

Klaipėda State Seaport South Gate Complex, Kairiai str. 17, Klaipėda, construction project

NAME OF PROJECT (ACCORDING TO THE AGREEMENT)

DESIGN TITLE	Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Kairiai str. 17, Klaipėda, construction project
DESIGN NUMBER	8858
CLIENT (BUILDER)	AB Klaipėda State Seaport Authority J. Janonio g. 24, 92251 Klaipėda
TYPE OF CONSTRUCTION	New construction
PURPOSE OF THE STRUCTURE	Transport communications: structures of water ports
BUILDING CATEGORY	Non-Exceptional structure
DESIGN STAGE	Technical project
DESIGN PART	Pre-construction and construction organisation part
FILE MARK	8858-00-TP- <b>SO-07.01</b>
REVISION	0
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COMPANY	QUALIF. DOC. NO.	DUTIES	NAME SURNAME	SIGNATURE
UAB „Kelprojektas“				
	39928	Project manager	Rimantas Valančius	

Document mark	No. of pages	Revision	Document title	Notes	Page No.
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## 1. GENERAL INFORMATION

Project for the construction of structures for communication purposes (southern and northern dams, piers and quays) at Kairiai str. 17, Klaipėda" (hereinafter referred to as "the Project") has been prepared in accordance with the service purchase agreement (No. 34-2022-245 of 14 July 2022) concluded between AB "Klaipėda State Seaport Authority" and UAB "Kelprojektas".

The design solutions of the technical project have been carried out in accordance with the construction norms and rules in force in the Republic of Lithuania. The construction materials and products used in the construction are subject to the applicable national standards and European EN standards, the use of which has been approved by the relevant authorities of the Republic of Lithuania.

## 2. BUILDER (CUSTOMER)

Klaipėda State Seaport Authority, code - 240329870, J. Janonio str. 24, LT-92251 Klaipėda, tel. +370 46 499799, fax. [REDACTED] (hereafter referred to as the "KVJUD").

## 3. DESIGNER

UAB „Kelprojektas“, Jonavos g. 7, D building, LT-44192 Kaunas, e-mail [info@kelprojektas.lt](mailto:info@kelprojektas.lt).  
Project manager – Rimantas Valančius, tel. + 370 614 23 308, e-mail [rimantas.valancius@kelprojektas.lt](mailto:rimantas.valancius@kelprojektas.lt)

## 4. INTRODUCTION

This Explanatory Memorandum covers the limits of the works for the construction of the southern and northern dykes, the jetty and the quay. For the scope of the construction works, refer to the general part of the project.

## 5. NORMATIVE AND OTHER DOCUMENTS AND DATA ON THE BASIS OF WHICH THIS PART OF THE PROJECT HAS BEEN PREPARED

### 5.1. Project preparation documents

The draft has been prepared in accordance with:

- Design task (Klaipėda State Seaport Authority);
- Additional design task No. 1 (Klaipėda State Seaport Authority);
- Design proposals for the construction of the southern gateway complex of the Klaipėda State Seaport, Kairiai str. 17, Klaipėda, UAB "Sweco Lietuva", 2022;
- Engineering geological (geotechnical) research report, UAB "Garant diving";
- Topogeodetic photo, UAB "GEOSMART".
- Assessment of water circulation in the Klaipėda port southern gate aquatorium using hydrodynamic and sediment transport numerical modelling methods, 2023, S/33-2104.23.23-G-V:01, Lithuanian Energy Institute;
- Information for screening for environmental impact assessment, UAB "Kelprojektas";
- Screening conclusion;
- Extracts from the database of the Real Estate Register (Real Estate Register 44/520032);
- Extracts from the database of the Real Estate Register (Real Estate Register 44/1441189);
- Depth Plan;
- Technical concept for the southern gate of Klaipėda State Seaport, prepared by "Sweco Lietuva" UAB and the Lithuanian Energy Institute, taking into account the development of the infrastructure of the port (marina) for small and pleasure boats in the southern part of the city of Klaipėda (2015).

## Normative documents

- 5.2.1. Construction Law of the Republic of Lithuania;
- 5.2.2. Land Law of the Republic of Lithuania;
- 5.2.3. Territorial Planning Law of the Republic of Lithuania;
- 5.2.4. Noise Management Law of the Republic of Lithuania;
- 5.2.5. Occupational Safety and Health Act of the Republic of Lithuania;
- 5.2.6. Water Law of the Republic of Lithuania;
- 5.2.7. Drinking water law of the Republic of Lithuania;
- 5.2.8. Law of the Republic of Lithuania on special land use conditions;
- 5.2.9. Law of the Republic of Lithuania on Subsoil;
- 5.2.10. Greenery Law of the Republic of Lithuania;
- 5.2.11. Law on Protected Territories of the Republic of Lithuania;
- 5.2.12. the Republic of Lithuania waste management the law;
- 5.2.13. Road Law of the Republic of Lithuania;
- 5.2.14. Electronic Communications Law of the Republic of Lithuania;
- 5.2.15. Law of the Republic of Lithuania on Electricity;
- 5.2.16. The Law on Local Self-Government of the Republic of Lithuania;
- 5.2.17. Geodesy and Cartography Law of the Republic of Lithuania;
- 5.2.18. Construction technical regulation STR 1.01.03:2017 "Classification of structures", approved by the Minister of the Environment of the Republic of Lithuania in 2016. October 27 by order no. D1-713 "On the approval of the construction technical regulation STR 1.01.03:2017 "Classification of structures"";
- 5.2.19. Construction technical regulation STR 1.01.08:2002 "Types of building construction", approved by the Minister of the Environment of the Republic of Lithuania in 2002. December 5 by order no. 534 "On the approval of the construction technical regulation STR 1.01.08:2002 "Types of construction"";
- 5.2.20. Construction technical regulation STR 1.04.04:2017 "Building design, project expertise", approved by the Minister of the Environment of the Republic of Lithuania in 2016. November 7 by order no. D1-738 "On the approval of the construction technical regulation STR 1.04.04:2017 "Building design, project expertise"";
- 5.2.21. Construction Technical Regulation STR 1.05.01:2017 "Construction Permitting Documents. Completion of construction. Suspension of construction. Elimination of the effects of arbitrary construction. Elimination of the consequences of construction based on an illegally issued construction permit document", approved by the Minister of the Environment of the Republic of Lithuania in 2016. December 12 by order no. D1-878 "On construction technical regulation STR 1.05.01:2017 "Construction permitting documents. Completion of construction. Suspension of construction. Elimination of the effects of arbitrary construction. Elimination of the consequences of construction according to an illegally issued construction permitting document" approval";
- 5.2.22. Construction technical regulation STR 1.06.01:2016 "Construction works. Structure construction supervision", approved by the Minister of the Environment of the Republic of Lithuania in 2016. by order of December 2 no. D1-848 "On construction technical regulation STR 1.06.01:2016 "Construction works. Structural construction supervision" approval";
- 5.2.23. Construction technical regulation STR 1.12.06:2002 "Purpose of building use and life span", approved by the Minister of Environment of the Republic of Lithuania in 2002 October 30 by order no. 565 "Regarding the approval of the construction technical regulation STR 1.12.06:2002 "Purpose of use and life span of the structure"";
- 5.2.24. Construction technical regulation STR 2.01.01(1):2005 "Essential building requirement. Mechanical resistance and stability", approved by the Minister of the Environment of the Republic of Lithuania in 2005 September 21 by order no. D1-455 "Regarding the approval of the construction technical regulation STR 2.01.01(1):2005 "Essential building requirement" Mechanical resistance and stability"";



5.2.25. Construction technical regulation STR 2.01.01(2):1999 "Essential requirements of the structure. Fire safety", approved by the Ministry of the Environment of the Republic of Lithuania in 1999 December 27 order no. 422 "Regarding the regulation STR 2.01.01(2):1999 "Essential requirements of the structure. Fire safety" approval";

5.2.26. Construction technical regulation STR 2.01.01(3):1999 "Essential building requirements. Hygiene, health, environmental protection", approved by the Minister of the Environment of the Republic of Lithuania in 1999. December 27 by order no. 420 "Regarding the regulation STR 2.01.01(3):1999 "Essential requirements of the structure. Hygiene, health, environmental protection" approval";

5.2.27. Construction Technical Regulation STR 2.01.01(4):2008 "Essential building requirement "Safety of use", approved by the Minister of the Environment of the Republic of Lithuania in 2007 December 27 by order no. D1-706 "Because of the construction technical regulation STR 2.01.01(4):2008 "Essential building requirement "Safety of use"confirmation";

5.2.28. Construction technical regulation STR 2.03.01:2019 "Accessibility of buildings", approved by the Minister of the Environment of the Republic of Lithuania in 2019 November 4 by order no. D1-653 "Regarding the approval of the construction technical regulation STR 2.03.01:2019 "Accessibility of structures".";

5.2.29. Construction technical regulation STR 2.05.04:2003 "Impacts and loads", approved by the Minister of the Environment of the Republic of Lithuania in 2003 May 15 by order no. 233 "Regarding the approval of the construction technical regulation STR 2.05.04:2003 "Effects and loads"" (hereinafter STR 2.05.04:2003);

5.2.30. Construction technical regulation STR 2.07.01:2003 "Water supply and sewage disposal. Building engineering systems. Field engineering networks", approved by the Minister of the Environment of the Republic of Lithuania in 2003. July 21 by order no. D1-390 "On Construction Technical Regulation STR 2.07.01:2003 "Water supply and sewage disposal. Building engineering systems. Field engineering networks" approval";

5.2.31. Technical regulation of geodesy and cartography "Procedure for making geodetic photographs of underground networks and communications constructed on the territory of the Republic of Lithuania GKTR 2.01.01:1999", adopted by the State Geodesy and Cartography Service under the Director of the Government of the Republic of Lithuania in 1999. May 4 by order no. 17 "On the approval of the procedure for taking geodetic photographs of underground networks and communications under construction" (hereinafter - GKTR 2.01.01:1999);

5.2.32. Construction recommendations R 39-06 "Road construction and maintenance. Safety at work", approved by the Directorate of Motorways of Lithuania under the Technical Council of the Ministry of Transport in 2006. April 27 protocol no. TT-7;

5.2.33. Lithuanian hygiene standards HN 23:2011 "Occupational exposure limit values of chemical substances. General requirements for measurement and impact assessment", approved by the Minister of Health of the Republic of Lithuania and the Minister of Social Security and Labor of the Republic of Lithuania in 2011. September 1 by order no. V-824/A1-389 "On the Lithuanian hygiene norm HN 23:2011 "Occupational exposure limit values of chemical substances. General requirements for measurement and impact assessment" approval";

5.2.34. Lithuanian hygiene standards HN 32:2004 "Working with video terminals. Safety and health requirements", approved by the Minister of Health of the Republic of Lithuania in 2004. February 12 by order no. V-65 "On the Lithuanian hygiene norm HN 32:2004 "Working with video terminals. Safety and health requirements" approval";

5.2.35. Lithuanian hygiene standards HN 33:2011 "Noise limit values in residential and public buildings and their surroundings", approved by the Minister of Health of the Republic of Lithuania in 2011. June 13 by order no. V-604 "Regarding the approval of the Lithuanian hygiene norm HN 33:2011 "Noise limit values in residential and public buildings and their surroundings"" (hereinafter - HN 33:2011);

5.2.36. HN 24:2023 "Drinking water safety and quality requirements", approved by the Minister of Health of the Republic of Lithuania in 2003. July 23 by order no. V-455 "On the approval of the Lithuanian hygiene standard HN 24:2003 "Drinking water safety and quality requirements", 2017 of the Minister of Health of the Republic of Lithuania. October 25 order no. V-1220 edition;

5.2.37. Lithuanian hygiene standard HN 50:2016 "Vibration affecting the entire human body: maximum permitted values and measurement requirements in residential, special and public premises", approved by the Minister of Health of the Republic of Lithuania in 2016. December 9 by order no. V-1420 "On Lithuanian hygiene norms HN 50:2016 "Vibration affecting the entire human body: maximum permitted values and measurement requirements in residential, special and public premises";

5.2.38. Lithuanian hygiene standard HN 51:2003 "Vibration affecting the entire human body: maximum permissible values and measurement requirements in workplaces", approved by the Minister of Health of the Republic of Lithuania in 2003. December 31 by order no. V-791 "On Lithuanian hygiene norms HN 51:2003 "Vibration affecting the entire human body: maximum permitted values and measurement requirements in workplaces";

5.2.39. Safety and health rules in construction DT 5-00, approved by the Chief State Labor Inspector of the Republic of Lithuania in 2000. December 22 by order no. 346 "Regarding the approval of safety and health rules in construction";

5.2.40. Maintenance rules for lifting cranes, approved by the Ministry of Social Security and Labor of the Republic of Lithuania in 2010. September 17 by order no. A1-425 "On Approval of the Rules for the Use of Lifting Cranes" and amended by the Minister of Social Security and Labor of the Republic of Lithuania in 2020. May 8 by order no. A1384 "On the Minister of Social Security and Labor of the Republic of Lithuania of 2010 September 17 order no. A1-425 "On the approval of the rules for the use of lifting cranes" amendment, (hereinafter - the rules for the maintenance of lifting cranes);

5.2.41. Rules for the execution of road works and the installation of earth embankments, ĢT ŽS 17, approved by the Directorate of Roads of Lithuania under the Director of the Ministry of Transport in 2017. April 3 by order no. V-111 "On the approval of the rules for the execution of earthworks of automobile roads and the installation of soil embankment, ĢT ŽS 17";

5.2.42. General fire safety rules approved by the director of the Fire Protection and Rescue Department under the Ministry of Internal Affairs in 2005. February 18 by order no. 64 "On the approval of the General Fire Safety Rules" (version of order No. 1-223 of the Director of the Fire Protection and Rescue Department under the Ministry of Internal Affairs of July 27, 2010);

5.2.43. Rules for the protection of plantations during construction works, approved by the Minister of the Environment of the Republic of Lithuania in 2010. March 15 by order no. D1-193 "On the approval of the rules for the protection of plantations during construction works";

5.2.44. The criteria for which trees and shrubs are classified as protected vegetation were approved by the Government of the Republic of Lithuania in 2008. March 12 by resolution no. 206 "Regarding the approval of the criteria for which trees and shrubs are classified as protected vegetation" (Resolution No. 1101 of the Government of the Republic of Lithuania of December 22, 2021);

5.2.45. Provisions for setting up workplaces at construction sites, approved by the Ministry of Social Security and Labor and the Ministry of the Environment in 2008. January 15 by order no. A1-22/D1-34 "On the approval of provisions for the installation of workplaces at construction sites";

5.2.46. Regulations on providing employees with personal protective equipment, approved by the Minister of Social Security and Labor of the Republic of Lithuania in 2007. November 26 by order no. A1-331 "On the approval of provisions for providing employees with personal protective equipment" (hereinafter - Provisions for providing employees with personal protective equipment);

5.2.47. Safety and health requirements for employees when handling cargo by hand, approved by the Minister of Social Security and Labor of the Republic of Lithuania and the Minister of Health of the Republic of Lithuania in 2006. October 23 by order no. A1-293/V-869 "On approval of the safety and health requirements of workers when handling cargo by hand";

5.2.48. Regulations for the use of safety and health protection signs in workplaces, approved by the Minister of Social Security and Labor of the Republic of Lithuania in 1999 November 24 by order no. 95 "Regarding Approval of provisions for the use of safety and health protection signs at workplaces";

5.2.49. Provisions for the protection of employees against noise risks, approved by the Minister of Social Security and Labor of the Republic of Lithuania and the Minister of Health of the Republic of Lithuania in 2005. April 15 by order no. A1-103/V-265 "On the Approval of the Provisions for the Protection of Employees against Noise Risks";



5.2.50. Regulations of the Occupational Safety and Health Commission of the Republic of Lithuania, approved by the Government of the Republic of Lithuania in 2002. January 9 by resolution No. 13 "On approval of the regulations of the occupational safety and health commission of the Republic of Lithuania" (redaction of Resolution No. 21 of the Government of the Republic of Lithuania dated January 5, 2022);

5.2.51. The description of the personal health care facility's first aid kit, the description of the First Aid kit and the description of the competence of personal health care and pharmacy specialists in providing first aid, approved by the Minister of Health of the Republic of Lithuania in 2003. July 11 by order no. V-450 "On the approval of the description of the personal health care institution's first medical aid kit, the description of the first aid kit and the description of the competence of personal health care and pharmaceutical specialists in providing first medical aid";

5.2.52. Provisions of the real estate cadaster, approved by the Government of the Republic of Lithuania in 2002. April 15 by resolution no. 534 "On approval of the provisions of the real estate cadaster of the Republic of Lithuania";

5.2.53. General rules for the installation of electrical equipment, approved by the Minister of Energy of the Republic of Lithuania in 2012. February 3 by order no. 1-22 "On Approval of General Rules for Installation of Electrical Equipment" (hereinafter - EĮIT);

5.2.54. Rules for the installation of power lines and installations, approved by the Minister of Energy of the Republic of Lithuania in 2011. December 20 by order no. 1-309 "On the approval of the rules for the installation of electrical lines and installations";

5.2.55. Description of electrical equipment test norms and scopes, approved by the Minister of Energy of the Republic of Lithuania in 2016. October 26 by order no. 1-281 "On the approval of the test norms and scope description of electrical devices";

5.2.56. Rules for the protection of electrical networks, approved by the Minister of Energy of the Republic of Lithuania in 2010. March 29 by order no. 1-93 "On the Approval of the Rules for the Protection of Electric Networks" (hereinafter - the Rules for the Protection of Electric Networks);

5.2.57. Rules for the operation of electricity and electricity networks, approved by the Minister of Energy of the Republic of Lithuania in 2012. October 29 by order no. 1-211 "On the approval of the rules for the operation of electricity and electricity networks";

5.2.58. Rules for the installation of lighting electrical equipment, approved by the Minister of Energy of the Republic of Lithuania in 2011. February 3 by order no. 1-28 "On Approval of the Rules for the Installation of Lighting Electrical Equipment";

5.2.59. Rules for the installation of power electrical equipment, approved by the Minister of Energy of the Republic of Lithuania in 2012. January 2 by order no. 1-1 "On approval of the rules for the installation of power electrical equipment";

5.2.60. Rules for the installation, marking, maintenance and use of electronic communications infrastructure, approved by the Director of the Communications Regulatory Service of the Republic of Lithuania in 2011. October 14 by order no. 1V-987 "On approval of the rules for the installation, marking, maintenance and use of electronic communications infrastructure";

5.2.61. Safety rules for the operation of electrical equipment, approved by the Minister of Energy of the Republic of Lithuania in 2010. March 30 by order no. 1-100 "On the approval of the rules of safety in the operation of electrical devices" (hereinafter - the rules of safety in the operation of electrical devices);

5.2.62. Rules for establishing protection zones and coastal protection zones for surface water bodies, approved by the Minister of the Environment of the Republic of Lithuania in 2001. November 7 by order no. 540 "On the rules for establishing surface water bodies' protection zones and coastal protection belts confirmation";

5.2.63. The Regulation on the Management of Surface Wastewater, approved by the Minister of the Environment of the Republic of Lithuania in 2007. April 2 by order no. D1-193 "On the Approval of the Surface Wastewater Management Regulation";

5.2.64. Recommendations for the design, installation and maintenance of environmental protection measures. Reduction of road traffic noise APR-T 10, approved by the Directorate General of Lithuanian Motor Roads under the Ministry of Transport and Communications in 2010 April 1 by order no. V-88 "Regarding the

document "Recommendations for the design, installation and maintenance of environmental protection measures. Reduction of road traffic noise APR-T 10" approval";

5.2.65. Construction waste management rules, approved by the Minister of the Environment of the Republic of Lithuania in 2006. December 29 by order no. D1-637 "Concerning the Approval of Construction Waste Management Rules" (hereinafter - Construction Waste Management Rules);

## 6. GENERAL CONSTRUCTION DETAILS AND SPECIFICATIONS FOR BUILDINGS

### 6.1. Functional purpose

**SOUTHERN DAM-** COMMUNICATIONS - WATER PORT STRUCTURES (8.5) (DAMS);  
**NORTHERN DAM-** COMMUNICATIONS - WATER PORT STRUCTURES (8.5) (DAMS);  
**WHARF-** COMMUNICATIONS - WATER PORT STRUCTURES (8.5) (PIERS);  
**QUAY-** COMMUNICATIONS - WATER PORT BUILDINGS (8.5) (WHARVES);

### 6.2. Specialty category

**SOUTHERN DAM-** NON EXCEPTIONAL;  
**NORTHERN DAM-** NON EXCEPTIONAL;  
**WHARF-** NON EXCEPTIONAL;  
**QUAY-** NON EXCEPTIONAL;

### 6.3. Geodetic control of construction

Plans of engineering networks (geodetic photographs) are ordered and carried out according to:

- regulation of technical requirements of geodesy and cartography GKTR 2.01.01:1999 "Procedure for making geodetic photographs of underground networks and communications constructed in the territory of the Republic of Lithuania";
- Rules for issuing, suspending, and revoking validity of surveyor's qualification certificates, approved by the Government of the Republic of Lithuania in 2010. December 22 by resolution no. 1853 "Regarding the approval of the rules for issuing, suspending, and revoking validity of surveyor's qualification certificates" (*summary version valid from 08/06/2021*), established procedure;
- Law of the Republic of Lithuania on Geodesy and Cartography, 2001 June 28 No. IX-415;
- Construction technical regulation STR 1.06.01:2016 "Construction works. Supervising the construction of the structure".

