

TERMS OF REFERENCE FOR THE



**CONSULTANCY SERVICE FOR THE
PREPARATION OF DETAILED
ENGINEERING DESIGN FOR
REHABILITATION OF MAJOR ROADS AT
ILANIN DISTRICT**

**CONSULTANCY SERVICE FOR THE PREPARATION OF DETAILED ENGINEERING DESIGN
FOR REHABILITATION OF MAJOR ROADS AT ILANIN DISTRICT**

1. BACKGROUND AND PROJECT DESCRIPTION

This Terms Of Reference (TOR) pertains to the procurement of consultancy service for the preparation of detailed road/highway and engineering plans, analysis and design computations, unit cost analyses/estimates and bidding documents for the Rehabilitation of Major Roads at Ilanin District including Triboa Bridge for the below identified/proposed locations in accordance with prevailing design standards and professional practices as well as the generally accepted principles of road/highway and engineering designs and constructions. The documents sought in this TOR shall be prepared by the Consultant in accordance with the latest Revised IRR of RA 9184:

1. Corregidor Highway section from Morong Gate to Argonaut Highway (Concrete Pavement) including upgrading and widening of Triboa Bridge
2. Hanjin Apartment Approach from Corregidor (approximately 150Meters)

The Subic Bay Metropolitan Authority (SBMA) intends to bid out to the prospective consulting firm ("Consultant") the delivery of the consulting service for the aforementioned project.

LOCATION: The vicinities and limits of the proposed project is within the bounds of the Subic Bay Freeport Zone (SBFZ) as provided in the SBMA approved location plan attached hereto and made integral part of this TOR (ANNEX A).

2. CAVEAT

The information in this TOR is given to assist prospective firms engaged in the consultancy services in the preparation of their proposal and / or serve as a guide in the performance of the required services if awarded the contract. SBMA does not guarantee the accuracy and completeness of the information contained herein or its various attachments. In all cases, interested parties shall conduct and exert their own diligence, investigations, and projections for the proposed project:

- None of the information herein will be used by the recipient or any of its employees or representatives in any manner whatsoever, in whole or in part, other than in connection with its evaluation of works for the purposes of considering the provisions of services proposed herein.
- Without limiting the generality of the foregoing, the recipient will not reproduce this TOR to any person other than a limited number of the recipient employees or representatives who have a clear need to know such information; and
- Any proposed action by the recipient which is inconsistent in any way with the foregoing agreements will require written consent from SBMA.

While SBMA is open to all applications from qualified parties, SBMA reserve the right to reject any bids, declare a failure of bidding, or not award the contract in accordance with IRR-A Section 41 reservations clause of RA 9184.

3. OBJECTIVE

The desired consulting firm should be able to prepare and deliver the succeeding required services for the mentioned projects:

- Detailed engineering plans and estimates **to deliver the technical documents in around 5 to 7 Packages depending on the total cost of the project and to be forecasted availability of Funds**
- Bidding documents for the 5 to 7 packages as stated above.

4. SCOPE OF CONSULTING SERVICES

The following scope of services are recommended to achieve the objective:

4.1. DESIGN PHASE

4.1.1. PRE-DESIGN STAGE

4.1.1.1. Site Inspection / Field Reconnaissance. – Initial site inspection for purposes of siting and orienting for the proposed projects at the project site shall be jointly conducted by the Consultant and the SBMA representatives to evaluate and consider, but not limiting to the following:

- Improvement and re-alignment of line and grade in relation to future bridge construction and widening of existing two lane road into **four lane two way (4-Lane/2-way) road** (Construction of new roads to accommodate trucks and bicycle lane facility as indicated in the location plan).
- **Design of New Triboa Bridge, 100 ton Capacity (consider cost of retrofitting)**
- Prepare traffic study report to ease existing traffic conditions and to accommodate future increase in traffic for the next

twenty (20) years including location of traffic lights, signage markings, street lights and railing.

- Prepare site development, landscaping, lightings in the vicinity of the **new four lane road**.
- Assessment and mitigation of erosion, scour problems and siltation.
- Hydrological Study and Drainage Improvement Plan
- Coordination and verification with **Land and Asset Development Department (LADD) in verifying and establishing Road Right of Way (RROW)** and other SBMA stakeholders such as other concerned SBMA departments/offices, locators, residents (i.e. Tourism Department, Aeta Community Leaders, Subic Water etc.).
- Others

Site pictures are to be taken by the Consultant and electronically stored for later reference as file pictures for every 20 meters of roadway/walkway and bicycle lane a minimum considerable length as determined necessary by the consultants and approved by SBMA.

