Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

PURCHASE/INSTALLATION OF APAPI SYSTEM AND OTHER WORKS AT BAGUIO AIRPORT

BID NO. 25-18-03 ALPHA

Date of Issue of Bid Docs

TABLE OF CONTENTS

Glossary of
Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

Contractor – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used

in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Invitation to Bid for
Purchase/Installation of APAPI System and Other Works at Baguio Airport
BID NO.25-18-03 ALPHA

1. The Civil Aviation Authority of the Philippines through the Corporate Operating Budget for CY 2025 intends to apply the sum of **Twenty-One Million Six Hundred Five Thousand and Three Hundred Thirty-Nine and 45/100 (Php 21,605,339.45)** being the Approved Budget for the Contract (ABC) to payments under the contract for **Purchase/Installation of APAPI System and Other Works at Baguio Airport** with **Bid No. 25-18-03 ALPHA**. Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The Civil Aviation Authority of the Philippines now invites bids for the above Procurement Project. Completion of the Works is required **within Two Hundred Ten (210) Calendar Days upon receipt of the 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. Interested bidders may obtain further information from the Civil Aviation Authority of the Philippines and inspect the Bidding Documents at the address given below from Monday to Friday, 8:00 AM to 5:00 PM

5. A complete set of Bidding Documents may be acquired by interested bidders on **26 March 2025 until deadline of submission of bid** from the given address and website/s below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Php 25,000.00 (exclusive of any and all taxes imposed by relevant government agencies).** The Procuring Entity shall allow the bidder to present its proof of payment for the fees by presenting the official receipt in person.

6. The Civil Aviation Authority of the Philippines will hold a Pre-Bid Conference[1] on **April 03, 2025 @ 9:30 AM** through videoconferencing/webcasting via Zoom/Google Meet, 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 **April 15, 2025 @ 9:30 AM**. Late bids shall not be accepted.

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

9. Bid opening shall be on **April 15, 2025 @ 9:30 AM** at the given address below *and*/or through Zoom/Google Meet. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

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

11. Upon payment of the bid documents, bidders must provide their respective email addresses to the BAC Secretariat. All communications, including but not limited to Notices, Resolutions, and Replies, among others, will be sent to the email address provided by the bidders. The date when such email was sent shall be considered the date of receipt of the bidder/s for purposes of complying with the requirements under RA 9184.

12. For further information, please refer to:

    ENGR. LEANDRO R. VARQUEZ
    Head, BAC Secretariat
    3rd Floor Supply, Procurement Building
    Civil Aviation Authority of the Philippines
    BAC Head Secretariat
    MIA Road Pasay City
    Telefax No. (02) 8246-4988 loc. 2236
    Email: **bac@caap.gov.ph**
    www.caap.gov.ph

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

13. You may visit the following websites:
    For downloading of Bidding Documents: *www.caap.gov.ph*

ATTY. DANJUN G. LUCAS
Chairperson, Bids & Awards Committee-Alpha

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, Civil Aviation Authority of the Philippines invites Bids for the Purchase/Installation of Abbreviated Precision Approach Path Indicator (APAPI) System and Other Works at Baguio Airport with **BID NO. 25-18-03 ALPHA**

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 CY 2025 in the amount of **Php 21,605,339.45**

2.2. The source of funding is GOCC and GFIs, the 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 and/or through videoconferencing/webcasting} as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

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

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

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

10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor

for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS.**

11. Documents Comprising the Bid: Financial Component

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

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

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

14.2. Payment of the contract price shall be made in 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 for the period specified in the **BDS** which **shall not exceed one hundred twenty (120) calendar days** from the date of the opening of bids. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

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

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

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Bid Data Sheet

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>For this purpose, contracts similar to the Project shall be:
1. Purchase/Supply/Delivery/Installation of Airfield Lighting Systems or Aeronautical Ground Lighting System.
2. Completed within 10 years prior to deadline for the submission and receipt of bids.</td></tr>
<tr><td>7.1</td><td>Subcontracting is not allowed</td></tr>
<tr><td>10.3</td><td>A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project

Bidder shall meet the following financial requirements for license categorization; Single Largest Project completed (SLP); and Allowable Ranges of Contract Cost (ARCC) for registration of contractors for government projects; these requirements shall be submitted together with the Bid.

License Categorization - Specialty, SP-NF (Navigational Facilities)
SLP / ARCC - Small B / Category C & D

Bids not complying with the above instructions shall be disqualified</td></tr>
<tr><td>10.4</td><td>The key personnel must meet the required minimum years of experience set below:

<table>
<tr><th><u>Key Personnel</u></th><th><u>General Experience</u></th><th><u>Relevant Experience</u></th></tr>
<tr><td>-One (1) Project Manager/licensed electrical engineer</td><td>-Minimum 10 years' experience</td><td>-Managed Project in the installation of Airfield Lighting System</td></tr>
<tr><td>-One (1) Project Engineer/licensed civil engineer</td><td>-at least 5 years</td><td>-Project engineer in the installation of Airfield Lighting System</td></tr>
<tr><td>-Three (3) Foreman</td><td>-at least 3 years</td><td>-has working experience in the installation of AFLS</td></tr>
</table>

Bids not complying with the above instructions shall be disqualified</td></tr>
</table>

<table>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table><tr><th>Quantity</th><th>Equipment</th></tr><tr><td>2 units</td><td>Service truck</td></tr><tr><td>1 unit</td><td>Backhoe</td></tr><tr><td>1 unit</td><td>Hydraulic Crane</td></tr><tr><td>3 units</td><td>Genset with floodlight</td></tr><tr><td>1 unit</td><td>Concrete cutter</td></tr><tr><td>1unit</td><td>Water pump</td></tr><tr><td>1unit</td><td>Bar cutter</td></tr><tr><td>1 unit</td><td>Boring machine</td></tr><tr><td>1 unit</td><td>Insulation tester</td></tr><tr><td>1unit</td><td>Earth resistance tester</td></tr><tr><td>1unit</td><td>Lux meter</td></tr><tr><td>1unit</td><td>Compactor</td></tr><tr><td>1 set</td><td>Power tools</td></tr></table>
Bids not complying with the above instructions shall be disqualified</td></tr>
<tr><td>15.1</td><td>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:
a. The amount of not less than 2% of ABC (Php 432,106.80), if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit;
b. The amount of not less than 5% of ABC (Php 1,080,267.00) if bid security is in Surety Bond.</td></tr>
<tr><td>16.</td><td>1. Each and every page thereof should be initialed/signed by the duly authorized representative/s of the Bidder.
Submitted Eligibility, Technical and Financial documents should be properly marked with index tabs (ear tab) and to be sequentially paginated in accurate order in the form i.e. “page 3 of 100”. Page number of last page of the document (per envelope basis).
Pagination should be sequential based on the entire span of the whole documents inside the envelope.
Bids not complying with the above instructions shall be disqualified
2. Each Bidder must submit one (1) original bid.</td></tr>
<tr><td>19.2</td><td>Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.</td></tr>
<tr><td>20</td><td>The Bidder with the Lowest Calculated Bid (LCB) that complies with and is responsive to all the requirements and conditions shall submit its</td></tr>
</table>