#### 6.3.1. Periodicity

Plans of engineering networks (geodetic photographs) are ordered and carried out in accordance with the procedure established in Chapter IV of STR 1.06.01:2016, GKTR 2.01.01:1999 and the rules for issuing, suspending, and revoking the qualification certificates of a surveyor.

According to STR 1.06.01:2016 "Construction works. Construction supervision of the building" Contractors must carry out geodetic control of the works and ensure that the layout of the building in the plan and the vertical profile meet the requirements of the building design (according to GKTR 2.01.01:1999).

It is forbidden to fill the constructed engineering networks and other constructed engineering structures with soil without carrying out geodetic measurements and engineering network plans (geodetic photos) and without signing acts of hidden construction works.

After additional filling or excavating of soil from the existing engineering networks, the plans (geodetic photos) of the engineering networks must be adjusted, and the data must be submitted by the construction manager of the structure to the owner (user) of these networks.

Geodetic photographs of all underground networks and communications under construction, as well as underground and above-ground structures related to their operation (underpasses, reservoirs, pumping stations, pipelines, etc.) are carried out - hereinafter referred to as underground communications.

Periodicity is determined by the Builder in the contract of works.

### 6.3.2. Order

According to GKTR 2.01.01:1999 - geodetic photographs of underground communications are ordered by the builder (customer). The order specifies the type of communications, their approximate length and the construction completion time.

The procedure for taking geodetic photos is provided for in the regulation GKTR 2.01.01:1999 (see Chapter 2, Clauses 2.1-2.13).

According to STR 1.06.01:2016 "Construction works. Supervising the construction of the structure", IV ch. clauses 36.4.1 and 36.18 of the ninth section provide for the obligations of the Structural Construction Manager regarding geodetic measurements and geodetic photographs.

The procedure is specified by the Builder in the contract of works.

### 6.3.3. Reports

According to Article 13 of the Law of the Republic of Lithuania on Geodesy and Cartography (June 28, 2001 No. IX-415, consolidated version valid from 07/03/2021). Rights and responsibilities of a surveyor - to prepare reports of geodesy and cartography works and submit them to the customer of geodesy and cartography works in accordance with the procedure established by the government-authorized institution.

STR 1.06.01:2016 "Construction works. Construction maintenance", Appendix 4 contains a description of the procedure for filling out the Construction Work Journal<sup>1</sup>, of which:

– Clause 19 states that <Chapter III of the magazine contains a recommended list of basic geodetic control photos of the structure, its parts and constructions, engineering networks.

All geodetic control photos of the structure are registered in form F-15, forms of geodetic control photos are provided in form F-16. Geodetic control photos are registered by the surveyor together with the construction manager of the building (the manager of general or special construction works of the building - when general or special construction works are carried out). When registering, the names of schemes, photos, date of completion, compliance with the building project and deviations found are indicated.>;

- Clause 21 states that inspection reports of hidden works are drawn up immediately after their inspection, before the construction works planned below begin. If necessary, geodetic control photos are taken;

– Clause 35 states that after the Building is recognized as suitable for use, the main Log and additional Logs together with other documents are handed over by the contractor (subcontractor) to the builder (customer).

In Annex No. 4 Chapter III, Geodetic control documentation, a list of the basic geodetic control photos recommended by the Structure, its parts and constructions and engineering networks is provided.

The report is revised by the Builder in the contract<sup>2</sup>.

## 7. GEOGRAPHICAL LOCATION

In the territory of Klaipėda State Seaport, where various economic activities are already carried out, there are currently no hydrotechnical structures in the southern part of the water area. The territory is used uncontrolled by recreational fishermen (for launching boats, leaving vehicles during fishing, etc.). The area in question can be accessed from Kairiai str., it is crossed by several dirt roads. The total area of the construction area is about 45 ha (~5 ha of planned storage area and ~40 ha of dredged water area with structures under construction).

<sup>1</sup>Changed 2018 of the Minister of the Environment of the Republic of Lithuania May 10 by order no. D1-382 "Regarding the Minister of the Environment of the Republic of Lithuania of 2016 December 2 by order no. D1-848 Regarding the construction technical regulation STR 1.06.01:2016 "Construction works. Structural construction supervision" approval" change".

<sup>2</sup>According to 2018 of the Minister of the Environment of the Republic of Lithuania May 10 order no. D1-382 "Regarding the Minister of the Environment of the Republic of Lithuania in 2016 December 2 by order no. D1-848 Regarding the construction technical regulation STR 1.06.01:2016 "Construction works. Clause 1.4 of the amendment to the "approval" of construction maintenance (<1.4. I change the description of the procedure for filling out the Construction Work Journal in Appendix 4:>) A paper or electronic Journal is filled out at the choice of the builder (customer).

The construction of the southern and northern dams, pier and quay is planned on the plot of land of Klaipėda State Seaport, Kairiai str. 17, Klaipėda city.

## 8. NATURAL CONDITIONS OF THE AREA

The plot is located in the southern part of the city of Klaipėda, at Kairiai str. 17, in the foreshore and coastal zone of the Curonian Lagoon. In the coastal and coastal areas of the plot, the absolute heights of the terrain reach 0.0 - 0.3 m.

Bathymetric conditions: the depth of the KVJU water area ranges from 0.5 m (in the southern part behind Kiaulė Nugara Island) to 15.5 m (at the sea gate of the port). The depth of the internal shipping channel of the port reaches 14.5-15 m, the inlet channel - 15.5 m. The width of the Klaipėda Strait within the port limits varies from 0.4 to 1.1 km.

Currently, the nature of the bottom relief of the Klaipėda Strait is very closely related to the hydrodynamic conditions, and at the same time to the sedimentation processes of the current sediments. During the dredging of the harbor water area, the changing bottom relief will inevitably affect the hydrodynamic conditions and, at the same time, the sedimentation processes.

## 9. GEOLOGICAL AND HYDROGEOLOGICAL CONDITIONS OF THE CONSTRUCTION SITE

Topogeodetic, geological survey data files are components of this project. The design work was carried out in accordance with the topogeodetic photo prepared and coordinated by UAB "GEOSMART" and the geological survey report prepared by UAB "Garant diving". Other data required for the preparation of the project are specified in the General part, file BD-01.01.

### 9.1. Geological conditions of the construction site

The geological structure of the research plot up to a depth of 7.0 - 18.0m (-7.0 - -17.7m abs. a.) consists of: technogenic formations (tIV), Holocene marine sediments (mIV), Holocene swamp (puddle) sediments (bIV), Holocene Post-Litorina Sea sediments (mIVPL), Holocene Litorina Sea sediments (mIVL), Upper Pleistocene Baltic underglacial limnoglacial deposits (lgIIIb) and glacial deposits of the upper Pleistocene Baltic sub-environment (gIIIb).

*Technogenic formations (tIV) consists of:* artificial soil (Mg): poured sand, yellow-brown, wet - watery. Filled soil was determined at research sites no. 27 – 29. Its thickness reaches 0.6 – 1.0 m.

*Holocene marine sediments (mIV) consists of:* dusty sand (siSa), light yellowish and gray, with a small admixture of organic matter and gravel, moist - watery. The complex was isolated at research points no. 21 and 23 – 29. At the research site no. 26, it subsides in two layers, between which the sediments of swamps (puddles) are interspersed. The thickness of the complex varies from 0.3 m to 1.5 m.

*Holocene marsh (puddle) deposits (bIV) consists of silt (Dy):* sandy dust of low plasticity with a small admixture of organic matter (saSiOL), dark gray and brown, with a greenish tint in places, with an admixture of detritus, watery. The complex was isolated at research points no. 1 - 22 and 24 - 29. Its thickness varies from 0.2m to 2.4m.

*The sediments of the Holocene Postlittorine Sea (mIVPL) consists of:* evenly sorted low-dust - clayey sand (SaFU), brown, gray, dark gray and greenish gray, with a small admixture of organic matter and detritus, watery. The complex was isolated at research points no. 1 - 25 and 27 - 29. Its thickness varies from 0.3m to 4.9m.

*The sediments of the Holocene Litorina Sea (mIVL) consists of:*

- poorly sorted sand (SaP), gray, watery, with a small admixture of detritus;
- poorly sorted gravelly sand (grSaP), gray, watery;
- sandy dust of low plasticity with a small admixture of organic matter (*saSiOL*), gray, saturated with water, in places with sand lenses;
- sandy clay of low plasticity and dust (saCIL-SiL), dark gray, saturated with water, with a small admixture of organic matter;

- evenly sorted sand (SaU), light gray and yellowish gray, in places with an admixture of gravel and gravel, watery.

The complex was isolated in all research points. Its base is not reached at research sites no. 1 – 26. The investigated thickness of the complex varies from 2.2m to 10.9m.

*Limnoglacial sediments of the Upper Pleistocene Baltic sub-environment (lgIIIbl)* consists of low plasticity clay and dust (CIL-SiL), gray and brown-gray. The complex was isolated at research points no. 27 – 29. Its sole was not reached at research site no. 27. The investigated thickness of the complex varies from 0.5m to 1.5m.

*Upper Pleistocene Baltic subglacial deposits (gIIIbl)* consists of: sandy loam clay of low plasticity (saCIL), brown-gray, with pebbles and gravel up to 5%. The complex was isolated at research points no. 28 and 29. Its sole is not reached. The investigated thickness of the complex varies from 1.8m to 2.0m.

Summarizing the research results, it can be stated that the subsoil layer consists of marshes (puddles) and marine deposits. Subsoil (below the layer of silt) is sand of various grades, in which there are interlayers of fine soil (dust of various granulometric composition). A limnoglacial clay-dust layer subsides under the marine sands, and moraine sandy clay deposits are found below them. 4 lithological soil types were distinguished in the research area. Conditionally weak layers (organic soil (IGS 2), loose sands (IGS 3 and 4) and weak clay-dust deposits (IGS 11)) prevail in the upper and middle part of the engineering geological sections up to a depth of 8.2 m from the ground surface. Horizontal and subhorizontal soil layers and lenses are common in the section. Buried paleo-relief forms and pre-Quaternary rocks were not detected.

## 9.2. Hydrogeological conditions of the construction site

The research took place in the area of the foreshore and coastal area of the Curonian Lagoon, as a result of which the underground water level basically coincided with the level of the Curonian Lagoon and fluctuated at 0 m abs .a. Water is stored in organic soil and layers of marine sand of various granulometric composition and grading. Due to spring floods and summer droughts, the groundwater level may vary by up to 0.5-1.0 m from the measured level during field work. The spread of the ground water layer is uniform and continuous. Groundwater is drained by the Curonian Lagoon and the Baltic Sea.

The filtration coefficients (k) of sand extracted in the research area vary from  $3.52 \cdot 10^{-6}$  m/s (siSa) to  $9.90 \cdot 10^{-5}$  m/s (SaU).

Groundwater will accumulate in excavations or boreholes during construction.

During the research, from research sites no. 1 and No. 29, groundwater samples were taken. Based on the obtained results of chemical analysis (textual appendices 8.86; 8.87; 8.88 and 8.89), the aggressiveness of groundwater to concrete was assessed according to the methodology provided by STR 2.05.05:2005 [8].

**Table 9.2.1** Evaluation of the aggressiveness of chemical water to concrete at research site **No. 1.**

Chemical characteristic	Set value	Limit value of ground water aggressiveness to concrete, mg/l	Groundwater aggressiveness class for concrete
$SO_4^{2-}$ , mg/l	111.9	$\geq 200$	-
pH	6.51	$\leq 6.5$	-
Aggressive CO <sub>2</sub> , mgO <sub>2</sub> /l	< 5	$\geq 15$	-
$NH_4^+$ , mg/l	< 0.02	$\geq 15$	-
$Mg^{2+}$ , mg/l	65.78	$\geq 300$	-

**Table 9.2.2** Evaluation of the aggressiveness of chemical water to concrete at research site **No. 2.**

Chemical characteristic	Set value	Limit value of ground water aggressiveness to concrete, mg/l	Groundwater aggressiveness class for concrete
$SO_4^{2-}$ , mg/l	154.8	$\geq 200$	-
pH	6.95	$\leq 6.5$	-
Aggressive CO <sub>2</sub> , mgO <sub>2</sub> /l	6.38	$\geq 15$	-

$NH_4^+$ , mg/l	< 0.02	$\geq 15$	-
$Mg^{2+}$ , mg/l	34.8	$\geq 300$	-

After the laboratory tests, it was found that at the research site no. The acidity (pH) of groundwater 1 is very close to the limit value. This must be considered when designing concrete structures and choosing a concrete class. Other chemical characteristics of groundwater do not exceed the limit values of chemical aggressiveness of groundwater.

After examining both water samples, it was found that high concentrations of sodium cations (Na+) and chlorine anions (Cl-) prevail in the coastal and coastal waters of the Curonian Lagoon. Also, high total mineralization of water (Gr. 1 set at 1899mg/l, Gr. 29 set at 1472 mg/l). From this, it can be inferred that processes of mixing fresh and marine waters occur in this Curonian Lagoon zone.

### 9.3. Soil composition and engineering geological layers

After the analysis of the research field and laboratory research material, 18 engineering geological layers (IGS) were distinguished, the descriptions of which are given in Table 9.3.

**Table 9.3.** IGS geological description.

IGS No.	Geological description and name of the layer according to [3] and [6] and [7]
IGS 1	Artificial soil (Mg): poured sand, yellow-brown, wet - watery. The layer was isolated at research sites no. 27 – 29. Its thickness reaches 0.6 – 1.0 m.
IGS 2	Silt (Dy): sandy dust of low plasticity with a small admixture of organic matter (sasiOL), dark gray and brown, with a greenish tint in places, with admixture of detritus, watery. The layer is isolated in research points no. 1 - 22 and 24 - 29. Its thickness varies from 0.2m to 2.4m.
IGS 3	Dusty sand (siSa), light yellowish and gray, with a small admixture of organic matter and gravel, wet - watery, loose. The layer is isolated in research points no. 21 and 23 – 29. At the research site no. 26, it subsides in two layers, between which the sediments of swamps (puddles) are interspersed. The thickness of the layer varies from 0.3 m to 1.5 m.
IGS 4	Evenly sorted low-dust - clayey sand (SaFU), brown, gray and greenish-gray, with a small admixture of organic matter and detritus, watery, friable. The layer is isolated in research points no. 1 – 25 and 27 – 29, at various depths. Its thickness varies from 0.3 m to 4.1 m.
IGS 5	Evenly graded low-dust - clayey sand (SaFU), brown, gray, dark gray and greenish gray, with a small admixture of organic matter and detritus, watery, medium density. The layer is isolated in research points no. 1, 4, 5, 9, 11 – 14, 16, 17, 19 and 20, at various depths. Its thickness varies from 0.3 m to 3.3 m.
IGS 6	Evenly sorted low-dust - clayey sand (SaFU), brown-gray and greenish-gray, with a small admixture of organic matter and detritus, watery, dense. The layer is isolated in research points no. 10, 14 and 17. Its thickness varies from 0.3m to 0.9m.
IGS 7	Poorly sorted sand (SaP), grey, watery, with a small admixture of detritus, very dense. The layer was isolated at research sites no. 9 and 21. Its thickness varies from 0.9 m to 1.2 m.
IGS 8	Poorly sorted gravelly sand (grSaP), grey, watery, very dense. Layer isolated at research site no. 12, at various depths. Its thickness varies from 0.4m to 0.9m.
IGS 9	Poorly sorted gravelly sand (grSaP), gray, watery, extremely dense. The layer was extracted at research site no. 12. Its thickness reaches 1.0 m.
IGS 10	Sandy dust of low plasticity with a small admixture of organic matter (saSiOL), gray, saturated with water, places with sand lenses, very strong. The layer is isolated in research points no. 8 – 10, 12, 20, 23, 24 and 26 – 28. Its thickness varies from 0.1m to 0.4m.
IGS 11	Sandy clay and dust of low plasticity (saCIL-SiL), dark gray, saturated with water, with a small admixture of organic matter, weak. The layer is isolated in research points no. 18, 20 and 21. Its thickness varies from 0.3m to 0.5m.
IGS 12	Sandy clay and dust of low plasticity (saCIL-SiL), dark gray, saturated with water, with a small admixture of organic matter, medium strength. The layer is isolated in research points no. 6, 11, 12, 17 and 25. Its thickness varies from 0.3m to 0.8m.

