



**GOVERNMENT OF THE
FEDERATED STATES OF MICRONESIA**
Department of Transportation, Communications & Infrastructure
P.O. Box PS-2, Pohnpei, FM 96941
Tel.: (691) 320-2865 Fax: (691) 320-5853

Prequalification Works

RECONSTRUCTION OF ROADS AND
BRIDGES ACROSS THE FEDERATED
STATES OF MICRONESIA



March 2025

Invitation for Prequalification

Employer: Department of Transportation, Communications and Infrastructure

Project: *P172225-FSM Prioritized Road Investment and Management Enhancements Project*

Contract title: *RECONSTRUCTION OF ROADS AND BRIDGES ACROSS THE FEDERATED STATES OF MICRONESIA*

Country: *Federated States of Micronesia*

Loan No. /Credit No. / Grant No.: *D-9710*

RFB No: *PRIME/CW1*

Issued on: *March 13th 2025*

1. The Federated States of Micronesia has received financing from the World Bank toward the cost of the the P172225-FSM Prioritized Road Investment and Management Enhancements Project and intends to apply part of the proceeds toward payments under the contracts for PRIME/CW.
2. The Department of Transport, Communications and Infrastructure intends to prequalify contractors for RECONSTRUCTION OF ROADS AND BRIDGES ACROSS THE FEDERATED STATES OF MICRONESIA:

Works Description:

- Lot 1: Improving the 1.5-mile airport to Pou Bay Bridge Road in Chuuk
- Lot 2: Replacing two short-span (6-meter-long) steel and concrete composite bridges in Yap
- Lot 3: Replacing the 12-meter Awak bridge
- Lot 4: Rehabilitation of 0.5- Mile Lelu Causeway

It is expected that the Request for Bids will be made in *April 2025*.

3. Prequalification will be conducted through the procedures as specified in the World Bank's Procurement Regulations for IPF Borrowers 2025 ("Procurement Regulations"), and is open to all eligible Applicants as defined in the Procurement Regulations.
4. Interested eligible Applicants may obtain further information from the **Department of Transport, Communications and Infrastructure** at the address below during office hours (8am-5pm, Monday to Friday). A complete set of prequalification documents in English may be downloaded on the website by interested Applicants at <https://tci.gov.fm/>

5. Applications for prequalification should be submitted in clearly marked envelopes and delivered to the address below by 10:00 am on April 18th, 2025. Late applications may be rejected.

Mr. Robert Goodwin

pmu@tci.gov.fm

Department of Transportation, Communications and Infrastructure,

First Floor

Kasehlie Building

PO Box PS 2

Program Management Unit

FSM National Government

Palikir, Pohnpei

FSM 96941

Prequalification Document Works

Procurement of:

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PART 1 – Prequalification Procedures

Section I - Instructions to Applicants

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Section I - Instructions to Applicants

A. General

- 1. Scope of Application**

1.1 In connection with the invitation for Prequalification indicated in Section II (Prequalification Data Sheet) (PDS), the Employer, as defined **in the PDS**, issues this Prequalification Document (“Prequalification Document”) to prospective applicants (“Applicants”) interested in submitting applications (“Applications”) for prequalification to bid for the Works described in Section VII (Scope of Works). In case the Works are to be bid as individual contracts (i.e., the slice and package procedure), these are listed **in the PDS**. The Request for Bids (RFB) number corresponding to this prequalification is also provided **in the PDS**.
- 2. Source of Funds**

2.1 The Borrower or Recipient (hereinafter called “Borrower”) indicated **in the PDS** has applied for or received financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount specified **in the PDS**, towards the cost of the project named **in the PDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) resulting from the bidding for which this prequalification is conducted.

2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan (or credit) account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant or materials, or services if such payment or import, to the knowledge of the Bank, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the loan (or credit).
- 3. Fraud and Corruption**

3.1 The Bank requires compliance with the Bank’s Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG’s Sanctions Framework, as set forth in Section VI, Fraud and Corruption.

3.2 In further pursuance of this policy, Applicants shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission (in case prequalified), proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Applicants

4.1 Applicants shall meet the eligibility criteria as per this ITA and ITA 5.1 and 5.2.

4.2 An Applicant may be a firm that is a private entity, a state-owned enterprise or institution subject to ITA 4.8 or any combination of such entities in the form of a joint venture (“JV”) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the prequalification process, bidding (in the event the JV submits a Bid) and during contract execution (in the event the JV is awarded the Contract). Unless specified **in the PDS**, there is no limit on the number of members in a JV.

4.3 A firm may apply for prequalification both individually, and as part of a joint venture, or participate as a subcontractor. If prequalified, it will not be permitted to bid for the same contract both as an individual firm and as a part of the joint venture or as a subcontractor. However, a firm may participate as a subcontractor in more than one Bid, but only in that capacity. Bids submitted in violation of this procedure will be rejected.¹

4.4 A firm and any of its affiliates (that directly or indirectly control, are controlled by or are under common control with that firm) may submit its application for prequalification either individually, as joint venture or as a subcontractor among them for the same contract. However, if prequalified, only one prequalified Applicant will be allowed to bid for the same contract. All Bids submitted in violation of this procedure will

¹ If this Document is being used to prequalify Applicants for the Procurement of Plant, modify this provision in the PDS to reflect the “One Bid per Bidder” provision in the Bank’s Standard Procurement Document for Plant.

be rejected.

- 4.5 An Applicant may have the nationality of any country, subject to the restrictions pursuant to ITA 5.1 and 5.2. An Applicant shall be deemed to have the nationality of a country if the Applicant is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed specialized sub-contractors or suppliers for any part of the Contract including related Services.
- 4.6 Applicants shall not have a conflict of interest. Applicants shall be considered to have a conflict of interest, if they, or any of their affiliates, participated as a consultant in the preparation of the design or technical specifications or have been hired or proposed to be hired by the Employer or Borrower as Engineer for contract implementation of the Works that are the subject of this prequalification. In addition, Applicants may be considered to have a conflict of interest if they have a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the prequalification Document or Request for Bids (RFB) Document or specifications of the Contract, and/or the Bid evaluation process of such Contract; or (ii) would be involved in the implementation or supervision of such Contract, unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the prequalification, RFB process and execution of the Contract.
- 4.7 An Applicant that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, and in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as described in Section VI, paragraph 2.2 d. shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the PDS.

- 4.8 Applicants that are state-owned enterprise or institutions in the Employer's Country may be eligible to prequalify, compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Employer.
- 4.9 An Applicant shall not be under suspension from bidding by the Employer as the result of the execution of a Bid/Proposal–Securing Declaration.
- 4.10 An Applicant shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
- 4.11 A firm that is under a sanction of debarment by the Borrower from being awarded a contract is eligible to participate in this procurement, unless the Bank, at the Borrower's request, is satisfied that the debarment; (a) relates to fraud or corruption, and (b) followed a judicial or administrative proceeding that afforded the firm adequate due process.

5. Eligibility

- 5.1 Firms and individuals may be ineligible if they are nationals of ineligible countries as indicated in Section V. The countries, persons or entities are ineligible if:
 - (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or
 - (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.
- 5.2 When the Works are implemented across jurisdictional boundaries (and more than one country is a Borrower, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITA 5.1(a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Borrowers involved in the procurement agree.

B. Contents of the Prequalification Document

6. Sections of Prequalification Document

- 6.1 This Prequalification Document consists of parts 1 and 2 which comprise all the sections indicated below, and which should be read in conjunction with any Addendum issued in accordance with ITA 8.

PART 1 Prequalification Procedures

- Section I - Instructions to Applicants (ITA)
- Section II - Prequalification Data Sheet (PDS)
- Section III - Qualification Criteria and Requirements
- Section IV - Application Forms
- Section V – Eligible Countries
- Section VI – Fraud and Corruption

PART 2 Works Requirements

- Section VII - Scope of Works
- 6.2 Unless obtained directly from the Employer, the Employer accepts no responsibility for the completeness of the document, responses to requests for clarification, the minutes of the pre-Application meeting (if any), or Addenda to the Prequalification Document in accordance with ITA 8. In case of any discrepancies, documents issued directly by the Employer shall prevail.
- 6.3 The Applicant is expected to examine all instructions, forms, and terms in the Prequalification Document and to furnish with its Application all information or documentation as is required by the Prequalification Document.

7. Clarification of Prequalification Document and Pre-Application Meeting

- 7.1 An Applicant requiring any clarification of the Prequalification Document shall contact the Employer in writing at the Employer's address indicated **in the PDS**. The Employer will respond in writing to any request for clarification provided that such request is received no later than fourteen (14) days prior to the deadline for submission of the applications. The Employer shall forward a copy of its response to all prospective Applicants who have obtained the Prequalification Document directly from the Employer, including a description of the inquiry but without identifying its source. If so indicated **in the PDS**, the Employer shall also promptly publish its response at the web page identified **in the PDS**. Should the Employer deem it necessary to amend the Prequalification Document as a result

of a clarification, it shall do so following the procedure under ITA 8. and in accordance with the provisions of ITA 17.2.

- 7.2 If indicated **in the PDS**, the Applicant's designated representative is invited at the Applicant's cost to attend a pre-Application meeting at the place, date and time mentioned **in the PDS**. During this pre-Application meeting, prospective Applicants may request clarification of the project requirement, the criteria for qualifications or any other aspects of the Prequalification Document.
- 7.3 Minutes of the pre-Application meeting, if applicable, including the text of the questions asked by Applicants, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be transmitted promptly to all prospective Applicants who have obtained the Prequalification Document. Any modification to the Prequalification Document that may become necessary as a result of the pre-Application meeting shall be made by the Employer exclusively through the use of an Addendum pursuant to ITA 8. Non-attendance at the pre-Application meeting will not be a cause for disqualification of an Applicant.

8. Amendment of Prequalification Document

- 8.1 At any time prior to the deadline for submission of Applications, the Employer may amend the Prequalification Document by issuing an Addendum.
- 8.2 Any Addendum issued shall be part of the Prequalification Document and shall be communicated in writing to all Applicants who have obtained the Prequalification Document from the Employer. The Employer shall promptly publish the Addendum at the Employer's web page identified **in the PDS**.
- 8.3 To give Applicants reasonable time to take an Addendum into account in preparing their Applications, the Employer may, at its discretion, extend the deadline for the submission of Applications in accordance with ITA 17.2.

C. Preparation of Applications

9. Cost of Applications

- 9.1 The Applicant shall bear all costs associated with the preparation and submission of its Application. The Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the prequalification process.

10. Language of

- 10.1 The Application as well as all correspondence and documents

- Application** relating to the prequalification exchanged by the Applicant and the Employer, shall be written in the language specified **in the PDS**. Supporting documents and printed literature that are part of the Application may be in another language, provided they are accompanied by an accurate translation of the relevant passages in the language specified **in the PDS**, in which case, for purposes of interpretation of the Application, the translation shall govern.
- 11. Documents Comprising the Application**
- 11.1 The Application shall comprise the following:
- (a) **Application Submission Letter**, in accordance with ITA 12.1;
 - (b) **Eligibility**: documentary evidence establishing the Applicant's eligibility, in accordance with ITA 13.1;
 - (c) **Qualifications**: documentary evidence establishing the Applicant's qualifications, in accordance with ITA 14; and
 - (d) any other document required as specified **in the PDS**.
- 11.2 The Applicant shall furnish information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Application
- 12. Application Submission Letter**
- 12.1 The Applicant shall complete an Application Submission Letter as provided in Section IV (Application Forms). This Letter must be completed without any alteration to its format.
- 13. Documents Establishing the Eligibility of the Applicant**
- 13.1 To establish its eligibility in accordance with ITA 4, the Applicant shall complete the eligibility declarations in the Application Submission Letter and Forms ELI (eligibility) 1.1 and 1.2, included in Section IV (Application Forms).
- 14. Documents Establishing the Qualifications of the Applicant**
- 14.1 To establish its qualifications to perform the contract(s) in accordance with Section III, Qualification Criteria and Requirements, the Applicant shall provide the information requested in the corresponding Information Sheets included in Section IV (Application Forms).
- 14.2 Wherever an Application Form requires an Applicant to state a monetary amount, Applicants should indicate the USD equivalent using the rate of exchange determined as follows:
- (a) For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted).

- (b) Value of single contract - Exchange rate prevailing on the date of the contract.

Exchange rates shall be taken from the publicly available source identified **in the PDS**. Any error in determining the exchange rates in the Application may be corrected by the Employer.

15. Signing of the Application and Number of Copies

- 15.1 The Applicant shall prepare one original of the documents comprising the Application as described in ITA 11 and clearly mark it "ORIGINAL". The original of the Application shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Applicant. In case the Applicant is a JV, the Application shall be signed by an authorized representative of the JV on behalf of the JV and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized signatories.
- 15.2 The Applicant shall submit copies of the signed original Application, in the number specified **in the PDS**, and clearly mark them "COPY". In the event of any discrepancy between the original and the copies, the original shall prevail.

D. Submission of Applications

16. Sealing and Marking of Applications

- 16.1 The Applicant shall enclose the original and the copies of the Application in a sealed envelope that shall:
 - (a) bear the name and address of the Applicant;
 - (b) be addressed to the Employer, in accordance with ITA 17.1; and
 - (c) bear the specific identification of this prequalification process indicated **in the PDS** 1.1.
- 16.2 The Employer will accept no responsibility for not processing any envelope that was not identified as required in ITA 16.1 above.

17. Deadline for Submission of Applications

- 17.1 Applicants may either submit their Applications by mail or by hand. Applications shall be received by the Employer at the address and no later than the deadline indicated **in the PDS**. When so specified **in the PDS**, Applicants have the option of submitting their Applications electronically, in accordance with electronic Application submission procedures specified **in the PDS**.
- 17.2 The Employer may, at its discretion, extend the deadline for the submission of Applications by amending the Prequalification

Document in accordance with ITA 8, in which case all rights and obligations of the Employer and the Applicants subject to the previous deadline shall thereafter be subject to the deadline as extended.

18. Late Applications

18.1 The Employer reserves the right to accept applications received after the deadline for submission of applications, unless otherwise specified **in the PDS**.

19. Opening of Applications

19.1 The Employer shall open all Applications at the date, time and place specified **in the PDS**. Late Applications shall be treated in accordance with ITA 18.1.

19.2 Applications submitted electronically (if permitted pursuant to ITA 17.1) shall be opened in accordance with the procedures specified **in the PDS**.

19.3 The Employer shall prepare a record of the opening of Applications to include, as a minimum, the name of the Applicants. A copy of the record shall be distributed to all Applicants.

E. Procedures for Evaluation of Applications**20. Confidentiality**

20.1 Information relating to the Applications, their evaluation and results of the prequalification shall not be disclosed to Applicants or any other persons not officially concerned with the prequalification process until the notification of prequalification results is made to all Applicants in accordance with ITA 28.

20.2 From the deadline for submission of Applications to the time of notification of the results of the prequalification in accordance with ITA 28, any Applicant that wishes to contact the Employer on any matter related to the prequalification process may do so only in writing.

21. Clarification of Applications

21.1 To assist in the evaluation of Applications, the Employer may, at its discretion, ask an Applicant for a clarification (including missing documents) of its Application, to be submitted within a stated reasonable period of time. Any request for clarification from the Employer and all clarifications from the Applicant shall be in writing.

21.2 If an Applicant does not provide clarifications and/or documents requested by the date and time set in the Employer's request for clarification, its Application shall be evaluated based on the information and documents available at the time of

evaluation of the Application.

- 22. Responsiveness of Applications** 22.1 The Employer may reject any Application which is not responsive to the requirements of the Prequalification Document. In case the information furnished by the Applicant is incomplete or otherwise requires clarification as per ITA 21.1, and the Applicant fails to provide satisfactory clarification and/or missing information, it may result in disqualification of the Applicant.
- 23. Margin of Preference** 23.1 Unless otherwise specified **in the PDS**, a margin of preference for domestic bidders² shall not apply in the bidding process resulting from this prequalification.
- 24. Subcontractors** 24.1 Unless otherwise stated **in the PDS**, the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer (so-called “Nominated Subcontractors”).
- 24.2 The Applicant shall not propose to subcontract the whole of the Works. The Employer, in ITA 25.2, may permit the Applicant to propose subcontractors for certain specialized parts of the work as indicated therein as (“Specialized Subcontractors”). Applicants planning to use such Specialized Subcontractors shall specify, in the Application Submission Letter, the activity(ies) or parts of the Works proposed to be subcontracted along with details of the proposed subcontractors including their qualification and experience.

F. Evaluation of Applications and Prequalification of Applicants

- 25. Evaluation of Applications** 25.1 The Employer shall use the factors, methods, criteria, and requirements defined in Section III, Qualification Criteria and Requirements, to evaluate the qualifications of the Applicants, and no other methods, criteria, or requirements shall be used. The Employer reserves the right to waive minor deviations from the qualification criteria if they do not materially affect the technical capability and financial resources of an Applicant to perform the Contract.

² An individual firm is considered a domestic Bidder for purposes of the margin of preference if it is registered in the country of the Employer, has more than 50 percent ownership by nationals of the country of the Employer, and if it does not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign contractors. JVs are considered as domestic Bidders and eligible for domestic preference only if the individual member firms are registered in the country of the Employer, have more than 50 percent ownership by nationals of the country of the Employer, and the JV shall be registered in the country of the Borrower. The JV shall not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign firms. JVs between foreign and national firms will not be eligible for domestic preference.

- 25.2 Subcontractors proposed by the Applicant shall be fully qualified for their parts of the Works. The subcontractor's qualifications shall not be used by the Applicant to qualify for the Works unless their parts of the Works were previously designated by the Employer **in the PDS** as can be met by Specialized Subcontractors, in which case, the qualifications of the Specialized Subcontractor proposed by the Applicant may be added to the qualifications of the Applicant for the purpose of the evaluation.
- 25.3 In case of multiple contracts, Applicants should indicate in their Applications the individual contract or combination of contracts in which they are interested. The Employer shall prequalify each Applicant for the maximum combination of contracts for which the Applicant has thereby indicated its interest and for which the Applicant meets the appropriate aggregate requirements. The qualification criteria and requirements are specified in Section III.
- 25.4 However, with respect to the specific experience under item Section III (Qualification Criteria and Requirements), 4.2 (a) , the Employer will select any one or more of the options as identified below:

N is the minimum number of contracts

V is the minimum value of a single contract.

(a) Prequalification for one Contract:

Option 1: (i) N contracts, each of minimum value V;

Or

Option 2: (i) N contracts, each of minimum value V,

Or

- (ii) Less than or equal to N contracts, each of minimum value V, but with total value of all contracts equal or more than $N \times V$

(b) Prequalification for Multiple Contracts

Option 1: (i) Minimum requirements for combined contract(s) shall be the aggregate requirements for each contract for which the Applicant has applied for as follows, and N1, N2, N3, etc. shall be different contracts:

Lot 1: N1 contracts, each of minimum

value V1;

Lot 2: N2 contracts, each of minimum value V2;

Lot 3: N3 contracts, each of minimum value V3; ----etc.

