BIDDING DOCUMENTS

FOR THE

CONSTRUCTION OF FOOTBRIDGE AT SITIO BALINGKAGING, BARANGAY BAAY, LINGAYEN, PANGASINAN

MUNICIPALITY OF LINGAYEN

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

Republic of the Philippines
Province of Pangasinan
Municipality of Lingayen

Invitation to Bid for *the CONSTRUCTION OF FOOTBRIDGE AT SITIO BALINGKAGING, BARANGAY BAAY, LINGAYEN, PANGASINAN*

The ***Local Government Unit (LGU) of Lingayen*** through the LGU's General Fund-20% Development Fund intends to apply the sum of ***Three Hundred Fifty Thousand Pesos (P350,000.00)*** being the Approved Budget for the Contract (ABC) to payments under the contract for *the* ***CONSTRUCTION OF FOOTBRIDGE AT SITIO BALINGKAGING, BARANGAY BAAY, LINGAYEN, PANGASINAN with Purchase Request no. 100-21-12-547.*** Bids received in excess of the ABC shall be automatically rejected at bid opening.

The ***Local Government Unit (LGU) of Lingayen*** now invites bids for the above Procurement Project. Completion of the Works is required *SIXTY (60) 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).

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.

Interested bidders may obtain further information from *BAC Office, Municipal Hall Building, Lingayen, Pangasinan* from *8:00 in the morning to 5:00 in the afternoon, Mondays to Fridays except holidays.*.

A complete set of Bidding Documents may be acquired by interested bidders starting ***March 30, 2022 – April 27, 2022*** from the BAC Office, Municipal Hall Building, Lingayen, Pangasinan*and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of* ***Five Hundred Pesos (P500.00) Only.*** The Bidder or authorize representative shall present its proof of payment for the fees personally to the BAC Office before Bidding Documents will be released.

The ***Local Government Unit of Lingayen*** will hold a Pre-Bid Conference on *April 14, 2022, 9:00 in the morning* at *Municipal Conference Room, Municipal Hall, Building, Lingayen, Pangasinan* which may be attended by prospective bidders.

Bids must be duly received by the BAC Secretariat through manual submission at the office of Bids and Awards Committee, Local Government Unit of Lingayen, Municipal Hall, Lingayen, Pangasinan 2401 on or before 9:00 in the morning April 27, 2022. Late bids shall not be accepted.

All bids must be accompanied by a Bid Security in any of the acceptable forms and in the amount stated in **ITB** Clause 15.

Bid opening shall be at the Municipal Conference Hall, 2nd Floor, Municipal Hall Building, Lingayen, Pangasinan on **April 27, 2022**, *after the closing time of the submission of bids*. Bids will be opened in the presence of the bidders' representatives and observers who choose to attend the activity.

The ***Local Government Unit of Lingayen*** 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.

For further information, please refer to:

ARNULFO S. BERNARDO
Head BAC Secretariat
LGU Lingayen
Barangay Poblacion
Lingayen, Pangasinan

You may visit the following websites:

For downloading of Bidding Documents:*www.lingayen.gov.ph*

March 30, 2022
Date of Issue

JOAN JUDE R. LOPEZ, LLB, MBM
BAC Chairperson

Section II. Instructions to Bidders (ITB)

1. Scope of Bid

The Procuring Entity, *the Local Government Unit of Lingayen* invites Bids for ***Construction of Footbridge at Sitio Balingkaging, Barangay Baay, Lingayen, Pangasinan with*** **Request No. 100-21-12-547.**

The Procurement Project (referred to herein as "Project") is for *Construction of Footbridge*, as described in Section VI (Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for *CY 2021* in the amount of *Three Hundred Fifty Thousand Pesos (P350,000.00) Only*.

2.2. The source of funding is: LGU's General Fund -20% Development Fund

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. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Bidder's Responsibilities

6.1 The Bidder is responsible for the following:

(a) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;

(b) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin(s).

(c) Ensuring that it is not "blacklisted" or barred from bidding by the GOP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;

(d) Ensuring that 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;

(e) Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Bidder in the bidding, with the duly notarized Secretary's Certificate attesting to such fact, if the Bidder is a corporation, partnership, cooperative, or joint venture;

(f) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;

6.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents.

6.3 The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity.

6.4 Before submitting their bids, the Bidder is deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect this Project in any way.

6.5 The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fees for the Bidding Documents at the office indicated in the Invitation to Bid.

7. 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.

8. Subcontracts

The Procuring Entity has prescribed that:

a. Subcontracting is not allowed.

9. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference is on April 14, 2022, 9:00 in the morning at Municipal Conference Room, Municipal Hall Building, Lingayen, Pangasinan**.**

10. 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.

11. Documents Comprising the Bid: Eligibility and Technical Components

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

11.2 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.

11.3A 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**.

11.4.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**.

11.5A 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**.

12. Documents Comprising the Bid: Financial Component

12.1The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.

12.2Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.

13. 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.

14. 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.

15. Bid and Payment Currencies

15.1Bid 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.

15.2Payment of the contract price shall be made in:

a. Philippine Pesos.

16. Bid Security

16.1 The Bidder shall submit any of the following form of Bid Security in the amount indicated in the **Bid Data Sheet (BDS)**, which shall be not less than the percentage of the ABC in accordance with the following schedule.

Form of Bid Security	Amount of Bid Security (Not Less than the Percentage of the ABC)
a. Cash or cashier's/manager's check issued by a Universal or Commercial Bank. *For biddings conducted by LGUs, the Cashier's/Manager's Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.*	Two percent (2%)
b. Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank. *For biddings conducted by LGUs, Bank Draft/Guarantee, or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.*	
c. Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Five percent (5%)

16.2 The Bid and bid security shall be valid until ***one hundred twenty days upon the date of opening of bids.*** Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

17. Sealing and Marking of Bids

Each Bidder shall submit one original copy and additional copy of the technical and financial components of its bid.

Bidders shall enclose the original copy of their technical documents in one long brown envelope marked "ORIGINAL – TECHNICAL DOCUMENTS", and shall do the same to the original copy of the financial components of their bid; marked "ORIGINAL – FINANCIAL DOCUMENTS" on a long brown envelope as well. These two brown envelopes shall be sealed in a long brown envelope marked "**ORIGINAL BID**".

The other copy of the Technical and Financial Documents shall be similarly sealed on a long brown envelope duly marked as "COPY – TECHNICAL DOCUMENT" and "COPY – FINANCIAL DOCUMENT" enclosed in a long brown envelope marked "**COPY BID**".

The checklist of Technical and Financial Documents shall be attached on the back side (under the seal flap) of each long brown envelope.

All of the documents (original copy and the other copy) shall bear the signature or initials of the authorized representative on every page as proof of its authenticity.

These two long brown envelopes (ORIGINAL BID and COPY BID) shall now be enclosed in one final expanding envelope sealed with two-inch packaging tape with the signature of the bidder affixed atop the packaging tape as cognizance of its seal.

All envelopes (long brown and expanding) shall:

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

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

c.) be addressed to the Procuring Entity's BAC as follows;

BIDS AND AWARDS COMMITTEE
LOCAL GOVERNMENT UNIT OF LINGAYEN
MUNICIPAL HALL, LINGAYEN, PANGASINAN 2401

d.) bear a warning "DO NOT OPEN BEFORE…" the date and time of the Opening of Bids written at the front side of each envelope.

18. Deadline for Submission of Bids

The deadline of submission of Bids is on April 27, 2022 at exactly 9:00 in the morning. Only manual submission of Bids is allowed.

19. Opening and Preliminary Examination of Bids

19.1 The BAC shall open the Bids in public on ***April 27, 2022, after the closing time of the submission of bids at Municipal Conference Hall, 2nd Floor, Municipal Hall Building, Lingayen, Pangasinan***. The Bidders' authorize representatives who are present must present their Special Power of Attorney (SPA) and shall sign a register evidencing their attendance.

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.

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

20. Detailed Evaluation and Comparison of Bids

20.1 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.

20.2 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.

20.3 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.

21. 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**.