IGS 13	Uniformly graded sand (SaU), light gray, watery, medium density. The layer was isolated in study areas no. 2, 3, 8, 15, 22, 23 and 25 - 28, at various depths. Its thickness varies from 0.3 m to 1.2 m.
IGS 14	Evenly graded sand (SaU), light gray, watery, dense. The layer was isolated in study areas no. 2 - 4, 6 - 8, 10, 11, 15, 16 and 20 - 29, in various depths. Its thickness varies from 0.3 m to 2.5 m.
IGS 15	Evenly graded sand (SaU), light gray, watery, in places with admixture of gravel and gravel, very dense. The layer was isolated in study areas no. 1 - 8, 9 - 18 and 20 - 29, in various depths. Its sole was not reached at research site no. 21. The investigated layer thickness varies from 0.3m to 2.2m.
IGS 16	Evenly sorted sand (SaU), light gray and yellowish gray, watery, in places with admixture of gravel and gravel, extremely dense. The layer was isolated in study areas no. 1 -29, at various depths. Its base is not reached at research sites no. 1 - 20 and 22 - 26. The thickness of the studied layer varies from 0.5m to 7.9m.
IGS 17	Low plasticity clay and dust (CIL-SiL), gray and brownish gray, very strong. The layer is isolated in research points no. 27 – 29. Its sole was not reached at research site no. 27. The investigated layer thickness varies from 0.5m to 1.5m.
IGS 18	Sandy clay of low plasticity moraine (saCIL), brown-gray, with pebbles and gravel up to 5%, medium strength. The layer was extracted at survey points No. 28 and 29. Its base was not reached. The thickness of the studied layer varies from 1.8m to 2.0m.

## 10. DISTANCES TO ADJACENT STRUCTURES AND ENGINEERING NETWORKS

There are no buildings registered in the Real Estate Cadaster and Register in the planned area of execution of the works, therefore no demolition works are planned.

In the planned area of execution of works, there are engineering networks registered in the Real Estate Cadastre and Register (330 kV electric cable lines, ("NordBalt")). The networks are operated by AB Litgrid. The existing utility networks go under the south dam and pier.

## 11. EXECUTION OF EARTH WORKS AND ARCHEOLOGY OR OTHERS. THE NECESSITY OF PARTICIPATION OF REPRESENTATIVES OF SERVICES DURING RECONSTRUCTION OR REPAIR WORKS

Before starting construction work, the contractor must obtain a permit for earthworks.

Summon the owners (users, managers) or their representatives of the underground structures and communication lines located at the site of the earthworks at least 5 days before the start of the works<sup>3</sup>, notifying them of the exact time and place of the start of earthworks, as well as, if earthworks need to be carried out in the protection zone of roads (streets) and road structures, to inform the territorial police institutions.

If there are archaeological heritage or other cultural heritage objects in the protection zone of a structure (road (street), engineering networks and other objects), earthworks shall be carried out in accordance with the established special heritage protection requirements.

When the locations of underground engineering structures on the construction site are not precisely known, the owners (users, managers) of these structures or their representatives must be summoned, who must be at the site of the earthworks until the exact location of these structures is determined.

If engineering structures, archaeological heritage or valuable properties of a cultural heritage object not specified in the drawings or plan (topographical geodetic photo) are found during excavation, the works are temporarily stopped. The contractor or the construction contractor (customer) needs to find out who owns the engineering structures, require the users to record them in the drawings, coordinate the procedure for further supervision of the execution of earthworks and allows the work to continue. If archaeological heritage or the

<sup>3</sup>According to STR 1.06.01:2016 "Construction works. Structure construction supervision", approved by the Minister of the Environment of the Republic of Lithuania in 2016. December 2 by order no. D1-848, clause 40.2.

valuable properties of a cultural heritage object are found during the earthworks, the contractor or the builder (customer) who is building using the economic method must notify the municipality's heritage protection department, which in turn informs the Department of Cultural Heritage. In this case, earthworks can be continued in accordance with the procedure established by the Law on Protection of Immovable Cultural Heritage of the Republic of Lithuania.

The detailed procedure for carrying out earthworks is specified in STR 1.06.01:2016 "Construction works. Supervising the construction of the structure".

## 12. CONDITION OF EXISTING STRUCTURES AND ENGINEERING NETWORKS

There are no existing constructions, buildings, engineering structures in the construction work zone.

NordBalt, AB Litgrid, 330 kV electric cable lines enter the construction work zone. Engineering networks (330 kV electric cable lines) were installed in 2016. The condition of utility networks is good.

## 13. CLIMATIC CONDITIONS

### 13.1. Seasonal temperatures

The warmest period in the entire Klaipėda region is July, with an average temperature of around 18°C. The coldest month is January, with an average temperature of -2.0°C. The average annual temperature of Klaipėda region is 7.6°C.

**Table 13.1.** Average multi-year air temperature data in Klaipėda.

Air temp. °C	Months												Year
	01	02	03	04	05	06	07	08	09	10	11	12	
Avg.	-2.0	-2.7	1.0	6.2	11	14.9	18.1	17.7	13.9	8.7	4.5	-0.2	7.6
Max	8.7	15.4	18.6	27	30.4	34	34	34	30.4	22.2	15.4	10.3	34
Min.	-33	-33.4	-20.8	-12.8	-4	-0.7	4.9	2.9	-4.9	-9.1	-14.4	-24.2	-33.4

### 13.2. Prevailing wind directions

Prevailing wind directions in Klaipėda:

Western	15.8%
North West	13.9%
South West	14.3%
Southeast	17.0%

47.6% are the most common wind speeds 4-8 m/s. Strong wind 9-13 m/s accounts for 16.3%. Wind speed frequencies depending on its direction are shown in the table below:

**Table 13.2.** Prevailing winds

Speed	N	NE	E	SE	S	SW	W	NW	Sum
m/s	%								
-	0.59								
1-3	4,933	5,761	7,012	5,433	2,930	2,630	2,757	4,108	35,564
4-8	3,029	3,273	5,269	9,732	3,973	7,260	7,810	7,213	47,559
9-13	0.382	0.120	0.392	1,687	1,060	3,088	3,569	1,741	12,039
14-20	0.057	0.008	0.024	0.189	0.272	1,268	1,569	0.695	4,082

>20	0.002	-	-	-	0.002	0.056	0.079	0.024	0.163
Amount:	8,403	9,162	12,697	17,041	8,237	14,302	15,784	13,871	100,000

Strong winds are characterized by a distinct seasonality - they are mostly observed in the autumn and winter months. According to the prevailing directions, storm winds differ from average ones.

During construction, the direction and speed of the wind can be viewed in real time on the website of the Lithuanian Hydrometeorological Service under the Ministry of the Environment <https://m.meteo.lt/prognoziu-zemelapiai/vejo-kryptis-ir-greitis/9>.

### 13.3. Snow accumulations, ice phenomena

In the Klaipėda region, due to the influence of the Baltic Sea, there is a large change in weather in winter. Constant weather changes, wind direction lead to unstable snow cover thickness, different duration of the accumulation period, reflections frequency, ice formation.

In the southern part of the port of Klaipėda and in the Curonian Lagoon, a continuous layer of ice forms every year. In the northern part of the port, due to the flow of the Dane River and the constant navigation of ships in the water area, a continuous ice cover is rarely formed. The frequency of ice formation in the port of Klaipėda is presented in the table "Frequency of ice formation".

**Table 13.3.**Frequency of ice formation.

	December	January	February	March	April
Average	on the 3rd	on the 5th	on the 5th	on the 4th	on the 2th
Minimal	-	-	-	-	-
Maximum	on the 7th	10th	on the 17th	on the 17th	on the 3rd

## 14. THE NECESSITY OF SURFACE WATER REMOVAL AND GROUNDWATER LOWERING

In case of inflow of groundwater during the construction of underground communications, water is removed from the trenches with needle filters or pumps without separate payment. The possible altitude of groundwater is from 1.20 m. It can be higher, depending on the fluctuation of the water level.

Contractors, when carrying out earth bed installation works, must take care of continuous drainage of water so as not to cause damage. At all stages of the earth embankment installation, drainage works and the necessary means of protection against water belong to auxiliary works.

The general requirements for water drainage are specified in KPT VNS 16, Chapter XII of the Design Rules for Road Water Drainage Systems and in Chapter VIII, Section 17 of the Rules for Carrying out Earthworks and Land Embankment Installation of Road Roads ĖT ŽS, Section VIII.

## 15. BRIEF DESCRIPTION OF TEMPORARY (DURING CONSTRUCTION) AND PERMANENT DRAINAGE PROJECT SOLUTIONS

The general requirements for temporary (during construction) water drainage are specified in KPT VNS 16, Chapter XII and ĖT ŽS 17, Chapter VIII, Section Five.

The description of design solutions for permanent embankment drainage is specified in the Construction part of the project.

## 16. CONDITIONS FOR PRESERVATION AND USE OF TREES, VEGETATION, SOIL AND OTHER EXCAVATED SOIL

The existing excavated vegetation layer (soil) and excess excavated soil are stored without contamination with other materials or waste. The soil during finishing works can be used to install new surfaces. Excavated soil can be used to install new embankments. Individual trees and bushes enter the pier

installation area. Trees, bushes and existing vegetation will inevitably have to be removed in the area where the pier will be installed.

When carrying out tree and shrub removal works, the contractor must follow the Government of the Republic of Lithuania, 2008. March 12 by resolution no. 206 (revision of Resolution No. 1101 of the Government of the Republic of Lithuania of December 22, 2021) "CRITERIA ACCORDING TO WHICH TREES AND SHRUBS GROWING ON LAND NOT INTENDED FOR FORESTRY ARE CLASSIFIED AS PRESERVED" requirements.

Protected tree genera and/or species, bushes growing in the coastal protection zone, when the diameter (at 1.3 m height) and height parameters are assigned:

- ✓ oaks, ash trees, maples, elms, brambles, hemlocks, beech trees, hemlocks - 12 cm and larger in diameter;
- ✓ pines, firs, larches, pines, lindens, black alders, lindens, rowan trees, walnut trees, chestnuts, forest apple trees, forest pears - 20 cm and larger in diameter;
- ✓ birches, willows - 30 cm and larger in diameter;
- ✓ ordinary junipers - larger than 3 m;

Trees and shrubs growing in the coastal protection zone do not meet the following criteria if they are:

- ✓ withered, turned over, broken, burnt, injured during natural disasters, extreme events, fires or accidents (except for injuries caused by illegal actions of natural or legal persons);
- ✓ trees and shrubs of invasive species;

Removal of trees and shrubs that cannot be protected on regulated river slopes and coastal protection strips can be carried out without environmental restrictions.

## **17. EXISTING STRUCTURES ARE DEMOLISHED AND ENGINEERING NETWORKS ARE RAISED**

There are no buildings registered in the Real Estate Cadaster and Register in the planned area of execution of the works, therefore no demolition works are planned.

In the planned area of execution of works, there are engineering networks registered in the Real Estate Cadaster and Register (330 kV electric cable lines, ("NordBalt")). The networks are operated by AB Litgrid. The existing engineering networks do not fall within the scope of the planned economic activity and construction works (elevation, dismantling or re-laying).

## **18. THE INDICATIVE AMOUNT OF VARIOUS TYPES OF CONSTRUCTION WASTE (IN UNITS OF WEIGHT), METHODS OF THEIR MANAGEMENT, CONDITIONS OF USE AT THE CONSTRUCTION SITE**

Generated waste must be managed in accordance with: Waste Management Rules (Order No. 217 of the Minister of the Environment of the Republic of Lithuania of July 14, 1999 (revision of the Order of the Minister of the Environment of the Republic of Lithuania of October 9, 2017 No. D1-831), current summary editorial from 2023-01-31); Construction waste management rules (Order No. D1-637 of the Minister of the Environment of the Republic of Lithuania of December 29, 2006, (summary version valid from 07/01/2018)); Rules for accounting and reporting of waste generation and management (approved by Order No. D1-367 of the Minister of the Environment of the Republic of Lithuania dated May 3, 2011, (the version of Order No. D1-819 of the Minister of the Environment of the Republic of Lithuania dated October 3, 2017, valid summary version from 02/02/2019); by the Law on Waste Management (June 16, 1998 No. VIII-787).

According to the priority, the waste management hierarchy must be followed, managing the waste in the following order: preventive waste avoidance, preparation for reuse, recycling, other use (e.g. to obtain energy), disposal in a landfill. Contracts must be signed with waste carriers and handlers, and waste must be handed over to waste handlers registered in the register of waste handling companies and engaged in waste management activities. The loading of construction waste into machines must be organized in such a way that the construction site and the adjacent territory are protected from dust and noise, and the environment cannot be polluted during the removal of waste, the waste must be transported in covered trucks, containers or in another closed way.

Under the guidance of the Minister of the Environment in 2014 August 28 by order no. D1-698 "Regarding the Minister of the Environment of the Republic of Lithuania of 2006 December 29 order no. D1-637 "Regarding approval of construction waste management rules" amendment" in points 6-8:

– A waste accounting journal must be filled in at the construction site, an accounting of the construction waste generated and handed over for management must be kept, its amount indicated, waste accounting reports submitted in the manner established in the Waste Management Rules and the Rules for the Accounting and Reporting of Waste Generation and Management;

– On the construction site, the generated municipal waste, inert waste, waste suitable for processing and reuse and secondary raw materials, hazardous waste, waste unsuitable for processing must be sorted and

temporarily stored separately. On the construction site, more types of waste can be separated (sorted) depending on the types of construction, their volume and the possibilities of waste management.

- Non-hazardous construction waste can be temporarily stored at the construction site for no longer than one year from the date of its generation, but no longer than until the end of the construction work.

Construction waste must be stored in closed containers or properly equipped sites until their removal.

During construction, waste will be generated:

– during the dredging of the port water area, soil was excavated/sucked from the bottom of the water area of the Curonian Lagoon. The soil is floated to the nearest place of soil disposal at sea and rammed;

– when removing vegetation (biodegradable waste);

In the technical project, the amounts of waste generated during the construction works and their disposal methods are presented in the general part of the project, in the waste management bulletin (8858-XX-TP-BD-01.01.ATŽ).

## **19. INDUSTRIAL, ECONOMIC OR OTHER. CONDITIONS FOR LIMITING, SUSPENDING OR TERMINATING ACTIVITIES DURING THE RECONSTRUCTION OR CAPITAL REPAIR OF STRUCTURES**

During construction work, no economic activity is planned to stop.

## **20. POSSIBILITIES AND CONDITIONS OF TEMPORARY RESTRICTION OR CLOSURE OF MOTOR VEHICLE TRAFFIC ON ROADS AND STREETS**

Since the construction works will be carried out on the outskirts of the city of Klaipėda, in the water area of the Curonian Lagoon and on the coast, there is no need to close or otherwise regulate the existing road to the construction site. It is planned to carry out the works in stages. The work organization scheme can be found in drawing 01 of part SO.

## **21. POSSIBILITIES AND CONDITIONS FOR THE STORAGE OF CONSTRUCTION PRODUCTS AND CONSTRUCTIONS, INSTALLATION OF CONSTRUCTION EQUIPMENT AND MECHANISMS, CONSTRUCTION OF TEMPORARY ROADS AND ENGINEERING NETWORKS ON AN ADDITIONAL PLOT OF LAND**

Additional land plot areas are available for storage of construction products and constructions, construction equipment and mechanisms are planned to be used adjacent to the existing free plot of state land. All planned construction works will be carried out in the territory of the city of Klaipėda. The planned construction is carried out within the boundaries of the plots:

- Cad. No. 2101/10:61 Uniq. No. 4400-2199-4594;

- Cad. No. 2101/10:43 Uniq. No. 4400-0764-6013;

- Free state land;

The contractor must discuss and agree with the user of the territory the need for a possible additional area of the plot of land for the installation of the construction site.

After coordination with the customer, the Contractor must (if necessary) install temporary communications (electricity supply line, water supply and domestic sewage networks). The final decision on

the necessity of networks for the construction period is made by the Contractor after coordinating it with the Customer. The costs of installation, storage, operation and dismantling of temporary communications and the construction site are covered by the Contractor. He also undertakes to remove snow and ice from the construction site. It is necessary for the contractor to check the fences of the construction site every day after the end of the work and to eliminate possible defects.

If a street use permit is needed, it must be ordered in time at the relevant institutions. Costs that arise due to the obligations of the controlling authorities must be included in the Contractor's tender offer and will not be compensated separately.

The contractor is responsible for all damage to engineering networks and communication communications caused by him.

At the construction site, temporary movement roads of such size and nature are installed, so that the movement does not pose a risk to the safety or health of the workers. Access and transportation roads and traffic areas must be equipped in such a way that appropriate technical aids can be used. In the case of temporary movement roads, it is necessary to try to establish them separately for vehicles and pedestrians, and for one-way traffic. If this is not possible, there must be an adequate safe distance between vehicles and pedestrians. When installing temporary movement paths, it is necessary to ensure:

- that regardless of weather conditions, the roads are reliable;
- that it is possible to walk from the road and the parking lot to the changing room wearing normal footwear;
- the surface (pavement) of traffic roads and workplaces must always be clean, without any materials and objects that could endanger traffic. Wells, pits, etc. covered or fenced off;

## **22. POSSIBILITIES AND CONDITIONS OF ELECTRICITY, WATER AND OTHER RESOURCES SUPPLY, TERRITORY LIGHTING, SEWAGE DISPOSAL OR COLLECTION DURING CONSTRUCTION**

There are no existing engineering (electricity, water supply and sewage) networks in the construction work zone.

The contractor must take care of the supply and storage of electricity that meets all his needs. Adequate power supply must be provided during the entire period of works until their acceptance. This includes the installation, operation, maintenance and re-installation of the equipment at the facility until acceptance.

The Contractor shall provide all temporary accommodation that will be required for his needs, including adequate sanitary facilities. The contractor must provide its own temporary utilities and pay all costs of temporary facilities and water, electricity, etc.

Potable water can be supplied to the construction site in packaged bottles, water for other purposes can be supplied in tanks or other containers. Drinking water must meet hygiene requirements - Lithuanian hygiene norm HN 24:2023 "Drinking water safety and quality requirements" [5.2.36].

## **23. REQUIREMENTS FOR CONSTRUCTION EQUIPMENT AND VEHICLES**

Special requirements for construction equipment and vehicles are provided in the technological instructions of manufacturers of construction equipment and vehicles, the Contractor's construction rules and the technology project of construction works. Land and floating construction equipment and transport will be used.

All work tools, devices and technological equipment used in construction works must meet safety and health requirements and must be specified in the technology (execution) project of construction works prepared by the Contractor. All construction machinery must be in good order. Fuel and lubricants are not allowed to leak and enter the ground.

Construction work equipment and vehicles, machines, lifting mechanisms and other devices, including hand tools with and without a motor - must be properly designed and manufactured taking into account ergonomic requirements, technically sound, ready for use, properly and correctly used (as intended), driven (managed) and serviced by appropriately trained (specially trained, certified) employees. It is mandatory to

follow all the recommendations and work safety requirements of the manufacturers of work equipment and vehicles.

All devices and materials and products used in construction must have documents confirming their quality (compliance with EU requirements) (certificates of conformity, declarations of conformity or equivalent documents).

All lifting mechanisms and lifting accessories, including main components, fastenings, anchorages and supports, must be properly constructed and strong enough to be used for their intended purpose, correctly installed and used, properly maintained, inspected and regularly tested and controlled in accordance with the potentially dangerous equipment of the Republic of Lithuania supervision law and other normative legal acts. All lifting mechanisms and tools must have the maximum permissible load indicated in a clearly visible place - the lifting capacity, lifting mechanisms and tools must be used only for their intended purpose.

