PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

PROCUREMENT OF ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT

Government of the Republic of the Philippines

Bid No. 22-002-03 CHARLIE

Sixth Edition
July 2020

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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

ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT
Bid No. 22-002-03 CHARLIE

1. The Civil Aviation Authority of the Philippines through the GAA CY 2017 DOTr Downloaded Projects intends to apply the sum of **FIFTEEN MILLION TWO HUNDRED FORTY-SIX THOUSAND EIGHT HUNDRED FIFTY-NINE PESOS 51/100 (PHP 15,246,859.51)** being the Approved Budget for the Contract (ABC) to payments under the contract for **ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT (Bid No. 22-002-03 CHARLIE).** 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.

   Prospective Bidders should possess the following:

Technical Personnel	One (1) Project (Civil) Engineer One (1) Materials Engineer One (1) Geodetic Engineer One (1) Construction Foreman One (1) Safety and Health Officer
Equipment	One (1) Asphalt Distributor/Sprayer Pen One (1) Power Broom (Towed Type w/ Engine) One (1) Stake Truck One (1) Generator Set, 51-100kW (w/ lighting assembly) One (1) Asphalt Paver Finisher, 10ft. width One (1) Vibratory Tandem Roller, 10.10 MT One (1) Pneumatic Tire Roller, 20 MT One (1) Road Grader (135 hp) One (1) Water Truck (1,000 gal) One (1) Air Compressor One (1) High Pressure Washer/Sprayer One (1) Portable Generator One (1) Concrete Diamond Saw, Blade 14” diameter One (1) Dump truck (10 cu.m.) One (1) Pay Loader (1.5 cu.m.)
PCAB License	**Small B- License Category C & D** *(Road, Highway pavement, Railways, Airport, horizontal structures and Bridges)*

Completion of the Works is required **Thirty (30) Calendar Days.** 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 BAC Office, CAAP Compound, MIA Road corner Ninoy Aquino Avenue, 1300 Pasay City, Metro Manila on **March 03, 2022 until deadline of submission of bid** and inspect the Bidding Documents at the address given below from 08:00 AM to 05:00 PM from MONDAY to FRIDAY.

5. A complete set of Bidding Documents may be acquired by interested bidders on **March 03, 2022 until deadline of submission of bid** from 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 28,000.00 (inclusive of 12% VAT).** 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 **March 10, 2022 @ 10:00AM** at CAAP Conference Room, CAAP Compound, MIA Road Ninoy Aquino Avenue, 1300 Pasay City, Metro and/or through videoconferencing/webcasting via Jitsi/Zoom/Google Meet, which shall be open to prospective bidders.

7. Bids must be duly received by the BAC Secretariat at the address below on or before **March 22, 2022 @ 10:00AM** at BAC Office, CAAP Compound, MIA Road corner Ninoy Aquino Avenue, 1300 Pasay City, Metro Manila. 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 **March 22, 2022 @ 10:00AM** at the given address below and/or through Jitsi/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.

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

11. For further information, please refer to:

    DR. ROLLY T. BAYABAN, M.D.
    Head, BAC- Secretariat
    Civil Aviation Authority of the Philippines
    MIA Road corner Ninoy Aquino Avenue
    1300 Pasay City, Metro Manila
    Telephone number – (02) 944-2358
    www.caap.gov.ph

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

March 03, 2022

CAPTAIN DONALDO A. MENDOZA
Chairperson, BAC – Charlie

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, Civil Aviation Authority of the Philippines invites Bids for the **ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**, with Project Identification Number: **Bid No. 22-002-03 CHARLIE**.

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 GAA CY 2017 DOTr Downloaded Projects in the amount of **FIFTEEN MILLION TWO HUNDRED FORTY-SIX THOUSAND EIGHT HUNDRED FIFTY-NINE PESOS 51/100 (PHP 15,246,859.51).**

2.2. The source of funding is:

a. 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:

a. Subcontracting is not allowed.

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

7.2. *[If subcontracting is allowed during the contract implementation stage, state:]* The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

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

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address 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 X. 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 X. Checklist of Technical and Financial Documents**.

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

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

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

a. Philippine Pesos.

15. Bid Security

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

15.2. The Bid and bid security shall be valid until *[indicate date]*. 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

ITB Clause	
3.0	**Certificate of Site Inspection** *(Annex "B" Form 1)* duly signed by **Mr. Carmelito Escuadra, Officer-in-charge of Calbayog Airport** or his duly authorized representative, is required to be submitted. This shall include all of the following documents as attachment to the Certificate of Site Inspection and shall form part of the bidder's technical documents: a) Copy of company ID of the person who conducted the site inspection; b) Copy of the airport/facility visitor's logbook; & c) Picture of the proposed site including the personnel who conducted the site inspection together with the Airport Manager/Officer in Charge or his duly authorized representative. Bids not complying with the above instruction shall be disqualified.
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: **"Asphalting of Roads or other Horizontal Structures"**
7.1	Subcontracting is not allowed.
10.1	Bidder shall submit all eligibility and technical documents as specified in **Section X. Checklist of Technical and Financial Documents:** **Class "A" Documents** <u>Legal Documents</u> a. Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages); or b. Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document; and c. Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas; and d. Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR); and *In connection to GPPB Circular 07-2017 dated 31 July 2017, the bidder shall have the following options:* *1. Submit the Certificate of PhilGEPS Registration and Platinum Membership including its Annex "A" in lieu of the uploaded Class "A" Eligibility Documents identified in Section 8.5.2 of the Revised*

Implementing Rules and Regulations of Republic Act 9184 (Revised IRR of RA 9184), provided that all Class "A" Eligibility Documents listed under the aforesaid Annex "A" are all uploaded and maintained current and updated in the PhilGEPS Registry.

2. *Submit a combination of the PhilGEPS Registration and Platinum Membership including its Annex "A" and Class "A" Eligibility Documents identified in Section 8.5.2 of the Revised IRR of RA 9184.*
    - *In the event that aforesaid Class "A" Eligibility Document(s) listed in the Annex "A" of the PhilGEPS Registration and Platinum Membership is/are reflected to be outdated, the bidder shall submit such current and updated Class "A" Eligibility Document(s).*

3. *Submit all the Class "A" Eligibility Documents only, provided that the PhilGEPS Registration and Platinum Membership shall be submitted as a Post-Qualification requirement in accordance with Section 34.2 of the Revised IRR of RA 9184.*

<u>Technical Documents</u>

e. 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. *(Annex "A" Form 1);* and

f. Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules. *(Annex "A" Form 2);* and

g. Philippine Contractors Accreditation Board (PCAB) License; or
Special PCAB License in case of Joint Ventures; and
registration for the type and cost of the contract to be bid; and
Joint Resolution *(Annex "A" Form 3)*; and

h. 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 *(Annex "B" Form 2);* and

i. Project Requirements, which shall include the following:

    1. Organizational chart for the contract to be bid *(Annex "B" Form 3)*; and

    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 *(Annex "B" Form 4, 5a, 5b & 5c)*; and

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 *(Annex "B" Form 6)*; and

j. Original duly signed Omnibus Sworn Statement (OSS) *(Annex "B" Form 7)*; 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

This shall include all of the following documents as attachment to the Omnibus Sworn Statement:

1. Certification, under oath, attesting that they have no pending case(s) against the Government, in addition to the eligibility requirements as prescribe under the 2016 Revise Implementing Rules and Regulation (R-IRR) of RA No. 9184; and

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; and

3. Bid Bulletins (if applicable); and

k. **Certificate of Site Inspection** *(Annex "B" Form 1)* duly signed by **Mr. Carmelito Escuadra, Officer-in-charge of Calbayog Airport** or his duly authorized representative; and

This shall include all of the following documents as attachment to the Certificate of Site Inspection:

1. Copy of company ID of the person who conducted the site inspection; and

2. Copy of the airport/facility visitor's logbook; and

3. Picture of the proposed site including the personnel who conducted the site inspection together with the Airport Manager/Officer in Charge or his duly authorized representative: and

<u>Financial Documents</u>

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

	m. The prospective bidder's computation of Net Financial Contracting Capacity (NFCC). **Class "B" Documents** n. If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence; or duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful. Bids not complying with the above instruction shall be disqualified.
10.3	Valid PCAB License or Special PCAB License in case of Joint Ventures, and Registration *(Small B Category C & D for horizontal works - Road, Highway pavement, Railways, Airport, horizontal structures and Bridges)* for the type and cost of the contract to be bid. Bids not complying with the above instruction shall be disqualified.
10.4	The key personnel must meet the required minimum years of experience set below: Key Personnel: Project (Civil) Engineer; Materials Engineer; Geodetic Engineer; Construction Foreman; Safety and Health Officer General Experience: Five (5) years in General Engineering Relevant Experience: Three (3) years in Asphalting of Roads and other Horizontal Structures Bids not complying with the above instruction shall be disqualified.
10.5	The minimum major equipment requirements are the following: Equipment — Capacity — Number of Units Asphalt Distributor/Sprayer Pen — — One (1) Unit Power Broom (Towed Type w/ Engine) — — One (1) Unit Stake Truck — — One (1) Unit Generator Set (w/ lighting assembly) — 51-100kW — One (1) Unit Asphalt Paver Finisher — 10 ft. width — One (1) Unit Vibratory Tandem Roller — 10.10 MT — One (1) Unit Pneumatic Tire Roller — 20 MT — One (1) Unit Road Grader — 135 hp — One (1) Unit Water Truck — 1,000 gal — One (1) Unit Air Compressor — — One (1) Unit High Pressure Washer/Sprayer — — One (1) Unit Portable Generator — — One (1) Unit Concrete Diamond Saw, Blade 14" diameter — — One (1) Unit Dump truck — 10 cu.m. — One (1) Unit Pay Loader — 1.5 cu.m. — One (1) Unit

	Bids not complying with the above instruction shall be disqualified.
11.1.	The second bid envelope shall contain the financial documents for the Bid as specified in **Section X. Checklist of Technical and Financial Documents**. This shall include the complete accomplishment of all of the following documents as stated and required under Section VIII of this PBD and shall form part of the bidder's financial documents: a) Original of duly signed and accomplished Financial Bid Form; and b) Bill of Quantities (BOQ) *(Annex "C" Form 1)*; and c) Detailed Breakdown of Component of Each Item *(Annex "C" Form 2)*; and d) Detailed Unit Price Analysis (DUPA) *(Annex "C" Form 3)*; and e) Summary Sheet indicating the Unit Prices of Construction Materials, Labor Rates, and Equipment Rentals used in coming up with the Bid *(Annex "C" Form 4, 5 & 6)*; and f) Cash Flow by Quarter and Payment Schedule *(Annex "C" Form 7)* Modifications and/or alterations on the stated requirements in the financial document forms (BOQ, Detailed Breakdown of Component of Each Item & DUPA) shall not be allowed. Bids not complying with the above instruction shall be disqualified. **The discounts stated in the Financial Bid Form shall be computer written with the same font style and size as of the whole text of the said Form.** **Discounts that are either handwritten, type written or computer written in other font style and size shall not be considered.**
11.2	Bid exceeding the ABC of the project shall be disqualified.
12	No further instructions.
15.1	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 two percent (2%) of ABC, 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 five percent (5%) of ABC if bid security is in Surety Bond.
16	1. Each and every page thereof shall be initialed/signed by the duly authorized representative/s of the Bidder. Submitted Eligibility, Technical and Financial documents shall be properly marked with index tabs (ear tab) and must 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 automatically disqualified. 2. Each Bidder shall submit **one copy of the first and second components** of its bid. Bids not complying with the above instructions shall be automatically disqualified.
19.2	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20	The Bidder with the Lowest Calculated Bid (LCB) that complies with and is responsive to all the requirements and conditions shall submit its a) Latest income and business tax returns filed through the Electronic Filing and Payment System (EFPS); b) Business licenses and permits required by law (Registration Certificate, Mayor's Permit, Tax Clearance & PCAB License); c) Latest Audited Financial Statements; and d) Key personnel licenses 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 Construction safety & health programs approved by the Department of Labor & Employment **(ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG 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 10.3 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	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.
6	None.
7.2	In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures: Fifteen (15) years.
10	No dayworks are applicable to the contract.
11.1	Not applicable
11.2	Not applicable
13	The amount of the advance payment shall not exceed 15% of the total contract price. However, as per Department of Transportation (DOTr) Policy, Procuring Entity will not give advance payment to contractors.
14	No further instructions.
15.1	The date by which operating and maintenance manuals are required is upon completion of the project The date by which "as built" drawings are required is upon completion of the project. PDF/AutoCAD File of the "as built" plans shall include 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 "as built" drawings and/or operating and maintenance manuals by the date required is two percent (2.00%) of the Contract price.

Section VI. Specifications and Scope of Work

Name of Project	:	**ASPHALT OVERLAY OF RUNWAY & ROAD NETWORK AND EMBANKMENT OF RUNWAY STRIP**
Location	:	PAN-PHILIPPINE HIGHWAY, CALBAYOG CITY, SAMAR
Duration	:	Thirty (30) Calendar Days

SCOPE OF WORK

The details of work are at best enumerated below, but be noted that the Contract includes all works and services although not specifically mentioned herein, but are needed to fully complete the Project:

The project covers the supply of labor, materials, tools/equipment's, and construction related permits necessary for **ASPHALT OVERLAY OF RUNWAY & ROAD NETWORK AND EMBANKMENT OF RUNWAY STRIP** with the following scope of works which shall be done in accordance with the approved plans, specifications and provision of contract.

SPL-01 Mobilization/Demobilization

This work includes mobilization and demobilization of the contractor's personnel and equipment necessary for performing the work required under the contract.

a. Mobilization shall include all activities and associated costs for transportation of contractor's personnel, equipment, and establishment of offices, and other necessary facilities for the contractor's operations at the site.

b. Demobilization shall include the disassembly of offices and other facilities on the site, equipment, as well as the removal and hauling of debris and rubbish materials.