All subsequent site inspections may be conducted solely by the Consultant except in cases where clarifications are to be made through the SBMA representatives.

4.1.1.2. Surveying and benchmarking. – Topographic/Hydrographic Surveys at the project site shall be conducted by the Consultant with reference to the requirements of the projects taking note of future bridge projects in the area. Consultant will proceed with the survey works jointly with the SBMA representatives. All benchmarks shall be determined and set at conspicuous places near and outside the limits of the project site. Said benchmarks shall be adequately marked and should be free from obstructions and tampering.

Service utility and structures surveys shall likewise be conducted by the Consultant jointly with SBMA representatives to determine the location and alignment of all service utilities. Also, As-built of existing structures shall be prepared by the Consultant. Thereafter, any service utility and structures found to be possibly adversely affected by the project shall be noted and the concerned service

utility provider and SBMA representatives shall be immediately informed.

All survey data shall be properly logged, recorded and preserved by the Consultant in electronic and hard copies.

4.1.1.3. Gathering of data, collation, and their use. – The gathering and collation of all the necessary data to undertake the consulting service shall be the sole responsibility of the Consultant and must conduct soil boring, soil tests, all data relative to soil foundation characteristics and capacity, construction materials investigation and other data required for the preparation of detailed engineering design.

The SBMA, as the end-user, shall be furnished copies of the data gathered and collated by the Consultant for the former's own record and future use. Such data shall be integral to the whole package of deliverables.

All the aforementioned data shall be stored electronically and in hard copies, with the electronic copies saved in two (2) Universal Serial Bus (USB) Drivers while the ten (10) hard copies are in printed forms using A4 or A3 bond papers whichever is appropriate (in case of drawings such as bore holes data, section and the like) The same shall be submitted to the SBMA as part of the deliverables.

The Consultant shall retain its own copies of the gathered and collated data in both the aforementioned types of media and shall insure that copies can be made in the event the SBMA requests said copies for other reasons.

4.1.1.4. Preparation of final conceptual plan, budgetary cost estimates and proposed construction schedule. - Before the Consultant commences the preparation of the final conceptual plan, budgetary cost estimates and proposed construction schedule, planning conferences shall be conducted by and between the Consultant and the SBMA representatives to discuss relevant data with respect to the project as well as the proposals of the Consultant as shown in the conceptual plan prepared by the latter. Any other important data and detail which have not been considered shall be

determined by any of the parties and shall be subsequently gathered, collated, and stored by the Consultant, subject to the requirements set forth in Section 4.1.1.3 above.

The Consultant shall prepare the final conceptual plan, budgetary cost estimates and for the proposed project in accordance with the durations set in the timelines as provided in this TOR.

All the aforementioned data shall be stored in electronic copies (e-file) stored in a working two (2) USB Drivers while the ten (10) hard copies are in printed forms using A4 and A3 for conceptual plans.

For the purposes of this Section, the conceptual plan and budgetary cost estimates shall be considered final only when approved by the SBMA Chairman and Administrator. No additional cost for payment to the Consultant shall accrue during the period within which the approval of the Chairman and Administrator on the aforesaid documents is sought. Further, when SBMA deems that the submitted conceptual plan and budgetary cost estimates be reworked to comply with important considerations which were earlier overlooked, the same shall be complied with by the Consultant without additional cost to the SBMA.

The Consultant may recommend on the further improvement or simplification of the conceptual plan, subject to the above-stated restrictions.

4.1.2. FINAL DESIGN STAGE

4.1.2.1. PREPARATION AND COMPLETION OF PLANS

The consultant should be able to prepare bidding documents for the procurement of infrastructure project and should be designed having the parameters as outlined in the Conceptual Plan and Budgetary Requirements incorporating the following but not limited to items listed in Section 4.1.1.1:

- Submit complete Plans and Detail, Specification and UCA for the construction of New Four Lane Two way Road (Ready to accommodate future increase in traffic using Four Lane Two Way (4-Lane/2-Way) Traffic Road for the next twenty (20) years

to a level of service allowing a stable flow at an operating speed of 60 kph and considering development at Nabasan Wharf and Morong Road Improvements including upgrading of existing Drainage System .

