

## SE KLAIPĖDA STATE SEAPORT AUTHORITY

APPROVED.....  
Infrastructure Director  
of SE Klaipėda State Seaport Authority  
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### TECHNICAL TASK NO.

## OF THE ENGINEER PERFORMING RECONSTRUCTION OF THE NORTHERN AND SOUTHERN BREAKWATERS OF KLAIPĖDA STATE SEAPORT AND REINFORCEMENT OF A PART OF THE CURONIAN SPIT SLOPE, ACTING IN ACCORDANCE WITH THE FIDIC CONTRACT TERMS, AND OF THE TECHNICAL MAINTENANCE

\_\_\_\_\_ 2015  
Klaipėda

Main definitions:

**Breakwater** – a water port structure that protects the port from waves. The unique number of the northern breakwater: 2100 2020 9012 (address: Vėtros Str. Klaipėda); the unique number of the southern breakwater: 2100 2020 8015 (address: Smiltynės Str. Klaipėda).

**Reinforcement of the Curonian Spit slope** – a structure or an installation, whose function is to ensure the stability of the Curonian Spit's underwater slope.

**STR** - construction technical regulations valid in the Republic of Lithuania (binding to all participants).

**Engineer** - a person who will prepare the data of the construction site required for the design and implementation of such structures, provide engineering services in accordance with the FIDIC conditions on construction and engineering works designed by a contractor, designing and construction of electrical and mechanical equipment (1999, first edition, „The Yellow Book“), and represent the interests of the Customer as well as advise the Customer on all the issues related to implementation of the Project.

**Customer** – the state enterprise Klaipėda State Seaport Authority.

**Contractor** - the winner established by way of a public procurement tender, with whom a contract on the performance of design and construction works in relation to the object *Reconstruction of the northern and southern breakwaters of Klaipėda State Seaport and reinforcement of part of the Curonian Spit slope*, the slope of Approval “*Reconstruction of the northern and southern breakwaters of the Klaipėda State Seaport and reinforcement of part of the Curonian Spit slope*“ in accordance with the FIDIC Yellow Book (hereinafter referred to as the Contractor's Agreement) will be signed.

**Project** - design and construction of the object “*Reconstruction of the northern and southern breakwaters of +Klaipėda State Seaport and reinforcement of part of the Curonian Spit slope*”.

**Technical specifications** - a document setting out the necessary conditions for the implementation of Project's solutions; technical, quality and other requirements, characteristics and parameters of the structure ( or its part), engineering systems, structures, building products (products and materials) and technological equipment, engineering equipment (equipment, products), construction and installation works, the Customer's requirements to the contractor, which will make an integral part of design and construction contract according to FIDIC Yellow Book.

### I. INTRODUCTION

In 2014, a feasibility development plan on the maximum dredging and widening of the shipping channel of the Klaipėda State Seaport was prepared, in which a long-term strategy of the Klaipėda Port's development was provided that is aimed to ensure the development of the sustainable, dynamic and

competitive Port of Klaipėda. This document serves as the basis for the preparatory works aimed at ensuring the development of the Port of Klaipėda.

Upon preparation of the feasibility development plan on the maximum dredging and widening of the shipping channel of the Klaipėda State Seaport (hereinafter - the Development Plan), it was concluded that, after summarizing of the performed technical analysis, taking into account the results of the strategic environmental impact assessments and observed trends in the shipping business, it would be possible to ensure the interests of the Klaipėda State Seaport and its stevedoring companies by constructing a new harbour entrance channel of 250 m in width and 17.5 m in depth (directing it about 10°-12° to the north from the current channel's axis, i.e. the direction of the channel would be about 103° -283°), by increasing the width of the channel at the gate of the port to 180-200 m, widening the inner shipping channel to 200 meters and deepening to 17.0 m, installing vessel turning points of diameter at least 420 m. This would provide an opportunity to admit in the port of Klaipėda practically all *post panamax* class vessels with up to 365 m in length, up to 52 m in width, with the maximum draught permitted at the depth of 17.0 m.

For the implementation of these solutions, it is required to reconstruct and strengthen southern and northern breakwaters of the port of Klaipėda, reinforce the Curonian Spit slope, install the southern gates of the Port, perform the procedures of environmental impact assessment, etc.