22. 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 (BDS)

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Bid Data Sheet

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be consist of:

I . Dewatering/ Excavation/ Embankment
II. Concrete Works
III. Forms & Falseworks
IV. Reinforcing Steel & Wire Rope
V. Project Billboard
VI. Construction Health and Safety</td></tr>
<tr><td>&</td><td>Sub-contracting is not allowed</td></tr>
<tr><td>10.3</td><td>PCAB, DTI, Mayor’s Permit</td></tr>
<tr><td>10.4</td><td>The contractor shall employ the following Key Personnel
Key Personnel General Experience Relevant Experience
Construction Foreman 5 years Vertical & Horizontal Projects
Skilled Laborer
Unskilled Laborer
Safety Officer/ First Aider</td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table>
<tr><u>Equipment</u></td><td><u>Capacity</u></td><td><u>No. of units</u></td></tr>
<tr><td>Water Pump, 100mm suction diameter</td><td>N/A</td><td>one (1)</td></tr>
<tr><td>Concrete Mixer</td><td>N/A</td><td>two (2)</td></tr>
<tr><td>Concrete Vibrator</td><td>N/A</td><td>one (1)</td></tr>
<tr><td>Rebar Cutter</td><td>N/A</td><td>one (1)</td></tr>
</table>
</td></tr>
<tr><td>12</td><td>Value Engineering clause not included. Alternative bids shall not be included.</td></tr>
<tr><td>15.1</td><td>The bid security shall be in the form of any of the following forms and amounts:
a. The amount of not less than Seven Thousand Pesos (P7,000.00) Only 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 Seventeen Thousand Five Hundred Pesos (P 17,500.00) Only five percent (5%) of ABC] if bid security is in Surety Bond.</td></tr>
<tr><td>19.2</td><td>Partial bids is not allowed .</td></tr>
</table>

20	*Pertinent documents to be submitted by the winning supplier to the BAC Office before the issuance of Notice of Award* *1. Philgeps Certificate* *2. Mayor's Permit* *3. Latest Income and Business Tax Return* *4. Tax Clearance*
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.

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**.

7.3. Retention Money: Progress payments are subject to retention of ten percent (10%) referred to as the retention money. Such retention shall be based on the total amount due to the contractor prior to any deduction and shall be retained from every progress payment. The total retention money shall be due for release upon final acceptance of the works

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	*The Intended Completion Date is **sixty (60)** calendar days*
4.1	*The Local Government Unit of Lingayen shall give possession of all parts of the site to the contractor upon signing of the Contract.*
6	The site investigation reports are: *None*
7.2	*[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]* Fifteen (15) years.
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within ***ten (10) calendar*** days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is ***ten percent (10%) of the contract amount***..
13	The amount of the advance payment is ***fifteen (15%) percent of the contract amount***
14	*Materials and equipment delivered on the site but not completely put in place shall be included for payment* ***Not Applicable***
15.1	The date by which "as built" drawings are required is *before final payment*
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 *one (1) percent(1%) of the contract amount*.

Section VI. Specifications

Project: Construction of Foot Bridge

Location: Sitio Balingkaging, Brgy. Baay, Lingayen, Pangasinan

APPROVED TECHNICAL SPECIFICATIONS

DEWATERING /EXCAVATION/ EMBANKMET

102.1 Description

This Item shall consist of roadway drainage and borrow excavation, and the disposal of material in accordance with this Specification and in conformity with the lines, grades and dimensions shown on the Plans or established by the Engineer.

102.2 Construction Requirements

102.2.1 General

When there is evidence of discrepancies on the actual elevations and that shown on the Plans, a pre-construction survey referred to the datum plane used.

in the approved Plan shall be undertaken by the Contractor under the control of the Engineer to serve as basis for the computation of the actual volume of the excavated materials.

All excavations shall be finished to reasonably smooth and uniform surfaces. No materials shall be wasted without authority of the Engineer. Excavation operations shall be conducted so that material outside of the limits of slopes will not be disturbed. Prior to excavation, all necessary clearing and grubbing in that area shall have been performed in accordance with Item 100, Clearing and Grubbing.

102.2.2 Conservation of Topsoil

Where provided for on the Plans or in the Special Provisions, suitable topsoil encountered in excavation and on areas where embankment is to be placed shall be removed to such extent and to such depth as the Engineer may direct. The removed topsoil shall be transported and deposited in storage piles at locations approved by the Engineer. The topsoil shall be completely removed to the required depth from any designated area prior to the beginning of regular excavation or embankment work in the area and shall be kept separate from other excavated materials for later use.

102.2.3 Utilization of Excavated Materials

All suitable materials removed from the excavation shall be used in the formation of the embankment, subgrade, shoulders, slopes, bedding, and backfill for structures, and for other purposes shown on the Plans or as directed.

The Engineer will designate as unsuitable those soils that cannot be properly compacted in embankments. All unsuitable materials shall be disposed off as shown on the Plans or as directed without delay to the Contractor.

Only approved materials shall be used in the construction of embankments and backfills.

All excess materials, including rock and boulders that cannot be used in embankments shall be disposed off as directed.

Materials encountered in the excavation and determined by the Engineer as suitable for topping, road finishing, slope protection, or other purposes shall be conserved and utilized as directed by the Engineer.

Borrow materials shall not be placed until after the readily accessible materials from roadway excavation has been placed in the fill, unless otherwise permitted or directed by the Engineer. If the Contractor places moré borrow than is required and thereby causes a waste of excavation, the amount of such waste will be deducted from the borrow volume .

102.2.4 Prewatering

Excavation areas and borrow pits may be prewatered before excavating the material. When prewatering is used, the areas to be excavated shall be moistened to the full depth, from the surface to the bottom of the excavation. The water shall be controlled so that the excavated material will contain the proper moisture to permit compaction to the specified density with the use of standard compacting equipment. Prewatering shall be supplemented where necessary, by truck watering units, to ensure that the embankment material contains the proper moisture at the time of compaction.

The Contractor shall provide drilling equipment capable of suitably checking the moisture penetration to the full depth of the excavation.

102.2.5 Presplitting

Unless otherwise provided in the Contract, rock excavation which requires drilling and shooting shall be presplit.

Presplitting to obtain faces in the rock and shale formations shall be performed by: (1) drilling holes at uniform intervals along the slope lines, (2) loading and stemming the holes with appropriate explosives and stemming material, and (3) detonating the holes simultaneously.

Prior to starting drilling operations for presplitting, the Contractor shall furnish the Engineer a plan outlining the position of all drill holes, depth of drilling, type of explosives to be used, loading pattern and sequence of firing. The drilling and blasting plan is for record purposes only and will not absolve the Contractor of his responsibility for using proper drilling and blasting procedures. Controlled blasting shall begin with a short test section of a length

approved by the Engineer. The test section shall be presplit, production drilled and blasted and sufficient material excavated whereby the Engineer can determine if the Contractor's methods are satisfactory. The Engineer may order discontinuance of the presplitting when he determines that the materials encountered have become unsuitable for being presplit.

The holes shall be charged with explosives of the size, kind, strength, and at the spacing suitable for the formations being presplit, and with stemming material which passes a 9.5 mm standard sieve and which has the qualities for proper confinement of the explosives.

The finished presplit slope shall be reasonably uniform and free of loose rock. Variance from the true plane of the excavated backslope shall not exceed 300 mm; however, localized irregularities or surface variations that do not constitute a safety hazard or an impairment to drainage courses or facilities will be permitted.

A maximum offset of 600 mm will be permitted for a construction working bench at the bottom of each lift for use in drilling the next lower presplitting pattern.

102.2.6 Excavation of Ditches, Gutters, etc.

All materials excavated from side ditches and gutters, channel changes, irrigation ditches, inlet and outlet ditches, toe ditches, furrow ditches, and such other ditches as may be designated on the Plans or staked by the Engineer, shall be utilized as provided in Subsection 102.2.3.

Ditches shall conform to the slope, grade, and shape of the required crosssection, with no projections of roots, stumps, rock, or similar matter. The Contractor shall maintain and keep open and free from leaves, sticks, and other debris all ditches dug by him until final acceptance of the work.

