

**BANGLADESH REGIONAL CONNECTIVITY PROJECT -1 (P154580)****Terms of Reference for Consulting Services****SENIOR STRUCTURAL ENGINEER (NATIONAL)****Package N0.- BLPA-S12****1. Introduction and Background**

The Government of The People's Republic of Bangladesh has received a USD 150 million Credit from the International Development Association (IDA) – a member of the World Bank Group – for financing the cost of the *Bangladesh Regional Connectivity Project 1* (BRCP-1), being jointly implemented by the Bangladesh Land Port Authority (BLPA), National Board of Revenue (NBR) and Ministry of Commerce. Now the BLPA intends to apply part of the IDA Credit for procuring the services of a Senior Structural Engineer (National) for its Project Implementation Unit (PIU).

The Project Development Objective is to improve conditions for trade through improving connectivity, reducing logistics bottlenecks and supporting the adoption of modern approaches to border management and trade facilitation.

The Project consists of three (3) major components of which the below component will be implemented by BLPA:

*Component 1: Invest in infrastructure, systems and procedures to modernize key selected land ports essential for trade with India, Bhutan and Nepal.* The key activities under this component are:

- (i) Development and improvement work at four land ports along the Southwest to Northeast Corridor that are key to facilitating regional and transit trade. These include: Bhomra on the southwest border of Bangladesh, Sheola which would be a greenfield land port – It is currently a Land Customs Station with almost no infrastructure and third land port at Ramgarh on the border with Tripura State, Northeast India,
- (ii) The Project will also finance measures to improve physical security and manage access risks at the Benapole land port, Bangladesh's largest and busiest land port, which experiences significant security and leakage problems. Activities to be financed include a high-capacity perimeter fence, a CCTV system, and a gate pass system.

The Bangladesh Land Port Authority (BLPA), an autonomous body established under the Ministry of Shipping is the implementing agency for the above component of the Project and is responsible for component's overall implementation, management and monitoring. BLPA was set up for development, maintenance and operation of land-ports with the neighboring countries of Bangladesh. Implementation of the project component involves, among other activities, procurement of goods, works and services of high and low values contracts through competitive process. It is necessary to build an adequate support structure from resources both within and outside BLPA to maintain proper quality and standard design of all structures during project implementation.

BLPA has already started implementation of the project activities. A supervision consulting firm (S2) has been engaged under the project for overall monitoring and managing the contracts. As of date Contact for Sheola Land Port Development at Beanibazar Upazila under Sylhet District was awarded and implementation progress is about 15%- mainly land development and boundary wall construction. Construction works for Ramgarh land port at Ramgarh upazila under Khagrachari district is expected to start in October 2021. Contractor for Construction for boundary wall and security systems at Benapole land port at Sharsha Upazila under Jashore District is in mobilization stage. All necessary structures for developing the ports were designed by a consulting firm (S3) before invitation of bids. Due to the modifications of the master plans for some practical reasons few structures need to be shifted requiring some changes in the original architectural and structural designs. To implement the project activities in stipulated time period contractors will require changed architectural and structural working drawings as and when necessary. Hence PIU intends to deploy a National Senior Structural Engineer (SSE) for structural design services for the ports structures.

## 2. Objective

The objective of the assignment is to: (i) provide expertise support PIU for reviewing analysis and designs of steel and concrete structures including concrete pavement as well as their drawings for all the contracts under the project and (ii) top level supervision during the construction of the structures, (iii) handholding of the Construction Supervision Consultant's team on design support and approval of shop drawings, (iv) closely works with the Architect and S2 consultants on behalf Project Director for proper integration of the project.

## 3. Scope of Services

The Senior Structural Engineer (SSE) will provide expertise support and advice as a full-time member of the PIU, and will be responsible for guiding and advising the PIU so that the construction of structures is done as per the relevant drawings and design. The SSE will have a significant role in assuring the integrity, fairness, and overall quality of civil construction in conformance with the requirements of the approved drawings for the land ports as per BNBC and other national and international standards. He should not have any conflict of interest while working and should keep all the project information confidential.

The Senior Structural Engineer (SSE) will provide the below key expertise support:

- a) Review all structural designs previously done by the consultants (S3) and revise thereof as necessary in consultation with the relevant members of the PIU and the S2 consultants;
- b) Site visit as required to complete the design and structural drawings, and work in collaboration with architect and other design engineers specifically electrical and sanitary & water supply engineers;
- c) Prepare Revised Structural Design and Working Drawings of various infrastructures including passenger terminal building, other residential building, Transit sheds, Warehouse, Labor shed, Yard/Pavements, gate structures etc. as mentioned in the bidding/contract document;
- d) Prepare case to case foundation design and working drawings for each site of land office;
- e) Monitor and supervise the works during implementation in order to ascertain whether or not the work progressed as per original Structural Design and Drawings.
- f) Guide the Contractors in preparing Shop Drawings and assist the S2 consultant in accepting the received drawings.
- g) During construction period if any change in design becomes necessary the consultant shall review necessary documents, visit the project site and finalize necessary amendments within a reasonable time.
- h) Assist the S2 consultant to prepare Variation Order (VOs) in light of contract agreement and recommend for approval, if required; and
- i) Provide inputs to and quality assurance of Monthly Progress Report (MRP) prepared by the S2 consultants
- j) Any other task assigned by the Project Director/project management as and when required

## 4. Duration

Duration of the consultancy services would be for 24 (twenty-four) months from starting of his job.

## 5. Institutional Arrangement:

The Consultant will work under the supervision of the Project Director. The Consultant shall be accountable to the Project Director for his day-to-day activities.

BLPA will provide working space and office consumables for the expert at PIU premises in Dhaka. All local travels, city transportation arrangements, and accommodation will solely be the Consultant's own responsibility. If necessary, BLPA will assist in finding accommodation during his stay in project areas.

## 6. Reporting Obligations:

- (1) Providing Structural working Drawing to the Contractor as and when required;
- (2) Final Report of each design that will be required by the PIU.

## 7. Education and Experience



- BSc in Civil Engineering from any reputed university/institution. Masters' degree in Structural Engineering from a renowned institution will be given preference.
- Should have valid membership in a recognized professional organization.
- Advanced training in Structural design will be an added advantage.
- Conversant with Bangladesh National Building Code (BNBC) and experiences in green building design will be added advantages.
- At least fifteen (15) years of general experience out of which ten (10) years of specific experience in designing civil engineering structures.
- Experience in supervising of construction works will be given preference.

#### 8. Selection Method

Selection of the SSE (National) will follow the procedures for selecting Individual Consultants described in the World Bank's Procurement Regulation for IPF Borrowers, July 2016 2016 [Revised November 2017, August 2018 & November 2020] ("Procurement Regulations").

