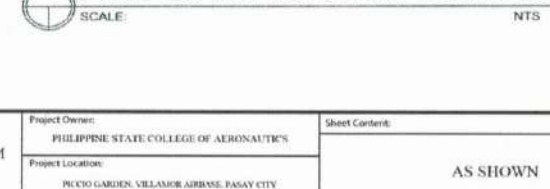
RISER & FEED MAIN CONNECTION DETAILS



WET STANDPIPE DETAILS



FIRE EXTINGUISHER DETAILS



PHILIPPINE STATE COLLEGE
OF AERONAUTICS

Professional Electrical Engineer
DATE: _____

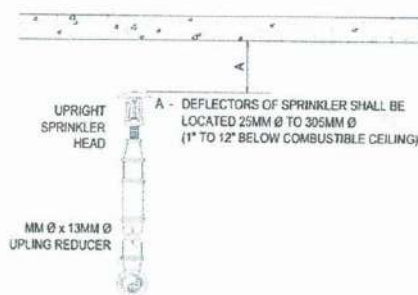
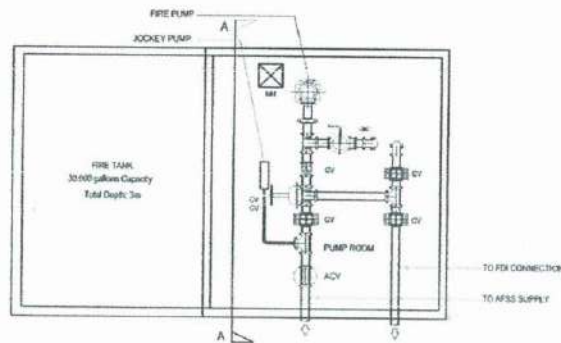
Drawn By:
Checked By:
Approved By:
Date: _____

Project Title:
FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR

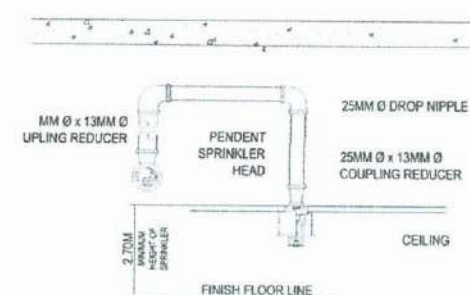
Project Owner:
PHILIPPINE STATE COLLEGE OF AERONAUTICS
Project Location:
PECSO GARDEN, VILLAMOR AIRBASE, PASAY CITY

Sheet Content:
AS SHOWN

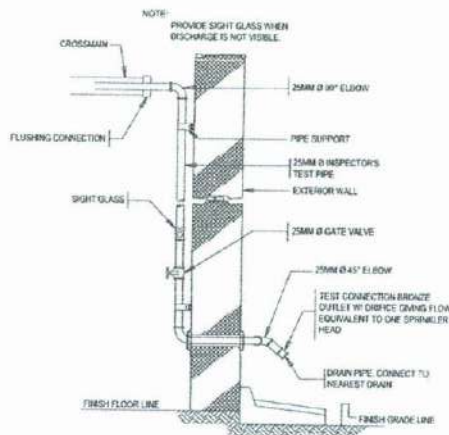
Sheet No.:
FP
01 OF 06



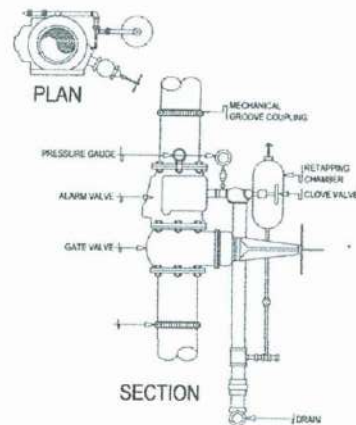
UPRIGHT SPRINKLER HEAD DETAILS
SCALE: NTS



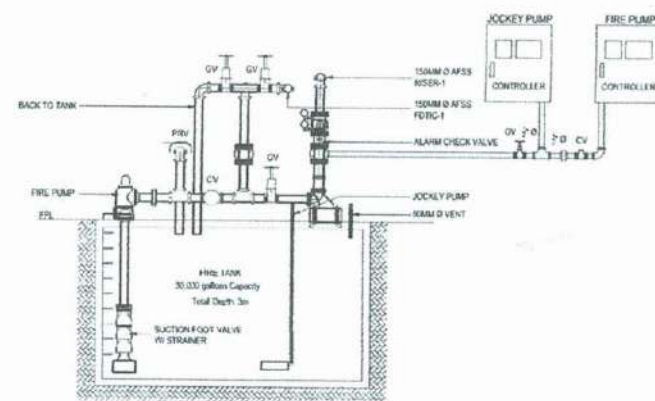
PENDANT SPRINKLER HEAD DETAILS
SCALE: NTS



INSPECTOR TEST CONNECTION
SCALE: NTS



SET-UP VALVE ALARM DETAILS
SCALE: NTS



DETAILED SECTION OF FIRE PUMP AND TANK
SCALE: NTS

PHILIPPINE STATE COLLEGE
OF AERONAUTICS

Professional Electrical Engineer
DATE: DATE:

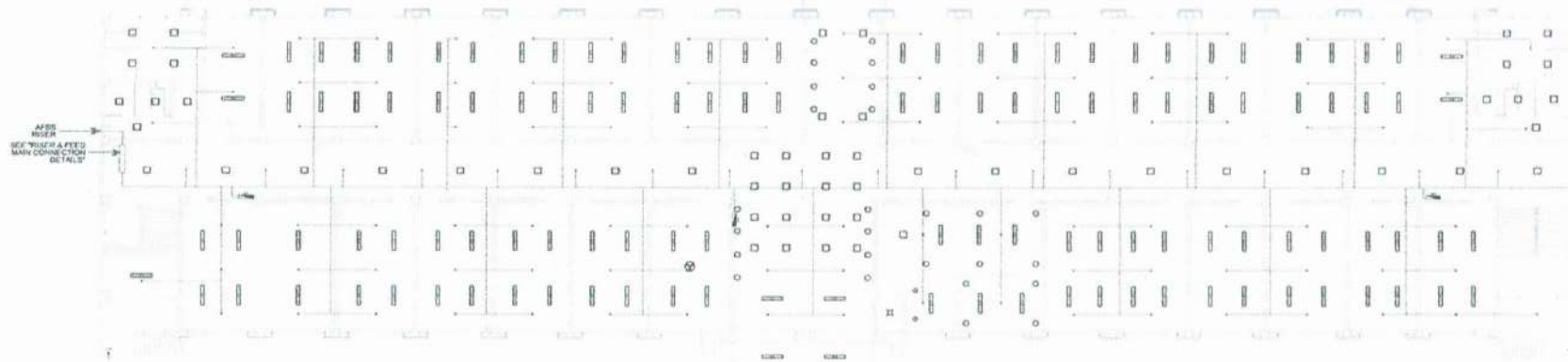
Drawn By:
Checked By:
Approved By:
Date:

Project Title:
FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR

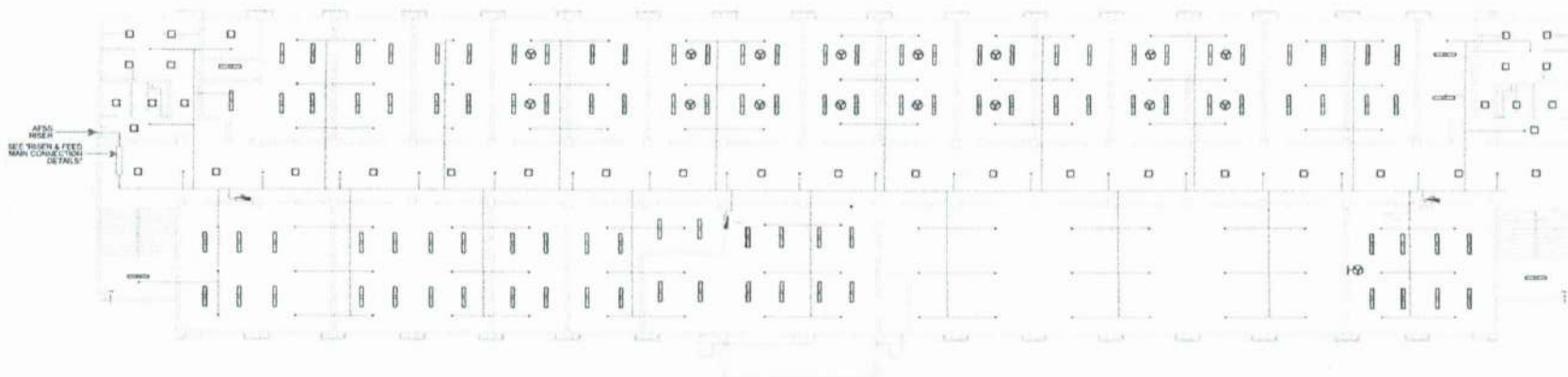
Project Owner:
PHILIPPINE STATE COLLEGE OF AERONAUTICS
Project Location:
PROJECT GARDEN VILLAMOR AIRBASE, PASAY CITY

Sheet Contents:
AS SHOWN

Sheet No.:
FP
02 OF 06



GROUND FLOOR PLAN
FIRE PROTECTION LAYOUT
 SCALE 1:130M



SECOND FLOOR PLAN
FIRE PROTECTION LAYOUT
 SCALE 1:130M

PHILIPPINE STATE COLLEGE
 OF AERONAUTICS

Professional Electrical Engineer
 PRC #:
 DATE:

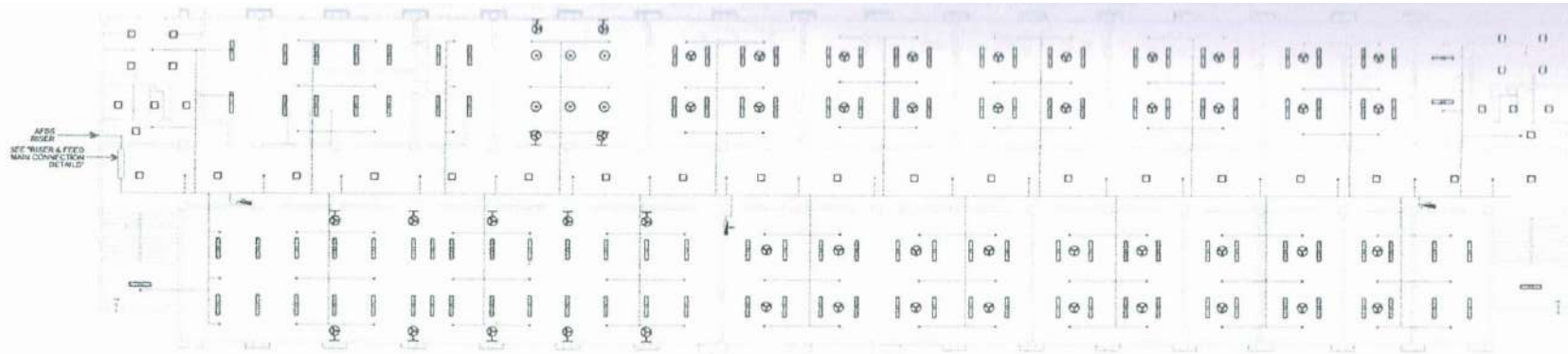
Drawn By:
 Checked By:
 Approved By:
 Date:

Project Title:
**FIRE AND ALARM DETECTION SYSTEM
 FOR BUILDING A, B AND HANGAR**

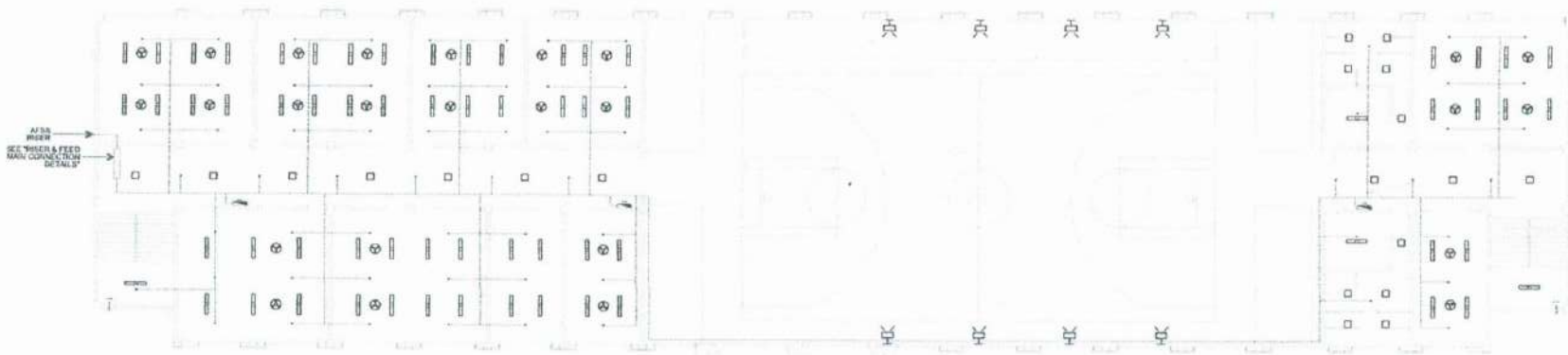
Project Owner:
 PHILIPPINE STATE COLLEGE OF AERONAUTICS
 Project Location:
 PICCO GARDEN, VILLAMOR, AIRBASE, PASAY CITY

Sheet Content:
AS SHOWN

Sheet No.:
**FP
 03 OF 06**



THIRD FLOOR PLAN
FIRE PROTECTION LAYOUT
 SCALE 1:130M



FOURTH FLOOR PLAN
FIRE PROTECTION LAYOUT
 SCALE 1:130M

**PHILIPPINE STATE COLLEGE
 OF AERONAUTICS**

Professional Electrical Engineer
 PEA: _____
 DATE: _____

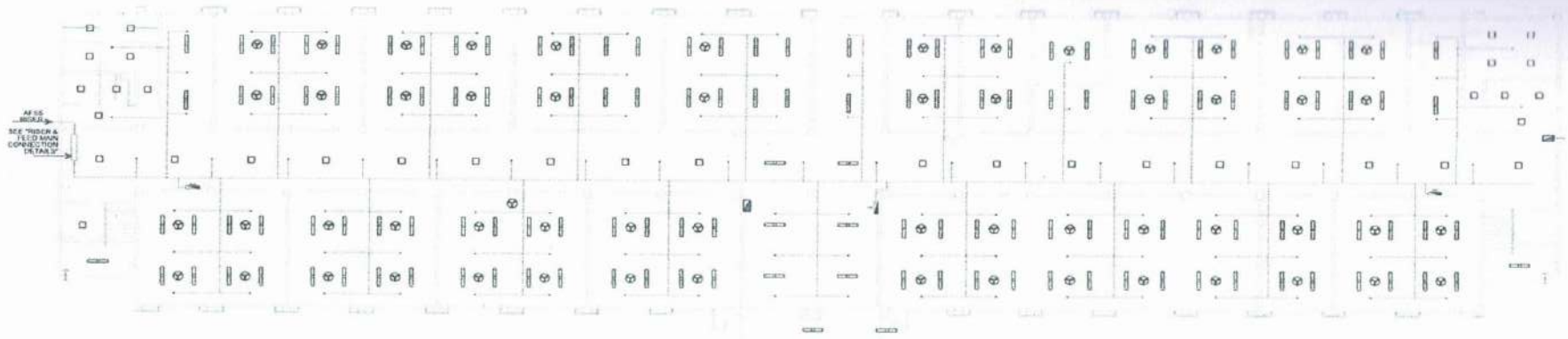
Drawn By: _____
 Checked By: _____
 Approved By: _____
 Date: _____

Project Title:
**FIRE AND ALARM DETECTION SYSTEM
 FOR BUILDING A, B AND HANGAR**

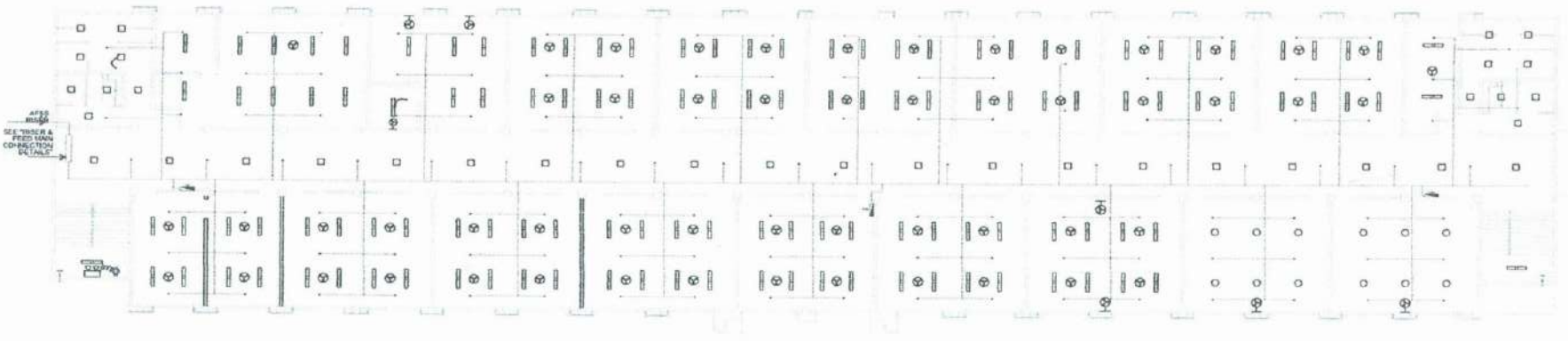
Project Owner:
 PHILIPPINE STATE COLLEGE OF AERONAUTICS
 Project Location:
 PICCO GARDEN, VILLASOR AIRBASE, PASAY CITY

Sheet Content:
 AS SHOWN

Sheet No.:
FP
 04 OF 06



GROUND FLOOR PLAN
FIRE PROTECTION LAYOUT
 SCALE 1:135M



SECOND FLOOR PLAN
FIRE PROTECTION LAYOUT
 SCALE 1:135M

**PHILIPPINE STATE COLLEGE
 OF AERONAUTICS**

Professional Electrical Engineer
 P.E. # _____
 DATE: _____

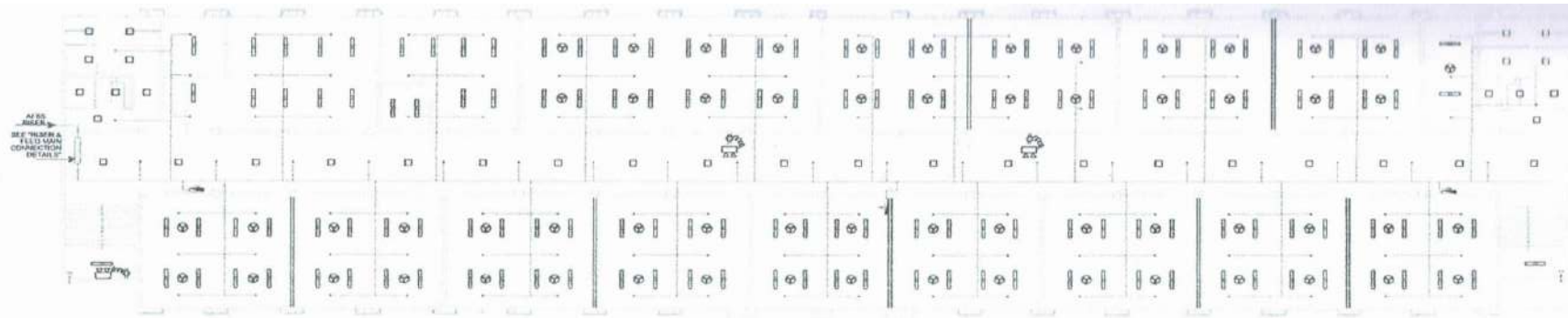
Drawn By: _____
 Checked By: _____
 Approved By: _____
 Date: _____

Project Title:
**FIRE AND ALARM DETECTION SYSTEM
 FOR BUILDING A, B AND HANGAR**

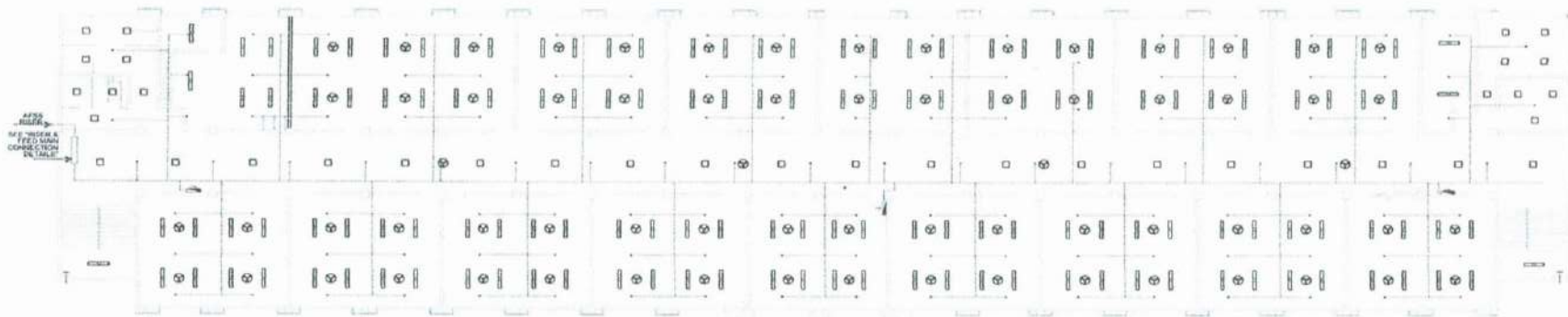
Project Owner:
 PHILIPPINE STATE COLLEGE OF AERONAUTICS
 Project Location:
 PICCO GARDEN, VILLAMOR ABBASE, PASAY CITY

Sheet Contents:
AS SHOWN

Sheet No.:
**FP
 05 OF 06**



THIRD FLOOR PLAN
 FIRE PROTECTION LAYOUT
 SCALE 1:135M



FOURTH FLOOR PLAN
 FIRE PROTECTION LAYOUT
 SCALE 1:135M

PHILIPPINE STATE COLLEGE
 OF AERONAUTICS

Professional Electrical Engineer
 PEE #: _____
 DATE: _____

Drawn By: _____
 Checked By: _____
 Approved By: _____
 Date: _____

Project Title:
 FIRE AND ALARM DETECTION SYSTEM
 FOR BUILDING A, B AND HANGAR

Project Owner:
 PHILIPPINE STATE COLLEGE OF AERONAUTICS
 Project Location:
 PICCO GARDEN, VILLAMOR AIRBASE, PASAY CITY

Sheet Content:
 AS SHOWN

Sheet No.:
 FP
 06 OF 06

FIRE DETECTION & ALARM SYSTEM (FDAS) NOTES:

1. EACH BUILDING SHALL HAVE 1 FIRE ALARM CONTROL PANEL THE FACE SHALL BE LOCATED IN THE FIRE COMMAND CENTER OF THE BUILDING OR COMPLEX. IN THE ABSENCE OF A FIRE COMMAND CENTER, IT SHOULD BE CLEARLY VISIBLE FROM THE MAIN ENTRANCE LOBBY WHERE THE TEMPERATURE DOES NOT EXCEED 30 DEGREES CELSIUS.