Furrow ditches shall be formed by plowing a continuous furrow along the line staked by the Engineer. Methods other than plowing may be used if acceptable to the Engineer. The ditches shall be cleaned out by hand shovel work, by ditcher, or by some other suitable method, throwing all loose materials on the downhill side so that the bottom of the finished ditch shall be approximately 450 mm below the crest of the loose material piled on the downhill side. Hand finish will not be required, but the flow lines shall be in satisfactory shape to provide drainage without overflow.

102.2.8 Borrow Areas

The Contractor shall notify the Engineer sufficiently in advance of opening any borrow areas so that cross-section elevations and measurements of the ground surface after stripping may be taken, and the borrow material can be tested before being used. Sufficient time for testing the borrow material shall be allowed.

All borrow areas shall be bladed and left in such shape as to permit accurate measurements after excavation has been completed. The Contractor shall not excavate beyond the dimensions and elevations established, and no material shall be removed prior to the staking out and cross-sectioning of the site. The finished borrow areas shall be approximately true to line and grade established and specified and shall be finished, as prescribed in Clause 61, Standard Specifications for Public Works and Highways, Volume 1. When necessary to

remove fencing, the fencing shall be replaced in at least as good condition as it was originally. The Contractor shall be responsible for the confinement of livestock when a portion of the fence is removed.

102.2.9 Removal of Unsuitable Material

Where the Plans show the top portion of the roadbed to be selected topping, all unsuitable materials shall be excavated to the depth necessary for replacement of the selected topping to the required compacted thickness.

Where excavation to the finished graded section results in a subgrade or slopes of unsuitable soil, the Engineer may require the Contractor to remove the unsuitable material and backfill to the finished graded section with approved material. The Contractor shall conduct his operations in such a way that the Engineer can take the necessary cross-sectional measurements before the backfill is placed.

The excavation of muck shall be handled in a manner that will not permit the entrapment of muck within the backfill. The material used for backfilling up to the ground line or water level, whichever is higher, shall be rock or other suitable granular material selected from the roadway excavation, if available. If not available, suitable material shall be obtained from other approved sources. Unsuitable material removed shall be disposed of in designated areas shown on the Plans or approved by the Engineer.

102.3 Method of Measurement

The cost of excavation of material which is incorporated in the Works or in other areas of fill shall be deemed to be included in the Items of Work where the material is used.

Measurement of Unsuitable or Surplus Material shall be the net volume in its original position.

For measurement purposes, surplus suitable material shall be calculated as the difference between the net volume of suitable material required to be used in embankment corrected by applying a shrinkage factor or a swell factor in case of rock excavation, determined by laboratory tests to get its original volume measurement, and the net volume of suitable material from excavation in the original position. Separate pay items shall be provided for surplus common, unclassified and rock material.

The Contractor shall be deemed to have included in the contract unit prices all costs of obtaining land for the disposal of unsuitable or surplus material.

102.4 Basis of Payment

The accepted quantities, measured as prescribed in Section 102.3 shall be paid for at the contract unit price for each of the Pay Items listed below that is included in the Bill of Quantities which price and payment shall be full compensation for the removal and disposal of excavated 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
102 (1)	Unsuitable Excavation	Cubic Meter
102 (2)	Surplus Common Excavation	Cubic Meter
102 (3)	Surplus Rock Excavation	Cubic Meter
102 (4)	Surplus Unclassified Excavation	Cubic Meter

ITEM 104 – EMBANKMENT

104.1 Description

This Item shall consist of the construction of embankment in accordance with this Specification and in conformity with the lines, grades and dimensions shown on the Plans or established by the Engineer.

104.2 Material Requirements

Embankments shall be constructed of suitable materials, in consonance with the following definitions:

1. Suitable Material – Material which is acceptable in accordance with the Contract and which can be compacted in the manner specified in this Item. It can be common material or rock.
2. Unsuitable Material – Material other than suitable materials such as:
   (a) Materials containing detrimental quantities of organic materials, such as grass, roots and sewerage.
   (b) Organic soils such as peat and muck.
   (c) Soils with liquid limit exceeding 80 and/or plasticity index exceeding 55.
   (d) Soils with a natural water content exceeding 100%
   (e) Soils with very low natural density, 800 kg/m3 or lower.
   (f) Soils that cannot be properly compacted as determined by the Engineer.

104.3 Construction Requirements

104.3.1 General

Prior to construction of embankment, all necessary clearing and grubbing in that area shall have been performed in conformity with Item 100, Clearing and Grubbing.

Embankment construction shall consist of constructing roadway embankments, including preparation of the areas upon which they are to be placed; the construction of dikes within or adjacent to the roadway; the placing and compacting of approved material within roadway areas where unsuitable material has been removed; and the placing and compacting of embankment material in holes, pits, and other depressions within the roadway area.

Embankments and backfills shall contain no muck, peat, sod, roots or other deleterious matter. Rocks, broken concrete or other solid, bulky materials shall not be placed in embankment areas where piling is to be placed or driven.

Where shown on the Plans or directed by the Engineer, the surface of the existing ground shall be compacted to a depth of 150 mm and to the specified requirements of this Item.

Where provided on the Plans and Bill of Quantities the top portions of the roadbed in both cuts and embankments, as indicated, shall consist of selected borrow for topping from excavations.

104.3.2 Methods of Construction

Where there is evidence of discrepancies on the actual elevations and that shown on the Plans, a preconstruction survey referred to the datum plane used in the approved Plan shall be undertaken by the Contractor under the control of the Engineer to serve as basis for the computation of the actual volume of the embankment materials.

When embankment is to be placed and compacted on hillsides, or when new embankment is to be compacted against existing embankments, or when embankment is built one-half width at a time, the existing slopes that are steeper than 3:1 when measured at right angles to the roadway shall be continuously benched over those areas as the work is brought up in layers. Benching will be subject to the Engineer's approval and shall be of sufficient width to permit operation of placement and compaction equipment. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts. Material thus excavated shall be placed and compacted along with the embankment material in accordance with the procedure described in this Section.

Unless shown otherwise on the Plans or special Provisions, where an embankment of less than 1.2 m below subgrade is to be made, all sod and vegetable matter shall be removed from the surface upon which the embankment is to be placed, and the cleared surfaced shall be completely broken up by plowing, scarifying, or steeping to a minimum depth of 150 mm except as provided in Subsection 102.2.2. This area shall then be compacted as provided in Subsection 104.3.3. Sod not required to be removed shall be thoroughly disc harrowed or scarified before construction of embankment. Wherever a compacted road surface containing granular materials lies within 900 mm of the subgrade, such old road surface shall be scarified to a depth of at least 150 mm whenever directed by the Engineer. This scarified materials shall then be compacted as provided in Subsection 104.3.3.

When shoulder excavation is specified, the roadway shoulders shall be excavated to the depth and width shown on the Plans. The shoulder material shall be removed without disturbing the adjacent existing base course material, and all excess excavated materials shall be disposed off as provided in Subsection 102.2.3. If necessary, the areas shall be compacted before being backfilled.

Roadway embankment of earth material shall be placed in horizontal layers not exceeding 200 mm, loose measurement, and shall be compacted as specified before the next layer is placed. However, thicker layer maybe placed if vibratory roller with high compactive effort is used provided that density requirement is attained and as approved by the Engineer. Trial section to this effect must be conducted and approved by the Engineer. Effective

spreading equipment shall be used on each lift to obtain uniform thickness as determined in the trial section prior to compaction. As the compaction of each layer progresses, continuous leveling and manipulating will be required to assure uniform density. Water shall be added or removed, if necessary, in order to obtain the required density. Removal of water shall be accomplished through aeration by plowing, blading, discing, or other methods satisfactory to the Engineer.

Where embankment is to be constructed across low swampy ground that will not support the mass of trucks or other hauling equipment, the lower part of the fill may be constructed by dumping successive loads in a uniformly distributed layer of a thickness not greater than necessary to support the hauling equipment while placing subsequent layers.

When excavated material contains more than 25 mass percent of rock larger than 150 mm in greatest diameter and cannot be placed in layers of the thickness prescribed without crushing, pulverizing or further breaking down the pieces resulting from excavation methods, such materials may be placed on the embankment in layers not exceeding in thickness the approximate average size of the larger rocks, but not greater than 600 mm.

