**Government of Mizorm**

**Public Works Department (PWD)**

**Project Implementation Unit (PIU)**

**Mizoram State Roads II (MSR II)**

**Regional Transport Connectivity Project (RTCP)**

**Aizwal, Mizoram, India**

**TERMS OF REFERENCE**

**For**

**Bridge Expert as Individual Consultant for PIU, PWD, Mizoram**

1. **Introduction:**

 The Government of Mizoram (GOM) is implementing the Mizoram State Roads – II Regional Transport Connectivity Project, funded by the World Bank. This project aims to increase transport connectivity along regional trade corridors in Mizoram by improving of state roads including National Highway (NH) and construction of bridges. The project is financing 81 km of road construction in three sections across the state. The road improvement works are being implemented in three works packages’, covering the following road stretches: Champhai-Zokhawthar (C-Z) road (Champhai District), Chhumkhum-Chawngte (C-C) road (Lunglei District), and Tlabung-Kawrpuichhuah (T-K) road (Lunglei District). The Project has prepared the Detail Project Report (DPR) of five (5) major bridges and some minor bridges under Project Preparation Committee (PPC) I & II connecting NH-44A near Lengpui airport and Multi Model Trans in south Mizoram through LEA Associates South Asia PVT. Ltd.

The Public Works Department (PWD) Mizoram is the implementing agency for the project. A dedicated project implementation unit (PIU), established in Chief Engineer (Road) Office of Mizoram PWD, headed by a Project Director (PD) and supported by other staff is responsible to implement the project with support from various units of PWD. The road improvement works are being implemented in various packages under supervision of a Construction Supervision Consultant (CSC). Implementing a Road Sector Modernization Plan (RSMP) is also a part of the project. The implementation is to be through a Road Sector Modernization Group consisting of PWD officers at various levels and individual Consultants to provide the necessary support for the Project.

PWD has initiated to establish a Bridge Cell as a separate section with in the PWD for supporting the PWD in Planning, Design, Construction and Maintenance of bridge works within the state. The PIU/PWD Mizoram now wishes to hire one individual consultant as Bridge Expert who will work closely with PIU, PWD for assisting the Bridge and river crossing structures design and construction works in the project as per standard engineering practice to enhance capacity of the PWD/PIU officials in bridge works

**2.0 OBJECTIVES OF THE CONSULTANCY SERVICES**

**2.1 General**

The main objective of the service is to provide support in enhancing the institutional capacity of PWD/PIU in Planning, Design, Construction and Maintenance of Bridge works with quality assurance including support for collecting the standard guidelines, design manuals and recommend necessary software’s/training for checking the design and construction of bridge works.

**2.2** **Specific**

 The specific objectives of the consultancy services are as follows

● To support the PIU in managing all works related to Planning, Design and Detailing of bridges as per site condition as well as verify and check the complete design calculations details provided in DPR submitted by the bridge design consultant.

● To support the PIU in technical matters in the Construction/Rehabilitation and Maintenance of bridge regarding the compliance of specification of the works and design standard as per contract agreement.

**3. SCOPE OF THE CONSULTANCY SERVICE:**

 The Consultant shall work under the management of the Project Implementation Unit (PIU). He/She shall work under the guidance of Project Director of or his/her authorized representative. The Consultant shall however ensure that the services carried out are fully adequate to attain the objectives set out in Para “2.” of this Term of reference (ToR). The Consultant’s duties shall include but not necessarily be limited to:

• Study the technical standard design drawing of bridges of Group II Roads under MSR II-RTCP

• Study of work Specification

• Review the Bridge Design system adopted in PWD and Identify the shortcomings and gaps.

• Suggest the area of improvement for Bridge design

• Assist the PWD in Bridge management system

• Prepare the inventory of the Bridges and other river crossing structures and condition survey for necessary planning.

• Prepare the check list and technical guidelines for survey and design of the bridges including hydrological and geotechnical studies.

• Assist the PIU/PWD to prepare DPRs (including investigation, survey, design, drawing and costing) of the bridges and other river crossing structures by preparing necessary Terms and Condition for selection of Consultant.

