

**TERMS OF REFERENCE**  
**Technical Supervision Specialist for**  
**technical surveillance services in constructions**

<b>Job title:</b>	Technical Supervisor (engineer)
<b>Duty station:</b>	Palanca, Stefan Voda, Chisinau, Moldova
<b>Reference to the project:</b>	“Construction of a Jointly Operated Border Crossing Point at Palanca, RM”
<b>Contract type:</b>	Individual Contract
<b>Indicative Duration of assignment:</b>	300 working days, during 2017-2018
<b>Starting date:</b>	March, 2017

**I. Objective of the assignment:**

The expected output for the Engineering services is to provide technical/expert supervision services to UNDP (Employer and Engineer) for an efficient, qualitative and timely completion of the construction of the Jointly Operated Border Crossing Point (JOBCP) at Palanca, on the territory of the Republic of Moldova.

**II. Background:**

The Moldova-Ukraine common border (total length = 1222 km) consists of 955 km of green border and 267 km of blue border and represents one of the most problematic border segments in the region, being used by irregular migrants heading westwards, whereas the adjacent border area is vulnerable to border and related crime, such as smuggling. The self-proclaimed Transnistrian republic has been for the last twenty-three years a grey area increasing the risks of illegal activities in the region, particularly along the Ukrainian-Moldovan border. The Transnistrian segment on the Ukraine-Moldova border is a serious obstacle for the passenger and cargo flows between two countries, increasing the role of the Border Crossing Points outside Transnistria and raising the demand for their use.

Palanca international road border crossing point (BCP) is one of the BCPs between Moldova and Ukraine that experiences a high workload due to the passenger and cargo traffic avoiding Transnistria. It was built in 1998 and is located at the Moldovan side of the border on the edge of Palanca village, Stefan Voda district (150 km away from Chisinau - the capital city of the Republic of Moldova). At present, border guard and customs controls are carried out at three places (by control authorities of Moldova at ‘Palanca’ BCP and by control authorities of Ukraine at ‘Mayaki’ BCP which is located 3,5 km from BCP Palanca and ‘Udobne’ BCP’ which is located 4.3 km from BCP Palanca). A 7.6 km portion of the Ukrainian highway Odessa-Reni between Mayaki and Udobne passes through the territory of the Republic of Moldova. This highway is an important road infrastructure and transport corridor that links Odessa and major cities from the region, as Belgorod-Dnestrovsk, Reni, and Kilia.

On the basis of the Agreement from 1997 the Palanca BCP operated as a Jointly Operated Border Crossing Point from March 1997 until August 2001, when the Ukrainian party unilaterally terminated the “Joint Border Control” operation. As a consequence, in 2001 Mayaki (UA) and Udobne (UA) BCPs were established at the

two sides of the transit road with the aim of carrying out checks by the Ukrainian border control agencies in these places to ensure that the predominantly domestic traffic did not illicitly cross into Moldova.

The establishment of Palanca Jointly Operated Border Crossing Point (JOBCP) on the territory of the Republic of Moldova will resolve the problem of the internal Ukrainian traffic, because all types of cross-border control of both countries will be fulfilled in one place, namely at Palanca JOBCP, without further control at 'Mayaki' BCP (Ukraine) and 'Udobne' BCP (Ukraine).

The Palanca JOBCP will be sited on the R52 highway, to the South of the village of Palanca and adjacent to the junction with the Ukrainian highway Odessa-Reni.

The existing border crossing point at Palanca is sited on a platform that is raised above the anticipated flood levels of the Dniester River. The extended design for the JOBCP will require the Contractor to import the fill material for extending the platform over an area of inlets into the flood plain. Substantial quantities of fill material must be imported from borrow pits and the Contractor will be required to provide bulk haulage routes acceptable to the respective mayors. The works will require protection from possible flooding.