Construction equipment and means of transport are chosen by the Contractor depending on the chosen technology of work execution.

### 23.1. OTHER CONSTRUCTION WORK EQUIPMENT

The means for elevating the workplace must be stable, have a smooth working surface without cracks larger than 5 mm. If they are higher than 1.3 m - with fences protecting workers and objects from falling.

Electrical distribution devices and their installation must be designed, installed and used in such a way as not to cause a fire and explosion hazard; workers must be protected from the effects of electric current due to direct or indirect contact, the type and power of the supplied electricity, external conditions and the qualifications of workers working with electrical equipment must be taken into account.

Electrical devices and their installation on the construction site, especially if they are exposed to environmental factors, must be regularly maintained and checked. It is necessary to specify, check and clearly mark the devices that were on the construction site before it was installed.

**Table 23.1.** Indicative list of mechanisms that can be used for construction work

Seq. No.	Title of construction machinery	Technical indicators	Description of performed works
1.	Barge	Load size ~2,000-3,000 m <sup>3</sup> (3,500-5,000 t);	Transportation of stones
2.	Barge	Load size ~1,200 m <sup>3</sup> (~2,000 t);	Transportation of stones
3.	Barge	250 t	For building cranes, storing materials in water
4.	Pontoon	20 t	For placing cranes and excavators in water
5.	Tow truck	294-368 kW (400-500 AG)	Pontoon, barge sailing
6.	Single bucket excavator	0.65 m <sup>3</sup> bucket capacity	Excavation, dismantling, loading works
7.	Single bucket excavator with bulldozer blade	0.65 m <sup>3</sup> bucket capacity	Excavation, dismantling, loading works
8.	Crane (wheeled/tracked)	10 t carrying capacity	Construction installation work, dismantling work and loading into transport
9.	Non-self-propelled Floating crane	16 t carrying capacity	Construction installation work, dismantling work and loading into transport
10.	Self-propelled diving station with compressor		Underwater work
11.	Vibration generator	Capacity according to soils	For sinking steel piles
12.	Concrete pump		Concreting works
13.	Deep vibrator		Concrete compaction in formwork
14.	Flat vibrator		Concrete surface compaction
15.	Concrete mixer		Concreting works

16.	Diesel pump		Suction of water from ditches and pits
17.	Electric generator	24 kW	To ensure the need for electricity at the construction site
18.	Welding transformer	18 kW	Welding of steel structures, rebar welding
19.	Mobile welding unit	5 kW	Welding of steel structures, rebar welding
20.	Gasoline circular saw	d=200 mm	For cutting reinforced concrete
21.	Electric circular saw	1,4 kW	For cutting formwork boards
22.	Electric saw	2 kW	For cutting wooden structures, formwork boards
23.	Electric drill	1,3 kW	Drilling holes
24.	Dump trucks	10 t carrying capacity	Removal of construction scrap, removal of soil
25.	Vibroval	12 t	Soil compaction
26.	Self-propelled highway roller		Compaction of the soil surface
27.	Diesel compaction plate	60 kg	Soil compaction in narrow areas
28.	Bulldozer (wheeled)	40 kW	Leveling works

## 24. GENERAL SAFETY, HEALTH AND HYGIENE REQUIREMENTS AND CONDITIONS FOR CONSTRUCTION WORK AT THE CONSTRUCTION SITE

The level of noise and local vibration may increase during the reconstruction. Pursuant to the Lithuanian hygiene standard HN 33:2011 "Noise limit values in residential and public buildings and their environment", the equivalent sound level is allowed in the environment of residential and public buildings from 7 a.m. to 7 p.m.<sup>4</sup> is 65 dBA, from 19:00 to 22:00. is 60 dBA and from 10 p.m. to 7 a.m. is 55 dBA and the maximum sound level from 7 a.m. to 7 p.m. is 70 dBA, from 19:00 to 22:00. is 65 dBA and from 10 p.m. to 7 a.m. is 60 dBA.

The highest noise levels are during piling and dredging operations. The Contractor can perform these works only from 7 a.m. to 7 p.m. The contractor must also comply with the requirements of vibration and air pollution norms. Vibration norms in the working environment are regulated by the Lithuanian hygiene standards HN 50:2016 "Vibration affecting the entire human body: maximum permissible values and measurement requirements in residential and public buildings" and HN 51:2003 "Vibration affecting the entire human body: maximum permissible values and measurement requirements in workplaces". Air pollution in the working environment - HN 23:2011 "Occupational exposure limit values of chemical substances. General requirements for measurement and impact assessment".

### Noise modeling findings

The results of the predicted worst-case scenario noise dispersion modeling show that the limit levels of emitted noise specified in the Lithuanian hygiene standard HN 33:2011 "Noise limit values in residential and public buildings and their surroundings" will not be exceeded during dredging of the water area during the day, evening and night.

Upon receipt of motivated complaints about noise from persons living near the territory of PŪV, the contractor must carry out noise measurements in accordance with the provisions of HN33:2011 and, taking into account the obtained results, control the working mode of the equipment so as not to violate the Lithuanian hygiene standard HN 33:2011.

During dredging of the water area, it will be ensured that the maximum emitted noise level of the equipment used will not exceed 91.4 dBA (at a distance of 1 m).

During dredging of the water area, the background (existing) ambient noise level would potentially increase by about 1-5 dBA, but would not exceed the limit values.

When carrying out dredging works, it is necessary to follow the 2017 regulation of the Klaipėda City Municipality Council. December 21 decision no. T2-321 approved requirements of Klaipėda city noise prevention rules in public places.

<sup>4</sup>The start and end hours of the time of day (day, evening and night) are understood as defined in the daytime noise indicator (*L<sub>dienos</sub>*), evening noise indicator (*L<sub>vakaro</sub>*) and night noise indicator (*L<sub>night</sub>*) definitions.

When carrying out dredging works in the water area, the organizer of economic activities must follow the 2019 regulation of the Klaipėda City Municipality Council. July 25 decision no. T2-241 approved noise prevention action plan of Klaipėda city municipality for the years 2019-2023 or the latest approved version.

#### Electromagnetic radiation, vibration and heat release

PEA (planned economic activity) will not be adversely affected by light, heat, ionizing and non-ionizing (electromagnetic) radiation.

Sources emitting high heat, which would have a significant impact on air and water, are not expected to be used in the EPA. Internal combustion engines will emit heat during the dredging works of PEA.

In any case, the Contractor must provide funds for the measurement of noise levels and, in case of higher noise levels than allowed, must install noise suppressing measures.

The contractor undertakes to acknowledge to the customer all claims of third parties that arise due to non-compliance with noise protection instructions. The customer may require the replacement of noise-producing mechanisms if they do not meet the current technical level requirements in terms of noise generation. The contractor must provide data on the expected noise level in his proposal.

The contractor must take all measures necessary for the protection of the construction site, the protection of persons and things on the site and near it during the works, in terms of compliance with work safety rules, special instructions, port and street traffic rules, etc. Necessary permits, signage, postings, fencing and security devices along with lighting during construction shall be erected and maintained by the contractor.

The construction manager of the structure must ensure safe work, environmental protection, compliance with occupational safety and hygiene requirements, following:

- The Law on Safety and Health of Workers (July 1, 2003 No. IX-1672);
- Safety and health rules in construction DT 5-00 [5.2.39].

When carrying out lifting work, it is necessary to follow the rules for the maintenance of lifting cranes [5.2.40].

Employees must have personal means of protection against noise or air pollution, as specified in the Minister of Social Security and Labor of the Republic of Lithuania in 2007. November 26 No. In order A1-331 "Provisions for providing employees with personal protective equipment" [5.2.46].

On the construction site, the Contractor must build temporary household - sanitary facilities, where changing rooms, showers, and toilets must be installed.

The Contractor must pay the Customer for all third-party claims related to the safety of the construction site.

#### **24.1. The boundaries of the construction site and it's fencing**

The area where the construction works will take place will be fenced and protected, dangerous places will be marked, information signs will be installed, pedestrian movement areas will be fenced off from trenches, and employees will be additionally instructed and trained on how to behave in the event of an accident or accident. Since there is no known contractor (contractor's mechanisms, resources, equipment, etc.), these solutions must be detailed in the contractor's technological project.

The protection zone of the MDV must be fenced off during the storage works of soil, stones, construction materials and the work related to heavy transport near the protection zone of the main gas pipeline. The Contractor must coordinate the fencing solution with the MDV operator.

#### **24.2. Main transport and pedestrian roads**

The construction works will be carried out on the plot of land of the Klaipėda State Seaport, Kairiai str. 17, Klaipėda city. There is no car transport or pedestrian traffic, as the plot is in a remote location on the outskirts of Klaipėda city. The area where the construction work will take place will be fenced and protected. Access to the construction site for vehicles and pedestrians not related to construction work is provided.

A temporary access solution is planned for access to the structures under construction. Projected temporary road no. 1 from Kairiai street to the construction site and temporary road no. 2 for access to constructions under construction. Temporary access road no. 2 from Pk 5+60 to the end of the road, after the completion of the construction works of the entire project, is dismantled, the environment is cleaned, the areas

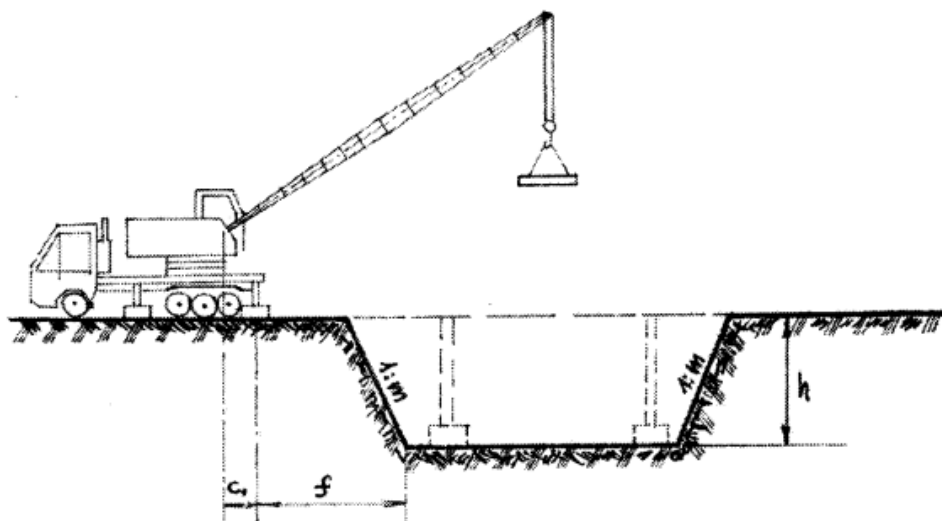
are recultivated and planted with grass. The stretch from Pk 0+00 to Pk 5+60 remains under construction until the onshore area is developed.

### 24.3. Possible locations for lifting cranes and other stationary construction mechanisms

It is proposed to carry out cargo transfer and installation work with mobile cranes (lifting capacity according to SDTP), which can be used for installation of culverts, construction of wells, unloading/loading of various cargoes (technical characteristics are presented in Annex No. 1). The recommended crane placement area is specified by the Contractor when preparing the SDTP.

Since the contractor (contractor's mechanisms, resources, equipment, etc.) is not known, the construction area of cranes and other stationary construction mechanisms, so that they do not interfere with smooth work, will be specified by the Contractor in the Construction Work Technology Project.

When laying rain systems and digging trenches, the minimum allowable distances for crane placement from the lower edge of the trench slope to the nearest crane supports are given in the table below.



Depth of excavation or trench h meters	Primer (natural)				
	Sand or gravel	Sand	Loam	Clay	Dry loess
	Distances f from the lower edge of the slope to the nearest crane support, m				
1	1.5	1.25	1.0	1.0	1.0
2	3.0	2.4	2.0	1.5	2.0
3	4.0	3.6	3.25	1.75	2.5
4	5.0	4.4	4.0	3.0	3.0
5	6.0	5.3	4.75	3.5	3.5

The construction manager of the structure must ensure safe work, environmental protection, compliance with occupational safety and hygiene requirements, following:

- the Law on Safety and Health of Workers (July 1, 2003 No. IX-1672 Vilnius);
- Safety and health rules in construction DT 5-00.

When carrying out lifting work, it is necessary to follow the rules for the maintenance of lifting cranes.

Employees must have personal protective equipment against noise or air pollution, as specified in the Provisions on Providing Employees with Personal Protective Equipment [5.2.46].



#### 24.4. Possible installation areas for household, sanitary and hygiene premises

Possible installation areas of household, sanitary and hygiene premises are specified in drawing 8858-00-TP-SO-B.01. The Contractor takes care of the installation of sanitary and hygiene facilities. These premises must be specified in the Construction Work Technology Project.

Changing rooms and wardrobes:

- Changing rooms must be provided for employees who are required to wear work clothes, and also located where they cannot change in another room for health or ethical reasons. The changing rooms must be easily accessible, they must be spacious enough, they must be equipped with seating;

- Changing rooms must be of the required size and, when necessary, they must be equipped with places to dry clothes. Lockable places for storing employees' clothes and personal belongings must also be installed. Under certain circumstances (when working with harmful substances, in humidity, with dirt and other cases), personal clothes and things must be kept separately from work clothes;

- Separate changing rooms must be provided for women and men or it must be possible to use the same changing room at different times;

- Where changing rooms are not required, a lockable storage area for clothing and personal belongings must be provided for each employee.

Showers and washbasins:

- Depending on the nature of work and occupational hygiene requirements, employees must be provided with the required number of showers. Shower rooms must be equipped separately for men and women or must be provided for them to use separate shower rooms;

- Shower rooms must be the right size. Hot and cold water must be supplied for showers;

- When it is not necessary to install showers, the required number of wash basins with running water (with hot water if necessary) must be installed near workplaces and changing rooms. Washrooms must be installed separately for men and women or it must be possible to use them separately;

- When rooms with showers or wash basins are separated from changing rooms, convenient transitions must be provided.

Toilets and washbasins:

- The required number of toilets and wash basins must be installed for employees near workplaces, rest and changing rooms and showers or washrooms. There must be separate toilets for men and women or the possibility to use them separately.

#### 24.5. Separation of possible storage areas for materials and structures, storage areas for harmful and dangerous materials

The storage of harmful and dangerous materials during construction is also not planned. Possible storage areas for materials and constructions, separating the storage area of harmful and dangerous materials so that they do not interfere with smooth work, will be provided by the Contractor in the Construction Works Technology Project.

Possible material storage locations are indicated in the table, as well as in drawings 8858-XX-TP-SO-07.01.B-02 and 8858-XX-TP-SO-07.01.B-03 of this part of the project.

Plot in Kairiai str. 19 provides a possible place for the storage of mineral soil excavated during the dredging of water area. After the I and II stages of construction, before starting the dredging of the water area and transporting the soil to the storage place, preparatory work is carried out – the vegetation is removed and the soil is excavated. The embankments of the stored soil are formed up to 10 m high. After reaching the height of the embankment to 5.0-6.0 m, a 4.0 m wide berm is formed with a 4% slope to the outer side of the embankment. The upper part of the embankment is installed with a height of 4.0-5.0, the top of the embankment is formed according to the existing slope of the terrain towards the lagoon. To ensure water drainage, ditches with a bottom of 0.5 m and a longitudinal slope of no less than 0.3% are dug around the perimeter of the embankment.

Taking into account the probability of local swelling of the surface layer of the filled embankment specified in the general part of the project, environmental impact and environmental protection description



(8858-XX-TP-BD-01.01.PAAA), a 0.1 m thick soil layer is installed on the filled mineral soil embankments and sown with lawn . When carrying out embankment formation works in long-term dry and windy periods, it is recommended for the contractor to provide measures for the irrigation of the surface layer of the embankment to be formed with lagoon water (by spraying). This can be done using water cannons with a water spray range of 30-50 m (or an alternative option provided by the contractor). The equipment to be used, the soil transportation method and distribution in the area are provided by the contractor in the technological project.

For the excavated soil storage scheme, see 8858-XX-TP-SO-07.01.B-04.

Building materials	Possible storage, take-out place
Excess soil	It is stored at the construction site and/or the soil is transported to the nearest soil disposal site at sea and rammed;
Temporary storage of materials	Stored at the construction site and/or according to SDTP.
Shrubs, trees, branches, roots, waste	It is possible to deliver to the bulk waste collection site and/or according to SDTP.
Excess of stones, rubble, gravel	Stored at the construction site or according to SDTP.

#### **24.6. Providing employees with drinking water**

Employees must be provided with drinking water in accordance with the Lithuanian hygiene standard HN 24:2023 "Drinking water safety and quality requirements".

#### **24.7. Possible storage areas for waste and construction waste**

Waste and construction waste storage areas, so that they do not interfere with smooth work, will be provided by the Contractor in the Construction Works Technology Project. See clause 24.5.

When handling waste, it is necessary to follow the requirements of point 18.

#### **24.8. Instructions or solutions in the event of an accident or fire at the construction site**

Fire trucks enter the area through existing entrances. Since the layout of the area remains unchanged, the fire engines remain able to approach the perimeter of all buildings.

The construction site must be equipped with fire fighting equipment - shields with primary fire extinguishing equipment, preventive fire fighting equipment for organizing the construction site.

Panels with primary fire extinguishing equipment are installed at the construction site. They are placed in highly visible and conveniently accessible places near household premises, warehouses of flammable materials, etc.;

Fires occur due to spontaneous ignition, lightning and electrostatic charges and other reasons: smoking in fire-preventive places, careless handling of heating devices, improper electrical equipment, violations of metal welding technology, etc.

When a fire starts on the construction site, it is necessary to immediately turn off the electric lighting and power line, reduce the pressure in the technological equipment, pressure vessels, pipelines, close the shutters and stop the supply of dangerous substances to them. This must be done by the builders and company employees before the fire brigade arrives.

Every day, at the end of the work, it is necessary to remove easily flammable materials from the workplace: sawdust, chips, offcuts, plastic waste.

In the event of a fire, it is promptly extinguished and the fire rescue service is called by phone (tel. 112).

#### **24.9. First aid measures are necessary**

The construction site must have first aid supplies - first aid kits with first aid supplies.