Or

Option 2: (i) Minimum requirements for combined contract(s) shall be the aggregate requirements for each contract for which the Applicant has applied for as follows, and N1, N2, N3, etc. shall be different contracts:

Lot 1: N1 contracts, each of minimum value V1;

Lot 2: N2 contracts, each of minimum value V2;

Lot 3: N3 contracts, each of minimum value V3; ----etc,

Or

(ii) **Lot 1:** N1 contracts, each of minimum value V1; or number of contracts less than or equal to N1, each of minimum value V1, but with total value of all contracts equal or more than $N1 \times V1$

Lot 2: N2 contracts, each of minimum value V2; or number of contracts less than or equal to N2, each of minimum value V2, but with total value of all contracts equal or more than $N2 \times V2$

Lot 3: N3 contracts, each of minimum value V3; or number of contracts less than or equal to N3, each of minimum value V3, but with total value of all contracts equal or more than $N3 \times V3$ ----etc.

Or

Option 3: (i) Minimum requirements for combined contract(s) shall be the aggregate requirements for each contract for which the Applicant has applied for as follows, and N1, N2 ,N3, etc. shall be different contracts:

Lot 1: N1 contracts, each of minimum

value V1;

Lot 2: N2 contracts, each of minimum value V2;

Lot 3: N3 contracts, each of minimum value V3; ----etc,

Or

(ii) **Lot 1:** N1 contracts, each of minimum value V1; or number of contracts less than or equal to N1, each of minimum value V1, but with total value of all contracts equal or more than $N1 \times V1$

Lot 2: N2 contracts, each of minimum value V2; or number of contracts less than or equal to N2, each of minimum value V2, but with total value of all contracts equal or more than $N2 \times V2$

Lot 3: N3 contracts, each of minimum value V3; or number of contracts less than or equal to N3, each of minimum value V3, but with total value of all contracts equal or more than $N3 \times V3$ ----etc,

Or

(iii) Subject to compliance as per (ii) above with respect to minimum value of single contract for each lot, total number of contracts is equal or less than $N1 + N2 + N3$ +--but the total value of all such contracts is equal or more than $N1 \times V1 + N2 \times V2 + N3 \times V3$ +----.

25.5 Only the qualifications of the Applicant shall be considered. The qualifications of other firms, including the Applicant's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors in accordance with ITA 25.2 above) or any other firm(s) different from the Applicant shall not be considered.

26. Employer's Right to Accept or Reject Applications

26.1 The Employer reserves the right to accept or reject any Application, and to annul the prequalification process and reject all Applications at any time, without thereby incurring any liability to the Applicants.

27. Prequalification of Applicants

27.1 All Applicants whose Applications substantially meet or exceed the specified qualification requirements will be prequalified by

the Employer.

27.2 An Applicant may be “conditionally prequalified,” that is, qualified subject to the Applicant submitting or correcting certain specified nonmaterial documents or deficiencies to the satisfaction of the Employer.

27.3 Applicants that are conditionally prequalified will be so informed along with the statement of the condition(s) which must be met to the satisfaction of the Employer before or at the time of submitting their Bids.

28. Notification of Prequalification

28.1 The Employer shall notify all Applicants in writing of the names of those Applicants who have been prequalified or conditionally prequalified. In addition, those Applicants who have been disqualified will be informed separately.

28.2 Applicants that have not been prequalified may write to the Employer to request, in writing, the grounds on which they were disqualified.

29. Request for Bids

29.1 Promptly after the notification of the results of the prequalification, the Employer shall invite Bids from all the Applicants that have been prequalified or conditionally prequalified.

29.2 Bidders may be required to provide a Bid Security or a Bid-Securing Declaration acceptable to the Employer in the form and an amount to be specified in the bidding document.

29.3 The successful Bidder shall be required to provide a Performance Security as specified in the bidding document.

29.4 If applicable, the successful Bidder shall be required to provide a separate Environmental and Social (ES) Performance Security.

29.5 Bidders shall be required to provide a Code of Conduct which will apply to their and sub-contractors’ personnel that includes the minimum requirements specified in the bidding document.

29.6 Bidders shall be required to submit management strategies and implementation plans that address key Environmental and Social (ES) risks (including Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH)) requirements.

29.7 The successful Bidder shall provide additional information about its beneficial ownership using the Beneficial Ownership Disclosure Form included in the bidding document.

29.8 If specified in the PDS, Bidders shall be required to submit a

Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Declaration, using the Sexual Exploitation and Abuse (SEA), and/or Sexual Harassment (SH) declaration form included in the bidding documents.

29.9 Prior to Contract award, the Employer will verify that the successful Bidder (including each member of a JV) is not disqualified by the Bank due to noncompliance with contractual SEA/SH prevention and response obligations. The Employer will conduct the same verification for each subcontractor proposed by the successful Bidder. If any proposed subcontractor does not meet the requirement, the Employer will require the Bidder to propose a replacement subcontractor.

**30. Changes in
Qualifications of
Applicants**

30.1 Any change in the structure or formation of an Applicant after being prequalified in accordance with ITA 27 and invited to bid (including, in the case of a JV, any change in the structure or formation of any member and also including any change in any specialized subcontractor whose qualifications were considered to prequalify the Applicant) shall be subject to the written approval of the Employer prior to the deadline for submission of Bids. Such approval shall be denied if (i) a prequalified applicant proposes to associate with a disqualified applicant or in case of a disqualified joint venture, any of its members; (ii) as a consequence of the change, the Applicant no longer substantially meets the qualification criteria set forth in Section III (Qualification Criteria and Requirements); or (iii) in the opinion of the Employer, the change may result in a substantial reduction in competition. Any such change should be submitted to the Employer not later than fourteen (14) days after the date of the Request for Bids.

**31. Procurement
Related Complaint**

31.1 The procedures for making a Procurement-related Complaint are as specified in the PDS.

Section II - Prequalification Data Sheet (PDS)

A. General						
ITA 1.1	<p>The reference number of this Prequalification is: <i>FM-DOTCI-480606-CW-RFB</i></p> <p>The Employer is: Department of Transportation, Communications and Infrastructure</p> <p>The name of the Prequalification is: RECONSTRUCTION OF ROADS AND BRIDGES ACROSS THE FEDERATED STATES OF MICRONESIA</p> <p>The number and identification of lots (contracts) comprising the forthcoming RFB is: PRIME/CW1</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Name of the Work</th> </tr> </thead> <tbody> <tr> <td>Lot CW1A: Awak Bridge, Pohnpei</td> </tr> <tr> <td>Lot CW1B: Airport to Pou Bay Road, Chuuk</td> </tr> <tr> <td>Lot CW1C: Manta Ray Twin Bridges, Yap</td> </tr> <tr> <td>Lot CW1D: Lelu Causeway, Kosrae</td> </tr> </tbody> </table>	Name of the Work	Lot CW1A: Awak Bridge, Pohnpei	Lot CW1B: Airport to Pou Bay Road, Chuuk	Lot CW1C: Manta Ray Twin Bridges, Yap	Lot CW1D: Lelu Causeway, Kosrae
Name of the Work						
Lot CW1A: Awak Bridge, Pohnpei						
Lot CW1B: Airport to Pou Bay Road, Chuuk						
Lot CW1C: Manta Ray Twin Bridges, Yap						
Lot CW1D: Lelu Causeway, Kosrae						
ITA 2.1	The Borrower is: The Federated States of Micronesia					
ITA 2.1	Loan or Financing Agreement Budgeted Amount for the Works:14.3 M USD					
ITA 2.1	The name of the Project is: P172225-FSM Prioritized Road Investment and Management Enhancements Project (PRIME)					
ITA 4.2	Maximum number of members in the JV shall be: 3					
ITA 4.7	A list of debarred firms and individuals is available on the Bank's external website: http://www.worldbank.org/debarr .					
B. Contents of the Prequalification Document						
ITA 7.1	<p>For clarification purposes, the Employer's address is:</p> <p>Mr. Robert Goodwin pmu@tci.gov.fm</p>					

	Department of Transportation, Communications and Infrastructure Program Management Unit FSM National Government Palikir, Pohnpei FSM 96941
ITA 7.1 & 8.2	Web page : https://tci.gov.fm/
ITA 7.2	Pre-Application Meeting will be held: No
C. Preparation of Applications	
ITA 10.1	This Prequalification document has been issued in the English language. Bidders shall not submit Bids in more than one language. All correspondence exchange shall be in English language.
ITA 11.1 (d)	The Applicant shall submit with its Application, the following additional documents: Submit specific experience forms EXP for each lot. A single form will be insufficient for evaluation.
ITA 14.2	The source for determining exchange rates is Us Federal Reserve (https://www.federalreserve.gov/releases/h10/current/)
ITA 15.2	In addition to the original, the number of copies to be submitted with the Application is: One(1)
D. Submission of Applications	
ITA 17.1	For <u>Application submission purposes only</u> , the Employer's address is: Mr. Robert Goodwin pmu@tci.gov.fm Department of Transportation, Communications and Infrastructure Program Management Unit FSM National Government Palikir, Pohnpei FSM 96941 The deadline for Application submission is: Date: April 18th 2025

	<p>Time: 10 am Pohnpei Local time</p> <p>Applicants shall have the option of submitting their Application electronically. The electronic Application submission procedures shall be as described in ITB 19.2 below</p> <p>Late Application and hard-copy submissions will not be accepted.</p>
ITA 18.1	<p>Late Applications will be returned unopened to the Applicants.</p>
ITA 19.1	<p>The opening of the Applications shall be at</p> <p>Department of Transportation, Communications and Infrastructure Program Management Unit FSM National Government Palikir, Pohnpei FSM 96941</p> <p>The deadline for Application submission is:</p> <p>Date: April 18th 2025</p> <p>Time: 11 am Pohnpei Local time</p> <p>Applications shall be opened publicly and the public can participate online via a link that would be made available on the website: https://tci.gov.fm/</p>
ITA 19.2	<p>The electronic Application opening procedures shall be:</p> <p>(i) Applicants shall navigate to the main website to enable them to download the Documents and any subsequent addenda through the weblink https://tci.gov.fm/</p> <p>(ii) Applicants shall email all Applications to the designated email address pmu@tci.gov.fm</p> <p>(iii) Application shall be submitted to the designated email, prior to the deadline for submission of the Application. All files should in their file names identify the name of the Applicant and the Application identification number and password protected (Passwords to be submitted prior to the public opening of bids to the designated email address mentioned in (ii) above. Documents should be identified with Tags 1 of X, 2 of X, etc.</p> <p>(iv) Only Applications that are received by the designated email before</p>

	<p>the deadline for bid submission shall be considered. The Employer takes no responsibility for files that are not received on time, incompatible due to file type, file sets that are delivered incomplete or corrupt, or emails that are rejected due to size.</p> <p>(v) To ensure your Application is received before the closing deadline, it is strongly recommended that Applicants allow sufficient time to upload their bid submission files.</p>
E. Procedures for Evaluation of Applications	
ITA 23.1	A margin of domestic preference <i>shall not apply</i>
ITA 24.1	At this time the Employer <i>does not intend</i> to execute certain specific parts of the Works by sub-contractors selected in advance.
ITA 25.2	<i>N/A</i>
ITA 29.8	The Employer intend to require Bidders to submit Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Declaration.]
ITA 31.1	<p>The procedures for making a Procurement-related Complaint are detailed in the “Procurement Regulations for IPF Borrowers (Annex III).” If an Applicant wishes to make a Procurement-related Complaint, the Applicant shall submit its complaint following these procedures, In Writing (by the quickest means available, such as by email or fax), to:</p> <p>For the attention: <i>Rose Nakanaga</i></p> <p>Title/position: <i>Secretary, Department of Finance and Administration</i></p> <p>Employer: <i>Department of Transport, Communications, and Infrastructure</i></p> <p>Email address: rose.nakanaga@dofa.gov.fm</p> <p>In summary, at this stage a Procurement-related Complaint may challenge any of the following:</p> <ol style="list-style-type: none"> 1. the terms of the Prequalification Documents; 2. the Employer’s decision to not prequalify an Applicant

Section III - Qualification Criteria and Requirements

This section contains all the methods, criteria, and requirements that the Employer shall use to evaluate Applications. The information to be provided in relation to each requirement and the definitions of the corresponding terms are included in the respective Application Forms.

Contents

1. Eligibility	Error! Bookmark not defined.
2. Historical Contract Non-Performance	Error! Bookmark not defined.
3. Financial Situation and Performance	Error! Bookmark not defined.
4. Experience	Error! Bookmark not defined.

Eligibility

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	

2.1.1 Nationality

Nationality in accordance with ITB 4.2.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Forms ELI – 1.1; ELI – 1.2 with attachments
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2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB 4.3.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Letter of Bid
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2.1.3 World Bank Eligibility

Not having been declared ineligible by World Bank, as described in ITB 4.4.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Letter of Bid
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2.1.4 Government-Owned Entity

Bidder required to meet conditions of ITB 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Forms – 1.1; ELI – 1.2 with attachments
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2.1.5 United Nations Eligibility

Not having been excluded by an act of compliance with a United Nations Security Council resolution in accordance with ITB 4.8.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Letter of Bid
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2.2 *Historical Contract Nonperformance*

2.2.1 History of Nonperforming Contracts

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Nonperformance of a contract did not occur as a result of contractor default since 1 January 2020.	Must meet requirement	Must meet requirement	Must meet requirement ^b	Not applicable	Form CON-1

^a Nonperformance, as decided by the Employer, shall include all contracts where (i) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract; and (ii) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where the Employer's decision was overruled by the dispute resolution mechanism. Nonperformance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

^b This requirement also applies to contracts executed by the Bidder as Joint Venture partner.

2.2.2 Suspension Based on Execution of Bid-Securing Declaration

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Not under suspension based on execution of a Bid-Securing Declaration pursuant to ITB 4.6.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Letter of Bid

2.2.3 Pending Litigation and Arbitration

Pending litigation and arbitration criterion shall apply.

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
All pending litigation, arbitration, or other material events impacting the net worth and/or liquidity of the bidder, if any, shall be treated as resolved against the Bidder and so shall in total not represent more than fifty (50) percent of the Bidder's net worth calculated as the difference between total assets and total liabilities.	Must meet requirement	Not applicable	Must meet requirement	Not applicable	Form CON - 2

2.2.4 Declaration: Environmental, Health and Safety Past Performance

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Declare any contracts that have been suspended or terminated and/or performance security called by an employer for reasons related to the noncompliance of any environmental, health and safety contractual obligations in the past five years. At the time of Contract Award, subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.	Must make the declaration. If the bidder proposes Specialist Subcontractor /s to meet EQC 2.4.2, those Specialist Subcontractor /s must also make the declaration	Not applicable	Each partner must make the declaration. If the bidder proposes Specialist Subcontractor /s to meet EQC 2.4.2, those Specialist Subcontractor /s must also make the declaration	Not applicable	Form CON-3

2.3 *Financial Capabilities (Section FIN -3)*

2.3.1 Historical Financial Performance

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Submission of audited financial statements or, if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, for the last seven (7) years to demonstrate the current soundness of the Bidder's financial position. As a minimum, the Bidder's net worth for the last year calculated as the difference between total assets and total liabilities should be positive.	Must meet requirement	Not applicable	Must meet requirement	Not applicable	FIN Templates 3.1, 3.2, 3.3 and 3.4 with attachments

2.3.2 Average Annual Construction Turnover

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Lot CW1A: Minimum average annual construction turnover of \$1.10 million calculated as total certified payments received for contracts in progress or completed, within three (3) selected years out of the last seven (7) years .	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Must meet 40% of the requirement	Template 3.2 with attachments

Criteria Requirement	Compliance Requirements			Documents Submission Requirements	
	Single Entity	Joint Venture			
		All Partners Combined	Each Partner	One Partner	
Lot CW1B: Minimum average annual construction turnover of \$2.30 million calculated as total certified payments received for contracts in progress or completed, within three (3) selected years out of the last seven (7) years.	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Must meet 40% of the requirement	Template 3.2 with attachments
Lot CW1C: Minimum average annual construction turnover of \$1.20 million calculated as total certified payments received for contracts in progress or completed, within three (3) selected years out of the last seven (7) years.	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Must meet 40% of the requirement	Template 3.2 with attachments
Lot CW1D: Minimum average annual construction turnover of \$1.10 million calculated as total certified payments received for contracts in progress or completed, within three (3) selected years out of the last seven (7) years.	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Must meet 40% of the requirement	Template 3.2 with attachments

2.3.3 Liquid Assets

If the bid evaluation process and the decision for the award of the Contract takes more than 1 year from the date of bid submission, Bidders may be asked to resubmit their current contract commitments and latest information on liquid assets supported by latest audited accounts or audited financial statements, or if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, and the Bidders' financial capacity, will be reassessed on this basis.

For Lot CW1A (Awak Bridge[Pohnpei]):

Criteria Requirement	Compliance Requirements			Documents Submission Requirements	
	Single Entity	Joint Venture			
		All Partners Combined	Each Partner	One Partner	
For Single Entities The Bidder must demonstrate that its financial resources defined in 3.3, less its financial obligations for its own current contract commitments defined in 3.4, meet or exceed the total requirement for the Subject Contract of \$270,000 .	Must meet requirement	Not applicable	Not applicable	Not applicable	Section FIN -3
For Joint Ventures (1) One partner must demonstrate that its financial resources defined in 3.3, less its financial obligations for its own current contract commitments defined in 3.4, meet or exceed its required share of \$135,000 from the total requirement for the Subject Contract. AND	Not applicable	Not applicable	Not applicable	Must meet requirement	Section FIN -3
(2) Each partner must demonstrate that its financial resources defined in 3.3, less its financial obligations for its own current contract commitments defined in 3.4, meet or exceed its required share of \$108,000 from the total requirement for the Subject Contract. AND	Not applicable	Not applicable	Must meet requirement	Not applicable	Section FIN -3
(3) The Joint Venture must demonstrate that the combined financial resources of all partners defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed the total	Not applicable	Must meet requirement	Not applicable	Not applicable	Section FIN -3

Criteria Requirement	Compliance Requirements				Documents Submission Requirements
	Single Entity	Joint Venture			
		All Partners Combined	Each Partner	One Partner	
requirement for the Subject Contract of \$270,000 .					