	a) Latest income and business tax returns filed through the Electronic Filing and Payment System (EFPS); b) Key personnel licenses c) **Certificate of Site Inspection** duly signed by Air Navigation Service (ANS) Facility-in-Charge or his/her duly authorized representative with the following documents as attachment; (a) Copy of company ID of the person who conducted the site inspection (b) Copy of the airport/facility visitor's logbook appearing the names and signatures of inspectors (c) Pictures of the proposed site including the personnel who conducted the site inspection together with the ANS Facility-in-Charge or his/her duly authorized representative. d) Bid bulletin (if any) **Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the bidder for award**. Provided, that in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the Bid Security in accordance with Section 69 of the IRR of RA 9184.
21	The following relevant project documents are required to be submitted by the successful bidder who submitted the LCRB as part of the Contract Agreement during its signing: a) Construction schedule b) Bar Chart & S-curve c) PERT/CPM Network Diagram d) Manpower schedule e) Construction methods f) Equipment utilization schedule g) Shop or Construction Drawing h) Construction Safety & Health Programs approved by the Department of Labor & Employment for the Purchase/Installation of Abbreviated - Precision Approach Path Indicator (APAPI) System at Baguio Airport.

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 10.4 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	Not applicable
3.1	The **CIVIL AVIATION AUTHORITY OF THE PHILIPPINES** shall give possession of all parts of the site to the Contractor upon receipt of the Notice to Proceed.
7.2	The Project has a total of **two (2) year warranty period.** The warranty covers a one (1) year full maintenance and service warranty upon the completion of the project [or known as defective liability warranty period (DLP)] at no extra cost to the contract followed by another one (1) year Service Warranty period.
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 [7] 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 the **price amount of the contract.**
13	No mobilization fees or advance payment shall be granted. Payments shall be made only upon verified/actual progress of work, subject to inspection and acceptance by the Procuring entity.
14	No further instructions
15.1	The date by which operating and maintenance manuals are required is **upon the completion of the Project**. The date by which "as built" plan duly signed/sealed by a Professional Electrical Engineer and/or Civil Engineer are required is **upon completion of the Project.** PDF/CAD file on the "as built plan" shall be included as attachment to the required hard copy of the same upon completion of the Project.
15.2	The amount to be withheld for failing to produce the "as built" plan/drawings and operation & maintenance manuals by the date required is two (2) percent (%) of the contract price.

Section VI. Specifications

PART A
GENERAL REQUIREMENTS

1.0 GENERAL

Purchase/Installation of Abbreviated Precision Approach Path Indicator System (APAPI) and Other Works at Baguio Airport (hereinafter referred to as the "Project") shall comprised of Airfield Lighting System or Aeronautical Ground Lighting works.

2.0 SCOPE OF WORKS

This Specification concerns the provision of the contractor's facilities, the design (where applicable), manufacture and testing at manufacturer's premises, delivery to site, carrying out all works, installation, testing at site, setting in operation, and handing over in perfect operating and running condition.

Works shown on the Drawings and not mentioned or described in the Specification and works described in the Specification and not shown on the Drawings will nevertheless be considered as included in this scope of Works and their execution will be deemed to be included in the Contract Price.

Any matter not provided in the Specification shall be determined through consultation between the Engineer and the Contractor.

The following principal features of the Work are included in the Proposal/ Contract, which shall be completed in a single package called for in the Proposal/Price Schedules Formats and subject to all conditions set forth in the Contract/Documents:

(1) Mobilization/Delivery
(2) Trenching/Excavation/Conduit and cabling works
(3) Supply/Installation of APAPI Units
(4) Supply/Installation of Constant Current Regulator
(5) Supply/Installation of isolation transformers
(6) Concrete pavement
(7) Dismantling of VASI CCR and other accessories
(8) Cable tray fabrication, wiring, and termination
(9) Electrical testing and commissioning

(10) On-site maintenance training.

(11) APAPI's Flight Check/Commissioning

3.0 CODES AND STANDARDS

Characteristics of the Aeronautical Ground Lighting shall, except when clearly indicated otherwise in the Specifications, conform to the following ICAO Standards and Recommendations, Aerodrome Design Manual, IEC International Standards and Other related national or international regulations and agreements.

1. Annex 14 Aerodromes (8th Edition - July 2018)
2. Aerodrome Design Manual, Part 4 Visual Aids (5th Edition - 2021)
3. Airport Service Manual, Part 9 Airport Maintenance Practices (latest edition)
4. IEC International Standards (IEC-TC-97) for design, installation, verification, and maintenance of Aeronautical Ground Lighting of aerodromes

Unless specified otherwise in this Specification, design, materials, manufacture, and testing of all works shall comply with the following Standards and recommendations;

ICAO - Aerodrome Design Manual Part 5 – Electrical Systems (2nd Edition - 2017)
ICAO - Airport Services Manual Part 8 - Airport Operational Services
IEC- International Electrotechnical Commission Publications
ISO- International Organization for Standardization
CIE- Commission Internationale de l'Eclairage (International Commission on Illumination)
PEC- Philippine Electrical Code (Part 1 and Part 2)
NSCP - National Structural Code of Philippines
MOS- Manual of Standards for Aerodromes by CAAP (2nd Edition - 2017)

Materials, devices and small parts may comply with the national or international authorized Standard prevalent in the country of manufacture. However, adequate modification shall be made for the point of interface with the facilities provided in accordance with Standards and regulations of PEC

4.0 DESIGN AND MANUFACTURE

All equipment and materials to be provided under this Specification shall be installed on the Site and shall be capable of working continuously under following conditions.

Ambient temperature	Inside room 10ºC- 45ºC
	Outside 10ºC – 55ºC
Relative humidity	Inside room Max 95%
	Outside Max. 100%
Max. wind speed	60m/second
Rainfall	Around 2200mm/ year (Ave. 158 rain day) 389 mm/month (highest), up to 210mm/hr

(1) The Contractor shall submit the design documents to the CAAP for approval within **twenty (20) days** from the commencement date. The CAAP shall be advised if any change in design if found necessary after original approval is granted. The CAAP may require re-approval if they involve changes in concept, approach, quantity, size or weight, power requirements, performance.

(2) The design documents shall include drawings of proposed structures, CCR capacity calculations, lamp wattage, number of lamps, intensity distribution diagrams and average intensity, cable size and voltage drop calculations.

(3) Cubicles for electrical power distribution equipment shall be provided with proper ventilation grilles, and these ventilation grilles shall be designed to ensure rodents will not enter the cubicles.

(4) Not less than 30 days prior to the shipment of the related equipment or structures, two final draft copies of installation instructions, drawings and maintenance and operation manuals shall be submitted to the Engineer for approval.

(5) Within twenty (20) days from the commencement date, the contractor is required to submit a copy of **Certificate of Frangibility** or **proof of frangibility** from its suppliers/manufacturers to the CAAP. The certificate guarantees that all equipment and/or structures to be installed within the safety area, obstacle free zone, and runway strip

shall withstand under normal environmental conditions but break away or collapse when impacted by an aircraft.