### 1.1. Scope of services

By this technical task SE Klaipėda State Seaport Authority (hereinafter referred to as the **Customer**) purchases the services of an **Engineer** performing the services of designing and construction of the object „*Reconstruction of the northern and southern breakwaters of Klaipėda State Seaport and reinforcement of part of the Curonian Spit slope*” and technical maintenance services.

The Project's title „*Reconstruction of the northern and southern breakwaters of Klaipėda State Seaport and reinforcement of part of the Curonian Spit slope*” can be adjusted according to STR 1:05:06:2010 „*Designing of structures*”.

The works of designing and construction of the object will be carried out in accordance with the FIDIC conditions on construction and engineering works designed by a contractor, designing and construction of electrical and mechanical equipment (1999, first edition, „The Yellow Book”).

The services provided by an engineer shall include the following tasks specified in Chapter III:

1. To establish the site data as provided in Task 1.
2. To help the **Customer** manage and administer the **Project** (Task 2).
3. To prepare tender documents for the selection of the Project's Contractor and consult the **Customer** in selecting the contractor (Task 3).
4. To control the compliance of the technical and work (or technical design basis) project (hereafter referred to as TDB) with the requirements of the Customer and Contractor's contract and the compliance with quality requirements (Task 4).
5. To carry out the technical maintenance of the structure and provide engineer's services in accordance with the FIDIC contract conditions (Task 5).

The tasks are described in detail in Chapter III „*Tasks and responsibilities*”.

The environmental impact assessment procedures required for the planned economic activity will not be necessary as these services in case of need will be carried out by another service provider.

The Project's construction works, engineering and maintenance services will be financed from the EU structural funds for the period 2014-2020.

The Lithuanian language shall be the official language of the Project. The service provider will have to provide translations for his employees who do not know the Lithuanian language.

## II. PROVIDED SUBSTANTIATING DOCUMENTS

Provided substantiating documents that must be taken into account in the provision of services specified in these Terms of Reference:

- The feasibility development plan on the maximum dredging and widening of the shipping channel of the Klaipėda State Seaport prepared by UAB “SWECO Lietuva” and UAB “Sweco Hidroprojektas”, 2014.
- The feasibility development plan on the maximum dredging and widening of the shipping channel of the Klaipėda State Seaport prepared by UAB “SWECO Lietuva” and UAB “Sweco Hidroprojektas”. Strategic Environmental Assessment Report, 2014.
- Report on geological and geophysical survey of the Klaipėda port entrance channel reconstruction project prepared by UAB “Geoprojektas ir Ko” (Volume 1: Annex A), 1999.
- Report on geological and geophysical survey of the Klaipėda port entrance channel reconstruction project prepared by UAB “Geoprojektas ir Ko” (Volume 2: Appendix B) in 1999.
- Annex to the final report on geological and geophysical survey of the Klaipėda port entrance channel reconstruction project prepared by UAB “Geoprojektas ir Ko”, 1999.
- KSSA territory’s engineering geological mapping (northern part) 1: 5000 geological survey program prepared by UAB “Geoprojektas ir Ko”.
- Report on geological works for the preparation of the technical project on the dredging of the entrance channel of the Klaipėda State Seaport Entrance Channel from the isobath (PK-17) of 15 m to PK0 prepared by UAB “Geoprojektas ir Ko”, 2007.
- Report on engineering geological survey of the inner channel of the northern part of the Klaipėda State Seaport between the pickets 0-28 prepared by UAB “Geoprojektas ir Ko”, 2007.
- Technical Design Basis on the dredging of the Klaipėda State Seaport entrance channel and the northern part of the water area up to 14 meters prepared by SE Lithuanian Energy Institute, 1998.
- A study of the Port’s development project in the Republic of Lithuania prepared by the Japanese International Cooperation Agency, 2004.
- Klaipėda Port’s Gate Reconstruction Project prepared by Frederic R. Harris B. V. (report on the initial project concept, Phase I Report, Final Report), 1998.
- Assessment of environmental impact Klaipėda Port’s Gate Reconstruction Project prepared by Frederic R. Harris B. V., 1998.
- Klaipėda Port’s Gate Reconstruction Project prepared by Frederic R. Harris B. V. (Final Report), 1999.
- Special inspection reports and technical passports of the southern breakwater of the Klaipėda State Seaport.
- Special inspection reports and technical passports of the northern breakwater of the Klaipėda State Seaport.
- Bathymetric measurements data.
- Environmental monitoring report of the Klaipėda State Seaport for 2004-2015.
- Monitoring reports of the northern and southern breakwaters of the Klaipėda Port prepared by UAB “Getelit”, 2015.