For Lot CW1B (Airport to Pou Bay Road [Chuuk]):

Criteria Requirement	Compliance Requirements				Documents Submission Requirements
	Single Entity	Joint Venture			
		All Partners Combined	Each Partner	One Partner	
For Single Entities The Bidder must demonstrate that its financial resources defined in 3.3, less its financial obligations for its current contract commitments defined in 3.4, meet or exceed the total requirement for the Subject Contract of \$540,000 .	Must meet requirement	Not applicable	Not applicable	Not applicable	Section FIN -3
For Joint Ventures (4) One partner must demonstrate that its financial resources defined in 3.3, less its financial obligations for its own current contract commitments defined in 3.4, meet or exceed its required share of \$270,000 from the total requirement for the Subject Contract. AND	Not applicable	Not applicable	Not applicable	Must meet requirement	
(5) Each partner must demonstrate that its financial resources defined in 3.3, less its financial obligations for its own current contract commitments defined in 3.4, meet or exceed its required share of \$216,000 from the total requirement for the Subject Contract. AND	Not applicable	Not applicable	Must meet requirement	Not applicable	

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
(6) The Joint Venture must demonstrate that the combined financial resources of all partners defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed the total requirement for the Subject Contract of \$540,000 .	Not applicable	Must meet requirement	Not applicable	Not applicable	

For Lots CW1C(Manta Ray Twin Bridges [Yap]):

Criteria Requirement	Compliance Requirements				Documents Submission Requirements
	Single Entity	Joint Venture			
		All Partners Combined	Each Partner	One Partner	
For Single Entities The Bidder must demonstrate that its financial resources defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed the total requirement for the Subject Contract of \$290,000 .	Must meet requirement	Not applicable	Not applicable	Not applicable	Section FIN -3
For Joint Ventures (7) One partner must demonstrate that its financial resources defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed its required share of \$145,000 from the total requirement for the Subject Contract. AND	Not applicable	Not applicable	Not applicable	Must meet requirement	
(8) Each partner must demonstrate that its financial resources defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed its required share of \$116,000 from the total requirement for the Subject Contract. AND	Not applicable	Not applicable	Must meet requirement	Not applicable	
(9) The Joint Venture must demonstrate that the combined financial resources of all partners defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed the total	Not applicable	Must meet requirement	Not applicable	Not applicable	

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
requirement for the Subject Contract of \$290,000 .					

For Lot CW1D (Lelu Causeway [Kosrae]):

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
<p>For Single Entities</p> <p>The Bidder must demonstrate that its financial resources defined in 3.3, less all the partners’ total financial obligations for the current contract commitments defined in 3.4, meet or exceed the total requirement for the Subject Contract of \$260,000.</p>	Must meet requirement	Not applicable	Not applicable	Not applicable	Section FIN -3
<p>For Joint Ventures</p> <p>(10) One partner must demonstrate that its financial resources defined in 3.3, less all the partners’ total financial obligations for the current contract commitments defined in 3.4, meet or exceed its required share of \$130,000 from the total requirement for the Subject Contract.</p> <p>AND</p>	Not applicable	Not applicable	Not applicable	Must meet requirement	

Criteria Requirement	Compliance Requirements				Documents Submission Requirements
	Single Entity	Joint Venture			
		All Partners Combined	Each Partner	One Partner	
(11) Each partner must demonstrate that its financial resources defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed its required share of \$104,000 from the total requirement for the Subject Contract. AND	Not applicable	Not applicable	Must meet requirement	Not applicable	
(12) The Joint Venture must demonstrate that the combined financial resources of all partners defined in 3.3, less all the partners' total financial obligations for the current contract commitments defined in 3.4, meet or exceed the total requirement for the Subject Contract of \$260,000 .	Not applicable	Must meet requirement	Not applicable	Not applicable	

2.4 Construction Experience

1.4.1 Contracts of Similar Size and Nature

For Lot CW1A(Awak Bridge) :

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
<p>Participation as a contractor, Joint Venture partner, or Subcontractor, in at least one contract that has been satisfactorily and substantially completed within the last ten (10) years and that is similar to the proposed works, where the value of the Bidder’s participation exceeds \$2.30 million. The similarity of the Bidder’s participation shall be based on:</p> <ol style="list-style-type: none"> 1. The physical volume and nature of works. 2. For contracts under which the Bidder participated as a Joint Venture partner or Subcontractor, only the Bidder’s share, by value, shall be considered to meet this requirement. 3. For contracts implemented by a Joint Venture contractor, if the Bidder comprises the same Joint Venture, the ‘Single Entity’ requirements will apply. 	Must meet requirement	Not applicable	Not applicable	Must meet requirement	<p>Form EXP – 1</p> <p>Signed Contract Agreement</p> <p>Taking-Over Certificate, Contract Completion Certificate or Performance Certificate</p>

For Lot CW1B(Airport to Pou Bay Bridge Road) :

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
<p>Participation as a contractor, Joint Venture partner, or Subcontractor, in at least one contract that has been satisfactorily and substantially completed within the last ten (10) years and that is similar to the proposed works, where the value of the Bidder's participation exceeds \$4.60 million. The similarity of the Bidder's participation shall be based on:</p> <ol style="list-style-type: none"> 1. The physical volume and nature of works. 2. For contracts under which the Bidder participated as a Joint Venture partner or Subcontractor, only the Bidder's share, by value, shall be considered to meet this requirement. 3. For contracts implemented by a Joint Venture contractor, if the Bidder comprises the same Joint Venture, the 'Single Entity' requirements will apply. 	Must meet requirement	Not applicable	Not applicable	Must meet requirement	<p>Form EXP – 1</p> <p>Signed Contract Agreement</p> <p>Taking-Over Certificate, Contract Completion Certificate or Performance Certificate</p>

For Lots CW1C(Manta Ray Twin Bridges)

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
<p>Participation as a contractor, Joint Venture partner, or Subcontractor, in at least one contract that has been satisfactorily and substantially completed within the last ten (10) years and that is similar to the proposed works, where the value of the Bidder's participation exceeds \$2.40 million. The similarity of the Bidder's participation shall be based on:</p> <ol style="list-style-type: none"> 1. The physical volume and nature of works. 2. For contracts under which the Bidder participated as a Joint Venture partner or Subcontractor, only the Bidder's share, by value, shall be considered to meet this requirement. 3. For contracts implemented by a Joint Venture contractor, if the Bidder comprises the same Joint Venture, the 'Single Entity' requirements will apply. 	Must meet requirement	Not applicable	Not applicable	Must meet requirement	<p>Form EXP – 1</p> <p>Signed Contract Agreement</p> <p>Taking-Over Certificate, Contract Completion Certificate or Performance Certificate</p>

For Lot CW1D(Lelu Causeway):

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
<p>Participation as a contractor, Joint Venture partner, or Subcontractor, in at least one contract that has been satisfactorily and substantially completed within the last ten (10) years and that is similar to the proposed works, where the value of the Bidder’s participation exceeds \$2.20 million. The similarity of the Bidder’s participation shall be based on:</p> <ol style="list-style-type: none"> 1. The physical volume and nature of works. 2. For contracts under which the Bidder participated as a Joint Venture partner or Subcontractor, only the Bidder’s share, by value, shall be considered to meet this requirement. 3. For contracts implemented by a Joint Venture contractor, if the Bidder comprises the same Joint Venture, the ‘Single Entity’ requirements will apply. 	Must meet requirement	Not applicable	Not applicable	Must meet requirement	<p>Form EXP – 1</p> <p>Signed Contract Agreement</p> <p>Taking-Over Certificate, Contract Completion Certificate or Performance Certificate</p>

2.4.2 Construction Experience in Key Activities

2.4.2 (a) Must be complied with by the Bidder. In case of a Joint Venture Bidder, the Bidder or at least one of the partners must meet the requirement in the key activity. For contracts under which the Bidder participated as a Joint Venture partner, only the Bidder’s designated scope of works under the contracts shall be considered to meet this requirement.

Table A

Criteria	Compliance Requirements		Documents
Requirement	Single Entity	Joint Venture	Submission Requirements
<p>For the above or other contracts executed during the period stipulated in 2.4.1, a minimum construction experience is required in the following key activities:</p> <p>Lot CW1A: Construction of at least one concrete bridge of at least 60 feet in the past 10 years.</p> <p>Lot CW1B: Construction of a cumulative length of rigid pavement roads of at least 1.5 miles in the past 10 years.</p> <p>Lot CW1C: Construction of at least one concrete bridge of at least 60 feet in the past 10 years.</p> <p>Lot CW1D: Construction of a cumulative length of asphalt concrete roads of at least 0.5 miles in the past 10 years.</p>	Must meet requirement	Must meet requirement	Form EXP – 2 ^a

^a Submission requirements: Form EXP – 2 shall be supported by documents such as Signed Contract Agreement, Taking-Over Certificate or Contract Completion Certificate indicating the contract name, value, completion date (or percentage of substantial completion), activities performed by Joint Venture partners, and other relevant details sufficient to demonstrate compliance with the requirements.

2.4.2. (b) The Employer accepts any of the following activities to be subcontracted. They may be complied with by the Bidder or by its proposed Specialist Subcontractor.

If the key activity is to be undertaken by a Specialist Subcontractor, the Employer shall require evidence of the subcontracting agreement from the Bidder.

Table B

Criteria	Compliance Requirements		Documents
Requirement	Single Entity or Its Specialist Subcontractors	Joint Venture or Its Specialist Subcontractors	Submission Requirements
For the above or other contracts executed during the period stipulated in 2.4.1, a minimum construction experience is required in the following key activities: None	Must meet requirement	Must meet requirement	Form EXP – 2 ^a

^a Submission requirements: Form EXP – 2 shall be supported by documents such as Signed Contract Agreement, Taking-Over Certificate or Contract Completion Certificate indicating the contract name, value, completion date (or percentage of substantial completion), activities performed by Joint Venture partners, and other relevant details sufficient to demonstrate compliance with the requirements.

2.4.3 Specific Experience in Managing Environmental, Health and Safety Aspects

Criteria	Compliance Requirements		Documents
Requirement	Single Entity or Its Specialist Subcontractors	Joint Venture or Its Specialist Subcontractors	Submission Requirements
For the contracts in 2.4.1 and 2.4.2 above and/or any other contracts [substantially completed and under implementation] as prime contractor, Joint Venture partner, or Subcontractor between 1st January 2020 and Bid submission deadline, experience in managing EHS risks and impacts in the following aspects: developed and/or completed ESMP (CESMP) on road/bridge construction/improvement contracts of similar contract value	Must meet requirements	One member must meet requirements Or All members must meet requirements	Form EXP – 3

Section IV - Application Forms

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Application Submission Letter

Date: *[insert day, month, and year]*
PQD No. and title: *[insert PQD number and title]*

To: *[insert full name of Employer]*

We, the undersigned, apply to be prequalified for the referenced PQD and declare that:

- (a) **No reservations:** We have examined and have no reservations to the Prequalification Document, including Addendum(s) No(s), issued in accordance with ITA 8: *[insert the number and issuing date of each addendum]*.
- (b) **No conflict of interest:** We have no conflict of interest in accordance with ITA 4;
- (c) **Eligibility:** We (and our subcontractors) meet the eligibility requirements as stated ITA 4, we have not been suspended by the Employer based on execution of a Bid/Proposal-Securing Declaration in accordance with ITA 4.9;
- (d) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (e) **Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH):** *[select the appropriate option from (i) to (v) below and delete the others]*.

We *[where JV, insert: "including any of our JV members"]*, and any of our subcontractors:

- (i) [have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]
- (ii) [are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]
- (iii) [had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. An arbitral award on the disqualification case has been made in our favor.]
- (iv) [had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. We have subsequently provided and demonstrated that we have adequate capacity and commitment to comply with SEA and SH prevention and response obligations.]

- (v) [had been subject to disqualification by the Bank for non-compliance with SEA/SH obligations for a period of two years. We have attached documents demonstrating that we have adequate capacity and commitment to comply with SEA and SH prevention and response obligations.]
- (f) **State-owned enterprise or institution:** *[select the appropriate option and delete the other]* *[We are not a state-owned enterprise or institution]* / *[We are a state-owned enterprise or institution but meet the requirements of ITA 4.8];*
- (g) **Subcontractors and Specialized Subcontractors:** We, in accordance with ITA 24.2 and 25.2, plan to subcontract the following key activities and/or parts of the works:
[Insert any of the key activities identified in Section III - 4.2(a) or (b) which the Employer has permitted under the Prequalification Document and which the Applicant intends to subcontract along with complete details of the Specialized Subcontractors, their qualification and experience]
- (h) **Commissions, gratuities, fees:** We declare that the following commissions, gratuities, or fees have been paid or are to be paid with respect to the prequalification process, the corresponding bidding process or execution of the Contract:

<u>Name of Recipient</u>	<u>Address</u>	<u>Reason</u>	<u>Amount</u>
<i>[insert full name for each occurrence]</i>	<i>[insert street/number/city/country]</i>	<i>[indicate reason]</i>	<i>[specify amount, currency, value, exchange rate and US\$ equivalent]</i>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

[If no payments are made or promised, add the following statement: “No commissions or gratuities have been or are to be paid by us to agents or any third party relating to this Application”]

- (i) **Not bound to accept:** We understand that you may cancel the prequalification process at any time and that you are neither bound to accept any Application that you may receive nor to invite the prequalified Applicants to bid for the contract subject of this Prequalification process, without incurring any liability to the Applicants, in accordance with ITA 26.1.
- (j) **True and correct:** All information, statements and description contained in the Application are in all respect true, correct and complete to the best of our knowledge and belief.

Signed *[insert signature(s) of an authorized representative(s) of the Applicant]*

Name [insert full name of person signing the Application]

In the capacity of [insert capacity of person signing the Application]

Duly authorized to sign the Application for and on behalf of:

Applicant's Name [insert full name of Applicant or the name of the JV]

Address [insert street number/town or city/country address]

Dated on [insert day number] day of [insert month], [insert year]

[For a joint venture, either all members shall sign or only the authorized representative, in which case the power of attorney to sign on behalf of all members shall be attached]

Form ELI -1.1

Applicant Information Form

Date: *[insert day, month, year]*

PQD No. and title: *[insert PQD number and title]*

Page *[insert page number]* of *[insert total number]* pages

Applicant's name <i>[insert full name]</i>
In case of Joint Venture (JV), name of each member: <i>[insert full name of each member in JV]</i>
Applicant's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Applicant's actual or intended year of incorporation: <i>[indicate year of Constitution]</i>
Applicant's legal address [in country of registration]: <i>[insert street/ number/ town or city/ country]</i>
Applicant's authorized representative information Name: <i>[insert full name]</i> Address: <i>[insert street/ number/ town or city/ country]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers, including country and city codes]</i> E-mail address: <i>[indicate e-mail address]</i>
1. Attached are copies of original documents of <ul style="list-style-type: none"> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITA 4.5. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITA 4.2. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITA 4.8 documents establishing: <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Applicant is not under supervision of the Employer
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Form ELI -1.2

Applicant's JV Information Form

[The following form is additional to Form ELI – 1.1., and shall be completed to provide information relating to each JV member (in case the Applicant is a JV) as well as any Specialized Subcontractor proposed to be used by the Applicant for any part of the Contract resulting from this prequalification]

Date: *[insert day, month, year]*

PQD No. and title: *[insert PQD number and title]*

Page *[insert page number]* of *[insert total number]* pages

Applicant name: <i>[insert full name]</i>
Applicant's JV Member's name: <i>[insert full name of Applicant's JV Member]</i>
Applicant's JV Member's country of registration: <i>[indicate country of registration]</i>
Applicant JV Member's year of constitution: <i>[indicate year of constitution]</i>
Applicant JV Member's legal address in country of constitution: <i>[insert street/ number/ town or city/ country]</i>
Applicant JV Member's authorized representative information Name: <i>[insert full name]</i> Address: <i>[insert street/ number/ town or city/ country]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers, including country and city codes]</i> E-mail address: <i>[indicate e-mail address]</i>
1. Attached are copies of original documents of <ul style="list-style-type: none"> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITA 4.5. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and they are not under the supervision of the Employer, in accordance with ITA 4.8. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Form CON – 2

Historical Contract Non-Performance, Pending Litigation and Litigation History

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*
 Date: *[insert day, month, year]*
 Joint Venture Member's Name: *[insert full name]*
 PQD No. and title: *[insert PQD number and title]*
 Page *[insert page number]* of *[insert total number]* pages

Non-Performed Contracts in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January <i>[insert year]</i> specified in Section III, Qualification Criteria and Requirements, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January <i>[insert year]</i> specified in Section III, Qualification Criteria and Requirements, requirement 2.1			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert amount]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Employer" or "Contractor"]</i> Status of dispute:	<i>[insert amount]</i>
Litigation History in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> No Litigation History in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Employer" or "Contractor"]</i> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

Form CON – 3 ES Performance Declaration

[The following table shall be filled in for the Applicant, each member of a Joint Venture and each Specialized Subcontractor]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member's or Specialized Subcontractor's Name: *[insert full name]*

PQD No. and title: *[insert PQD number and title]*

Page *[insert page number]* of *[insert total number]* pages

Environmental and Performance Declaration in accordance with Section III, Qualification Criteria, and Requirements			
<input type="checkbox"/> No suspension or termination of contract: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Social, (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5.			
<input type="checkbox"/> Declaration of suspension or termination of contract: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Social, (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5. Details are described below:			
Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s) e.g. gender based violence; sexual exploitation or sexual abuse breaches]</i>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate</i>	<i>[insert amount]</i>

		<i>main reason(s)</i>	
...	...	<i>[list all applicable contracts]</i>	...
Performance Security called by an employer(s) for reasons related to ES performance			
Year	Contract Identification		Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
<i>[insert year]</i>	<i>Contract Identification: [indicate complete contract name/ number, and any other identification]</i> <i>Name of Employer: [insert full name]</i> <i>Address of Employer: [insert street/city/country]</i> <i>Reason(s) for calling of performance security: [indicate main reason(s) e.g. gender-based violence; sexual exploitation or sexual abuse breaches]</i>		<i>[insert amount]</i>

Form CON – 4 Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment Performance Declaration

[The following table shall be filled in by the Applicant, each member of a Joint Venture and each subcontractor proposed by the Applicant]

Applicant’s Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member’s or Subcontractor’s Name: *[insert full name]*

PQD No. and title: *[insert PQD number and title]*

Page *[insert page number]* of *[insert total number]* pages

SEA and/or SH Declaration in accordance with Section III, Qualification Criteria, and Requirements
<p>We:</p> <ul style="list-style-type: none"> <input type="checkbox"/> (a) have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations <input type="checkbox"/> (b) are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations <input type="checkbox"/> (c) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations An arbitral award on the disqualification case has been made in our favor. <input type="checkbox"/> (d) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. We have subsequently demonstrated that we have adequate capacity and commitment to comply with SEA/ SH obligations. <input type="checkbox"/> (e) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations for a period of two years. We have attached evidence demonstrating that we have adequate capacity and commitment to comply with SEA/ SH obligations.
<i>[If (c) above is applicable, attach evidence of an arbitral award reversing the findings on the issues underlying the disqualification.]</i>
<i>[If (d) or (e) above are applicable, provide the following information:]</i>
Period of disqualification: From: _____ To: _____
<p>If previously provided for another Bank financed works contract, details of evidence that demonstrated adequate capacity and commitment to comply with SEA/ SH obligations (as per (d) above)</p> <p>Name of Employer: _____</p> <p>Name of Project: _____</p> <p>Contract description: _____</p> <p>Brief summary of evidence provided: _____</p>

Contact Information: (Tel, email, name of contact person): _____

As an alternative to the evidence under (d), other evidence demonstrating adequate capacity and commitment to comply with SEA/ SH obligations (**as per (e) above**) [*attach details as appropriate*].