5.0 SPARE PARTS

(1) General

a. The Contractor shall assure the availability of spare parts of the same type or substitutes of equal or better quality for **at least ten (10) years** after the issue of the Acceptance Certificate. The Bidder shall submit Certificate of after sales support for at least **10 years** with the bid.

b. All such cases, containers, cable drums or other packages are liable to be opened for such examination as the Engineer may reasonably require, and all such opening and subsequent repacking shall be at the expense of the Contractor.

6.0 TOOLS/APPLIANCES AND MEASURING INSTRUMENT

(1) General

a. Tools / Appliances and Measuring Instrument for normal maintenance shall be supplied by the Contractor as indicated in the Bill of Materials / Quantities.

b. Each tool and appliances shall be clearly marked with its size and/or purpose where necessary.

c. The tools and appliances with appropriate boxes shall be handed over to the Engineer prior to the issuance of the Taking-over Certificate.

d. The tools and appliances supplied shall not be used for erection purposes.

e. The scope of tools and devices for assembly and maintenance shall include all customary tools and devices and tools which are specially made and/or required for complete assembling, dismantling, adjustment and maintenance of all equipment.

(2) Electrical Power Equipment

a. The electrical panels shall be of self-contained cubicle type, floor standing, with a full front face door, and/or rear access, with cable entry from the bottom.

b. Each electrical and power equipment shall be separated from another unit by a completely grounded steel plate, and high tension and low-tension circuits shall also be separated by a completely grounded steel plate. The housing for the various components shall be constructed of fabricated steel.

c. Adequate ventilation shall be provided to enable the equipment to operate continuously under the local ambient temperature designated hereinabove, and the same time care should be taken into account of rodents.

d. Precautions shall be taken to prevent overheating through hysteresis and eddy current loss.

e. All electrical equipment shall be provided with a suitable grounding terminal.

f. All electrical instruments and meters to be mounted on electrical panels shall be accurate to within ±1.5%, flush-mounting type with dustproof cover measuring 80mm – 110mm square. Wherever necessary, instruments shall be provided with easily accessible zero adjuster.

g. All control panel wiring and secondary control wiring in circuit breakers, control gear and the like shall be made in a neat and systematic manner, with cables supported clear of the panels and other surfaces at all points to obtain free circulation of air.

    i. Wiring shall be color-coded as follows:

Green	: Equipment grounding
White/Gray	: Neutral or Earth ground
Red/Yellow/Black	: All wiring other than ground

    ii. All wiring ends shall be marked to discriminate the circuits, voltage, current, fault circuit, etc.

iii. The molded case circuit breakers (MCCB) shall be manually operated, trip free mechanism with electromagnetic or thermal-magnetic type tripping element.

iv. Equipment shall be provided with lamps that indicate the stage of operation and a lamp test circuit shall be provided on the panel accordingly. Light emitting diode (LED) shall be adopted rather than filament lamp.

(3) Grounding System

a. General

i. The light fittings, secondary cables and secondary wires of isolating transformers, electro ducts, and exterior lighting poles shall be grounded for lightning protection.

ii. The grounding system shall be provided properly for safeguard to the person, equipment, light unit, and fitting, etc.

iii. The grounding of equipment, lights, poles, and masts shall be made mechanically and electrically to ensure the continuous system, and shall be conductive.

iv. The common grounding counterpoise wires of the grounding system and lightning system shall be used for light fitting and light units.

v. Connections between grounding rods and the grounding cables shall be welded exothermically. (i.e. Cad weld or its equivalent)

vi. Common Grounding Wires (Counterpoise wires)

The lightning protection wires shall be installed above underground cables and power cables for linked circuits.

b. Grounding Wires

The grounding wires to be used in this work shall be manufactured and tested in accordance with the appropriate standards authorized in the country of manufacture or equivalent thereto.

c. Equipment

i. Common grounding wire shall be installed in the cable pit. The wire shall be connected to copper grounding plates, or rods and shall also be connected with the grounding terminal of equipment.

ii. The copper grounding plates and rods shall be installed underground to a depth of not less than 1.0 m. Grounding resistance of the system as a whole shall not exceed 5 ohms.

7.0 CIVIL WORKS

(1) General

a. This work shall be applied for the installation of mounting light bases, hand-holes, maintenance holes, foundations, concrete base for cubicle/panel and outdoor cable trench.

b. Foundations for equipment shall be sufficient size and thickness as recommended by the equipment manufacturer.

c. Design of conduit encasement system shall consider factors such as load-bearing capacity required to support the weight of aircraft and other surface traffic.

d. Conduit encasement systems must comply with relevant engineering and aviation standards to ensure safety and structural integrity.

e. No pouring of concrete shall be done by the contractor unless bearing surfaces has been inspected and approved by Engineer, and the authority to proceed has been received by the contractor.

f. The contractor shall protect and maintain all conduits, drains, sewer pipes and other utility that are on the property.

(2) Excavation and Backfill Work

a. The depth and width of excavation shall be of minimum for the installation of above facilities. The bottom plane of excavation shall be flat.

b. Excavated material may be used for backfill provided it is free of stones and other objects that can cause cable damage. Backfilling shall be put in horizontal layers **not to exceed every 250mm** in depth, and shall be compacted to the satisfaction of the Engineer.

c. The backfill of the trenches shall be in accordance with the specifications of ICAO Aerodrome Design Manual Part 5-Electrical Systems.

d. The cables in the trenches shall be carefully laid over **100 mm** of sand cushion, on top of the cables another 100mm of sand layer shall be added before backfilling. To secure proper spacing horizontally and vertically adequate jigs shall be used during cable laying.

e. The installation of concrete encasement involves excavating the ground beneath the taxiway to create a trench for the conduit encasement.

f. The work shall include all materials, labor, equipment for leveling and clearing construction site and all other operations to complete the excavation / embankment / backfilling / gravel bedding of covered area as indicated in the plans.

g. Restore the construction site to its original condition, including resurfacing and landscaping as necessary.

8.0 ADDITIONAL/OTHER WORKS

(1) Dismantling of existing APAPI Units

The Project prior to installation of the new system require dismantling of old APAPI System. It covers removal of APAPI units located in the airfield as well as other existing materials or debris that may pose risk damaging aircrafts landing and taxiing the runway and removal of existing equipment (i.e. CCR, panels, old systems and grounding cables, etc.) inside the power plant / AFLS room.

(2) Final Inspection and Cleanup

A thorough inspection of all affected areas shall be conducted to ensure quality and compliance with specifications. All construction debris shall be removed and ensure the equipment room shall be left clean and tidy**.** Any defects or issues identified during inspection shall be rectified.

Note: All works should be carried out in accordance with relevant building codes, safety regulations, and manufacturer's instructions. Any deviations from the scope must be approved by the authority.

