

**Invitation for Expression of Interest
For Construction Supervision Consultant
for the Fifth Thai-Lao Friendship Bridge Construction**

1. The Governments of Lao PDR and the Kingdom of Thailand have reached the official construction agreement of the fifth Thai-Lao friendship Bridge (Bueng Kan – Bolikhamxai). The scope of the project starts from the intersection on National Road No.222 at km.123+430 in Bueng Kan Province, Thailand to the intersection on National Road No.13 at km.136+677 in Bolikhamxai Province, Lao PDR. The project includes connecting roads, bridge across Mekong river, two (2) border control facilities (BCF) and all relevant buildings, two (2) weighing stations, and a traffic changing-over. The executing agency for Thailand is Department of Highways, Ministry of Transport (DOH), and the executing agency for Lao PDR is Department of Roads, Ministry of Public Works and Transport (DOR).
2. On the above context, DOH and DOR intends to invite qualified consulting firms to submit the expression of interest, company's profile and documents including experiences in construction supervision (road, bridge and elevated structure construction projects are preferable) review for short list selection of an eligible Thai consultant or eligible Thai-Laos consultant for the construction supervision for the project.

3. The interested firm can submit EOI documents to DOH on the following address:

Address: Director, Bureau of International Highways Cooperation
Department of Highways
2/486 Si Ayutthaya Road, Thung Phaya Thai, Ratchathewi
Bangkok, Thailand 10400

Deadline of submission of expression of interest is on 30 April 2020 at 16.00 (Local Time).

4. The Selection for the consulting service will be based on Quality Based Selection (QBS) method, which Technical Proposal will be taken in to account for evaluation.
5. All proposed proposal, reports, documents and recommendation must be presented in the English language.

6. Scope of Works

The Consultant will provide services as the agency of the Government of Thailand and Lao PDR to ensure the successful performance of the Project. The Government of Thailand and Lao PDR require the consulting services specifically for the following:

- (i) To assist and advise the authorized committees in preparation of the pre-construction process, and a review of the detailed design and detailed implementation program.
- (ii) To assist and advise the authorized committees in developing institutional frameworks for the pre-construction process, the construction supervision and project finalization, including work organizations and procedural systems.
- (iii) To advise the authorized committees on essential matters in the execution of pre-construction process, construction supervision and project finalization, paying special attention to progress control.

- (iv) In carrying out the services, the Consultants shall fully cooperate with concerned agencies in Lao PDR and Thailand.

For more information, contact:

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**General Requirements for Expression of Interest
For Construction Supervision Consultant
for the Fifth Thai-Lao Friendship Bridge Construction**

Submission Documents

1. Certified copy of Commercial registration in accordance with Thai Laws issued by Department of Business Development, Ministry of Finance, Kingdom of Thailand within 6 months prior to the submission date, for single entity or the lead firm in case of Consortium or Joint Venture formation. Thai Consortium may include Lao Consulting firm.
2. Consortium or Joint Venture Agreement.
3. Certified copy of Thai consulting firm registration in the Consultant Database Center, Ministry of Finance, Kingdom of Thailand for single entity or the lead firm.
4. Certified copy of Engineering license for juristic person from the Council of Engineer.
5. Self declaration letter proving not in the blacklist of Thai Government agency.
6. Certified copy of financial statement for 5 years backward for single entity or the lead firm.
7. Summary of domestic and international experiences in construction supervision (Form 1) for single entity, and for all partners in the Consortium or the Joint Venture. The experience in construction supervision consultant for the cable-stayed bridge project is preferable.
8. Company profile, list of shareholders, and board of directors for single entity or the lead firm.