Form FIN – 3.1

Financial Situation and Performance

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

PQD No. and title: *[insert PQD number and title]*

Page *[insert page number]* of *[insert total number]* pages

1. Financial data

Type of Financial information in (currency)	Historic information for previous <i>[insert number]</i> years, <i>[insert in words]</i> (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

* Refer ITA 14 for the exchange rate

2. Sources of Finance

[The following table shall be filled in for the Applicant and all parties combined in case of a Joint Venture]

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (US\$ equivalent)
1		
2		
3		

3. Financial documents

The Applicant and its parties shall provide copies of financial statements for *[number]* years pursuant Section III, Qualifications Criteria and Requirements, Sub-factor 3.1. The financial statements shall:

- (a) reflect the financial situation of the Applicant or in case of JV member, and not an affiliated entity (such as parent company or group member).
 - (b) be independently audited or certified in accordance with local legislation.
 - (c) be complete, including all notes to the financial statements.
 - (d) correspond to accounting periods already completed and audited.
- Attached are copies of financial statements¹ for the *[number]* years required above; and complying with the requirements

¹ If the most recent set of financial statements is for a period earlier than 12 months from the date of Application, the reason for this should be justified.

Form FIN - 3.2

Average Annual Construction Turnover

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

PQD No. and title: *[insert PQD number and title]*

Page *[insert page number]* of *[insert total number]* pages

Annual turnover data (construction only)			
Year	Amount Currency	Exchange rate*	USD equivalent
<i>[indicate calendar year]</i>	<i>[insert amount and indicate currency]</i>		
		Average Annual Construction Turnover **	

* Refer ITA 14 for date and source of exchange rate.

** Total USD equivalent for all years divided by the total number of years. See Section III, Qualification Criteria and Requirements, 3.2.

Form EXP - 4.1

General Construction Experience

[The following table shall be filled in for the Applicant and in the case of a JV Applicant, each Member]

Applicant's Name: *[insert full name]*
 Date: *[insert day, month, year]*
 Joint Venture Member Name: *[insert full name]*
 PQD No. and title: *[insert PQD number and title]*
 Page *[insert page number]* of *[insert total number]* pages

[Identify contracts that demonstrate continuous construction work over the past [number] years pursuant to Section III, Qualification Criteria and Requirements, Sub-Factor 4.1. List contracts chronologically, according to their commencement (starting) dates.]

Starting Year	Ending Year	Contract Identification	Role of Applicant
<i>[indicate year]</i>	<i>[indicate year]</i>	Contract name: <i>[insert full name]</i> Brief Description of the Works performed by the Applicant: <i>[describe works performed briefly]</i> Amount of contract: <i>[insert amount in currency, mention currency used, exchange rate and US\$ equivalent*]</i> Name of Employer: <i>[indicate full name]</i> Address: <i>[indicate street/number/town or city/country]</i>	<i>[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]</i>
		Contract name: <i>[insert full name]</i> Brief Description of the Works performed by the Applicant: <i>[describe works performed briefly]</i> Amount of contract: <i>[insert amount in currency, mention currency used, exchange rate and US\$ equivalent*]</i> Name of Employer: <i>[indicate full name]</i> Address: <i>[indicate street/number/town or city/country]</i>	<i>[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]</i>
		Contract name: <i>[insert full name]</i> Brief Description of the Works performed by the Applicant: <i>[describe works performed briefly]</i> Amount of contract: <i>[insert amount in currency, mention currency used, exchange rate and US\$ equivalent*]</i> Name of Employer: <i>[indicate full name]</i> Address: <i>[indicate street/number/town or city/country]</i>	<i>[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]</i>

* Refer ITA 14 for date and source of exchange rate.

Form EXP - 4.2(a)

Specific Construction and Contract Management Experience

[The following table shall be filled in for contracts performed by the Applicant, each member of a Joint Venture, and Specialized Sub-contractors]

Applicant's Name: *[insert full name]*
 Date: *[insert day, month, year]*
 Joint Venture Member Name: *[insert full name]*
 PQD No. and title: *[insert PQD number and title]*
 Page *[insert page number]* of *[insert total number]* pages

Similar Contract No. <i>[insert number] of [insert number of similar contracts required]</i>	Information			
Contract Identification	<i>[insert contract name and number, if applicable]</i>			
Award date	<i>[insert day, month, year, e.g., 15 June, 2015]</i>			
Completion date	<i>[insert day, month, year, e.g., 03 October, 2017]</i>			
Role in Contract <i>[check the appropriate box]</i>	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	<i>[insert total contract amount in local currency]</i>		US\$ <i>[insert Exchange rate and total contract amount in US\$ equivalent]*</i>	
If member in a JV or sub-contractor, specify share in value in total Contract amount and roles and responsibilities	<i>[insert a percentage amount]</i>	<i>[insert total contract amount in local currency]</i>	<i>[insert exchange rate and total contract amount in US\$ equivalent]*</i>	
	<i>[insert roles and responsibilities]</i>			
Employer's Name:	<i>[insert full name]</i>			
Address:	<i>[indicate street / number / town or city / country]</i>			
Telephone/fax number	<i>[insert telephone/fax numbers, including country and city area codes]</i>			
E-mail:	<i>[insert e-mail address, if available]</i>			

* Refer ITA 14 for date and source of exchange rate.

Form EXP - 4.2(a) (cont.)
Specific Construction and Contract Management Experience
(cont.)

Similar Contract No. <i>[insert number] of [insert number of similar contracts required]</i>	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	<i>[insert amount in local currency, exchange rate, US\$ in words and in Figures]</i>
2. Physical size of required works items	<i>[insert physical size of items]</i>
3. Complexity	<i>[insert description of complexity]</i>
4. Methods/Technology	<i>[insert specific aspects of the methods/technology involved in the contract]</i>
5. Construction rate for key activities	<i>[insert rates and items]</i>
6. Other Characteristics	<i>[insert other characteristics as described in Section VII, Scope of Works]</i>

Form EXP - 4.2(b)

Construction Experience in Key Activities

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Applicant's JV Member's Name: *[insert full name]*

Sub-contractor's Name² (as per ITA 24.2 and 24.3): *[insert full name]*

PQD No. and title: *[insert PQD number and title]*

Page *[insert page number]* of *[insert total number]* pages

All Sub-contractors for key activities must complete the information in this form as per ITA 24.2 and 24.3 and Section III, Qualification Criteria and Requirements, 4.2.

1. Key Activity No. One: *[insert brief description of the Activity, emphasizing its specificity]*

Total Quantity of Activity under the contract: _____

	Information			
Contract Identification	<i>[insert contract name and number, if applicable]</i>			
Award date	<i>[insert day, month, year, e.g., 15 June, 2015]</i>			
Completion date	<i>[insert day, month, year, e.g., 03 October, 2017]</i>			
Role in Contract <i>[check the appropriate box]</i>	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub- contractor <input type="checkbox"/>
Total Contract Amount	<i>[insert total contract amount in contract currency(ies)]</i>		US\$ <i>[insert exchange rate and total contract amount in US\$ equivalent]</i>	
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year <i>[Insert extent of participation indicating actual quantity of key activity successfully completed in the role performed]</i>	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				

² If applicable

Employer's Name:	<i>[insert full name]</i>
Address:	<i>[indicate street / number / town or city / country]</i>
Telephone/fax number	<i>[insert telephone/fax numbers, including country and city area codes]</i>
E-mail:	<i>[insert e-mail address, if available]</i>

2. Activity No. Two

3.

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	
	<i>[insert response to inquiry indicated in left column]</i>

Form EXP - 4.2(c)

Specific Experience in Managing ES aspects and any additional sustainable procurement aspects

[The following table shall be filled in for contracts performed by the Applicant, and each member of a Joint Venture]

Applicant's Name: _____
 Date: _____
 Applicant's JV Member Name: _____
 PQD No. and title: _____
 Page _____ of _____ pages

1. Key Requirement no 1 in accordance with 4.2 (c): _____

Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Subcontractor <input type="checkbox"/>
Total Contract Amount			US\$	
Details of relevant experience				

2. Key Requirement no 2 in accordance with 4.2 (c): _____

3. Key Requirement no 3 in accordance with 4.2 (c): _____

4. ...

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement

In reference to ITA 5.1 and 5.2, for the information of the Applicants, at the present time firms and individuals, supply of goods, or contracting of works or services, from the following countries are excluded from this prequalification process:

Under ITA 5.1 (a): *none*

Under ITA 5.1 (b): none

Section VI - Fraud and Corruption

(This Section VI shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

- iv. “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. “obstructive practice” is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank’s Anti-Corruption Guidelines, and in accordance with the Bank’s prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible: (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;

¹ For the avoidance of doubt, a sanctioned party’s ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

² A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents, personnel, permit the Bank to inspect³ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

³ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

PART 2 – Works' Requirements

Section VII - Scope of Works

Contents

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3. Environmental and Social (ES) Requirements.....	84

1. Description of the Works

Works Description:

Lot 1: Improving the 1.5 Mile airport to Pou Bay Bridge Road in Chuuk

Name of the project: **Airport to Pou Bay Road**



Figure 1.1: Airport to Pou Bay Bridge Road in Chuuk State

1. Project introduction:

The Government of Federated States of Micronesia (GoFSM) has received financial assistance from World Bank (WB) for the Prioritized Road Investment and Management Enhancements (PRIME) Project to improve the climate resilience of FSM's road network. The roads in Federated States of Micronesia (FSM) are highly vulnerable due to coastal exposure to sea-level rise, storm surge, wave action during high tides and typhoons, inland flooding and landslips, during extreme rainfall events have accelerated pavement deterioration due to extreme weather and rising water tables in some locations. A dedicated Project Implementation Unit (PIU) led by Project Manager (PM) has been established under Department of Transportation, Communication and Infrastructure (DTC&I) to implement the project. The government is currently undertaking a detailed assessment of vulnerabilities of the overall road network for the same time frame. In parallel, the government is preparing a detailed technical design for four urgent projects located in the four states for immediate construction.

Airport to Pou Bay Bridge Road in Chuuk State: The project road considered for improvement under PRIME is part of the primary circumferential road along the Chuuk island and also a key connectivity for communities and establishments in Sapuk area of the island. The project road as per contract is 1.55 miles starting at Airport and terminating at Pou Bay Bridge and is located in North West quadrant of the island as shown in Figure 1.1. The main aim of the improvements is to facilitate improved roadway which is currently damaged due to lack of maintenance and also improve storm water drainage along the vicinity.

2. Location and accessibility:



Figure 8.1: Existing Roadway considered for improvement under PRIME projects

The start point of the project road under PRIME considered for improvement is around 1750'-0" from junction of airport road and around 400'-0" North of FSMTC office. The project road is important connectivity as it has several commercial establishments, stores, hotels, warehouses and residential establishment on both sides. The project road with a total length of 7838'-00" (around 2.4 Km) terminating at existing Pou Bay Bridge. The Road runs from the Concrete Road surface just South of the International airport and is a gravel road in disrepair that runs to the Pou Bridge that lies to the East of the airport and forms part of the Pou Bay Causeway.



Culverts:

A more detailed outline of the culverts is given later in this chapter. As an overview, the culverts are silted up, full of trash and completely neglected.

Lot 2: Replacing two short-span (6-meter-long) steel and concrete composite bridges in Yap

Name of the project: **Donoch and Tagaaniyal Bridges, Yap**



Figure 1.1: Donoch Bridge in Yap for replacement.



Figure 1.2: Tagaaniyal Bridge in Yap for replacement.

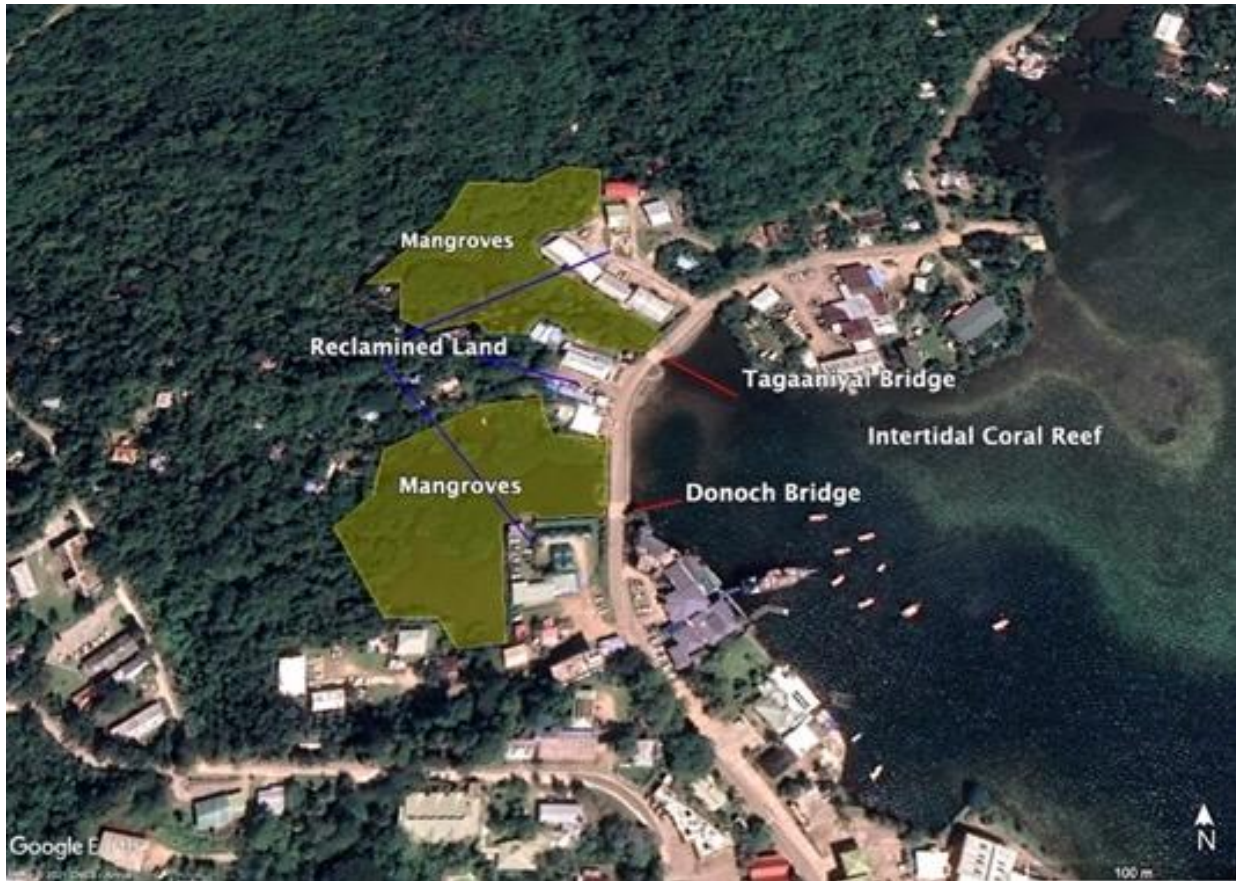
1. Project introduction:

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2. Location and accessibility:

The bridges are located in the Colonia-capital City of Yap State of Federated States of Micronesia. The bridges are approximately in 100 m. distance runs parallel and direct next to the coastal shoreline. The existing Donoch (9⁰31'06.45"N and 138⁰07'16.64"E) and Tagaaniyal (9⁰31'09.92"N and 138⁰07'17.40"E) bridges are very similar in structure, are 6 meters long, constructed of short span steel and concrete that span two individual water ways that entry/exit adjacent mangrove and estuarine ecosystems located on the circumferential road within Colonia. The aerial view of the bridge is shown below map. (Figure 1).

Location of Donoch and Tagaaniya bridges and its surroundings



These two bridges connect the people of Weloy municipality with the Colonia and with the Nimaar and Keeng villages. It's the major driveway to the people for commercial business, health, Supreme Court, and government services. The bridge is within a gazette Yap State road easement. These bridges are operational for the past 50 years. The bridges are under distress condition and need replacement to continue accessibility and movement of the people of the capital city to avoid future disruption due to bridge collapse. It will ensure the mobility of people, business and goods along the island and key installation on both sides of these bridges.

Lot 3: Replacing the 12-meter Awak bridge

Name of the project: **Awak Bridge, Pohnpei**



Figure 1.1: Awak Bridge in Pohnpei for replacement.

3. Project introduction:

4. Location and accessibility:

The Awak Bridge is approx. 5.5 miles from Kolonia on the primary circumferential road located at 769628N, 418568E (UTM-Coordinates) over the Pilen Kepin Awak stream confluence with Ocean lagoon in North- East quadrant of the island. The existing Bridge is a single-span bridge resting on a shallow foundation with no history of overtopping. The overall length of the existing bridge is 43'-0", and a clear span of 39'-0". The Awak Bridge is located near the shoreline of the ocean lagoon. The maximum observed highest flood level (HFL) was found to be 8'-3.5", whereas the maximum observed high tide level was 4'-9" as per the local inquiry.



Figure 3.3: Awak Bridge and Surrounding Geography

Lot 4: Rehabilitation of 0.5-Mile Lelu Causeway**Name of the project: Lelu Causeway, Kosrae****Figure 1.1: Lelu Causeway for improvement in Kosrae****1. Project introduction:**

Lelu Causeway (Figure 1.1): The Lelu causeway was constructed more than fifty (50) years ago. In the present condition, the causeway is found to be narrow, low, and has insufficient drainage facility. The causeway which forms a barrier between ocean and lagoon is subjected to erosion and scouring from tidal action towards ocean side as well as Lagoon side. The main aim of the improvements is to facilitate increased natural water-flow from one side to the other i.e. ocean side to the Lagoon side and vice versa.