A. ASPHALT OVERLAY (RUNWAY)

ITEM 302 Bituminous Tack Coat

This item covers supply of materials, labor and equipment to finish the laying of bituminous tack coat with a total volume of (3.00 MT) and shall conform to lines, grades and dimensions as indicated on the approved plans.

Coverage of Work: Sta. 0+300.00 to Sta. 0+440.00

Width: 7.50 m x 2 (Both ways)

Length: 140.00

ITEM 310 Bituminous Concrete Surface Course (Hot Laid)

This item covers supply of materials, labor and equipment to finish the laying of bituminous concrete surface course with a total volume of (469 MT) and shall conform to lines, grades and dimensions as indicated on the approved plans.

Coverage of Work: Sta. 0+300.00 to Sta. 0+440.00

Width: 7.50 m x 2 (Both ways)

Length: 140.00 m

SPL-02 Removal and Disposal of Temporary Transitions

This item covers supply of materials, labor and equipment to finish the removal & disposal of temporary transitions with a total coverage area of (615.00 sq.m.) and shall conform to lines, grades and dimensions as indicated on the approved plans.

Coverage of Work: Sta. 0+300.00 to Sta. 0+440.00

SPL-03 Resealing of Concrete Joints

This item covers supply of materials, labor and equipment to finish the resealing of concrete joints with a total of 1,000 li.m. and shall conform to lines, grades and dimensions as indicated on the approved plans.

B. ASPHALT OVERLAY (ROAD NETWORK)

ITEM 301 Bituminous Asphalt Prime Coat (MC 70)

This item covers supply of materials, labor and equipment to finish the application of bituminous asphalt prime coat with a total volume of (8.081 MT) and shall conform to lines, grades and dimensions as indicated on the approved plans.

ITEM 310 Bituminous Concrete Surface Course (Hot Laid)

This item covers supply of materials, labor and equipment to finish the asphalt overlay with a total volume of (500 MT) and shall conform to lines, grades and dimensions as indicated on the approved plans.

C. EMBANKMENT OF RUNWAY STRIP

ITEM 104 Embankment

This item covers supply of materials, labor and equipment to finish the embankment works with a total volume of (527.85 cu.m. including 15% compaction) and shall conform to lines, grades and dimensions as indicated on the approved plans.

Coverage of Work: Sta. 0+300.00 to Sta. 0+504.00

Width: 7.50 m x 2 (Both ways)

Length: 204.00 m

All scopes of work for this item must be in accordance with the approved plans and specifications. Quality and types of materials must conform to specifications and must be approved by the project in-charge of the CAAP.

GENERAL PROVISIONS

Provisions for staff house, service vehicles, laptops, printers, cameras, plotters, furniture and other materials, devices and equipment under Special Item or Temporary Facilities shall not include OCM & CP.

The contractor shall be responsible in providing safety perimeter fence or security fences, personal protective equipment (PPE) for staffs and workers on site while construction is ongoing. Safety reports should be prepared regularly.

The contractor shall be responsible for all laboratory, material testing, building and safety permits and survey instruments necessary in the project implementation. These expenses shall be incorporated in the contractor's overhead cost and shall not be considered as pay item.

Item P-403 Asphalt Mix Pavement Course

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Specify base and/or leveling course. Surface course may also be specified but only for those pavements designed to accommodate aircraft of gross weights less than or equal to 30,000 pounds (13,600 kg) or for surface course of shoulders, blast pads, service roads, etc. Item P-401 shall be specified for surface courses for pavements designed to accommodate aircraft gross weights greater than 30,000 pounds (13,600 kg). For airfield pavement projects at non primary airports, serving aircraft less than 60,000 pounds (27216 kg), state highway specifications may be used in states where the state has requested and received FAA approval to use state highway specifications.

For small maintenance and repair projects less than 3000 tons (2720 tonnes), P-403 may be used for the surface course.

This specification is to be used as a base or leveling course for pavements designed to accommodate aircraft of gross weights greater than 30,000 pounds (13,600 kg).

When used as a stabilized base course under P-501, include a bond breaker.

This specification contains job mix formula options for both Marshall and Gyratory Mix Design Methods. The Engineer shall select the method to be used for the project, considering the prevalent method in use in the local project area.

State highway department specifications may be used in lieu of this specification for access roads, perimeter roads, stabilized base courses under Item P-501, and other pavements not subject to aircraft loading, or for pavements designed for aircraft gross weights of 30,000 pounds (13,600 kg) or less. When state highway department material specification are used:

** The state specification must have a demonstrated satisfactory performance record under equivalent loadings and exposure.**

** When a density requirement is not specified by a state specification, it shall be modified to include the language found in paragraphs 403-6.1, 403-6.2, 403-6.3, and 403-6.4**

** When state highway specifications are approved, include all applicable/approved state specifications in the contract documents.**

** Update any references to State Department of Transportation (DOT), State Materials Laboratory, etc., to "Owner," "Engineer," etc. as appropriate for project.**

The use of state highway department specifications for airfield pavements subject to aircraft loading by aircraft greater than 30,000 pounds and less than 60,000 pounds requires a modification to standards in accordance with FAA Order 5300.1, Modifications to Agency Airport Design, Construction, and Equipment Standards**.**

DESCRIPTION

403-1.1 This item shall consist of pavement courses composed of mineral aggregate and asphalt binder mixed in a central mixing plant and placed on a prepared course in accordance with these specifications and shall conform to the lines, grades, thicknesses, and typical cross-sections shown on the plans. Each course shall be constructed to the depth, typical section, and elevation required by the plans and shall be rolled, finished, and approved before the placement of the next course.

Item P-602 Emulsified Asphalt Prime Coat

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Item P-602 can be used to provide a protective layer to prevent the surface of the aggregate base course from raveling under construction traffic and provides a waterproof layer, preventing it from absorbing or losing excess moisture before paving. Item P-602 also helps bond the top layer of the granular base to the first layer of asphalt pavement.

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DESCRIPTION

602-1.1 This item shall consist of an application of emulsified asphalt material on the prepared base course in accordance with these specifications and in reasonably close conformity to the lines shown on the plans.

MATERIALS

602-2.1 Emulsified Asphalt material. The emulsified asphalt material shall be as specified in ASTM D3628 for use as a prime coat appropriate to local conditions. The Contractor shall provide a copy of the manufacturer's Certificate of Analysis (COA) for the emulsified asphalt material. The COA shall be provided to and approved by the Resident Project Representative (RPR) before the emulsified asphalt material is applied. The furnishing of the COA for the emulsified asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer's COA may be subject to verification by testing the material delivered for use on the project.

CONSTRUCTION METHODS

602-3.1 Weather limitations. The emulsified asphalt prime coat shall be applied only when the existing surface is dry; the atmospheric temperature is 50°F (10°C) or above, and the temperature has not been below 35°F (2°C) for the 12 hours prior to application; and when the weather is not foggy or rainy. The temperature requirements may be waived when directed by the RPR.

602-3.2 Equipment. The equipment shall include a self-powered pressure asphalt material distributor and equipment for heating asphalt material.

Provide a distributor with pneumatic tires of such size and number that the load produced on the base surface does not exceed 65.0 psi (4.5 kg/sq cm) of tire width to prevent rutting, shoving or otherwise damaging the base, surface or other layers in the pavement structure. Design and equip the distributor to spray the asphalt material in a uniform coverage at the specified temperature, at readily determined and controlled rates from 0.05 to 1.0 gallons per square yard (0.23 to 4.5 L/square meter), with a pressure range of 25 to 75 psi (172.4 to 517.1 kPa) and with an allowable variation from the specified rate of not more than ±5%, and at variable widths. Include with the distributor equipment a separate power unit for the bitumen pump, full-circulation spray bars, tachometer, pressure gauges, volume-measuring devices, 12/21/2018 AC 150/5370-10H
Item P-602 Emulsified Asphalt Prime Coat 484

adequate heaters for heating of materials to the proper application temperature, a thermometer for reading the temperature of tank contents, and a hand hose attachment suitable for applying asphalt material manually to areas inaccessible to the distributor. Equip the distributor to circulate and agitate the asphalt material during the heating process. If the distributor is not equipped with an operable quick shutoff valve, the prime operations shall be started and stopped on building paper. A power broom and power blower suitable for cleaning the surfaces to which the asphalt coat is to be applied shall be provided.

Asphalt distributors must be calibrated annually in accordance with ASTM D2995. The Contractor must furnish a current calibration certification for the asphalt distributor truck from any State or other agency as approved by the RPR.

602-3.3 Application of emulsified asphalt material. Immediately before applying the prime coat, the full width of the surface to be primed shall be swept with a power broom to remove all loose dirt and other objectionable material.

The asphalt emulsion material shall be uniformly applied with an asphalt distributor at the rate of 0.15 to 0.30 gallons per square yard (0.68 to 1.36 liters per square meter) depending on the base course surface texture. The type of asphalt material and application rate shall be approved by the RPR prior to application.

Following application of the emulsified asphalt material and prior to application of the succeeding layer of pavement, allow the asphalt coat to cure and to obtain evaporation of any volatiles or moisture. Maintain the coated surface until the succeeding layer of pavement is placed, by protecting the surface against damage and by repairing and recoating deficient areas. Allow the prime coat to cure without being disturbed for a period of at least 48 hours or longer, as may be necessary to attain penetration into the treated course. Furnish and spread sand to effectively blot up and cure excess asphalt material. The Contractor shall remove blotting sand prior to asphalt concrete lay down operations at no additional expense to the Owner. Keep traffic off surfaces freshly treated with asphalt material. Provide sufficient warning signs and barricades so that traffic will not travel over freshly treated surfaces.

602-3.4 Trial application rates. The Contractor shall apply a minimum of three lengths of at least 100 feet (30 m) for the full width of the distributor bar to evaluate the amount of emulsified asphalt material that can be satisfactorily applied with the equipment. Apply three different application rates of emulsified asphalt materials within the application range specified in paragraph 602-3.3. Other trial applications can be made using various amounts of material as directed by the RPR. The trial application is to demonstrate the equipment can uniformly apply the emulsified asphalt material within the rates specified and determine the application rate for the project.

602-3.5 Freight and waybills. The Contractor shall submit waybills and delivery tickets during the progress of the work. Before the final estimate is allowed, file with the RPR certified waybills and certified delivery tickets for all emulsified asphalt materials used in the construction of the pavement covered by the contract. Do not remove emulsified asphalt material from storage until the initial outage and temperature measurements have been taken. The delivery or storage units will not be released until the final outage has been taken.

METHOD OF MEASUREMENT

602-4.1 The emulsified asphalt material for prime coat shall be measured by the **[** `gallon (liter)` **] [** `ton (kg)` **]**. Volume shall be corrected to the volume at 60°F (16°C) in accordance with ASTM D4311. The emulsified asphalt material paid for will be the measured quantities used in the accepted work, provided that the measured quantities are not 10% over the specified application rate. Any amount of emulsified asphalt material more than 10% over the specified application rate for each

application will be deducted from the measured quantities, except for irregular areas where hand spraying of the emulsified asphalt material is necessary. Water added to emulsified asphalt will not be measured for payment.

BASIS OF PAYMENT

602-5.1 Payment shall be made at the contract unit price per **[** gallon (liter) **] [** ton (kg) **]** for emulsified asphalt prime coat. This price shall be full compensation for furnishing all materials and for all preparation, delivering, and applying the materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

Item P-602-5.1 Emulsified Asphalt Prime Coat - per **[** gallon (liter) **] [** ton (kg) **]**

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D2995 Standard Practice for Estimating Application Rate and Residual Application Rate of Bituminous Distributors

ASTM D3628 Standard Practice for Selection and Use of Emulsified Asphalts

ITEM 103 – STRUCTURE EXCAVATION

103.1 Description

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This Item shall consist of the necessary excavation for foundation of bridges, culverts, underdrains, and other structures not otherwise provided for in the Specifications. Except as otherwise provided for pipe culverts, the backfilling of completed structures and the disposal of all excavated surplus materials, shall be in accordance with these Specifications and in reasonably close conformity with the Plans or as established by the Engineer.

This Item shall include necessary diverting of live streams, bailing, pumping, draining, sheeting, bracing, and the necessary construction of cribs and cofferdams, and furnishing the materials therefore, and the subsequent removal of cribs and cofferdams and the placing of all necessary backfill.

It shall also include the furnishing and placing of approved foundation fill material to replace unsuitable material encountered below the foundation elevation of structures. No allowance will be made for classification of different types of material encountered.

103.2 Construction Requirements

103.2.1 Clearing and Grubbing

Prior to starting excavation operations in any area, all necessary clearing and grubbing in that area shall have been performed in accordance with Item 100, Clearing and Grubbing.

103.2.2 Excavation

(1) General, all structures. The Contractor shall notify the Engineer sufficiently in advance of the beginning of any excavation so that cross-sectional elevations and measurements may be taken on the undisturbed ground. The natural ground adjacent to the structure shall not be disturbed without permission of the Engineer.

Trenches or foundation pits for structures or structure footings shall be excavated to the lines and grades or elevations shown on the Plans or as staked by the Engineer. They shall be of sufficient size to permit the placing of structures or structure footings of the full width and length shown. The elevations of the bottoms of footings, as shown on the Plans, shall be considered as approximate only and the Engineer may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary, to secure a satisfactory foundation.

Boulders, logs, and other objectionable materials encountered in excavation shall be removed.

After each excavation is completed, the Contractor shall notify the Engineer to that effect and no footing, bedding material or pipe culvert shall be placed until the Engineer has approved the depth of excavation and the character of the foundation material.