First aid kits must contain:

The generic name of the drug, the name of the medical aid (device) and other means	Quantity
1. Atropine sulfate 1 mg/ml 1ml. amp	10 ampoules
2. Epinephrine 1mg amp. 1 ml* or 0.15 mg** or 0.3 mg***	*10 ampoules **10 automatic pens ***10 automatic pens
3. Sodium chloride 0.9% amp., 5 ml	10 ampoules
4. Sodium chloride 0.9%, infusion solution, 250 ml	3 pcs.
5. Methylprednisolone 40 mg - 1 g inj. * or dexamethasone 4 mg - 1 ml inj.**	*at least 2 g of any chosen strength; **5 ampoules
6. Salbutamol, 100 µg for inhalation, 200 doz.	the smallest inner packaging
7. Disposable medical sterile gloves	2 sets (2 pcs each)
8. Disposable syringe with needle, 2 ml	2 pcs.
9. Disposable syringe with needle, 5 ml	2 pcs.
10. Disposable syringe with needle, 10 ml	4 pcs.
11. Disposable syringe with needle, 20 ml	2 pcs.
12. Disposable intravenous catheter, all sizes	3 pcs each
13. Single-use intravenous drug drip system	3 pcs.
14. Sterile compression bandage with a sterile pad of at least 10 cm × 10 cm, the bandage itself at least 15 cm × 180 cm	1 pc.
15. Sterile patches of various sizes	10 pcs.
16. Patch, woven (rolled)	2 pcs. (at least after 5 m)
17. Patch, non-woven (rolled)	3 pcs. (at least after 5 m)
18. Non-sterile dressing	10 pcs. (at least after 5 m)
19. Supportive triangular bandage	2 pcs.
20. First aid scissors	1 pc.
21. Special blanket for laying or covering the victim, at least 130 cm × 200 cm	2 pcs.
22. Sterile gel dressing for burns, at least 40 cm × 60 cm	4 pcs.
23. Sterile wound dressing, at least 5 cm × 10 cm	10 pcs.
24. Disposable medical non-sterile gloves, various sizes	2 sets (2 pcs each)
25. Pulls with a plastic head	1 pc.
26. Bag with a mask for ventilation, for adults / children	1 pc each
27. Container for hazardous waste	1 pc.
28. Oropharyngeal tubes (all sizes)	1 pc each
29. Tourniquet for stopping heavy (massive) bleeding (in arms, legs).	2 pcs.
30. Disposable cold bag	4 pcs.
31. Sterile wipes for disinfecting the injection site	10 pcs.
32. Wound disinfection solution	1 pc. (at least 50 ml)
33. First aid description or memo, tourniquet usage rules	1 pc.

The company or institution, taking into account the nature of the activity, may have additional tools in the first aid kit, which are not specified in the description of the first aid kit, in accordance with the 2003 Decree of the Minister of Health of the Republic of Lithuania. July 11 order no. V-450 "On the approval of the description of the first aid kit of the Personal Health Care Institution, the description of the First Aid Kit and the description of the competence of Personal Health Care and Pharmacy specialists in providing first medical aid", (2021-03-30 edition).

In the event of an accident, it is necessary to provide first aid and call for help by phone (112), as well as inform the Construction Works Manager.

## 25. ENVIRONMENTAL PROTECTION AND THIRD PARTY INTEREST PROTECTION REQUIREMENTS

Noise and pollution levels may increase during reconstruction. This may cause short-term inconvenience to third parties. Before carrying out work in the areas of engineering networks, it is necessary to call the representatives of the relevant network service. A negative impact on the environment can be caused by work during the construction period when working with mechanisms due to the leakage of their aggregates. Soil contaminated with petroleum products must be removed and decontaminated. During the preparation of coating bases, air pollution with dust may increase. If it is present, it is necessary to moisten the surface with water. In order to reduce inconvenience to third parties, the Contractor must ensure the fastest and highest quality performance of the work.

If environmentally harmful substances are discovered during construction, it is necessary to inform the Customer immediately. Together with the Customer, in compliance with the waste disposal rules, with the participation of the representatives of the environmental protection department and other institutions, prepare the waste removal project from the construction site.

Special instructions and directives for the protection of water bodies must be followed, e.g.: Water Act, Waste Act, Execution of anti-corrosion protection works and applicable technical regulations. Materials that come into contact with the water body cannot pollute it. In case of doubt, a certificate of non-hazardous approval must be provided.

Environmental protection requirements are presented in the General part of the project.

The building must be built and erected, and the construction site managed in such a way that during construction and using the built building, the living and working conditions of third parties, which they had before the start of construction, could be changed only in accordance with the normative construction technical documents and normative documents for the safety and purpose of the building provisions. These conditions are:

- 1) non-deterioration of the existing technical condition of the structures;
- 2) access to roads and streets of national and local significance;
- 3) the possibility of using engineering networks;
- 4) preservation of natural lighting of premises intended for people to live, work or engage in other activities in accordance with hygiene and workplace installation requirements;
- 5) preservation of the safety measures established in the documents regulating fire safety;
- 6) protection against generated noise, vibration, electrical disturbances and dangerous radiation;
- 7) protection against pollution of air, water, soil or deeper layers of the earth; preservation of environmental protection structures and measures, their effectiveness; preservation of natural and cultural values; preservation of valuable vegetation; preservation of fire extinguishing systems;
- 8) preservation of hydrotechnical structures and melioration facilities so as not to damage the hydrogeodynamic regime created by those structures and facilities.

Solutions of the technical project do not violate the interests of third parties.

When implementing project solutions, the living and working conditions of third parties are expected to be protected:

1. there are no existing buildings on the plot, so the technical condition of the existing buildings will not deteriorate;
2. temporary closure of the road is not foreseen during the construction period, therefore the possibility for special services vehicles to reach residential houses is violated;
3. the disconnection of existing engineering networks for users is not foreseen, therefore the possibility of using engineering networks remains;
4. contractors, when carrying out embankment and foundation installation works, when selecting mechanisms for soil compaction, the technical characteristics of soil compaction mechanisms should be taken into account so that there is no negative impact of vibration on engineering networks.

## 26. STRUCTURE CONSTRUCTION AND SEQUENCE SCHEDULE OF CONSTRUCTION WORKS

Before the start of construction works, the Contractor must prepare and submit to the Customer for coordination the schedule of construction of the building and the sequence of construction works. This schedule must be presented (indicating the scope of work and the deadlines for execution).

### **Construction works are divided into four stages of construction works:**

- Phase I of construction – construction of the southern and northern dam (Part I);
- Phase II of construction – construction of the pier;
- Phase III of construction - construction of the embankment;
- Phase IV of construction – construction of northern dams (Part II).

### **Water area dredging works are divided into two stages of harbor water area dredging works:**

- Phase I – dredging of the water area up to -3.5 m (-1.5 southern part);
- Phase II – dredging of a part of the water area (in the ferry area) to -4.6 m (provided a turning circle solution for ferries).

**Construction works are proposed to be carried out in the following order:**

### **Phase I of construction works (temporary access road installation works)**

1. Preparatory clothes, track marking;
2. Protection works of existing engineering networks;
3. Earthworks;
4. Installation of temporary ditches and culverts
5. Road embankment installation;
6. Installation of road surface layers;
7. Arrangement of the territory.

### **Phase I of construction works (construction of the southern dam)**

1. Preparatory clothes, construction site installation;
2. Preparation of the territory, cutting of vegetation and waste disposal;
3. Track marking;
4. Removal of unstable soil in the construction area of the southern dam, transportation of soil by water up to 1 km away, dumping in the water area;
5. Excavation of sandy soil and formation of a trench under water, use of excavated soil in the construction of the northern dam (the trench is formed in the section of the dam where the design depth needs to be reached);
6. A geotextile is laid parallel to the bottom formed for the dam and the bottom of the trench formed underwater;
7. A dike core made of mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is installed on the laid geotextile. Formation and installation of the dam core is carried out from the bottom to -0.87 m (-1.00 m) altitude (zone No. 1);
8. Places for the installation of culverts are formed in parallel;
9. Installation of the base of culverts from geotextile and mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) in accordance with the installation rules and/or recommendations of the culvert manufacturer;
10. Assembly of culverts from corrugated sheet profile sheets, floating and placing (installation) in project planned positions;
11. Filling of culverts with self-compacting mineral material and/or their mixture in accordance with the installation rules and/or recommendations of the culvert manufacturer;
12. Covering (separation) of the mineral material of the self-compacting fraction and/or its mixture with a geotextile layer;

13. The formation and installation of the dam core from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is carried out from an altitude of -0.87 m (-1.00 m) to + 0.31 m (+0.18 m) altitude (zone No. 2);
14. Geotextile is laid parallel to the slope of the formed dam core (under water and above water);
15. A base layer of mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is installed (reinforced concrete protection against the ice pack);
16. A filter layer (zone No. 1 and No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed);
17. A protective (covering) layer (zone No. 1 and No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed);
18. A leveling concrete base layer is installed (reinforced concrete protection against the ice pack);
19. Reinforced concrete protection against the ice carrier is installed;
20. The formation and installation of the dam core from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is carried out from + 0.31 m (+0.18 m) altitude to other reinforced concrete structures;
21. Geotextile is laid parallel to the slope of the formed dam core (above water);
22. A base layer of mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is installed (for communication wells, other reinforced concrete structures);
23. A leveling concrete base layer is installed (for communication wells, other reinforced concrete structures);
24. Communication wells, foundations of lighting supports are installed, communication inserts are brought out;
25. The formation and installation of the dam core from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is carried out up to the altitudes of the pavement rubble foundations (zone No. 3);
26. Geotextile is laid parallel to the slope of the formed dam core (above water);
27. A filter layer (zone No. 2) is installed up to the foundations of reinforced concrete structures (only enough to allow the installation of reinforced concrete structures). After installing the reinforced concrete structures, the remaining part of the filter layer is installed;
28. A protective (covering) layer (zone No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed). After installing the reinforced concrete structures, the remaining part of the protective (covering) layer is installed;
29. Formation and installation of coating bases from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials);
30. Installation of leveling concrete layer;
31. Installation of a coating layer made of concrete with additives, deformation (temperature, crack) joints;
32. Lighting installation;
33. Furnishing works (installation of railings, signs, labeling);
34. Installation of the dam root connection with the shore and green areas.

***Phase I of construction works (construction of the northern dam (First part)).***

1. Ready-to-wear clothing;
2. Preparation of the territory, cutting of vegetation and waste disposal;
3. Track marking;
4. Removal of unstable soil in the area of construction of the southern dam, transportation of soil to the place of removal of soil at sea;
5. Excavation of sandy soil and formation of a trench under water, use of excavated soil in the construction of the northern dam (the trench is formed in the section of the dam where the design depth needs to be reached);

6. Installation of a pinch wall at the root of the dam;
7. A geotextile is laid on the bottom formed for the dam and the bottom of the trench formed underwater;
8. The core of the dam is installed on the laid geotextile. Formation and installation of the dam core is carried out from the bottom to -0.87 m (-1.00 m) altitude (zone No. 1);
9. The formation and installation of the dam core is carried out from -0.87m (-1.00m) altitude to +0.63m (+0.50m) altitude (zone No. 2).
10. Geotextile is laid on the slope of the formed dam core (under water and above water);
11. Sand from the excavation of the southern trench of the dam is used for the construction of the dam;
12. A filter layer (zone No. 1 and No. 2) is installed up to core zone No. 3;
13. A protective (coating) layer (zone No. 1 and No. 2) is installed up to the core zone No. 3.
14. Installation of the dam core up to the base of mineral soil cover (zone No. 3);
15. Protective pipes, navigation sign and gate foundations are installed;
16. Installation of coating made of mineral materials;
17. The installation of the filter layer (zone No. 2) is completed;
18. The installation of the protective layer is completed (zone No. 2);
19. Installation of security gates;
20. Repair and completion of the dam root connection with the shore;
21. Dismantling the construction site, tidying up the territory.

**Phase II of construction works\* (excavated soil storage site installation works)**

1. Preparatory drabs, marking, felling of vegetation and disposal of waste;
  2. Earthworks;
  3. Final arrangement and preparation of the area for soil storage.
- \* can be adjusted depending on the need of the site and the beginning of dredging of the water area.

**Phase II of construction works (construction of the pier).**

1. Preparatory works, construction site installation;
2. Preparation of the territory, cutting of vegetation and waste disposal;
3. Track marking;
4. Removal of unstable soil in the area of pier construction works, removal of soil at sea;
5. Excavation of sandy soil and formation of a trench under water, use of the excavated soil in the construction of the northern dam (the trench is formed in the section of the pier where the design depth needs to be reached);
6. Installation of a squeegee in the structure of the pier;
7. Geotextile is laid parallel to the bottom of the pier and the bottom of the trench;
8. On top of the laid geotextile, pier embankments made of mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) are installed. Formation and installation of the pier embankment is carried out from the bottom to -0.87 m (-1.00 m) altitude (zone No. 1);
9. Formation and installation of pier bed from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is carried out from -0.87 m (-1.00 m) altitude to +0.63 m (+0.50 m);
10. Geotextile (under water and above water) is laid in parallel on the slope of the formed pier embankment;
11. A filter layer (zone No. 1 and No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed);
12. A geotextile is laid parallel to the formed pier embankment (zone no. 2) before the upper part of the pier embankment (zone no. 3) is installed;
13. Installation of a filter geotextile layer on the embankment of the pier;
14. Installation works of the sailors' slip (continued below). In parallel, geotextile is laid underwater on the formed bottom;
15. Installation and installation of a frame made of steel beams on the bottom (under water);

16. Installation of slip base from self-compacting mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) by filling the gaps between the beams, and planning the excess according to the top of the beams;
17. Installation of slip reinforced concrete covering from prefabricated reinforced concrete panels (under water and above water);
18. Installation works of ship slip with travelift (continued below). Installation of a clamp with an anchoring system;
19. A seat for a slip with travelift is formed from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials). The embankment is formed from the bottom to the elevation of the base of the pavement structure, including deep compaction and top compaction.
20. Installation, compaction of the layers of the slip covering structure, including the installation of the slip concrete/reinforced concrete covering.
21. Installation of reinforced concrete superstructure for travelift, including leveling layers, tying of reinforcement, concreting, installation of wheel setbacks and continuous ship setbacks on the perimeter of the superstructure;
22. Technological channel installation. Installation of the reinforced concrete trough of the technological channel along the pier, including compaction of the base, installation of crushed stone base and smoothing concrete layer;
23. Installation of engineering networks channel well at the back of the pier including cast iron manhole, sealing, base compaction, installation of crushed stone base and leveling concrete layer;
24. Installation of engineering networks across the channel from the pier from the well to the technological channel chamber at the pontoon-laid foundation made of plastic pipes;
25. Pier installation works (continues below). Forming and installation of pier embankment (zone no. 3) over pier embankment zone no. 2 to the bottom of the pavement structure including compaction;
26. Installation of a filter layer (zone No. 1) made of mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) from the bottom to an altitude of - 0.87 m (-1.00 m)
27. Installation of a protective layer (zone No. 1) made of mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) from the bottom to - 0.87 m (-1.00 m) altitude;
28. Foundations. Installation works of pontoon limed anchoring foundations. Installation of lighting support foundations;
29. Pier installation works (continues below). . Installation of a filtration layer (zone No. 2) from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) from -0.87 m (-1.00 m) to the top;
30. Installation of a protective layer (zone No. 2) from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) from - 0.87 m (-1.00 m) to the top;
31. Coating installation works. Installation, compaction of pier surface construction layers, including installation of concrete/reinforced concrete pavement of the pier;
32. Final works. At the back of the pier, the installation of access roads and paths from a temporary crushed stone surface, the formation of the slope, including the spreading of the vegetation layer and planting with lawn;
33. Lighting installation;
34. Furnishing works (installation of railings, signs, labeling);
35. Installation (restoration) of green areas;
36. Dismantling the construction site, tidying up the territory.

**Phase III of construction works (construction of the embankment).**

1. Preparatory works, construction site installation;
2. Preparation of the territory, cutting of vegetation and waste disposal;
3. Track marking;

4. Excavation of unstable soil and filling with stable mineral soil;
5. A steel insert (facade) is installed, including connections with sections of the installed insert;
6. A steel insert (anchor wall) is installed;
7. Formation and installation of the coastal area from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is carried out up to the anchoring system (temples);
8. An anchoring system (temples) is installed;
9. A drainage system is installed in the facade wall;
10. The formation and installation of the coastal area from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is carried out up to the altitudes and compaction of the paving rubble foundations;
11. Engineering networks, foundations of engineering networks are installed.
12. A preparatory layer is installed. The installation works of residual formwork, the installation works of finishing reinforced concrete panels are being carried out.
13. The installation and concreting works of the grating reinforcement are being carried out (including the installation and installation of the surface water collection system and other residual formwork (inserts) for communications).
14. Mooring elements are installed: rebounds and mooring posts.
15. Roof construction bases with concrete/reinforced concrete coating are installed;
16. Lighting installation;
17. Furnishing works (installation of railings, signs, labeling);
18. Installation (restoration) of green areas;
19. Dismantling the construction site, tidying up the territory

**Phase IV of construction works (construction of the northern dam (Part II)).**

1. Preparatory works, construction site installation;
2. Track marking;
3. Removal of unstable soil in the area of dam construction works, removal of soil at sea;
4. A geotextile is laid underwater on the formed bottom of the dam and the bottom of the formed trench;
5. The dam core is installed on the laid geotextile. Formation and installation of the dam core is carried out from the bottom to -0.87 m (-1.00m) altitude (zone No. 1);
6. Formation and installation of the dam core is carried out from -0.87 m (-1.00 m) altitude to +0.63m (+0.50 m) altitude (zone No. 2);
7. Geotextile is laid on the slope of the formed dam core (under water and above water);
8. A filter layer (zone No. 1 and No. 2) is installed up to the core zone No. 3);
9. A protective (covering) layer (zone No. 1 and No. 2) is installed up to the core zone No. 3);
10. Installation of the dam core up to the base of the mineral soil cover (zone No. 3);
11. Safety pipes, navigation sign and gate foundations are installed;
12. The installation of coating made of mineral materials;
13. The installation of the filter layer (zone No. 2) is completed;
14. The installation of the protective layer is completed (zone No. 2);
15. Dismantling the construction site, tidying up the territory.