2. Location and accessibility:

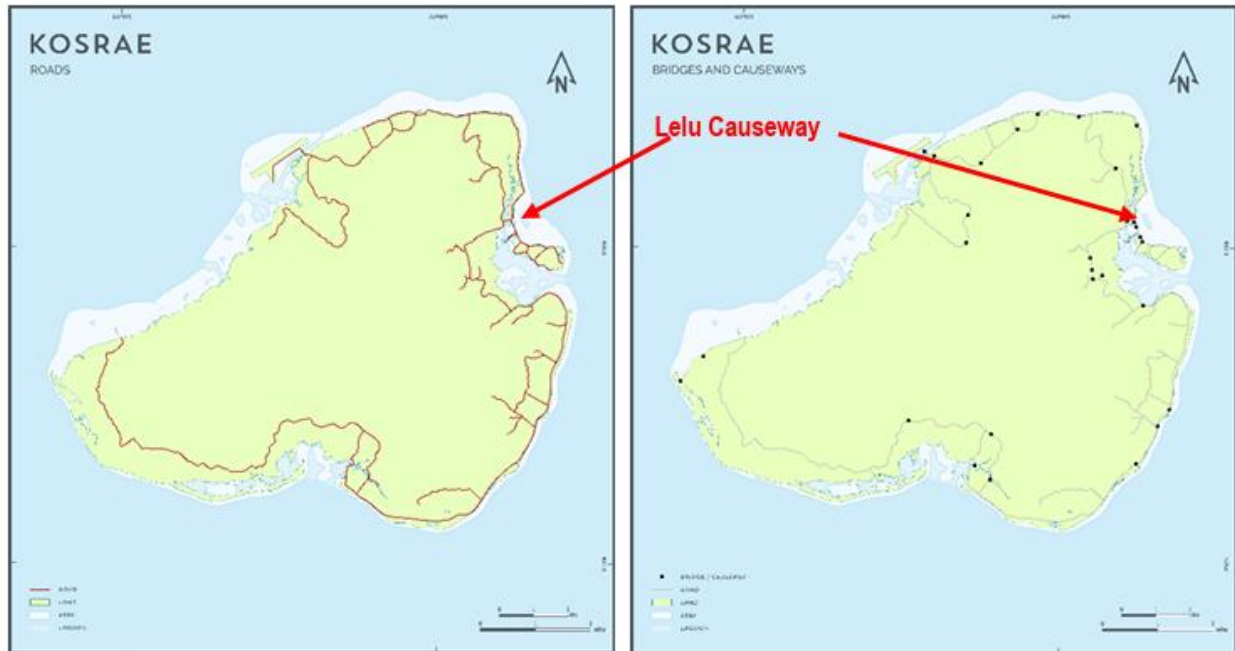
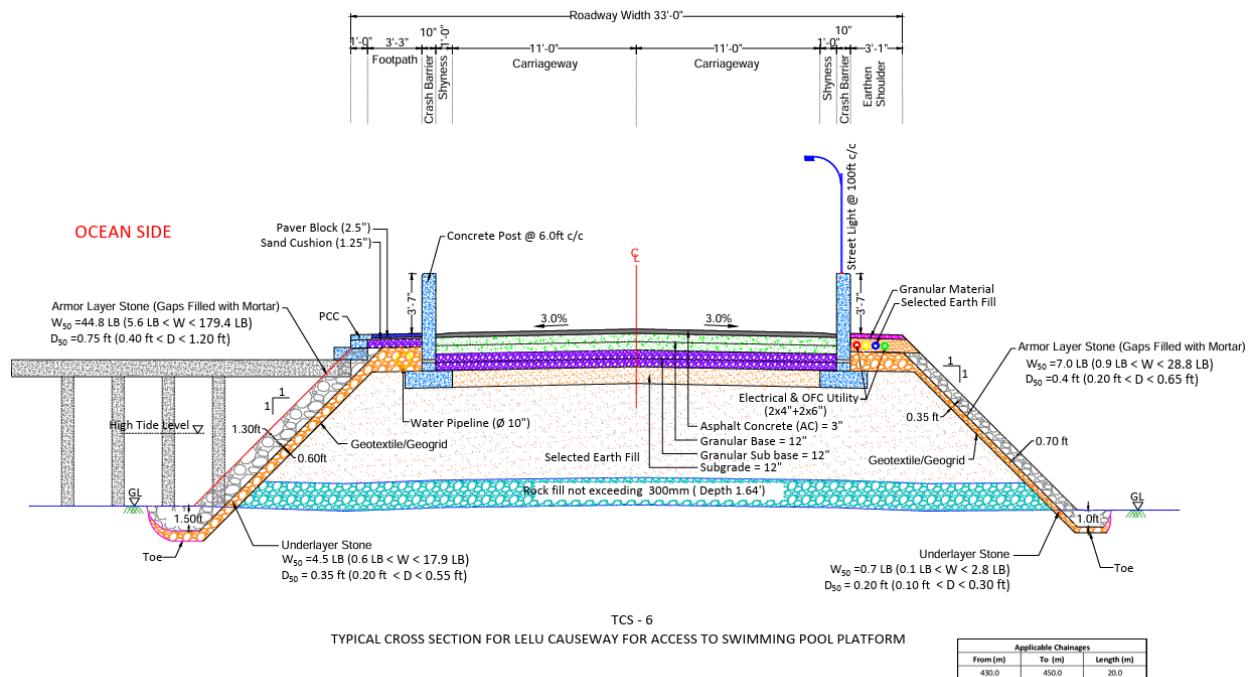


Figure 3.8: Road Network (Left) and Bridges and Causeways (Right)

The Lelu Island is located on northeastern portion of Kosrae Island. The Lelu causeway has evolved from last several decades of erosion and scouring from tidal actions. The work involves the structural retrofit of the Lelu causeway, which includes but is not limited to the subgrade, subbase, and wearing course with road safety upgrades and seaward coastal protection measures to ensure the connectivity from Main Island and Lelu Island sustains any future adversity due to Climate change and rise in sea level including the damaged embankment along shoreline is restored.



2. Construction Period

- Lot 1: Improving the 1.5-Miles airport to Pou Bay Bridge Road in Chuuk – **730 days / 2 years**
- Lot 2: Replacing two short-span (6-meter-long) steel and concrete composite bridges in Yap – **730 days / 2 years**
- Lot 3: Replacing the 12-meter Awak bridge – **730 days / 2 years**
- Lot 4: Rehabilitation of 0.5-Mile Lelu Causeway – **730 days / 2 years**

NB: These durations are exclusive of 365 days of Defects and Liability Periods as per FIDIC Conditions of Contract for Construction 2017.

3. Indicative E&S Requirements (pending finalization of ESMPs)

Based on the ES assessment, the Employer shall provide key ES risks and impacts and expectations on contractors to manage the risks and impacts.

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
1	Installation of Bailey Bridge (Lots 2 and 3)	<ol style="list-style-type: none"> 1. <u>Regulatory approvals and Environmental clearances</u> Before construction begins, regulatory approvals and environmental clearances must be obtained. Since stream waterways are sensitive ecosystems, appropriate measures shall be taken to minimize the environmental disruption. 2. <u>Site Preparation (cleaning)</u> The site shall be cleared of debris, vegetation, and any obstructions that may interfere with construction activities. The location of bailey bridge abutment shall be marked at site as per the approved footing size and proper protection of soil/embankment shall be taken care so that the soil doesn't encroach the flowing water or cause any damage to existing river bed and its slope. 3. <u>Excavation for foundation</u> Excavation for the concrete footings shall be carried out to the required depth and dimensions based on the design. The depth of excavation depends on the soil conditions and the anticipated design loads of the bridge. In cases where the soil is weak or prone to erosion, additional stabilization techniques such as piling or soil reinforcement

1. Preparation of CESMP in accordance with the Contract and Secure relevant Environmental Permits in accordance with Local Laws prior to commencement of all Works;
2. Temporary works construction plan is to be submitted inclusive of shop drawings that propose stabilization, mechanism for temporary works e.g. Embankments and erosion and sediment control during construction and demobilization.
3. Shoring Works Plan to be included in CESMP to ensure strict compliance with

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>shall be employed. The excavation is properly shored to prevent collapse, and a layer of compacted gravel or crushed stone is often placed at the bottom to enhance drainage and provide a stable base for the footing.</p> <p>4. <u>Reinforcement & Formwork Placement</u> Reinforcement is then placed within the excavated foundation according to structural design requirements as shown in the approved drawings. Steel reinforcement bars (rebar) are arranged in a grid pattern and securely tied together to form a reinforced concrete structure capable of withstanding both vertical and lateral forces. Formwork shall be erected around the reinforcement to shape the concrete footing and contain it during pouring. The formwork must be rigid and well-supported to prevent deformation during the curing process. Concrete shall be mixed and poured into the formwork, ensuring proper compaction to eliminate air pockets and achieve uniform strength. The mix design is then carefully selected to meet durability and load-bearing requirements. Vibrators shall be used to consolidate the concrete and improve bonding with the reinforcement. Once poured, the concrete shall be allowed to cure for the specified duration to attain the desired strength. Curing methods may include covering the surface with wet burlap, applying curing</p>	<p>Occupational Health and Safety guidelines on depth of trenching and proposed stabilization, dewatering etc.</p> <p>4. Method Statements, Concrete Pour Plan and Material Submittals to ensure appropriate material choice for this stage of the works in accordance with the Contract, prior approval of the Engineer is required before works can commence</p> <p>5. Erection Plan to be prepared and submitted to Engineer for prior approval to ensure compliance with the Contract. Particular attention to be placed on the location of storage of bridge components, conditions in which it is being kept and control of any leachate that may emerge from its</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>compounds, or keeping the area moist to prevent premature drying and cracking.</p> <p>5. <u>Assembly of Bailey Bridge components & Erection</u></p> <p>With the footings in place and fully cured, the next phase involves assembling the Bailey bridge components as per manufacturer’s guidelines. The modular nature of the Bailey bridge allows for rapid assembly using prefabricated steel panels, which are lightweight yet strong enough to support substantial loads. The bridge components and panels shall be assembled on site as per the design and connection details provided by the manufacturer.</p> <ul style="list-style-type: none"> - The panels are bolted together to form the bridge trusses, with each section being incrementally added until the entire span is completed. -Once assembly completes, the inspection shall be carried out to verify the alignment and joint tightness. -The bridge shall be typically launched by using cantilever method from one side of the stream, using rollers and temporary supports to slide it across to the opposite bank. This cantilever launching method reduces the need for extensive scaffolding and minimizes environmental disturbance to the stream or by using cranes stationed at both ends of the stream with proper 	<p>exposure to the elements. Should scaffolding be used to support erection, it must be in strict compliance with the <i>Occupational Health and Safety Act Safety Standards for Scaffolds Used in the Construction Industry §1926.450 SUBPART L SCAFFOLDS</i>.</p> <p>6. Subsequent to erection of decking and bracing elements, the Contractor shall appoint a duly qualified and licensed engineer to verify structural integrity and compliance with design specifications with supporting certification for the Engineer’s review and acceptance. Erosion and Sediment Control : The Contractor shall reflect the following in the CESMP:</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>reach and stability to lift bridge component. The crane shall be carefully used to lift pre-assembled bridge sections and position them over the far bank. Hydraulic jacks shall be used to place the Bailey bridge structure at the abutment cap into the bridge bearings, ensuring proper alignment and secure placement using survey equipment and positioning aids.</p> <p>6. <u>Decking & Finalization of Super-structure</u> Decking and bracing elements are then installed to complete the structural framework. Steel panel/planks shall be laid across the bridge panels to create the roadway surface, providing a stable platform for vehicular traffic. Additional bracing and connections are secured to enhance the rigidity of bridges and resistance to dynamic loads. Safety features such as guardrails and approach ramps are also installed to facilitate safe and efficient usage for vehicular traffic. After assembly, thorough inspections and load testing are to be conducted to verify the structural integrity and compliance with design specifications. Engineers shall examine all joints, connections, and support elements to identify any potential weaknesses or misalignments. Load tests involve applying predetermined weights or simulated traffic conditions to ensure the bridge can safely carry the expected loads without excessive deflection or</p>	<ol style="list-style-type: none"> a. Install silt fences, sediment traps, and turbidity barriers to prevent sediment runoff into waterways. b. Stabilize disturbed soils with vegetation, mulch, or biodegradable mats as soon as possible. c. Install Fire- and Water-resistant temporary acoustic barriers for harsh weather conditions in compliance with ASTM E84 and BS 7837-1996 and BSEN 60529:1992 IPX6 / IPX9 d. Allow for wetting of site using Water Dispenser trucks at least twice per week, equipment shall allow for use of seawater as source of water since potable

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>instability.</p> <p>7. <u>Dirt Wall Construction</u> Once the bridge is properly cited, the construction of dirt wall shall be carried out and after its curing period once the dirt wall achieves its required strength the expansion gab shall be covered.</p> <p>8. <u>Backfilling & Approach Road Construction</u> The backfilling for the approach road and its connection with the main carriageway shall be carried out as per the approved plan and specification.</p> <p>9. <u>Protection Coating</u> Protective coatings are applied to steel components to mitigate corrosion, and periodic assessments of the concrete footings ensure they remain stable and free from erosion or cracking. Additionally, debris and sediment accumulation around the footings shall be monitored and managed to prevent undermining of the foundation.</p> <p>10. Any other necessary adjustments shall be made before the bridge is officially opened for use.</p> <p>11. All safety precautions shall be taken to avoid any health and safety issue during construction and after construction when the Bailey bridge is opened for the traffic, flagmen shall be provide that the bridge ends and necessary signboards shall be provided as per standards.</p>	<p>water reserves are limited on the island.</p> <p>7. Contractor to ensure protective coatings are installed on the Bridge components prior to erection and appropriate material submittals are given to the Engineer for approval prior to installation. Contractor shall allow for Monthly inspections of the footings to ensure no sediment accretion or scour takes place at the footing while also inspecting the concrete quality to ensure structural integrity is maintained.</p> <p>8. Contractor shall recruit and deploy at least four traffic control personnel (two on either side of working lane and two to control active equipment). Contractor shall also install MASH</p>

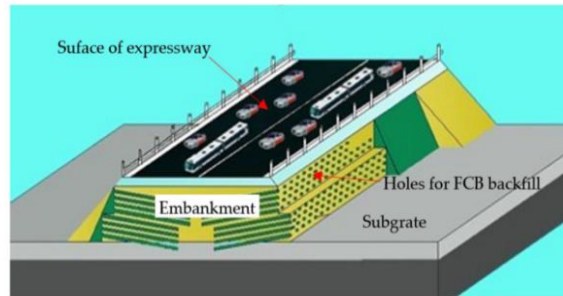
Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
		<p>compliant safety barriers for delineation purposes and install signage in accordance with the Traffic Management Plan annexed to this ESMP</p> <p>9. Night Work shall not be permitted on this site; working hours are from 7 am – 5pm Monday – Saturday.</p>

TYPICAL PICTURES SHOWING BAILEY BRIDGE CONSTRUCTION





Marking & Excavation of foundation Bridge



Launching of Bailey Bridge

PCC & Abutment Reinf. installation



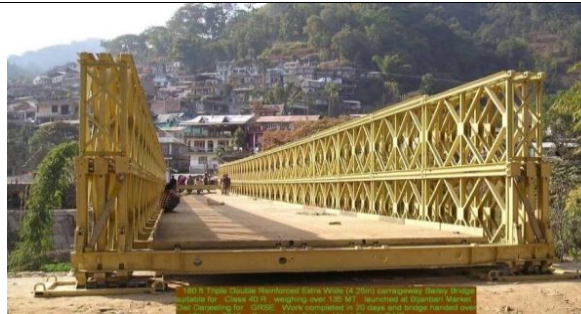
Decking of Bailey Bridge

Assembly of Bailey

Backfilling & Approach road



Top View of Bailey Bridge



Front View of Bailey Bridge



Side View of Bailey Bridge

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
2	<p>Existing Bridge Removal (approaches, abutments, utilities, girders, decks) (Lots 2 and 3)</p>	<ol style="list-style-type: none"> 1. The initial stage for the demolition of a reinforced concrete bridge shall be done thorough pre-demolition planning. Contract drawings and specifications shall be properly followed to guide the demolition of bridge. 1. Contractor to include preparation and implementation of Pre-demolition Plan as part of CESMP 2. Planning for Environmental and Social Risks shall be included in CESMP

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<ol style="list-style-type: none"> 2. In addition to structural analysis, the environmental considerations are one of the paramount. The proximity of the bridge to a stream waterway necessitates controlling potential risks to aquatic ecosystems, water quality, and surrounding habitats. This ESMP informs the development of mitigation measures, such as sediment control systems and water flow management strategies, to protect the waterway during demolition. 3. Permits and regulatory approvals are essential components of pre-demolition planning. Authorities may require compliance with environmental regulations, such as those governing waterway protection and waste management. Furthermore, stakeholders, including local communities and environmental agencies, may be consulted to ensure transparency and address concerns related to the project. 4. The temporary Bailey bridge shall be constructed side by side as the above activities take place. Once the temporary bridge is assembled and ready for traffic movement, a traffic 	<ol style="list-style-type: none"> 3. Preparation of CESMP in accordance with the Contract and Secure relevant Environmental Permits in accordance with Local Laws prior to commencement of all Works; 4. Establish Staging Areas for mobilization of demolition equipment, storage and disposal of demolished material 5. Erosion and Sediment Controls <ol style="list-style-type: none"> 1. Silt Curtains Description: Floating barriers designed to contain and control the spread of sediment in the water. Placement: Installed around the demolition area to prevent sediment from dispersing downstream. Best Practices: Ensure proper anchoring to withstand water currents. Use reinforced materials for areas with strong tidal flows or high debris loads. Regularly inspect for tears or displacement. 2. Turbidity Barriers Description: Similar to silt

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>management plan shall be developed and submitted to reroute the traffic and minimize disruption during dismantling operations.</p> <p>5. Safety protocols and safety measures for the workers and public shall be prepared including emergency response plans.</p> <p>6. Once planning and approval is completed, the mobilization of equipment, the establishment of access roads, and the installation of safety barriers and signage shall be made to protect workers and the public. Equipment such as cranes, excavators, and concrete saws shall be transported to the site, and staging areas are designated for storing machinery and materials.</p> <p>7. Erosion and sediment control measures shall be implemented to prevent contamination of the stream waterway. These measures may include the installation of silt fences, turbidity curtains, and sediment basins to capture runoff and debris. Temporary water diversion systems, such as cofferdams or bypass channels, are often constructed to isolate the work area</p>	<p>curtains but often designed for deeper or faster-moving waters. Usage: Deployed downstream to capture and reduce suspended particles.</p> <p>3. Dewatering and Sediment Traps Purpose: To treat water containing sediments before it enters the waterway. Methods: Use pumps to transfer water to a sedimentation basin or geotextile dewatering bag. Ensure filters are adequately maintained.</p> <p>4. Isolation Methods Cofferdams: Construct temporary watertight enclosures to isolate the work area. Options: Sheet piling, water-filled bladders, or sandbags. Ensure sufficient sealing to prevent water ingress and sediment escape. Diversion Channels: Redirect water flow away from the work area to limit sediment</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>from the tidal flow of water. This ensures that the demolition process does not impede the natural flow of the stream or harm aquatic life.</p> <p>8. The demolition process shall start with the controlled dismantling of the bridge superstructure. This step is critical for ensuring the safety of workers and minimizing damage to the surrounding environment. The sequence of dismantling typically starts with the removal of non-structural elements, such as railings and barriers, followed by the concrete deck and beams.</p> <p>9. Diamond wire cutting machines are commonly used to break down the reinforced concrete into manageable sections. Strict protocols are to be followed to ensure the precision of work and minimize vibrations that could affect the bank stability.</p> <p>10. The abutments and its foundation, being integral part of the bridge structure which are to be dismantled with particular care. Excavators equipped with hydraulic hammers or pulverizes are to be used to break apart the concrete, while ensuring that debris does not fall into the waterway.</p>	<p>disturbance.</p> <p>5. Temporary Erosion and Sediment Control Ground Measures: Install berms, wattles, or silt fences to control surface runoff. Use erosion-control mats on exposed slopes. Staging Areas: Establish designated zones for processing debris to minimize runoff.</p> <p>6. Demolition Techniques Controlled Demolition: Use methods like wire sawing or hydro demolition to reduce debris. Debris Catchment: Install scaffolding or nets to capture falling materials. Use floating platforms to collect debris before it enters the water.</p> <p>7. Monitoring and Maintenance Water Quality Testing: Conduct regular turbidity and sediment level checks as per monitoring plan set out in this document. Adjust sediment control</p>