(2) Structures other than pipe culverts. All rock or other hard foundation materials shall be cleaned all loose materials, and cut to a firm surface, either level, stepped,

or serrated as directed by the Engineer. All seams or crevices shall be cleaned and grouted. All loose and disintegrated rocks and thin strata shall be removed.
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When the footing is to rest on material other than rock, excavation to final grade shall not be made until just before the footing is to be placed. When the foundation material is soft or mucky or otherwise unsuitable, as determined by the Engineer, the Contractor shall remove the unsuitable material and backfill with approved granular material. This foundation fill shall be placed and compacted in 150 mm (6 inches) layers up to the foundation elevation.
When foundation piles are used, the excavation of each pit shall be completed before the piles are driven and any placing of foundation fill shall be done after the piles are driven. After the driving is completed, all loose and displaced materials shall be removed, leaving a smooth, solid bed to receive the footing.
(3) Pipe Culverts. The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe.
Where rock, hardpan, or other unyielding material is encountered, it shall be removed below the foundation grade for a depth of at least 300 mm or 4 mm for each 100 mm of fill over the top of pipe, whichever is greater, but not to exceed three-quarters of the vertical inside diameter of the pipe. The width of the excavation shall be at least 300 mm (12 inches) greater than the horizontal outside diameter of the pipe. The excavation below grade shall be backfilled with selected fine compressible material, such as silty clay or loam, and lightly compacted in layers not over 150 mm (6 inches) in uncompacted depth to form a uniform but yielding foundation.
Where a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, such unstable soil under the pipe and for a width of at least one diameter on each side of the pipe shall be removed to the depth directed by the Engineer and replaced with approved granular foundation fill material properly compacted to provide adequate support for the pipe, unless other special construction methods are called for on the Plans.
The foundation surface shall provide a firm foundation of uniform density throughout the length of the culvert and, if directed by the Engineer, shall be cambered in the direction parallel to the pipe centerline.
Where pipe culverts are to be placed in trenches excavated in embankments, the excavation of each trench shall be performed after the embankment has been constructed to a plane parallel to the proposed profile grade and to such height above the bottom of the pipe as shown on the Plans or directed by the Engineer.

ITEM 405 – STRUCTURAL CONCRETE

405.1 Description

405.1.1 Scope

This Item shall consist of furnishing, bending, placing and finishing concrete in all structures except pavements in accordance with this Specification and conforming to the lines, grades, and dimensions shown on the Plans. Concrete shall consist of a mixture of Portland Cement, fine aggregate, coarse aggregate, admixture when specified, and water mixed in the proportions specified or approved by the Engineer.

405.1.2 Classes and Uses of Concrete

Five classes of concrete are provided for in this Item, namely: A, B, C, P and Seal. Each class shall be used in that part of the structure as called for on the Plans.

The classes of concrete will generally be used as follows:

Class A – All superstructures and heavily reinforced substructures. The important parts of the structure included are slabs, beams, girders, columns, arch ribs, box culverts, reinforced abutments, retaining walls, and reinforced footings.

Class B – Footings, pedestals, massive pier shafts, pipe bedding, and gravity walls, unreinforced or with only a small amount of reinforcement.

Class C – Thin reinforced sections, railings, precast R.C. piles and cribbing and for filler in steel grid floors.

Class P – Prestressed concrete structures and

members. Seal – Concrete deposited in water.

405.2 Material Requirements

405.2.1 Portland Cement

It shall conform to all the requirements of Subsection 311.2.1.

405.2.2 Fine Aggregate

It shall conform to all the requirements of Subsection 311.2.2.

405.2.3 Coarse Aggregate

It shall conform all the requirements of Subsection 311.2.3 except that gradation shall conform to Table 405.1.

Table 405.1 – Grading Requirements for Coarse Aggregate

Sieve Designation		Mass Percent Passing				
Standard	Alternate	Class	Class	Class	Class	Class
63	2-1/2”		100			
50	2”	100	95 – 100			
37.5	1-1/2”	95 – 100	-			100
25	1”	-	35 – 70		100	95 – 100
19.0	¾”	35 – 70	-	100	95 – 100	-

* The measured cement content shall be within plus (+) or minus (-) 2 mass percent of the design cement content.

405.2.4 Water

It shall conform to the requirements of Subsection 311.2.4

405.2.5 Reinforcing Steel

It shall conform to the requirements of Item 710, Reinforcing Steel and Rope.

405.2.6 Admixtures

Admixtures shall conform to the requirements of Subsection 311.2.7

405.2.7 Curing Materials

Curing materials shall conform to the requirements of Subsection 311.2.8.

405.2.8 Expansion Joint Materials

Expansion joint materials shall be:

1. Preformed Sponge Rubber and Cork, conforming to AASHTO M 153.
2. Hot-Poured Elastic Type, conforming to AASHTO M 173.
3. Preformed Fillers, conforming to AASHTO M 213.

405.2.9 Elastomeric Compression Joint Seals

These shall conform to AASHTO M 220.

405.2.10 Elastomeric Bearing Pads

These shall conform to AASHTO M 251 or Item 412 – Elastomeric Bearing Pads.

405.2.11 Storage of Cement and Aggregates

Storage of cement and aggregates shall conform to all the requirements of Subsection 311.2.10.

405.3 Sampling and Testing of Structural Concrete

As work progresses, at least one (1) sample consisting of three (3) concrete cylinder test specimens, 150 x 300mm (6 x 12 inches), shall be taken from each seventy five (75) cubic meters of each class of concrete or fraction thereof placed each day.

Compliance with the requirements of this Section shall be determined in accordance with the following standard methods of AASHTO:

Sampling of fresh concrete	Specific gravity and absorption of
Weight per cubic metre and air content (gravi- Metric) of concrete	
Sieve analysis of fine and coarse aggregates	
Slump of Portland Cement Concrete	

fine aggregate	T 141
	T 121
	T 27
	T 119
	T 84

Tests for strength shall be made in accordance with the following:

Making and curing concrete compressive and flexural tests specimens in the field	T 23
Compressive strength of molded concrete Cylinders	T 22

405.4 Production Requirements

405.4.1 Proportioning and Strength of Structural Concrete

The concrete materials shall be proportioned in accordance with the requirements for each class of concrete as specified in Table 405.2, using the absolute volume method as outlined in the American Concrete Institute (ACI) Standard 211.1."Recommended Practice for Selecting Proportions for Normal and Heavyweight Concrete". Other methods of proportioning may be employed in the mix design with prior approval of the Engineer. The mix shall either be designed or approved by the Engineer. A change in the source of materials during the progress of work may necessitate a new mix design.

The strength requirements for each class of concrete shall be as specified in Table 405.2.

Table 405.2 - Composition and Strength of Concrete for Use in Structures

Class Of Concrete	Minimum Cement Content Per m^3 kg (bag**)	Maximum Water/ Cement Ratio kg/kg	Consistency Range in Slump mm (inch)	Designated Size of Coarse Aggregate Square Opening Std. mm	Minimum Compressive Strength of 150x300mm Concrete Cylinder Specimen at 28 days, MN/m^2 (psi)
A	360 (9 bags)	0.53	50 – 100 (2 – 4)	37.5 – 4.75 (1-1/2" – No. 4)	20.7 (3000)
B	320 (8 bags)	0.58	50 – 100 (2 – 4)	50 – 4.75 (2" – No. 4)	16.5 (2400)
C	380 (9.5 bags)	0.55	50 – 100 (2 – 4)	12.5 – 4.75 (1/2" – No. 4)	20.7 (3000)
P	440 (11 bags)	0.49	100 max. (4 max.)	19.0 – 4.75 (3/4" – No. 4)	37.7 (5000)
Seal			100 – 200		20.7

* The measured cement content shall be within plus or minus 2 mass percent of the design cement content.

** Based on 40 kg/bag

405.4.2 Consistency

Concrete shall have a consistency such that it will be workable in the required position. It shall be of such a consistency that it will flow around reinforcing steel but individual particles of the coarse aggregate when isolated shall show a coating of mortar containing its proportionate amount of sand. The consistency of concrete shall be gauged by the ability of the equipment to properly place it and not by the difficulty in mixing and transporting. The quantity of mixing water shall be determined by the Engineer and shall not be varied without his consent. Concrete as dry as it is practical to place with the equipment specified shall be used.

405.4.3 Batching

Measuring and batching of materials shall be done at a batching plant.

1. Portland Cement

   Either sacked or bulk cement may be used. No fraction of a sack of cement shall be used in a batch of concrete unless the cement is weighed. All bulk cement shall be weighed on an approved weighing device. The bulk cement weighing hopper shall be properly sealed and vented to preclude dusting operation. The discharge chute shall not be suspended from the weighing hopper and shall be so arranged that cement will neither be lodged in it nor leak from it.

   Accuracy of batching shall be within plus (+) or minus (-) 1 mass percent.

2. Water

   Water may be measured either by volume or by weight. The accuracy of measuring the water shall be within a range of error of not more than 1 percent.

3. Aggregates

   Stockpiling of aggregates shall be in accordance with Subsection 311.2.10. All aggregates whether produced or handled by hydraulic methods or washed, shall be stockpiled or binned for draining for at least 12 hours prior to batching. Rail shipment requiring more than12 hours will be accepted as adequate binning only if the car bodies permit free drainage. If the aggregates contain high or non-uniform moisture content, storage or stockpile period in excess of 12 hours may be required by the Engineer.

Batching shall be conducted as to result in a 2 mass percent maximum tolerance for the required materials.

4. Bins and Scales

The batching plant shall include separate bins for bulk cement, fine aggregate and for each size of coarse aggregate, a weighing hopper, and scales capable of determining accurately the mass of each component of the batch.

Scales shall be accurate to one-half (0.5) percent throughout the range used.

5. Batching

When batches are hauled to the mixer, bulk cement shall be transported either in waterproof compartments or between the fine and coarse aggregate. When cement is placed in contact with moist aggregates, batches will be rejected unless mixed within 1-1/2 hours ofsuch contact. Sacked cement may be transported on top of the aggregates.

Batches shall be delivered to the mixer separate and intact. Each batch shall be dumped cleanly into the mixer without loss, and, when more than one batch is carried on the truck, without spilling of material from one batch compartment into another.

6. Admixtures

The Contractor shall follow an approved procedure for adding the specified amount of admixture to each batch and will be responsible for its uniform operation during the progress of the work. He shall provide separate scales for the admixtures which are to be proportioned by weight, and accurate measures for those to be proportioned by volume. Admixtures shall be measured into the mixer with an accuracy of plus or minus three (3) percent.

The use of Calcium Chloride as an admixture will not be permitted.

405.4.4 Mixing and Delivery

Concrete may be mixed at the site of construction, at a central point or by a combination of central point and truck mixing or by a combination of central point mixing and truck agitating. Mixing and delivery of concrete shall be in accordance with the appropriate requirements of AASHTO M 157 except as modified in the following paragraphs of this section, for truck mixing or a combination of central point and truck mixing

or truck agitating. Delivery of concrete shall be regulated so that placing is at a continuous rate unless delayed by the placing operations. The intervals between delivery of batches shall not be so great as to allow the concrete inplace to harden partially, and in no case shall such an interval exceed 30 minutes.

In exceptional cases and when volumetric measurements are authorized, for small project requiring less than 75 cu.m. per day of pouring, the weight proportions shall be converted to equivalent volumetric proportions. In such cases, suitable allowance shall be made for variations in the moisture condition of the aggregates, including the bulking effect in the fine aggregate. Batching and mixing shall be in accordance with ASTM C 685, Section 6 through 9.

Concrete mixing, by chute is allowed provided that a weighing scales for determining the batch weight will be used.

For batch mixing at the site of construction or at a central point, a batch mixer of an approved type shall be used. Mixer having a rated capacity of less than a one-bag batch shall not be used. The volume of concrete mixed per batch shall not exceed the mixer's nominal capacity as shown on the manufacturer's standard rating plate on the mixer except that an overload up to 10 percent above the mixer's nominal capacity may be permitted, provided concrete test data for strength, segregation, and uniform consistency are satisfactory and provided no spillage of concrete takes place. The batch shall be so charge into the drum that a portion of the water shall enter in advance of the cement and aggregates. The flow of water shall be uniform and all water shall be in the drum by the end of the first 15 seconds of the mixing period. Mixing time shall be measured from the time all materials, except water, are in the drum. Mixing time shall not be less than 60 seconds for mixers having a capacity of $1.5m^3$ or less. For mixers having a capacity greater than $1.5m^3$, the mixing time shall not be less than 90 seconds. If timing starts, the instant the skip reaches its maximum raised position, 4 seconds shall be added to the specified mixing time. Mixing time ends when the discharge chute opens.

The mixer shall be operated at the drum speed as shown on the manufacturer's name plate on the mixer. Any concrete mixed less than the specified time shall be discarded and disposed off by the Contractor at his own expenses.

The timing device on stationary mixers shall be equipped with a bell or other suitable warning device adjusted to give a clearly audible signal

each time the lock is released. In case of failure of the timing device, the Contractor will be permitted to continue operations while it is being repaired, provided he furnishes an approved timepiece equipped with minute and second hands. If the timing device is not placed in good working order within 24 hours, further use of the mixer will be prohibited until repairs are made.

Retempering concrete will not be permitted. Admixtures for increasing the workability, for retarding the set, or for accelerating the set or improving the pumping characteristics of the concrete will be permitted only when specifically provided for in the Contract, or authorized in writing by the Engineer.

1. Mixing Concrete: General

Concrete shall be thoroughly mixed in a mixer of an approved size and type that will insure a uniform distribution of the materials throughout the mass.