***Indicative sequence schedule of construction works (First stage of construction works).***

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b><u>ESTABLISHMENT WORKS OF TEMPORARY ACCESS ROADS</u></b>																								
1. Preparatory clothes, track marking;	■																							
2. Protection works of existing engineering networks;	■	■																						
3. Earthworks;		■	■																					
4. Installation of temporary ditches and water channels;		■	■	■																				
5. Road embankment installation;		■	■	■																				
6. Installation of road surface layers;			■	■																				
7. Tidying up the territory			■	■																				

***Indicative sequence schedule of construction works (First stage of construction works).***

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b><u>South dam construction works</u></b>																								
1. Preparatory works		■	■																					
2. Preparation of the territory, cutting of vegetation and waste disposal;		■	■																					
3. Track marking;		■	■																					
4. Removal of unstable soil in the construction area of the southern dam, removal of soil at sea.			■	■	■																			
5. Excavation of sandy soil and formation of a trench under water, use of excavated soil in the construction of the northern dam.			■	■	■	■																		
6. A geotextile is laid underwater parallel to the bottom of the dam and the bottom of the trench;			■	■	■	■	■																	
7. The core of the dam is installed on the laid geotextile. Formation and installation of the dam core is carried out from the bottom to -0.87 m (-1.00) altitude (zone No. 1)			■	■	■	■	■	■																
8. Places for installation of culverts are formed in parallel;				■	■																			
9. Installation of the culvert base.				■	■																			
10. Assembling conduits from corrugated sheet profile sheets, floating and placing (installation) in project planned positions				■	■	■	■																	
11. Filling of culverts with mineral material of the self-compacting fraction and/or their mixture according to the installation rules and/or recommendations of the culvert manufacturer;				■	■	■	■	■																
12. Covering (separation) of the mineral material of the self-compacting fraction and/or its mixture with a geotextile layer;				■	■	■	■	■																

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>South dam construction works</b>																								
13. Installation of the dam core from -0.87 m (-1.00 m) altitude to +0.31 m (+0.18) altitude (zone No. 2)																								
14. Geotextile is laid parallel to the slope of the formed dam core (under water and above water);																								
15. A base layer of mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is installed (reinforced concrete for protection against the ice pack);																								
16. A filter layer (zone No. 1 and No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed);																								
17. A protective (covering) layer is installed (zone No. 1 and No. 2) up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed);																								
18. A leveling concrete base layer is installed (reinforced concrete for protection against the ice pack);																								
19. Reinforced concrete protection against the ice pack is installed;																								
20. Installation of the dam core from +0.31 m (+0.18 m) altitude to other reinforced concrete structures.																								
21. Geotextile is laid parallel to the slope of the formed dam core (above the water);																								
22. The base layer is installed (for communication wells, other reinforced concrete structures)																								
23. A leveling concrete base layer is installed (for communication wells, other reinforced concrete structures);																								
24. Communication wells, foundations of lighting supports are installed, communication inserts are brought out;																								
25. Installation of the dam core up to the altitudes of foundations of the roofing rubble (zone No. 3)																								
26. Geotextile is laid parallel to the slope of the formed dam core (above the water);																								
27. A filter layer (zone No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed). After installing the reinforced concrete structures, the remaining part of the filter layer is installed;																								
28. A protective (covering) layer (zone No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed). After installing the reinforced concrete structures, the remaining part of the protective (covering) layer is installed;																								
29. Formation and installation of coating bases from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials);																								
30. Installation of leveling concrete layer;																								

**PREPARATION FOR CONSTRUCTION AND CONSTRUCTION WORKS PART**

**EXPLANATORY NOTE**

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b><i>South dam construction works</i></b>																								
31. Installation of a coating layer made of concrete with additives, deformation (temperature, crack) joints;																								
32. Lighting installation;																								
33. Furnishing works (installation of railings, signs, labeling);																								
34. Repair and completion of the dam root connection with the shore.																								

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b><i>North dam construction works (Part I)</i></b>																								
1 Preparatory works, construction site installation;																								
2. Preparation of the territory, cutting of vegetation and waste disposal;																								
3. Track marking																								
4. Removal of unstable soil in the construction area of the northern dam, disposal of soil into the sea;																								
5. Excavation of sandy soil and formation of a trench under water, use of soil in the construction of a dam;																								
6. Installation of a pinch wall at the root of the dam;																								
7. A geotextile is laid underwater parallel to the bottom of the dam and the bottom of the trench;																								
8. The core of the dam is installed on the laid geotextile. Formation and installation of the dam core is carried out from the bottom to -0.87 m (-1.00) altitude (zone No. 1);																								
9. Formation and installation of the dam core is carried out from -0.87 m (-1.00 m) altitude to +0.63 m (+0.50m) altitude (zone No. 2);																								
10. Geotextile is laid parallel to the slope of the formed dam core (under water and above water);																								
11. Sand from the excavation of the southern dam trench is used for construction																								
12. A filter layer (zone No. 1 and No. 2) is installed up to the core zone No. 3																								
13. A protective (coating) layer (zone No. 1 and zone No. 2) is installed up to the core zone No. 3																								
14. Installation of the dam core up to the base of the mineral soil cover (zone No. 3)																								
15. Protective pipes, navigation sign and gate foundations are installed;																								
16. Installation of coating made of mineral materials;																								
17. The installation of the filter layer (zone No. 2) is completed;																								
18. The installation of the protective layer is completed (zone No. 2);																								
19. Installation of security gates;																								
20. Repair and completion of the dam root connection with the shore;																								
21. Dismantling the construction site, tidying up the territory;																								

**Notes:**

1. *An indicative construction work performance (time) schedule has been prepared, which can be changed and must be revised during the preparation of the construction work technology project (STDP).*
2. *It should be noted that existing engineering networks are laid in the area of the dam. Before the start of construction work, underground communication routes must be marked on the spot and work can be carried out in their protective zone only with the participation of representatives of the organizations operating the communication.*
3. *During the period of fish spawning migration, dredging works in the water area of Klaipėda State Seaport are limited in accordance with the 1997 Regulation of the Ministry of Environmental Protection of the Republic of Lithuania. April 17 by order no. 67 "On the assessment of the impact of the dredging of the Klaipėda harbor on fisheries".*
4. *In order not to cause a negative impact on the established or potential "Natura 2000" territories, it is planned not to carry out the dredging of the harbor water area during the migration periods of protected fish through the Klaipėda Strait: from April 15. until June 15 and from August 16 until October 31*
5. *Greenery should be removed in accordance with the Law on Greenery of the Republic of Lithuania.*

Before starting the construction, it is necessary to review and assess the environmental elements of the construction zone that may have changed.

***Indicative sequence schedule of construction works (Second stage of construction works).***

Indicative implementation of construction works (in months)						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b><u>INSTALLATION WORKS OF EXCAVATED SOIL STORAGE AREA</u></b>																							
1. Preparatory drabs, marking, felling of vegetation and waste disposal;																							
2. Earthworks;																							
3. Final arrangement and preparation of the area for soil storage.																							

***Indicative sequence schedule of construction works (II stage of construction works).***

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b><i>PIER CONSTRUCTION WORKS</i></b>																		
1. Preparatory works, installation of the construction site;	■	■																
2. Preparation of the territory, cutting of vegetation and waste disposal;	■	■																
3. Track marking;																		
4. Removal of unstable soil in the area of wharf construction works, soil transportation by water up to 1 km away, dumping in the water area;	■	■	■	■														
5. Excavation of soil and formation of a trench under water, transportation of soil by water up to a distance of 1 km, dumping in the water area (the trench is formed in the section of the dam where the design depth needs to be reached);		■	■	■	■													
6. Installation of a culvert in the structure of the pier;			■	■	■	■												
7. A geotextile is laid underwater parallel to the bottom of the pier and the bottom of the trench;			■	■														
8. Pier embankments are installed on the laid geotextile. Formation and installation of the pier embankment is carried out from the bottom to -0.87m (-1.00) altitude (zone No. 1);			■	■	■	■	■	■	■									
9. The formation and installation of the pier bed from mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) is carried out from an altitude of -0.87 m (-1.00 m) to +0.63 m (+0.50 m);			■	■	■	■	■	■	■									
10. Geotextile is laid parallel to the slope of the formed pier embankment (under water and above water);			■	■	■	■	■	■	■									
11. A filter layer (zone No. 1 and No. 2) is installed up to the foundations of reinforced concrete structures (only to the extent that reinforced concrete structures can be installed);							■	■	■	■								
12. A geotextile is laid parallel to the formed pier embankment (zone No. 2) before the upper part of the pier embankment (zone No. 3) is installed;							■	■	■	■	■							
13. Installation of a filter geotextile layer on the pier bed;									■	■								
14. Installation works of sailors' slip (continued below). In parallel, geotextile is laid underwater on the formed bottom;			■	■														
15. Installation and installation of a frame made of steel beams on the bottom (under water);			■	■														
16. Installation of the slip base from self-compacting mineral (natural and/or artificial) materials and/or their mixtures (unsorted materials) by filling the gaps between the beams, and planning the excess according to the top of the beams;			■	■	■	■												
17. Installation of slip reinforced concrete covering from prefabricated reinforced concrete panels (under water and above water);						■	■	■										
18. Ship slip installation works with travelift (continued below). Installation of a clamp with an anchoring system;			■	■	■	■												
19. A bed for a slip with travelift is formed. Bedrock is formed from the bottom to the elevations of the base of the pavement structure, including deep compaction and top compaction;						■	■											

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b><u>PIER CONSTRUCTION WORKS</u></b>																		
20. Installation, compaction of the layers of slip coating construction, including installation of slip concrete/reinforced concrete coating;																		
21. Installation of a reinforced concrete superstructure for travelift, including leveling layers, tying of reinforcement, concreting, installation of wheel setbacks and continuous ship setbacks on the perimeter of the superstructure;																		
22. Technological channel installation. Installation of the reinforced concrete trough of the technological channel along the pier, including compaction of the base, installation of crushed stone base and smoothing concrete layer;																		
23. Installation of engineering networks channel well at the back of the wharf, including cast-iron manhole, sealing, base compaction, installation of gravel base and smoothing concrete layer;																		
24. Installation of engineering networks channel across the wharf from the well to the technological channel chamber at the pontoon piled foundation made of plastic pipes;																		
25. Pier installation works (continued below). Forming and installation of pier embankment (zone no. 3) over pier embankment zone no. 2 to the bottom of the pavement structure including compaction;																		
26. Installation of a filtration layer (zone No. 1) from the bottom to - 0.87 m (-1.00 m) altitude;																		
27. Installation of a protective layer (zone No. 1) from the bottom to - 0.87 m (-1.00 m) altitude;																		
28. Foundations. Installation works of pontoon limed anchoring foundations. Installation of lighting support foundations;																		
29. Installation of a filtration layer (zone No. 2) from -0.87 m (-1.00 m) to the top;																		
30. Pier installation works (continued below). Installation of a protective layer (zone No. 2) from -0.87 m (-1.00 m) to the top;																		
31. Coating installation works. Installation, compaction of pier surface construction layers, including installation of concrete/reinforced concrete pavement of the pier;																		
32. Final works. At the back of the pier, the installation of access roads and paths made of temporary crushed stone, slope formation, including the spreading of the vegetation layer and planting with lawn;																		
33. Lighting installation;																		
34. Furnishing works (installation of railings, signs, labeling);																		
35. Installation (restoration) of green areas;																		
36. Dismantling the construction site, tidying up the territory																		

**Notes:**

1. An indicative construction work performance (time) schedule has been prepared, which can be changed and must be revised during the preparation of the construction work technology project (STDP).
2. It should be noted that existing engineering networks are laid in the pier area. Before the start of construction work, underground communication routes must be marked on the spot and work can be carried out in their protective zone only with the participation of representatives of the organizations operating the communication.
3. During the period of fish spawning migration, dredging works in the water area of Klaipėda State Seaport are limited in accordance with the 1997 Regulation of the Ministry of Environmental Protection of the Republic of Lithuania. April 17 by order no. 67 "On the assessment of the impact of the dredging of the Klaipėda harbor on fisheries".

4. *In order not to cause a negative impact on the established or potential "Natura 2000" territories, it is planned not to carry out the dredging of the harbor water area during the migration periods of protected fish through the Klaipėda Strait: from April 15. until June 15 and from August 16 until October 31*
5. *Greenery should be removed in accordance with the Law on Greenery of the Republic of Lithuania.*

Before starting the construction, it is necessary to review and assess the environmental elements of the construction zone that may have changed.

***Indicative sequence schedule of construction works (Third stage of construction works).***

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12
<b><i>COASTAL CONSTRUCTION WORKS</i></b>												
1. Preparatory works, installation of the construction site;	█											
2. Preparation of the territory, cutting of vegetation and waste disposal;	█											
3. Track marking;	█											
4. Removal of unstable soil in the construction area of the southern dam, transportation of soil by water up to a distance of 1 km, dumping in the water area;	█											
5. A steel insert (facade) is installed, including connections with sections of the installed insert;		█	█	█	█							
6. A steel insert (anchor wall) is installed;			█	█	█	█						
7. Installation of the coastal area up to the anchoring system (temples);				█	█	█						
8. An anchoring system (temples) is installed;					█	█	█					
9. A drainage system is installed in the facade wall;					█							
10. Installation of the coastal are up to the altitudes of the rubble foundations and compaction;					█	█	█					
11. Engineering networks, foundations of engineering networks are installed;						█	█	█				
12. Remaining formwork installation works, finishing reinforced concrete slabs installation works are being carried out;					█	█	█	█	█			
13. The preparatory layer is installed. The installation and concreting works of the grating reinforcement are being carried out (including the installation and installation of the surface water collection system and other residual formwork (inserts) for communications;						█	█	█	█	█	█	
14. Mooring elements to be installed: counters and mooring columns;										█	█	
15. The foundations of the roof structure with concrete/reinforced concrete coating are installed;										█	█	█
16. Lighting installation;											█	█
17. Furnishing works (installation of railings, signs, labeling);											█	█
18. Installation (restoration) of green areas;											█	█
19. Dismantling the construction site, tidying up the territory;												█

**Notes:**

1. An indicative construction work performance (time) schedule has been prepared, which can be changed and must be revised during the preparation of the construction work technology project (STDP).
2. During the period of fish spawning migration, dredging works in the water area of Klaipėda State Seaport are limited in accordance with the 1997 Regulation of the Ministry of Environmental Protection of the Republic of Lithuania. April 17 by order no. 67 "On the assessment of the impact of the dredging of the Klaipėda harbor on fisheries".
3. In order not to cause a negative impact on the established or potential "Natura 2000" territories, it is planned not to carry out the dredging of the harbor water area during the migration periods of protected fish through the Klaipėda Strait: from April 15. until June 15 and from August 16 until October 31
4. Greenery should be removed in accordance with the Law on Greenery of the Republic of Lithuania.

Before starting the construction, it is necessary to review and assess the environmental elements of the construction zone that may have changed.

***Indicative sequence schedule of construction works (Fourth stage of construction works)***

Indicative implementation of construction works (in months)	1	2	3	4	5	6	7	8	9	10	11	12
<b><i>CONSTRUCTION WORKS OF THE NORTH DAM (PART II)</i></b>												
1. Preparatory works, installation of the construction site;	■	■										
2. Track marking;		■	■	■	■	■	■	■	■	■	■	■
3. Removal of unstable soil in the dam construction area, removal of soil into the sea		■	■	■	■	■	■	■	■	■	■	■
4. A geotextile is laid parallel to the bottom formed for the dam and the bottom of the trench formed underwater;				■	■	■	■	■	■	■	■	■
5. The dam core is installed on the laid geotextile. Formation and installation of the dam core is carried out from the bottom to -0.87m (-1.00m) altitude (zone No. 1);					■	■	■	■	■	■	■	■
6. Formation and installation of the dam core is carried out from -0.87m (-1.00m) altitude to +0.63m (+0.50) altitude (zone No. 2)						■	■	■	■	■	■	■
7. Geotextile is laid parallel to the slope of the formed dam core (under water and above water)						■	■	■	■	■	■	■
8. A filter layer (zone No. 1 and No. 2) is installed up to the core zone No. 3)						■	■	■	■	■	■	■
9. A protective (covering) layer (zone No. 1 and No. 2) is installed up to the core zone No. 3						■	■	■	■	■	■	■
10. Installation of the dam core up to the base of the mineral soil cover (zone No. 3)						■	■	■	■	■	■	■
11. Protective pipes, navigation sign, lamp foundations are installed;								■	■	■	■	■
12. Installation of coating made of mineral materials;								■	■	■	■	■
13. Finishing installing the filter layer (zone No. 2)										■	■	■
14. Finishing installing the protective layer (zone No. 2)										■	■	■
15. Dismantling the construction site, tidying up the territory											■	■

**Pastabos:**

1. An indicative construction work performance (time) schedule has been prepared, which can be changed and must be revised during the preparation of the construction work technology project (STDP).
2. During the period of fish spawning migration, dredging works in the water area of Klaipėda State Seaport are limited in accordance with the 1997 Regulation of the Ministry of Environmental Protection of the Republic of Lithuania. April 17 by order no. 67 "On the assessment of the impact of the dredging of the Klaipėda harbor on fisheries".
3. In order not to cause a negative impact on the established or potential "Natura 2000" territories, it is planned not to carry out the dredging of the harbor water area during the migration periods of protected fish through the Klaipėda Strait: from April 15. until June 15 and from August 16 until October 31
4. Greenery should be removed in accordance with the Law on Greenery of the Republic of Lithuania.

Before starting the construction, it is necessary to review and assess the environmental elements of the construction zone that may have changed.

## 27. DIVISION OF CONSTRUCTION IN STAGES

**SOUTH DAM** – FIRST PHASE OF CONSTRUCTION WORKS (CONSTRUCTION OF A NEW STRUCTURE);  
**NORTH DAM (I PART)** – FIRST PHASE OF CONSTRUCTION WORKS (CONSTRUCTION OF A NEW STRUCTURE);  
**HARBOR** – SECOND PHASE OF CONSTRUCTION WORKS (CONSTRUCTION OF A NEW STRUCTURE);  
**WATERFRONT** – THE THIRD PHASE OF CONSTRUCTION WORKS (CONSTRUCTION OF A NEW STRUCTURE);  
**NORTH DAM (II PART)** – FOURTH PHASE OF CONSTRUCTION WORKS (CONSTRUCTION OF A NEW STRUCTURE)

## 28. THE INFLUENCE OF SEASONALITY OF WORKS

Depending on the building being built and the availability of building materials, continuous construction work can be carried out at all times of the year.

The continuous execution of construction works, regardless of seasonality, directly depends on the Contractor, and the construction work implementation project (SDTP) prepared by the Contractor, the construction work schedule and compliance with this work schedule (on-time construction work).

## 29. HYDRAULIC OR OTHER TEST DURATION

The requirements and duration of all necessary hydraulic and other tests are specified in the water supply and sewage disposal part of this project (8858-00-TP-VN-05.01).

## 30. NECESSARY TECHNOLOGICAL BREAKS

The construction works of dams, piers and quays are relatively complex and require unusual construction technology. The contractor must assess the current situation while performing the work in order to ensure all safety and environmental requirements.

The execution of the works provided for in the project may be delayed or completely stopped in exceptional cases adverse weather conditions.

For dam construction works, the technological process is considered to be carried out in exceptionally unfavorable meteorological conditions:

- air temperature lower than -10° C;
- average daily wind speed greater than 15 m/s;
- wave height  $\geq 1.0$  m;
- the ice-carrier.

There are no mandatory and necessary technological breaks during the execution of quay and pier construction works. The requirements for concreting work in positive and negative air temperatures are indicated in the structural parts of this project (8858-00-TP-SK-04.01; 8858-00-TP-SK-04.02; 8858-00-TP-SK-04.03).

## 31. RESTRICTION OF CONSTRUCTION OR PARTIAL CONSERVATION, ETC.

All newly built structures are divided into three stages of construction work, therefore, restrictions on construction work or partial conservation and other actions are not foreseen in the scope of the project.

Dredging of the harbor area is limited:

1. *During the period of fish spawning migration, dredging works in the water area of Klaipėda State Seaport are limited in accordance with the 1997 Regulation of the Ministry of Environmental Protection of the Republic of Lithuania. April 17 by order no. 67 "On the assessment of the impact of the dredging of the Klaipėda harbor on fisheries".*
2. *In order not to cause a negative impact on the established or potential "Natura 2000" territories, it is planned not to carry out the dredging of the harbor water area during the migration periods of protected fish through the Klaipėda Strait: from April 15. until June 15 and from August 16 until October 31*

### **32. SPECIAL REQUIREMENTS FOR THE TECHNOLOGY OF UNUSUAL CONSTRUCTION WORKS**

The contractor is responsible for the selection of construction work technologies and methods and the organization of construction work in such a way as to maintain the essential requirements of the building, environmental protection, work safety and other requirements set forth in relevant legal acts of the Republic of Lithuania. The "Technical specifications" sections of the parts of this project contain requirements for construction materials and execution of works.