Even though the thickness of layers is limited as provided above, the placing of individual rocks and boulders greater than 600 mm in diameter will be permitted provided that when placed, they do not exceed 1200 mm in height and provided they are carefully distributed, with the interstices filled with finer material to form a dense and compact mass.

Each layer shall be leveled and smoothed with suitable leveling equipment and by distribution of spalls and finer fragments of earth. Lifts of material containing more than 25 mass percent of rock larger than 150 mm in greatest dimensions shall not be constructed above an elevation 300 mm below the finished subgrade. The balance of the embankment shall be composed of suitable material smoothed and placed in layers not exceeding 200 mm in loose thickness and compacted as specified for embankments.

Dumping and rolling areas shall be kept separate, and no lift shall be covered by another until compaction complies with the requirements of Subsection 104.3.3.

Hauling and leveling equipment shall be so routed and distributed over each layer of the fill in such a manner as to make use of compaction effort afforded thereby and to minimize rutting and uneven compaction.

104.3.3 Compaction

Compaction Trials

Before commencing the formation of embankments, the Contractor shall submit in writing to the Engineer for approval his proposals for the compaction of each type of fill material to be used in the works. The proposals shall include the relationship between the types of compaction equipment, the number of passes required and the method of adjusting moisture content. The Contractor shall carry out full scale compaction trials on areas not less than 10 m wide and 50 m long as required by the Engineer and using his proposed procedures or such

amendments thereto as may be found necessary to satisfy the Engineer that all the specified requirements regarding compaction can be consistently achieved. Compaction trials with the

main types of fill material to be used in the works shall be completed before work with the corresponding materials will be allowed to commence.

Throughout the periods when compaction of earthwork is in progress, the Contractor shall adhere to the compaction procedures found from compaction trials for each type of material being compacted, each type of compaction equipment employed and each degree of compaction specified.

Earth

The Contractor shall compact the material placed in all embankment layers and the material scarified to the designated depth below subgrade in cut sections, until a uniform density of not less than 95 mass percent of the maximum dry density determined by AASHTO T 99 Method C, is attained, at a moisture content determined by Engineer to be suitable for such density. Acceptance of compaction may be based on adherence to an approved roller pattern developed as set forth in Item 106, Compaction Equipment and Density Control Strips.

The Engineer shall during progress of the Work, make density tests of compacted material in accordance with AASHTO T 191, T 205, or other approved field density tests, including the use of properly calibrated nuclear testing devices. A correction for coarse particles may be made in accordance with AASHTO T 224. If, by such tests, the Engineer determines that the specified density and moisture conditions have not been attained, the Contractor shall perform additional work as may be necessary to attain the specified conditions.

At least one group of three in-situ density tests shall be carried out for each 500 m2 of each layer of compacted fill.

Rock

Density requirements will not apply to portions of embankments constructed of materials which cannot be tested in accordance with approved methods.

Embankment materials classified as rock shall be deposited, spread and leveled the full width of the fill with sufficient earth or other fine material so deposited to fill the interstices to produce a dense compact embankment. In addition, one of the rollers, vibrators, or compactors meeting the requirements set forth in Subsection 106.2.1, Compaction Equipment, shall compact the embankment full width with a minimum of three complete passes for each layer of embankment.

104.3.4 Protection of Roadbed During Construction

During the construction of the roadway, the roadbed shall be maintained in such condition that it will be well drained at all times. Side ditches or gutters emptying from cuts to embankments or otherwise shall be so constructed as to avoid damage to embankments by erosion.

104.3.5 Protection of Structure

If embankment can be deposited on one side only of abutments, wing walls, piers or culvert headwalls, care shall be taken that the area immediately adjacent to the structure is not

compacted to the extent that it will cause overturning of, or excessive pressure against the structure. When noted on the Plans, the fill adjacent to the end bent of a bridge shall not be placed higher than the bottom of the backfill of the bent until the superstructure is in place. When embankment is to be placed on both sides of a concrete wall or box type structure, operations shall be so conducted that the embankment is always at approximately the same elevation on both sides of the structure.

104.3.6 Rounding and Warping Slopes

Rounding-Except in solid rock, the tops and bottoms of all slopes, including the slopes of drainage ditches, shall be rounded as indicated on the Plans. A layer of earth overlaying rock shall be rounded above the rock as done in earth slopes.

Warping-adjustments in slopes shall be made to avoid injury in standing trees or marring of weathered rock, or to harmonize with existing landscape features, and the transition to such adjusted slopes shall be gradual. At intersections of cuts and fills, slopes shall be adjusted and warped to flow into each other or into the natural ground surfaces without noticeable break.

104.3.7 Finishing Roadbed and Slopes

After the roadbed has been substantially completed, the full width shall be conditioned by removing any soft or other unstable material that will not compact properly or serve the intended purpose. The resulting areas and all other low sections, holes or depressions shall be brought to grade with suitable selected material. Scarifying, blading, dragging, rolling, or other methods of work shall be performed or used as necessary to provide a thoroughly compacted roadbed shaped to the grades and cross-sections shown on the Plans or as staked by the Engineer.

All earth slopes shall be left with roughened surfaces but shall be reasonably uniform, without any noticeable break, and in reasonably close conformity with the Plans or other surfaces indicated on the Plans or as staked by the Engineer, with no variations therefrom readily discernible as viewed from the road.

104.3.8 Serrated Slopes

Cut slopes in rippable material (soft rock) having slope ratios between 0.75:1 and 2:1 shall be constructed so that the final slope line shall consist of a series of small horizontal steps. The step rise and tread dimensions shall be shown

on the Plans. No scaling shall be performed on the stepped slopes except for removal of large rocks which will obviously be a safety hazard if they fall into the ditchline or roadway.

104.3.9 Earth Berms

When called for in the Contract, permanent earth berms shall be constructed of well graded materials with no rocks having a diameter greater than 0.25 the height of the berm. When local material is not acceptable, acceptable material shall be imported, as directed by the Engineer.

Compacted Berm

Compacted berm construction shall consist of moistening or drying and placing material as necessary in locations shown on the drawings or as established by the Engineer. Material shall contain no frozen material, roots, sod, or other deleterious materials. Contractor shall take precaution to prevent material from escaping over the embankment slope. Shoulder surface beneath berm will be roughened to provide a bond between the berm and shoulder when completed. The Contractor shall compact the material placed until at least 90 mass percent of the maximum density is obtained as determined by AASHTO T 99, Method C. The cross-section of the finished compacted berm shall reasonably conform to the typical cross-section as shown on the Plans.

Uncompacted Berm

Uncompacted berm construction shall consist of drying, if necessary and placing material in locations shown on the Plans or as established by the Engineer. Material shall contain no frozen material, roots, sod or other deleterious materials. Contractor shall take precautions to prevent material from escaping over the embankment slope.

104.4 Method of Measurement

The quantity of embankment to be paid for shall be the volume of material compacted in place, accepted by the Engineer and formed with material obtained from any source.

Material from excavation per Item 102 which is used in embankment and accepted by the Engineer will be paid under Embankment and such payment will be deemed to include the cost of excavating, hauling, stockpiling and all other costs incidental to the work.

Material for Selected Borrow topping will be measured and paid for under the same conditions specified in the preceding paragraph.