TERMS OF REFERENCE

Construction Supervision Consultant (CSC) Service for the Fifth Thai-Lao Friendship Bridge Construction

1. INTRODUCTION

i. The Fifth Thai-Lao friendship bridge across Mekong river project at Bueng Kan – Bolikhamxai, together with its network, is a highway network development aiming to make connections with the neighboring countries, i.e. Cambodia, China, Lao PDR, Myanmar, Thailand, and Vietnam, under the Greater Mekong Subregion's (GMS) economic cooperation and Ayeyawady – Chao Phraya Economic Cooperation Strategy (ACMECS). This is a competition competence development strategy for the upper north-eastern provincial cluster and a strategy of Bueng Kan and the nearby provinces in relation to the economic, trade and foreign investment development. This is being done by strengthening transport connection in terms of transport routes between Thailand and Lao PDR so that the increasing volume of economic activities and transportation of goods and people can be promptly coped with. The routes cover the highway networks both in Thailand and Lao PDR through the fifth Thai-Lao friendship Bridge Project (Bueng Kan – Bolikhamxai).

ii. The Governments of Lao PDR and the Kingdom of Thailand have reached the official construction agreement of the fifth Thai-Lao friendship Bridge (Bueng Kan – Bolikhamxai) on 14 June 2019 at Bueng Kan, Thailand. The scope of the project starts from the intersection on National Road No.222 at km.123+430 in Bueng Kan Province, Thailand to the intersection on National Road No.13 at km.136+677 in Bolikhamxai Province, Lao PDR. The project includes connecting roads, bridge across Mekong river, two (2) border control facilities (BCF) and all relevant buildings, two (2) weighing stations, and a traffic changing-over. The executing agency for Thailand is Department of Highways, Ministry of Transport (DOH), and the executing agency for Lao PDR is Department of Roads, Ministry of Public Works and Transport (DOR).

iii. The Project consists of:

- A major two-lane bridge across the Mekong River.
- Connecting roads, including viaduct, embankment and culverts from/to the bridge on both sides.
- Two (2) border control facilities on both sides.
- A traffic changeover facility on Lao PDR's side.
- Two (2) weighing stations on both sides.

The Project will be divided into three (3) construction packages according to works described as follows.

Package 1	:	Road Works and Border Control Facility on Thailand's side
1A	:	The 5 th Thai-Lao Friendship Bridge (Bueng Kan - Bolikhamxay) Section 1, Road Works on Thailand's side, Bueng Kan Province 9.400 km.
1B	:	The 5 th Thai-Lao Friendship Bridge (Bueng Kan - Bolikhamxay) Section 2, Road Works and Border Control Facility on Thailand's side Bueng Kan Province 2.863 km.
Package 2	:	Main Bridge, Approach Viaducts and Connecting Roads (Thailand's and Lao PDR's sides)

- 2A : The 5th Thai-Lao Friendship Bridge (Bueng Kan - Bolikhamxay)
Section 3, Bridge Construction Works on Thailand's side,
(including renovation of Highway 212 Intersection and Multipurpose ground
under the bridge) Bueng Kan Province
- 2B : The 5th Lao-Thai Friendship Bridge (Bolikhamxay - Bueng Kan)
Bridge Construction Works on Lao PDR's side, Bolikhamxay
- Package 3** : Road Works and Border Control Facility on Lao PDR's side

iv. The contractors for civil works the above 3 Packages will be separately procured by the following manners

- The contractor of **Package 1, Contract 1A** will be procured under Thailand's Public Procurement and Supplies Administration Act, B.E. 2560 (2017) by the e-Bidding process and will sign the contract with Thailand's Department of Highways (DOH). The procurement will be performed by DOH.
- The contractor of **Package 1, Contract 1B** will be procured under Thailand's Public Procurement and Supplies Administration Act, B.E. 2560 (2017) by the e-Bidding process and will sign the contract with Thailand's Department of Highways (DOH). The procurement will be performed by DOH.
- The contractor of **Package 2 Contract 2A and 2B** will cover bridge construction work for both Thailand's and Lao PDR's sides. The contractor will be procured by International Competitive Bidding (ICB) for the entire scope of works of Package 2, and the contractor will sign contracts with both Thailand's Department of Highways (DOH) and Lao PDR's Department of Road (DOR) according to the scope of works of Thailand's portion and Lao PDR's portion respectively. The procurement will be jointly performed by DOH and DOR with assistance from Construction Supervision Consultant (the Consultant).
- The contractor of **Package 3** will be procured by International Competitive Bidding (ICB) under Lao PDR's law, and will sign a contract with Lao PDR's Department of Road (DOR). The procurement will be performed by DOR with assistance from Construction Supervision Consultant (the Consultant).