• Review the DPRs of bridge and river crossing structures; submitted to PWD/PIU and after review forward to PWD/PIU.

• Prepare the list of the tests to be conducted for bridge construction.

• Prepare the inventory of the equipment in the lab for Bridge Construction Tests

• Identify the gaps and assist in providing training to the PWD technical staff in planning, design, construction and maintenance of bridge works.

• Others as when asked by PWD/PIU chief in connection with the project works.

• Conduct 2 trainings on Bridge design and engineering for PWD Engineers.

**4.0 MINIMUM QUALIFICATION REQUIRED FOR ELIGIBILITY**

The applicants must satisfy the following three eligible criteria.

• The applicant must have minimum Master’s Degree in Structural Engineering with specialization in Bridge Engineering. Preferance will be given to doctorate degree in this area.

• Minimum Ten (15) years of general experience in civil construction works

• Minimum Five (08) years of specific experience in major Bridge design and construction supervision works.

• The applicant must have the experience of designing at least 2 (Two) major bridges of any type.

* The applicant must be physically fit in travelling in remote and difficult location/terrain/site.

**5.0 SUBMISSION OF APPLICATION FORM**

The applicants shall submit their application form as explained below:

• The eligible applicants may download the TOR from the web site: www. pwd.mizoram.gov.in or hard copy can be collected from the PWD/PIU Aizwal, Mizoram during office hours. The eligible applicants are required to submit their CV clearly stating the job general and specific experience with positions and place of worked/working either in client's country or outside the country.

• For this post; the applicant needs to attach the proposal ;which will state the willingness, understanding of ToR , comments on ToR with area of improvement, work plan and methodology to deliver the services with respect to the scope of consulting services as stated in Para “3” .

• The deadline for the submission of CV with proposal during office hours is up to as stated in EoI notice.

• The CV and proposal need duly signed by the applicant.

**6.0 SELECTION PROCESS OF THE APPROPRIATE CONSULTANTS**

 Selection of the Consultant will be carried out in accordance with the selection procedure of Individual Consultants Selection in the World Bank’s Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers, January 2011.

**7.0 REMUNERATION AND LOGISTIC SUPPORT TO THE CONSULTANT**

 The consultant shall be provided the remuneration and other logistic support as below:

• The consultant’s remuneration per month shall be finalized through negotiation within the ceiling of the budget. The date of negotiation will be informed immediately after the submission of the financial proposal.

• The reimbursable expense also such as travel cost, DSA and others will also be paid as per actual expenditure; This also will be decided through negotiation.

• The price escalation is not applicable to this consulting service.

• The Consultant shall be paid by PIU on submission of his/her invoice and time-sheet with the obligatory reports as mentioned in subsequent Para"8”.

• The office space and working furniture (Table & chair) shall be provided to the consultant within premises of office of PIU.

• The PIU shall avail the electricity and internet facility to the consultant during working hour.

• The consultants should have his/her own laptop for working.

• In case of failure of negotiation ; the consultants in waiting list in order of merit will be called on for negotiation

**8.0 CONSULTANT’S REPORTING OBLIGATIONS**

The Consultant shall deliver the following reports to the PIU in the standard format:

• Report on review of the concerned documents

• Monthly Progress Report consisting of:

• Other Reports as and when asked by the PIU chief in connection with thepoject works

Note: Electronic copy of each report shall also have to be submitted.

**9.0 DURATION OF CONSULTANT'S SERVICE**

• The duration of the Consultant's services shall be for total 4 (four) man-months input for a period of 6 months which will be extendable as per requirement. However, the first month is expected to be continuous input and a minimum input of 1 to 2 weeks every month for the remaining months, The services shall start tentatively from ……..and continue till the……. . The contract shall be terminated if the project does not need the consultant's service due to the project's internal management or unsatisfactory performance of the consultants as evaluated by PIU/PWD.

• In case of the termination of the contract on part of the project (client) ; the latter will inform in writing one (1) week before to the consultant

• If the consultant wishes to leave the project; he/she shall mandatorily inform in writing two (2) weeks before to the PIU.