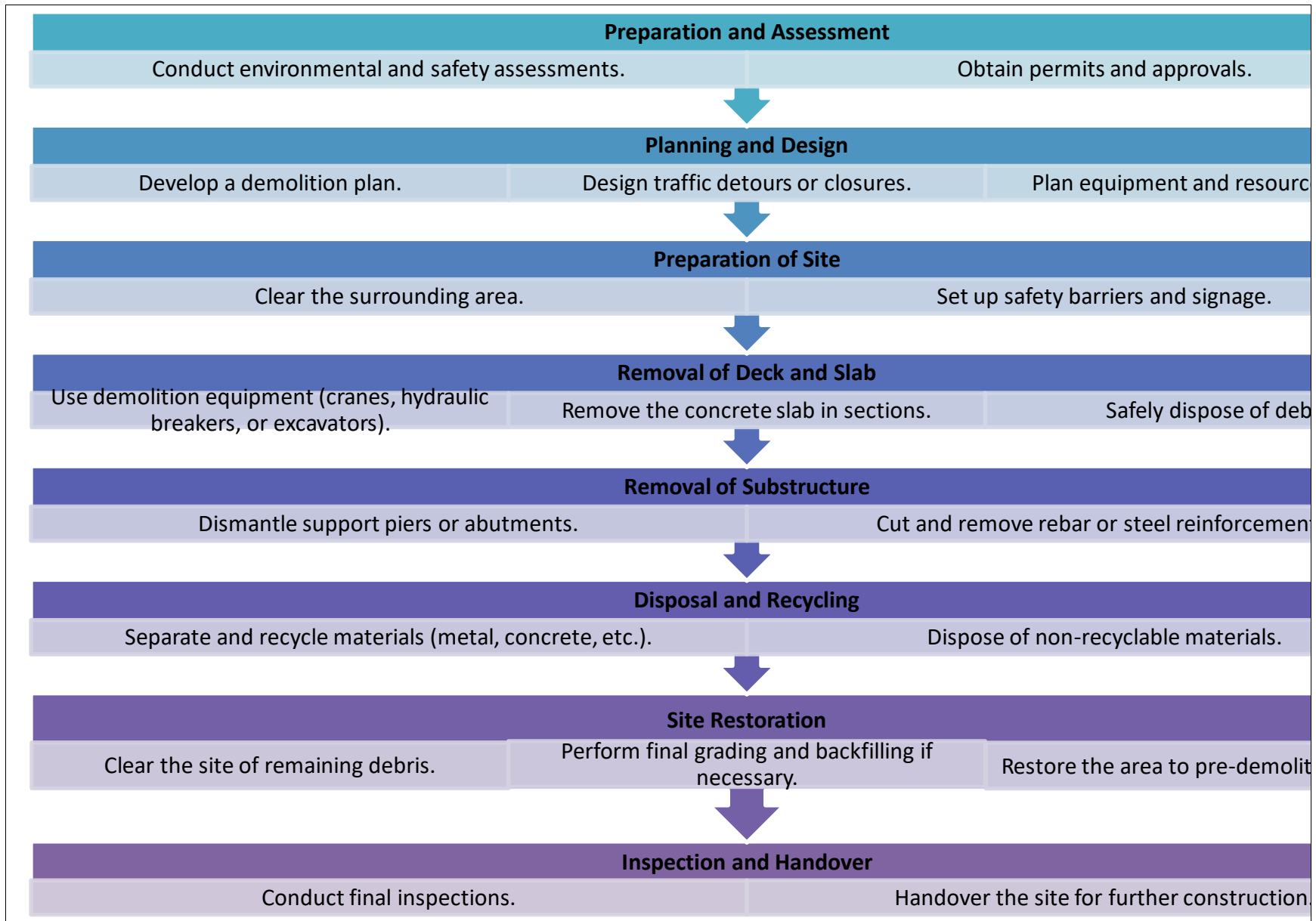
Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>11. Debris removal is a crucial component of the demolition process, as it prevents contamination of the stream and ensures the site remains safe and organized. The debris shall be collected and segregated for recycling or disposal in compliance with regulations. Heavy machinery, such as loaders and cranes, is used to transport concrete fragments, steel reinforcements, and other materials to designated disposal or recycling areas.</p> <p>12. Once the bridge and its abutments and foundation are successfully dismantled, the site undergoes post-demolition restoration to return it to a stable and environmentally sound condition and the site then handed over to the concerned authority for further construction as per the requirement.</p>	<p>measures based on real-time results. Inspection: Monthly inspection of barriers, traps, and systems for damage or inefficiency.</p> <p>6. During demolition of non-structural elements, appropriate worker PPE and controlled supervision shall be provided by the Contractor, should scaffolding be used, it shall be in compliance with Occupational Health and Safety Act Safety Standards for Scaffolds Used in the Construction Industry §1926.450 SUBPART L SCAFFOLDS.</p> <p>7. Structural member demolition shall be through mechanical means, no explosives can be used under any circumstance. Environmental and Social Controls to be set up as follows: a. install silt fences, sediment traps, and turbidity barriers to prevent sediment runoff into waterways. b. Stabilize disturbed soils with vegetation, mulch, or</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
		<p>biodegradable mats as soon as possible.</p> <p>c. Install Fire- and Water-resistant temporary acoustic barriers for harsh weather conditions in compliance with ASTM E84 and BS 7837-1996 and BSEN 60529:1992 IPX6 / IPX9</p> <p>d. Allow for wetting of site using Water Dispenser trucks at least twice per week, equipment shall allow for use of seawater as source of water since potable water reserves are limited on the island.</p> <p>8. Abutment demolitions: This phase requires constant monitoring to ensure that sediment and debris containment systems remain effective, mechanisms as outlined under (5) shall be utilized</p> <p>9. Water quality monitoring is conducted throughout the debris removal phase to detect any sediment or pollutant release into the stream. If necessary, additional containment measures are deployed to mitigate impacts. Hazardous materials, such as</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
		<p>asbestos or lead-based paint, are handled in accordance with environmental and safety regulations to prevent harm to workers and the environment.</p> <p>10. The temporary water diversion systems are removed, and the natural flow of the stream is restored. Disturbed areas along the stream bank are stabilized using erosion control techniques, such as the planting of native vegetation, installation of geotextile fabrics, or application of biodegradable erosion mats.</p> <p>11. Contractor shall recruit and deploy at least four traffic control personnel (two on either side of working lane and two to control active equipment). Contractor shall also install MASH compliant safety barriers for delineation purposes and install signage in accordance with the Traffic Management Plan annexed to this ESMP</p> <p>12. Night Work shall not be permitted on this site; working</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
		hours are from 7 am – 5pm Monday – Saturday.

FLOW CHART FOR DEMOLITION METHODOLOGY FOR EXISTING BRIDGE



	Site Description		Actions/Measures to be incorporated into CESMP
	Site Specific Component /Key Project Activity	Detailed Activities	
3	Bridge Construction (Lots 2 and 3)	<ol style="list-style-type: none"> 1. Permits and approvals from relevant authorities, including environmental and waterway regulatory agencies, are obtained to ensure compliance with legal and environmental standards. 2. <u>Site Investigation & Preparation</u> <u>Cleaning / Site Preparation & Access roads</u> Once planning and approvals are complete, site preparation begins. This phase involves the mobilization of equipment, the establishment of access roads, and the installation of safety barriers and signage to protect workers and the public. Equipment such as cranes, excavators, and concrete saws is transported to the site, and staging areas are designated for storing machinery and materials. 3. <u>Excavation & Leveling Course laying</u> <u>a) Dewatering</u> -The open foundations are provided for the bridge structures, which require preplanning for dewatering before excavation commences as per the site conditions. If required/ possible, water shall be diverted through other channels; otherwise, dewatering shall be done if required. <u>b) Excavation</u> -Excavation phase involves clearing and grading the site to establish a stable working platform. Vegetation growth and debris are removed, and access roads are constructed to facilitate the movement of equipment and 	<ol style="list-style-type: none"> 1. Preparation of CESMP in accordance with the Contract and Secure relevant Environmental Permits in accordance with Local Laws prior to commencement of all Works; 2. Temporary Works construction plan to be submitted inclusive of shop drawings that propose stabilization mechanism for temporary works, staging areas and the like eg. Embankments and erosion and sediment control during construction

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>materials. Temporary erosion and sediment control measures are implemented to protect the stream from contamination during construction. These measures may include the installation of silt fences, sediment basins, and turbidity curtains. If necessary, temporary water diversion systems, such as cofferdams or bypass channels, are to be constructed to isolate the work area from the stream’s flow, ensuring the safety of construction personnel and minimizing the disruption to the aquatic habitats.</p> <p>c) <u>Shoring & leveling course laying</u> Once the excavation is done up to required depth, the ground shall be firm and dry for Foundation laying, as it is a critical step in ensuring the stability and longevity of the bridge structure.</p> <ul style="list-style-type: none"> -The type of foundation used depends on the geotechnical conditions of the site. For open foundation footing, the bottom of the foundation shall be leveled both longitudinally and transversely before foundation is laid, the surface shall be slightly watered and rammed. - Survey points which shall be marked in the direction of the alignment by the total station from control points. A benchmark shall also be established nearby where no disturbance will occur throughout the execution phase. -Plain concrete cement (PCC) layer as leveling course of required thickness and specified grade shall be laid to provide firm support base for foundation laying and the top surface made true to level. 	<ol style="list-style-type: none"> 3. Shoring Works Plan to be included in CESMP to ensure strict compliance with Occupational Health and Safety guidelines on depth of trenching and proposed stabilization, dewatering etc. 4. Erosion and Sediment Controls 1. Silt Curtains Description: Floating barriers designed to contain and control the spread of sediment in the water. Placement: Installed around the demolition area to prevent sediment from dispersing downstream. Best Practices: Ensure proper anchoring to

Site Description		Actions/Measures to be incorporated into CESMP
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	<p>Once the leveling course has been set, the concrete surface shall be sprinkled water to prevent cracking. Dimensions of foundation shall be marked using total station.</p> <p>4. <u>Foundation Construction</u></p> <p>a) <u>Reinforcement</u> Reinforcement is then placed within the excavated foundation according to structural design requirements as shown in the drawing. Steel reinforcement bars (rebar’s) are arranged as per the reinforcement detailing and securely tied together with tie bars to form a reinforced cage capable of withstanding both vertical and lateral forces.</p> <p>b) <u>Formwork</u> Formwork is then erected around the reinforcement to shape the concrete footing and contain it during pouring. The formwork must be rigid and well-supported to prevent deformation during the curing process.</p> <p>c) <u>Concrete Pouring</u> Concrete is mixed and poured into the formwork, ensuring proper compaction to eliminate air pockets and achieve uniform strength. The mix design is carefully selected to meet durability and load-bearing requirements. The vibrators shall be used to consolidate the concrete and improve bonding with the reinforcement. Once poured, the concrete is allowed to cure for the specified duration to attain the desired</p>	<p>withstand water currents. Use reinforced materials for areas with strong tidal flows or high debris loads. Regularly inspect for tears or displacement.</p> <p>2. Turbidity Barriers Description: Similar to silt curtains but often designed for deeper or faster-moving waters. Usage: Deployed downstream to capture and reduce suspended particles.</p> <p>3. Dewatering and Sediment Traps Purpose: To treat water containing sediments before it enters the waterway. Methods: Use pumps to transfer water to a</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>strength. -The de molded concrete surfaces shall be inspected for blemishes/ honeycombing or any other defect and, if noticed, shall be mended immediately as per the approved methodology.</p> <p><u>d) Curing</u> -Curing methods may include covering the surface with wet burlap, applying curing compounds, or keeping the area moist to prevent premature drying and cracking.</p> <p>5. <u>Sub-structure Construction</u></p> <p>a) <u>Abutment & Pier Shaft construction</u> Reinforcement for sub-structure (abutment shaft / pier shaft) shall also be placed at the time of foundation reinforcement prior to concreting of the foundation. The construction of the abutments/pier follows after the completion of the foundation. Abutments/pier serve as the main support structures for the bridge span and are designed to withstand both vertical loads from the superstructure and lateral forces from the soil and water.</p> <p>b) <u>Surface Preparation</u> The surface of foundation shall be scraped with wire brush and loose materials removed. The reinforcing bars projected from the foundation are coated with cement slurry; the same shall be removed by tapping, hammering or wire brushing, to ensure proper construction joint shall be made.</p> <p>c) <u>Reinforcement Placement</u> -The level and dimension of the sub-structure shall be</p>	<p>sedimentation basin or geotextile dewatering bag. Ensure filters are adequately maintained.</p> <p>4. Isolation Methods Cofferdams: Construct temporary watertight enclosures to isolate the work area. Options: Sheet piling, water-filled bladders, or sandbags. Ensure sufficient sealing to prevent water ingress and sediment escape. Diversion Channels: Redirect water flow away from the work area to limit sediment disturbance.</p> <p>5. Temporary Erosion and</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>marked using total station on the foundation.</p> <p>-Steel reinforcement bars (rebar’s) are arranged as per the reinforcement detailing & Formwork is erected to shape the abutments/ pier. High-strength concrete is poured into the formwork, and vibration techniques are used to eliminate air voids and ensure a uniform, dense structure.</p> <p>-Weep holes in sufficient number and quantity shall be provided as per the approved drawing in the case of abutment wall. Care shall be taken so that the weep holes are not displaced from its original position during concreting operations.</p> <p>-Reinforcement tying and concrete operations of the sub-structure will be done in lifts of suitable heights as per the site conditions and depending upon the height of the sub-structure i.e. Abutment shaft/ Pier shaft.</p> <p>-Distribution steel shall be provided in lifts as per the approved construction drawings. Laps are provided in staggered manner whenever required.</p> <p>-Formwork for the corresponding lift of the sub-structure will be placed in accordance with the drawing and true to the line and level.</p> <p>d) <u>Concrete Pouring for abutment & pier</u></p> <p>-Concrete of specific grade will be poured either using crane and bucket or using a concrete pump as per the site conditions. Subsequent lift of the sub-structure will be cast in the same manner, no vertical joints shall be provided in the sub-structure.</p>	<p>Sediment Control Ground Measures: Install berms, wattles, or silt fences to control surface runoff. Use erosion-control mats on exposed slopes. Staging Areas: Establish designated zones for processing debris to minimize runoff.</p> <p>6. Debris Catchment: Install scaffolding or nets to capture falling materials. Use floating platforms to collect debris before it enters the water.</p> <p>7. Monitoring and Maintenance Water Quality Testing: Conduct regular turbidity and</p>

Site Description		Actions/Measures to be incorporated into CESMP
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	<p>-Vibrators are used to consolidate the concrete and improve bonding with the reinforcement.</p> <p><i>e) Curing of abutment & Pier</i> Once poured, the concrete is allowed to cure for the specified duration to attain the desired strength.</p> <p>-Curing compounds or wet curing methods are applied to the concrete to maintain adequate moisture levels, allowing the concrete to achieve its designed strength.</p> <p>-Waterproofing membranes or coatings may be applied to the abutments to enhance durability and protect against water infiltration.</p> <p>-Once the sub-structures are completed and sufficiently cured, the main focus of the work shifts to the construction of the superstructure.</p> <p><i>6. Super Structure Construction</i></p> <p><i>a) Scaffolding erecting & Formwork Installation</i> The super-structure is consisting of cast in situ solid slab; formwork and scaffolding are erected from the ground to support the solid slab deck concreting.</p> <p><i>b) Reinforcement Placement</i> Reinforcement steel for slab including longitudinal, transverse & distribution bars shall be placed as per design/ drawing within the formwork. Fix reinforcement for the crash barrier as per the approved drawing. Provide side shutters and support before start of concreting work.</p> <p><i>c) Concrete Pouring</i> After checking of staging, formwork and</p>	<p>sediment level checks as per monitoring plan set out in this document. Adjust sediment control measures based on real-time results.</p> <p>Inspection: Monthly inspection of barriers, traps, and systems for damage or inefficiency.</p> <p>5. Method Statements, Concrete Pour Plan and Material Submittals to ensure appropriate material choice for this stage of the works in accordance with the Contract, prior approval of the Engineer is required before works can commence</p> <p>6. Erection Plan to be prepared and</p>