2. BACKGROUND

v. Detailed engineering design, bill of quantities, and construction cost estimate for all construction packages were carried out by Thailand's Department of Highways (DOH) under close coordination of Lao PDR Department of Roads (DOR). In addition, the Consultant will be responsible for revision of detailed engineering design, bill of quantities, and construction cost estimate for Package 2 and Package 3 before the procurement.

vi. The Governments of Lao PDR and Thailand are seeking assistance in the pre-construction process, construction supervision and project finalization for the abovementioned works and require the Consultant to provide services to assist them in the timely and efficient execution of the Project. During the procurement stage, there is a Joint Project Procurement Committee established by the representatives of the Governments of Lao PDR and Thailand to assist the Consultant for procurements of Civil Works for Package 2 and 3. While during the construction stage, there are two

(2) committees established by the representatives of the Governments of Lao PDR and Thailand to discuss the technical, financial, and policy aspects of the Project;

- a) Project Coordinating Committee (PCC) composed of representatives of the Government of Thailand and Lao PDR is established for high-level policy/technical issues;
- b) Project Management Committee (PMC) composed of representatives of the Government of Thailand and Lao PDR is established for operational details.

3. OBJECTIVES

vii. The objectives of the consulting services as described herein are to assist the representatives of the Governments of Thailand and Lao PDR in execution of the pre-construction process, construction supervision and project finalization during the implementation of the Project.

4. TERM OF REFERENCE

4.1 Scope of Consulting Services

viii. The Consultant will provide services as the agency of the Government of Thailand and Lao PDR to ensure the successful performance of the Project. The Government of Thailand and Lao PDR require the consulting services specifically for the following:

- (i) To assist and advise the authorized committees in preparation of the pre-construction process, and a review of the detailed design and detailed implementation program.
- (ii) To assist and advise the authorized committees in developing institutional frameworks for the pre-construction process, the construction supervision and project finalization, including work organizations and procedural systems.
- (iii) To advise the authorized committees on essential matters in the execution of pre-construction process, construction supervision and project finalization, paying special attention to progress control.
- (iv) In carrying out the services, the Consultants shall fully cooperate with concerned agencies in Lao PDR and Thailand.

4.2 Detailed Term of Reference

ix. The duties of the Consultant will include, but shall not necessarily be limited to:

Pre-construction Process

- (i) Advise and assist the authorized committees in a review of the detailed design, and in a review of the detailed implementation program of the Project, paying special attention to the cost estimate, fund disbursement schedule, and construction time schedule.
- (ii) Incorporate comments by the authorized committees in the review and finalization of the pre-qualification and tender documents, paying special attention to the contract issues such as special provisions of the Construction Free Zone.

- (iii) Certify that conditions for approval of the civil works contracts (Package 2 and Package 3) complies with conditions in the Loan Agreement between the Neighboring Countries Economic Development Cooperation Agency (NEDA) and Lao PDR, complies with relevant Thailand's regulations, and complies with international standards.
- (iv) Coordinate pre-tender meetings and respond to queries during the tender period.
- (v) Coordinate tender opening meetings.
- (vi) Conduct an evaluation of the contractor's pre-qualification and tender submissions, and prepare evaluation reports to be submitted to the authorized committees.
- (vii) Assist the authorized committees in negotiating with the winning bidders.
- (viii) Assist the authorized committees in concluding construction contracts, including signings and other necessary procedures.
- (ix) Assist the authorized committees in preparing of contract documents.
- (x) Undertake Road Safety Audit for the work Package 1 including (1) Pre-construction stage: before civil works begin the Consultant will undertake road safety audits for the highway detailed designs previously prepared for the DOH. The Consultant will recommend the need for, and specific location and scope of, any additional (or revised) road safety structures, appurtenances, devices and treatments required to increase road safety for both vehicles and pedestrians, including cost estimates, of all proposed road safety improvements; and also make a presentation(s) to the DOH summarizing all improvements. (2) During construction stage: the Consultant shall undertake road safety audit during construction and recommend corrective plans to sustain road safety for both road users and contractors during construction, and (3) Post-construction stages: Before opening to public traffic to confirm that all road safety improvements and associated measures have been properly installed and implemented. The Consultant will adopt the Thailand Road Safety Manual for conducting the audit.