Documents in English, which, if necessary, shall be translated into the Lithuanian language by the service provider:

- WL Delft Hydraulics Port of Klaipėda full mission simulation, 1996.
- WL Delft Hydraulics Improvement of Klaipėda harbour entrance Feasibility Study, 1998.
- WL Delft Hydraulics Improvement of Klaipėda harbour entrance Feasibility Study (Appendices), 1998.
- WL Delft Hydraulics Klaipėda Port, Lithuania Additional three-dimensional physical model tests, 2000.

The **Engineer** must follow the Contract, the legislation of the Republic of Lithuania as well as the latest changes and additions, EAU 2012 recommendations. The Engineer is required to comply with all new legal acts adopted within the term of the Contract, if they are related to the implementation of the Project.

### III. TASKS AND RESPONSIBILITIES

According to the Contract, the Engineer shall perform the tasks specified below, but not limited to, seeking to find optimal solutions and, if necessary, carrying out reasonably foreseeable additional tasks which may be a necessary precondition for the successful completion of the service contract.

<b>Task 1</b>	<b>Establishment of the data of the construction site</b>
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### Goals

To establish complete data on the construction site, necessary to carry out the designing of such structures.

### Scope of the task

#### **1.1. Performance of engineering geological research.**

1.1.1. To perform an analysis of the provided archival materials of the engineering geological survey.

1.1.2. In accordance with STR 1.04.02:2011 “Engineering geological and geotechnical studies” and taking into account the material provided under paragraph 1.1, to prepare a designed engineering geological survey program, coordinate it with the Lithuanian Geological Service and the Port Authority and in accordance with the program prepared to carry out the designed engineering geological survey and prepare a report:

1.1.2.1. The number of boreholes and their arrangement shall be substantiated in the program of engineering geological survey works. No less than 10 designed engineering geological boreholes shall be bored next to the southern and northern breakwaters in mechanical columnar manner of up to 35 m absolute depth. No less than 4 designed engineering geological boreholes shall be bored between PK13 and PK28 in mechanical columnar manner of up to 35 m absolute depth. During the boring of the boreholes, samples of the kern of undisturbed structure shall be taken for laboratory tests;

1.1.2.2. During the survey, next to the boreholes bored in mechanically columnar manner, dynamic interval probing (SPT) or dynamic heavy probing (DPH) tests shall be performed. The results obtained shall be presented in test graphs and summarized tables on the calculated indicators;

1.1.2.3. Following the Lithuania standard LST EN 1997-1:2005 - LST EN 1997-2:2007 “Eurocode 7: Geotechnical design (parts 1 and 2)”, laboratory tests for each engineering geological layer (IGL) shall be performed. During the laboratory tests, the following physical properties of the soil shall be established: natural density, solid particle density, natural moisture, natural humidity, yield humidity; and mechanical properties: shear strength, compressive strength, calculating the specific cohesion of the soil and the internal friction angle. In case of cohesive (clayey) soils, oedometer compression tests establishing the deformation model and proctor tests establishing the maximum and minimum density of sandy soil, etc., shall be performed;

1.1.2.4. Following LST ISO/TS 17892-4:2005, granulometric analysis tests of each engineering geological layer IGL shall be performed and the soil shall be identified in accordance with LST ISO and DIN 18196 standards;

1.1.2.5. The aggressiveness in respect to metal and concrete shall be established;

1.1.2.6. If during the boring works no cohesive (clayey) soils will be found, one borehole shall be bored to a depth in which a column of cohesive (clayey) soil is reached, penetrating into it for two meters;

1.1.2.7. The tests referred to in Clauses 1.1.2.3, 1.1.2.4 and 1.1.2.5 shall be carried out in accredited laboratories.

1.2. **Interpretation of geophysical tests.** To perform an analysis of the archival materials and interpretation of available geophysical data, prepare a geodynamic model of the territory, indicating quoting engineering geological layers, their engineering geological and hydrogeological conditions and the physical and mechanical properties.

