

Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Foreign Cooperation Branch
Sanogaucharan, Kathamndu, Nepal

**REQUEST FOR EXPRESSION OF INTEREST (REOI)
(CONSULTING SERVICE-INDIVIDUAL)
INTERNATIONAL COMPETITIVE BIDDING**

Notice No.: NIRTTP/01/072-73

Contract Identification No.: NIRTTP-DOR-S-IND-4

Date of first publication: September 17, 2015

Name of Project: Nepal India Regional Trade and Transport Project

The Government of Nepal (GON) has received financing from the World Bank towards the cost of the Nepal India Regional Trade and Transport Project (NIRTTP) and intends to apply part of proceeds for consulting services of an individual Consultant (International) to the Foreign Cooperation Branch, Department of Road. The consulting services (“the Services”) include providing consultancy services: **review of design of improvement of existing arch bridges in Narayanghat-Muglin Road.**

The Ministry of Physical Infrastructure and Transport, Department of Roads (DoR), now invites eligible individual Consultants (International) for the posts mentioned below to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

The candidate for **Bridge Expert** shall have education of minimum a Master in Structure Engineering with minimum 20 years general experience of which 15 years in bridge related works and experience in arch bridges.

The duration of the service is one month and it is intended to be started by October 2015.

The attention of interested individual Consultants is drawn to paragraph 1.9 of the World Bank’s Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers dated January 2011 (“Consultant Guidelines”), setting forth the World Bank’s policy on conflict of interest.

A Consultant will be selected in accordance with the Individual Consultant (IC) method set out in the Consultant Guidelines.

Interested Consultant may obtain Terms of Reference (ToR) for the mentioned assignment title from <http://www.dor.gov.np>. Further information can be obtained at the address below during office hours 10:00 to 17:00 hours.

Expressions of interest must be delivered in a written form to the address below (in person, or by mail, or by fax) by 5:00 PM, 27th September 2015 .

Only short-listed Consultants will be contacted for further information or interview if any. (The interview will be conducted if it is felt necessary.)

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GOVERNMENT OF NEPAL
MINISTRY OF PHYSICAL INFRASTRUCTURE AND TRANSPORT
DEPARTMENT OF ROADS
Nepal India Regional Trade and Transport Project

TERMS OF REFERENCE
of
Bridge Expert
[Contract No. NIRTTP-DOR-S-IND-4]
For
DESIGN REVIEW
OF
Design of Improvement of Bridge
in
Narayanghat-Muglin Road

September, 2015
Sanogaucharan, Katmandu

TERMS OF REFERENCES FOR CONSULTING SERVICES OF INDIVIDUAL BRIDGE
EXPERT TO PROVIDE TECHNICAL ASSISTANCE TO DOR FOR REVIEW CHECK THE
CONCEPT AND DETAIL DESIGN OF BRIDGES IMPROVEMENT WORKS
IN NARAYANGHAT MUGLING ROAD

1 Background:

South Asia is one of the least integrated regions in the world with intra-regional trade of around 5 percent of total trade, the lowest share of any regional blocs; compared to 23 percent for ASEAN and 60 percent for the EU. At the same time, the landlocked countries and sub-regions in South Asia including Afghanistan, Bhutan, Nepal and Northeast India rank poorly in logistics performance and experience the highest transport costs for imports and exports in the world.

Nepal-India Regional Trade and Transport (NIRTTP) financed under the IDA investment project intends to improve the trade facilitation in Nepal. Main objective of the NIRTTP is to facilitate efficient movement of goods between Nepal and India especially along the Kolkata-Kathmandu Corridor by reducing transport time and costs. Key trade facilitation components include: (a) Technical Assistance to modernize transport and transit arrangements between Nepal and India; (b) Improve Trade Related Institutional Capacity, including development of a Single Window and Trade Portal and improvement of SPS Laboratories; and, (c) Trade-related infrastructure development, including expansion and upgrading of the Narayanghat-Mugling Road, study on the Kathmandu- Naubise- Mugling road, construction of a CFS/ICD in Kathmandu and improvement of Birgunj and Bhairahawa ICDs.

As part of component (c) of the project the Department of Roads (DOR) is already implementing improvement of Narayanghat Mugling (NM) road to Asian highway standard through three contracts. To improve bridges within NM road section, a consultant's team is also working on necessary assessment and design for improvement of the existing 18 bridges, which are mostly 5.5 to 6 m width arch bridges.

2 Objectives

The main objective of the proposed Individual Bridge Expert's (IBE) services is to provide technical assistance to the DOR for review the concept design and detail design for improvement of existing arch bridges within NM road.

The Expert shall help the DOR to analyze/review, and finalize the concept designs submitted by the design Consultants. In the 2nd stage the Expert to assist DOR to finalize the detail design and drawings for each bridge including the management of traffic during the improvement works.