The objectives of road safety audit are as followed:

- To evaluate the risk that could occur to road users
- To conduct safety report of any accident tendency and give out suggestions and solutions
- To raise the awareness of damage from accident and prioritise road safety issue in road design

- (xi) Review the Environmental Impact Assessment (EIA) report which has been prepared by DOH for the civil works Package 1, establish an implement schedule of the mitigation measures, and establish the environmental monitoring program and reporting plan based on the EIA report.
- (xii) Prepare the Environmental Impact Assessment (EIA) report for the civil works contracts Package 2 (2B) and Package 3, and submit to the Water Resources and Environment Administration, Ministry of Natural Resources of Lao PDR (MONRE), for approval.

Construction Supervision

- (i) Review contract documents and detailed design reports, and identify any inconsistencies, omissions, additions, revisions needed, etc.
- (ii) Approve the contractor's work program, method statements, material sources, etc., and help the contractor prepare for the most effective and expeditious method of carrying out the Project.

- (iii) Provide a detailed engineering stakeout to establish line and grade, and set the stakes for alignment and structures. It is understood that the contractor will furnish all stakes required, including those to be set by the Consultants as well as any to be set by the contractor.
- (iv) Planning and execution of construction supervision and contract administration, including effective and regular supervision of the Works, maintenance of project records and correspondence, and quality control testing to ensure that the Works are executed in accordance with Contract.
- (v) Regularly inspect the contractor's construction equipment, installations, housing, etc., and ensure that they are adequate and comply with the terms and conditions specified in the contract for the Works.
- (vi) Recommend to the authorized committees any matters pertaining to the acceptance or rejection of any part or parts of the completed work.
- (vii) Take measurements and maintain a permanent record of all measurements of work for which payment is to be made, and of all quality control test results.
- (viii) Conduct periodic checking of remaining quantities, cost estimates and foreign currency components of cost for the proper work.
- (ix) Certify payments for the Project against the relevant Bill of Quantities and issue the Consultant's Interim Payment Certificates, the Final Payment Certificate, and other certificates, including Taking-Over Certificate, as required under the civil works contract.
- (x) Evaluation of claims, disputes, extensions of time, and others related to the Project, including the issue of variation orders as appropriate and in line with any limits placed on the engineer's authority.
- (xi) Issue of the engineer's decisions/instructions as appropriate under the civil works contracts.
- (xii) Ensure that there will be no significant adverse environmental impact, as described in the environmental examination study carried out by the Governments of Lao PDR and Thailand.
- (xiii) Approve and/or issue working drawings, provide the contractor with necessary datum points and benchmarks for setting out works, and subsequently check and approve the settling out and give instructions and work general guidance to the contractor as may be necessary to ensure that the Works are carried out according to the schedule.
- (xiv) Evaluate and recommend to the authorized committees for an approval of any change in the plan or any effects on changes of the contract amount and the time schedule of the Project.
- (xv) Periodically review and submit to the authorized committees report on the progress of the Works at the site, the contractor's performance, the quality of the Works, and the financial status of the Project and its forecasts.

- (xvi) Maintain engineering reports and records in order to adequately document the progress and performance of the Work.
- (xvii) Assist the authorized committees in negotiation with the contractor, on the price or rate changes which may arise, and make recommendations on them if necessary.
- (xviii) Alert the authorized committees to any problems which have arisen or might arise in connection with the contract and make recommendations for solutions.
- (xix) Evaluate all claims for additional payments or extension of time submitted by the contractor and make recommendations on them to the authorized committees.
- (xx) Assist the authorized committees in any dispute that may arise with the contractor and give a firm opinion on any claim that the contractor may put forward by preparing a report that includes all elements on which the judgment is based.
- (xxi) Deal with public service agencies, government agencies and their agents and/or contractors pertaining to work in these contracts.

Project Finalization

- (i) Undertake the final construction inspection at the completion of the contract.
- (ii) Provide the authorized committees with complete records, reports, and as-built drawings for the contract.