1.3. **Topographic survey.** To prepare a topographic survey required for the preparation of the Project.

1.4. **Collection of meteorological, hydrological and hydrographic data, analysis and generalization.** To collect meteorological, hydrological and hydrographic data that will be required for the preparation of the Project. To perform an analysis of these data and, if necessary, to clarify the available tests and describe this data.

1.5. **Establishment of the Curonian Spit slope anchor points and parameters.**

1.5.1. Basing on the prepared feasibility development plan on the maximum dredging and widening of the shipping channel of the Klaipėda State Seaport and the provided scheme of the boundaries of the new shipping channel of the Klaipėda State Seaport (with alteration of the entrance channel direction by 10°-12° to the north of the current channel axis) and taking into account that the internal shipping channel will be deepened up to 17.0 m and widened, to specify what coastal stretches of the Curonian Spit in the northern part of the port of Klaipėda up to PK28 must be reinforced with the help of underwater stabilizing walls, and the locations there it will be possible to form a natural slope. The scheme of the boundaries of the new shipping channel is attached thereto.

1.5.2. To prepare basic design, environmental, etc., requirements for the implementation of the above technical solutions.

**1.6. After summarizing of the collected material and the above-mentioned received information and following EAU 2012 1:04:01 STR:2005 “Surveys of existing buildings” and others applicable laws, building regulations and normative documents valid in the Republic of Lithuania, to assess the technical condition of the structure of the southern and northern breakwaters and its compliance with the existing normative and technical documentation:**

1.6.1. To present proposals on the alteration of the parameters of the southern and northern breakwaters (the structure), the need for reinforcement and reconstruction.

1.6.2. To determine the scope of future design and construction works.

1.6.3. Based on the experience and examples of implemented analogous projects, to calculate the preliminary budget for the Project implementation.

**1.7. To prepare other substantiate data that has not been mentioned in Task 1 but are necessary to carry out the designing of such structures.**

**1.8. Following the surveys referred to in Clauses 1.1-1.7, to prepare a report summarizing the obtained results.**

**1.9. To submit summarized findings of the reports at the meeting of the Technical Council of the Klaipėda State Seaport Authority. To submit the prepared reports including the findings to the Customer.**

#### Results

Prepared comprehensive data on the construction site, required for the preparation and implementation of the Project under FIDIC Yellow Book. An estimated provisional budget for the implementation of the Project. Prepared reports including conclusions, presented at the meeting of the Technical Council of the Klaipėda State Seaport Authority; 2 copies of the reports in the Lithuanian language and 1 copy in a digital media in PDF format will be submitted to the Customer.

The established data on the construction site shall be provided along with the procurement documents during the announcement of the tender on selection of a **contractor** of the Project.

#### Length of service

The beginning of the provision of the services – the effective date of the contract on the provision of the services specified in this Technical Task. The end of the provision of the services - the date of the submission of the final documentation (data on the construction site) to the **Customer**. The services shall be performed within 8 months from the effective date of the contract, including the presentation of the reports prepared to the Technical Council of the Klaipėda State Seaport Authority and their correction in accordance with the received comments.

<b>Task 2</b>	<b>Assistance in the management and administration of the Project</b>
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#### Goals

To help the **Customer** to manage the Project seeking to ensure that all activities of the Project are carried out in a timely and quality manner and in compliance with the budget and that all the activities of the project are properly documented and recorded and the information about the progress of the Project reaches the **Customer** and other interested parties.

#### Scope of the task

2.1. In order to ensure effective management of the Project, to form a working group (s) of competent professionals who are able to competently carry out the services specified in this technical Task, advising the **Customer** on all technical issues related with this technical task and Project implementation. The working group shall be formed at the beginning of this task within 2 weeks of the effective date of the contract on the provision of the services specified in this technical task. The participation of the working group's members will depend on the phases of the Project and the actual needs, i.e. in so far as it is necessary to ensure the successful progress of the Project. A list of the members of the working group, approved by the Head of the service provider and the **Engineer**, shall be submitted to the Customer.

2.2. To prepare a detailed action plan on implementation of the Project, which would provide for the actions necessary for implementation of the Project, the duration of actions and the members of the working group responsible for the achievement of the objectives of the Project. To describe the potential risks and assumptions for implementation of the Projects. To help the Customer to coordinate and monitor the implementation of this plan and to update it, if necessary. To inform the Customer about any existing or potential delays.