All concrete shall be mixed in mechanically operated mixers. Mixing plant and equipment for transporting and placing concrete shall be arranged with an ample auxiliary installation to provide a minimum supply of concrete in case of breakdown of machinery or in case the normal supply of concrete is disrupted. The auxiliary supply of concrete shall be sufficient to complete the casting of a section up to a construction joint that will meet the approval of the Engineer.

Equipment having components made of aluminum or magnesium alloys, which would have contact with plastic concrete during mixing, transporting or pumping of Portland Cement concrete, shall not be used.

Concrete mixers shall be equipped with adequate water storage and a device of accurately measuring and automatically controlling the amount of water used.

Materials shall be measured by weighing. The apparatus provided for weighing the aggregates and cement shall be suitably designed and constructed for this purpose. The accuracy of all weighing devices except that for water shall be such that successive quantities can be measured to within one percent of the desired amounts. The water measuring device shall be accurate to plus or minus 0.5 mass percent. All measuring devices shall be subject to the approval of the Engineer. Scales and measuring devices shall be tested at the expense of the Contractor as frequently as the Engineer may deem necessary to insure their accuracy.

Weighing equipment shall be insulated against vibration or movement of other operating equipment in the plant. When the entire plant is running, the scale reading at cut-off shall not vary from the weight designated by the Engineer more than one mass percent for cement, 1-1/2 mass percent for any size of aggregate, or one (1) mass percent for the total aggregate in any batch.

2. Mixing Concrete at Site

Concrete mixers may be of the revolving drum or the revolving blade type and the mixing drum or blades shall be operated uniformly at the mixing speed recommended by the manufacturer. The pick-up and throw-over blades of mixers shall be restored or replaced when any part or section is worn 20mm or more below the original height of the manufacturer's design. Mixers and agitatorswhich have an accumulation of hard concrete or mortar shall not be used.

When bulk cement is used and volume of the batch is $0.5m^3$ or more, the scale and weigh hopper for Portland Cement shall be separate and distinct from the aggregate hopper or hoppers. The discharge mechanism of the bulk cement weigh hopper shall be interlocked against opening before the full amount of cement is in the hopper. The discharging mechanism shall also be interlocked against opening when the amount of cement in the hopper is underweight by more than one (1) mass percent or overweight by more than 3 mass percent of the amount specified.

When the aggregate contains more water than the quantity necessary to produce a saturated surface dry condition, representative samples shall be taken and the moisture content determined for each kind of aggregate.

The batch shall be so charged into the mixer that some water will enter in advance of cement and aggregate. All water shall be in the drum by the end of the first quarter of the specified mixing time.

Cement shall be batched and charged into the mixer so that it will not result in loss of cement due to the effect of wind, or in accumulation of cement on surface of conveyors or hoppers, or in other conditions which reduce or vary the required quantity of cement in the concrete mixture.

The entire content of a batch mixer shall be removed from the drum before materials for a succeeding batch are placed

therein. The materials composing a batch except water shall be deposited simultaneously into the mixer.

All concrete shall be mixed for a period of not less than 1-1/2 minutes after all materials, including water, are in the mixer. During the period of mixing, the mixer shall operate at the speed for which it has been designed.

Mixers shall be operated with an automatic timing device that can be locked by the Engineer. The time device and discharge mechanics shall be so interlocked that during normal operation no part of the batch will be charged until the specified mixing time has elapsed.

The first batch of concrete materials placed in the mixer shall contain a sufficient excess of cement, sand, and water to coat inside of the drum without reducing the required mortar content of the mix. When mixing is to cease for a period of one hour or more, the mixer shall be thoroughly cleaned.

3. Mixing Concrete at Central Plant

Mixing at central plant shall conform to the requirements for mixing at the site.

4. Mixing Concrete in Truck

Truck mixers, unless otherwise authorized by the Engineer, shall be of the revolving drum type, water-tight, and so constructed that the concrete can be mixed to insure a uniform distribution of materials throughout the mass. All solid materials for the concrete shall be accurately measured and charged into the drum at the proportioning plant. Except as subsequently provided, the truck mixer shall be equipped with a device by which the quantity of water added can be readily verified. The mixing water may be added directly to the batch, in which case a tank is not required. Truck mixers may be required to be provided with a means of which the mixing time can be readily verified by the Engineer.

The maximum size of batch in truck mixers shall not exceed the minimum rated capacity of the mixer as stated by the manufacturer and stamped in metal on the mixer. Truck mixing, shall, unless other-wise directed be continued for not less than 100 revolutions after all ingredients, including water, are in the drum. The mixing speed shall not be less than 4 rpm, nor more than 6 rpm.

Mixing shall begin within 30 minutes after the cement has

been added either to the water or aggregate, but when cement is charged into a mixer drum containing water or surface wet aggregate and when the temperature is above 32^{o}C, this limit shall be reduced to 15 minutes. The limitation in time between the introduction of the cement to the
aggregate and the beginning of the mixing may be waived when, in the judgement of the Engineer, the aggregate is sufficiently free from moisture, so that there will be no harmful effects on the cement.

When a truck mixer is used for transportation, the mixing time specified in Subsection 405.4.4 (3) at a stationary mixer may be reduced to 30 seconds and the mixing completed in a truck mixer. The mixing time in the truck mixer shall be as specified for truck mixing.

5. Transporting Mixed Concrete

Mixed concrete may only be transported to the delivery point in truck agitators or truck mixers operating at the speed designated by the manufacturers of the equipment as agitating speed, or in non-agitating hauling equipment, provided the consistency and workability of the mixed concrete upon discharge at the delivery point is suitable point for adequate placement and consolidation in place.

Truck agitators shall be loaded not to exceed the manufacturer's guaranteed capacity. They shall maintain the mixed concrete in a thoroughly mixed and uniform mass during hauling.

No additional mixing water shall be incorporated into the concrete during hauling or after arrival at the delivery point.

The rate of discharge of mixed concrete from truck mixers or agitators shall be controlled by the speed of rotation of the drum in the discharge direction with the discharge gate fully open.

When a truck mixer or agitator is used for transporting concrete to the delivery point, discharge shall be completed within one hour, or before 250 revolutions of the drum or blades, whichever comes first, after the introduction of the cement to the aggregates. Under conditions contributing to quick stiffening of the concrete or when the temperature of the concrete is 30^{o}C, or above, a time less than one hour will be
required

.

6. Delivery of Mixed Concrete

The Contractor shall have sufficient plant capacity and transportation apparatus to insure continuous delivery at the rate required. The rate of delivery of concrete during concreting operations shall be such as to provide for the proper handling, placing and finishing of the concrete. The rate shall be such that the interval between batches shall not exceed 20 minutes.

The methods of delivering and handling the concrete shall be such as will facilitate placing of the minimum handling.

405.5 Method of Measurement

The quantity of structural concrete to be paid for will be the final quantity placed and accepted in the completed structure. No deduction will be made for the volume occupied by pipe less than 100mm (4 inches) in diameter or by reinforcing steel, anchors, conduits, weep holes or expansion joint materials.

405.6 Basis of Payment

The accepted quantities, measured as prescribed in Section 405.5, shall be paid for at the contract unit price for each of the Pay Item listed below that is included in the Bill of Quantities.

Payment shall constitute full compensation for furnishing, placing and finishing concrete including all labor, equipment, tools and incidentals necessary to complete the work prescribed in the item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
405 (1) 405 (2) 405 (3) 405 (4) 405 (5)	Structural Concrete, Class A Structural Concrete, Class B Structural Concrete, Class C Structural Concrete, Class P Seal Concrete	Cubic Meter Cubic Meter Cubic Meter Cubic Meter

ITEM 404 – REINFORCING STEEL

404.1 Description

This Item shall consist of furnishing, bending, fabricating and placing of steel reinforcement of the type, size, shape and grade required in accordance with this Specification and in conformity with the requirements shown on the Plans or as directed by the Engineer.

404.2 Material Requirements

Reinforcing steel shall meet the requirements of item 710, Reinforcing Steel and Wire Rope.

4.4.3 Construction Requirements

404.3.1 Order Lists

Before materials are ordered, all order lists and bending diagrams shall be furnished by the Contractor, for approval of the Engineer. The approval of order lists and bending diagrams by the Engineer shall in no way relieve the Contractor of responsibility for the correctness of such lists and diagrams. Any expense incident to the revisions of materials furnished in accordance with such lists and diagrams to make them comply with the Plans shall be borne by the Contractor.

404.3.2 Protection of Material

Steel reinforcement shall be stored above the surface of the ground upon platforms, skids, or other supports and shall be protected as far as practicable from mechanical injury and surface deterioration caused by exposure to conditions producing rust. When placed in the work, reinforcement shall be free from dirt, detrimental rust, loose scale, paint, grease, oil, or other foreign materials. Reinforcement shall be free from injurious defects such as cracks and laminations. Rust, surface seams, surface irregularities or mill scale will not be cause for rejection, provided the minimum dimensions, cross sectional area and tensile properties of a hand wire brushed specimen meets the physical requirements for the size and grade of steel specified.

404.3.3Bending

All reinforcing bars requiring bending shall be cold-bent to the

shapes shown on the Plans or required by the Engineer. Bars shall be bent around a circular pin having the following diameters (D) in relation to the diameter of the bar

Nominal diameter, d, mm	Pin diameter (D)
10 to 20	6d
25 to 28	8d
32 and greater	10d

Bends and hooks in stirrups or ties may be bent to the diameter of the principal bar enclosed therein.

404.3.4 Placing and Fastening

All steel reinforcement shall be accurately placed in the position shown on the Plans or required by the Engineer and firmly held there during the placing and setting of the concrete. Bars shall be tied at all intersections except where spacing is less than 300mm in each directions, in which case, alternate intersections shall be tied. Ties shall be fastened on the inside.

Distance from the forms shall be maintained by means of stays, blocks, ties, hangers, or other approved supports, so that it does not vary from the position indicated on the Plans by more than 6mm. Blocks for holding reinforcement from contact with the forms shall be precast mortar blocks of approved shapes and dimensions. Layers of bars shall be separated by precast mortar blocks or by other equally suitable devices. The use of pebbles, pieces of broken stone or brick, metal pipe and wooden blocks shall not be permitted. Unless otherwise shown on the Plans or required by the Engineer, the minimum distance between bars shall be 40mm. Reinforcement in any member shall be placed and then inspected and approved by the Engineer before the placing of concrete begins. Concrete placed in violation of this provision may be rejected and removal may be required. If fabric reinforcement is shipped in rolls, it shall be straightened before being placed. Bundled bars shall be tied together at not more than 1.8m intervals.

404.3.5 Splicing

All reinforcement shall be furnished in the full lengths indicated on the Plans. Splicing of bars, except where shown on the Plans, will not be permitted without the written approval of the Engineer. Splices shall be staggered as far as possible and with a minimum separation of not less than 40 bar diameters. Not more than one-third of the bars may be spliced in the same cross-section, except where shown on the Plans.

Unless otherwise shown on the Plans, bars shall be lapped a minimum distance of:

Splice Type	Grade 40 min.	Grade 60 min.	But not less than
Tension	24 bar dia	36 bar dia	300 mm
Compressio	20 bar dia	24 bar dia	300 mm

In lapped splices, the bars shall be placed in contact and wired together. Lapped splices will not be permitted at locations where the concrete section is insufficient to provide minimum clear distance of one and one-third the maximum size of coarse aggregate between the splice and the nearest adjacent bar. Welding of reinforcing steel shall be done only if detailed on the Plans or if authorized by the Engineer in writing. Spiral reinforcement shall be spliced by lapping at least one and a half turns or by butt welding unless otherwise shown on the Plans.

404.3.6 Lapping of Bar Mat

Sheets of mesh or bar mat reinforcement shall overlap each other sufficiently to maintain a uniform strength and shall be securely fastened at the ends and edges. The overlap shall not be less than one mesh in width.

404.4 Method of Measurement

The quantity of reinforcing steel to be paid for will be the final quantity placed and accepted in the completed structure.

No allowance will be made for tie-wires, separators, wire chairs and other material used in fastening the reinforcing steel in place. If bars are substituted upon the Contractor's request and approved by the Engineer and as a result thereof more steel is used than specified, only the mass specified shall be measured for payment.

No measurement or payment will be made for splices added by the Contractor unless directed or approved by the Engineer.

When there is no item for reinforcing steel in the Bill of Quantities, costs will be considered as incidental to the other items in the Bill of Quantities.

404.5 Basis of Payment

The accepted quantity, measured as prescribed in Section 404.4, shall be paid for at the contract unit price for Reinforcing Steel which price and payment shall be full compensation for furnishing and placing all materials,

including all labor, equipment, tools and incidentals necessary to complete the work prescribed in this Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
404	Reinforcing Steel	Kilogram

ITEM 704 – MASONRY UNITS

704.1 Clay or Shale Brick

Brick shall conform to the requirements of one of the following specifications:

Sewer Brick	-	AASHTO M 91, Grade SM
Sewer Brick	-	ASTM C 32, Grade SM
Building Brick	-	AASHTO M 114, Grade SW, or ASTM C 62, Grade SW

The grade will be shown on the Plans or in the Special Provisions.

704.2 Concrete Brick

Concrete brick shall conform to the requirements of ASTM C 55, Grade A.

704.3 Concrete Masonry Blocks

Concrete masonry blocks may be rectangular or segmented and, when specified, shall have ends shaped to provide interlock at vertical joints. Solid blocks shall conform with the requirements of ASTM C 139 or ASTM C 145, grade as specified. Hollow blocks shall conform to the requirements of ASTM C 90, grade as specified.

Dimensions and tolerances shall be as individually specified on the Plans.