9.0 TESTS AND INSPECTION

(1) Scope of Testing

a. The Contractor shall perform all the test activities specified in this Section.

b. The Contractor shall prepare and submit, at **least thirty (30) days** prior to any test carried out by the Contractor, two sets of detailed test procedures and schedules to the CAAP for consideration and approval. Test procedures shall be comprehensive and shall demonstrate equipment hardware compliance with all the requirements of this Specification.

c. The entire work to be executed by the Contractor is subject to inspection and tests by the CAAP during installation and on completion at the Site, but the approval of the CAAP or the passing of any such inspection or test shall not, however, prejudice the right to reject the items or equipment if they do not comply with the Specification when installed.

d. Tests shall include the following:

i. Tests at factory by the Contractor/Manufacturer
ii. Tests at the Site during construction
iii. Commissioning Tests
iv. Reliability Tests
v. Other tests

e. The Contractor should carry out and submit the test documents according to the following Tables.

TABLE – 1. Test Items for Airfield Light Fittings

Test Item / Detail	1	2	3	Standard
Composition Test (Quality)	o			Approved Shop Drawings
Appearance & Structure Test	o		o	-do-
Dimensional Test	o			-do-
Photometric Test	o			-do-
Waterproof Test	o			FAA/ICAO spec.
Alignment Test		o	o	Document for Test and Inspection
Operation Test		o	o	-do-

Notes:

1. *Test at factory by the Contractor/Manufacturer.*
2. *Test at the Site during construction.*
3. *Commissioning test.*

TABLE - 2. Test Items for Constant Current Regulator

Test Item / Detail		1	2	3	Standard
Composition Test (Quality)		o		o	Approved Shop Drawings
Appearance & Structure Test		o			-do-
Dimensional Test		o			-do-
Photometric Test		o			-do-
Operation Test	1) Transitional Response Test	o			-do-
	2)Soft-starting Test	o			-do-
	3) Brilliancy Tap Changing-over Test	o	o	o	-do-
	4) Protective Device Test	o	o	o	-do-

	5) Overall Operational Test	o	o	o	-do-
Insulation Resistance Test		o	o	o	FAA / ICAO Spec.
Dielectric Test		o			-do-

Notes:

1. *Test at factory by the Contractor himself.*
2. *Test at the Site during construction.*
3. *Commissioning test.*

TABLE - 3. Test Items for Control Equipment

Test Item / Detail	1	2	3	Standard
Composition Test (Quality)	o			Approved Shop Drawings
Appearance & Structure Test	o		o	-do-
Dimensional Test	o			-do-
Insulation Resistance Test	o		o	-do-
Operation Test	o	o	o	FAA/ICAO specs.
Dielectric Test	o			-do-

Notes:

1. *Test at factory by the Contractor himself.*
2. *Test at the Site during construction.*
3. *Commissioning test.*

(2) Test at Site during Construction

a. During the course of installation, the Engineer shall have full right for making tests and inspection for the work, as he may deem necessary always with the participation of the Employer's personnel in all tests at Site if so requested by CAAP for the purpose of on-the-job training. In this case, the Contractor may have part of the tests conducted by such personnel but shall assume final responsibilities for test results.

(3) Other test

During Trenching

a. To ensure the restoration of the surface of the taxiway, a visual inspection must be conducted to identify any visible damage or issues during the trenching process. The inspectors (i.e., engineer, contractor) shall visually examine the taxiway surface and adjacent areas as trenching progresses.
b. Compaction Testing must be conducted to ensure proper compaction of backfill material during the trenching process by performing field compaction test to verify that the backfill material meets specified compaction standards.

After trenching and conduit encasement installation

a. Inspectors shall visually examine the restored surface for possible defects or irregularities such as unevenness or settling.
b. Conduct field density test on the restored surface to ensure proper compaction.
c. Conduct thickness measurement to assess the thickness of the pavement layers.
d. Perform compressive strength testing to determine its compressive strength.
e. Perform joint sealing inspection and if necessary, additional testing to assess the condition and performance of joint sealants.

(4) Documents for Tests and Inspection

a. Before execution of test and inspection, the Contractor shall prepare and submit the following documents to the Engineer for his approval:
    i. Complete description in writing about procedure of tests at Site.
    ii. Complete description in writing about procedure of commissioning tests at the Site.
b. Certified reading and data of all tests to be carried out by the Contractor shall be submitted to the Engineer from time upon completion of each test and the Contractor shall prepare additional four (4) copies of complete set of these test data bound in book form for submission at the time of the commissioning test.

10.0 OPERATION AND MAINTENANCE MANUALS

Three (3) sets of Complete Operation and Maintenance Manuals in English shall be submitted to the CAAP not later than five (5) days before any site testing and commissioning.

11.0 CABLE WORKS

(1) General

a. Airfield lighting power and control cables shall be installed in ducts, or trench. Counterpoise wire and underground cable marker sheet shall be installed on top of the trench of cable ducts and underground cable.

b. The cable conductor size in the Specification and on the Drawings is given in mm or in mm^2.

c. The following information shall be marked repeatedly on suitable part of the cable.

- ***Manufacturer's Name and/or Trademark***
- ***Size of Stranded Conductor Cross Section (for 5KV)***
- ***Voltage Rating***

d. Cable length per cable drum shall be less than 2,000 meters, and a total weight of cable and drum shall be less than 5 tons, for easy transportation. The Contractor shall submit AFL power cable length list to the CAAP for approval before manufacturing.

e. Where cable end projects from a drum they shall be adequately protected to prevent damage during handling and transportation, and a thick PVC wrapper (cap) shall be placed over the cable to prevent the ingress of dirt, dust and grit, etc.

f. Each drum shall bear a distinguishing number which is branded with hot iron or neatly chiseled on the outside of one flange. **Painted markings shall not be accepted.**

g. Particulars of the cable, i.e. type of cable, rated voltage, length, conductor size, number of cores, gross and net weights, as well as position of cable end, manufacturer's name and year and a month of manufacturer shall be clearly shown on the drum. The direction of rolling shall be indicated by an arrow.

(2) Underground Series Circuit Cable (5KV, 8mm^2-single core)

a. Airfield lighting power cable shall be manufactured in accordance with ICAO Specifications.
b. Installed primary airfield lighting cables should have cable circuit identification markers attached on both sides of each connector and on each airport lighting cable entering or leaving cable access points, such as manholes, handholes, pull boxes, junction boxes, etc. Tags size and thickness should be in accordance with Aerodrome Design Manual Part 5 Electrical System latest edition.
c. High voltage series circuit cables to be used in the Works shall be 8mm^2 single conductor, ethylene-polypropylene rubber insulated (EPR), polyvinyl-chloride or polychloroprene sheathed cables as follows:

TABLE - 4. Cable Details (1)

Voltage Rating		kV	5
No. of Conductor		-	1
Conductor	Nominal area	mm^2	8
	No. and dia. of wires	No./mm	7/1.2
	Outside dia.	mm	3.6
EP Rubber Insulation Thickness		mm	4.0
Polychloroprene Sheath Thickness		mm	1.8
Outside Dia. of Sheath		mm	13.5
AC Test Voltage (for 10 minutes)		kV	17
Insulation Resistance per 1000 m (20) min.		meg ohm	900
Conductor Resistance per 1000 m (20) max		Ohm	2.41

d. The cable conductor will be tin or lead-alloy coated annealed stranded copper wires.

e. The average thickness of the insulation and sheath shall not be less than 90% of the value given in Table 5. The minimum thickness of the insulation and sheath at any point shall be not less than 80% of the specified value.