104.5 Basis of Payment

The accepted quantities, measured as prescribed in Section 104.4, shall be paid for at the Contract unit price for each of the Pay Items listed below that is included in the Bill of Quantities. The payment shall continue full compensation for placing and compacting 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
104 (1)	Embankment	Cubic Meter
104 (2)	Selected, Borrow for topping, Case 1	Cubic Meter
104 (3)	Selected Borrow for topping, Case 2	Cubic Meter
104 (4)	Earth Berm	Meter

2. CONCRETE WORKS

The work includes construction of concrete structures complete in accordance with the standard specifications and conformity with the lines, grades, thickness and typical cross-section shown on the plan.

a. Material Requirement

i. General

Concrete shall be composed of Portland cement; fine and coarse aggregates, water and admixture as specified all thoroughly mixed and brought to proper consistency, uniformity and temperature for final placement.

ii. Cement

Concrete shall be Portland cement of a brand approved by the Municipal Engineer and conforming to ASTM Specification C150, Type I of Type II.

iii. Water

Water shall be clean and free from injurious amounts of oils, acids, alkalics, salts, organic materials, or other substances that may be deleterious to concrete or steel

Fine Aggregates

Fine aggregates shall consist of natural sand, manufactured sand, or a combination thereof. If the fine aggregate shall be a combination of separately processed sizes shall result in a combination of natural and manufactured sand, the different components shall be batched separately. Fine aggregates shall consist of hard, tough, durable, uncoated particles. The specified percentages of fines in the sand may be obtained either by the processing of natural sand or by the production of suitably graded manufactured sand. The shape of particles shall be generally rounded or cubical and reasonably free from flat or elongated pieces. The use of beach sand shall be prohibited. The fine aggregate shall conform to the following specific requirements:

	Sieve Designation	Cumulative Percentage by
Std	U.S Std., Square Mesh	Weight Passing
9.5 mm	3/8	100
4.75 mm	No.4	95-100
2.36 mm	No.8	80-100
1.18 mm	No.16	45-80
300 micron	No. 50	10-30
150 micron	No.100	2-10

2. In addition to the grading limits shown above, the fine aggregates, as delivered to the mixer, shall have a fineness modulus not less than 2.3 more than 3.0 and during normal operations, the grading of the fine aggregate shall be controlled so that the fineness modulus of at least nine (9) out of ten (10) test samples of fine aggregate as delivered to the mixer shall not vary by more than 0.20 from the average fineness modulus can be determined by dividing 100 the sum of the cumulative percentages retained on U.S. Standard Sieves Nos. 4, 8, 16, 50 and 100.

REINFORCING STEEL AND WIRE ROPE

710.1 Reinforcing Steel

Reinforcing steel shall conform to the requirements of the following Specifications:

Deformed Billet-Steel Bars for Concrete Reinforcement	AASHTO M 31 (ASTM A 615/PNS 49)
Deformed Steel Wire for Concrete Reinforcement	AASHTO M 225 (ASTM A 496)
Welded Steel Wire Fabric for Concrete Reinforcement	AASHTO M 55 (ASTM A 185)
Cold-Drawn Steel Wire for Concrete Reinforcement	AASHTO M 32 (ASTM A 82)
Fabricated Steel Bar or Rod Mats for Concrete Reinforcement	AASHTO M 54 (ASTM A 184)
Welded Deformed Steel Wire Fabric of Concrete Reinforcement	AASHTO M 221 (ASTM A 497)
Plastic Coated Dowel Bars	AASHTO M 254 Type A
Low Alloy Steel Deformed Bars for Concrete Reinforcement	ASTM A 206

Bar reinforcement for concrete structures, except No. 2 bars shall be deformed in accordance with AASHTO M 42, M 31 and M 53 for Nos. 3 to 11.

Dowel and tie bars shall conform to the requirements of AASHTO M 31 (ASTM A 615/PNS 49) or AASHTO M 42 except that rail steel shall not be used for tie bars that are to be bent and restraightened during construction. Tie bars shall be deformed bars. Dowel bars shall be plain round bars. They shall be free from burring or other deformation restricting

slippage in the concrete. Before delivery to the site of the work, a minimum of one half (1/2) the length of each dowel bar shall be painted with one coat of approved lead or tar paint.

The sleeves for dowel bars shall be metal of an approved design to cover 50 mm, plus or minus 6.3 mm of the dowel, with a closed end, and with a suitable stop to hold the end of the sleeve at least 25 mm from the end of the dowel bar. Sleeves shall be of such design that they do not collapse during construction.

Plastic coated dowel bar conforming to AASHTO M 254 may be used.

710.2 Wire Rope or Wire Cable

The wire rope or wire cable shall conform to the requirements of AASHTO M 30 for the specified diameter and strength class.

710.3 Prestressing Reinforcing Steel

Prestressing reinforcing steel shall conform to the requirements of the following Specifications:

High-tensile wire	AASHTO M 204 (ASTM A 421)
High-tensile wire strand or rope	AASHTO M 203 (ASTM A 416)

High-tensile alloy bars as follows:

High-tensile-strength alloy bars shall be cold stretched to a minimum of 895.7 MPa. The resultant physical properties shall be as follows:

Minimum ultimate tensile Strength	1000 MPa followed by stress relieving
Minimum yield strength, measured by the 0.7 percent extension under load method shall not be less than	895.7 MPa
Minimum modulus of elasticity	25,000,000
Minimum elongation in 20 bar diameters after rupture	4 percent
Diameters tolerance	+0.762 mm – 0.254 mm

If shown on the Plans, type 270 k strand shall be used, conforming to AASHTO M 203.

ITEM 414 - FORMS AND FALSEWORKS

414.1 Description

This Item shall consist of designing, constructing and removing forms and falsework temporarily support concrete, girders and other structural elements until the structure is completed to the point it can support itself.

414.2 Material Requirements

414.2.1 Formwork

The materials used for smooth form finish shall be plywood, tempered concrete-form-grade hardboard, metal, plastic, paper or other acceptable materials capable of producing the desired finish for form-facing materials. Formfacing materials shall produce a smooth, uniform texture on the concrete. Formfacing materials with raised grain, torn surfaces, worn edges, patches, dents, or other defects that will impair the texture of concrete surfaces shall not be permitted. No form-facing material shall be specified for rough form finish.

414.2.1.1 Formwork Accessories

Formwork accessories that are partially or wholly embedded in concrete, including ties and hangers shall be commercially manufactured. The use of non fabricated wire form ties shall not be permitted. Where indicated in the Contract, use form ties with integral water barrier plates in walls.

414.2.1.2 Formwork Release Agents

Commercially manufactured formwork release agents shall be used to prevent formwork absorption of moisture, prevent bond with concrete, and not stain the concrete surfaces.

414.2.2 Falsework

The materials to be used in the falsework construction shall be of the quantity and quality necessary to withstand the stresses imposed; it may be timber or steel or a combination of both. The workmanship shall be of such quality that the falsework will support the loads imposed on it without excessive settlement or take-up beyond as shown on the falsework drawings.

414.3. Construction Requirements

414.3.1 Design

Falsework and Formworks design and drawings shall be in accordance, with Item 407, Concrete Structures, Subsection 407.3.9 and 407.3.12, respectively.

414.3.1.1 Formwork and Falsework Drawings

When complete details for forms and falseworks are not shown, prepare and submit drawings to the Engineer showing the following:

1 Details for constructing safe and adequate forms and falsework that provide the necessary rigidity, support the loads imposed, and produce in the finished structure the required lines and grades. See subsection 414.3.1.2 for design loads. See Subsection 414.3.1.3 for design stresses, loadings and deflections. See Subsection 414.3.2 for manufactured assemblies.

2 The maximum applied structural load on the foundation material. Include a drainage plan or description of how foundations will be protected from saturation, erosion, and/or scour see Subsection 414.3.3.1.

3 The description of all proposed material. Describe the material that is not describable by standard nomenclature (such as AASHTO or ASTM specified) based on manufacturer's test and recommended working loads. Provide evaluation data for falsework material showing that the physical properties and conditions of the material can support the loads assumed in the design.

4 The design calculations and material specifications showing that the proposed system will support the imposed concrete pressures and other loads. Provide an outline of the proposed concrete placement operation listing the equipment, labor, and procedures to be used for the duration of each operation. A superstructure placing diagram showing the concrete placing sequence and construction joint locations is included.

5 Design calculations for proposed bridge falsework. A registered professional engineer proficient in structural design shall design, sign, and seal the drawings. The falsework design calculations shall show the stresses and deflections in load supporting members.

6 Anticipated total settlements of falsework and forms shall be shown. Include falsework footing settlement and joint take-up. Design for anticipated settlements not to exceed 20 millimeters. Design and detail on falsework supporting deck slabs and overhangs on girder bridges so that there will be no differential settlement between the girders and the deck forms during placement of deck concrete. Design and construct the falsework to elevations that include anticipated settlement during concrete placement and required camber to compensate for member deflections

during construction.