ITEM 705 – JOINT MATERIALS

705.1 Joint Fillers

Poured filler for joints shall conform to the requirements of AASHTO M 173. Preformed fillers for joints shall conform to the requirements of AASHTO M 33 (ASTM D 994), AASHTO M 153, AASHTO M 213, AASHTO M 220, as specified, and shall be punched to admit the dowels where called for on the Plans. The filler for each joint shall be furnished in a single piece for the depth and width required for the joint unless otherwise authorized by the Engineer. When the use of more than one piece is authorized for a joint, the abutting ends shall be fastened securely and held accurately to shape, by stapling or other positive fastening satisfactory to the Engineer.

705.2 Joint Mortar

Pipe joint mortar shall consist of one part Portland Cement and two parts approved sand with water as necessary to obtain the required consistency. Portland Cement and sand shall conform respectively to Section 700.1 and 703.1. If shown in the Special Provisions, air entrainment conforming to Section 708.2 shall be provided. Mortar shall be used within 30 minutes after its preparation.

705.3 Rubber Gaskets

Ring gaskets for rigid pipe shall conform to the requirements of AASHTO M
198. Continuous flat gaskets for flexible metal pipe shall conform to the requirements of ASTM D 1056 with grade SCE 41 used for bands with projections or flat bands and grade SCE 43 for corrugated bands.

Gaskets thickness for bands with projections or flat bands shall be 12.5 mm (1/2 inch) greater than the nominal depth of the corrugation and shall be 9.5 mm (3/8 inch) for corrugated bands.

705.4 Oakum

Oakum for joints in bell and spigot pipe shall be made from hemp (Cannabis Sativa) line, or Benares Sunn fiber, or from a combination of these fibers. The
oakum shall be thoroughly corded and finished and practically free from lumps, dirt and extraneous matter.

705.5 Mortar for Masonry Beds and Joints

705.5.1 Composition

Unless otherwise indicated on the Plans, masonry mortar shall be composed of one part Portland Cement or air-entraining Portland Cement and two parts fine aggregate by volume to which hydrated lime has been added in an amount equal to ten (10) mass percent of the cement. In lieu of air-entraining cement, Portland Cement may be used with an air-entraining admixture in accordance with the applicable provisions of Item 405.

For masonry walls not exceeding 1.8 m (6 feet) in height, a mortar composed of one part masonry cement and two parts fine aggregate by volume maybe substituted for the above mixture of Portland Cement, lime and fine aggregate. For other construction, masonry cement may be used if and as shown on the Plans.

705.5.2 Materials

Either Type I or Type IA air-entraining Portland Cement, conforming to AASHTO M 85 may be used, except that when the contract contains an item for concrete under Item 405, the Contractor may use the same type as is used for that work.

Masonry cement shall conform to the requirements of AASHTO M 150 – 74 (ASTM C 91).

Fine aggregate shall conform to the requirements of AASHTO M 45 (ASTM C 144).

Hydrated lime shall meet the requirements for Residue, Popping and Pitting, and Water retention shown for Type N lime in Section 701.3 (ASTM C 207).

Water shall conform to the requirements of Item 714, Water.

Air-entraining agents shall conform to the requirements of Section 708.2
AASHTO M 154 (ASTM C 260).

705.6 Copper Water Stops or Flashings

Sheet copper for water stops of flashings shall meet the requirements of AASHTO M 138 (ASTM B 152) for Type ETP, light cold-rolled, soft anneal, unless otherwise specified in the Special Provisions.

705.7 Rubber Water Stops

Rubber water stops may be molded or extruded and have a uniform cross- section, free from porosity or other defects, conforming to the nominal dimensions shown on the Plans. An equivalent standard shape may be furnished, if approved by the Engineer.

The water stop may be compounded from natural rubber, synthetic rubber or a blend of the two, together with other compatible materials which will produce a finished water stop meeting the requirements of Table 705.1. No reclaimed material shall be used. The Contractor shall furnish a certificate from the producer to show the general compositions of the material and values for the designated properties. The Contractors shall also furnish samples, in length adequate for making designated tests, as ordered by the Engineer.

705.8 Plastic Water Stops

Plastic water stops shall be fabricated with a uniform cross-section, free from porosity or other defects, to the nominal dimensions shown on the Plans. An equivalent standard shape may be furnished, if approved by the Engineer.

The material from which the water stop is fabricated shall be a homogenous,, elastomeric, plastic compound of basic polyvinyl chloride and other material which, after fabrication, will meet the requirements tabulated herein. No reclaimed material shall be used. The Contractor shall furnish a certificate from the producer, showing values for the designated properties in Table 705.2. The Contractor shall furnish

samples, in lengths adequate for making designated tests, as ordered by the
Engineer.

Table 705.1

Required Properties and Test Methods-Finished Rubber Water Stop

Property	Federal Test Method	Requirement
	Standard No. 601	
Hardness (by shore durometer)	3021	60 – 70
Compression set	3311	Maximum 30 percent
Tensile strength	4111	Minimum 17.23 MPa (2,500 psi)
Elongation at Breaking	ASTM D 412	Minimum 450 percent
Tensile stress at 300 percent elongation	4131	Minimum 6.20 MPa (900 psi)
Water absorption by mass	6631	Minimum 5 percent
Tensile strength after aging	7111	Minimum 80 percent original

Table 705.2

Required Properties and Test Methods-Finished Plastic Water Stop

Property	ASTM Method	Requirements
Tensile strength	D 638	Minimum 9.646 MPa (1,400 psi)
Elongation at breaking	D 638	Minimum 260 percent
Hardness (shore)	D 2240	60 – 75
Specific gravity	(Federal test Method No. 406-5011)	

Maximum – 0.02 from manufacturer's value

Resistance to alkali	D 543	Maximum weigh t change: - 0.10 percent to + 0.25 percent
Water absorption (48 hrs)	D 570	
Cold bending	(1)	No cracking
Volatile loss	D 1203	Not more than manufacturer's value
7 days using 10% NaOH	-	Maximum hardness change ±5 (shore), Maximum tensile strength decrease: 15%

[1] The cold bend test will be made by subjecting a 25 x 150 x 3 mm (1 x 6 x 1/8 inch) strip of plastic water stop to a temperature of –28.8^{0}C (-20^{0}F) for 2 hours. The strip will immediately thereafter be bent 180 degrees around a rod of 6.35 mm (1/4 inch) diameter by applying sufficient force to hold the sample in intimate contact with the rod. The sample will then be examined for evidence of cracking. At least three individual samples from each lot will be tested and the result reported.

705.9 Hot Poured Pipe-Joint Sealing Compound

It shall meet the requirements of Federal Specification SS-S-169 for the type and class specified.

705.10 Pipe-Joint Packing Compound

Packaging compounds for use with sealing compounds specified in Section 705.9 shall be of appropriate sizes and shall meet the requirements of Federal Specification HH-P-117.

705.11 Preformed Plastic Sealing Compound

For concrete pipe joints, it shall meet the requirements of Federal Specification SS-S-210.

ITEM 600 – CURB AND GUTTER

600.1 Description

This Item shall consist of the construction of curb and gutter either Precast or Cast in place, made of concrete in accordance with this Specification at the location, and in conformity with the lines, grades, dimensions and design, shown on the Plans or as required by the Engineer.

600.2 Material Requirements

600.2.1 Material for Bed Course

Bed course materials as shown on the Plans shall consist of cinders, sand, slag, gravel, crushed stone, or other approved porous material of such grading that all the particles will pass through 12.5 mm (1/2 inch) sieve.

600.2.2 Concrete

Concrete shall be of the class indicated on the Plans and shall conform to the requirements of Item 405, Structural Concrete.

600.2.3 Expansion Joint Filler

Expansion joint filler shall conform to the requirements of AASHTO M 153/ Item 705.

600.2.4 Cement Mortar

Cement mortar shall consist of one part of Portland cement and two parts of fine aggregates with water added as necessary to obtain the required consistency. The mortar shall be used within 30 minutes of preparation.

600.2.5 Bonding Compound

Where bonding compound is used, it shall conform to AASHTO M 200.

600.3 Construction Requirements

600.3.1 Bedding

Excavation shall be made to the required depth and the base upon which the curb and/or gutter is to be set shall be compacted to a firm and even surface. All soft and unsuitable material shall be removed and replaced with suitable material.

Bed course material shall be placed and compacted to form a bed of the required thickness as shown on the Plans.

600.3.2 Cast in Place Curb and Gutter

600.3.2.1 Placing

Forms shall conform to the requirements of Item 407, Concrete Structures. Metal forms shall be of an approved section.

Forms to hold the concrete shall be built and set-in-place as described in Item 407, Concrete Structures. Forms for at least 50 m of curb and gutter shall be in-place and checked for alignment and grade before concrete is placed. Curbs and gutters constructed on curves shall have forms of either wood or metal and they shall be accurately shaped to the curvature shown on the Plans.

Mixing, placing, finishing and curing of concrete shall conform to the requirements of Item 405, Structural Concrete, as modified by the requirements below.

The concrete shall be placed in the forms in layers of 100 or 125 mm each, and to the depth required. It shall be tamped and spaded until mortar entirely covers the top and surfaces of the forms. The top of the concrete shall be finished to a smooth and even surface and the edges rounded to the radii shown on the Plans. Before the concrete is given the final finishing, the surface of the gutter shall be tested with a 3-m straight-edge and any irregularities of more than 10 mm in 3 m shall be corrected.

The curb and gutter shall be constructed in uniform sections of not more than 50 m in length except where shorter sections are required to coincide with the location of weakened planes or contraction joints of the concrete pavement, or for closures, but no section shall be less than 2 m long. The sections shall be separated by sheet templates set perpendicular to the face and top of the curb and gutter. The templates shall be approximately 5 mm in thickness and of the same width as that of the curb and/or gutter and not less than 50 mm deeper than the depth of the curb and/or gutter. Templates shall be set carefully and held firmly during the placing of the concrete and shall remain in place until the concrete has set sufficiently to hold its shape but shall be removed while the forms are still in place. A preformed joint filler approved by the Engineer may be used in lieu of the sheet template mentioned above. In this event the fiber board shall be pre-cut to the shape of the curb so that its outer edge will be flushed with the abutting curb and/or gutter.

Expansion joints shall be formed at intervals shown on the Plans. Where a curb is placed next to a concrete pavement, expansion joints in the curb shall be located opposite expansion joints in the pavement.

The form shall be removed within 24 hours after the concrete has been placed. Minor defects shall be repaired with mortar containing one part of Portland Cement and two parts of fine aggregate. Plastering shall not be permitted and all rejected portions shall be removed and replaced at the Contractor's expense. The exposed surface shall be finished while the concrete is still fresh by rubbing the surfaces with a wetted soft brick or wood until they are smooth. The surfaces shall be wetted thoroughly, either by dipping the brick or wood in water, or by throwing water on the surfaces with a brush. After the concrete has been rubbed smooth using water, it shall then be rubbed with a thin grout containing one part of Portland Cement and one part of fine aggregates. Rubbing with grout shall continue until uniform color is produced. When completed, the concrete shall be covered with suitable material and kept moist for a period of 3 days, or a membrane-forming material may be applied as provided in Item 405, Structural Concrete. The concrete shall be suitably protected from the weather until thoroughly hardened.

After the concrete has set sufficiently, the spaces on the back of the curb which were excavated for placing the curb shall be refilled to the required elevation with suitable material which shall be tamped in layers of not more than 150 mm until consolidated.

600.3.3 Precast Curb and Gutter

600.3.3.1 Placing

The precast concrete curb and gutter shall be set in 20mm of cement mortar as specified in Subsection 600.2.4 to the line level and grade as shown on the approved Plans.

The precast curb shall not be more than 20cm in width at the top portion and not be more than 25cm at the base. The precast curb and gutter shall be 1.0 m in length and shall be put side by side consecutively with joint in between.

Joints between consecutive curb and gutter shall be filled with cement mortar to the full section of the curb and gutter. Expansion joints shall be formed at intervals shown on the Plans. Where a curb and gutter is placed next to a concrete pavement, expansion joints in the curb and gutter shall be located opposite expansion joints in the pavement.

Minor defects shall be repaired with mortar containing one part of Portland

Cement and two parts of fine aggregates. Plastering shall not be permitted and all rejected portions shall be removed and replaced at the Contractor's expense. The exposed surface shall be finished by rubbing the surfaces with a wetted soft brick or wood until they are smooth. The surfaces shall be wetted thoroughly, either by dipping the brick or wood in water, or by throwing water on the surfaces with a brush. After the concrete has been rubbed smooth using water, it shall then be rubbed with a thin grout containing one part of Portland Cement and one part of fine aggregate. Rubbing with grout shall continue until uniform color is produced.

600.3.3.2 Handling Precast Curb and Gutter

1. In preparation for the handling of precast curb and gutter, all fabricated curb and gutter of one (1) meter in length shall be provided or inserted with 2-1"Ø PVC pipes for fitting at their required locations. The PVC pipes shall be placed 25 mm from both edge during the fresh concrete is in plastic state.

2. Precast curb and gutter shall be lifted on upright position and not at the points of support and shall be the same during transporting and storage.

3. Extreme care shall be exercised in handling and moving precast curb and gutter to avoid cracking.

4. No precast curb and gutter shall be used that does not reach its final position in the forms with the required time stipulated prior to installation.

5. Precast curb and gutter shall be transferred to the construction site. Fresh curb and gutter shall not be placed against in-situ concrete which has been in a position for more than 30 minutes.

6. Precast curb and gutter may only be transported to the delivery point in truck agitators or truck mixer operating at the speed designated by the manufacturer of the equipment, provided that the consistency and workability of the mix concrete upon discharge at the delivery point is suitable for adequate placement.