### **33. THE PROCEDURE FOR THE ORGANIZATION AND EXECUTION OF TECHNICAL MAINTENANCE OF STRUCTURAL CONSTRUCTION (REQUIREMENTS FOR THE COMPOSITION AND QUALIFICATIONS OF THE TECHNICAL MAINTENANCE GROUP OF STRUCTURAL CONSTRUCTION, PERIODICITY OF TECHNICAL MAINTENANCE OF STRUCTURAL CONSTRUCTION AND SCOPE OF WORK, SPECIFIED IN HOURS)**

Technical maintenance qualification requirements are presented in the General Technical Specification of the General Part (8858-00-TP-BD.BTS). The procedure for the organization and execution of technical maintenance of the structure is carried out based on STR 1.06.01:2016.

Minimum visit of technical maintenance of structural construction to the object during construction works - at least twice a week<sup>5</sup>.

According to STR 1.04.04:2017, point 46.161 of Appendix 8, the periodicity and scope of work of technical maintenance of structural construction, in hours, is presented in Table 33.1, in accordance with Appendix 18 of this regulation Calculation of time for technical maintenance of structural construction.

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<sup>5</sup>According to STR 1.06.01:2016 "Construction works. Supervision of construction of a structure", Section VII Technical supervision of construction of a structure, procedure for technical supervision of the construction of a structure of the fourth section, 108.11. point The technical supervisor of structural construction (general technical maintenance manager of structural construction) must be at the construction site at the start of each new technological process of construction work and during it at least 2 times a week. **Note.** However, the Customer, in the works contract for the performance of technical maintenance, may stipulate other requirements for contractors when performing certain works, such as the installation of asphalt pavement.

**Table 33.1.** Calculation of technical maintenance working hours for technical maintenance of the building construction

Row no.	Title	Minimal number of hours	Distances, km / unit	A minimum number of hours is recommended
1	2	3	4	5
<b>FIRST PHASE OF CONSTRUCTION WORKS(SOUTH DAM AND NORTH DAM I PART)</b>				
<b>TECHNICAL SUPERVISION OF THE CONSTRUCTION OF WATER PORT BARRELS</b>				
1.	Examination of the project	20	2	40
2.	South dam (100 m long)	142	1.3 km	1846
3.	North dam (100 m long)	142	0.575 km	817
4.	Superstructure of the southern dam	36	1.3 km	468
5.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	24 months	288
6.	Metal prefabricated culvert	66	9 pcs.	594
7.	Verification of the geodetic photograph of the South Dam	12	1 pc.	12
8.	Verification of the geodetic photo of the North Dam	12	1 pc.	12
9.	Graduation Committee	24	1	24
<b>TECHNICAL SUPERVISION OF ENGINEERING NETWORKS CONSTRUCTION</b>				
1.	Project examination (one kilometer long engineering network)	18	1.875 km	42
2.	South dam, engineering network (one kilometer long)	40	1.3 km	52
3.	North dam, engineering network (one kilometer long)	40	0.575 km	23
4.	Engineering network tests	8	1.875 km	19
5.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	6 months	72
6.	South dam, geodetic survey (one kilometer long)	12	1	12
7.	North dam, geodetic survey (one kilometer long)	12	1	12
8.	Graduation Committee	24	2	48
	<b>In total, for the technical maintenance of the construction of other transport structures</b>			<b>4381</b>

**Table 33.1.** Calculation of technical maintenance working hours for technical maintenance of the building construction

<b>SECOND PHASE OF CONSTRUCTION WORKS(PIER)</b>				
<b>TECHNICAL SUPERVISION OF THE CONSTRUCTION OF WATER PORT BARRELS</b>				
1.	Examination of the project	20	1	20
2.	Pier (100 m long)	142	0.67 km	952
3.	Technological channel of the pier	36	0.67 km	242
4.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	15 months	180
5.	Checking the geodetic photo	12	1 pc.	12
6.	Graduation Committee	24	1	24
<b>TECHNICAL SUPERVISION OF ENGINEERING NETWORKS CONSTRUCTION</b>				
1.	Project examination (one kilometer long engineering network)	18	0.67 km	12
2.	Pier engineering network (one kilometer long)	40	0.67 km	27
3.	Engineering network tests	8	0.67 km	6
4.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	2 months	24
5.	Checking the geodetic photo (one kilometer long)	12	1	12
6.	Graduation Committee	24	1	24
	<b>In total, for the technical maintenance of the construction of other transport structures</b>			1535

**Table 33.1.** Calculation of technical maintenance working hours for technical maintenance of the building construction

<b>THE THIRD PHASE OF CONSTRUCTION WORKS(COAST)</b>				
<b>TECHNICAL SUPERVISION OF THE CONSTRUCTION OF WATER PORT BARRELS</b>				
1.	Examination of the project	20	1	20
2.	Quay (100 m long)	142	0.123 km	175
3.	Quay superstructure	36	0.123 km	45
4.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	12 months	144
5.	Checking the geodetic photo	12	1 pc.	12
6.	Graduation Committee	24	1	24
<b>TECHNICAL SUPERVISION OF ENGINEERING NETWORKS CONSTRUCTION</b>				
1.	Project examination (one kilometer long engineering network)	18	0.123 km	3
2.	Engineering network (one kilometer long)	40	0.123 km	5
3.	Engineering network tests	8	0.123 km	1
4.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	1 month	12
5.	Checking the geodetic photo (one kilometer long)	12	1	12
6.	Graduation Committee	24	1	24
<b>In total, for the technical maintenance of the construction of other transport structures</b>				477

**33.1 Table.** Calculation of technical maintenance working hours for technical maintenance of the building construction

Row No.	Title	Minimal number of hours	Distances, km / unit	A minimum number of hours is recommended
1	2	3	4	5
<b>FOURTH PHASE OF CONSTRUCTION WORKS (NORTH DAM (II PART))</b>				
<b>TECHNICAL SUPERVISION OF THE CONSTRUCTION OF WATER PORT BARRELS</b>				
10.	Examination of the project	20	1	20
11.	North dam (100 m length)	142	0,42 km	596
12.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	12 months	144
13.	Checking the geodetic photo of north dam	12	1 vnt.	12
14.	Graduation Committee	24	1	24
<b>TECHNICAL SUPERVISION OF ENGINEERING NETWORKS CONSTRUCTION</b>				
9.	Project examination (one kilometer long engineering network)	18	0,42 km	8
10.	North dam, engineering network (one kilometer long)	40	0,42 km	17
11.	Engineering network tests	8	0,42 km	4
12.	Management of documentation (hidden works, management of construction product compliance documents, construction logs, signing of acts)	12	3 months	36
13.	North dam, checking the geodetic photo (one kilometer long)	12	1	12
14.	Graduation Committee	24	1	24
	<b>In total, for the technical maintenance of the construction of other transport structures</b>			<b>897</b>

#### **34. A CONSTRUCTION SITE PLAN WITH INDIVIDUAL SOLUTIONS FOR THE ORGANIZATION OF CERTAIN CONSTRUCTION WORKS**

See the solutions in the drawings of this part of the project.

#### **35. MANDATORY NOTES ON THE PREPARATION OF THE TECHNOLOGY PROJECT OF CONSTRUCTION WORKS**

The technological project of construction works is a technical document that determines the requirements for the construction of a specific structure as a technological process, indicates the ways and methods of implementing the structural project, and provides for specific solutions and measures that ensure the safety and health of employees. It is mandatory: during the construction, reconstruction or capital repair of special structures, structures in protected areas, structures in protection zones established by laws and Government resolutions, as well as when carrying out construction work in difficult conditions, in the territories of an operating company (another object) or operating engineering networks and communication communications, and for third parties on plots belonging to individuals, performing earthworks next to existing structures.

The construction work technology project must be prepared by the contractor or, upon his assignment, the construction manager of the structure before the start of construction work.

When preparing a technology project for construction works, it is mandatory to follow the construction project, technical project solutions, construction technical regulations, company construction rules and other valid normative documents. The design of the technology of construction works must include specific solutions for ensuring the safety and health of workers<sup>6</sup>.

The composition of the construction work technology project is provided in the Construction Technical Regulation STR 1.06.01:2016 "Construction work. Building construction supervision in Annex 3.

#### **36. REFERENCE ON THE NEED FOR TECHNICAL EXPERTISE OF THE SPECIFIC CONSTRUCTION WORK TECHNOLOGY PROJECT**

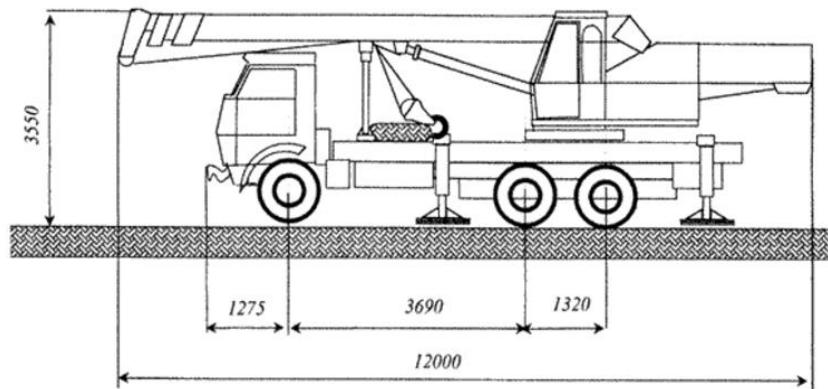
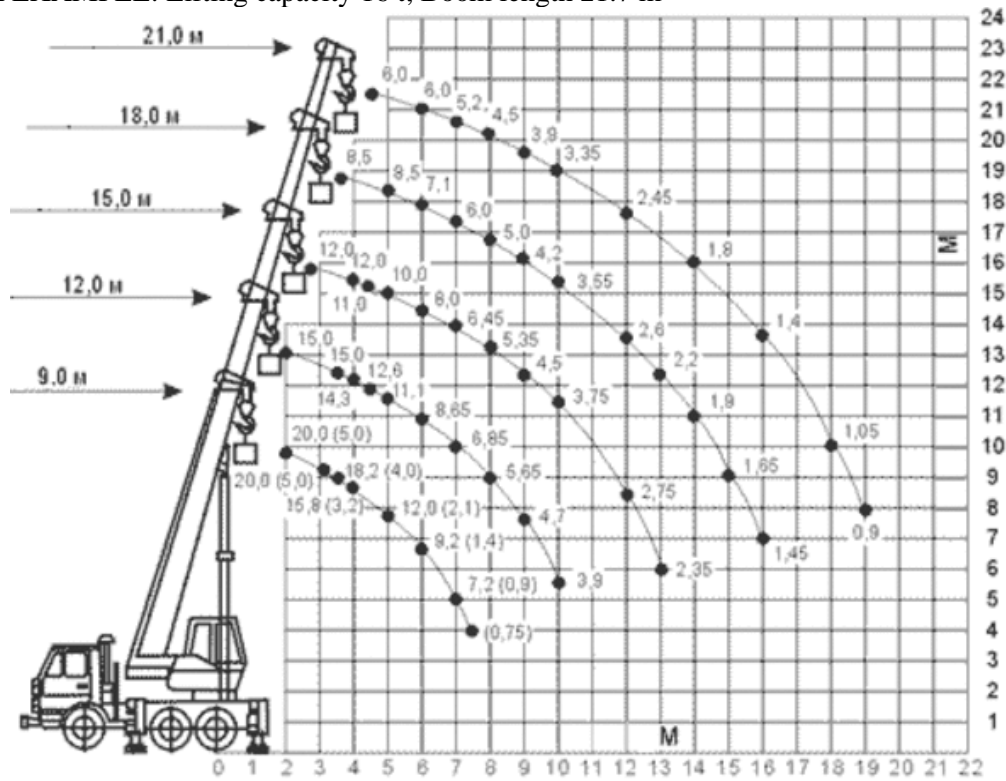
The project does not include any specific works. Specific expertise in the design of construction clothing technology is not required.

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<sup>6</sup>The State Territorial Planning and Construction Inspectorate (VTPSI) notes that these decisions cannot be references or excerpts from occupational safety and health legislation and normative documents.

Annex no. 1

TECHNICAL CHARACTERISTICS OF THE MOBILE CRANE.  
 FOR EXAMPLE: Lifting capacity 16 t; Boom length 21.7 m



0	2024-03	For construction permit, tender		
SHOW	DATE	SHOW STATUS. REASON FOR CHANGE (IF APPLICABLE)		
Designer	Qualification document no.	Duties	Name surname	Signature
UAB "Kelprojektas"				

1

2

3

4

A

## EXPLOITATION

A

NO.	NAME OF STRUCTURE	PURPOSE OF STRUCTURE	CATEGORY OF STRUCTURE	CONSTRUCTION TYPE	CONSTRUCTION STAGE
01	SOUTHERN DAM	COMMUNICATIONS - WATER PORT STRUCTURES (8.5) (DAMS)	NON EXCEPTIONAL	CONSTRUCTION OF A NEW STRUCTURE	FIRST
02	NORTHERN DAM	COMMUNICATIONS - WATER PORT STRUCTURES (8.5) (DAMS)	NON EXCEPTIONAL	CONSTRUCTION OF A NEW STRUCTURE	FIRST FOURTH
03	WHARF	COMMUNICATIONS - WATER PORT STRUCTURES (8.5) (PIERS)	NON EXCEPTIONAL	CONSTRUCTION OF A NEW STRUCTURE	SECOND
04	QUAY	COMMUNICATIONS - WATER PORT BUILDINGS (8.5) (WHARES)	NON EXCEPTIONAL	CONSTRUCTION OF A NEW STRUCTURE	THIRD

B

B

C

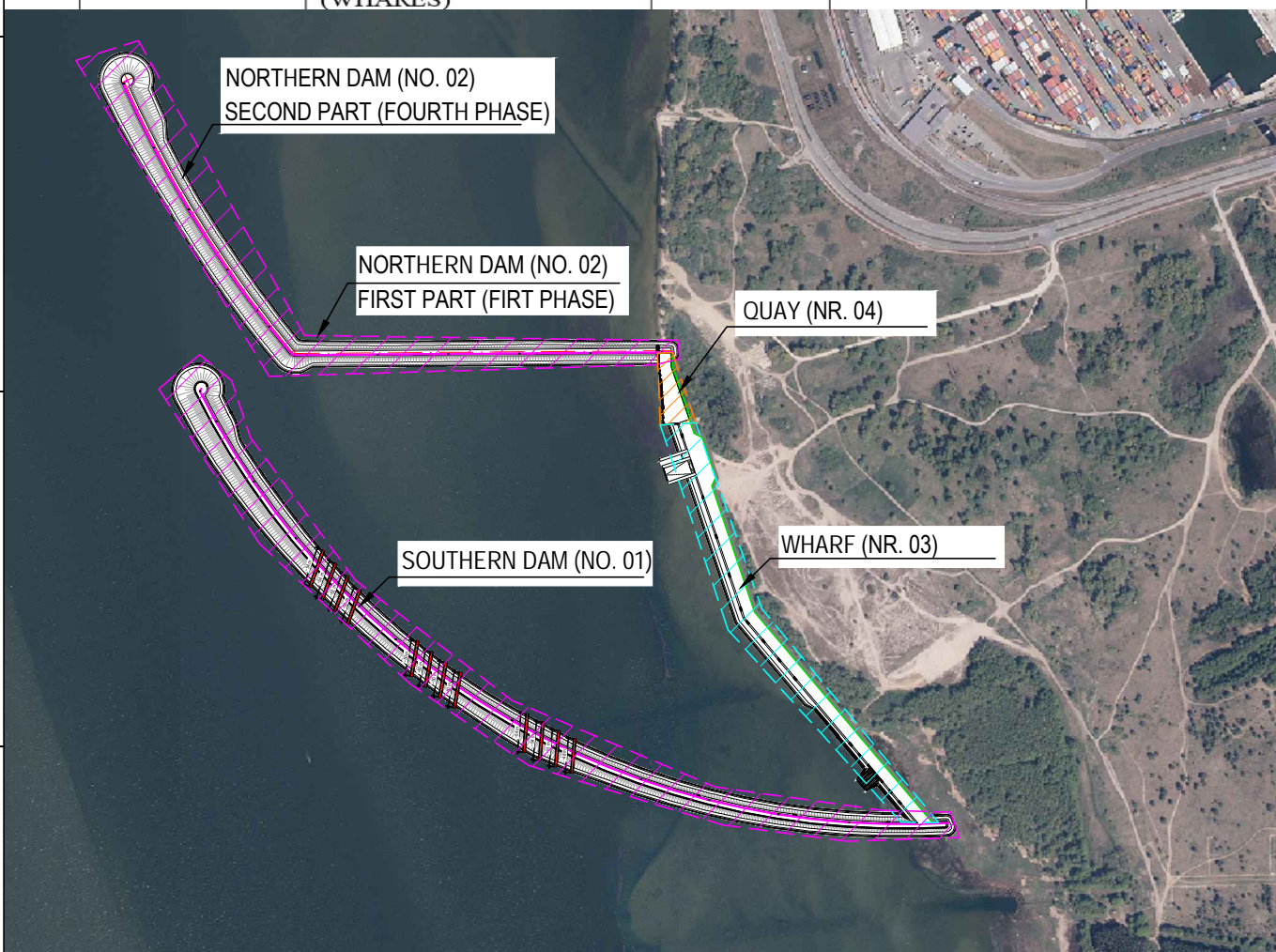
C

D

D


E

E



F

F

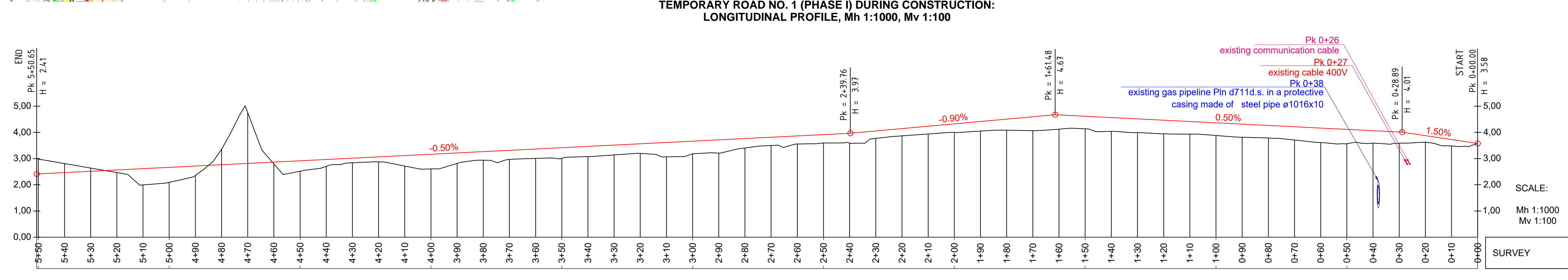
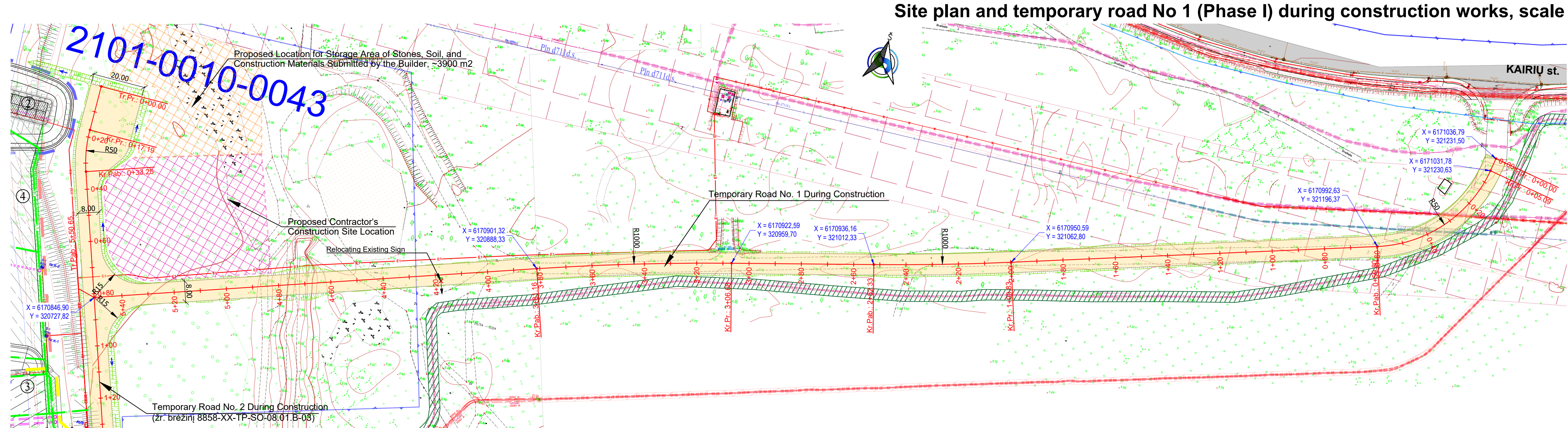
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REVISION	DATE	SHOW STATUS. REASON FOR CHANGE (IF APPLICABLE)		
QUAL. DOC. NO.			NAME OF PROJECT Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Kairiai str. 17, Klaipėda, construction project	
39928	BPM	R.Valančius	DESIGN NUMBER AND TITLE All buildings - No. XX	
			DOCUMENT TITLE Situation diagram	
EN	BUILDER AND/OR CLIENT AB Klaipėda State Seaport Authority J. Janonio st. 24, LT-92251 Klaipėda		DOCUMENT MARK 8858-XX-TP-SO-07.01-B-01	SHEET 1
			SHEETS 1	