4.3 REPORTING

- x. The Consultant shall submit to the authorized committees following reports and documents:

Pre-construction Process

- (i) Inception Report – The Consultant shall submit **fifteen (15)** copies of the inception report, which consists of the Consultant's proposed work program and schedule for the Project and describing the key procedure to be followed, within fifteen (15) calendar days after the date of commencement to the authorized committees.
- (ii) Tender Document – The Consultant shall submit **fifteen (15)** set of Prequalification and Tender Documents which have to be submitted according to proposed schedule approved by the authorized committees.
- (iii) Prequalification Evaluation Report – The Consultant shall submit **fifteen (15)** copies of the PQ evaluation report, which consists of all detailed information submitted by tenders, the Consultants' findings, evaluation, opinion and recommendation. The reports have to be submitted according to proposed schedule approved by the authorized committees.
- (iv) Tender Evaluation Report – The Consultant shall submit **fifteen (15)** copies of the tender evaluation report, which consists of all detailed information submitted by tenders,

the Consultant's findings, evaluation, opinion and recommendation. The reports have to be submitted according to proposed schedule approved by the authorized committees.

- (v) Construction Contract – The Consultant shall submit **fifteen (15)** copies of each construction contract (for Package 2 and Package 3) in English within **fifteen (15)** calendar days after the contract signing date between the authorized persons and the Contractors.
- (vi) Road Safety Audit Report (Pre-Construction) – The Consultant shall submit **ten (10)** copies of the road safety audit report within one hundred and twenty (120) calendar days after the date of commencement to the authorized committees.
- (vii) Environmental Impact Assessment (EIA) Report – The Consultant shall submit EIA report in English for civil works contracts Package 2 (2B) and Package 3 to Ministry of Natural Resources of Lao PDR and obtain the approval within one hundred and eighty (180) calendar days after the date of commencement to the authorized committees.

Construction Supervision

- (i) Monthly Progress Reports – The Consultants shall submit **thirty (30)** copies of the monthly progress report in the accepted form, which concisely describes all consulting and/or construction activities and progress for the previous month, within **fourteen (14)** calendar days following the month covered in each report. Problems encountered or anticipated shall be clearly stated, together with steps taken or recommendation for their correction. The monthly report will also indicate the work to be performed during the coming month.
- (ii) Project Completion Report - Within **thirty (30)** calendar days after the date of issuance of the certificate of completion for the whole of the works, the Consultants shall submit **thirty (30)** copies of the project completion report summarizing consulting and/or construction activities and the effect on the amount, cost, and progress of the work.

Project Finalization

- (i) As-Built Drawings – The Consultant shall collect and submit **fifteen (15)** copies of as-built drawings prepared by the Contractors within **sixty (60)** calendar days after the date of issuance of the certificate of completion for the whole of the works.
- (ii) Maintenance Manual – The Consultant shall submit **fifteen (15)** copies of the maintenance manual, with describes the activities of the Consultant and the Contractor during the period of maintenance, within **thirty (30)** days after the approval of contract completion certificate by the authorized committees.
- (iii) Road Safety Audi Report (Post-Construction) – The Consultant shall submit **ten (10)** copies of the road safety audit report within **sixty (60)** calendar days after the date of issuance of the certificate of completion for the whole of the works.

4.4 TIME SCHEDULE

xi. The time for the consulting service will be as follow:

- (i) The consulting services will have a period of **forty-two (42)** months for the Project

covering pre-construction process, construction supervision, and project finalization. The period of the pre-construction process is six (6) months and the period of the construction supervision and project finalization is thirty-six (36) months

- (ii) The Consultants shall commence the services in Lao PDR and in Thailand within 15 days after the date of the written "Notice to Proceed" is issued to the Consultants by the representatives of the Government of Lao PDR and Thailand.