600.4 Method of Measurement

The length of curb and gutter to be paid for shall be the number of linear meters of curb and gutter (cast in place) or the number of pieces of precast curb and gutter of the required dimensions shown on the Plans measured along its front face in-place, completed and accepted. No deductions shall be made for flattening of curbs at entrances and no additional allowances shall be made for curbs and gutters constructed on curves.

600.5 Basis of Payment

The length of curb and gutter determined in Subsection 600.4, Method of Measurement, shall be paid for at the contract unit price per linear meter for Curb and Gutter which price and payment shall constitute full compensation for furnishing and placing all materials for concrete, reinforcing steel if required on the Plans, expansion joint materials, forms for drainage openings, excavation for curb and gutter, backfilling, dumping and disposal of surplus materials, and for all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
600 (1)	Concrete Curb (Cast in place)	Linear Meter
600 (2)	Concrete Gutter (Cast in place)	Linear Meter
600 (3)	Curb and Gutter (Cast in place)	Linear Meter
600 (4)	Concrete Curb (Precast)	Piece
600 (5)	Concrete Gutter (Precast)	Piece
600 (6)	Curb & Gutter (Precast)	Piece

ITEM 606 – PAVEMENT MARKINGS

606.1 Description

This item shall consist of placing markings on the finished pavement. The work shall include the furnishing of premixed reflectorized traffic paint or reflectorized pavement marking paint conforming to the requirements of AASHTO M 248, whichever is called for in the Contract, sampling and packing, preparing the surface, and applying the paint to the pavement surface, all in accordance with this Specification.

The paint shall be applied to the size, shape and location of the markings shown on the Plans, or as required by the Engineer.

606.2 Premixed Reflectorized Traffic Paints

Premixed reflectorized traffic paint is a paint in which the glass beads are mixed in the paint during the process of manufacture, so that upon application and drying, the paint line is capable of retroreflection of the light beams.

Premixed reflectorized traffic paints which are available in both white and yellow are paints that provide reflective marking for concrete, bituminous, bricks or stone surface of highways, bridges, tunnels, streets, parking lots and airports.

606.2.1 Classification

Premixed reflectorized traffic paint shall be classified according to the following types based on the vehicles used:

Type I – Alkyd

Type II – Chlorinated Rubber Alkyd

606.2.2 Material Requirements

The paint shall consist of pigments, vehicles and glass beads so combined as to produce a paint that will conform to the following requirements.

a. Condition in container – The packaged material shall be free from lumps and mixed readily to a smooth homogenous state.

b. Skinning – The packaged material shall not skin within 48 hours in a ¾ filled, tightly closed container.

c. Appearance of Dried Film – The paint film shall dry to a smooth uniform finish.

d. Flexibility – The dried paint film shall not show cracking or flaking after being bent about 180 degrees over a 12.7 mm mandrel.

e. Resistance to Water – The dried paint film shall not show blistering, peeling, wrinkling and discoloration when immersed in water for 18 hours.

f. The paint shall also conform to the physical properties specified in Table 1.

Table 1 – Physical Properties

Properties	Type I and Type II	
	Minimum	Maximum
Specific Gravity	1.5	-
Drying Time, No Pick Up,		
Minutes	-	40
Consistency (Kreb Units) at 20 C	65	95

g. Premixed reflectorized traffic paint composition shall conform to the requirements given in Table 2.

Table 2 – Composition Requirements

Paint Composition	Requirements			
	Type I		Type II	
	Minimum	Maximum	Minimum	Maximum
Total Dry Solids, percent	60	-	60	-
Titanium Dioxide, Rutile Percent by weight	16.0	-		-
Medium Chrome Yellow, Percent by weight	12.0	-		-
Extenders, percent by wt., White		13.0	-	13.0
Non-volatile Content (based on the vehicle) percent by weight				

Glass Beads, percent by Weight	31.0	35.0		35.0

h. Glass Spheres or Beads Requirements:

Quantity: The amount of glass beads to be mixed with the paint shall be 500 grams per liter of paint.

Beads Diameter: The percentage of beads that will pass through the US Standard Sieves shall be as follows:

Sieve No.	(um)	Mass Percent Passing
70	(212 – um) – 0.850	100
80	(186 – um) – 0.600	85-100
140	(106 – um) – 0.300	15-55
230	(63 – um) – 0.150	0-10

Index of Refraction: The index of refraction of the beads shall be within the range of 1.50 to 1.60 when tested by the liquid immersion method at 29^{o}C.

Appearance: The glass beads shall be transparent, colorless and the sum of particles that are fused, plane, angular and colored and contains bubble shall not exceed 20 percent

606.2.3 Construction Requirements

The painting of lane markers and traffic strips shall include the cleaning of the pavement surfaces, the application, protection and drying of the paint coatings, the protection of pedestrians, vehicular or other traffic, the protection of all parts of the road structure and its appurtenances against disfigurement by spatters, splashes or smirches of paints or of paint materials, and the supplying of all tools, labor and traffic paint necessary for the entire work.

The paint shall not be applied during rain or wet weather or when the air is misty, or when in the opinion of the Engineer, conditions are unfavorable for the work. Paint shall not be applied upon damp pavement surfaces, or upon pavement which has absorbed heat sufficient to cause the paint to blister and produce a porous film of paint.

The application of paint shall preferably be carried out by a machine specially made for this purpose but where brushes are used, only round or oval brushes not exceeding 100 mm in width will be permitted. The paint shall be so applied as to produce a uniform, even coating in close contact with the surface being painted.

Traffic paint shall be applied to the pavement at the rate of 0.33 L /m^2 and shall dry sufficiently to be free from cracking in from 15 to 30 minutes.

All markings shall present a clean cut, uniform and workmanlike appearance. Markings that fail to have a uniform, satisfactory appearance either by day or night, shall be corrected by the Contractor in a manner acceptable to the Engineer and at no cost to the Government.

606.2.4 Sampling

The paint shall be sampled in accordance with PNS 484/ISO 1512 or other Philippine Standard Method of Sampling Paints and Varnishes.

606.2.5 Test Methods

The paints shall be tested in accordance with the methods specified in PNS 461 or other Philippine Standard Method of Tests for Paints and Varnishes.

606.2.6 Packing, Packaging and Marking

The paints shall be packed, packaged and marked in accordance with PNS

606.3 Method of Measurement

The quantity of pavement markings to be paid for shall either be the length as shown on the Plans of painted traffic line of the stated width or the area as shown on the plans of symbols, lettering, hatchings, and the like, completed and accepted. Separate items shall be provided for premixed reflectorized traffic paint and reflectorized thermoplastic pavement markings.

606.4 Basis of Payment

The quantities measured as determined in Section 606.4, Method of Measurement, shall be paid for at the appropriate contract unit price for the Pay Items shown in the Bid Schedule which price and payment shall constitute full compensation for furnishing and placing all materials, sampling and packing, for the preparation of the surface, and for all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

Pay Item No.	Description	Unit of Measurement
606 (1)	Pavement markings (Premixed Reflectorized)	Square Meter
606 (2)	Pavement markings (Reflectorized Thermoplastic)	Square Meter

Section VII. Drawings

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

Section VIII. Bill of Quantities

Bill of Quantities, Bid Proposal & Detailed Estimate should be submitted together with the Annex "C" Form 4 to 7 in pages 122 to 125.

Non-attachment of Annex "C" Form 1 to 7 shall be automatically disqualified.

APPROVED BUDGET FOR THE CONTRACT
ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT
Brgy. Trinidad, Calbayog City, Samar

DETAILED BREAKDOWN OF COMPONENT FOR EACH ITEM

ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	UNIT PRICE (Pesos)	AMOUNT (Pesos)
SPL-1	MOBILIZATION / DEMOBILIZATION	1.00	lot		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				
A.	**ASPHALT OVERLAY (RUNWAY)**				
302	BITUMINOUS TACK COAT	3.00	M.T.		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				
310	BITUMINOUS CONCRETE SURFACE COURSE (HOTLAID)	469.00	M.T.		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				
SPL-2	REMOVAL AND DISPOSAL OF TEMPORARY TRANSITIONS	615.00	sq.m.		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				
SPL-3	RESEALING OF CONCRETE JOINTS	1,000.00	l.m.		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				
B.	**ASPHALT OVEYLAY (ROAD NETWORK)**				
301	BITUMINOUS PRIME COAT	8.081	M.T.		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				
310	BITUMINOUS CONCRETE SURFACE COURSE (HOTLAID)	500.00	M.T.		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				

C.	**EMBANKMENT OR RUNWAY STRIP**				
104	EMBANKMENT	459.00	cu.m.		
	Pesos_____ Amount in Words _____ _____and_____ _____ centavos				
TOTAL AMOUNT					

TOTAL BID AMOUNT (Php) _____

TOTAL BID AMOUNT IN WORDS _____

_____

_____

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

APPROVED BUDGET FOR THE CONTRACT

ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT

Brgy. Trinidad, Calbayog City, Samar

DETAILED BREAKDOWN OF COMPONENT FOR EACH ITEM

ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UP		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	Profit	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) (5) x (8)	(10) 5% [(5) + (9)]	(11) (9) + (10)	(12) (5) + (11)	(13) (12) / (3)
SPL-1	MOBILIZATION / DEMOBILIZATION	1.00	lot									
A.	**ASPHALT OVERLAY (RUNWAY)**											
302	BITUMINOUS TACK COAT	3.00	M.T.									
310	BITUMINOUS CONCRETE SURFACE COURSE (HOTLAID)	469.00	M.T.									
SPL-2	REMOVAL AND DISPOSAL OF TEMPORARY TRANSITIONS	615.00	sq.m.									
SPL-3	RESEALING OF CONCRETE JOINTS	1,000.00	l.m.									
B.	**ASPHALT OVEYLAY (ROAD NETWORK)**											
301	BITUMINOUS PRIME COAT	8.081	M.T.									
310	BITUMINOUS CONCRETE SURFACE COURSE (HOTLAID)	500.00	M.T.									
C.	**EMBANKMENT OR RUNWAY STRIP**											
104	EMBANKMENT	459.00	cu.m.									
TOTAL AMOUNT												

Submitted by:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

NAME OF PROJECT :	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**				
LOCATION :	Brgy. Trinidad, Calbayog City, Samar				
				QUANTITY	UNIT
SUBJECT :	**Bill of Quantities**			1.00	lot
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
SPL-1	**Mobilization and Demobilization**				
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Various equipment needed for the project	1.00	lot		
			Equipment Cost	. . . . .	
C	**TOTAL EQUIPMENT**				
D	**TOTAL DIRECT COST**				
	INDIRECT COSTS				
1. OCM (0% of TDC)			of Estimated Direct Cost		
2. CONTRACTOR's PROFIT (0% of TDC)			of Estimated Direct Cost		
E. TOTAL OCM & CONTRACTOR's PROFIT			of D		
F. VALUE ADDED TAX, (VAT)		5.0%	of (D + E)		
G. TOTAL ESTIMATED INDIRECT COST (E + F), P					
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit					
TOTAL ESTIMATED COST (D + G), P					
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit					

NAME OF PROJECT :	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**				
PROJECT DESCRIPTION :	**Asphalt Overlay of Runway**				
LOCATION :	Brgy. Trinidad, Calbayog City, Samar				
				QUANTITY	UNIT
SUBJECT :	**Bill of Quantities**			3.00	M.T.
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
302	**BITUMINOUS TACK COAT**				
A	**Materials**				
	Emulsified Asphalt, SS1		M.T.		
			Material Cost	. . . . .	
B	**Labor**	QTY.	DUR. (DAYS)	RATE/DAY	
	Construction Foreman				
	Skilled Worker				
	Unskilled Worker				
			Labor Cost	. . . . .	
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Asphalt Distributor/Sprayer Pen				
	Power Broom (Towed Type with Engine)				
	Stake Truck				
	Generator Set *(with lighting assembly)*				
			Equipment Cost	. . . . .	
	Total Materials Cost				
	Total Labor Cost				
	Total Equipment Cost				
	Total Direct Cost				
	INDIRECT COSTS				
1. OCM (0% - 12% of TDC)			of Estimated Direct Cost		
2. CONTRACTOR's PROFIT (0% - 8% of TDC)			of Estimated Direct Cost		
E. TOTAL OCM & CONTRACTOR's PROFIT			of D		
F. VALUE ADDED TAX, (VAT)		5.0%	of (D + E)		
G. TOTAL ESTIMATED INDIRECT COST (E + F), P					
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit					
TOTAL ESTIMATED COST (D + G), P					
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit					

NAME OF PROJECT :	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**				
PROJECT DESCRIPTION :	**Asphalt Overlay of Runway**				
LOCATION :	Brgy. Trinidad, Calbayog City, Samar				
				QUANTITY	UNIT
SUBJECT :	**Bill of Quantities**			469.00	M.T.
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
310	**BITUMINOUS CONCRETE SURFACE COURSE**				
	(Hot Laid)				
A	**Materials**				
	Asphalt Concrete Mix *(Delivered on Site)*		M.T.		
			Material Cost	. . . . .	
B	**Labor**	QTY.	DUR. (DAYS)	RATE/DAY	
	Construction Foreman				
	Skilled Worker				
	Unskilled Worker				
			Labor Cost	. . . . .	
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Asphalt Paver Finisher, 10ft. Width				
	Vibratory Tandem Roller, 10.10MT				
	Pneumatic Tire Roller, 20MT				
	Generator Set, 51-100kW (with lighting assembly)				
			Equipment Cost	. . . . .	
	Total Materials Cost				
	Total Labor Cost				
	Total Equipment Cost				
	Total Direct Cost				