2.3. To participate in internal and external Project meetings. The Engineer, having regard to the necessary expertise, shall delegate competent specialists to the Project-related meetings. The Engineer shall be responsible for the minutes of such meetings. The minutes shall be prepared within 3 working days.

2.4. To provide any other ongoing Project management support and assistance to the Customer.

#### Results

A detailed action plan for implementation of the Project is prepared; responsible persons are appointed.

The Customer is provided with continuous help related to the Project's coordination and control.

#### Length of service

The beginning of the provision of the services – the effective date of the contract. The approved list of the Working Group shall be submitted to the Customer within 2 weeks from the effective date of the contract on the provision of the services specified in this Technical Task. The Project implementation action plan shall be prepared within two months after the effective date of the contract. The referential duration of the designing of the structure and construction works - 36 months after the start of the works under the contract; time of notification about defects - 12 months (365 days).

<b>Task 3</b>	<b>Preparation of procurement tender's documents and consultations in selection of a contractor</b>
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#### Goals

To prepare procurement documents, which would be suitable to announce an international public procurement tender selection of the contractor to the Project.

To consult the Customer on assessment of contractors' proposals during the tender.

#### Scope of the task

3.1. To prepare a set of contract documents in accordance with the procurement method chosen by the Customer, following the Law on Public Procurement of the Republic of Lithuania, for the announcement of an international procurement tender on the Project the FIDIC Yellow Book:

3.1.1. To prepare technical specifications and a contract on design and construction works so the participants of the tender would be able to prepare a technical proposal and calculate the price of the proposal and establish deadlines. To coordinate the prepared documents with the Customer.

3.1.2. To prepare other documents necessary to carry out the procurement tender and coordinate them with the Customer.

3.1.3. To advise the Customer on the competition's publicity issues in order to inform about the procurement and engage as many stakeholders (service providers, contractors) as possible. In case of the need, to prepare informative presentation material.

3.1.4. To offer an evaluation method of the tenders of the procurement participants (contractors) as well as evaluation criteria and coordinate them with the Customer.

3.1.5. To participate in the evaluation of the proposals prepared and submitted by the participants of the tender and provide an opinion on each proposal, checking the provided structural calculations and

assessing the risks of Project implementation of the proposal (work deadlines, the costs, etc.). To advise Customer in the assessing of the contractors' qualifications, experience and capacity to implement the Project in accordance with the criteria set out in the contract documents.

3.1.6. To participate in the meetings of the Public Procurement Commission of KSSA.

3.1.7. To provide the Customer with advice and answers, preparing written draft answers to the participants' enquiries on the documents of the public procurement and submitting them for the coordination by the Public Procurement Commission of KSSA.

3.1.8. During the procurement, the answers to the questions of the Customer or the participants will have to be prepared and submitted in writing to the Customer within 2 working days of the date of the receipt of the fax or e-mail.

#### Results

Prepared contract documents for the announcement of an international public procurement tender.

Determined and announced the successful tenderer; a signed contractor's agreement on the designing and construction works under the FIDIC Yellow Book.

#### Length of the service

The procurement documents for the announcement of an international public procurement tender shall be prepared within 10 months from the effective date of the contract on the provision of the services specified in this Technical Task. The date of the performances of the services – date of signature of the contractor's agreement with the contractor on the Project's implementation under the FIDIC Yellow Book.

<b>Task 4</b>	<b>Control of the quality of technical-work project (TWP) while performing the services of the Engineer under the FIDIC contract's requirements</b>
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#### Purpose

To control that the technical-work project (TWP) prepared by the contractor would meet the Customer's and the contractor's agreement requirements and be of adequate quality.

#### Scope of the task

4.1. To assess how essential requirements of the structure are implemented in the solutions of TWP.

4.2. During the preparation of TWP, to coordinate and control how designers follow the designing task and technical specifications, advise the Customer on the expediency of the solutions adopted by designers, control the TWP prepared by the contractor would meet the Customer's requirements and are of adequate quality in accordance with the laws of the Republic of Lithuania, the technical construction regulations and normative documentation, control the compliance with the design work schedule.