4.5 UNDERTAKINGS OF PROJECT STEERING COMMITTEE

- xii. The authorized committees shall provide for the Consultants by undertaking the followings:
 - (i) The authorized committees shall assist in the maintenance of peace and order during the Project when and if necessary, upon the request of the Consultant.
 - (ii) The authorized committees shall provide the Consultants office space in the Department of Highways, Bangkok during the pre-construction assistance.
 - (iii) The authorized committees shall provide the respective Consultant office spaces at the sites in Lao PDR and Thailand during construction supervision and project finalization.

4.6 STAFFING

- xiii. It is envisaged that the construction supervision team, including staff of pre-construction assistants, will be made up as shown in Table below (which are indicative and are subject to variation). The Consultants may propose alternative arrangements, which, in its opinion, will provide supervision services of an equivalent quality. Allowances for the inputs for the Defect Liability Period inspections, the issue of Defect Liability Certificates, and the preparation of the Project Completion Report are included in the person-month inputs.

4.6.1 Key Staff

- xiv. Table: Indicative Key Staff Positions and Person-Month Inputs of the Consulting Services

Position	Number	Total Person-months
Project Manager	1	40
Assistant Project Manager	1	36
Procurement/Contract Specialist	1	4
Cost Estimation Engineer	1	4
Road Safety Audit Specialist	1	4
Structure Engineer 1 - Bridge	1	26
Structure Engineer 2 - Building	1	6
Geotechnical Engineer	1	10
Highway Engineer	1	15
Material Engineers	4	126
Electrical / Mechanical Engineer	1	6
Architect	1	3
Environmental Specialist	1	8
Project Engineer	4	126
Total	24	414

4.6.2 Supporting Staff

xv. Table: Indicative Supporting Staff Positions and Person-Month Inputs of the Consulting Services

Position	Number	Total Person-months
(1) Pre-Construction Process : 6 months		
Assistant Engineer	2	8
Assistant Engineer – Road Safety Audit	2	8
CAD Operator for Works Package 2B and 3	2	8
CAD Operator for Road Safety Audit Package 1	2	8
Executive Secretary	1	4
Secretary	1	4
(2) Construction Supervision and Project Finalization:		
Civil/Office Engineer	2	72
Site Engineer	5	156
Soil/Material Technician	4	126
Survey Technician	4	126
Inspector – Civil	9	276
Inspector – Building Services	2	48
Labour	5	168
CAD Operator	1	36
Executive Secretary – DOH BIHC Office	1	24
Executive Secretary – PMC Office	1	36
Secretary	5	162
Total	49	1,270

5. TEAM COMPOSITION AND QUALIFICATION REQUIREMENT FOR THE KEY STAFF

xvi. The Consultant shall provide the following suitably qualified and experienced key experts, with the following qualifications for the Project input (person-months) indicated:

Key Expert	Input (person-months)	Preferred Qualifications in Relevant Field
1. Project Manager	40	Master degree in civil engineering or construction management. Preferably 25 years' experience in design or construction supervision, of which 10 years should be in road, bridge, or elevated structure, preferably cable stayed bridge construction supervision with the position resident engineer, project manager, project director or team leader.
2. Assistant Project Manager	36	Bachelor degree in civil engineering or construction management. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in road, bridge, or elevated structure, preferably cable stayed bridge construction supervision with the position project engineer or higher.
3. Procurement / Contract Specialist	4	Bachelor degree in engineering or related field. Preferably 20 years' experience in design or construction supervision with the position procurement, contract manager, or contract specialist.
4. Cost Estimation Engineer	4	Bachelor degree in engineering or related field. Preferably 20 years' experience in design or construction supervision with the position Cost Estimation Engineer.
5. Road Safety Audit Specialist	4	Master degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in road safety audit.
6. Structural Engineer 1 - Bridge	26	Master degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in cable stayed bridge design or construction supervision.

Key Expert	Input (person-months)	Preferred Qualifications in Relevant Field
7. Structural Engineer 2 - Building	6	Master degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in building structural design or construction supervision.
8. Geotechnical Engineer	10	Master degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in design or construction supervision with the position Geotechnical or Foundation Engineer.
9. Highway Engineer	15	Master degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in road design or construction supervision with the position highway engineer.
10. Material Engineer 1 – P1A	30	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in road construction supervision with the position Material Engineer.
11. Material Engineer 2 – P1B	30	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in road construction supervision with the position Material Engineer.
12. Material Engineer 3 – P2	36	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in bridge construction supervision with the position Material Engineer.
13. Material Engineer 4 – P3	30	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in road construction supervision with the position Material Engineer.