	Site Description		Actions/Measures to be incorporated into CESMP
	Site Specific Component /Key Project Activity	Detailed Activities	
		<p>reinforcement, The deck concrete shall be placed in a single continuous pour in such a sequence, which avoids the formation of cold joints of the concrete. Use of vibrator is required to achieve a dense compaction and uniform structure. Do not allow any pocket formation or honeycomb in the concrete, and feel the concrete flow by hammering the shutters with a wooden mallet. The concrete at the top-level of deck slab shall be finished smoothly.</p> <p><u>d) Surface finish & Curing</u> The concrete at the top-level of the deck slab shall be finished smoothly. Once the super structure/ deck slab is casted, curing shall be done by ponding method. The depth of water in the ponds should be at least 50mm, and the water should be kept in place for a specified duration to ensure that the concrete surface remains moist. The time of ponding may vary depending on the environmental conditions like moisture and the type of concrete being used.</p> <p>7. <u>Bridge Deck installation</u></p> <p>a) <u>Removal of formwork & scaffolding</u> Once concrete gets its full strength, the surface is cleaned; formwork and scaffolding shall be removed. Afterwards the finishing works are undertaken to prepare the bridge for use. This includes the installation of safety features such as railings, barriers, and lighting systems.</p> <p>b) <u>Placement of expansion joint, bearing & parapet etc.</u> -Expansion joints are installed at the bridge deck to</p>	<p>submitted to Engineer for prior approval to ensure compliance with the Contract. Particular attention to be placed on the location of storage of constituent materials for the bridge components, conditions in which it is being kept and control of any leachate that may emerge from its exposure to the elements. Should scaffolding be used to support erection, it must be in strict compliance with the <i>Occupational Health and Safety Act Safety Standards for Scaffolds Used in the Construction Industry §1926.450</i></p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>accommodate thermal expansion and contraction, ensuring the long-term performance of the bridge.</p> <ul style="list-style-type: none"> - Bearing shall be installed as per the approved drawing and specification. - The RCC parapet and footpath with provision of any utility/ ducts shall be installed as per the approved drawings. <p>c) <u>Final Surfacing of Deck</u> The surfacing of the deck shall be done as per approved drawing & deck is finished with appropriate textures to enhance skid resistance and provide a safe driving surface.</p> <p>d) <u>Drainage system Installation</u> Drainage systems are incorporated into the super-structure to prevent water accumulation on the bridge deck and channel runoff away from the structure. Road markings and signage are added to guide traffic and enhance safety.</p> <p>8. <u>Quality Inspection & Testing</u> Quality inspection and testing for new bridge construction are essential to ensure the structure's safety, durability, and compliance with design standards. This involves comprehensive material testing (such as concrete strength, steel tensile strength, and asphalt density), structural inspections (including load and deflection tests), and non-destructive testing techniques to detect potential defects. Additionally, construction practices are closely monitored, ensuring proper formwork, reinforcement, and concrete</p>	<p><i>SUBPART L SCAFFOLDS.</i></p> <p>7. Subsequent to casting of decking and bracing elements, the Contractor shall appoint a duly qualified and licensed engineer to verify structural integrity and compliance with design specifications with supporting certification for the Engineer’s review and acceptance.</p> <p>Erosion and Sediment Control : The Contractor shall reflect the following in the CESMP:</p> <p>a. Install silt fences, sediment traps, and turbidity barriers to prevent sediment</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>placement. Final load testing and alignment checks verify the bridge's performance under real-world conditions. Detailed documentation and reporting of all inspections and test results are maintained to ensure transparency and compliance with regulatory requirements</p> <p>9. <u>Landscaping and restoration</u> Landscaping and restoration efforts are carried out around the site to stabilize disturbed areas and blend the bridge into its natural surroundings. Native vegetation may be planted to prevent erosion and restore ecological balance. Throughout the construction process, safety and environmental considerations are paramount. Workers are equipped with personal protective equipment (PPE), and safety protocols are strictly enforced to prevent accidents. Regular safety inspections and briefings are conducted to address potential hazards and ensure compliance with occupational health and safety standards. Environmental protection measures, such as noise reduction, dust control, and water quality monitoring, are implemented to minimize the impact of construction activities on the surrounding environment. Special attention is given to preserving aquatic habitats and maintaining water quality, particularly when working near sensitive ecosystems.</p> <p>10. <u>Final Touches & Roadway Preparation</u> The final stages of bridge construction focus on preparing the roadway for safe and efficient use. This</p>	<p>runoff into waterways.</p> <p>b. Stabilize disturbed soils with vegetation, mulch, or biodegradable mats as soon as possible.</p> <p>c. Install Fire- and Water-resistant temporary acoustic barriers for harsh weather conditions in compliance with ASTM E84 and BS 7837-1996 and BSEN 60529:1992 IPX6 / IPX9</p> <p>d. Allow for wetting of site using Water Dispenser trucks at least twice per week, equipment shall allow for use of seawater as source of water since potable water reserves are limited on the island.</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>includes the placement of road markings, installation of traffic signages, and ensuring proper road surface finishes.</p> <ul style="list-style-type: none"> -Road markings are applied to delineate lanes, pedestrian crossings, and other key traffic indicators, using durable materials for visibility and longevity. -Signages, including regulatory, warning, and informational signs, are strategically positioned to guide and inform drivers. <p><i>11. Opening to Traffic</i> Before the bridge is opened for the traffic, it undergoes a series of load tests and inspections to verify its structural integrity and functionality. Any deficiencies identified during testing are addressed to ensure the safety and reliability of the bridge. Once all tests are satisfactorily completed, the bridge is handed over to the relevant authorities or stakeholders for operation and maintenance.</p>	<p>8. Contractor to ensure protective coatings, signage, lighting and utilities are installed on the Bridge components after erection and appropriate material submittals are given to the Engineer for approval prior to installation. Contractor shall allow for Monthly inspections of the footings to ensure no sediment accretion or scour takes place at the footing while also inspecting the concrete quality to ensure structural integrity is maintained.</p> <p>9. Contractor shall recruit and deploy at least four traffic control personnel</p>

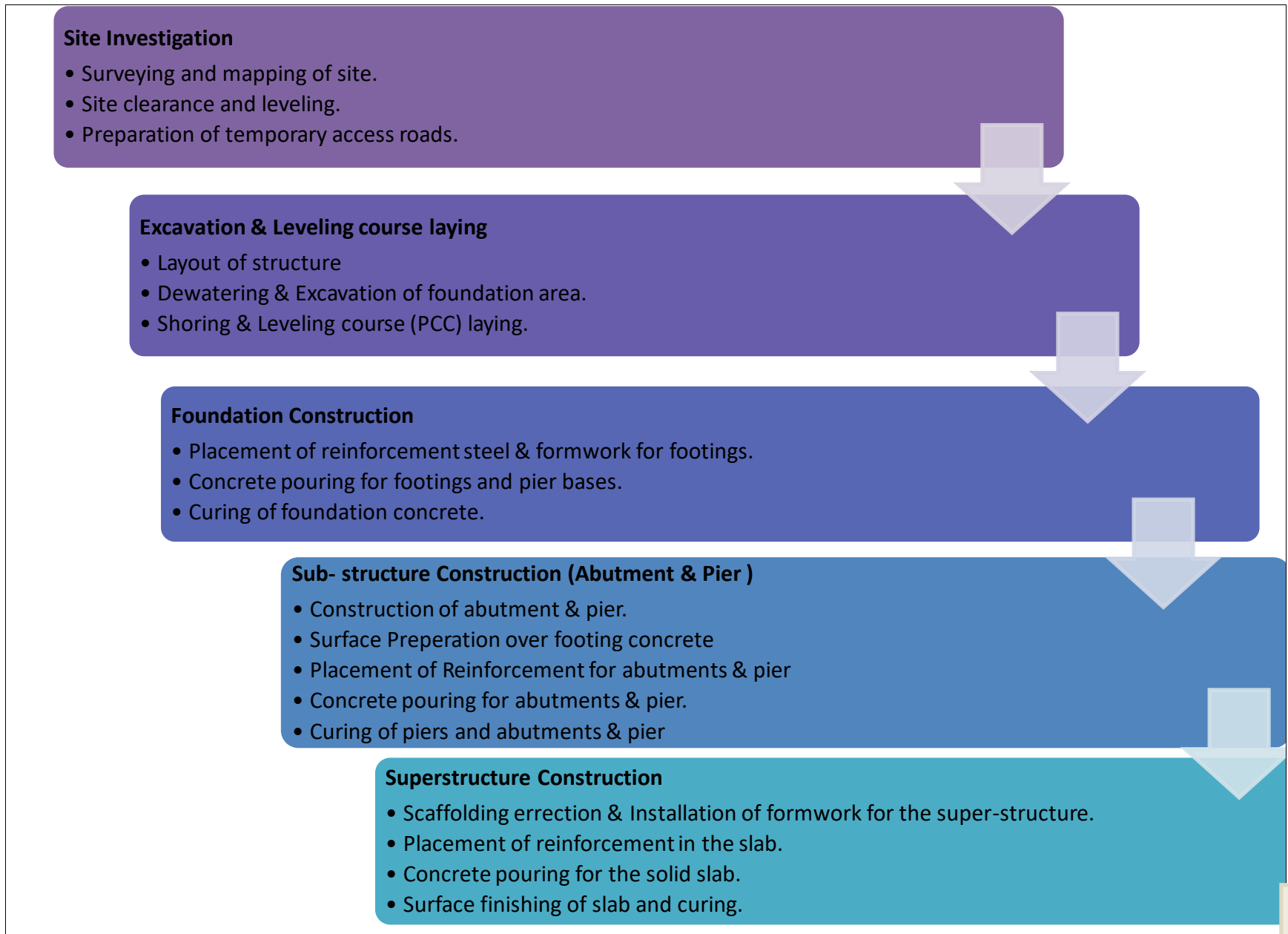
	Site Description		Actions/Measures to be incorporated into CESMP
	Site Specific Component /Key Project Activity	Detailed Activities	
			<p>(two on either side of working lane and two to control active equipment). Contractor shall also install MASH compliant safety barriers for delineation purposes and install signage in accordance with the Traffic Management Plan annexed to this ESMP</p> <p>10. Water quality monitoring is conducted throughout the debris removal phase to detect any sediment or pollutant release into the stream. If necessary, additional containment measures are</p>

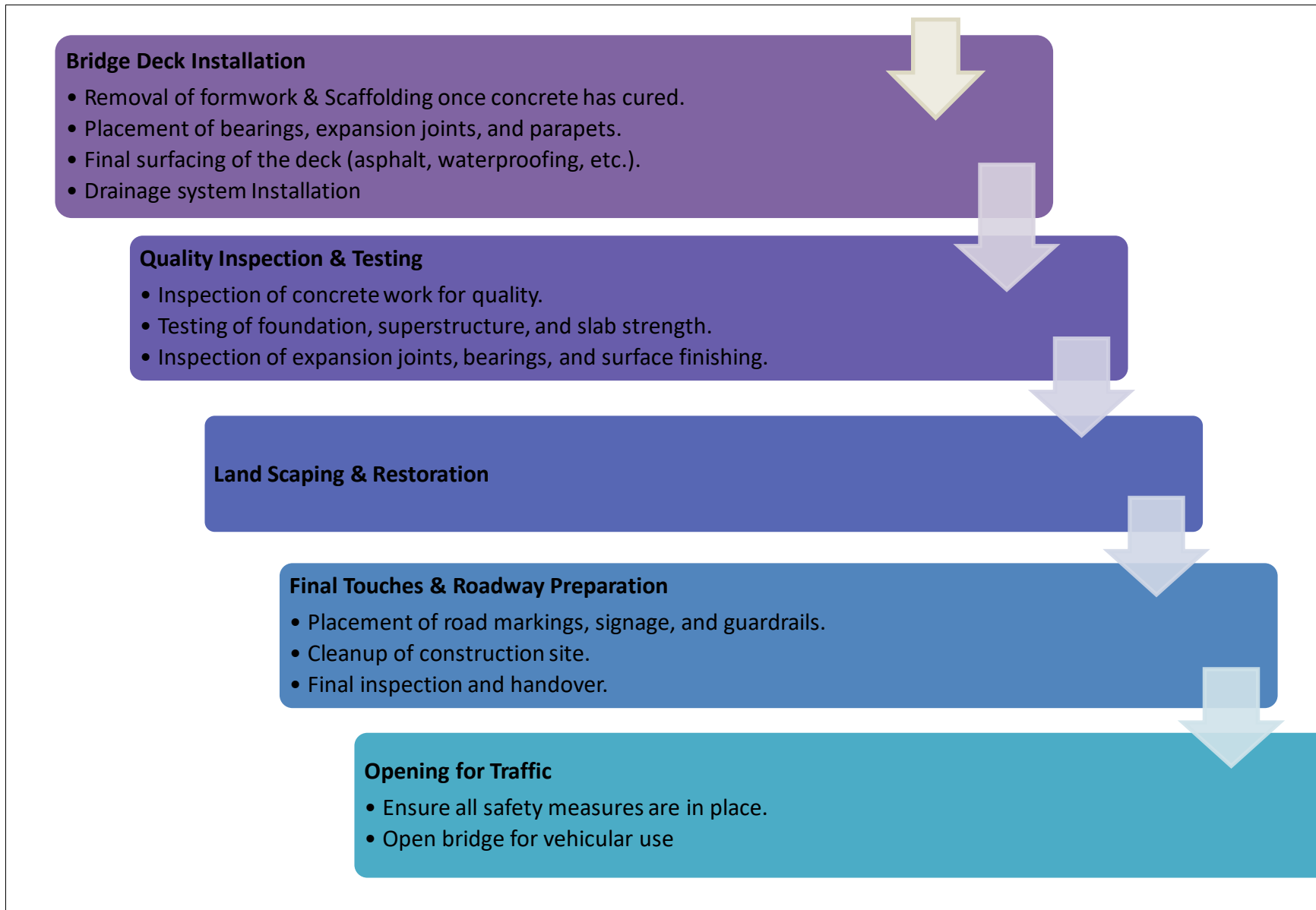
	Site Description		Actions/Measures to be incorporated into CESMP
	Site Specific Component /Key Project Activity	Detailed Activities	
			<p>deployed to mitigate impacts. Hazardous materials, such as asbestos or lead-based paint, are handled in accordance with environmental and safety regulations to prevent harm to workers and the environment.</p> <p>11. The temporary water diversion systems are removed, and the natural flow of the stream is restored. Disturbed areas along the stream bank are stabilized using erosion control techniques, such as the planting of native vegetation, installation of geotextile fabrics,</p>

	Site Description		Actions/Measures to be incorporated into CESMP
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			<p>or application of biodegradable erosion mats.</p> <p>12. Contractor shall recruit and deploy at least four traffic control personnel (two on either side of working lane and two to control active equipment). Contractor shall also install MASH compliant safety barriers for delineation purposes and install signage in accordance with the Traffic Management Plan annexed to this ESMP</p> <p>13. Night Work shall not be permitted on this site; working hours are from 7 am – 5pm Monday – Saturday.</p>

	Site Description		Actions/Measures to be incorporated into CESMP
	Site Specific Component /Key Project Activity	Detailed Activities	

FLOW CHART FOR CONSTRUCTION METHODOLOGY FOR NEW BRIDGE CONSTRUCTION





Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
4.	<p><i>Culvert Construction (All Lots)</i></p>	<p><i>1. Diversion & Demolition of Existing structure(if any)</i></p> <ul style="list-style-type: none"> - Reinforced concrete (RC) cast in situ box structure has been proposed at various locations. There are of different sizes, and the locations of the culverts shall be verified as per approved drawings before start of any construction. For the construction of new culvert, the following steps shall be adopted. - Permits and regulatory approvals are essential components for pre-demolition planning. Authorities may require compliance with environmental regulations, such as those governing waterway protection and <p>1. Preparation of CESMP in accordance with the Contract and Secure relevant Environmental Permits in accordance with Local Laws prior to commencement of all Works;</p> <p>2. Temporary Works construction plan to be submitted inclusive of shop drawings that propose stabilization mechanism for temporary works eg. Embankments and erosion and sediment control during construction and demobilization</p> <p>3. Shoring Works Plan to be included in CESMP to ensure strict compliance with Occupational Health and Safety guidelines on depth of trenching and proposed</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>waste management. Furthermore, stakeholders, including local communities and environmental agencies, are often consulted to ensure transparency and address concerns related to the project.</p> <ul style="list-style-type: none"> - In addition to structural analysis, environmental considerations are paramount. The proximity of the road / structure to a stream waterway necessitates control of potential risks to aquatic ecosystems, water quality, and surrounding habitats. The ESMP informs the development of mitigation measures, such as sediment control systems and water flow management strategies, to protect the waterway during demolition. 	<p>stabilization, dewatering etc.</p> <ol style="list-style-type: none"> 4. Method Statements, Concrete Pour Plan and Material Submittals to ensure appropriate material choice for this stage of the works in accordance with the Contract, prior approval of the Engineer is required before works can commence 5. Erection Plan to be prepared and submitted to Engineer for prior approval to ensure compliance with the Contract. Particular attention to be placed on the location of storage of bridge components, conditions in which it is being kept and control of any leachate that may emerge from its exposure to the

Site Description		Actions/Measures to be incorporated into CESMP
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	<ul style="list-style-type: none"> - The initial stage is the demolition of existing road/ existing structures thorough pre-demolition planning. Contract drawings and specifications to guide demolition of road and culverts. - The demolition process begins with the controlled dismantling of the road / structure. This step is critical to ensuring the safety of workers and minimizing damages to the surrounding environment. - Diversion for construction shall be prepared before start of any other activity. The proposed diversion road shall be as per approved drawings. - Proper protection of diversion shall be made 	<p>elements. Should scaffolding be used to support erection, it must be in strict compliance with the <i>Occupational Health and Safety Act Safety Standards for Scaffolds Used in the Construction Industry §1926.450 SUBPART L SCAFFOLDS.</i></p> <p>6. Subsequent to erection of decking and bracing elements, the Contractor shall appoint a duly qualified and licensed engineer to verify structural integrity and compliance with design specifications with supporting certification for the Engineer’s review and acceptance. Erosion and Sediment Control : The Contractor shall reflect</p>

Site Description		Actions/Measures to be incorporated into CESMP
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	<p>so that there will be no damage to diversion during demolition / excavation for new culvert.</p> <ul style="list-style-type: none"> - Traffic management plan shall be followed for diverting traffic from main carriageway to diversion road. - Traffic management plan shall be developed and submitted to reroute the traffic and minimize disruption during dismantling operations. <p>2. <u>Site Preparation & Excavation</u></p> <p>a) Layout of structure Once the traffic is diverted and the location for proposed structure is marked by survey points which shall be marked in either direction of the alignment by the total station from control points. A benchmark shall also be</p>	<p>the following in the CESMP:</p> <ul style="list-style-type: none"> a. Install silt fences, sediment traps, and turbidity barriers to prevent sediment runoff into waterways. b. Stabilize disturbed soils with vegetation, mulch, or biodegradable mats as soon as possible. c. Install Fire- and Water-resistant temporary acoustic barriers for harsh weather conditions in compliance with ASTM E84 and BS 7837-1996 and BSEN 60529:1992 IPX6 / IPX9 d. Allow for wetting of site using Water Dispenser trucks at least twice per week, equipment shall allow for use of seawater as source of water since

Site Description		Actions/Measures to be incorporated into CESMP
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	<p>established nearby where no disturbance will occur throughout the execution phase.</p> <p>b) Dewatering The raft foundations are provided for the cross drainage structures, which require preplanning for dewatering before excavation commences as per site conditions. If required, water shall be diverted through other channels; otherwise, dewatering shall be done if required.</p> <p>c) Excavation The excavation shall be done with safe side slopes as per ground conditions, and sufficient margin for the minimum working area should be left (minimum 300mm). JCB or excavator shall carry out excavation, and excavated material shall be disposed such that no</p>	<p>potable water reserves are limited on the island.</p> <p>7. Contractor to ensure protective coatings are installed on the Bridge components prior to erection and appropriate material submittals are given to the Engineer for approval prior to installation. Contractor shall allow for Monthly inspections of the footings to ensure no sediment accretion or scour takes place at the footing while also inspecting the concrete quality to ensure structural integrity is maintained.</p> <p>8. Contractor shall recruit and deploy at least four traffic control personnel (two on either side of working lane and two to control</p>