4.3. To provide the Customer guidance on the submission of the draft project for expertise. The examination of the Project shall be carried out by order of the Customer.

4.4. To participate and provide advice on TWP in all meetings, workshops and technical councils if the Customer expressed such a wish and informs about it.

4.5. To control the development, coordination and approval of all documents, obtaining of all necessary consents, approvals, reconciliations and confirmation, including the construction permit, and removal of any other obstacles impeding the start of TWP construction works performed by the contractor contract work. To control that all TWP changes would be carried out and formalize in accordance with the procedure established by the Republic of Lithuania.

4.6. To control the terms of validity of the construction permit and the structure's design conditions (including for the period of construction conditions); to inform the Customer on the necessity of their extension (amendment) and to take care of the extension if instructed.

4.7. To consult the Customer during the implementation of the whole Project, until the certificate on the construction completion of the structure is signed.

#### Results

A prepared technical-work project (TWP), for which a positive conclusion of experts and the construction permit are received.

Implemented technical documentation solutions of TWP. A signed certificate on the construction completion of the structure.

#### Length of the service

The beginning of the provision of the services - the effective date of the contractor's agreement concluded between the Customer and the successful contractor under the FIDIC Yellow Book. The referential duration of the designing of the structure and construction works - 36 months after the start of the works under the contract; time of notification about defects - 12 months (365 days).

<b>Task 5</b>	<b>Services performed by the Engineer under the FIDIC contract requirements and the services of the structure's technical maintenance</b>
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Goal

To provide technical maintenance of the structure and the services of the Engineer according to the FIDIC contract conditions.

The services of the Engineer will have to be carried out in accordance with the FIDIC conditions on construction and engineering works designed by a contractor, designing and construction of electrical and mechanical equipment (1999, first edition, „The Yellow Book”).

Technical maintenance will be carried out as provided for in the Law on Construction of the Republic of Lithuania and the Lithuanian Construction Technical Regulation STR 1:09:05:2002 “Technical maintenance of the construction of structures”.

Scope of the task

**5.1. Supervision and administration of the Project**

The Engineer shall:

5.1.1. Transfer to the manager of construction the construction site and its plan under a certificate of transfer and delivery, the construction permit, special requirements, if any, and the construction log.

5.1.2. Inspect the validity of all certificates, guarantees and other documents which the Contractor must submit under the contractor's agreement.

5.1.3. Communicate in writing with the participants of the construction process.

5.1.4. Provide the Customer with technical-engineering advice and carry out all the activities attributable to the Engineer, provided for in this Technical Task and the contractor's agreement signed by the Customer and the contractor.

5.1.5. Organize, manage and record the work meetings with the contractor on the construction site. The minutes will be completed within 3 calendar days and provide to the Customer for signing.

5.1.6. If necessary, prepare a draft contract with an adjacent land owner (or person in possession of the land) regarding the temporary use of the construction site during the construction.

5.1.7. If appropriate, following the established procedure (along with the construction manager), prepare applications to install temporary structures (for the period of construction) beyond area of the construction site (temporary buildings, roads).

5.1.8. Prepare (along with the construction manager) an application on the conditions for the provision of energy, water supply, communications services, etc., during the period of construction (if these conditions were not determined prior to the preparation of the structure's project) and monitor their execution.

5.1.9. Constantly monitor how contractors comply with their work schedule.

5.1.10. Observe how contractors comply with their cash flows schedules (making of payments) and submit reports to the Customer on the implementation of the Project's cash flow plan.

5.1.11. Immediately inform the Customer about the cases or circumstances that may affect the contractor's agreement's price and the payment plan.

5.1.12. Organize and together with the Customer perform a final check before making the request for the completion of the construction procedures.

5.1.13. Along with the contractor, to prepare the documents necessary for the completion of the construction procedures and participate in the structure's construction completion procedures.

**5.2. Inspections and coordination of the documents provided by the contractor**

5.2.1. Check that the construction technology project is developed in accordance with STR 1:08:02:2002 “Construction works”.

5.2.2. Check and coordinate the quality of the construction products and equipment and their compliance with TWP.

5.2.3. Check and reconcile the guarantees and insurance documents provided by the Contractor with the contractor's agreement



5.2.4. Check and coordinate the documentation of the construction works performed by the Contractor.

5.2.5. Within 14 calendar days to verify the Project's documentation prepared by the Contractor. To provide the contractor's working drawings for their implementation certified by signature and the remark "Approved for construction" or to reject indicating the motives.