The JOBCP structures include a two level administrative centre (to a high quality finishes specification), vehicle examination buildings, covered document processing channels with kiosks for the border guards and customs officers. All of the buildings will be furnished, equipped and connected into utility, communications and surveillance networks.

The BCP will be fully paved and signed for vehicle routing and parking. Key items and installations of plant and equipment will be procured to the Employer's requirements, installed and commissioned, at the responsibility of the Contractor.

According the current legislation all civil works have to undergo technical supervision conducted by specialized entities with required licenses to conduct specific type of supervision and certification of correspondence. The technical supervision is required in this context as to ensure that all works and materials used correspond to the current standards and norms, as required by the legislation, specifically Law No. 721-XIII of 02.02.1996 of RM on Quality in Constructions and others. The technical supervision issues certificates of correspondence that are used at commissioning and accepting of works. In this regards UNDP is seeking to hire an experienced Civil Engineer to conduct independent and professional monitoring and checks of the quality, cost-efficiency and timeliness of the construction works up to commissioning of the BCP Palanca to the beneficiaries.

### **III. Scope of work and expected output:**

The Technical Supervisor (civil works) will provide the service of civil works supervision, being experienced, duly licensed in accordance with the law regarding the works under its control. The presence of the civil work engineer with the necessary specific license will be required whenever works requiring licensed supervision are in progress. The candidate must possess a valid license for supervision of civil works, in the same time, it will be considered an advantage if the candidate has a professional attestation at least in one or more of the fields: road construction, water and sewage network/facility installation, ventilation/frigorific, electrical network, telecommunication networks, automation systems, alarm system, technological equipment installation.

The relevant and applicable laws of the Republic of Moldova will govern the execution of the JOBCP project. In this regard, the Technical Supervisor will carry out the services as described in this TOR in strict correspondence with: - the Law No. 721-XIII of 02.02.1996 of RM on Quality in Constructions;

- the Law No. 163 of 09.07.2010, regarding authorizing execution of construction works;
- GD No.361 of 25.06.1996, regarding quality assurance in constructions;
- the Bylaw No.285 of 23.05.1996, commissioning of the civil engineering works and installations, taking into consideration the latest modified versions;
- The standards and regulations in construction in force in RM;

The Technical Supervisor will be also in charge of the management and administration of the Team of Supervisors hired afterwards by UNDP separately, for specific areas of expertise needed to assure the Employer, that the Contractor is properly fulfilling all of the project requirements, performing the Works with due diligence and managing his operations so as to maintain the capacity for bringing the project to its required conclusion.

The backstopping and Quality Management responsibilities of the Technical Supervisor shall include, but not be limited to, maintaining control and overview of, the Contractor's design responsibilities, his preparation of construction drawings, his QA/QC plan and system, quality of the works and workmanship and relevant and applicable laws, regulations and standards.

The assignment will require the completion of the following tasks:

1. Set up of a Quality Management system of supervision for the civil works;
2. Jointly with the Contractor's and Designer's Representative review the designs, trials and tests in verification of the design parameters, carry out a comprehensive initial condition survey of the site, identify any necessary variations and obtaining the approval of the Engineer and over-view the Contractor's preparation of construction drawings and designs for which he is responsible;
3. Set up a site supervision schedule and method of communication with authorized site representative of the Contractor;
4. Jointly with Beneficiary organize handing over of the construction site to the Contractor;
5. Perform direct on-site supervision of the quality of works and monitoring of implementation progress as well as the Contractor's Reports on, and projections of, financial and physical progress, technical and contractual issues;
6. Establish and manage a programme of test works to be carried out at independent laboratories (cost of the laboratory testing shall not be included);
7. Organize regular monitoring site meetings (at least on a weekly basis) with participation of all involved stakeholders and partners. Prepare and hold adequate filing of the minutes of the meetings and translation into English language.
8. Maintaining control and countersign the volumes of executed works, in conformity with approved design documentation. All original documents should be timely presented to the Project Engineer.
9. Assist the Project Engineer at the acceptance and/or approval of submissions required from the Contractor, including, but not limited to: key staff appointments, insurances, guarantees warranties, licenses, construction authorizations, programmes, method statements, traffic management plans, safety measures, suppliers and certified materials for incorporation in the works, the quality assurance and control plans, laboratory provisions and execution of the testing programme, requests for approval to proceed, subcontractors, plant, equipment, provision of borrow pits and access roads and environmental protection;
10. Duly certify Contractor's interim/final certificates for payments for executed works before presenting to the Project Engineer for approval;
11. Prepare and dully submit Reports on, and projections of, financial and physical progress, technical issues, non-compliance and contractual issues. The Reporting shall include, but not limited to:
  - *Initial Assessment Report.*

