

Government of the People's Republic of Bangladesh
Local Government Engineering Department
Tepakhola Lake Development Project at Faridpur City
Level-09, LGED Bhaban
Agargaon, Sher-e-Bangla Nagar
Dhaka-1207.

Terms of Reference (ToR)

Selection of Individual Consultant (National)

Proposed Position: Supervision Engineer for Faridpur
(Time Based)

October-2023

Section-2 . Terms of Reference (ToR)

1.0 Background of the Assignment

Local Government Engineering Department under the Local Government Division (LGD) of Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C) is one of the largest public organizations responsible for the implementation of various rural and urban infrastructure projects. These include construction of roads, bridges/culverts, multi-storied buildings like auditoriums, academy buildings, functional buildings, residential buildings, educational institutes, cyclone shelters, hospitals, markets, memorials, bus-terminal, parks, lakes and other infrastructures. Presently LGED is implementing about 129 projects throughout the country.

“Tepakhola Lake Development Project at Faridpur City” has been prepared in line with the strategy of the urban development projects for socio-economic development of local people. The proposed development works will provide multi-dimensional amusement facilities through recreational and beautification works to the project area and boost urban economy by creating commercial and employment opportunities which in turn will directly benefit the poor and reduce poverty. With the above background, to create multi-dimensional amusement facilities through recreational and beautification works, this project has been prepared. So, the project would establish amusement facilities and ensure socio-economic development without disturbing environment.

Local Government Engineering Department (LGED) has received a public funds from the Government of the People’s Republic of Bangladesh (GOB) towards the cost of “Tepakhola Lake Development Project at Faridpur City” as recreational and beautification works; and intends to apply part of the proceeds of these funds under the contract for the provision of consultancy services by employing individual consultants comprising two (02) nos Supervision Engineer.

The present TOR is intended to appoint two (02) nos Individual Consultant titled as Supervision Engineer using Selection of Individual Consultant (SIC) method.

2.0 Objective of Consultancy Services

The objective of the consultancy service is to assist the Local Government Engineering Department (LGED) to supervise work for the lake development project with specified technical standards, quality and time-frame.

3.0 General Scope of the Consultancy Services

The overall scope of work of the consultant is to assist LGED in connection with the construction supervision and quality control for construction of various infrastructures related to recreational and beautification works of Tepakhola Lake Development Project at Faridpur City i.e. Walkways, Shaded Seats, Car Parking Area, Driver's room, Bangabandhu's

Sculpture, Boating deck, Changing Room (Swimming pool), Ghat, Shaded Seating's, Maintenance Room, Swimming Competition area, Seating Bench round, Cafeteria and Hall, Amphitheatre, Food Corner, Marry-go-round Rider, Observation Wheel-Faridpur Eye, Senior Citizen's Corner, Drinking Water Plant, Children's Swimming Corner, Art & Craft Center, Rain Luxury, Renovation of Mosque, Viewing Deck/Jetty, Viewing Deck/Jetty (Half Circle), Boat Landing Snack's Corner, Sub-Station Room, Toilet M/F, Changing Room M/F, Dustbin, Mural, Ticket Counter, Control Room, Cleaner's Room, Landscaping, Road side Footpath, Boundary wall, Outside and connecting road, Slope Protection (Lake inside and outside area), Earth filling, Earth Excavation, Lighting, Illumination, etc. Tree Plantation, Boats, Gates, Walkway & Platform, Central CCTV, Adv., etc. Musical Fountains at Amphitheatre, Fountain, Bus Bay, Bus Terminal, Entry/ Circular Gate, Information Center, Open Plaza, Open Seating area, Traffic Booth , Solar System, Public plaza , Boat Landing, Space for Zila Porisad CEO , Operational Space, Picnic Area, Kids Corner, Restaurant, Photo exhibition Hall, High Spray Chinese Rose Water Fountain , Bumper Car, Tourist Train, Octopus Ride, Swing Car, Mini Zoom Zoom, Frisbee 20, Open body Spiral Slide, Close Spiral Slide, Family Slide, Rainbow Slide, Multiple Platform Rides for Kids, Swimming Pool, Wave Pool, Wave side Restaurant, Water case ride, Rain Dance, Commercial Zone, Viewing Deck at middle of Tower, Observation Deck at Top of Tower, Conference Room at top of Tower, Café corner at Top of Tower, V. I.P. Gallery /Restaurant, Mini Restaurant , Water Treatment Plant, ATM Booth, Drain, Changing Room (Water Park) , Lactation Room , Waiting Room M/F, Amazing Deck etc. & as requested by Project Director. The service includes but not limited to the following activities:

- (i) Review of all relevant project documents including topographical survey report, sub-soil investigation report, detailed design and drawings, specifications of civil and electro-mechanical works etc. and suggest modifications and changes as necessary;
- (ii) Assist the Project Director (PD) in overall project management, contract administration, progress monitoring etc.;
- (iii) Ensure timely implementation of the project with effective guidance, supervision and quality control;
- (iv) Check measurements and ensure quantity and quality of constructed works;
- (v) Identification of implementation problems and provide effective solutions, co-ordination review project progress and report to the concerned execution authority;
- (vi) Advice PD on contractual matters and give assistance in the settlement of claims or disputes (if any arises), in accordance with the procedure laid down in the Conditions of Contract and
- (vii) The consultant will carry out his/her tasks in accordance with accepted professional standards. He/She shall be solely responsible for supervision and quality control of all development works related to recreational and beautification works (all civil and electro-mechanical works) of Tepakhola Lake Development Project at Faridpur City and for the conclusions and recommendations contained in his/her reports.

4.0 Specific Scope of the Consultancy Services

The Supervision Engineer will work under the guidance of Superintendent Engineer, LGED, Faridpur and the Project Director. He will be responsible and accountable for his all activities to the Project Director. The responsibilities of the Supervision Engineer would be, but not limited to, the following:

i) Construction Supervision:

- a) Work under the supervision and guidance of the Project Director;
- b) Review all project documents like digital topographical survey report, sub-soil investigation report, structural designs & drawings, cost estimates, technical specification, contract agreements, of all civil and electro mechanical works etc. and give specific comments to the Project Director about modification as necessary to improve sustainability of all development works related to recreational and beautification works;
- c) Review all project documents and give suggestions about modifications as necessary to improve sustainability of all development works related to recreational and beautification works;
- d) Assist Project Management Unit (PMU) at Dhaka and Project Implementation Unit (PIU) at Faridpur for checking working drawings, estimate and BoQ of the project works.
- e) Prepare quality assurance plan and assist LGED to implement it;
- f) Design monitoring procedures/formats for quality control/assurance of civil works;
- g) Provide physical layout of all development works related to recreational and beautification works as per designs and drawings;
- h) Based on the construction sequence, prepare a work plan showing all activities as per work break down structure for the project and propose start and finish date and update the work plan every month and inform PD about the activities to be addressed to maintain progress or overcome delays when needed;
- i) Prepare overall supervision plan including step-by-step construction flow chart, supervision & monitoring method of each item of works, approval system, measurement methods, variation approval systems etc.;
- j) The consultant will monitor and supervise the works during construction in order to ascertain whether or not the work is progressed as per approved work plan following original structural design and drawings receiving prior approval of the Project Director.
- k) Collect random samples of construction materials from the Contractor's stack yard and carryout necessary tests in LGED laboratories/elsewhere, as required to ensure that materials collected by the contractor conform to the specification;
- l) Collect, compile and analyze test results of civil and electro-mechanical works and submit reports to the Project Management Unit (PMU);
- m) Arrange field testing of construction materials/activities;
- n) Identify deviations from the standard specifications/quality of civil works, amusement park rides, electrical goods, machines, accessories etc. and arrange rectification of the same, as required;

- o) Identify deviations from the standard specifications/quality of ornamental works of buildings etc. and arrange rectification of the same, as required;
- p) During construction if any change in design becomes necessary the consultant shall notice Project Management Unit (PMU) regarding this for reviewing necessary documents, visiting the project site and finalizing necessary amendments (revise design, drawing, estimate and document etc.) within a reasonable time;
- q) Check sub-soil conditions during boring and casting of the cast-in-situ piles and compare with the design sub-soil report. In case of major deviation, he has to report to LGED/Designers for modification of designs;
- r) Prepare engineering estimate/ revise estimate by using RSEPS Software, Variation Order (V.O), BoQ and carry out survey if required;
- s) Monitor and remain present at the site during Pile Service Load Test (Static & Dynamic) and pile integrity test as carried out by the contractor, check settlements and report deviations if any;
- t) Supervise reinforcement fabrication, formworks, scaffolding and concrete casting works maintaining quality of works;
- u) Before any earth filling work, take pre-work in the presence of contractor;
- v) Assist the Executive Engineer, LGED/Project Director in contract administration, monitor progress with respect to the work plan submitted by the contractor, draft notices in case of major deviations, check time extension requirement of the bid security, performance security etc. as needed. Also inform the XEN/PD about the quarterly cash flow requirements;
- w) Check requirements for day works if reported by the Contractor, ensure proper recording of day works with assistance of the LGED representative. Check all variation claims, propose rates if necessary showing detailed breakdown of rates prior to execution of variation orders;
- x) Hold meetings at the site office/PIU/PMU as necessary; prepare minutes of meeting and circulate to all concerned.
- y) Keep records of all matters about contract administration, modifications and variations, including management meeting minutes for settlement of claims in future; review the As-Built Drawings as submitted by the contractor, suggest modification as necessary; ensure submission of an electronic version of the as-built drawing to PD for record.
- z) The consultant shall advice the Project Director on contractual matters in settling contractor's claims. He/she shall attend adjudication and arbitration sittings if necessary along with LGED representative in connection with the settlement of disputes;
- aa) Assist concerned XEN/Project Director to implement Environmental Management Plan (EMP) during construction of recreational and beautification works of Tepakhola lake amusement park;
- bb) Frequently supervise all civil works including construction and installation of park rides and check measurements of constructed works submitted by the contractor and certify final bill for payment regarding quality compliance;
- cc) Prepare bi-monthly, monthly, quarterly progress report for the project including completion report (approved format) at the closure of the project and
- dd) Submit completion report along with all documents (as built drawing, design and other documents as required).