- Submit complete Plans and Detail, Specification and UCA for the construction of New 100 Ton Capacity Triboca Bridge

4.1.2.1.1. Project Timelines. – The Consultant shall observe and meet the durations set in the project timelines for the preparation and delivery of the plans as provided in this TOR.

However, the plans shall be considered as final when approved by the Chairman and Administrator.

In the event it is required that the same be reworked to comply with important considerations, any additional time beyond the target day of completion shall be at no additional cost to SBMA, until the same is approved as final plans by the Chairman and Administrator.

4.1.2.1.2. Blank plan template. – The SBMA Engineering Department shall provide the blank plan template from which the Consultant shall pattern his plans.

4.1.2.1.3. Availability of the construction materials and other accessories. – The Consultant shall ensure that all the construction materials and accessories to be incorporated in the proposed project are available in the nearest local market to avoid possible incurrence of freight charges and the likelihood of future variation orders during project implementation.

4.1.2.1.4. Affected Utilities. – The Consultant shall include in the plans the location and alignment of all utilities that may be adversely affected by the project under consideration, and indicate therein the recommended disposition and/or relocation as agreed in the planning conferences to be conducted during the execution of this contract. The consultant shall prepare a relocation

and/or reinstallation plan including corresponding costs estimates for the said relocation/reinstallation.

4.1.2.1.5. Review of the plans. – Upon substantial completion of the plans and prior to its final acceptance, the Consultant shall furnish the SBMA of electronic copies (e-file) stored in a working two (2) USB Drive and ten (10) hard copies thereof printed in A3 size bond papers for plans and in the standard format as provided in the template under Section 4.1.2.1.2 hereof for review by the SBMA Engineering Department.

All pertinent engineering/architectural considerations as well as engineering analysis, design computations and specifications shall be attached to the plans, signed and sealed by the respective design professionals at the cover page and indicating therein as well their respective Professional Regulation Commission (PRC) License Number, Professional Tax Receipt (PTR) Number and Tax Identification Number (TIN) details. All subsequent pages including the attachments required below shall be initialed accordingly by the design professional concerned.

In case the engineering analysis and design computations were based on computer generated outputs using specialized computer software, all such outputs shall likewise be attached and the names and relevant information about the computer software used in the generation of the outputs, analysis and design, such as, but not limited to, the name, version, and application, shall be clearly indicated in the corresponding documents.

All comments and recommendations from the Engineering Department shall be promptly transmitted to the Consultant or its Point of Contact (POC) for consideration and inclusion in the plans, unless the Consultant offers alternatives, which the Engineering Department may reconsider.

Any additional time on the duration of the contract due to the review of the plans by the SBMA Engineering Department shall be at no cost to SBMA.

4.1.2.1.6. Delivery of the plans. – Upon finalization of the detailed roadway, landscaping and engineering plans as approved by the Chairman and Administrator, the Consultant shall furnish the Engineering Department the complete sets of copies thereof as provided in Section 4.1.2.1.2 above, with the hard copies printed in size A3 bond papers signed and dated by the Consultant in the title block of each sheet. Its respective design professionals shall, on their part, sign, date, and seal with their professional seals, as well as indicate their corresponding PRC License Number, PTR Number and TIN in the blanks corresponding to their names. The initials of the personnel who drafted the plans shall likewise be affixed.

4.1.2.1.7. Ownership of the plans and warranty – The SBMA shall be the owner of the delivered complete plans even as the Consultant may retain electronic and hard copies thereof. However, the latter warrants as to the correctness, accuracy and soundness of the designs in the plans.

4.1.2.2. PREPARATION AND COMPLETION OF ESTIMATES

4.1.2.2.1. Preparation of the estimates. – The Consultant shall prepare the estimates in the form of Unit Cost Analysis (UCA) based on the completed plans and specifications, accepted budgetary cost estimates and in accordance with the generally accepted principles in value engineering and estimation including COVID-19 construction requirements related expenses when existing alert guidelines warrants its need. Prepare Work Program and Unit Cost Analysis (UCA) for construction of Major Roads.

4.1.2.2.2. Coordination during the estimation process and timelines – The Consultant shall maintain the

accessibility of the POC to SBMA representatives for proper coordination during the preparation of UCA. The Consultant or its POC shall coordinate the progress of the estimation process as needed or required by the SBMA representatives to meet the durations set in this TOR.

The UCA shall be considered final only when the same is finally approved by the Chairman and Administrator and no further instructions or orders are received to amend, revise, or rework all or part of the document.