INDIRECT COSTS			
1. OCM (0% - 12% of TDC)		of Estimated Direct Cost	
2. CONTRACTOR's PROFIT (0% - 8% of TDC)		of Estimated Direct Cost	
E. TOTAL OCM & CONTRACTOR's PROFIT		of D	
F. VALUE ADDED TAX, (VAT)	5.0%	of (D + E)	
G. TOTAL ESTIMATED INDIRECT COST (E + F), P			
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit			
TOTAL ESTIMATED COST (D + G), P			
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit			

NAME OF PROJECT :	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**				
LOCATION :	Brgy. Trinidad, Calbayog City, Samar				
				QUANTITY	UNIT
SUBJECT :	**Bill of Quantities**			615.00	sq.m.
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
SPL-2	**REMOVAL AND DISPOSAL OF TEMPORARY TRANSITIONS**				
A	**Materials**				
	Diamond Blade Cutter 14" Ø		pcs.		
			Material Cost	. . . . .	
B	**Labor**	QTY.	DUR. (DAYS)	RATE/DAY	
	Construction Foreman				
	Skilled Worker				
	Common Laborer				
			Labor Cost	. . . . .	
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Concrete Diamond Saw, Blade 14" diameter				
	Dump Truck, (10 cu.m.)				
	Payloader, (1.5cu.m.)				
	Generator Set *(with lighting assembly)*				
			Equipment Cost	. . . . .	
	Total Materials Cost				
	Total Labor Cost				
	Total Equipment Cost				
	Total Direct Cost				
	INDIRECT COSTS				
1. OCM (0% - 12% of TDC)			of Estimated Direct Cost		
2. CONTRACTOR's PROFIT (0% - 8% of TDC)			of Estimated Direct Cost		
E. TOTAL OCM & CONTRACTOR's PROFIT			of D		
F. VALUE ADDED TAX, (VAT)		5.0%	of (D + E)		
G. TOTAL ESTIMATED INDIRECT COST (E + F), P					
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit					
TOTAL ESTIMATED COST (D + G), P					
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit					

NAME OF PROJECT :	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**				
LOCATION :	Brgy. Trinidad, Calbayog City, Samar				
				QUANTITY	UNIT
SUBJECT :	**Bill of Quantities**			1,000.00	l.m.
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
SPL-3	**RESEALING OF CONCRETE JOINTS**				
A	**Materials**				
	Blown Asphalt 115/15, 25kg/bag		bag		
	Steel Drums		pc		
	Broom		pcs		
	Spatula		pcs		
			Material Cost	. . . . .	
B	**Labor**	QTY.	DUR. (DAYS)	RATE/DAY	
	Skilled Worker				
	Common Worker				
			Labor Cost	. . . . .	
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Air Compressor				
	High Pressure Washer/Sprayer				
	Portable Generator				
			Equipment Cost	. . . . .	
	Total Materials Cost				
	Total Labor Cost				
	Total Equipment Cost				
	Total Direct Cost				
	INDIRECT COSTS				
1. OCM (0% - 12% of TDC)			of Estimated Direct Cost		
2. CONTRACTOR's PROFIT (0% - 8% of TDC)			of Estimated Direct Cost		
E. TOTAL OCM & CONTRACTOR's PROFIT			of D		
F. VALUE ADDED TAX, (VAT)	5.0%		of (D + E)		
G. TOTAL ESTIMATED INDIRECT COST (E + F), P					
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit					
TOTAL ESTIMATED COST (D + G), P					
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit					

NAME OF PROJECT :	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**				
PROJECT DESCRIPTION :	**Asphalt Overlay of Road Network**				
LOCATION :	Brgy. Trinidad, Calbayog City, Samar				
				QUANTITY	UNIT
SUBJECT :	**Bill of Quantities**			8.081	M.T.
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
301	**BITUMINOUS PRIME COAT**				
A	**Materials**				
	Asphalt Cut-Back (MC70)		M.T.		
			Material Cost	. . . . .	
B	**Labor**	QTY.	DUR. (DAYS)	RATE/DAY	
	Construction Foreman				
	Skilled Worker				
	Unskilled Worker				
			Labor Cost	. . . . .	
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Asphalt Distributor/Sprayer Pen				
	Power Broom (Towed Type with Engine)				
	Stake Truck				
	Generator Set *(with lighting assembly)*				
			Equipment Cost	. . . . .	
	Total Materials Cost				
	Total Labor Cost				
	Total Equipment Cost				
	Total Direct Cost				

INDIRECT COSTS			
1. OCM (0% - 12% of TDC)		of Estimated Direct Cost	
2. CONTRACTOR's PROFIT (0% - 8% of TDC)		of Estimated Direct Cost	
E. TOTAL OCM & CONTRACTOR's PROFIT		of D	
F. VALUE ADDED TAX, (VAT)	5.0%	of (D + E)	
G. TOTAL ESTIMATED INDIRECT COST (E + F), P			
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit			
TOTAL ESTIMATED COST (D + G), P			
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit			

NAME OF PROJECT :	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**				
PROJECT DESCRIPTION :	**Asphalt Overlay of Road Network**				
LOCATION :	Brgy. Trinidad, Calbayog City, Samar				
				QUANTITY	UNIT
SUBJECT :	**Bill of Quantities**			500.00	M.T.
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
310	**BITUMINOUS CONCRETE SURFACE COURSE**				
	(Hot Laid)				
A	**Materials**				
	Asphalt Concrete Mix *(Delivered on Site)*		M.T.		
			Material Cost	. . . . .	
B	**Labor**	QTY.	DUR. (DAYS)	RATE/DAY	
	Construction Foreman				
	Skilled Worker				
	Unskilled Worker				
			Labor Cost	. . . . .	
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Asphalt Paver Finisher, 10ft. Width				
	Vibratory Tandem Roller, 10.10MT				
	Pneumatic Tire Roller, 20MT				
	Generator Set, 51-100kW (with lighting assembly)				
			Equipment Cost	. . . . .	
	Total Materials Cost				
	Total Labor Cost				
	Total Equipment Cost				
	Total Direct Cost				

INDIRECT COSTS			
1. OCM (0% - 12% of TDC)		of Estimated Direct Cost	
2. CONTRACTOR's PROFIT (0% - 8% of TDC)		of Estimated Direct Cost	
E. TOTAL OCM & CONTRACTOR's PROFIT		of D	
F. VALUE ADDED TAX, (VAT)	5.0%	of (D + E)	
G. TOTAL ESTIMATED INDIRECT COST (E + F), P			
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit			
TOTAL ESTIMATED COST (D + G), P			
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit			

NAME OF PROJECT	**:**	**ASPHALT OVERLAY OF RUNWAY, ASPHALT OVERLAY OF ROAD NETWORK AND RUNWAY STRIP EMBANKMENT AT CALBAYOG AIRPORT**			
LOCATION	**:**	Brgy. Trinidad, Calbayog City, Samar			
SUBJECT	**:**	**Bill of Quantities**			
				QUANTITY	UNIT
				459.00	**cu.m.**
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
104	**Embankment**				
A	**Materials**				
	Common Borrow(Delivered on Site)		cu.m.		
			Labor Cost	. . . . .	
B	**Labor**	# of Manpower	DUR. (DAYS)	RATE/DAY	
	Construction Foreman				
	Skilled Worker				
	Common Worker				
			Labor Cost	. . . . .	
C	**Equipment**	# of EQPT	DUR. (DAYS)	RATE/DAY	
	Road Grader (135 hp)				
	Vibratory Tandem Roller(10.10M.T.)				
	Water Truck (1000 gal)				
			Equipment Cost	. . . . .	

A	**Total Material Cost**	
B	**Total Labor Cost**	
C	**Total Equipment Cost**	
D	**Total Direct Cost**	

INDIRECT COSTS			
1. OCM (0% - 12% of TDC)		of Estimated Direct Cost	
2. CONTRACTOR's PROFIT (0% - 8% of TDC)		of Estimated Direct Cost	
E. TOTAL OCM & CONTRACTOR's PROFIT		of D	
F. VALUE ADDED TAX, (VAT)	5.0%	of (D + E)	
G. TOTAL ESTIMATED INDIRECT COST (E + F), P			
H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit			
TOTAL ESTIMATED COST (D + G), P			
TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit			

Section IX. Bidding Forms

TABLE OF CONTENTS

Other Bidding Forms

(ANNEX "A")

{ATTACH COMPANY LETTERHEAD/LOGO}

Statement of all its ON-GOING 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

Name of Project: _____
Location of Project: _____

Name of Company : _____
Address of Company: _____

Name of Contract	a. Owner's Name b. Address c. Telephone No.	Nature of Work	Contractor's Role		Contract Amount at Award	a. Date Awarded b. Date of Contract c. Contract Duration d. Date Started e. Date Completed	Accomplishment		Values of Outstanding Works
			Description	%			Planned	Actual	
Government									
Private									
							Total value of outstanding works		

Submitted by: _____
(Print Name & Signature)

Designation: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Statement of single largest COMPLETED contract similar to the contract to be bid

Name of Project: _____
Location of Project: _____

Name of Company : _____
Address of Company: _____

Name of Contract	a. Owner's Name b. Address c. Telephone No.	Nature of Work	Contractor's Role		Contract Amount at Award	a. Date Awarded b. Date of Contract c. Contract Duration d. Date Started e. Date Completed
			Description	%		

Submitted by: _____
(Print Name & Signature)

Designation: _____

Date: _____

JOINT RESOLUTION

Whereas, _____ (Bidder / Name of Particular JV Partner), duly organized and existing under the Laws of the _____, with office address at _____, represented herein by its _____, _____, and _____ (Name of Particular JV Partner), duly organized and existing under the Laws of the _____, with main office address at _____, represented by herein by its _____, have entered into a Joint Venture (JV) Agreement to undertake the following project / contract:

(Name of Project / Contract)

Whereas, in order to facilitate the orderly execution and conduct of the contract that was entered into by the joint venture in the name of the joint venture, it is hereby resolved by the parties in the Joint Venture as follows:

a. To appoint _____ as the Authorized Managing Officer and Official Representative, to represent, to manage the Joint Venture and is empowered to enter in contract in the name of the Joint Venture, or to sign for any document in the name of the Joint Venture required by the (Procurement Agency) or any entities pursuant to the terms of the Joint Venture Agreement:

b. That, the parties agreed to make _____(Name of Particular Lead Partner) _____ as the Lead Partner of the Joint Venture and (Name of Authorized Officer) _____ as the Official Representative & Managing Partner of the Joint Venture, and are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Eligibility Check, Bidding and Undertaking of the said contract in the name of the Joint Venture, as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation. _____ is fully authorized and empowered to sign any or all documents pertaining to the above stated project / contract in the name of the Joint Venture.

c. That the parties agree to be jointly and severally liable for their participation in the Eligibility Check, Bidding and Undertaking of the said contract.

d. That the terms of the JV Agreement entered into the parties shall be valid and is co-terminus with the final completion and turnover of the Name of Contract / Project to

the agency of the government, which in this case, the (Name of Procurement Entity);

IN WITNESS THEREFORE, We hereby sign jointly this Joint Resolution this _____ day of _____, 20 ____ in _____.

Name of Bidder (Lead Partner)	**Name of Bidder (Member Partner)**
By: _____	**By:** _____
Signature & Name of Managing Officer	Signature & Name of Authorized Authorized Representative
_____	_____
Designation / Position	Designation / Position

Name of Bidder (Member Partner)	**Name of Bidder (Member Partner)**
By: _____	**By:** _____
Signature & Name of Managing Officer	Signature & Name of Authorized Authorized Representative
_____	_____
Designation / Position	Designation / Position

SIGNED IN THE PRESENCE OF:

_____

_____

_____

_____

A C K N O W L E D G E M E N T

REPUBLIC OF THE PHILIPPINES)

CITY OF_____)S.S.

BEFORE ME, a Notary Public, for and in the City of _____, Philippines, this _____ day of _____, 20____ personally appeared the following persons:

NAME	**Community Cert. No.**	**Date / Place of Issue**

Representing to be the _____ of _____ and _____ of _____ respectively, known to me and to me known to be the same persons who executed the foregoing instrument for and in behalf of said corporations and who acknowledge to me that same is their free and voluntary act and deed as well as of the corporations which they represent, for the uses, purposes, and considerations therein set forth and that they are duly authorized to sign the same.

This Instrument consists of THREE (3) pages including this page wherein this Acknowledgement is written and signed by the parties and their instrumental witnesses on each and every page thereon.

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

NOTARY PUBLIC

Doc. No. _____

Book No. _____

Page No. _____

Series of _____

Other Bidding Forms

(ANNEX "B")

Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

CERTIFICATE OF SITE INSPECTION

This is to CERTIFY that _____, employee of _____, has conducted the required Site Inspection for the bidding of the project "_____" at _____.

Issued this _____**, 2021**

Airport Manager/Officer-in-Charge:

_____
Signature over Printed Name

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.
x----------x

Invitation to Bid *[Insert reference number]*

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

I/We, the undersigned, declare that:

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

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any 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 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 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;

    c. I am/we are declared as 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'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. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

Witness my hand and seal this ___ day of *[month] [year]*.

NAME OF NOTARY PUBLIC

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 ____.

Contractor's Organizational Chart for the Project

Submit Copy of the Organizational Chart that the Contractor intends to use to execute the contract if awarded to him. Indicate in the chart the names of the Key Engineering Personnel who will be assigned in the Project.

{ATTACH COMPANY LETTERHEAD/LOGO}

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

Submitted by: _____

Designation : _____

Date : _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Qualification of Key Personnel Proposed to be Assigned to the Project

Name of Project: _____
Location of Project: _____

Name of Company: _____
Address of Company: _____

	Project Manager/Engineer	Material Engineer	Foreman	Construction Safety and Health Personnel	Other Position deemed required by the Applicant for this project
1. Name					
2. Address					
3. Date of Birth					
4. Employed Since					
5. Experience					
6. Previous Employment					
7. Education					
8. PRC License					

Note: Attached individual PRC License of the (professional) personnel.