(3) Extension Cables-Secondary (600V, 2 PNCT Cable) and Wires to the Light Fitting

a. The extension cable between the isolating transformer and light fitting shall be 4.0 mm^2 double-conductors, ethylene-polypropylene rubber insulated, polychloroprene sheathed portable cable. 2 PNCT Cable shall be manufactured in accordance with JIS-C 3327.
b. The secondary cables shall be provided either with a factory molded receptacle or factory molded plug, depending upon their location.

TABLE - 5. Cable Details (2)

Voltage Rating		V	600
No. of Cores		-	2
Conductor	Nominal cross-sectional area	mm^2	8
	Composition and No. of wires	mm	45/0.32
	Outside dia.	mm	2.5
Thickness of Separator		mm	0.05
Thickness of Insulation		mm	0.8
Cabling Dia., approx.		mm	8.4
Thickness of Sheath		mm	1.9
Overall Dia. Of Cable, approx.		mm	12.5
Weight of Cable per 1000 m, approx.		Kg	245
Conductor Resistance per 1000 m (20 °C) max.		Ohm	5.54
AC Withstand Voltage for 1 minute		kV	3.0
Insulation Resistance for 1000 m (20°C) min		Meg ohm	400

(4) Plugs and Receptacles

a. Plugs and receptacles for the 5kV and 3kV single-conductor cables shall be designated for 25A current, and for the 600V, two-conductor cables for 20A.
b. The plug and receptacle shall be water tight and will withstand continuous use under the designed ambient temperature range. The connector plug and receptacle shall resist a pulling force equal to a static weight of 5 kg without becoming

disconnected. All plugs and receptacles shall be identical and of uniform manufacture.

c. Plug and receptacles shall be manufactured in accordance with ICAO Standard.
d. The receptacle and the plug shall be factory molded on the cable end.

12.0 ISOLATING TRANSFORMERS

(1) The types and characteristics of the isolating transformer to be supplied shall be as shown in Table 6.
(2) All isolating transformers shall be suitable for use on series circuits with a current of 6.6 amperes.
(3) All isolating transformers shall be completely waterproof, shall withstand continuous use under the designated ambient temperatures and shall be suitable for burying in the ground or setting in transformer boxes, as required. Each transformer shall be completely sealed together with the lead cable joints, in black vulcanized rubber with polychloroprene sheathing of 7 mm or more in thickness to ensure water tightness.
(4) Two primary lead cables and one secondary lead cable shall be attached to the isolating transformer.
(5) The primary lead cables shall be 340mm +/- 30mm in length, single cored, 8 mm^2 PN cables, the one with a receptacle and the other with a plug. The receptacle and the plug shall be factory molded.
(6) The secondary lead cable shall be of 600V 2 x 3.5 mm^2 2 PNCT, 1100 mm +/- 50 mm in length in principle, and provided with a factory-molded receptacle. Isolating transformers shall show rating information. The Contractor shall examine necessary length of the secondary lead cable in consideration of the overall height of light.
(7) Isolating transformer shall be manufactured in accordance with ICAO Standard.

TABLE - 6. Isolating Transformer

Characteristics	30/45 watts	150 watts	200 watts	Remarks
Primary Current (A)	6.6	6.6	6.6	100% load
Secondary Current (A)	6.53-67	6.53-67	6.53-67	
Secondary Current (A)	6.6-7.1	6.6-7.1	6.6-7.1	Short Circuit
Primary Power Factor (%)	Min. 95	Min. 95	Min. 95	100% load

Efficiency (%)	Min.85	Min.85	Min.90	100% load
Primary Voltage Regulation (%)	Max.90	Max.80	Max.80	Open Circuit
Frequency	60 Hz	60 Hz	60 Hz	
Rated Voltage	3000V	5000V	5000V	

13.0 POWER AND CONTROL CABLES

(1) All power cables of parallel circuit, as well as all control cables to be used in the Works shall be manufactured in accordance with the following standards:

IEC - International Electrotechnical Commission
JIS - Japan Industrial Standard
JCS - Japanese Cable Makers Association Standards
ICEA - Insulated Cable Engineers Association, U.S.A
PEC - Philippine Electrical Code

(2) All power cables, except where otherwise specified, shall be cross-linked polyethylene (XLPE) insulated and polyvinyl-chloride sheathed cables.

(3) All control cables, except where otherwise specified, shall be polyvinyl-chloride insulated, polyvinyl-chloride sheathed control cables.

(4) Bare Copper Wire (Counterpoise Wires)

a. Bare copper wires for counterpoise installations shall be stranded or PVC insulated wire with a minimum size of 14mm^2. Preference will be given to 600 V polyvinyl-chloride insulated wires for long service life.

b. The grounding wires to be used in this work shall be manufactured and tested in accordance with the appropriate Standards authorized in the country of manufacture or equivalent.

(5) Series Circuit Cable Joint

a. All joints of the series circuit cables including their extensions, as well as joints with lead cables of the isolating transformer shall be made by means of the plug and the receptacle factory-molded on cable ends.

b. Prior to joining, the plug and the receptacle shall be thoroughly cleaned to be free from greases, dust, etc.

c. Unless otherwise specified, all plug joints shall be protected by 4 layers of self-bonding tape, topped by 3 layers of PVC tape, with the exception of all connections with the secondary lead cable of the isolating transformer, whose receptacle shall be joined to the plug of the light fittings by means of a clamp.

(6) Power and Control Cable Joint

a. Joints and terminations of the power cable and control cables shall be executed in a manner to be approved by the CAAP. For the sake of easy access for maintenance, in principle all joints shall be made in the manholes or hand-holes.

b. The Contractor shall submit joining point location plan for the CAAP approval within twenty (20) days from the Commencement Date.

c. Full details of jointing materials shall be submitted to the CAAP for written approval, before shipment.

(7) Installation

a. The approximate routes of the cables are shown on the Drawings. Actual laying positions of the cable ducts and of cable supports shall be determined with due regard to any obstacles that might exist as well as to accessibility of all such routes, subject to the approval of the CAAP prior to the installation.

b. PVC pipe ducts with concrete encasement and steel reinforced shall be used where cables are installed under the pavement area. Underground cables that cross the runways, taxiways, roads, and aprons shall be protected with ducts.

c. The series circuit cables, power cables, control cables and cables of radio navigational aids and communications shall be allocated separate duct pipes.

d. When the supply and return circuits of a series circuit are routed together, the cables for both directions shall be laid in the same duct pipe. However, when one lighting system receives its power supply through 2 circuits, the cables for each circuit shall be laid in separate pipes.

e. All cables shall be buried at least 600 mm below finished graded except for transformer secondary cable.

f. Minimum spacing between underground cables to be maintained:

Between same voltages	60mm
Between 6 kV cables and 600 V cables	150mm
Between 6 kV cables and light-current cables	300mm
Between 5 kV cables and 600 V cables	150mm
Between 5 kV cables and light-current cables	300mm
Between 6 kV cables and light-current cables	300mm

g. Each underground cable shall bear cable identification circuit markers for non-corrodible materials, as directed by the CAAP. Cable installation shall be in accordance with the specification of L-824 cable.