### **5.3. Control and supervision of construction works**

5.3.1. Control that the construction works are carried out according to STR 1:08:02:2002 "Construction works".

5.3.2. Perform a general technical supervision of the construction of the structure (general construction works).

5.3.3. Perform special technical supervision of the construction of the structure (special construction works).

5.3.4. Control whether the construction works comply with the TWP solutions and technical specifications.

5.3.5. Having learned that the TWP solutions do not meet the actual construction conditions or cannot be realized for other reasons, contact the Customer, and if instructed - the Contractor for adjustment of design solutions.

5.3.6. Stop the construction work, whose altered design solutions have not been validated in accordance with the procedure established by the laws of the Republic of Lithuania.

5.3.7. Control if the Contractor properly and timely carries out the geodetic measurements of the installed civil engineering structures and the construction site's planning and completion drawings; prevent the pouring of the civil engineering structures until their actual situation is recorded, control timely and properly preparation of construction documentation and performance of geodetic survey (photo) of the installed civil engineering structures (prior to pouring of the primer) and the construction site (upon completion of construction).

5.3.8. Take care of timely execution of legal and technical documentation and documentation on transfer of engineering and communications networks, conservation of plantation and environment, geodesic protection.

5.3.9. Within the entire construction period to check whether the structure is being constructed in accordance with the laws of the Republic of Lithuania, other legal acts, normative technical construction documents, normative building safety and use of documents, the structure's design conditions and the construction permit's requirements; to check whether the necessary measurements and tests are carried out in a timely manner. To control the quality of construction products and equipment and prevent their use if they do not comply with the TWP, normative technical construction documents, normative requirements of the structure's safety and purpose, also if the documents certifying the quality of products have not been provided.

5.3.10. Check the delivered materials and equipment and, if necessary, to initiate and monitor the testing of the materials and equipment in respect to their compliance with technical specifications. If necessary, to initiate the tests.

5.3.11. Check that the equipment has been installed according to the manufacturer's instructions.

5.3.12. Control the delivery and safe storage of materials and equipment.

5.3.13. Inform the Customer about the carried construction works which do not meet the TWP, technical specifications and building normative quality requirements.

5.3.14. Check and accept the hidden construction works and hidden structures, to participate in the testing and approval for use of engineering networks, engineering systems, facilities, structures in the presence of technical supervision managers of the construction of special structures and the manager of the supervision of the implementation of the structure's project.

5.3.15. Participate in the inspections performed by public administration bodies.

5.3.16. Participate in evaluating the technical condition of the structure, if any, as well as in the suspension and renewal (after suspension) of the construction works.

5.3.17. Control whether that the requirement of technical maintenance and the structure's project's supervision, the requirements of the public administration bodies involved in supervision of construction, safety and use requirements, the requirements established by state supervisory authorities entered in the construction log are carried out in a timely manner.

5.3.18. Provide the Customer with qualified technical observations and conclusions on the Contractor's proposed technical decision. To offer solutions or to assess the Contractor's proposals and

amendments and receive the approval of the Customer before their certification or refusal to certificate (in this case indicating the defects).

5.3.19. Review the operating and maintenance instructions submitted by the Contractor ensuring that the Contractor provides all information and training required for the use of equipment.

5.3.20. Check the documents submitted by the Contractor for the receiving of payments. Certify in writing that the works specified in the construction documents have been carried out properly, in line with the contractor's agreement, the TWP and the structure's normative quality requirements and that the costs of the work meet the prices of the contractor's agreement and the pricing principles. To check whether the scope of works indicated by the Contractor meets the actual scope.

5.3.21. Do not allow the Contractor to carry out additional works without the prior written consent of the Customer. To assess and pass a decision on the necessity of additional works. To assess and make the right decisions on the Contractor's requirements in terms of additional payments and the extension of the deadline, and make appropriate recommendations to the Customer. The pricing of additional works, if any, will be determined in the contractor's agreement signed between the Customer and the Contractor.

5.3.22. In all cases where the contractor's agreement requires to take a decision in accordance with the Clause 3.5 of the contractor's agreement or otherwise give instructions to the Contractor, the Engineer must analyse the situation and consult with both the Contractor and the Customer and adopt a fair and just decision.