2. DETECTORS SHALL BE LOCATED WITH AT LEAST A METER OF RADIAL DISTANCE TO AIR BLOWERS OR AIR DIFFUSERS IF THE ENCLOSED SPACE IS NOT PROVIDED WITH ENOUGH VENTILATION.

3. A SMOKE DETECTOR SHOULD BE INSTALLED ONLY AFTER ALL THE OTHER CONSTRUCTION TRADES HAVE COMPLETED CLEANUP.

4. THE SENSITIVITY OF SMOKE DETECTORS SHALL BE FACTORY CALIBRATED AND SHALL NOT BE ALLOWED TO BE CALIBRATED IN THE FIELD.

5. SMOKE DETECTOR SHALL BE LOCATED ON THE CEILING. IF INSTALLED ON A SIDEWALL, IT SHALL BE LOCATED AT A POINT NOT MORE THAN 300MM FROM THE CEILING TO THE TOP OF THE DETECTOR.

6. FOR FLAT CEILINGS WITH A HEIGHT OF NOT MORE THAN 4 METERS, THE FOLLOWING SHALL BE COMPLIED WITH:

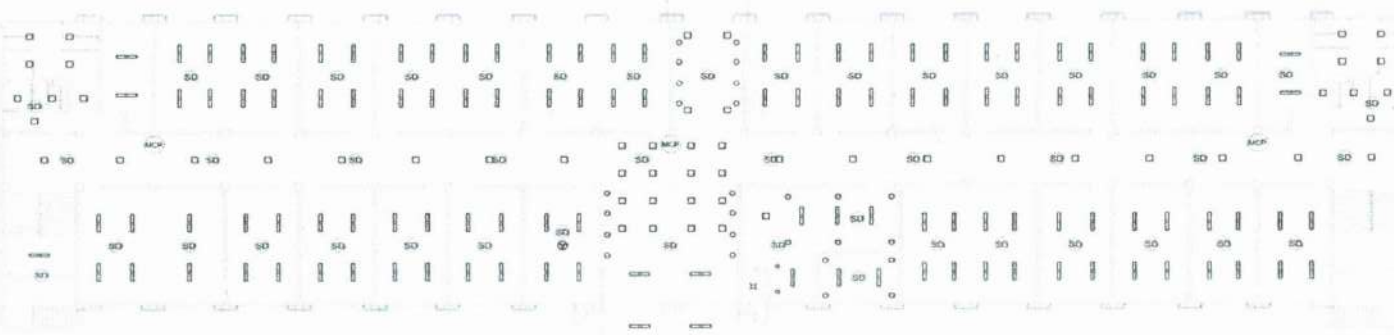
- A) SPACING SHALL NOT BE MORE THAN 9 METERS. THEREFORE, ALL POINTS ON THE CEILING SHALL HAVE A DETECTOR WITHIN A DISTANCE OF 6.40 M.
- B) SPACING OF DETECTORS FROM WALLS OR PARTITIONS SHALL NOT BE LESS THAN 300MM AND NOT MORE THAN 4.5 M.

7. MANUAL FIRE DETECTION IS ACHIEVED THROUGH THE ACTIVATION OF MANUAL FIRE ALARM PULL OR PUSH STATIONS. MANUAL FIRE ALARM STATIONS SHALL BE RED IN COLOR. IT SHALL BE INSTALLED AT A HEIGHT OF 1.40 M. ABOVE THE FINISHED FLOOR LEVEL AND SHALL BE LOCATED AT EASILY ACCESSIBLE POINTS, FREE FROM OBSTRUCTIONS. MANUAL FIRE ALARM STATIONS SHALL BE MOUNTED ON A BACKGROUND OF CONTRASTING COLOR, AND IN AN ELLIPTICAL LOCATION, SO THAT THEY CAN BE EASILY SEEN FROM THE CEILING TO THE TOP OF THE DETECTOR. THEY SHOULD BE LOCATED WITHIN 1.20 M. OF EACH EXIT DOOR ON EACH FLOOR. ADDITIONAL STATIONS SHALL NOT REQUIRE MORE THAN 30 METERS OF TRAVEL DISTANCE TO ACTIVATE.

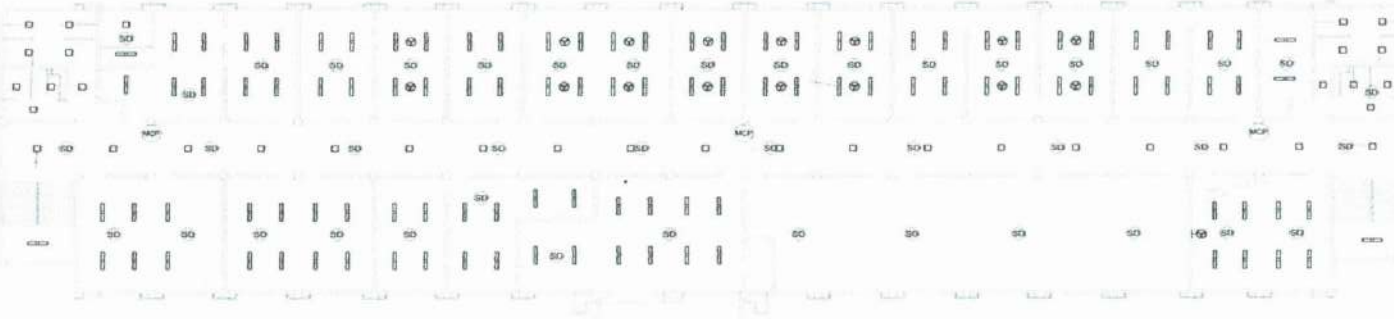
8. A NOTIFICATION APPLIANCE SHALL PRODUCE A MINIMUM SOUND LEVEL OF 65 dBA OR 10dB ABOVE THE AMBIENT NOISE LEVEL HAVING A DURATION OF AT LEAST 30 SECONDS WHICHEVER IS GREATER, MEASURED 1.40M ABOVE THE FLOOR IN THE AREA REQUIRED TO BE SERVED BY THE SYSTEM.

9. THE BELL SHALL BE THE MOST BASIC NOTIFICATION APPLIANCE. IT SHALL HAVE A DIAMETER OF AT LEAST 150 MM AND AN OUTPUT SOUND LEVEL OF AT LEAST 80 dBA. IT SHALL BE MOUNTED 2.10M ABOVE THE FINISHED FLOOR LINE.

10. THE ELECTRONIC SYSTEM DESIGNER SHALL DEVELOP PLANS AND SPECIFICATIONS IN ACCORDANCE WITH THIS CODE AND SHALL BE IDENTIFIED AS 'DESIGN DOCUMENTS'.



GROUND FLOOR PLAN
FIRE DETECTION AND ALARM SYSTEM LAYOUT
SCALE 1:145M



SECOND FLOOR PLAN
FIRE DETECTION AND ALARM SYSTEM LAYOUT
SCALE 1:145M

PHILIPPINE STATE COLLEGE
OF AERONAUTICS

Professional Electrical Engineer
PRC #:
DATE:

Drawn By:
Checked By:
Approved By:
Date:

Project Title:

FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR

Project Owner:

PHILIPPINE STATE COLLEGE OF AERONAUTICS

Project Location:

PRCCO GARDEN VILLANOR AIRBASE, PASAY CITY

Sheet Content:

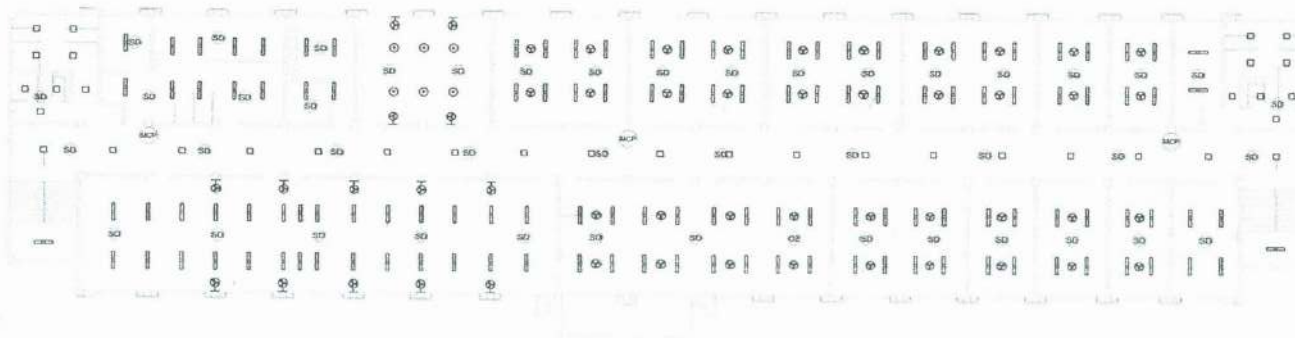
AS SHOWN

Sheet No.:

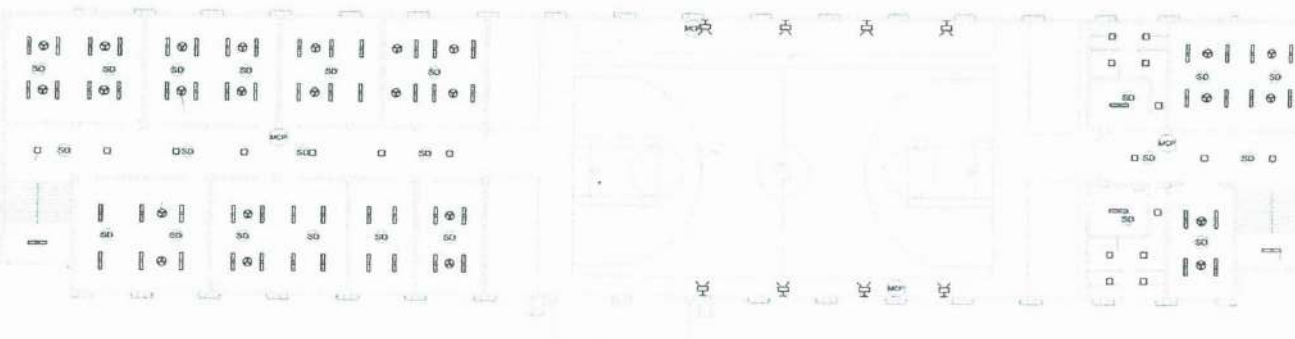
FD
01 OF 04

FIRE DETECTION & ALARM SYSTEM (FDAS) NOTES:

1. EACH BUILDING SHALL HAVE 1 FIRE ALARM CONTROL PANEL THE PACE SHALL BE LOCATED IN THE FIRE COMMAND CENTER, OF THE BUILDING OR COMPLEX. IN THE ABSENCE OF A FIRE COMMAND CENTER, IT SHOULD BE CLEARLY VISIBLE FROM THE MAIN ENTRANCE LOBBY WHERE THE TEMPERATURE DOES NOT EXCEED 30 DEGREES CELSIUS.
2. DETECTORS SHALL BE LOCATED WITH AT LEAST A METER OF RADIAL DISTANCE TO AIR BLOWERS OR AIR DIFFUSERS IF THE ENCLOSED SPACE IS NOT PROVIDED WITH ENOUGH VENTILATION.
3. A SMOKE DETECTOR SHOULD BE INSTALLED ONLY AFTER ALL THE OTHER CONSTRUCTION TRADES HAVE COMPLETED CLEANUP.
4. THE SENSITIVITY OF SMOKE DETECTORS SHALL BE FACTORY CALIBRATED AND SHALL NOT BE ALLOWED TO BE CALIBRATED IN THE FIELD.
5. SMOKE DETECTOR SHALL BE LOCATED ON THE CEILING. IF INSTALLED ON A SIDEWALL, IT SHALL BE LOCATED AT A POINT NOT MORE THAN 300MM FROM THE CEILING TO THE TOP OF THE DETECTOR.
6. FOR FLAT CEILINGS WITH A HEIGHT OF NOT MORE THAN 4 METERS, THE FOLLOWING SHALL BE COMPLIED WITH:
A) SPACING SHALL NOT BE MORE THAN 9 METERS, THEREFORE, ALL POINTS ON THE CEILING SHALL HAVE A DETECTOR WITHIN A DISTANCE OF 4.5 M.
B) SPACING OF DETECTORS FROM WALLS OR PARTITIONS SHALL NOT BE LESS THAN 300MM AND NOT MORE THAN 4.5 M.
7. MANUAL FIRE DETECTION IS ACHIEVED THROUGH THE ACTIVATION OF MANUAL FIRE ALARM PULL OR PUSH STATIONS. MANUAL FIRE ALARM STATIONS SHALL BE RED IN COLOR. IT SHALL BE INSTALLED AT A HEIGHT OF 1.40 M. ABOVE THE FINISHED FLOOR LEVEL AND SHALL BE LOCATED AT EASILY ACCESSIBLE POINTS, FREE FROM OBSTRUCTIONS. MANUAL FIRE ALARM STATIONS SHALL BE MOUNTED ON A BACKGROUND OF CONTRASTING COLOR, AND IN WELL-LIT LOCATION, SO THAT THEY CAN BE EASILY SEEN. FROM THE CEILING TO THE TOP OF THE DETECTOR, THEY SHOULD BE LOCATED WITHIN 1.20 M. OF EACH EXIT DOOR ON EACH FLOOR. ADDITIONAL STATIONS SHALL NOT REQUIRE MORE THAN 30 METERS OF TRAVEL DISTANCE TO ACTIVATE.
8. A NOTIFICATION APPLIANCE SHALL PRODUCE A MINIMUM SOUND LEVEL OF 65 dBA OR 10dB ABOVE THE AMBIENT NOISE LEVEL HAVING A DURATION OF AT LEAST 30 SECONDS WHEREVER IS GREATER, MEASURED 1.40M ABOVE THE FLOOR IN THE AREA REQUIRED TO BE SERVED BY THE SYSTEM.
9. THE BELL SHALL BE THE MOST BASIC NOTIFICATION APPLIANCE. IT SHALL HAVE A DIAMETER OF AT LEAST 150 MM AND AN OUTPUT SOUND LEVEL OF AT LEAST 60 dBA. IT SHALL BE MOUNTED 2.10M ABOVE THE FINISHED FLOOR FINE.
10. THE ELECTRONIC SYSTEM DESIGNER SHALL DEVELOP PLANS AND SPECIFICATIONS IN ACCORDANCE WITH THIS CODE AND SHALL BE IDENTIFIED AS "DESIGN DOCUMENTS".



THIRD FLOOR PLAN
FIRE DETECTION AND ALARM SYSTEM LAYOUT
SCALE 1:145M



FOURTH FLOOR PLAN
FIRE DETECTION AND ALARM SYSTEM LAYOUT
SCALE 1:145M

PHILIPPINE STATE COLLEGE
OF AERONAUTICS

Professional Electrical Engineer
PEE #:
DATE:

Drawn By:
Checked By:
Approved By:
Date:

Project Title:

FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR

Project Owner:

PHILIPPINE STATE COLLEGE OF AERONAUTICS

Project Location:

PICUT GARDEN, VILLASOR ABRASE, PASAY CITY

Sheet Content:

AS SHOWN

Sheet No.:

FD
02 OF 04

FIRE DETECTION & ALARM SYSTEM (FDAS) NOTES:

1. EACH BUILDING SHALL HAVE 1 FIRE ALARM CONTROL PANEL. THE FAC'S SHALL BE LOCATED IN THE FIRE COMMAND CENTER OF THE BUILDING OR COMPLEX. IN THE ABSENCE OF A FIRE COMMAND CENTER, IT SHOULD BE CLEARLY VISIBLE FROM THE MAIN ENTRANCE LOBBY WHERE THE TEMPERATURE DOES NOT EXCEED 30 DEGREES CELSIUS.

2. DETECTORS SHALL BE LOCATED WITH AT LEAST A METER OF RADIAL DISTANCE TO AIR BLOWERS OR AIR DIFFUSERS IF THE ENCLOSED SPACE IS NOT PROVIDED WITH ENOUGH VENTILATION.

3. A SMOKE DETECTOR SHOULD BE INSTALLED ONLY AFTER ALL THE OTHER CONSTRUCTION TRADES HAVE COMPLETED CLEANUP.

4. THE SENSITIVITY OF SMOKE DETECTORS SHALL BE FACTORY CALIBRATED AND SHALL NOT BE ALLOWED TO BE CALIBRATED IN THE FIELD.

5. SMOKE DETECTOR SHALL BE LOCATED ON THE CEILING. IF INSTALLED ON A SIDEWALL, IT SHALL BE LOCATED AT A POINT NOT MORE THAN 300MM FROM THE CEILING TO THE TOP OF THE DETECTOR.

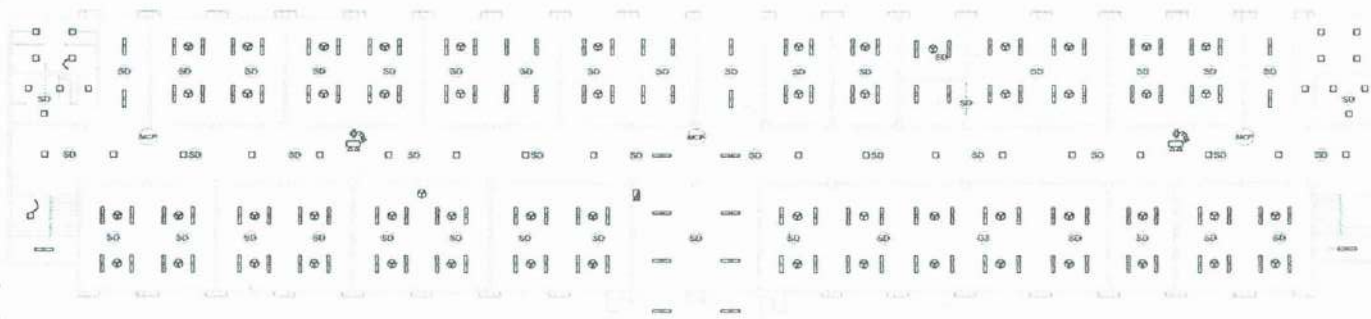
6. FOR PLAT CEILING WITH A HEIGHT OF NOT MORE THAN 4 METERS, THE FOLLOWING SHALL BE COMPLIED WITH:
 (A) SPACING SHALL NOT BE MORE THAN 9 METERS. THEREFORE, ALL POINTS ON THE CEILING SHALL HAVE A DETECTOR WITHIN A DISTANCE OF 6-8.0 M.
 (B) SPACING OF DETECTORS FROM WALLS OR PARTITIONS SHALL NOT BE LESS THAN 300MM AND NOT MORE THAN 4.5 M.

7. MANUAL FIRE DETECTION IS ACHIEVED THROUGH THE ACTIVATION OF MANUAL FIRE ALARM PULL OR PUSH STATIONS. MANUAL FIRE ALARM STATIONS SHALL BE RED IN COLOR. IT SHALL BE INSTALLED AT A HEIGHT OF 1.40 M. ABOVE THE FINISHED FLOOR LEVEL AND SHALL BE LOCATED AT EASILY ACCESSIBLE POINTS, FREE FROM OBSTRUCTIONS. MANUAL FIRE ALARM STATIONS SHALL BE MOUNTED ON A BACKGROUND OF CONTRASTING COLOR, AND IN WELL-LIT LOCATION, SO THAT THEY CAN BE EASILY SEEN FROM THE CEILING TO THE TOP OF THE DETECTOR. THEY SHOULD BE LOCATED WITHIN 1.20 M. OF EACH EXIT DOOR ON EACH FLOOR. ADDITIONAL STATIONS SHALL NOT REQUIRE MORE THAN 30 METERS OF TRAVEL DISTANCE TO ACTIVATE.

8. A NOTIFICATION APPLIANCE SHALL PRODUCE A MINIMUM SOUND LEVEL OF 65 dBA OR 1.0dB ABOVE THE AMBIENT NOISE LEVEL HAVING A DURATION OF AT LEAST 30 SECONDS (WHICHEVER IS GREATER) MEASURED 1.40M ABOVE THE FLOOR IN THE AREA REQUIRED TO BE SERVED BY THE SYSTEM.

9. THE BELL SHALL BE THE MOST BASIC NOTIFICATION APPLIANCE. IT SHALL HAVE A DIAMETER OF AT LEAST 150 MM AND AN OUTPUT SOUND LEVEL OF AT LEAST 60 dBA. IT SHALL BE MOUNTED 2.10M ABOVE THE FINISHED FLOOR LINE.

10. THE ELECTRONIC SYSTEM DESIGNER SHALL DEVELOP PLANS AND SPECIFICATIONS IN ACCORDANCE WITH THIS CODE AND SHALL BE IDENTIFIED AS DESIGN DOCUMENTS.