(8) Grounding System

a. A stranded bare copper wire 14 mm^2 minimum size shall be installed for lightning protection of the underground cables in trenches.

b. The copper wire shall be installed in the same trench for the entire length of the insulated cables; it shall be placed at a depth of approximately 300 mm or as indicated in the drawing above the insulated cables.

c. The grounding rods shall be installed not more than 300 m apart around the entire cable length. The grounding rods shall be made of copper clad steel, coupled type, 3.0m length 19 mm in diameter. The grounding resistance as a whole shall be

less than 5 ohms. The grounding resistance of each electrode shall be not more than 20 ohms.

d. The grounding rod shall be installed not more than 750 mm in depth at the upper portion of the rod.

14.0 MAINTENANCE AND REPAIR SERVICES

(1) Service To Be Provided

a. The contractor shall be responsible for providing full maintenance and repair services for all the works for the duration of the Defects Liability Period and for a further 12 months period after the issue of the Defect Liability Certificate (the total period to be hereinafter known as the Maintenance and Repair Period).

(2) The Maintenance and repair services shall include:

a. Regular routine maintenance and inspection procedures at intervals detailed in the relevant Operation and Maintenance Manuals.

b. The provision of all consumables, lubricants, spares parts and replacement parts.

c. Repair services including an emergency repair capability within 12 hours of a call out from the CAAP (personnel will be designated in the future for this purpose)

d. The Contractor shall remain responsible for the effective and efficient performance of the maintenance and repair services throughout the Maintenance and Repair Period and costs thereof shall be understood to be included in the respective rates of the Bill of Quantities.

e. The maintenance and repair services are to be carried out by the Contractor or by an officially established and locally presented organization under the Contractor's responsibility, certified as being capable and authorized to provide such Services by the Contractor and the manufacturer of particular items of Plant, system or part of the Works concerned. Maintenance or repair work carried out by such an

organization shall not be invalidate or in any way affect any the Contractor's express or implied guarantees or warranties for the Works.

f. The maintenance and repair services should, as far as is practical, be carried out in the presence of the CAAP personnel to serve as ongoing operational and maintenance training.

PART B

Abbreviated PAPI (APAPI) SYSTEM

1.0 ABBRREVIATED PRECISION APPROACH PATH INDICATOR (APAPI) SYSTEM

(1) Scope of Work

The scope of work includes the supply and installation of a new APAPI system, which consists of primary airfield lighting cables, grounding Cables, a constant current regulator, isolation transformers, and remote control and monitor system. Additionally, excavation, sand bedding, backfilling, concrete foundation, and other necessary ancillaries will be provided to complete the installation. The project also includes the installation of an Illuminated Wind Direction Indicator (WDI) to enhance the visual approach by providing runway weather information to approaching aircrafts.

(2) Lighting System

(a) The Abbreviated Precision Approach Path Indicator (APAPI) System for Runway 09 and Runway 27 will consist of two (2) wing bar units per runway, each featuring sharp transition multi-light units. These units are typically positioned on the left side of the runway, unless it is physically impracticable, and will be installed at right angles to the runway centerline.

(a) The angle of elevation settings of the light units of APAPI wing bar shall be such that, during an approach, the pilot of an areophane observing the lowest on slope signal, i.e. one white and one red, will clear all objects in the approach area by a safe margin (see MOS Table 9.8-5).

(b) The appropriate unit setting angles for APAPI is typically 2°45′ and 3°15′ in the assumption that the APAPI units are at the same level as the runway center line adjacent to them, and this level, in turn, is the same as that of the runway threshold (Note: You may refer to Chapter 3.33-38. Aerodrome Design Manual Part 4. Visual Aids for the procedure for establishing the distance of the APAPI wing bar from the runway threshold).

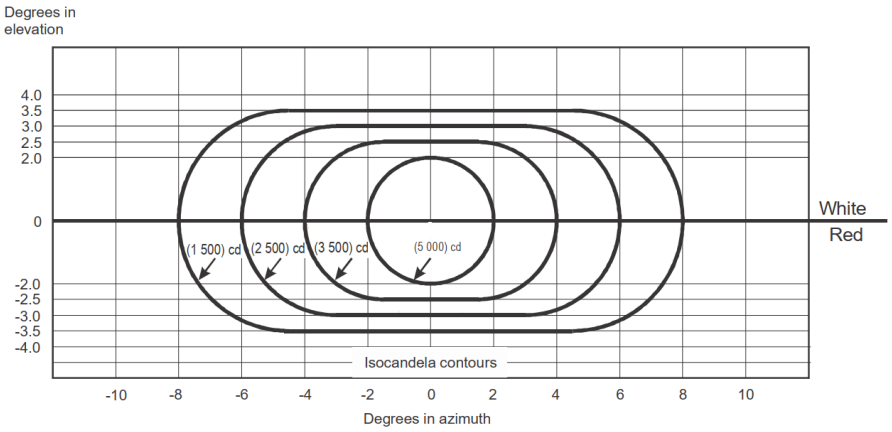
(3) Light Units

(a) Each unit shall contain three (3) high intensity tungsten halogen lamps 6.6A 200W, 1,000 hours average rated life and shall comprise an aluminum plate housing containing the optical projectors, filters, lamps, lead cables, etc. with an adjustable positioning frame and four (4) mounting legs with adjustable sleeve and frangible coupling to give an adjustment in lateral, transversal, horizontal and elevation angle.

(b) The transition between the red and white signal should appear to be virtually instantaneous when viewed from ranges in excess of 300 meters.

(c) The color transition from red to white in the vertical plane shall be such as to appear to an observer at a distance to occur up to vertical angle of not more than 3 minutes.

(d) The light distribution (Isocandela) of each unit shall be in accordance with the specification of Appendix 2, Figure A2-23 of ICAO Annex 14 - Aerodromes, Volume I (Aerodrome Design and Operations), Seventh Edition, July 2016.



(e) The intensity of the completely red beam immediately below the transition sector shall not be less than 15% of the intensity of the completely white beam immediately above the transition sector.

(f) Each light unit and supporting pipe shall be of lightweight, frangible construction suitable for concrete mounting base

and shall be sufficient strength to withstand aircraft engine blast.

(g) Exterior finished color of light units shall be yellow.

(4) Installation

(a) Exact position of light units to be installed shall be subject to the approval of the Engineer. Prior to erecting the concrete base, the Contractor shall place temporary markings to identify the actual installation positions of the light units determined by him through detailed site survey, against the corresponding positions indicated on the Drawings, and shall notify the Engineer accordingly.

(b) Each light unit shall be installed on top of concrete mounting base using a breakable coupling on aluminum frangible pipe. Designed that the unit will be carried away in the event that an aircraft collides with the unit.

(c) Two (2) light units shall be in the level when checked by precision level meter and electronic survey equipment.

(d) Units shall be designed to resist the ingress of foreign matter

(e) Units should be designed to minimize susceptibility to jet blast.

(f) The light unit housing shall be guaranteed against distortion due to sun or other climatic conditions prevailing on the site

(g) In azimuth the axis of the beams of all light units shall be parallel with the center line of the runway.