In the event it is required that the UCA be reworked to comply with important considerations, any additional time beyond the target day of completion shall be at no additional cost to SBMA, until the same is approved as final UCA by the Chairman and Administrator.

4.1.2.2.3. Template for UCA – The SBMA Engineering Department shall provide the template for the UCA, which shall be adopted by the Consultant in the preparation of the documents.

4.1.2.2.4. Plan details and specifications. – The consultant shall see to it that all the construction materials and accessories as detailed in the plans and provided technical specifications are adequately quantified and described in the UCA.

4.1.2.2.5. Canvass of materials and prevailing prices. – It shall be the responsibility of the Consultant to conduct canvasses of construction materials to ensure that all costs of construction materials are at par with the prevailing prices.

In determining the prevailing prices of construction materials and accessories, the Consultant shall canvass from at least three (3) nearest local suppliers.

4.1.2.2.6. Equipment, labor, fuel and lubricants cost. – The Consultant shall determine the prevailing cost of

equipment in accordance with the latest edition of the Philippine ACEL (Association of Carriers and Equipment Lessors, Inc.) Rates or the latest issuances of the Department of Public Works and Roadways (DPWH).

The cost of labor shall be determined by the Consultant in accordance with the approved minimum rates within Region III (Central Luzon) set under the latest Wage Order issued by the National Wages and Productivity Commission (NWPC) and disseminated by the Department of Labor and Employment (DOLE).

The cost of fuel and lubricants shall be the prevailing costs as may be determined by the Consultant from canvasses of at least three (3) nearest local suppliers.

4.1.2.2.7. Other costs (indirect, overhead, taxes, etc.) – Other costs are those provided pursuant to the latest department issuances of the DPWH.

4.1.2.2.8. Review of the Estimates. – Upon substantial completion of the estimates and prior to its final acceptance, the Consultant shall furnish the SBMA of electronic copies (e-file) stored in two (2) working USB drive and ten (10) hard copies thereof printed in A4 size bond papers and in the standard format as provided in the template provided under Section 4.1.2.2.3 hereof for review by the SBMA Engineering Department.

All pertinent factors in value engineering shall be considered in the estimates and reflected therein. The same shall be signed by the respective personnel of the Consultant who prepared the same at the cover page, indicating therein their respective PRC License Number, PTR Number and TIN details in the case of the architects and engineers involved in the preparation of the estimates. All subsequent pages including any attachments thereof shall be respectively initialed by those who signed in the cover page.

All comments and recommendations from the Engineering Department shall be promptly transmitted by the latter to the Consultant or its POC for consideration and inclusion in the estimates, unless the Consultant offers alternatives which the Engineering Department may reconsider.

Any additional time on the duration of the contract due to the review of the estimates by the SBMA Engineering Department shall be at no cost to SBMA.

4.1.2.2.9. Delivery of the Unit Cost Analysis. – Upon finalization of the UCA as approved by the Chairman and Administrator, the Consultant shall furnish the Engineering Department the complete sets of copies thereof as provided in **Section 5 Timelines and Deliverables**, with the hard copies printed in size A4 bond papers signed and dated by the Consultant in the cover page thereof. Its respective professionals involved in the preparation of the UCA shall, on their part, sign, date, and seal with their professional seals, as well as indicate their corresponding PRC License Numbers, PTR Number and TIN in the blanks corresponding to their names. The initials of the personnel who encoded the document shall likewise be affixed.

4.1.2.2.10. Ownership of the Unit Cost Analysis and warranty – The SBMA shall be the owner of the delivered complete UCA even as the Consultant may retain electronic and hard copies thereof. However, the latter warrants as to the correctness and accuracy of the UCA.

4.1.2.3. SECURING OF PERMITS

The Consultant shall secure all regulatory requirements with concerned government and SBMA offices and/or departments such as Demolition Permit, Free and Prior Informed Consent, Environmental and Social Permit, Tree Cutting Permit, Building Permit and others.

4.1.3. DOCUMENTATION STAGE (PREPARATION OF BIDDING DOCUMENTS FOR THE PROCUREMENT OF INFRASTRUCTURE PROJECTS)

4.1.3.1. Bidding documents template. – The SBMA shall furnish the Consultant a complete set of a typical bidding document package, which shall be adopted as a pattern in the preparation of the bid documents.