7 Support system for form panels supporting concrete deck slabs and overhangs on girder bridges.

8 Details for strengthening and protecting falsework over or adjacent to roadways and railroads during each phase of erection and removal. See Subbsection 414.3.3.2.

9 Intended steel erection procedures with calculations in sufficient detail to substantiate that the girder geometry will be correct. See Subsection 414.3.3.3.

Details of proposed anchorage and ties for void forms shall be submitted.

See Subsection 414.3.4 for void form requirements. Separate Falsework drawings for each structure shall be submitted to the Engineer for approval, except for identical structures with identical falsework design and details.

414.3.1.2 Design Loads for Forms and Falsework

414.3.1.2.1 Vertical Design Loads

Dead loads include the mass of concrete, reinforcing steel, forms and falsework. Consider the entire superstructure, or any concrete mass being supported by falsework to be a fluid dead load with no ability to support itself. If the concrete is to be prestressed, design the falsework to support any increase or readjusted loads caused by the prestressing forces.

The assumed density of concrete, reinforcing steel, and forms shall be not less than 2600 kilograms per cubic meter for normal concrete and not less than 2100 kilograms per cubic meter for lightweight concrete.

Consider live loads to be actual mass of equipment to be supported by falsework applied as concentrated loads at the point of contact plus a uniform load of not less than 1000 pascals applied over the area supported, plus 1100 newtons per meter applied at the outside edge of the deck falsework overhangs.

The total vertical design load for falsework shall be the sum of vertical dead and live loads. The total vertical design load used shall be not less than 4800 pascals.

414.3.1.2.2 Horizontal Design Loads

Use an assumed horizontal design load on falsework towers, bents frames and other falsework structures to verify lateral stability. The assumed horizontal load is the sum of the actual horizontal loads due to equipment construction sequence, or other causes and an allowance for wind. However, in no case is the assumed horizontal load shall be less than 2 percent of the total supported dead load at the location under consideration. The minimum wind allowance for each heavy-duty steel shoring having a vertical load carrying capacity exceeding 130 kilonewtons per leg is the sum of the products of the wind impact area, shape factor and the applicable wind pressure value for each height zone. The wind impact area is the total projected area of all elements in the tower face normal to the applied wind.

Assume the shape factor for heavy duty shoring to be 2.2. Determine wind pressure value from

Table 1.

Table 1
Design Wind Pressure-Heavy Duty Steel Shoring

Height Zone Above Ground Meter	Wind Pressure Value-Pa	
	Adjacent to Traffic	At Other Locations
0	960	720
9-15	1200	960
15-30	1450	1200
Over 30	1675	1450

The minimum wind allowance on all other types of falsework, including falsework supported on heavy-duty shoring, is the sum of the products of the wind impact area and the applicable wind pressure value for each height zone. The wind impact area is the gross projected area of the falsework and unrestrained portion of the permanent structure, excluding the areas between falsework posts or towers where

diagonal bracing is not used. Used design wind pressures from Table 2.

Table 2
Design Wind Pressure-Other Types of Falsework

Height Zone Above Ground Meter	Wind Pressure Value-Pa	
	For Members Over and Bents Adjacent to Traffic Openings	At Other Locations
0	320 Q	240 Q
9-15	400 Q	320 Q
15-30	480 Q	400 Q
Over 30	560 Q	480 Q

Note: $Q=0.3+0.2W$, but not more than 3. W is the width of the falsework system in meters measured in the direction of the wind force being considered

414.3.1.2.3 Lateral Fluid Pressure

For concrete with retarding admixture, fly ash or other pozzolan replacement for cement, design form, form ties and bracing for a lateral fluid pressure based on concrete with a density of 2400 kilograms per cubic meter. For concrete containing no pozzolans or admixtures, which affect the time to initial set, the lateral fluid pressure shall be determined based on concrete temperature and rate of placement according to ACI Standard 347R, Guide for Formwork for Concrete.

414.3.1.3 Design Stresses, Loads and Deflections for Forms and Falsework

The allowable maximum design stresses and loads listed in this section are based on the use of undamaged high-quality material. If lesser quality material is used, reduce the allowable stresses and loads. The following maximum stresses, loads and deflections in the falsework design shall not be exceeded.

414.3.1.3.3 Other Requirements

Limit falsework spans supporting T-beam girder bridges to 4.3 meters plus 8.5 times the overall depth of T-beam girder.

414.3.2 Manufactured Assemblies

For jacks, brackets, columns, joist and other manufactured devices, the ultimate load carrying capacity of the assembly shall not exceed the manufacturer's recommendations or 40 percent based on the manufacturer's tests or additional tests ordered. The maximum allowable dead load deflection of joists shall be 1/500 of their spans.

Catalog or equivalent data shall be submitted to the Engineer showing the manufacturer's recommendations or perform tests, as necessary to demonstrate the adequacy of any manufactured device proposed for use. No substitution is allowed on manufacturer's components unless the manufacturer's data encompasses such substitutions or field tests reaffirm the integrity of the system.

If a component of the falsework system consists of a steel frame tower exceeding 2 or more levels high, the differential leg loading within the steel tower unit shall not exceed 4 to 1. An exception may be approved if the manufacturer of the steel frame certifies, based on manufacturer's tests, that the proposed differential loadings are not detrimental to the safe load carrying capacity of the steel frame.

414.3.3 Falsework Construction

The falsework construction shall be in accordance whenever applicable, with Item 407 Concrete Structures Subsection 407.3.10 Falsework Construction.

414.3.3.1 Falsework Foundations

All ground elevations at proposed foundation location shall be verified before design. Where spread footing type foundation are used, determine the bearing capacity of the soil. The maximum allowable bearing capacity for foundation material, other than rock, is 190 kilopascals.

The edge of footing shall not be located closer than 300 millimeters from the intersection of the bench and the top of the slope. Unless the excavation for footings is adequately supported by shoring, the edge of the footings shall not be closer than 1.2 meters of the depth of excavation, whichever is greater, from the edge of the excavation.

When falsework is supported by footings placed on paved, well-compacted slopes of berm fills, do not strut the falsework to columns unless the column is founded on rock or supported by piling. The spread footings to support the footing design load at the assumed bearing capacity of the soil shall be designed without exceeding anticipated settlements. Steel reinforcement shall be provided in concrete footings.

When individual steel towers have a maximum leg loads exceeding 130 kilonewtons, uniform settlement under all legs or each tower under all loading conditions shall be provided. Protect the foundation from adverse effects for the duration of its use.

414.3.3.2 Falsework Over or Adjacent to Roadways and Railroads

Falsework shall be designed and constructed with protection from vehicle impact. This include falsework posts that support members crossing over a roadway or railroad and other falsework posts if they are located in the row of falsework posts nearest to the roadway or railroad and if the horizontal distance from the traffic side of the falsework to the edge of pavement or to a point 3 meters from the centerline of track is less than the total height of the falsework.

Additional features shall be provided to ensure that this falsework will remain stable is subjected to impact by vehicles. Use vertical design loads for these falsework posts, columns, and towers (but not footings) that are greater than or equal to either of the

following:

1 150 percent of the design load calculated according to Subsection 414.3.1.2 but not including any increased or readjusted loads caused by prestressing forces.

2 The increased or readjusted loads caused by prestressing forces.

Temporary traffic barriers shall be installed before erecting falsework towers or columns adjacent to an open public roadway. Barriers shall be located so that falsework footings or pile caps are at least 75 millimeters clear of concrete traffic barriers and all other falsework members are at least 300 mm clear. Do not remove barriers until approved.

Use falsework columns that are steel with a minimum section modulus about each axis of 156,000 cubic millimeters or sound timbers with a minimum section modulus about each axis of 4,100,000 cubic millimeters.