Submitted by : _____
(Signature over Printed Name)
Designation : _____
Date : _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Date: _____

CAPTAIN DONALDO A. MENDOZA
Chairman, Bids and Awards Committee - Charlie
Civil Aviation Authority of the Philippines
Mia Road, Pasay City, M.M. 1300
Tel: 944-2358

Subject: Contractor's Letter-Certificate to Procuring Entity

Dear Sir:

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

That I/we have engaged the service of *(Name of Employee)*, to be the *(Designation)* of the *(Name of Project)*, who is a *(Profession)* with Professional License Certificate No. __ issued on _____ and who has performed the duties in the construction of the project enumerated in the filled Annex "B" Form 5b.

That *(Name of Employee)* shall personally perform the duties of the said position in the above-mentioned project, if and when the same is awarded in our favor.

That *(Name of Employee)* shall employ the best care, skill and ability in performing his duties in accordance with the Contract Agreement, Conditions of Contract, Plans, Specifications, Special Provisions, and other provisions embodied in the proposed contract.

That *(Name of Employee)* shall be personally present at the jobsite all the time to supervise the phase of the construction work pertaining to his assignment as *(Designation)*.

That *(Name of Employee)* is aware that he shall be authorized to handle only one contract at a time.

That in order to guarantee that *(Name of Employee)* shall perform his duties properly and be personally present in the Job Site, he is hereby required to secure a certificate of appearance for the Procuring Entity's Engineer at the end of every month.

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

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

Very truly yours,

_____

(Authorized Representative of Bidder)

CONCURRED BY:

_____

(Name of Engineer)

{ATTACH COMPANY LETTERHEAD/LOGO}

Date: _____

CAPTAIN DONALDO A. MENDOZA
Chairman, Bids and Awards Committee - Charlie
Civil Aviation Authority of the Philippines
Mia Road, Pasay City, M.M. 1300
Tel: 944-2358

Subject: Key Personnel's Certificate of Employment

Dear Sir:

I am *(Name of Employee)* a License _____ Engineer with Professional License No. issued on *(Date of Issuance)* at *(Place of Issuance)*.

I hereby certify that *(Name of Bidder)* has engaged my services as *(Designation)* for *(Name of the Project)*, if awarded in their favor.

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

I do not allow the use of my name for the purpose of enabling the above-mentioned Contractor to qualify for the Contract without any firm commitment on my part to assume the post of *(Designation)*.

As *(Designation)*, I supervised the following completed projects similar to the contract under bidding:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED

At present, I am supervising the following project:

NAME OF PROJECT	OWNER	COST	DATE COMPLETION

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

_____
(Signature of Engineer)

SUBSCRIBED AND SWORN to before me this ___ day of _____, 20___ affiant exhibiting to me his/her Residence Certificate No. _____ issued on _____ at _____, Philippines.

_____
Notary Public

Until 31 December 20
PRT No.: _____
Issued at: _____
Issued on: _____
TIN No.: _____

Doc. No._____
Page No._____

Book No. _____
Series of_____

CAAP-BAC-SF Annex "B" Form 5c

KEY PERSONNEL

(FORMAT OF BIO-DATA)

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

1. Authorized Managing Officer / Representative: _____

2. Sustained Technical Employee:

Name: _____

Date of Birth: _____

Nationality: _____

Education and Degrees: _____

Specialty: _____

Registration: _____

Length of Service with the Firm:

_____Year From _____ (months) _____ (year)

To _____ (months) _____ (year)

Years of Experience:

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

Name and Address of Employer	Length of Service	
_____	_____ year(s)	from _____to _____
_____	_____ year(s)	from _____to _____
_____	_____ year(s)	from _____to _____

Experience:

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

a. Name: _____
b. Name and Address of Owner: _____
_____
c. Name and Address of the Owner's Engineer (Consultant):_____
_____
d. Indicate the Features of Project (particulars of the project components and any other particular interest connected with the project): _____
_____
e. Contract Amount Expressed in Philippine Currency: _____
f. Position: _____
g. Structures for which the employee was responsible: _____
_____
h. Assignment Period: from _____(months) _____ (years)
to _____(months) _____ (years)

_____
Name and Signature of Employee

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

_____ _____
(Place and Date) (The Authorized Representative)

List of Equipment, Owned or Leased and/or under Purchased Agreements, Pledge to the Proposed Project

Name of Project: _____
Location of Project: _____

Name of Company: _____
Address of Company: _____

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.							
V.							
B. Leased							
I.							
II.							
III.							
IV.							
V.							
C. Under Purchased Agreement							
I.							
II.							
III.							
IV.							
V.							

Submitted by : _____
(Signature over Printed Name)
Designation : _____
Date : _____

Omnibus Sworn Statement

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

A F F I D A V I T

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] [insert "as shown in the attached duly notarized Special Power of Attorney" for the authorized representative]*;

   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]*, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, 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;

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 following responsibilities as a Bidder:

   a) Carefully examine all of the Bidding Documents;

   b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;

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

   d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the *[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.

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

_____
Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ___ day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate 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 _____

* This form will not apply for WB funded projects.

{ATTACH COMPANY LETTERHEAD/LOGO}

Bid Form

Date: _____

IB[2] N°: _____

To: *[name and address of PROCURING ENTITY]*

Address: *[insert address]*

We, the undersigned, declare that:

(a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract *[insert name of contract]*;

(b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;

The total price of our Bid, excluding any discounts offered below is: *[insert information]*;

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

(c) Our Bid shall be valid for a period of *[insert number]* days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;

(e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;

(f) 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;

(g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;

[2] If ADB, JICA and WB funded projects, use IFB.

(h) 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

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

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

(k) **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: _____

In the capacity of: _____

Signed: _____

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

Date: _____

Other Bidding Forms

(ANNEX "C")

{ATTACH COMPANY LETTERHEAD/LOGO}

BILL OF QUANTITIIES

PROJECT: _____
LOCATION: _____

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE (Pesos)	AMOUNT (Pesos)
	Pesos_____ Amount in Words _____ _____ __and_____ _____ centavos				
	Pesos_____ Amount in Words _____ _____ __and_____ _____ centavos				
	Pesos_____ Amount in Words _____ _____ __and_____ _____ centavos				
	Pesos_____ Amount in Words _____ _____ __and_____ _____ centavos				

TOTAL BID AMOUNT (Php) _____

TOTAL BID AMOUNT IN WORDS _____
_____
_____

Signature: _____
Printed Name: _____
Position: _____
Name Company: _____
Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

CAAP-BAC-SF Annex " C" Form 2

SUMMARY OF BID PROPOSAL

PROJECT:
LOCATION:

ITEM NO.	DESCRIPTION OF WORK	QTY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UP		V.A.T.	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9] [5] x [8]	[10] 5%{[5] +[9]}	[11] [9] +[10]	[12] [5] + [11]	[13] [12] / [3]

SUBMITTED BY:

Signature: _____
Printed Name: _____
Position: _____
Name Company: _____
Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

BILL OF MATERIALS & COST ESTIMATES

NAME OF PROJECT :
DESCRIPTION :
LOCATION :

				QUANTITY	UNIT

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
A	**TOTAL MATERIAL COST**				
B	**TOTAL LABOR COST**				
C	**TOTAL EQUIPMENT COST**				
D	**TOTAL DIRECT COST**				
	INDIRECT COSTS				
	1. OCM (0% of TDC)				
	2. CONTRACTOR's PROFIT (0% of TDC)				
	E. TOTAL OCM & CONTRACTOR's PROFIT				
	F. VALUE ADDED TAX, (VAT) 5.0%				
	G. TOTAL ESTIMATED INDIRECT COST (E + F), P				
	H. TOTAL ESTIMATED UNIT INDIRECT COST (G / Quantity), P/Unit				
	TOTAL ESTIMATED COST (D + G), P				
	TOTAL ESTIMATED UNIT COST (Total Estimated Cost / Quantity), P/Unit				

SUBMITTED BY:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

SUMMARY FOR UNIT PRICES OF MATERIALS

PROJECT: _____

LOCATION: _____

DESCRIPTION	UNIT PRICE	UNIT

SUBMITTED BY:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

SUMMARY FOR UNIT PRICES OF LABOR

PROJECT: _____

LOCATION: _____

DESCRIPTION	UNIT PRICE	UNIT

SUBMITTED BY:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

SUMMARY FOR UNIT PRICES OF EQUIPMENT

PROJECT: _____

LOCATION: _____

DESCRIPTION	UNIT PRICE	UNIT

SUBMITTED BY:

Signature: _____

Printed Name: _____

Position: _____

Name Company: _____

Date: _____

{ATTACH COMPANY LETTERHEAD/LOGO}

Name of Project : _____

Location of Project : _____

CASH FLOW BY QUARTER AND PAYMENY SCHEDULE

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

Submitted by:

_____
Name of the Representative of the Bidder

_____
Position

_____
Name of the Company

_____
Date

Other Bidding Forms

(ANNEX "D")

Annex "D" Form 1 ……. Authority of Signatory (Secretary's Certificate)

AUTHORITY OF SIGNATORY

(SECRETARY'S CERTIFICATE)

I,, a duly elected and qualified Corporate Secretary of (Name of the Bidder), a corporation duly organized and existing under and by virtue of the law of the, DO HEREBY CERTIFY, that:

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

At the regular meeting of the Board of Directors of the said Corporation duly convened and held on at which meeting a quorum was present and acting throughout, the following resolutions were approve, and the same have been annulled, revoked and amended in any way whatever and are in full force and effect on the date hereof:

RESOLVED, that*(Name of Bidder)*be, as it hereby is, authorized to participate in the bidding of*(Name of the Project)*by the*(Name of the Procuring Entity)*; and in that if awarded the project shall enter into a contract with the*(Name of the Procuring Entity)*and in connection therewith hereby appoints*(Name of Representative)*, acting as duly authorized and designated representatives of*(Name of the Bidder)*, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent*(Name of the Bidder)*in the bidding as fully and effectively as the*(Name of the Bidder)*might do if personally present with full power of substitution and revocation and hereby satisfying and confirming all that my said representative shall lawfully do or cause to be done by virtue hereof;

RESOLVED FERTHER THAT, the Board hereby authorized its President to:

a. execute a waiver of jurisdiction whereby the*(Name of the Bidder)*hereby submits itself to the jurisdiction of the Philippine government and hereby waives its right to question the jurisdiction of the Philippine court;
b. execute a waiver that the *(Name of the Bidder)* shall not seek and obtain writ of injunctions or prohibition or restraining order against the CAAP or any other agency in connection with this Project to prevent and restrain the bidding procedures related thereto, the negotiating and award of a contract to a successful bidder, and the carrying out of the awarded project.

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

(Corporate Secretary)

SUBSCRIBED AND SWORN to before me thisday of, 20affiant exhibited to me his/her Community Tax Certificate No. _____ issued on_____ _____at, Philippines.

Notary Public

Until 31 December 20_____

PRT No.: _____

Issued at: _____

Issued on: _____

TIN No.: _____

Doc. No. _____

Page No.: _____

Book No.: _____

Series of _____

Section X. 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);
or

☐ (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;
and

☐ (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;
and

☐ (d) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR); **and**

Technical Documents

☐ (e) 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. *(Annex "A" Form 1)*; **and**

☐ (f) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules. *(Annex "A" Form 2)*; **and**

☐ (g) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid;
and Joint Resolution *(Annex "A" Form 3)*; **and**

☐ (h) 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 *(Annex "B" Form 2)*;
and

☐ (i) Project Requirements, which shall include the following:
1. Organizational chart for the contract to be bid *(Annex "B" Form 3)*; **and**

☐ 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 *(Annex "B" Form 4, 5a, 5b & 5c)*; **and**

☐ 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 *(Annex "B" Form 6)*; **and**

☐ (j) Original duly signed Omnibus Sworn Statement (OSS) *(Annex "B" Form 7)*; **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**

This shall include all of the following documents as attachment to the Omnibus Sworn Statement:

☐ 1. Certification, under oath, attesting that they have no pending case(s) against the Government, in addition to the eligibility requirements as prescribe under the 2016 Revise Implementing Rules and Regulation (R-IRR) of RA No. 9184; **and**

☐ 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; **and**

☐ 3. Bid Bulletins (if applicable); **and**

☐ (k) **Certificate of Site Inspection** *(Annex "B" Form 1)* duly signed by **Mr. Carmelito Escuadra, Officer-in-charge of Calbayog Airport**or his duly authorized representative; **and**

This shall include all of the following documents as attachment to the Certificate of Site Inspection:

☐ 1. Copy of company ID of the person who conducted the site inspection; **and**

☐ 2. Copy of the airport/facility visitor's logbook; **and**

☐ 3. Picture of the proposed site including the personnel who conducted the site inspection together with the Airport Manager/Officer in Charge or his duly authorized representative: **and**

Financial Documents

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

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

Class "B" Documents

☐ (n) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;
or
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

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

Other documentary requirements under RA No. 9184

☐ (p) Original of duly signed Bid Prices in the Bill of Quantities *(Annex "C" Form 1)*; **and**

☐ (q) Detailed Breakdown of Component of Each Item *(Annex "C" Form 2)*; **and**

☐ (r) Detailed Unit Price Analysis *(Annex "C" Form 3)*; **and**

☐ (s) Summary Sheet indicating the Unit Prices of Construction Materials, Labor Rates, and Equipment Rentals used in coming up with the Bid *(Annex "C" Form 4, 5 & 6)*; **and**

☐ (t) Cash Flow by Quarter and Payment Schedule *(Annex "C" Form 7)*.


Republic of the Philippines
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Government Procurement Policy Board