Site Description		Actions/Measures to be incorporated into CESMP
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	<p>stream of nearby is effected due to the excavated material. The excavated soil and structure if any shall be decomposed as per pre-approved area. The pit level reached up to the PCC bottom shall be properly levelled and compacted before laying Plain Cement Concrete (PCC).</p> <p>3. <u>Construction Stage 1 – Raft Construction</u></p> <p>a) Leveling Course The excavated pit shall be manually dressed and sufficient working space around the raft to be constructed. Fix forms or wooden planks at the edge as formwork. PCC shall be laid as per the required depth, then manually spread and compacted in a uniform layer of levelling course thickness as mentioned in the drawing. After the initial</p>	<p>active equipment). Contractor shall also install MASH compliant safety barriers for delineation purposes and install signage in accordance with the Traffic Management Plan annexed to this ESMP</p> <p>9. Night Work shall not be permitted on this site; working hours are from 7 am – 5pm Monday – Saturday.</p>

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>setting, the concrete surface shall be sprinkled with water to prevent cracking.</p> <p>b) Reinforcement & Formwork</p> <p>Rebar shall be tied as per the approved drawings and bar bending schedule. Bottom layer of bars in longitudinal and transverse direction shall be laid & then top layer reinforcement shall be tied. Chairs shall be provided at appropriate places to avoid the sagging of the top reinforcement mesh.</p> <p>After completion of top reinforcement, erect the vertical wall bars with binders/spacers.</p> <p>c) Concrete Pouring</p> <p>Concrete is mixed and poured into the formwork, ensuring proper compaction to eliminate air pockets and achieve uniform strength. The mix design is carefully selected to meet durability and load-bearing</p>	

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>requirements. Vibrators are used to consolidate the concrete and improve bonding with the reinforcement. Once poured, the concrete is allowed to cure for the specified duration to attain the desired strength. Curing methods may include covering the surface with wet burlap, applying curing compounds, or keeping the area moist to prevent premature drying and cracking.</p> <p>-The wall portion shall be made with Shear keys (Construction Joint), as shown in the drawing.</p> <p>4. <u>Construction Stage 2 – Wall Construction</u></p> <p>a) Wall Reinforcement & Formwork</p> <p>The wall reinforcement shall be tied against the dowels left through the raft. The vertical bars shall be provided with required</p>	

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>overlaps as per construction drawings. Horizontal reinforcement shall be tied in position as shown in the drawing. After completion of reinforcement work, forms in panels shall be erected, aligned and fixed in position as required against the already tied reinforcement.</p> <p>-Weep holes in sufficient number and quantity shall be provided as per the approved drawing. Care should be taken so that the weep holes are not displaced from its original position during concreting operations</p> <p>b) Concrete pouring for wall</p> <p>-Concrete of specific grade will be poured either using crane and bucket or using a concrete pump as per the site conditions. It shall be ensured that concreting is continuous and completed</p>	

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>in a single pour to minimize the number of cold joints.</p> <ul style="list-style-type: none"> -The exposed area of the walls shall be green cut to receive the next lift concrete, and shear keys (Construction Joint) shall be formed as per the construction drawing. -Vibrators are used to consolidate the concrete and improve bonding with the reinforcement. Once poured, the concrete is allowed to cure for the specified duration to attain the desired strength. <p>c) Formwork removal, Inspection & Curing</p> <ul style="list-style-type: none"> -The de molded concrete surfaces shall be inspected for blemishes/ honeycombing or any other defect and, if noticed, shall be mended immediately as per the approved methodology. -Wet curing methods are applied to the concrete to 	

Site Description		Actions/Measures to be incorporated into CESMP
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	<p>maintain adequate moisture levels, allowing the concrete to achieve its designed strength.</p> <p>-Once the sub-structures (vertical walls) are completed and sufficiently cured, the main focus of the work shifts to the construction of the top slab of the Box structure.</p> <p>5. <u>Construction Stage 3 – Deck Slab Construction</u></p> <p>a) Scaffolding erection & Staging</p> <p>After completion of the wall up to the required height, staging for the deck will start. The deck consists of cast in situ slab; formwork and scaffolding are erected from the ground to support the slab deck concreting.</p> <p>b) Formwork & Reinforcement Placement</p> <p>Fix the balance wall inner side shutter and align by</p>	

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>taking support from the staging erected as per staging and formwork drawing of box culvert, provide the soffit shuttering for top slab. Fix the reinforcement bars for the deck and balance wall portion of the wall as per GFC drawings. Fix reinforcement for the crash barrier for reinforcement as the GFC drawing. Provide side shutters and support before start of concreting work.</p> <p>c) Concrete Pouring & Curing</p> <ul style="list-style-type: none"> -After checking of staging, formwork and reinforcement, cast the wall and deck. Concrete shall be placed in a single continuous pour in such a sequence, avoiding the formation of cold joints -Use of vibrator is required to achieve a dense compaction and uniform 	

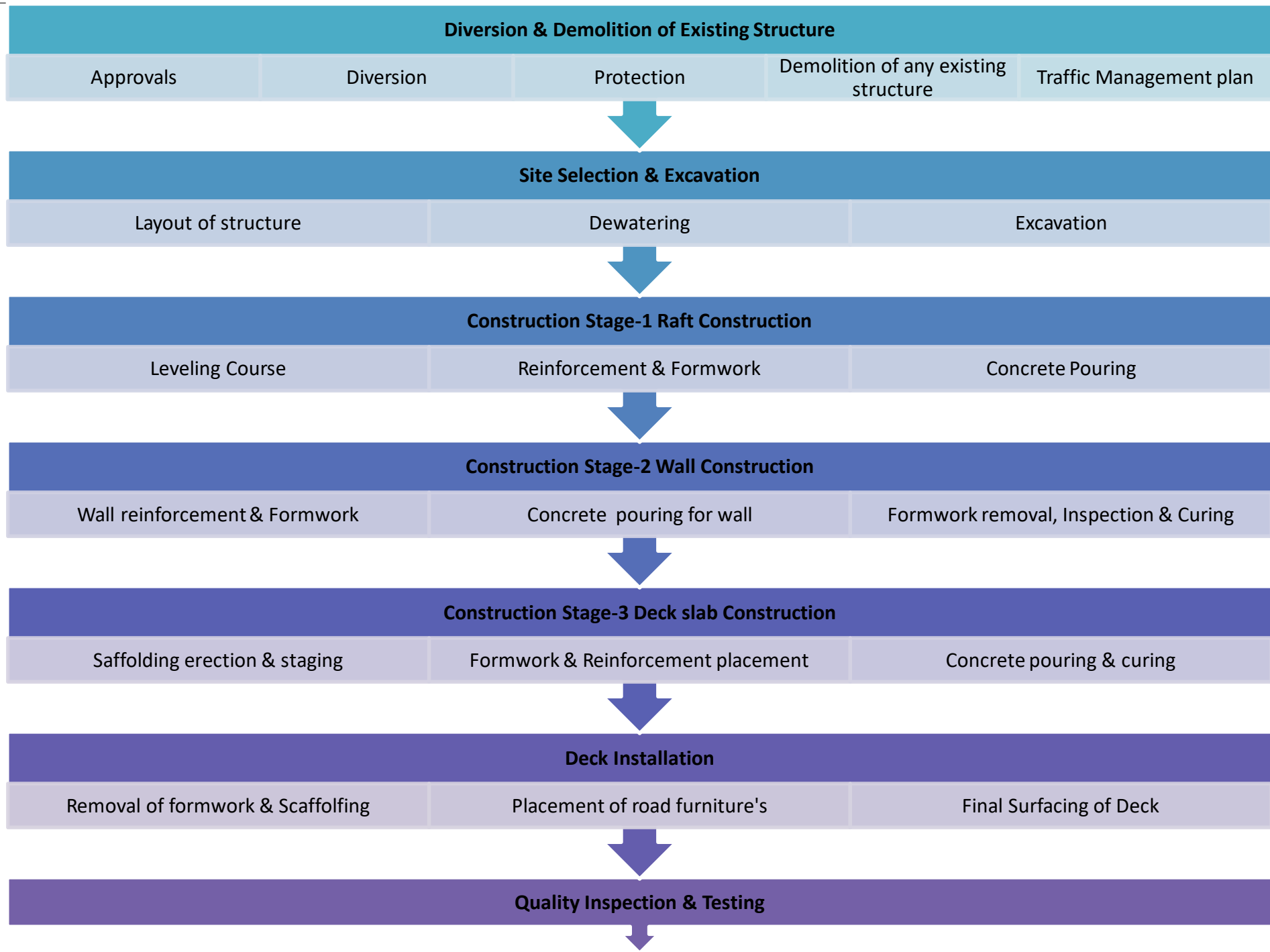
Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>structure. Do not allow any pocket formation or honeycomb in the concrete, and feel the concrete flow by hammering the shutters with a wooden mallet. Deck concrete top-level shall be finished smoothly.</p> <p>-Once the top slab is casted, curing shall be done by ponding method. The depth of water in the ponds should be at least 50mm, and the water should be kept in place for a specified duration to ensure that the concrete surface remains moist. The time of ponding may vary depending on the environmental conditions, like moisture and the type of concrete being used.</p> <p>6. <u>Deck Installation</u></p> <p>a) Removal of formwork & scaffolding</p> <p>Once concrete gets its full strength, the surface</p>	

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>is cleaned, formwork and scaffolding shall be removed. Afterwards finishing works are undertaken to prepare the culvert for use.</p> <p>b) Placement of road furniture's This includes the installation of safety features such as RCC railings; parapet wall and footpath with provision of any utility shall be installed as per approved drawings.</p> <p>c) Final Surfacing of Deck The surfacing of the deck shall be done as per the approved drawing & deck slab / top slab is finished with appropriate textures to enhance skid resistance and provide a safe driving surface. Road markings and signage are added to guide traffic and enhance safety.</p>	

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>7. <u>Quality Inspection & Testing</u> Quality inspection and testing for culvert construction are essential to ensure the structure's safety, durability, and compliance with design standards. This involves comprehensive material testing (such as concrete strength, steel tensile strength, and asphalt density), structural inspections (including load and deflection tests), and non-destructive testing techniques to detect potential defects. Additionally, construction practices are closely monitored, ensuring proper formwork, reinforcement, and concrete placement. Detailed documentation and reporting of all inspections and test results are maintained to ensure</p>	

Site Description		Actions/Measures to be incorporated into CESMP
Site Specific Component /Key Project Activity	Detailed Activities	
	<p>transparency and compliance with regulatory requirements</p> <p>8. <u>Opening to Traffic</u> Before the culverts/ structures are opened for traffic, it undergoes inspections to verify its structural integrity and functionality. Any deficiencies identified during inspection are addressed to ensure the safety and reliability of the culvert. Once the inspections are satisfactorily completed, the culvert is handed over to the relevant authorities or stakeholders for operation and maintenance.</p>	

FLOW CHART FOR CONSTRUCTION METHODOLOGY FOR CULVERTS



5	<i>Road Excavation (All Lots)</i>	<ol style="list-style-type: none">1. Permits and approvals from relevant authorities, including environmental and waterway regulatory agencies, are obtained to ensure compliance with legal and environmental standards.2. Once planning and approvals are complete, site preparation begins. This phase involves the mobilization of equipment, the establishment of access roads, and the installation of safety	<ol style="list-style-type: none">1. Preparation of CESMP in accordance with the Contract and Secure relevant Environmental Permits in accordance with Local Laws prior to commencement of all Works;2. Establish Staging Areas for mobilization of demolition equipment, storage and disposal of demolished and excavated material3. Erosion and Sediment Controls
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	<p>barriers and signage to protect workers and the public. Equipment such as cranes, excavators, and concrete saws is transported to the site, and staging areas are designated for storing machinery and materials.</p> <p>3. The site is cleared of vegetation, debris, and any obstructions, such as existing structures. Since the site is located in a low-lying area, earthwork operations are carried out to raise the level of the roadway, ensuring proper drainage and flood protection. The site is then graded to create a smooth and level surface. Construction shall proceed from the Airport to Pou Bay at 600-foot strips on the seaward side until the entire seaward side is complete, this process is then repeated on the landward side.</p> <p>4. Temporary erosion control measures, such as silt fences and sediment traps, are installed to prevent soil erosion and sedimentation during construction. Construction access roads are established to facilitate the movement of machinery and materials to the site.</p> <p>5. Once the site is prepared, subgrade preparation is the next critical step. The subgrade acts as the foundation for the rigid pavement and must be properly stabilized to provide the necessary</p>	<p>1. Silt Curtains</p> <p>Description: Floating barriers designed to contain and control the spread of sediment in the water.</p> <p>Placement: Installed around the demolition area to prevent sediment from dispersing downstream.</p> <p>Best Practices:</p> <p>Ensure proper anchoring to withstand water currents. Use reinforced materials for areas with strong tidal flows or high debris loads. Regularly inspect for tears or displacement.</p> <p>2. Temporary Erosion and Sediment Control</p> <p>Ground Measures:</p> <p>Install berms, wattles, or silt fences to control surface runoff.</p> <p>Use erosion-control mats on exposed slopes.</p> <p>Staging Areas:</p> <p>Establish designated zones for processing debris to minimize runoff.</p> <p>3. Monitoring and Maintenance</p> <p>Water Quality Testing:</p> <p>Conduct regular turbidity and sediment level checks as per monitoring plan set out in this document.</p>
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	<p>support. The existing soil is excavated to the required depth, and unsuitable materials are removed and replaced with engineered fill. The subgrade is then compacted using non-vibratory rollers to achieve the desired density and strength. Geotextiles or geogrids may be placed over the subgrade to improve load distribution and prevent soil movement. Quality control tests, such as California Bearing Ratio (CBR) tests, are conducted to ensure that the subgrade meets the specified requirements.</p> <ol style="list-style-type: none"> 6. The construction of the rigid pavement begins after the subgrade preparation is complete. Rigid pavement, typically made of Portland Cement Concrete (PCC), is preferred for its high strength, durability, and ability to withstand heavy traffic loads. The process starts with the installation of formwork along the edges of the pavement to define its shape and dimensions. A base layer, often made of granular material or a lean concrete mix, is laid over the subgrade to provide a stable platform for the pavement. 7. Reinforcement steel, such as dowel bars and tie bars, is placed within the pavement structure to enhance its load-carrying capacity and to prevent cracking. Concrete is then mixed and poured into 	<p>Adjust sediment control measures based on real-time results.</p> <p>Inspection:</p> <p>Monthly inspection of barriers, traps, and systems for damage or inefficiency.</p> <ol style="list-style-type: none"> 4. Appropriate worker PPE and controlled supervision shall be provided by the Contractor, should scaffolding be used, it shall be in compliance with Occupational Health and Safety Act Safety Standards for Scaffolds Used in the Construction Industry §1926.450 SUBPART L SCAFFOLDS. 5. Environmental and Social Controls to be set up as follows: <ol style="list-style-type: none"> a. install silt fences, sediment traps, and turbidity barriers to prevent sediment runoff into waterways. b. Stabilize disturbed soils with vegetation, mulch, or biodegradable mats as soon as possible. c. Install Fire- and Water-resistant temporary acoustic barriers for harsh weather conditions in compliance with ASTM E84 and BS 7837-1996 and BSEN 60529:1992 IPX6 / IPX9 d. Allow for wetting of site using Water Dispenser trucks at least twice per week, equipment shall allow for use of seawater as source of water since potable water reserves are limited on the island.
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		<p>the prepared forms, ensuring that it is evenly distributed and compacted to eliminate air voids. Vibratory screeds and tamping tools are used to achieve a smooth and uniform surface. Control joints are created at regular intervals to accommodate thermal expansion and contraction, preventing random cracking in the pavement. The concrete is cured using water sprays, curing compounds, or wet burlap to maintain the moisture necessary for achieving the desired strength. Non-destructive testing methods, such as core sampling and rebound hammer tests, are employed to verify the quality of the concrete.</p> <p>8. Simultaneously with the pavement construction, longitudinal drains are installed on either side of the roadway to manage surface and subsurface water effectively. Proper drainage is critical to preventing water accumulation, which can weaken the pavement structure and reduce its lifespan. The installation process begins with the excavation of trenches along the roadway edges to the required depth and gradient. The trenches are lined with formwork and reinforcing steel to allow for construction of RC channels to collect and convey water away from the roadway toward the</p>	<p>6. Water quality monitoring is conducted throughout the debris removal phase to detect any sediment or pollutant release into the stream. If necessary, additional containment measures are deployed to mitigate impacts. Hazardous materials, such as asbestos or lead-based paint, are handled in accordance with environmental and safety regulations to prevent harm to workers and the environment.</p> <p>7. The temporary water diversion systems are removed, and the natural flow of the stream is restored. Disturbed areas along the stream bank are stabilized using erosion control techniques, such as the planting of native vegetation, installation of geotextile fabrics, or application of biodegradable erosion mats.</p> <p>8. Contractor shall recruit and deploy at least four traffic control personnel (two on either side of working lane and two to control active equipment). Contractor shall also install MASH compliant safety barriers for delineation purposes and install signage in accordance with the Traffic Management Plan annexed to this ESMP</p> <p>9. Night Work shall not be permitted on this site, working hours are from 7 am – 5pm Monday – Saturday.</p>
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		<p>outfall. The trenches are then backfilled with compacted soil, and the surface is restored to its original condition.</p> <p>9. After the pavement and drainage systems are constructed, the final finishing works are carried out to prepare the roadway for operation. This includes the installation of curbs, medians, and shoulders to enhance safety and functionality. Road markings, such as lane dividers, edge lines, and pedestrian crossings, are applied using reflective paint to ensure visibility and compliance with traffic regulations. Traffic signs and signals are installed at appropriate locations to guide drivers and ensure safe movement along the roadway. Lighting systems may also be added to improve visibility at night and in adverse weather conditions.</p> <p>10. Erosion control and landscaping measures are implemented to stabilize the surrounding areas and to enhance the aesthetic appeal of the roadway. Native vegetation is planted along the embankments to prevent soil erosion and to integrate the roadway into the natural environment. Noise barriers or green buffers may be constructed in residential areas to mitigate the impact of traffic noise.</p>	
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		<p>11. Upon completion of construction, the roadway undergoes a series of final inspections and performance tests to verify its readiness for use. Load testing is conducted to assess the structural integrity of the pavement and drainage systems. Any deficiencies identified during these tests are addressed promptly to ensure the safety and functionality of the roadway. Once all tests are satisfactorily completed, the roadway is handed over to the relevant authorities or stakeholders for operation and maintenance.</p>	
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