Mechanically connect the base of each column or tower frame supporting falsework over or immediately adjacent to an open public road to its supporting footing or provide other lateral restraint to withstand a force of not less than 9 kilonewtons applied to the base of the column in any direction. Mechanically connect such columns or frames to the falsework cap or stringer to resist a horizontal force of not less than 4.5 kilonewtons in any direction. Neglect the effects of frictional resistance

Brace or tie exterior girders, upon which overhanging bridge deck falsework brackets are hung, to the adjacent interior girders as necessary to prevent rotation of exterior girders or overstressing the exterior girder web.

Mechanically connect all exterior falsework stringers and stringers adjacent to the end of discontinuous caps, the stringer or stringers over points of minimum vertical clearance and every fifth remaining stringer, to the falsework cap or framing. Provide mechanical connections capable of resisting load in any direction, including uplift on the stringer, if not less than beneath the span.

2.2 kilonewtons. Connections shall be installed before traffic is allowed to pass 16 millimeters diameter or larger bolts to connect timber members shall be used to brace falsework bents located adjacent to roadways or railroads.

Sheath falsework bents within 6 meters of the centerline of a railroad track solid in the area between 1 and 5 meters above the track on the side facing the track. Construct sheathing of plywood not less than 16 millimeters thick or lumber not less than 25 millimeters nominal thickness. Adequate bracing shall be provided on such bents so that the bent resists therequired assumed horizontal load or 22 kilonewtons, whichever is greater, without the aid of sheathing.

Provide at least the minimum required vertical and horizontal clearances through falsework for roadways, railroads, pedestrians, and boats.

414.3.3.3 Falsework for Steel Structures

Falsework design loads shall consist of the mass of structural steel, the load of supported erection equipment, and all other supported by the falsework. Falsework and forms for concrete supported on steel structures shall be designed so that loads are applied to girder webs within 150 millimeters of flange or stiffener. Distribute the loads in a manner that does not produce local distortion of the web. Do not use deck overhang forms that require holes to be drilled into the girder webs.Strut and tie exterior girders supporting overhanging deck falsework brackets to adjacent interior girders to prevent distortion and overstressing of the exterior girder web. Do not apply loads to existing, new or partially completed structures that exceed the load carrying capacity of any part of the structure according to the load factor design methods of the AASHTO Bridge Design Specifications using load group IB. Build supporting falsework that will accommodate the proposed method of erection without overstressing the structural steel, as required and will produce the required final structural geometry, intended continuity and structural action.

414.3.4 Forms

The forms construction shall be in accordance whenever applicable, with Item 407, Concrete Structures Subsection 407.3.13, Formwork Construction. Form panels to be used shall be in good condition free of defects on exposed surfaces. If form panel material other than plywood is used, it shall have flexural strength, modulus of elasticity and other physical properties equal to or greater than the physical properties for the type of plywood specified. Furnish and place form panels for exposed surfaces in uniform widths of not less than 1 meter and in uniform lengths of not less than 2 meters except where the width of the member formed is less than 1 meter. Arrange panels in symmetrical patterns conforming to the general lines of the structure. Place panels for vertical surfaces with the long dimension horizontal and with horizontal joints level and continuous. For walls with sloping footings which do not abut other walls, panels may be placed with the long dimension parallel to the footing. Form panels shall be precisely aligned on each side of the panel joint by means of supports or fasteners common to both panels. Construct metal ties or anchorages within the forms to permit their removal to a depth of at least 25 millimeters from the face without damage to the concrete. Fill cavities with cement mortar and finish to a sound, smooth, uniform colored surface. Support roadway slab forms of box girder type structures on wales or similar supports fastened, as nearly as possible, to the top of the web walls.

Form exposed curved surfaces to follow the shape of the curve, except on retaining walls that follow a horizontal curve. The wall stems may be a series of short chords if all of the following apply:

1. Chords within the panel are the same length.

2. Chords do not vary from a true curve by more than 15 millimeters at any point. 3. All panel points are on the true curve

When architectural treatment is required, make the angle points for chords in wall stems fall at vertical rustication joints. Earth cuts as forms for vertical or sloping surfaces shall not be used unless otherwise required or permitted by the Contract.

414.3.5 Removal of Forms and Falsework

The removal of forms and falsework shall be in accordance whenever applicable, with Item 407 Concrete Structures, Subsection 407.3.11 Removing Falsework and Subsection 407.3.14Removal of Forms and Falsework.

Where necessary remove all forms except the following:

1. Interior soffit forms for roadway deck slabs of cast-in-place box girders. 2. Forms for the interior voids of precast members 3. Forms for abutments or piers when no permanent access is available into the cells or voids

Install a reshoring system if falsework supporting the sides of girders stems with slopes steeper than 1:1 are removed before placing deck slab concrete. Design the reshoring system with lateral supports which resist all rotational forces acting on the stem, including those caused by the placement of deck slab concrete. Install the lateral supports immediately after each form panel is removed and before release of supports for the adjacent form panel.

414.3.6 Acceptance

Forms and falsework (including design, construction, and removal) shall be evaluated and approved by the Engineer. When the falsework installation is complete and before concrete placement or removal begins, the falsework shall be inspected by the Engineer. The Engineer shall certify in writing that the installation conforms to the contract, the approved falsework drawings (including approve changes) and acceptable engineering practices.

414.4 Method of Measurement

When the Contract stipulates that payment will be made for forms and falsework on lump-sum basis, the Pay Item will include all materials and accessories needed in the work. Whenever the Bill of Quantities does not contain an item for form and falsework, the work will not be paid directly but will be considered as a subsidiary

obligation of the contractor under other Contract Items.

414.5 Basis of Payment

The accepted quantities measured as prescribe in Subsection 414.4, shall be paid for at the Contract lump-sum price for Forms and Falsework which price and payment shall be full compensation for designing, constructing and removing forms and falsework, all materials and accessories needed and for furnishing all labor equipment tools and incidentals necessary to complete the item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
414	Forms and Falsework	Lump Sum

PROJECT BILLBOARD

1.2.3 For infrastructure projects, a tarpaulin signboard must be suitably framed for outdoor display at the project location and shall be posted as soon as the award has been made. The design and format of the tarpaulin, as ashown in Annex "A," shall have the following specifications:

Tarpulin, white, 8ft x 8ft	Tarpaulin white, 4ft x 8ft
Resolution: 70 dpi	Resolution: 70 dpi
Font: Helvetica	Font: Helevetica
Font Size: Main Information– 3"	Font Size:Main Information –3"
Sub-Information- 1"	Sub-Information – 1"
Font Color: Black	Font Color: Black