5.3.23. Analyse the claims submitted by the Contractor in accordance with the contractor's agreement. Upon the analysis, to provide the Customer with all the possible scenarios for dealing claims providing a separate report.

3.5.24. In case the Customer or Contractor declared a dispute, help to find the fastest, reasonable and sensible solution to the contentious situation.

3.5.25. Provide the necessary written reports and perform other tasks assigned to the Engineer under the contractor's agreement.

#### **5.4. Technical assistance to the Customer within the period of notification of defects**

5.4.1. Regularly, at least once per quarter (three months), visit the structure approved for usage, inspect and test the building elements and engineering systems, inform the Customer about the deficiencies observed, provide conclusions on the action needed related to the removal of the observed deficiencies or defects.

5.4.2. Regularly inspect the shortcomings and defects rectified by the Contractor, if any, and participate in the solution of issued in accordance with the terms of the contractor's agreement.

5.4.3. If the Customer notifies about any defects, to verify, assess and advise on the necessary steps to remove the defects.

5.4.4. Draw up a plan to remedy the defects and monitor their implementation.

5.4.5. Prepare certificated on the correction of defects.

5.4.6. Participate in discussions with the Contractor for the final settlement.

5.4.7. Participate in the trainings performed by the Contractor on the issues of the structure's use.

5.4.8. Consult the Client on retention money and return of securities to the Contractor.

5.4.9. Issue a completion certificate and check the Contractor's final report.

#### **Results**

The construction works of the Project's are carried out in accordance with the TWP, the terms of the contractor's agreement, the laws the Republic of Lithuania, other regulations, normative construction technical documents, normative building safety and use documents.

#### **Length of the service**

The beginning of the provision of the services - the effective date of the contractor's agreement concluded between the Customer and the successful contractor. The referential duration of the designing of the structure and construction works - 36 months after the start of the works under the contract; time of notification about defects - 12 months (365 days). The end of the provision of the services – in accordance with the terms of the contractor's agreement

### **IV. PROCEDURE OF PREPARATION OF REPORTS**

The Engineer shall prepare the following reports:

- The introductory report. After signing the contract, the Engineer within 3 months shall prepare an introductory report, which will provide the Project's implementation action plan, indicating the required actions, the duration of performance of these actions and the persons of the working group responsible for the achievement of the objectives of the Project. To describe the potential risks and assumptions of the Projects.

- Monthly progress reports. Upon the preparation of the introductory report, monthly progress reports shall be prepared by the 10th day (inclusively) of the next month within the entire period of the Project. Each report shall contain the most important events of the month and the problems encountered and solutions and summarize the activities performed by the Engineer. Submitted work plan for the coming month, an updated schedule of work progress, implementation of the Project's cash flow plan. The reports shall contain photos illustrating the progress.

- Annual reports. To be submitted by January 31 (inclusively) of the following year within the entire period of the Project. The annual report will include information and results of the previous year covering the 12-month period data.

- Concluding report. To be submitted within one month of the signing of the certificate on the completion of the construction. This report shall describe the works and their supervision process and the comparison of the Project's objectives and the results.

- Final report. To be submitted at least 28 days before the end of the period of notification on defects. The report must contain information about the defects and deficiencies observed during the defective period, their remedy and condition and further needs of the structure's maintenance and inspection, other topical issues.

All reports will be made in the Lithuanian language in two printed copies and one copy on CD (using the software running in the Windows environment) and provided to the Customer. The forms of the reports must be coordinated with the Customer. During the term of the contract, the Customer shall be entitled to formulate additional requirements for the reports provided by the Engineer.

## **V. TERMS AND CONDITIONS**

In all cases, when the Engineer is required to advise the Customer, such advice shall be based on the assessment of all relevant circumstances (factors). If the Customer would be offered alternative solutions, their advantages and disadvantages must be clearly discussed. Even in cases where alternative solutions are proposed, the Engineer shall give his reasoned opinion which of the solutions is best for the Project's objectives and the key conditions of the implementation. If the Project's objectives and essential implementation conditions do not allow to identify the most suitable solution, the Engineer shall find out additional goals and needs of the Customer and recommend the most appropriate solution.