3 Scope of Services

In order to accomplish above objectives the Bridge Expert-Individual Consultant will need to do services in two stages one at concept design and another in finalization of detail design, but not limited to:

3.1 Concept Design Stage

- a) Review the TOR and contract documents of the design Consultants responsible for assessment of existing bridges, preparing suitable concept design, finalization of detail design, cost estimates, specification, and bidding documents;
- b) Study design drawings of the N-M road improvement works including the design for specific bridge locations including available cross-width and required as per improved road width;
- c) Visit each bridges under NM road section and review the assessment carried out by the design consultant's team, and check adequacy of assessment for preparing the improvement design;
- d) Review the concept design of each bridge submitted by the design consultants taking into consideration of (i) appropriate to site locations, (ii) assessment result of existing bridge structure, (iii) structural analysis and technical standards, (d) constructability of proposed improvement works, (iv) alternative analysis of concept design, if any (v) traffic operation/diversion during construction, (vi) road safety during and after construction, (vii) no damages to integrity of existing bridge structure, and aesthetic or environmental consideration;
- e) On the basis of review and check of concept design (from the design consultants) the Expert to provide technical guidance, if deemed necessary, with an objective to develop technically and structurally sound design which could be constructed;
- f) Provide technical guidance to finalize concept design for each bridges before proceeding for detail designs;
- g) Prepare a report on findings of review of assessment of existing bridges, concept design produced by the design consultant, and agreed actions for the final concept design which needs to be further developed for detail design. The report should be able to guide the DOR team to monitor further development of detail design.

3.2 Detail Design Stage

- a) Review and check the final draft design and drawings of each bridge submitted by the design consultants taking into consideration of (i) appropriate to site locations, (ii) assessment result of existing bridge structure, (iii) structural analysis and technical standards, (d) constructability of proposed improvement works, (iv) alternative analysis of concept design, if any (v) traffic operation/diversion during construction, (vi) road safety during and after construction, (vii) no damages to integrity of existing bridge structure, and aesthetic or environmental consideration;
- b) Review the structural assessment, analysis, and design based on standard code of practices;
- c) Review the technical specifications and standards followed for improvement works including construction methodology and constructability;

- d) Review the final traffic operation and or diversion plan and design for each bridge site;
- e) Provide technical guidance to finalize the design and drawings for each bridges with an objective to develop technically and structurally sound design which could be constructed;
- f) Prepare a report on findings of review of draft final design including comments. Suggestions and the agreed actions for the finalization of design. The report should be able to guide the design consultant and DOR team finalize the design drawing;
- g) Finally, review and recommend the final design, drawings, specifications, cost estimate for approval;

4 Qualification and Experiences Requirements

Broad Qualification and Requirements:

A. Education

- Minimum : Master degree in Structural Engineering/Bridge Engineering
- Preferable : Doctorate in Structural Engineering/ Bridge Engineering

B. Experience

a) General Civil Engineering Works

- Minimum : 20 years
- Preferable : 30 years

b) Experience in Bridge related works

- Minimum : 15 years
- Preferable : 20 years

C. Experience in design of Arch Bridges of length more than 50m

- Minimum : 3 No.
- Preferable : 5 No.

D. Regional Experience in Bridge related works

E. Language: Capable of communicating fluently in English Language

5 Duration of Services

The Individual Bridge Expert will be hired for total one month (at field and home based) for both the stages of services ie: concept design and detail design finalization stage. However, it is expected that the Expert needs to visit the bridge sites for in depth understanding of the bridges during its service period.

Technical support and intermittent review and check during detail design process could be from home based services.

6 Deliverables

As defined under the scope of services the Bridge Expert needs to prepare and submit the followings three reports:

- a) Review report (six copies) on assessment and concept design of bridges including technical suggestions/ recommendations, and agreed actions to finalize the detail design;
- b) Review report (six copies) on draft final design and drawings of bridges including technical suggestions/ recommendations, and agreed actions to finalize the detail design;
- c) Final report (six copies) on review of final design with recommendations to the DOR for approval purpose,

7 Selection Method and Contract

The Individual Bridge Expert will be selected as an Individual consultant to the DOR using the **Procurement Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers-Jan 2011**. Basis of selection will be the relevant expertise, experience, qualification, and capability to carry out the above stated tasks as an Independent Bridge Expert. DOR will negotiate contract with the best suitable candidate based on Bank's standard terms and conditions including the reasonable fee and other expenses in line with the similar projects.

8 Facilities to be provided by DOR

Since, the Bridge Expert is required to work closely with the DOR. DOR will coordinate with the design consultant and assist the bridge expert in managing field visits and one to one meetings, as necessary including provide the available information on bridges.

9 Consultant's obligations

While visiting Nepal the Bridge Expert is required to manage the necessary travel documents, insurance, tickets, and hotels by own. Local transport during the field visit to be also managed by own and charged under reimbursable. The Expert is required to work closely with the DOR team and the design consultant to understand the scope, review the concept design, and review and recommend the final design. Where necessary, the Expert may need to guide and be able to show better alternative designs and concept for traffic operation/ diversion.