CONSTRUCTION SAFETY & HEALTH PROGRAM

B.2 MEDICAL ROOM AND FIRST FACILITIES

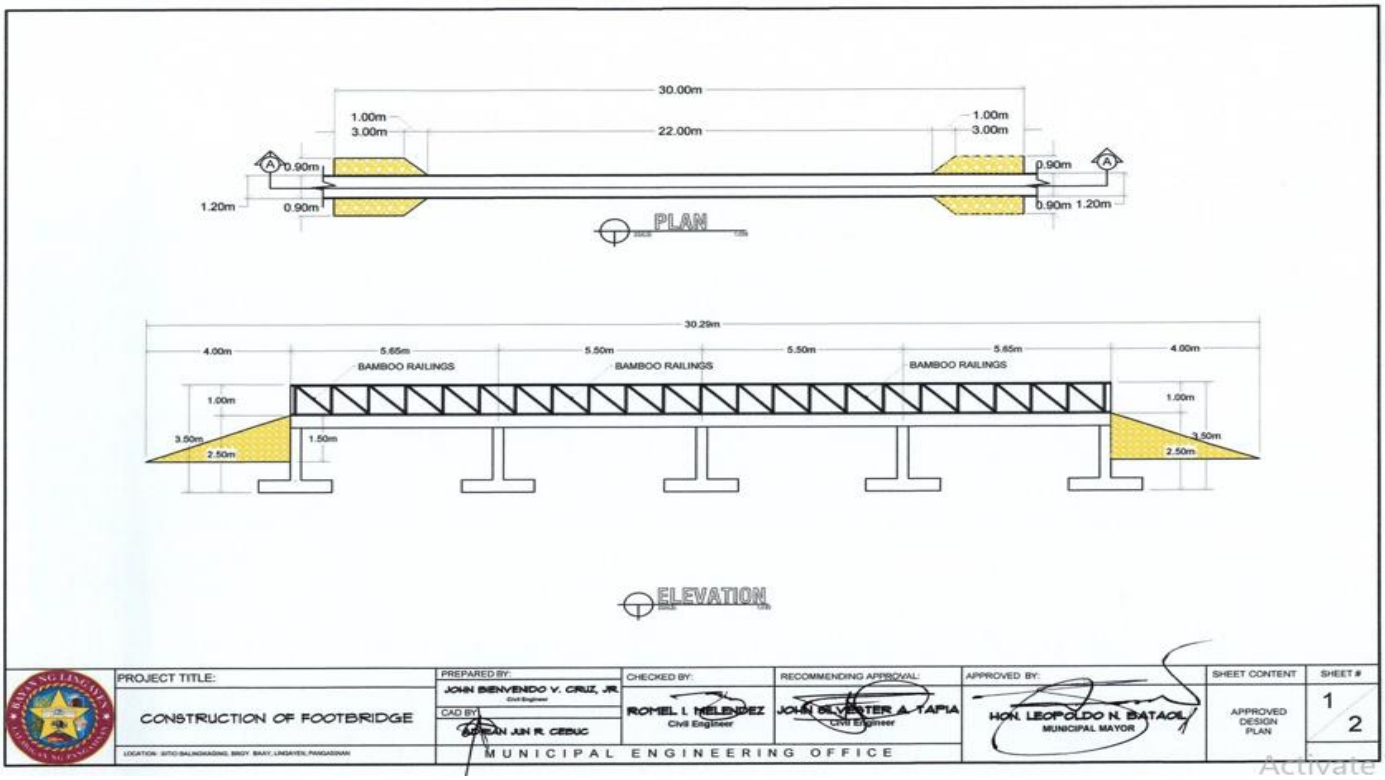
1.The Contactor shall provide and maintain throughout the duration of the Contractor a medical room together with all necessary supplies to be sited in the Contractor's main area. The medical room shall be waterproof; it could be a building or room designated and used exclusively for the purpose. It shall have a floor area of at least square meters and a glazed window area of at least 2 square meters.

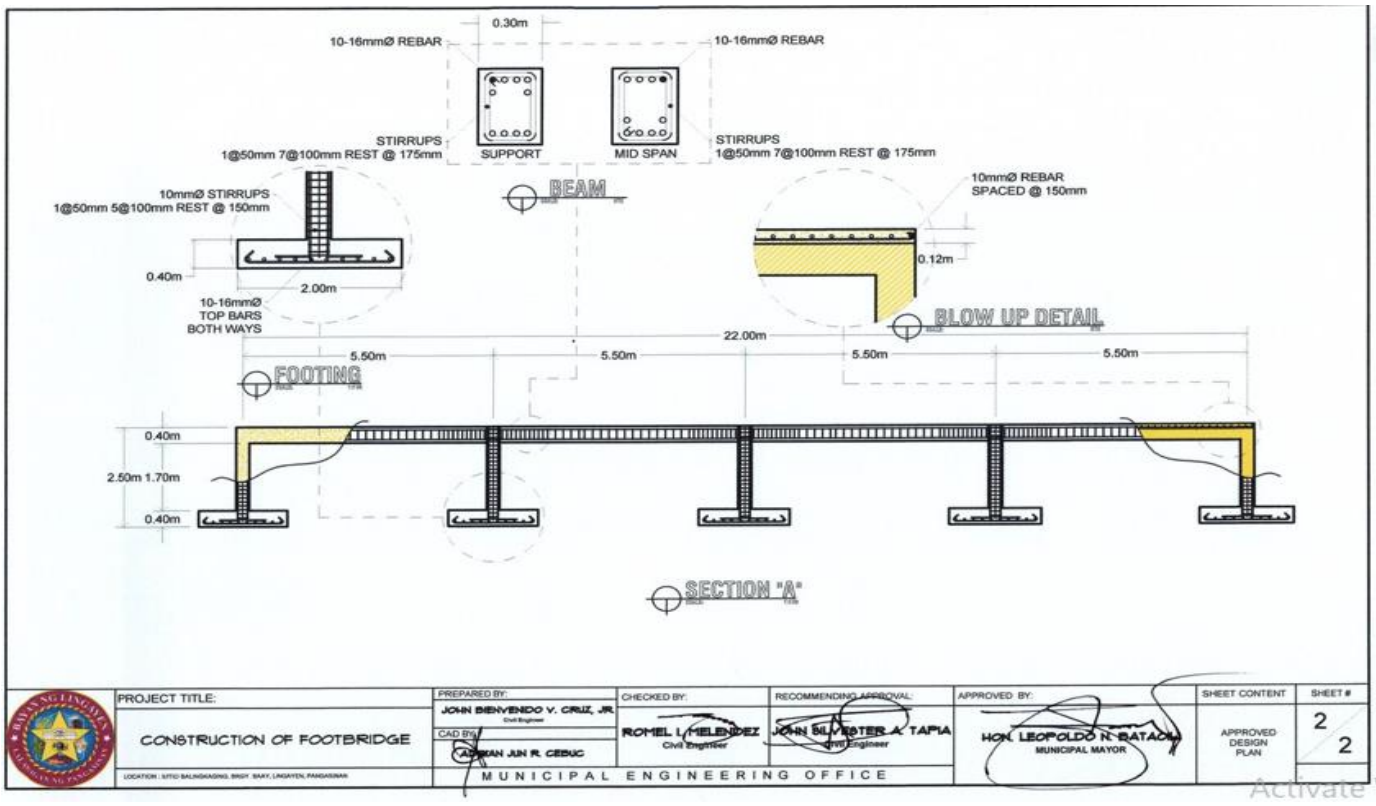
2.The contractor shall employ permanently on the site a fully trained Medical Aide, who shall be engaged solely on medical duties.

3.The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the Site.

4. The Contractor's arrangement to comply with this Section shall be subject to the approval of the Engineer and also to the approval of any qualified Medical Officer designated by the Government to supervise medical arrangements on the Site.

Section VII. Drawings





Section VIII. Bill of Quantities

Republic of the Philippines
Province of Pangasinan
Municipality of Lingayen

Bill of Quantities

Construction of Footbridge at Sitio Balingkaging, Barangay Baay, Lingayen, Pangasinan					
Item No.	Description	Qty.	Unit	Unit Price (Pesos)	Amount (Pesos)
I.	Dewatering/ Excavation/ Embankment	1.00	Lot	In words:Pesos	In words:Pesos
II.	Concrete Works	11.15	Cu.m.	In words:Pesos	In words:Pesos
III.	Forms & Falseworks	44.60	Sq.m.	In words:Pesos	In words:Pesos
IV.	Reinforcing Steel & Wire Rope	1,840.59	Kg	In words:Pesos	In words:Pesos
V.	Project Billboard	1.00	Lot	In words:Pesos	In words:Pesos
VI.	Construction Health and safety	1.00	Lot	In words:Pesos	In words:Pesos
TOTAL AMOUNT IN WORDS:					

Submitted by:

_____ Date: _____

Contractor

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
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

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

Technical Documents

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

☐ (g) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules;
and

☐ (h) 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**

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

(j) Project Requirements, which shall include the following:

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

☐ b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience

data;

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

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

Financial Documents

☐ (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; **and**

☐ (q) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**

☐ (r) Cash Flow by Quarter.

Section XI. Bid Forms

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date : _____

To: Bids and Awards Committee
Local Government of Unit of Lingayen
Municipal Hall Building,
Lingayen, Pangasinan

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

a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract];*

b. We offer to execute the Works for this Contract in accordance with the PBDs;

c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;

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

e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,

f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;

g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines[12] for this purpose;

h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

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

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

l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name:

_____

_____

Legal Capacity:

_____

_____

Signature:

_____

_____

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

Date: _____

Omnibus Sworn Statement
(Revised)

[shall be submitted with the Bid]

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

AFFIDAVIT

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

IN WITNESS WHEREOF, I have hereunto set my hand this_____day of, 20_____at

_____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

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