This report will provide, in stages, a compilation of the findings of the Initial Condition Survey, recommendations with respect to any requirements for significant additional investigations/test-work, details of and justification for any required/proposed variations, an overview of the Contractor's designs/construction drawings, a cost analysis and substantiation of the Initial Contract Price;
  - *Bimonthly (once every two months) Progress Reports*

The report will provide evidence for physical/financial general progress, issues highlighted by the Contractor's progress reports, providing, in an executive summary format a comparison between planned and achieved progress, with reasons for any delay and recommendations for recovery action. The Progress Report shall provide a record of the Technical Supervisor 's to date/planned inputs, with justifications for any planned changes;

- *Special Reports*

The special report, if any, will highlight issues that warrant particular comment and advice to the Engineer, such as guarantees, insurances, claims or delays.

- *Substantial Completion Report*

Report submitted at the time of substantial completion of works. The Report will include the list of outstanding items, tests and defects to be rectified with a programme for their execution. The Substantial Completion Report will also address any outstanding claims and issues recorded by the Contractor in the Statement at Substantial Completion.

- *Final Report*

The Final Report will comprise all the assignment period. The final report should contain description of activities at all stages, a compilation of key recommendations and lessons learnt throughout the project.

12. To fill in the Site Work Record Book as well as to control Contractor's Records of site weather conditions, instructions issued, activities, employed resources, events, deficiencies in the safety regime, tests carried out and achieved quantities of work and maintain the regular records in a formal SiteWork Record Book which is to be signed off daily by the Contractor's licensed supervisor and the supervising engineer;
13. Check the quality of the construction elements, mixtures, materials executed in the proper production units of the Contractor;
14. Immediately stop the execution of the construction works in case of low quality or deviation from the approved design. Document, in written form and with photos all identified observations and deviations from the initial design documentation;
15. Take measures of correction or remedy of the works which has been stated as unsatisfactory;
16. Inform the beneficiary, Project Manager and State Construction Inspectorate or national steering construction entity where the implementation and running of the construction object do not meet appropriate quality and can endanger people's lives, their property, society and the environment;
17. Ensure that the construction works are elaborated according to: technical design; technical norms and requests enforced in the Republic of Moldova; professional, high level standards and technical instructions provided by the representatives of the Client;
18. Verify the provision of the certificates of conformity, technical agreements or quality analysis of samples for the materials used in construction;
19. Coordinate the visits at the site with Project Engineer and Client representatives;
20. Inform immediately the Project Engineer about the unforeseen works;
21. Manage of tests on completion, commissioning, snagging and the Taking-Over of the completed Works, managing the programme of completion of outstanding works and rectification works, 'as built drawings', manuals, warranties, contract records, final accounting and the issue of the Performance Certificate;
22. Performing all relevant tasks as required

All activities under this assignment shall be performed in a gender-sensitive manner and applying human rights based approaches.