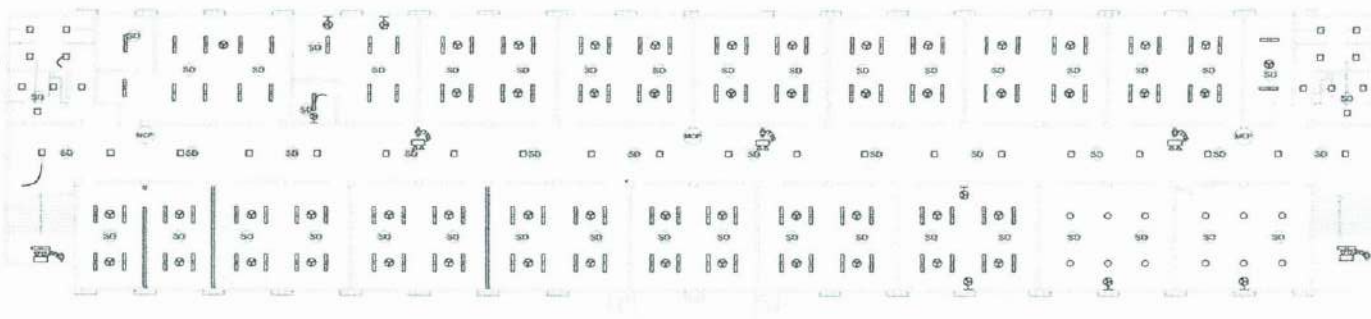


GROUND FLOOR PLAN

FIRE DETECTION AND ALARM SYSTEM LAYOUT

SCALE

1:150M



SECOND FLOOR PLAN

FIRE DETECTION AND ALARM SYSTEM LAYOUT

SCALE

1:150M

**PHILIPPINE STATE COLLEGE
OF AERONAUTICS**

Professional Electrical Engineer

DATE: _____
 DATE: _____

Drawn By:

Checked By:

Approved By:

Date:

Project Title:

**FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR**

Project Owner:

PHILIPPINE STATE COLLEGE OF AERONAUTICS

Project Location:

PUERTO GARDON, VILLASOR, ARIEL, PASAY CITY

Sheet Content:

AS SHOWN

Sheet No.:

**FD
03 OF 04**

FIRE DETECTION 4 ALARM SYSTEM (FDAS) NOTES:

1. EACH BUILDING SHALL HAVE 1 FIRE ALARM CONTROL PANEL THE FACE SHALL BE LOCATED IN THE FIRE COMMAND CENTER OF THE BUILDING OR COMPLEX. IN THE ABSENCE OF A FIRE COMMAND CENTER, IT SHOULD BE CLEARLY VISIBLE FROM THE MAIN ENTRANCE LOBBY WHERE THE TEMPERATURE DOES NOT EXCEED 30 DEGREES CELSIUS.

2. DETECTORS SHALL BE LOCATED WITH AT LEAST A METER OF VERTICAL DISTANCE TO AIR BLOWERS OR AIR DIFFUSERS IF THE ENCLOSED SPACE IS NOT PROVIDED WITH ENOUGH VENTILATION.

3. A SMOKE DETECTOR SHOULD BE INSTALLED ONLY AFTER ALL THE OTHER CONSTRUCTION TRADES HAVE COMPLETED CLEANUP.

4. THE SENSITIVITY OF SMOKE DETECTORS SHALL BE FACTORY CALIBRATED AND SHALL NOT BE ALLOWED TO BE CALIBRATED IN THE FIELD.

5. SMOKE DETECTOR SHALL BE LOCATED ON THE CEILING. IF INSTALLED ON A SIDE WALL, IT SHALL BE LOCATED AT A POINT NOT MORE THAN 300MM FROM THE CEILING TO THE TOP OF THE DETECTOR.

6. FOR FLAT CEILINGS WITH A HEIGHT OF NOT MORE THAN 4 METERS, THE FOLLOWING SHALL BE COMPLIED WITH:

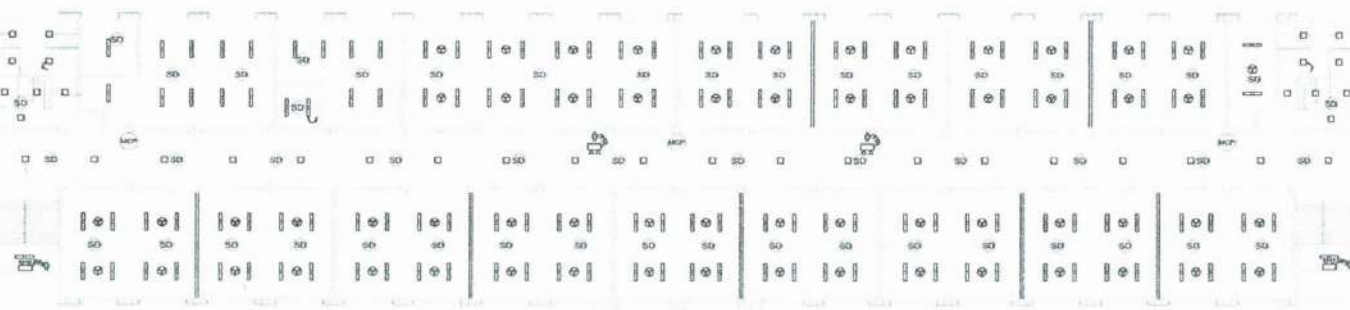
- A) SPACING SHALL NOT BE MORE THAN 9 METERS. THEREFORE, ALL POINTS ON THE CEILING SHALL HAVE A DETECTOR WITHIN A DISTANCE OF 1.40 M.
- B) SPACING OF DETECTORS FROM WALLS OR PARTITIONS SHALL NOT BE LESS THAN 300MM AND NOT MORE THAN 4.5 M.

7. MANUAL FIRE DETECTION IS ACHIEVED THROUGH THE ACTIVATION OF MANUAL FIRE ALARM PULL OR PUSH STATIONS. MANUAL FIRE ALARM STATIONS SHALL BE RED IN COLOR. IT SHALL BE INSTALLED AT A HEIGHT OF 1.40 M. ABOVE THE FINISHED FLOOR LEVEL AND SHALL BE LOCATED AT EASILY ACCESSIBLE POINTS, FREE FROM OBSTRUCTIONS. MANUAL FIRE ALARM STATIONS SHALL BE MOUNTED ON A BACKGROUND OF CONTRASTING COLOR, AND IN WELL-LIT LOCATION, SO THAT THEY CAN BE EASILY SEEN. FROM THE CEILING TO THE TOP OF THE DETECTOR, THEY SHOULD BE LOCATED WITHIN 1.50 M. OF EACH EXIT DOOR ON EACH FLOOR. ADDITIONAL STATIONS SHALL NOT REQUIRE MORE THAN 30 METERS OF TRAVEL DISTANCE TO ACTIVATE.

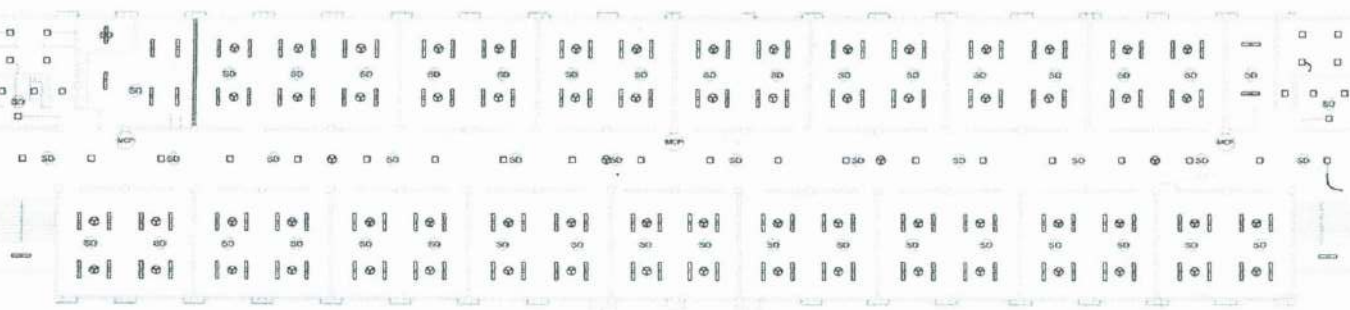
8. A NOTIFICATION APPLIANCE SHALL PRODUCE A MINIMUM SOUND LEVEL OF 75 DBA OR 10DB ABOVE THE AMBIENT NOISE LEVEL HAVING A DURATION OF AT LEAST 30 SECONDS WHICHEVER IS GREATER MEASURED 1.40M ABOVE THE FLOOR IN THE AREA REQUIRED TO BE SERVED BY THE SYSTEM.

9. THE BELL SHALL BE THE MOST BASIC NOTIFICATION APPLIANCE. IT SHALL HAVE A DIAMETER OF AT LEAST 150 MM AND AN OUTPUT SOUND LEVEL OF AT LEAST 80 DBA. IT SHALL BE MOUNTED 2.10M ABOVE THE FINISHED FLOOR LINE.

10. THE ELECTRONIC SYSTEM DESIGNER SHALL DEVELOP PLANS AND SPECIFICATIONS IN ACCORDANCE WITH THIS CODE AND SHALL BE IDENTIFIED AS "DESIGN DOCUMENTS".



THIRD FLOOR PLAN
FIRE DETECTION AND ALARM SYSTEM LAYOUT
SCALE 1:150M



FOURTH FLOOR PLAN
FIRE DETECTION AND ALARM SYSTEM LAYOUT
SCALE 1:150M

PHILIPPINE STATE COLLEGE
OF AERONAUTICS

Professional Electrical Engineer
DATE: _____

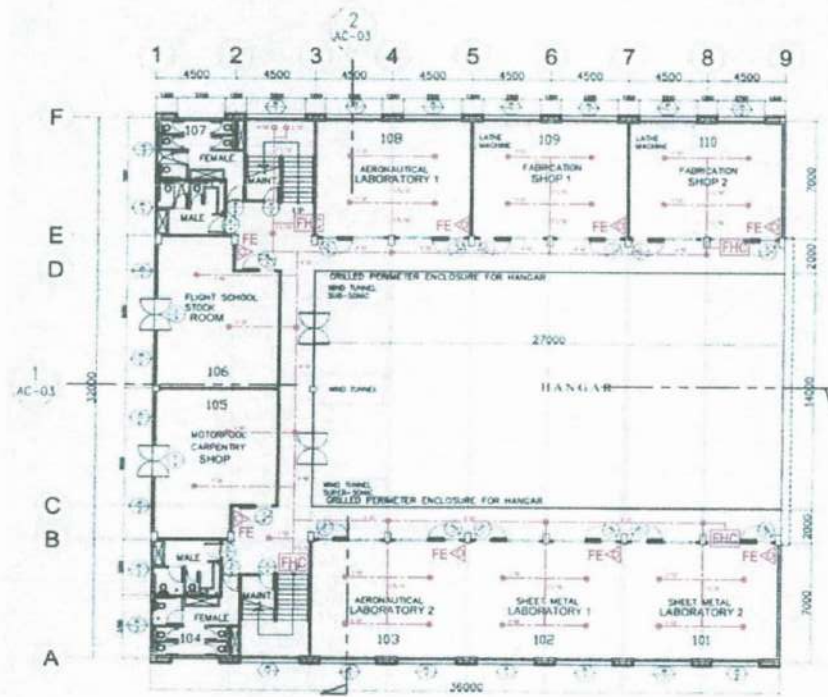
Drawn By: _____
Checked By: _____
Approval By: _____
Date: _____