4.1.3.2. Contents of the bidding documents. – The bidding documents for the infrastructure project shall contain the following information:

- a. Invitation to Bid
- b. Instruction to Bidders (ITB)
- c. General Conditions of the Contract (GCC)
- d. Blank Forms to be used for Bidding
- e. Bill of Quantities/UCA
- f. Technical Specifications
- g. Drawings
- h. Forms of Contracts
- i. Bid Data Sheets (BDS)
- j. Special Conditions of the Contract (SCC)
- k. Forms and Other Related Bid Documents

4.1.3.3. Review of the bidding documents. — Upon substantial completion of the bidding documents and prior to its final acceptance, the Consultant shall furnish the SBMA of electronic copies (e-file) stored in two (2) working USB drive and ten (10) hard copies thereof printed in A4 size and A3 bond papers for plans and in the standard format as provided in the template under Section 4.1.2.1.2 and Section 4.1.2.2.3 hereof for review by the SBMA Engineering Department.

All of the above-enumerated items shall be attached and properly tabbed and/or referenced to facilitate easy review thereof. The same shall be signed by the respective personnel of the Consultant who prepared the same at the cover page, indicating therein their respective PRC License Number, PTR Number and TIN details in the case of the architects and engineers involved in the preparation of the bidding documents. All subsequent pages including any

attachments thereof shall be respectively initialed by those who signed in the cover page.

All comments and recommendations from the Engineering Department shall be promptly transmitted to the Consultant or its POC for consideration and inclusion in the bidding documents, unless the Consultant offers recommendations, which the Engineering Department may reconsider.

Any additional time on the duration of the contract due to the review of the estimates by the SBMA Engineering Department shall be at no cost to SBMA.

4.1.4. OTHER DUTIES AND RESPONSIBILITIES OF THE CONSULTANT FOR THE PREPARATION OF DETAILED ENGINEERING DESIGN

4.1.4.1. Custody of all data and documents – The Consultant shall be responsible in the custody of all data and documents for later reference and delivery to SBMA, which shall include, among others, the following:

- Survey and other relevant data/tests or information, such as applicable standards, etc.;
- Plans;
- Bill of estimates and unit cost analysis;
- Canvasses of construction materials and accessories;
- Electronic files as required to be delivered to SBMA under this TOR;
- Bidding documents; and
- Pictures relevant to the proposed projects.
- All necessary permits, clearances, demolition/building permit, regulatory requirements for environmental permits.

4.1.4.2. Point-of-contact personnel. – The Consultant shall provide his point-of-contact personnel (POC) who may be contacted or summoned at any reasonable time by the SBMA representatives regarding the project. Whenever it becomes necessary, it shall be its responsibility to make the POC present at any meeting called for this purpose.

4.1.4.3. Office. - To establish its office in any location and at its own option. In case the Consultant opts to put up a satellite office within the Subic Bay Freeport Zone (SBFZ), it shall be its responsibility to apply

for all the necessary permits and clearances, and pay for all fees, when required, in connection thereto. Further, any charges from any public utility service provider due to electricity, water, and communication, etc. consumptions shall be at the expense of the Consultant.

In case the Consultant decides to perform work at the main office, it shall be its responsibility to maintain the accessibility to SBMA representatives of its POC at any reasonable time for proper coordination.

4.1.4.4. Payment of other costs not provided under this TOR. – All other costs not provided in this TOR such as, but not limited to lease or rental dues on the use of land, building, equipment, etc., shall be borne solely by the Consultant. Office equipment requirements are **two (2) Desktop Computers, i7, 8GB RAM, 1TB SSD and two (2) SSD, 2TB External Drive or equivalent. Reimbursable at cost & shall be turned over to SBMA Engineering Department upon completion of the contract.**

4.1.4.5. Copyright. – The Consultant shall be under obligation to respect SBMA's ownership of the submitted final documents, and, under this TOR, shall be barred from claiming copyright of the said documents.

4.1.5. EXPERTISE REQUIREMENTS

The qualifications, skills, as well as general and specific professional experience requirements shall be as follows:

- Must be a duly registered consulting firm in the Philippines with specialization in consulting services for the structural analysis, design and construction supervision of roadway/landscaping planning and engineering, design of bridges and estimating of horizontal structures at least ten (10) kilometers of paved road.
- The Consulting Firm or Consultant must have previously contracted consulting services for roadway, **bridges**, parks and landscaping with the government and private entities with proven competence.
- The Consultant must have extensive experience in consulting services for the preparation of detailed engineering plans and estimates for roadway, parks, landscaping for a minimum of ten (10) years.