#### IV. Deliverables

Deliverable/milestone		Indicative timeframe	Indicative working days/paperwork	Working days on site
1	Quality Assurance Management Plan (QAMP) that will include a detailed work plan (calendars of actions, Milestones, resources) and methodology for the entire assignment developed and approved by UNDP.	March 2017	5	5
2	Initial Assessment Report of the technical designs of the JOBCP Palanca together with the Contractor's Initial Assessment	April 2017	5	10
3	Technical supervision works and Bi-monthly Progress Report for the works provided by the Contractor	Every 2 <sup>nd</sup> month	20	220
4	Substantial Completion Report	October 2018	10	10
5	Final Report comprising all the assignment period. The final report should contain description of activities at all stages, a compilation of key recommendations and lessons learnt throughout the project.	November 2018	10	5
<b>TOTAL, days per category</b>			50	250
<b>TOTAL, days</b>			300	

#### V. Time frame, management and institutional arrangements

Organizational settings: The timeframe for the assignment of the technical supervisor is planned tentatively from March 2017- November 2018. The Technical Supervisor will be responsible for its own office facilities according to the needs to accomplish fully the tasks and obligations under the contract. The technical supervisor will work in close collaboration with the Project Engineer – for substantive aspects of the assignment, and under the supervision of the Project Manager – for administrative and other aspects.

Language of the deliverables: All the above mentioned deliverables should be duly prepared and submitted for approval to the Project Manager and Project Engineer in Romanian and translated into English. It is the Technical Supervisor's sole responsibility for translation of the reports into English language.

Travel: The assignment may foresee frequent travel from the capital city Chisinau to the construction site- Palanca- 150 km driving distance. These are the responsibility of the Technical Supervisor and should be included in the consolidated financial offer.

Financial arrangements: All candidates will be required to submit an aggregated financial offer ("aggregated financial offer" is the total sum of all financial claims of the candidate for accomplishment of the task, including but not limited to professional fees, travel and transportation, translation costs, communication, insurances etc.). The financial proposal should be presented with breakdown of costs per main category, i.e. professional fees /per day/per total, travel, transportation, translation etc. Payment will be disbursed in instalments upon submission and approval of deliverables and timesheets and certification by UNDP that the services have been satisfactorily performed.

Performance evaluation: Consultant's performance will be evaluated following such criteria as: timeliness, responsibility, initiative, communication, accuracy, and quality of the products delivered.

## **VI. Qualifications and skills required**

### Academic Qualifications:

- University degree or equivalent in technical/engineering/constructions studies;

### Experience:

- Minimum of 10 years of progressively responsible professional experience in the area of constructions, infrastructure development projects;
- Minimum 5 year of progressive experience as a licensed technical supervisor in civil engineering of a large scale infrastructure projects;

### Knowledge and competencies:

- Valid license for supervision services of civil works (License title: *Construcții civile, industriale și agrozootehnice*);
- Additional to civil work attestation in one or more of the following fields: road construction, water and sewage network/facility installation, ventilation/frigorific, electrical network, telecommunication network, automation systems, alarm systems, technological equipment installation will be a strong asset.
- Deep technical knowledge of standards and principles of construction contracts and business processes

### Abilities & skills:

- Proven ability to plan, work and deliver on agreed deadlines;
- Proven ability to operate effectively in a team;
- Demonstrated interpersonal and diplomatic skills, as well as the ability to communicate effectively with all stakeholders and to present ideas clearly and effectively;
- Proven report writing skills
- Fluency in Romanian and Russian languages. Working knowledge of English will be a strong asset.
- Computer literacy and ability to effectively use office technology equipment, IT tools.
- Proven commitment to the core values of the United Nations, in particular, respecting differences of culture, gender, religion, ethnicity, nationality, language, age, HIV status, disability, and sexual orientation, or other status.

## **VII. Documents to be included in the proposal**

Interested individual consultants must submit the following documents/information to demonstrate their qualifications:

1. Cover letter, stating the interest and qualifications for the assignment;
2. Financial proposal with daily professional fee and total lump sum for the assignment;
3. Duly completed P-11 form/ Personal CV and contact details of 3 references
4. Copies of Attestation Certificates;
5. At least 2 references from a supervised ongoing and/or successfully completed construction object of large scale within the last 5 years.