Project Title:
FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR

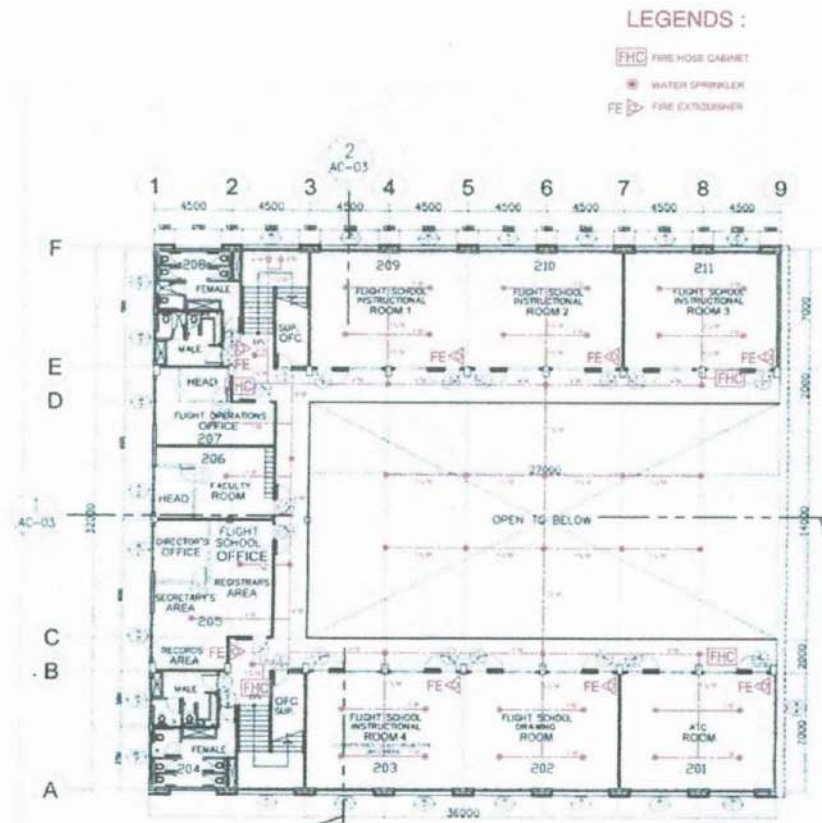
Project Owner:
PHILIPPINE STATE COLLEGE OF AERONAUTICS
Project Location:
PFC'S GARDEN VILLASIDE AIRBASE, PASAY CITY

Sheet Content:
AS SHOWN

Sheet No.:
FD
04 OF 04



1
FIRE PROTECTION SYSTEM
GROUND FLOOR PLAN
SCALE 1:150 MTS



2
FIRE PROTECTION SYSTEM
SECOND FLOOR PLAN
SCALE 1:150 MTS

LEGENDS :

- FHC FIRE HOSE CABINET
- WATER SPRINKLER
- FE FIRE EXTINGUISHER

**PHILIPPINE STATE COLLEGE
OF AERONAUTICS**

Professional Electrical Engineer
PDE :
DATE:

Drawn By:
Checked By:
Approved By:
Date:

Project Title:
**FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR**

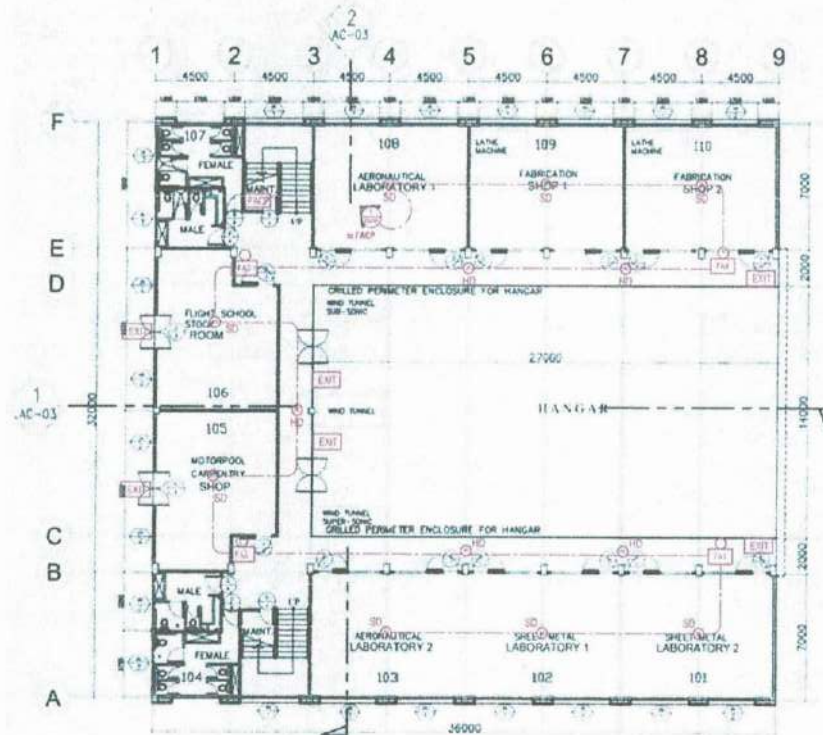
Project Owner:
PHILIPPINE STATE COLLEGE OF AERONAUTICS
Project Location:
PACD GARDEN, VILLAMOR AIRBASE, PASAY CITY

Sheet Content:
AS SHOWN

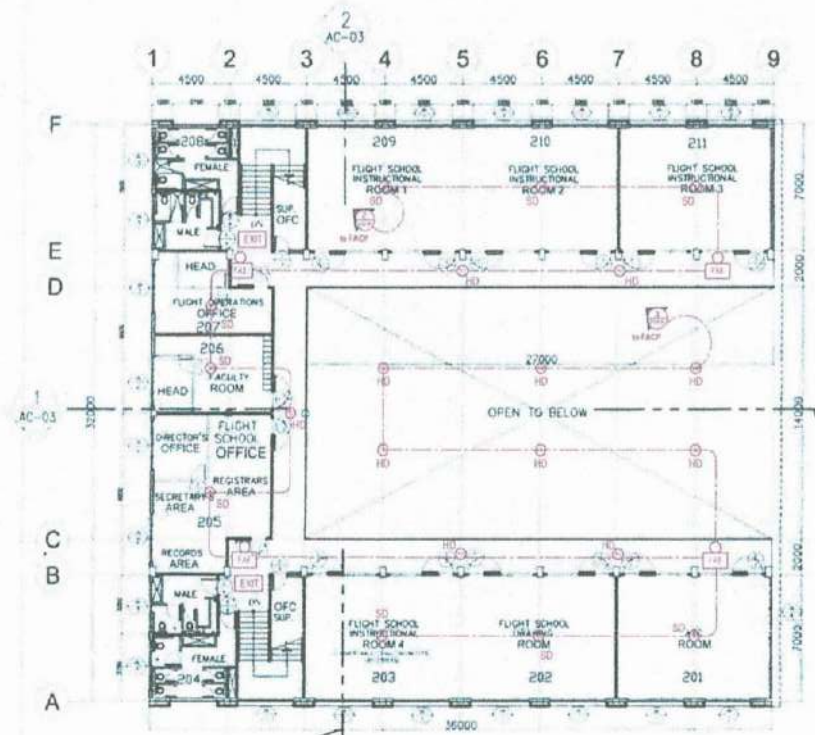
Sheet No.:
FP-1

LEGENDS :

-  FIRE ALARM CONTROL PANEL
-  FIRE ALARM
-  SMOKE DETECTOR
-  HEAT DETECTOR
-  WIRING



1
FIRE DETECTION AND ALARM SYSTEM
GROUND FLOOR PLAN
SCALE 1:150 MTS



2
FIRE DETECTION AND ALARM SYSTEM
SECOND FLOOR PLAN
SCALE 1:150 MTS

PHILIPPINE STATE COLLEGE
OF AERONAUTICS

Professional Electrical Engineer

PREP: DATE: PREP: DATE:

Drawn By:
Checked By:
Approved By:
Date:

Project Title:

FIRE AND ALARM DETECTION SYSTEM
FOR BUILDING A, B AND HANGAR

Project Owner:

PHILIPPINE STATE COLLEGE OF AERONAUTICS

Project Location:

PICCO GARDEN, VILLAMOR AIRBASE, PASAY CITY

Sheet Content:

AS SHOWN

Sheet No.:

FD-1

Section VIII. Bill of Quantities

Project Title: **PROCUREMENT OF FIRE ALARM AND DETECTION SYSTEM**
Project Location: **Philippine State College of Aeronautics, Villamor Campus, Pasay City**
Subject: **BILL OF QUANTITIES**

[illegible]

B	FDAS EQUIPMENT										
	BUILDING A										
B-1	Intelligent Fire Alarm Panel	pcs	1.00								
B-2	Intelligent Smoke Detector	pcs	165.00								
B-3	Common Detector Base	pcs	157.00								
B-4	Digital Manual Call Point	pcs	14.00								
B-5	Bell w/ Strobe Light	pcs	14.00								
B-6	Addressable Single I/O Module	pcs	8.00								
B-7	PSU24-10 Intelligent Back Up Battery	pcs	1.00								
B-8	PSU24-5 Intelligent Back Up Battery	pcs	1.00								
B-9	Intelligent Back Up Battery	pcs	4.00								
B-10	Surge Protector	pcs	1.00								
B-11	- LCD Repeater Panel (Annunciator)	pcs	3.00								
B-12	Installation, labor, and configuration	lot	1.00								
	BUILDING B										
B-1	Intelligent Fire Alarm Panel	pcs	1.00								
B-2	Intelligent Smoke Detector	pcs	205.00								
B-3	Common Detector Base	pcs	205.00								
B-4	Digital Manual Call Point	pcs	14.00								
B-5	Bell w/ Strobe Light	pcs	14.00								
B-6	Addressable Single I/O Module	pcs	8.00								
B-7	PSU24-10 Intelligent Back Up Battery	pcs	1.00								
B-8	PSU24-5 Intelligent Back Up Battery	pcs	1.00								
B-9	Intelligent Back Up Battery	pcs	4.00								
B-10	Surge Protector	pcs	1.00								

B-11	LCD Repeater Panel (Annunciator)	pcs	3.00								
B-12	Installation, labor, and configuration	lot	1.00								
	HANGAR										
B-1	Intelligent Fire Alarm Panel	pcs	1.00								
B-2	Intelligent Smoke Detector	pcs	46.00								
B-3	Common Detector Base	pcs	46.00								
B-4	Digital Manual Call Point	pcs	5.00								
B-5	Bell w/ Strobe Light	pcs	5.00								
B-6	Addressable Single I/O Module	pcs	4.00								
B-7	Intelligent Back Up Battery	pcs	2.00								
B-8	Surge Protector	pcs	1.00								
B-12	Installation, labor, and configuration	lot	1.00								
Sub-total B											

C	FDAS FIREMAN TELEPHONE EQUIPMENT										
	<i>BUILDING A</i>										
C-1	Fire Telephone Jack Socket	pcs	4.00								
C-2	Fire Telephone Mobile Handset	pcs	4.00								
C-3	Fire Telephone Panel, 8-zone	pcs	1.00								
C-4	FACP Programming w/ Hanheld for Programming	lot	1.00								
	<i>BUILDING B</i>										
C-1	Fire Telephone Jack Socket	pcs	4.00								
C-2	Fire Telephone Mobile Handset	pcs	4.00								
C-3	Fire Telephone Panel, 8-zone	pcs	1.00								
C-4	FACP Programming w/ Hanheld for Programming	lot	1.00								
Sub-total C											