- The Consultant must be maintaining the following staff as his employees:

4.1.5.1. Key Personnel for Design Phase

- **Project Manager/Team Leader** - Must be a registered Civil Engineer who is authorized by the Consultant to undertake the overall supervision of the consulting service. Must have wide and extensive experience in project management and design supervision, preparation of environmental and social assessment of roads, parks and landscaping for not less than ten (10) years experience. After all plans are finalized for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity.
- **Structural Engineer** - Must be a registered Civil Engineer, who shall prepare the Structural Analysis and Design for the project and furnish the details to be incorporated in the plans. S/He shall likewise provide the technical specifications for all the structural elements of the structures. S/He must have proven experience in the practice of his/her profession as a civil – structural engineer for not less than five (5) years. S/He shall provide assistance to the civil engineer as the latter’s consultant, when needed. After all structural plans are finalized for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity.
- **Civil Engineer/Road Design Engineer** - Must be a registered Civil Engineer, who shall prepare the details of all the civil works involved in the project with wide and extensive experience in the fields of road designs and slope protection, traffic control devices, surveying and plan preparation in an urban environment and capable of preparation of standard design formats and guidelines and shall prepare analysis and design for the project and furnish the details to be incorporated in the plans. S/He shall likewise provide the technical specifications for all civil works, roads and traffic control. S/He must have proven experience as a civil/highway and road design engineer for not less than five (5) years. After all civil, roads/highway and traffic plans are finalized for approval by SBMA, S/He shall sign and seal the same in his/her

professional capacity. He/she must have proven experience as a civil engineer for not less than five (5) years.

- **Foundation/Soils Engineer** - Must be a registered Civil Engineer who shall prepare geotechnical/foundation/soils studies and investigation for the underlying layer of the roadway structure. S/He must have proven experience as a geotechnical/foundation/soils engineer for not less than five (5) years. After all geotechnical/foundation/soils plans and investigation are finalized for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity
- **Geotechnical/Material Engineer** - Must be a registered Civil Engineer with extensive experience in pavement design, material testing and quality control particularly for roadway project and must be a DPWH accredited Materials Engineer II. S/He must assist the Civil Engineer in the preparation of roads design and must have proven experience as Material Engineer for not less than five (5) years.
- **Electrical Engineer** - Must be a registered professional Electrical Engineer with extensive experience in roads & bridges and lighting system. S/He must prepare the electrical plans and must have proven experience as registered professional electrical engineer for not less than five (5) years. After all Electrical Plans are finalized for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity
- **Landscape Architect/Architect** - Must be a registered Architect with extensive experience in Landscape Architecture involving local botanical species and grass. S/He must have proven experience as Landscape Architect for not less than five (5) years. After all, landscape and architectural plans finalized for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity.
- **Drainage Engineer** - must be a Licensed Civil Engineer with wide experience in hydrologic assessment in a rural area and who shall prepare the storm drainage plans for the project. S/He must have proven experience as drainage engineer for not less than five (5) years. After all drainage plans are finalized

for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity.

- **Environmental/Social Specialist** - Must be a licensed professional with extensive experience in the preparation of environmental, Gender and Development (GAD) specialist and social assessment for highway & bridge projects and since the project is within Certificate of Ancestral Domain Title (CADT) will also submit/comply with the requirements of National Commission of Indigenous People (NCIP). S/He must have proven experience as Environmentalist/Social Specialist for five (5) years. After all, documents and plans are finalized for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity.
- **Geodetic Engineer** - Must be a registered Geodetic Engineer, who shall be responsible for the conduct of all site surveys and furnishing of data to the concerned staff when needed. S/He must have proven experience as geodetic engineer for not less than five (5) years. After all Survey Plans are finalized for approval by SBMA, S/He shall sign and seal the same in his/her professional capacity.
- **Quantity/Cost/Specifications Engineer** - Must be a registered Civil Engineer, who shall perform materials take-off or quantity survey in accordance with the approved plans. S/He shall be responsible for the conduct of materials canvassing for the determination of the prevailing costs. S/He shall likewise collate and prepare in final form the technical specifications to be incorporated in the bidding documents, in coordination with different aspects of engineering. Finally, S/He shall provide the Bill of Estimates and Unit Cost Analysis for the project. S/He must likewise have proven experience as quantity/ cost/ specifications engineer for not less than five (5) years.

Note: All plans must be signed and sealed by a duly registered professional engineer.

