Assignment name: Engineering services for the Design of Reinforcement of Lambashia Bridge for the humanitarian emergency operations in Cox's Bazar, Bangladesh.	**Country:** Bangladesh **Location within country:** Cox's Bazar
Name of Client: World Food Programme (WFP) – Bangladesh	**Address:** IDB Bhaban 14th, 16th and 17th Floor E, 8-A Rokeya Sharani, Dhaka 1207
Duration of assignment (months): 1 **Start date (month/year):** 25.11.2018 **Completion date (month/year):** 29.12.2018	**Total No of staff-months of the assignment:**
Approx. value of the contract (USD):	
Name of associated Contractors, if any:	**No of professional staff-months provided by associated Contractors:**
Name of associated Contractors, if any:	**Name of senior professional staff of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader etc):** Project Manager: Dr. Md. Monjur Hossain Senior Engineer: Abdul Siddik Hossain

Narrative description of Project:

WFP was planning to reinforce a vehicular bridge in Lambashia, leading up to the Kutapalong refugee camp in Coz's Bazar, Bangladesh. The weight limit on the bridge was 5 tons, as set by the Bangladeshi Army. WFP seek to increase the maximum load bearing capacity to 10 tons or more, and to reinforced the sides of the bridge to prevent soil erosion weakening the structure.

Description of actual services provided by your staff within the assignment:

❖ Stage 1: Information review and design conditions including site survey

• Review all the documents from WFP

• The design conditions will be defined based on the seismic risk (high or low), the ground type category, the wind load parameters and all necessary information required to identify the proper inputs for design calculations

• Visually assess the site with the WFP engineer

❖ Stage 2: Initial Proposals for reinforcement of bridge

• Report with a brief description of different proposed solutions for the reinforcement of the bridge

• Initial cost estimates and construction timeline of each proposed solution

❖ Stage 3: Submission of first draft of detailed design package for review

• A complete set of structural and civil drawings based on initial concepts drawings and structural calculation for the RC slab bridge

• Design and Calculation report based on finite element model analysis results

• Schedule of quantities

• Schedule of unit rates and materials

❖ Stage 4: Design package final revision including drawings, technical specifications, calculation report, bill of quantities, unit rates and cost estimate