D	FDAS CABLES, CONNECTORS & ROUGHIN										
	BUILDING A										
D-1	#16 TF Wire Red/White	box	25.00								
D-2	Roughins Materials Consumables (PVC Pipe, PVC Elbow, Plastic Moldflex, Cable Tie, Electrical Tape, Adhesive Tape, Lifters, Pull Box, Metal Cable Tie, and etc.)	lot	1.00								
	BUILDING B										
D-1	#16 TF Wire Red/White	box	30.00								
D-2	Roughins Materials Consumables (PVC Pipe, PVC Elbow, Plastic Moldflex, Cable Tie, Electrical Tape, Adhesive Tape, Lifters, Pull Box, Metal Cable Tie, and etc.)	lot	1.00								
	HANGAR										
D-1	#16 TF Wire Red/White	box	11.00								
D-2	Roughins Materials Consumables (PVC Pipe, PVC Elbow, Plastic Moldflex, Cable Tie, Electrical Tape, Adhesive Tape, Lifters, Pull Box, Metal Cable Tie, and etc.)	lot	1.00								

E	FIREPRO PIPES AND FITTINGS										
E-1	6" BI Pipe sch 40	pcs	17.00								
E-2	4" BI Pipe sch 40	pcs	24.00								
E-3	3" BI Pipe sch 40	pcs	82.00								
E-4	2½" BI Pipe sch 40	pcs	43.00								
E-5	2" BI Pipe sch 40	pcs	10.00								
E-6	1½" BI Pipe sch 40	pcs	133.00								
E-7	1 ¼" BI Pipe sch 40	pcs	18.00								
E-8	1" BI Pipe sch 40	pcs	280.00								
E-9	Slip on Flange 4" dia welded type	pcs	20.00								
E-10	Slip on Flange 3" dia welded type	pcs	80.00								

E-11	Slip on Flange 2½" dia welded type	pcs	60.00								
E-12	Blind Flange 3" dia welded type	pcs	11.00								
E-13	Blind Flange 2½" dia welded type	pcs	20.00								
E-18	6" Elbow welded type	pcs	8.00								
E-19	4" Elbow welded type	pcs	22.00								
E-20	3" Elbow welded type	pcs	28.00								
E-21	2½" Elbow welded type	pcs	12.00								
E-22	2" Elbow welded type	pcs	20.00								
E-23	Concentric Reducer 3"X 2½"	pcs	8.00								
E-28	Coupling Reducer 1" X ½"	pcs	1,078.00								
E-29	Coupling Reducer 1 ½" X 1¼"	pcs	34.00								
E-32	Tee Standard 1"	pcs	367.00								
	Tee Standard 1½"	pcs	10.00								
	Tee Standard 1¼"	pcs	10.00								
E-33	Tee Reducer 1½" X 1"	pcs	379.00								
E-34	Tee Reducer 1¼" X 1"	pcs	88.00								
E-35	Threaded Elbow 1 ½" X 90 ⁰	pcs	230.00								
E-36	Threaded Elbow 1¼"X 90 ⁰	pcs	90.00								
E-37	Threaded Elbow 1"X 90 ⁰	pcs	1,078.00								
E-38	End Cap 4"	pcs	12.00								
E-39	Square Plug ½"	pcs	1,052.00								
E-40	Consumables	lot	1.00								
										Sub-total E	
F	FIREPRO FLOOR CONTROL VALVES FOR AUTOMATIC SENSOR SYSTEM AND ACCESSORIES FOR AUXILLARY DRAIN										
	BUILDING A										

F-1	OS & Y Gate Valve, 3"Ø - UL/FM, 175 PSI, Flange Type	pcs	4.00								
F-2	Pressure Gauge , 300 psi., Dial Face	pcs	4.00								
F-3	Supervisory Switch System Sensor (UL)	pcs	4.00								
F-4	Water Flow Switch 3"Ø, System Sensor (UL)	pcs	4.00								
F-5	Brass Ball (Auxillary) Valve-1"Ø	pcs	8.00								
F-6	Sight Glass 1"Ø	pcs	8.00								
F-7	Inspector Test Valve-1"Ø	pcs	4.00								
F-8	Support Materials	lot	1.00								
	BUILDING B										
F-1	OS & Y Gate Valve, 3"Ø - UL/FM, 175 PSI, Flange Type	pcs	4.00								
F-2	Pressure Gauge , 300 psi., Dial Face	pcs	4.00								
F-3	Supervisory Switch System Sensor (UL)	pcs	4.00								
F-4	Water Flow Switch 3"Ø, System Sensor (UL)	pcs	4.00								
F-5	Brass Ball (Auxillary) Valve-1"Ø	pcs	8.00								
F-6	Sight Glass 1"Ø	pcs	8.00								
F-7	Inspector Test Valve-1"Ø	pcs	4.00								
F-8	Support Materials	lot	1.00								
										Sub-total F	
G	FIREPRO SPRINKLER HEADS, ACCESSORIES AND FIRE HOSE CABINET										
	BUILDING A										
G-1	UL/FM, Pendent Type, 155°F	pcs	417.00								
G-2	A95 Brass Siamese Twin, 4"X2½"X2½" w/ plugs & chain (UL/FM)	pcs	2.00								
G-3	Fire Hose Valve X 2½"w/ cap & chain (UL/FM)	pcs	8.00								
G-4	UL/FM Swing Check Valve, 100 mm.Ø - 175 PSI, Flange Type for WSP	pcs	2.00								
G-5	WET/DRY Stand Pipe Round Brass Plate Cover	pcs	2.00								
G-6	Fire Hose Cabinet 32"X 27" X 7". Steel body using Gauge #22 CR sheet, powder coated red inside & out, w/ the ff. accessories: Semi-automatic Hose-Rack 1/8" Clear glass w/ Break Glass Sticker Brass Hose Niple locknut 1 ½" Fire Hose 1 ½" X100 ft. ,Single Jacket A55; 1 ½" Brass Angle Valve, UL/FM A7/B; 1 ½" Fog Nozzle, UL/FM 10 lbs. ABC Dry Chemical Fire Extinguisher - w/ BPS Approved Fire Rating of 2A:5BC	set	12.00								

	BUILDING B										
G-1	UL/FM, Pendent Type, 155°F	pcs	520.00								
G-2	A95 Brass Siamese Twin, 4"X2½"X2½" w/ plugs & chain (UL/FM)	pcs	2.00								
G-3	Fire Hose Valve X 2½"w/ cap & chain (UL/FM)	pcs	8.00								
G-4	UL/FM Swing Check Valve, 100 mm.Ø - 175 PSI, Flange Type for WSP	pcs	2.00								
G-5	WET/DRY Stand Pipe Round Brass Plate Cover	pcs	2.00								
G-6	Fire Hose Cabinet 32"X 27" X 7". Steel body using Gauge #22 CR sheet, powder coated red inside & out, w/ the ff. accessories: Semi-automatic Hose-Rack 1/8" Clear glass w/ Break Glass Sticker Brass Hose Niple locknut 1 ½" Fire Hose 1 ½" X100 ft. ,Single Jacket A55; 1 ½" Brass Angle Valve, UL/FM A7/B; 1 ½" Fog Nozzle, UL/FM 10 lbs. ABC Dry Chemical Fire Extinguisher - w/ BPS Approved Fire Rating of 2A:5BC	set	12.00								
Sub-total G											
H	FIREPRO PUMPS AND ACCESSORIES										
H-1	Fire Pump: (System duty point: 500gpm vs 120psi), Vertical Turbine Type, complete w/accessories, Electric Motor HP, 230VAC, 3Phase, 60Hz, JOCKEY PUMP (System duty point: 50gpm vs 120psi), 5 HP Electric Motor 230VAC/3P/60Hz w/ Jockey Pump Controller.	unit	1.00								
H-2	Alarm Check Valve, 6"Ø, (UL/FM), 150 PSI, Flange Type	set	1.00								
H-3	Pressure relief Valve, 3"Ø	pcs	1.00								
H-4	OS & Y Gate Valve, 6"Ø - UL/FM, 175 PSI, Flange Type	pcs	4.00								
H-5	Wafer Check Valve, 6"Ø - , 150 PSI, Flange Type	pcs	2.00								
H-4	OS & Y Gate Valve, 2"Ø - UL/FM, 175 PSI, Flange Type	pcs	1.00								
H-5	Wafer Check Valve, 2"Ø - , 150 PSI, Flange Type	pcs	1.00								
H-6	Brass Ball Valve, 2"Ø, Threaded Type	pcs	4.00								
H-7	Brass Swing Check Valve, 2"Ø, Threaded Type	pcs	1.00								

H-8	Brass Ball Valve, 1/2"Ø	pcs	4.00								
H-9	Brass Check Valve, 1/2"Ø	pcs	4.00								
H-10	Pressure Gauge 4" , 300 psi., Dial Face	pcs	2.00								
H-11	Flexible Rubber Connector, 2"Ø, 150 psi, 1 Layer, Flange Type	pcs	1.00								
H-12	Flexible Rubber Connector,6"Ø, 150 psi, 1 Layer, Flange Type	pcs	1.00								

Sub-total H

I	FIREPRO SPRINKLER HEADS, ACCESSORIES AND FIRE HOSE CABINET										
	HANGAR										
I-1	UL/FM, Pendent Type, 155°F	pcs	95.00								
I-2	A95 Brass Siamese Twin, 4"X2½"X2½" w/ plugs & chain (UL/FM)	pcs	2.00								
I-3	Fire Hose Valve X 2½"w/ cap & chain (UL/FM)	pcs	2.00								
I-4	UL/FM Swing Check Valve, 100 mm.Ø - 175 PSI, Flange Type for WSP	pcs	1.00								
I-5	WET/DRY Stand Pipe Round Brass Plate Cover	pcs	2.00								
I-6	Fire Hose Cabinet 32"X 27" X 7". Steel body using Gauge #22 CR sheet, powder coated red inside & out, w/ the ff. accessories: Semi-automatic Hose-Rack 1/8" Clear glass w/ Break Glass Sticker Brass Hose Niple locknut 1 ½" Fire Hose 1 ½" X100 ft. ,Single Jacket A55; 1 ½" Brass Angle Valve, UL/FM A7/B; 1 ½" Fog Nozzle, UL/FM 10 lbs. ABC Dry Chemical Fire Extinguisher - w/ BPS Approved Fire Rating of 2A:5BC	set	8.00								
											Sub-total I

J	FIREPRO PUMPS AND ACCESSORIES										
H-1	Fire Pump: (System duty point: 500gpm vs 120psi), Vertical Turbine Type, complete w/accessories, Electric Motor HP, 230VAC, 3Phase, 60Hz, JOCKEY PUMP (System duty point: 50gpm vs 120psi), 5 HP Electric Motor 230VAC/3P/60Hz w/ Jockey Pump Controller.	unit	1.00								
H-2	Alarm Check Valve, 4"Ø, (UL/FM), 150 PSI, Flange Type	set	1.00								
H-3	Pressure relief Valve, 3"Ø	pcs	1.00								

H-4	OS & Y Gate Valve, 3"Ø - UL/FM, 175 PSI, Flange Type	pcs	4.00								
H-5	Wafer Check Valve, 3"Ø - , 150 PSI, Flange Type	pcs	2.00								
H-4	OS & Y Gate Valve, 2"Ø - UL/FM, 175 PSI, Flange Type	pcs	1.00								
H-5	Wafer Check Valve, 2"Ø - , 150 PSI, Flange Type	pcs	1.00								
H-6	Brass Ball Valve, 2"Ø, Threaded Type	pcs	4.00								
H-7	Brass Swing Check Valve, 2"Ø, Threaded Type	pcs	1.00								
H-8	Brass Ball Valve, 1/2"Ø	pcs	4.00								
H-9	Brass Check Valve, 1/2"Ø	pcs	4.00								
H-10	Pressure Gauge 4", 300 psi., Dial Face	pcs	2.00								
H-11	Flexible Rubber Connector, 1 1/2"Ø, 150 psi, 1 Layer, Flange Type	pcs	1.00								
H-12	Flexible Rubber Connector, 4"Ø, 150 psi, 1 Layer, Flange Type	pcs	1.00								
										TOTAL PROJECT COST	32,000,000.00

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class “A” Documents

Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;

Technical Documents

- (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **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 statement of SLCC shall be accompanied by a Certificate of Final Acceptance issued by the owner, or a final rating of at least Satisfactory in the Constructors Performance Evaluation System (CPES). In the case of contracts with the private sector, an equivalent document shall be submitted. (Section 23.4.2.5 of the Revised IRR of Republic Act No. 9184).