Key Expert	Input (person- months)	Preferred Qualifications in Relevant Field
14. Electrical / Mechanical Engineer	6	Bachelor degree in engineering or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in building services construction supervision with the position Electrical or Mechanical Engineer.
15. Architect	3	Bachelor degree in architecture or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in building design or construction supervision.
16. Environmental Specialist	8	Bachelor degree in environmental engineering / science or related field. Preferably 20 years' experience in design or construction supervision, of which 10 years should be in construction supervision with the position Environmental Specialist.
17. Project Engineer 1 – P1A	30	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in construction supervision, of which 10 years should be in road construction supervision with the position Project Engineer or higher.
18. Project Engineer 2 – P1B	30	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in construction supervision, of which 10 years should be in road construction supervision with the position Project Engineer or higher.
19. Project Engineer 3 – P2	36	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in construction supervision, of which 10 years should be in bridge or elevated structure, preferable cable stayed bridge construction supervision with the position Project Engineer or higher.
20. Project Engineer 4 – P3	30	Bachelor degree in civil engineering or related field. Preferably 20 years' experience in construction supervision, of which 10 years should be in road construction supervision with the position Project Engineer or higher.

6. QUALIFICATION REQUIREMENTS FOR BIDDER

6.1 General

xvii. According to Thailand's laws and regulations, the bidder must follow the general requirement as specified:

- (i) The Bidder has to be Thai Consulting firm, or Thai Consortium which the lead firm must be registered in the Consultant Database Center, Ministry of Finance, Kingdom of Thailand. Thai Consortium may include Lao Consulting firm. The bidder or Thai lead firm is supposed to provide Proof of commercial registration issued by Department of Business Development, Ministry of Commerce, Kingdom of Thailand within 6 months prior to the bidding date. The bidder must not be blacklisted with the government agency.
- (ii) The bidder must not be a privilege holder who is able to deny going to Thai court, except the Government of the bidder has declared to waive such privilege.

6.2 Specific Experience

xviii. The bidder shall be preferred to participate as construction supervision consultant for the cable-stayed bridge project in at least one (1) contract with a bridge construction contract value at least eight hundred and eighty (880) million baht, that have been successfully completed.

7. SELECTION METHOD

xix. The Selection for the consulting service will be based on Quality Based Selection (QBS) method, which only Technical Proposal will be taken in to account for evaluation. The bidder shall submit one (1) original and six (6) copies of Technical proposal in sealed envelope, and one (1) original and six (6) copies of Financial proposal in sealed envelope.

xx. The criteria for Technical proposal evaluation will be:

(i) Firm's qualifications and experience	100	points
(ii) Approach and methodology	200	points
(iii) Personnel biodata	700	points

Total 1,000 points

xxi. The bidder who will be awarded shall have Technical score more than 700 points. The bidder with the highest technical proposal score will be selected for negotiation. In case that the negotiation process has not been finalized, the next highest bidder will be selected for negotiation. The Financial proposal of unsuccessful bidder will be returned unopened.

8. BUDGET

xxii. The budget for the consulting service is 121,000,000.00 Thai Baht (One hundred and twenty-one million Baht). This amount of budget is allocated from Thailand's and Lao PDR's sides for 77,000,000.00 Thai Baht and 44,000,000.00 Thai Baht, respectively.

9. INPUTS, PROJECT DATA, AND REPORTS

- xxiii. DOH and DOR will provide all relevant existing reports and other available documents to facilitate the carrying out of the Services. DOH will facilitate access of the Consultant to other government agencies for communications, collecting of relevant information, data, documents, etc. and other activities related to the consultant's assignment.

10. DISCLAIMER

- xxiv. The awarded bidder shall work closely with DOH and DOR. The result of consideration and decision of Project Procurement Committee is finalized. Both parties (DOH and DOR) reserve the right for any claims for compensation and expense occurred by the Bidder for the proposal submission.