(h) APAPI units must be the minimum practicable height above ground, and not normally more than 0.9 m. All units of a wing bar shall ideally lie in the same horizontal plane.

(i) Individual unit settings angles shall be checked using a clinometer, or equivalent means of angular measurement, in accordance with the manufacturer's instructions.

(j) Correction of location for runway and other slopes, refer to MOS 8.3.26.

(5) Isolating Transformer

A rubber-molded isolating transformer for the Abbreviated-Precision Approach Path Indicator shall be installed in the transformer box.

(6) Power Supply System

The Abbreviated - Precision Approach Path Indicator (APAPI) System to be installed at Runway 09 and Runway 27 shall be supplied with power from the power house respectively, by means of constant current high voltage series loop circuit of 6.6 amperes at 100% brilliance. Both APAPI systems shall be fed through the 5 KVA CCR, 220V-240V, 60 Hz, Single Phase with Circuit Selector for alternate operation.

The CCR and Circuit Selector shall be located to the powerhouse and primary series cables shall be installed from the powerhouse to the new APAPI units.

(7) Brilliancy Control

The Abbreviated Precision Approach Path Indicator System shall be controlled in five (5) brilliancy steps of 100%, 25%, 5%, 1% and 0.2% of the full brilliance, by means of Remote-Control Panel installed at ATC Controller at Tower.

(8) Flight Inspection

A flight inspection shall be undertaken by a competent authority to confirm the correct operation of the system. The inspection shall include checks of range, setting angles, brilliancy control.

2.0 OTHER WORKS

(1) Scope of Work

Other works for this Project includes installation and construction of **illuminated Wind Direction Indicator (WDI) System for Runway 09 and Runway 27**. This will provide a wind direction visible for approaching aircrafts at runway 09/27 during daytime and nighttime operations while using the APAPI system.

(2) Lighting System

An illuminated Wind Direction Indicator (solar type) or Wind Direction Indicator Lights shall be provided at Runway 09 and

Runway 27 at the location specified in the Section VII Drawing. Section VIII Specifications specified a detailed materials and requirement of the illuminated WDI or wind direction indicator lights system to be installed.

(3) Indicating Equipment

a. The Wind Direction Indicator shall be in the form of a truncated cone made of nylon fabric resistant to mildew, mold and fungus attack.
b. The cone shall be aviation red orange colors and designated to give indication of the wind direction of the surface wind and a general indication of the wind speed when viewed from a height of not less than 300 meters.
c. The wind cone shall be illuminated by four light fittings of LED Type including the aviation red obstruction light and upper surface of the fully extended windsock. An obstacle light shall be mounted on top of the indicator.
d. The wind cone shall be illuminated by four Solar light fittings of LED Type including the Solar aviation red obstruction light and upper surface of the fully extended windsock. An obstacle light shall be mounted on top of the indicator
e. The wind cone shall have a length of not less than 3.65 m and taper uniformly from 0.9m in diameter to 0.25m in diameter.
f. The support pole for the indicator shall cause minimum damage to the aircraft in the event of the aircraft strike.
g. The power distribution shall be supplied by photovoltaic power generation system to be located at near to the WDIL pole.
h. Exterior finished color of light unit including pole shall be alternate red and white.

(4) Installation

a. The support poles of the indicators shall be erected on the concrete base by using the breakable coupling.
b. Poles supporting wind direction indicators shall be frangible to ensure that they will break off upon impact by an aircraft." It further specifies that the frangibility requirements for wind direction indicator poles should be in accordance with the specifications in ICAO Annex 14, Volume I, Part II, Chapter 5.
c. The Contractor shall submit drawings of proposed supporting structure and structural calculations to the

Engineer for approval within 120 days from Commencement Date.

d. Exact position of indicator lights to be installed shall be subject to the approval of the Engineer. Prior to erecting the concrete base, the Contractor shall place temporary markings to identify the actual installation position of lights determined by him through detailed site survey against the corresponding positions indicating on the Drawings and shall notify the Engineer accordingly.
e. The Wind Direction Indicator (WDI) shall be located within a circular area 15 m in diameter, the surface of which is appropriately blackened and bordered by a white perimeter 1.2 m wide. (refer to MOS 8.7.2.6)

Section VII. Drawings

Section VIII. Bill of Quantities

DETAILED COST ESTIMATES

QTY	UNIT		DESCRIPTION	UNIT COST	AMOUNT
		I.	**GENERAL REQUIREMENTS**		
1	lot		Mobilization & Demobilization		
1	lot		Permits		
				Total	
		II.	**SITE WORKS / DELIVERY**		
549	cu.m	II.1	**Excavation works**		
			* Cable Run (L x 0.3 x 0.6)		
			* PAPI 09 Pavement (11 x 4 x D)		
			* PAPI 27 Pavement (11 x 4 x D)		
			* Maintenance Hole (1.9 x 1.9 x 2.1) x n		
270	cu.m	II.2	**Back filling works**		
			* Cable Run (L x 0.3 x 0.4)		
1	lot	II.3	**Dismantling of VASI CCR and other accessories**		
				Labor	
		III.	**UNDERGROUND CABLE DUCTS, MANHOLES, HANDHOLES, GROUNDINGS**		
135	cu.m	III.1	**Fine Sand** for Trench Bedding		
1,406	pcs	III.2	**110mmØ uPVC Conduit**, schedule 40 or equivallent x 3m		
15	pcs	III.3	**Maintenance Hole** equipped with/or equivalent and other accessories		
			* 650mmØ Cast Iron Cover (see Technical Drawing for Details)		
			* Hot Dip Galvanize Ladder Rung		
			* End Bells and Water Sealant		
			* Lean Concrete and Gravel Bedding		
			* Brass Floor Drain		
			* 16mmØ and 12mmØ RSB @ 150mm spacing		
			* Concrete (210 kg/cm²)		
2,888	m	III.4	**14mm², 600v TW Cu. Wire (Green)** w/ manufacturers trademark printed throughout the length of cable		
9	rolls	III.5	**Underground Cable Warning Tapes** 3"x1000', similar or better		
2	pcs	III.6	**Handhole** (Refer to the technical drawing)		
				Materials	
				Labor	
				Sub-Total	
		IV.	**POWER, CONTROL and MONITORING SYSTEM**		
1	set	IV.1	**Constant Current Regulator (CCR)** Thyristor controlled 5 KVA, 6.6 A, 220 VAC input, single phase, complete with the following:		
			* 5 steps brightness control		
			* Local & Remote Control, On/Off switch		
			* Circuit Breaker & Lightning arresters		
			* Back Indication & Remote Control (24-60VDC)		
			* Open circuit & Overcurrent Protection		
			* Earth Fault Detector		
			* Serial Mode Communication (Jbus/Mod-bus)		
			* Fitting Accessories		
			* Manual in English & Schematic Diagram		
			* Equipment Nameplate		
1	set	IV.2	Circuit Selector, complete w/back indication panel complete with :		
			* On/Off switch with Runway In Use Switch Selector		
			* Manual/Auto Selector Switch		
			* Manual in English & Schematic Diagram		
1	lot	IV.3	PAPI Remote Control Box		
40	m	IV.4	Control Cable with at least 8Cores x 18AWG (0.75 mm² Ø), 300v rating		
				Materials	
				Labor	
				Sub-Total	