; **and**

- (d) Special PCAB License in case of Joint Ventures **and** registration for the type and cost of the contract to be bid; **and**

- (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission **or** original copy of Notarized Bid Securing Declaration; **and**

- (f) Project Requirements, which shall include the following:

- a. Organizational chart for the contract to be bid;
- b. List of contractor’s key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
- c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

- (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.

Additional Requirements:

1. *Must have at least two (2) completed project from 2020 up to present and at least three (3) years' experience in the installation of Fire Protection System.*
2. *Have at least two (2) completed project from 2020 up to present and at least two (2) year experience with the same scope of works as construction of Pump House or Cistern Tank for Automatic Fire Sprinkler System*

II. FINANCIAL COMPONENT ENVELOPE

- (j) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

- (k) Original of duly signed Bid Prices in the Bill of Quantities; **and**
- (l) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- (m) Cash Flow by Quarter.

Statement of all Ongoing Government and Private Contracts
Including Contracts Awarded but not yet Started

[shall be submitted with the Bid]

Business Name: _____

Business Address: _____

Name of Client/Contact Person/Contact Number/Contact Email Address	Date of the Contract	Title of the Contract / Name of the Project	Kinds of Goods	Total Amount of Contract	Value of Outstanding Contract	Date of Delivery
<u>Government</u>						
<u>Private</u>						

Submitted by : _____

(Printed Name and Signature)

Designation : _____

Date : _____

Instructions:

- i. State **ALL** ongoing contracts including those awarded but not yet started (government and private contracts which may be **similar or not similar** to the project being bidded) up to **June 16, 2025**.
- ii. If there is no ongoing contract including those awarded but not yet started as of the aforementioned period, state none or equivalent term.
- iii. The total amount of the ongoing and awarded but not yet started contracts should be consistent with those used in the Net Financial Contracting Capacity (NFCC).

Statement of Single Largest Completed Contract which is

Similar in Nature

[shall be submitted with the Bid]

Business Name: _____

Business Address: _____

Name of Client/Contact Person/Contact Number/Contact Email Address	Date of the Contract	Title of the Contract / Name of the Project	Kinds of Goods	Amount of Contract	Date of Acceptance*	End User's Acceptance or Official Receipt(s) Issued for the Contract

Submitted by : _____
(Printed Name and Signature)

Designation : _____

Date : _____

Instructions:

- a. Pursuant to Section 23.4.2.4 of the 2016 Revised IRR of RA No. 9184, the Bidder shall have an SLCC that is similar to the Project, and whose value, adjusted to current prices using the PSA's CPI, must be at least fifty percent (50%) of the ABC to be bid: Provided, however, that contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.
- b. The SLCC should have been completed (i.e., accepted) **Five (5) years prior to the date of submission of bid**
- c. The similar contract for this Project shall refer to the painting/repainting of walls/buildings. If the painting/repainting of walls/buildings forms part of a bigger contract, only the cost component of the painting/repainting of walls/buildings shall be considered for purposes of comparing the value thereof to at least fifty percent (50%) of the ABC.

* Date of Acceptance shall mean the date when the items delivered have **satisfactorily met** the requirements of the procuring entity, as evidenced by either a Certificate of Final Acceptance/Completion from the bidder's client, or an Official Receipt or a Sales Invoice (to be submitted during post-qualification).

Bid Securing Declaration Form

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

REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

1. BID SECURING DECLARATION

Project Identification No.: PB2025 – Infra – 10

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

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

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

Omnibus Sworn Statement

[shall be submitted with the Bid]

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

(a) AFFIDAVIT

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

IN WITNESS WHEREOF, I have hereunto set my hand this_____day of_____, 20
____at_____Philippines.

*[Insert NAME OF BIDDER OR ITS
AUTHORIZED REPRESENTATIVE]*

[Insert signatory's legal capacity]

Affiant

[Jurat]

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

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date : _____

Project Identification No. : **PB2025 – INFRA - 10**

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

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

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: ***Procurement of Fire Alarm and Detection System***
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: [insert information];
- d. The discounts offered and the methodology for their application are: [insert information];
- e. The total bid price includes the cost of all taxes, such as, but not limited to: [specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties], which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the any of following amount of the Contract Price for the due performance of the Contract:

Form of Performance Security	Amount of Performance Security (Not less than the required percentage of the Total Contract Price)
a. Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Ten percent (10%)
b. Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, That it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	

Signature of Authorized Signatory: _____

c. Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)
d. Performance Securing Declaration in lieu of the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines for this purpose	None

- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the **Procurement of Fire Alarm and Detection System** of the Philippine State College of Aeronautics.
- l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal capacity: _____

Signature: _____

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

Date: _____

QUALIFICATION OF KEY PERSONNEL PROPOSED TO BE ASSIGNED TO THE CONTRACT

Bidder's Name: _____

Bidder's Address: _____

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 be Bid.

Submitted by: _____
(Printed Name & Signature)

Designation: _____

Date: _____

LIST OF CONTRACTORS EQUIPMENT, OWNED OR LEASED AND/OR UNDER PURCHASE AGREEMENTS

Bidder's Name: _____

Bidder's Address: _____

Description	Model/Year	Capacity/ Performance Size	Plate No.	Motor No./ Body No.	Location	Condition	Proof of Ownership/ Lessor or Vendor
A. Owned							
i.							
ii.							
iii.							
iv.							
B. Leased							
i.							
ii.							
iii.							
iv.							
C. Under Purchase Agreements							
i.							
ii.							
iii.							
iv.							

List of minimum equipment required for the Project

Submitted by: _____

(Printed Name & Signature)

Designation: _____

Date: _____

Contract Agreement Form for the Procurement of Infrastructure Projects

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

CONTRACT No. 2025-____ NAME OF PROJECT

This CONTRACT made and entered into by and between the following:

PHILIPPINE STATE COLLEGE OF AERONAUTICS, a government agency created by virtue of the laws of the Republic of the Philippines, with principal office address at Piccio Garden, Villamor, Pasay city represented herein by its **PRESIDENT**, _____, hereinafter called the “**PHILSCA**”;

- and -

_____, a sole proprietorship/partnership/corporation duly organized and existing under the laws of the Republic of the Philippines, with office address at _____, represented by its **AUTHORIZED REPRESENTATIVE**, _____, hereinafter referred to as the “**SUPPLIER**”;

Collectively, the “**PARTIES**”;

WITNESSETH:

WHEREAS, PhilSCA is desirous that the Contractor execute the Project, “_____” (hereinafter called “the Works”) and the PhilSCA has accepted the Bid for _____ (P___), by the Contractor for the execution and completion of such Works and the remedying of any defects therein;

WHEREAS, the Notice of Award was issued to the Contractor last _____, 2025, and the Contractor posted its performance security on _____, 2025;

NOW THIS CONTRACT WITNESSETH AS FOLLOWS:

1. In this Contract, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be attached, deemed to form, and be read and construed as integral part of this Contract, to wit:
 - (a) General and Special Conditions of Contract;
 - (b) Drawings/Plans;
 - (c) Specifications;
 - (d) Invitation to Bid;
 - (e) Instructions to Bidders;
 - (f) Bid Data Sheet;

- (g) Addenda and/or Supplemental/Bid Bulletins, if any;
- (h) Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the DBM's bid evaluation;
- (i) Eligibility requirements, documents and/or statements;

- (j) Performance Security;
 - (k) Notice of Award of Contract and the Bidder's conforme thereto;
 - (l) Other contract documents that may be required by existing laws and/or the PhilSCA.
3. In consideration of the payments to be made by the PhilSCA to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the PhilSCA to execute and complete the Works and remedy any defects therein in conformity with the provisions of this Contract in all respects.
 4. PhilSCA hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract.
 5. The period for the performance of the obligations under this Contract shall not go beyond the validity of the appropriation for this Project.
 6. In compliance with item 4.3 of Appendix 33 of the 2016 Revised IRR of RA No. 9184 and consistent with Administrative Order No. 34, s. 2020 (Directing Strict Compliance By All Agencies and Instrumentalities of the Executive Department with Transparency, Accountability and Good Governance Policies and Measures in the Procurement Process), the PhilSCA shall publish in its official website and social media platform the following post-award information:
 - (a) Project name;
 - (b) Approved budget for the contract;
 - (c) Contract period;
 - (d) Name of the winning bidder and its official business address;
 - (e) Amount of contract awarded;
 - (f) Date of award and acceptance; and
 - (g) Implementing office/unit/division/bureau of the concerned agency or instrumentality.

IN WITNESS WHEREOF, the parties hereto have signed this Contract on this ____ day of _____, 2025 at Piccio Garden, Villamor, Pasay City.

**PHILIPPINE STATE COLLEGE
OF AERONAUTICS**

by:

by:

Secretary

Authorized and Designated Representative

ACKNOWLEDGMENT

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

BEFORE ME, a Notary Public for and in the City of _____, Philippines on this _____ day of _____, 2025 personally appeared the following:

NAME

VALID ID

VALID UNTIL

PhilSCA ID No. _

known to me to be the same persons who executed the foregoing Contract and who acknowledged to me that the same is their free and voluntary act and deed and of the entities they respectively represent.

This CONTRACT for the _____ was signed by the parties on each and every page thereof.

WITNESS MY HAND AND SEAL this _____ day of _____, 2025.

Doc. No _____;
Page No _____;
Book No _____;
Series of 2025.

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

X-----X

PERFORMANCE SECURING DECLARATION

Invitation to Bid: PB2025 – Infra - 10

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

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacture/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
2. I/We accept that I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of one (1) year if in case it is my first offense, or two (2) years if I have a prior similar offense upon receipt of your Blacklisting Order if I/we have violated my/our obligations under the Contract.
3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
 - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
 - i. Procuring Entity has no claims filed against the contract awardee;
 - ii. It has no claims for labor and materials filed against the contractor; and
 - iii. Other terms of the contract; or
 - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 IRR of RA No. 9184 as required by the end-user.

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

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this ____day of [month] [year] at [place of execution], Philippines.

[Select one of the two following paragraphs and delete the other]

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 no.

_____ issued on _____ at _____.

_____. Witness my hand and seal this

_____ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission _

Notary Public for _____ until _

Roll of Attorneys No. _____

PTR No., [date issued], [place issued]

IBP No., [date issued], [place issued]

Doc. No.
Page No.
Book No.
Series of_.