4.1.5.2. Technical Support Staff

- **AutoCAD Operator** - Must be knowledgeable and skillful in drafting Computer-Aided-Design (CAD) plans, and must have gained experience in drafting works using CAD for not less than one (1) year.
- **Surveying Assistant** - S/He shall provide assistance in all surveying fieldwork. As such, S/He must have gained experience in surveying fieldwork for not less than one (1) year.
- **Material Engineer Assistant** - With extensive and wide experience in material testing & quality control coordination and administration of project activities pertinent to roadway construction & other related structure. Minimum one (1) year experience.

4.1.5.3. Administrative Support Staff

- **Secretary/Encoder** - Must be knowledgeable and skillful in the use or application of MS Office and Excel software. S/He shall encode and print in final form all official correspondences, database, and bidding documents. S/He shall see to it that all important data are electronically stored for later reference and use by the concerned staff. Finally, S/He shall serve as the secretary of the Consultant, records and documents custodian, time keeper, and be responsible for the taking and preparation of the minutes of all meetings. S/He must have likewise gained combined experience in secretarial and clerical works for not less than one (1) year.
- **Utility Man/ Messenger** - S/He shall assist the Consultant and the latter's staff in general, and shall act as messenger or courier for the consultant's office in all the latter's official transactions with SBMA. He must have served as such in the Consulting Firm for not less than one (1) year.

Note: The above-stated requirements on years of experience may be gained cumulatively.

5. TIMELINES AND DELIVERABLES

5.1. Commencement of the consulting service. – The Consultant shall commence the consulting service upon receipt of Notice to Proceed (NTP) as specified in the bidding documents.

5.2. Timelines and Deliverables. – The Consultant shall observe and meet the durations specified in the tables for Timelines and Deliverables **for Rehabilitation of Major Roads at Ilanin District & Design of Triboa Bridge** as follows:

Deliverables	Timeline	% of ABC
DESIGN PHASE		
A. PREDESIGN STAGE		
1. INCEPTION REPORT (with minimum requirements stated in Sections 4.1.1.1, 4.1.1.2 and 4.1.1.3)	30 th	2 %
2. CONCEPTUAL PLAN (with minimum requirements stated in Section 4.1.1.4)	45 th	2 %
3. BUDGETARY COST ESTIMATE (with minimum requirements stated in Section 4.1.1.4)	45 th	2 %
4. PROPOSED CONSTRUCTION SCHEDULE (with minimum requirements stated in Section 4.1.1.4)	45 th	2 %
B. FINAL DESIGN STAGE		
5. APPROVED DETAILED PLANS (with minimum requirements stated in Section 4.1.2.1)	180 th	60 %
6. APPROVED ESTIMATES (with minimum requirements stated in Section 4.1.2.2)	180 th	10 %
7. SECURING PERMITS (with minimum requirements stated in Section 4.1.2.3)	180 th	10 %
C. DOCUMENTATION (with minimum requirements stated in this TOR and Section 4.1.3)		
8. TECHNICAL SPECIFICATIONS	240 th	8 %
9. BIDDING DOCUMENTS	240 th	4 %

TOTAL		100%
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6. CRITERIA FOR THE SELECTION OF THE CONSULTANT

The Consultant shall be selected using the Quality – Cost Based Selection procedure under Republic Act 9184 and **Department Order 143 series of 2022 of Department of Public Works and Highways** as shown in “ANNEX B”.

7. APPROVED BUDGET FOR THE CONTRACT (ABC)

The ABC for the consultancy services is **Six Million Pesos (Php 6,000,000.00)**. The Bid Price should constitute professional fees and other miscellaneous expenses, all of which are Value Added Tax (VAT) free.

8. PAYMENT SCHEME/SCHEDULE

The payment shall be in accordance to the delivery of outputs.

8.1. The Contract Price shall be the corrected/accepted amount proposed by the winning CONSULTANT for the project. Payment of the CONSULTANT for its services shall be made by the SBMA in accordance with item 53 of Section IV of the General Conditions of Contracts of the Bidding Document. The submittals and reports shall serve as reference for payment of reimbursable items and shall be per completion of each phases with approval and in accordance with the scheme presented in Section 5.2 of this TOR hereof and based on the outputs expected from the Consultant.

8.2. The Consulting Firm may request Advance Payment of fifteen percent (15%) of the approved contract cost based on requirements set forth in the General Conditions of the Contract.