ii) Other Issues:

- The consultant will carry out his assignment timely and provide sound and diligent services. Any monetary loss incurred owing to their sub-standard services will be compensated through penalizing as per conditions of the contract;
- Train Project Implementation Unit (PIU) staff/contractors to ensure quality;
- Perform any other task assigned by the Project Director related to the assignment and
- If the consultant wants to change the service for another project of LGED, he/she have to take prior approval from the PD during submission of RFA for another Project in LGED. Otherwise **2(two) months** remuneration and reimbursable amount will be forfeited.

5.0 Reporting Requirement

Progress Report: The consultant shall prepare and submit quarterly, monthly and bi-monthly progress report in brief and concise form using the approved format. The report will describe progress of activities planned for previous month along with plan for the next month. The report also states problems encountered, or problems anticipated together with steps taken or recommendations for their correction. The consultant will submit the report to the XEN, LGED, Faridpur and the Project Director.

6.0 Data, Local service and Facilities to be provided by the Client

6.1 Study Reports, Traffic and Technical Data:

LGED will provide the Consultant with all available data as and when required.

- All relevant studies so far done related to the project;
- Design manuals, standard designs of structures & other infrastructures, PPR-2008, LGED's Unit Rate Analysis and Unit Rates etc.;
- Masterplan, Topographical survey map & sub-soil investigation report of proposed Tepakhola amusement park site;
- Contract documents including design, drawing, priced BOQ, technical specification etc. and
- Any other report as available in LGED.

7.0 Working station & Working hour

Office of the Executive Engineer, LGED, Faridpur/Office of the Zilla Parishad, Faridpur will be the consultant's principal working station. There he/she will act as a resident engineer. Sometimes he/she may work at Project Management Unit (PMU) at Dhaka. The working hour of the consultant will be same as the government office. But during construction he/she will work up to end of the construction. The supervision engineer shall work under direct control of the

Project Director. He/She shall not leave working station without prior approval of the Project Director. The expected duration of the assignment is about **24 months** and expected to be commenced on **1st December/2023**. The duration may be extended/shortened, if necessary.

8.0 Qualification, Experience & Suitability

a) Educational Qualification:

- Minimum B. Sc in Civil Engineering from any reputed University or equivalent degree.

b) Experience & adequacy for the assignment :

- At least **12 (Twelve)** years of general experience in supervision, monitoring and quality control activities of civil works, out of which **10 (Ten)** years of relevant experience in supervision, monitoring and quality control activities in similar work to be developed under the project in Bangladesh and any other developing countries.
- Knowledge and practical experience in supervision of amusement park construction works will be preferable.
- Experience in supervision, monitoring and quality control of Amphitheatre will be preferable.
- Experience in supervision, quality control and installation/commissioning of various electrical goods and equipment like generator, sub-station, electrical fittings, lighting, earthing, lining etc. for a large area will be preferable.
- Experience in supervision, monitoring and quality control of foundation (civil) work and installation of various amusement park rides (electro-mechanical) will be given preference.
- Experience in preparing and understanding engineering estimate (RSEPS based) will be considered as more competent.
- Capable of reading and understanding architectural structural design and drawing through Auto CAD will be preferable.

c) Suitability :

- Computer skill (MS Word, MS Excel, MS Power Point, MS Project and Auto CAD),
- Training in relevant areas etc.

For outstanding Candidate, the experience criteria may be relaxed i.e. the tenure of overall experience & relevant experience may be relaxed.