Signature of Bidder's Authorized Representative

		V.	**ABBREVIATED PRECISION APPROACH PATH INDICATOR (PAPI) SYSTEM**		
4	sets	V.1	PAPI Light units complete with fittings accessories and: * Three(3) x200W, 6.6A pre-focus halogen lamp 1000hrs average rated life hours at full intensity, equivalent or better * Three (3) x core flexible cables fitted w/ molded two pole plug * One (1) hardened heat resistant clear front glass to protect the lenses * Three (3) x Red Filters * Three(3) or Four (4) x legs fitted with differential setting sleeve * Aluminum anchoring legs w/ breakable couplings mounted on flange and anchor bolts		
12	pcs	V.2	Isolation Transformer, 200 watt, 6.6A/6.6A, 5KV, 60Hz DEB, FAA L-830 completely fitted w/molded cable Assembly equipped w/ FAA L-823connectors and plug and with earthing terminal, equivalent or better		
4	pcs	V.3	Primary Connector kit, 54B-E4-E4 with static lock		
4	lot	V.4	Concrete foundation for PAPI complete w/L-867 transformer base, elbows, baseplate cover, fittings & accs.		
5,775	m	V.5	**8mm² , 5kV, Copper, Unshielded XLPE Cable** w/ manufacturer's trademark printed throughout the length of cable, better or equivalent		
12	set	V.6	Secondary connector kit 90P		
4	set	V.7	Splicing kit		
6	pcs	V.8	Professional Grade Rubber Tape #23, 19mmx6m, equivalent/better		
9	pcs	V.9	Professional Grade Electrical Tape #33, 25mmx7m, equivalent/better		
2	lot	V.10	Concrete pavement (refer to the technical drawing)		
1	pc	V.11	Circuit Breaker, 40AT, 230v, 3P, 50kAIC		
10	m	V.12	3C - 14mm² XLPE, 600v		
40	m	V.13	3.5mm² THHN, 600v		
20	m	V.14	3.5mm² TW, 600v		
3	pcs	V.15	1in Ø IMC Conduit, 3m and mounting accessories		
3	pcs	V.16	2in Ø IMC Conduit, 3m and mounting accessories		
				Material	
				Labor	
				Sub-Total	
		VI.	**ILLUMINATED WIND DIRECTION INDICATOR**		
2	sets	VI.1	Complete Solar Windcone Assembly complete with module w/ mounting brackets, Sealed externally 4x3watts ultra high intensity domed luminares w/ mounting rms 140watts solar lead battery w/ swivel Frame and 12ft windsock, RF control relay individually controlled relay outputs. Control board & lockable cage and Equipment Concrete Foundation		
1	unit	VI.2	Wireless handheld controller to suit RF-controlled lights complete with Pelican Case and Charger 2.4GHZ, 128bit security encryption.		
2	lot	VI.3	Wind Direction Indicator Concrete Pavement, 15-meter in diameter, a circular area painted black, bordered by a white perimeter that is 1.2 meters wide		
				Materials	
				Labor	
				Sub-Total	
		VII.	**MISCELLANEOUS**		
1	lot	VI.1	Leveling Instruments for APAPI Systems (RWY 09/27)		
1	lot	VI.2	Commissioning Flight Inspection of APAPI		
1	lot	VI.3	On-site Training on the Installed APAPI Systems		
				Sub-Total	
			Total Materials		
			Total Labor		
			General Requirement		
			Total Direct Cost :		
			Overhead (7-11% of EDC)		
			Contingencies (0.5-3%EDC)		
			Miscellaneous (0.5-1%EDC)		
			Contractor's Profit (8%)		
			VAT/Contractor's Tax (5% of EDC, OCM and Profit)		
			Total Indirect Cost :		
			TOTAL PROJECT COST :		

Signature of Bidder's Authorized Representative

SUMMARY OF BILL OF QUANTITIES

Item	Description	Qty	Unit	Unit Price	Amount
I	General Requirements	1	lot		
II	Site Works	1	lot		
III	Civil Works	1	lot		
IV	Electrical Works	1	lot		
V	CCR Area Modification	1	lot		
VI	Power, Control, and Monitoring System	1	lot		
VII	Abbreviated Precision Approach Path Indicator (APAPI) System	1	lot		
VIII.	Miscellaneous	1	lot		
				Total Direct Cost	*[EDC + General Requirements]*
				Total Indirect Cost	
				TOTAL BID PRICE	

Signature of Bidder's Authorized Representative

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);

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; **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:

☐ 1. Organizational chart for the contract to be bid;

☐ 2. 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;

☐ 3. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

☐ (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, and with the following attachments.

1. Certification, under oath, attesting that they have no pending

case(s) against the Government, in addition to the eligibility requirements as prescribe under 2016 Revise Implementing Rules and Regulation (R-IRR) of RA 9184.

2. Legal Clearance to be issued by the CAAP Enforcement and Legal Service with respect to the non-pending cases of the prospective bidders against this Authority

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.

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 (refer to Annex 1-3) used in coming up with the Bid; **and**

☐ (m) Cash Flow by Quarter. (Annex 4)

Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

CERTIFICATE OF SITE INSPECTION

This is to CERTIFY that _____ of
(Bidder's Authorized Duly Representative)

_____ has conducted the required Site Inspection for
(Company Name)

the bidding of the project _____.
(Project Title / Project Name)

Issued this _____.
Day / Month / Year

_____
ANS Facility-in-Charge/
Authorized Representative

Annex 1

(ATTACHED COMPANY LETTERHEAD/LOGO)

SUMMARY FOR UNIT PRICES OF MATERIAL

Project: _____

_____

Location : _____

DESCRIPTION	UNIT PRICE	UNIT

Submitted by:

Signature: _____

Printed Name: _____

Position: _____

Name of Company: _____

Date: _____

Annex 2

(ATTACHED COMPANY LETTERHEAD/ LOGO)

SUMMARY FOR UNIT PRICES OF LABOR

Project: _____

_____

Location : _____

DESCRIPTION	UNIT PRICE	UNIT

Submitted by:

Signature: _____

Printed Name: _____

Position: _____

Name of Company: _____

Date: _____

Annex 3

(ATTACHED COMPANY LETTERHEAD/ LOGO)

SUMMARY FOR UNIT PRICES OF EQUIPMENT

Project: _____

_____

Location : _____

DESCRIPTION	UNIT PRICE	UNIT

Submitted by:

Signature: _____

Printed Name: _____

Position: _____

Name of Company: _____

Date: _____

Annex 4

{ATTACHED COMPANY LETTERHEAD/LOGO}

Name of Project: _____

Location of Project: _____

CASH FLOW BY QUARTER AND PAYMENT SCHEDULE

PARTICULAR	%W	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ACCOMPLISHMENT					
CASH FLOW					
CUMMULATIVE ACCOMPLISHMENT					
CUMMULATIVE CASH FLOW					

Submitted by:

_____

Name of the representative of bidder

_____

Position

_____

Name of the Company

_____

Date


CAA
PHILIPPINES
BAGONG PILIPINAS