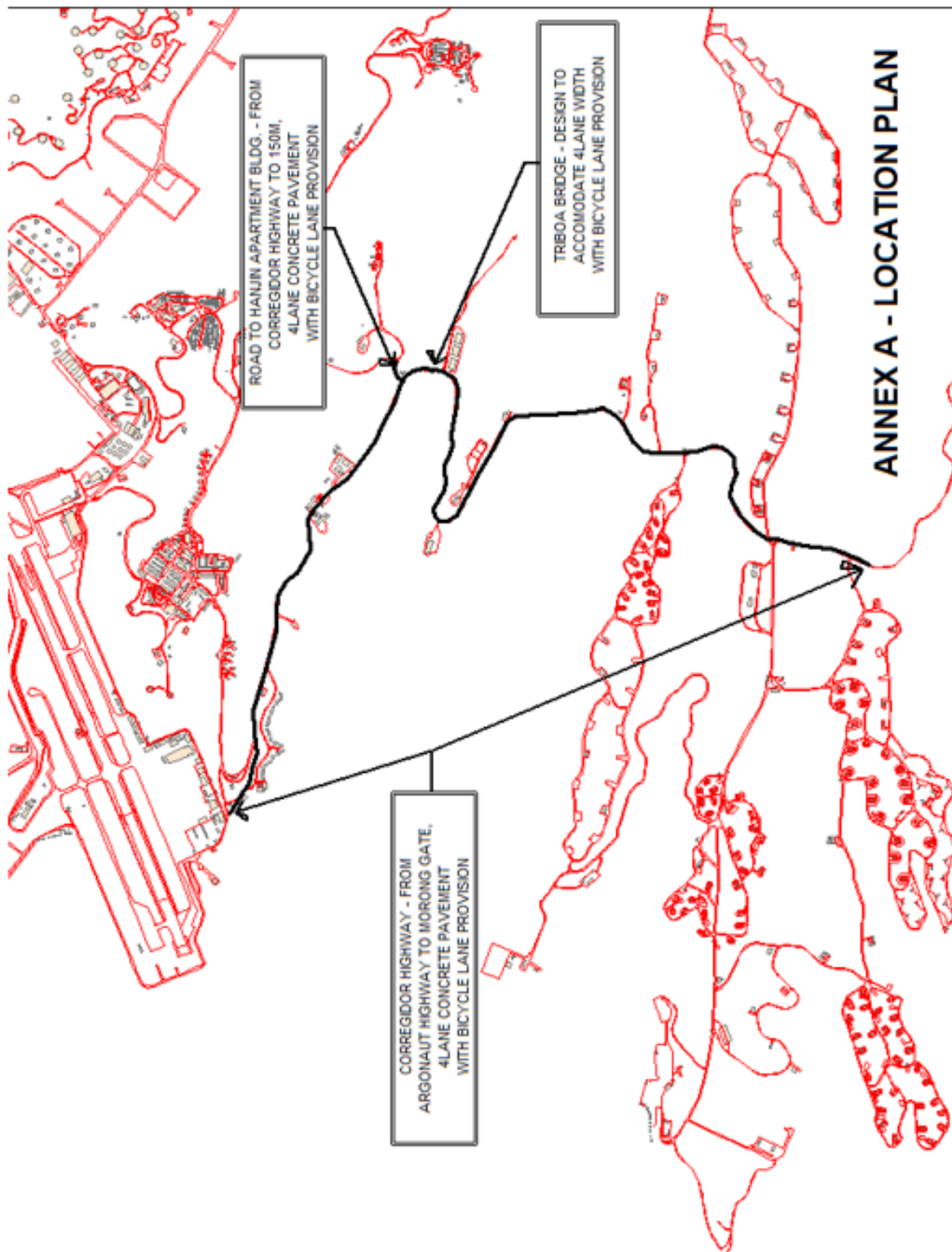
All of these payments are subject to the government accounting and auditing requirements. The Consultant is expected to be familiar with the Government Accounting and Auditing Manual (GAAM).

9. RESERVATION CLAUSE

The Subic Bay Metropolitan Authority (SBMA) reserves the right to accept or reject any consultancy services rendered, to annul the consultancy process, and to reject at any time the same without incurring any liability to the Consultant.

ANNEX A

LOCATION PLAN



ANNEX A - LOCATION PLAN

ANNEX B

CRITERIA FOR SELECTION OF CONSULTANT

**Department Order 143 Series of 2022 of Department
of Public Works (as attached copy)**