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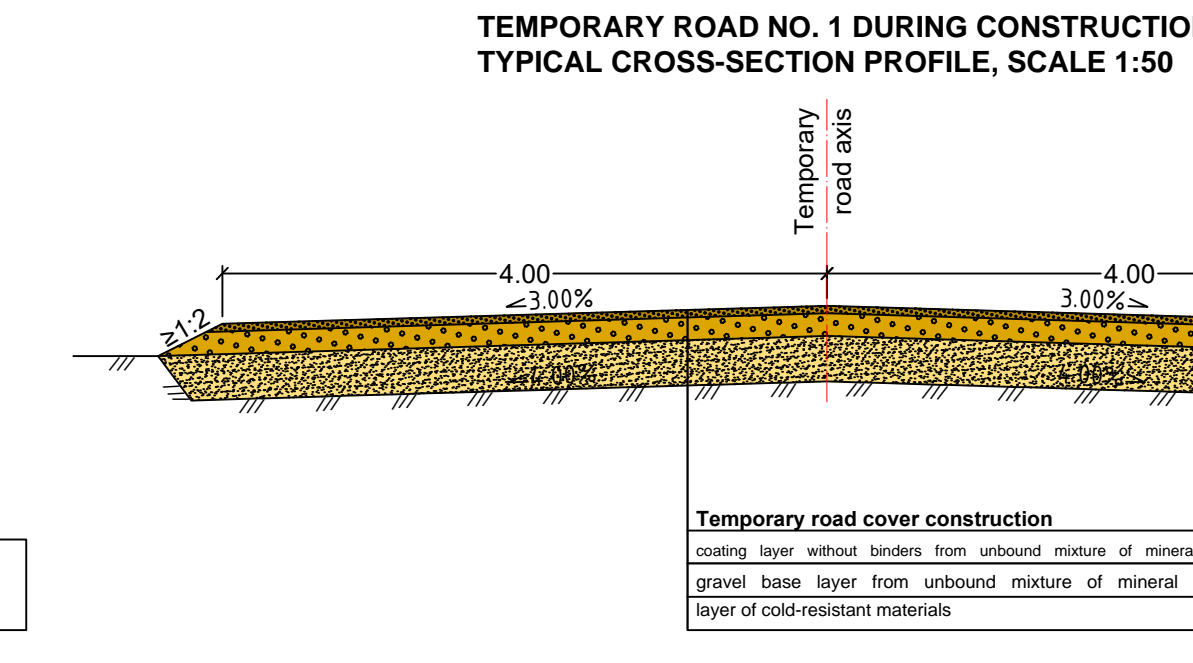
2

3

4



- ### LEGEND
- Proposed Location for the Contractor's Construction Site Area
  - Proposed Location for Soil and Construction Material Storage Area
  - Temporary Road Axis Design
  - Temporary Road Surface Design
  - Temporary Road Embankment Design
  - The boundaries of land plots
  - I building phase
  - II building phase
  - III building phase
  - Communications cable protection zone (1 metre each way from cable axis)
  - Main gas pipeline protection zone (25 meters each way from pipeline axis)
  - Underground electric cable protection zone (on land - 1 metre each way from cable axis, in the water - 100 metre each way from cable axis)
  - State zone of protected areas
  - RAIN cable protection zone (1 meter on both sides from the axis of the cable)
  - Main gas pipeline 3 area boundary of the area class (200 metre each way from pipeline axis)
  - Limit of chemical pollution of water body protection zones
  - Area of forest land
  - Design of Electrical Cable Line
  - Design of Lighting Cable Line
  - Designing a Well of RKŠ-2 Type with Heavy-Duty Slide
  - Designing Lighting Control Panel AVS
  - Design of Surface Sewer Network
  - Design of Surface Sewer Inspection Well

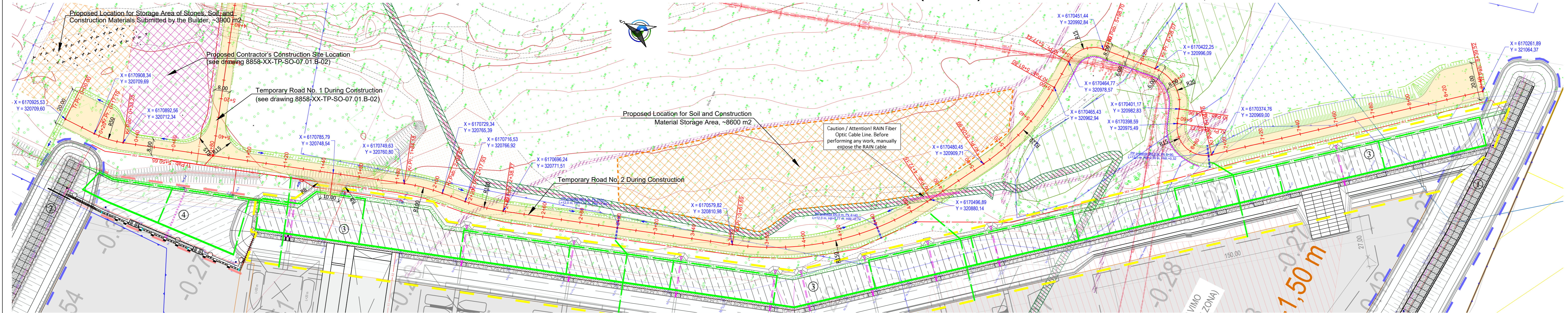


- ### CONTRACTOR'S CONSTRUCTION SITE AGREED SYMBOLS
- I. EMPLOYEE FACILITIES
  - II. WAREHOUSE
  - III. TOILETS
  - IV. GUARD ROOM
  - V. EMPLOYEE VEHICLE PARKING AREA
  - VI. MATERIAL STORAGE AREA
  - VII. MECHANICAL EQUIPMENT PARKING AREA
  - VIII. SMOKING AREA
  - IX. CONSTRUCTION WASTE STORAGE AREA
  - HOUSEHOLD WASTE CONTAINERS
  - DOORS
  - ELECTRICAL SWITCHES
  - FIRE SUPPRESSION SHIELD
  - LIGHTS
  - INFORMATION PANEL
  - EVACUATION ROUTES
  - WHEEL WASHING POINT

- ### CONTRACTOR'S CONSTRUCTION SITE LAYOUT RECOMMENDATION
- 
- NOTES:**
1. UNTIL THE START OF MAIN WORKS, IT IS NECESSARY TO SET UP TEMPORARY UTILITY ROOMS, A TEMPORARY AREA FOR THE STORAGE OF MACHINERY AND CONSTRUCTION EQUIPMENT. MARK THE BOUNDARIES OF WORK ZONES IN THE INITIAL STAGE WITH CLEARLY VISIBLE SIGNS AND ENCLOSE THESE AREAS WITH A TEMPORARY FENCE WITHOUT DISTURBING THE SOIL. INSTALL TEMPORARY ROAD SIGNS IN APPROPRIATE PLACES (AFTER COORDINATING THEM ACCORDINGLY), AND PERFORM GEODETIC MARKING. THE LAYOUT OF TEMPORARY UTILITY ROOMS IS PLANNED BY THE CONTRACTOR IN THE TECHNOLOGICAL PROJECT.
  2. THE LOCATION AND LAYOUT OF THE CONSTRUCTION SITE ARE OF A RECOMMENDATORY NATURE.
  3. DURING WORK, ACCESS TO PRIVATE TERRITORIES MUST BE ENSURED. IF NECESSARY, TEMPORARY DRIVEWAYS ARE ARRANGED IN SPECIFIC LOCATIONS.
  4. CONSTRUCTION WASTE IS SORTED AND CAN BE TEMPORARILY STORED ON THE CONSTRUCTION SITE IN TEMPORARY CONTAINERS OR PILES, WELL-COVERED TO PREVENT WASTE FROM ENTERING THE ENVIRONMENT. IT IS RECOMMENDED TO TRANSPORT CONSTRUCTION WASTE TO THE RECYCLING SITE BY TRUCK IMMEDIATELY. IN ANY CASE, AT THE END OF CONSTRUCTION, ALL CONSTRUCTION WASTE MUST BE REMOVED FROM THE OBJECT AREA. BEFORE THE START OF CONSTRUCTION, A CONTRACT MUST BE MADE WITH A COMPANY THAT DISPOSES OF CONSTRUCTION WASTE, WHICH MUST HAVE THE APPROPRIATE CERTIFICATE.
  5. EARTHWORKS NEAR EXISTING ENGINEERING NETWORKS ARE CARRIED OUT MANUALLY AND WITH THE PARTICIPATION OF REPRESENTATIVES OF THE RELEVANT UTILITIES.
  6. DURING THE CONSTRUCTION PROCESS, THE BOUNDARIES OF THE MAINTAINED TERRITORY, IF BROKEN OR DAMAGED BY EXISTING COATINGS, MUST BE FULLY RESTORED TO THEIR ORIGINAL STATE.
  7. ALL CONSTRUCTION MACHINERY MUST BE IN ORDER. LEAKAGE OF FUEL AND OIL INTO THE SOIL IS PROHIBITED. WHEELS OF CONSTRUCTION VEHICLES LEAVING THE CONSTRUCTION SITE AND OTHER MACHINERY MUST BE WASHED WITH WATER.
  8. WHEN PERFORMING WORK IN THE PROTECTION ZONES OF ENGINEERING NETWORKS, CALL REPRESENTATIVES OF THE RELEVANT UTILITIES.
  9. BEFORE PERFORMING WORK, CLARIFY THE POSITION AND ALTITUDES OF EXISTING NETWORKS, ESPECIALLY AT INTERSECTIONS WITH ROADS.
  10. WHEN PERFORMING ALL WORK, IT IS NECESSARY TO ADHERE TO THE CURRENT NORMATIVE DOCUMENTS AND THE PROJECT.

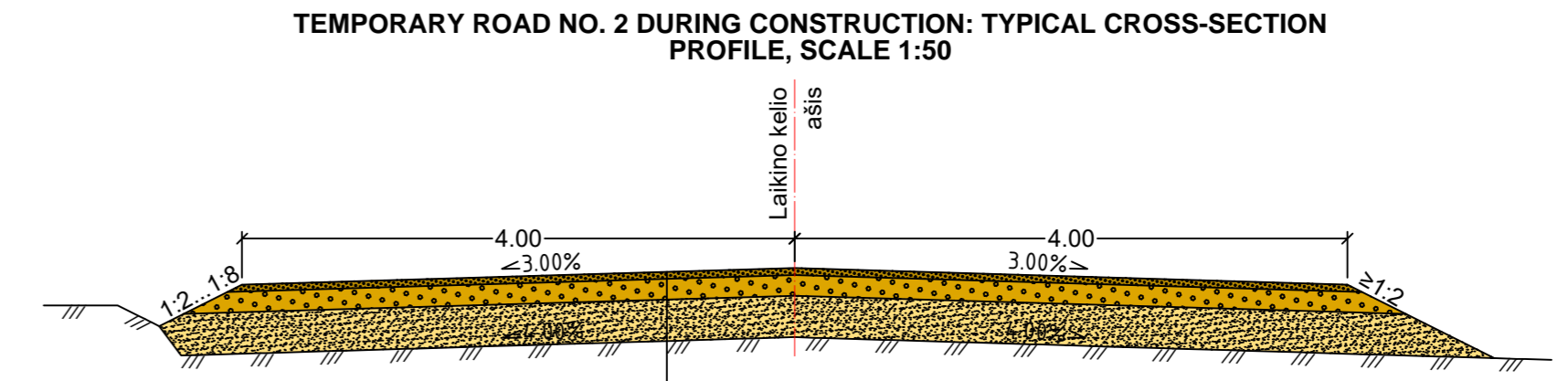
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REVISION	DATE	SHOW STATUS, REASON FOR CHANGE (IF APPLICABLE)	
QUAL. DOC. NO.			
	Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Kairiai str. 17, Klaipėda, construction project		
	DESIGN NUMBER AND TITLE		
39928	BPM	R. Valančius	All buildings - No. XX
	DOCUMENT TITLE		
	Site plan and temporary road No 1 (Phase I) during construction works, scale 1:1000		
	REVISION		
	0		
	DOCUMENT MARK		
EN	BUILDER AND (OR) CLIENT		SHEET SHEETS
	AB Klaipėda State Seaport Authority J. Janonio st. 24, LT-92251 Klaipėda		8858-00-TP-SO-07.01.B-02
			1 1

# SITE PLAN AND TEMPORARY ROAD NO 2 (PHASE I) DURING CONSTRUCTION WORKS, SCALE 1:1000



### LEGEND

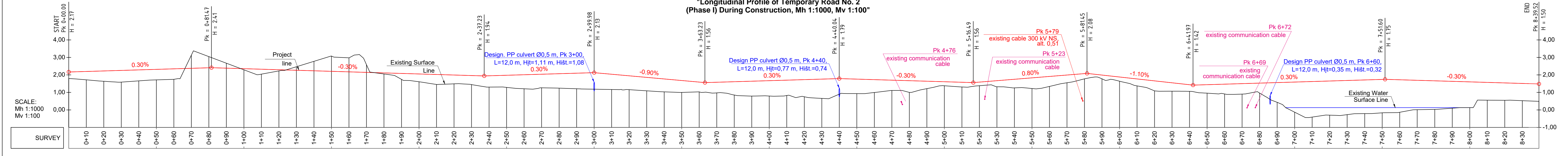
- Proposed Location for the Contractor's Construction Site Area
- Proposed Location for Soil and Construction Material Storage Area
- Temporary Road Axis Design
- Temporary Road Surface Design
- Temporary Road Embankment Design
- Design of Temporary Earth Barriers
- Design of Assembled Protective Pipe d110
- Design of Underground Communication Cover Slab
- The boundaries of land plots
- I building phase
- II building phase
- III building phase
- South dam
- North dam
- Wharf
- Quay
- Proposed Location for Storage Area of Stones, Soil and Construction Materials Submitted by the Builder, ~3800 m<sup>2</sup>
- Main gas pipeline protection zone (25 meters each way from pipeline axis)
- Underground electric cable protection zone (on land -1 metre each way from cable axis, in the water - 100 metre each way from cable axis)
- State zone of protected areas
- RAIN cable protection zone (1 meter on both sides from the axis of the cable)
- Main gas pipeline 3 area boundary of the area class (200 metre each way from pipeline axis)
- Limit of chemical pollution of water body protection zones
- Area of forest land
- Design of Electrical Cable Line
- Design of Lighting Cable Line
- Design of Lighting Support
- Designing a Well of RKŠ-2 Type with Heavy-Duty Slide
- Designing Lighting Control Panel AVS
- Design of Surface Sewer Network
- Design of Surface Sewer Inspection Well



**NOTES:**

- UNTIL THE START OF MAIN WORKS, IT IS NECESSARY TO SET UP TEMPORARY UTILITY ROOMS, A TEMPORARY AREA FOR THE STORAGE OF MACHINERY AND CONSTRUCTION EQUIPMENT. MARK THE BOUNDARIES OF WORK ZONES IN THE INITIAL STAGE WITH CLEARLY VISIBLE SIGNS AND ENCLOSE THESE AREAS WITH A TEMPORARY FENCE WITHOUT DISTURBING THE SOIL. INSTALL TEMPORARY ROAD SIGNS IN APPROPRIATE PLACES (AFTER COORDINATING THEM ACCORDINGLY), AND PERFORM GEODETIC MARKING. THE LAYOUT OF TEMPORARY UTILITY ROOMS IS PLANNED BY THE CONTRACTOR IN THE TECHNOLOGICAL PROJECT.
- THE LOCATION AND LAYOUT OF THE CONSTRUCTION SITE ARE OF A RECOMMENDATORY NATURE.
- DURING WORK, ACCESS TO PRIVATE TERRITORIES MUST BE ENSURED. IF NECESSARY, TEMPORARY DRIVEWAYS ARE ARRANGED IN SPECIFIC LOCATIONS.
- CONSTRUCTION WASTE IS SORTED AND CAN BE TEMPORARILY STORED ON THE CONSTRUCTION SITE IN TEMPORARY CONTAINERS OR PILES, WELL COVERED TO PREVENT WASTE FROM ENTERING THE ENVIRONMENT. IT IS RECOMMENDED TO TRANSPORT CONSTRUCTION WASTE TO THE RECYCLING SITE BY TRANSPORT IMMEDIATELY. IN ANY CASE, AT THE END OF CONSTRUCTION, ALL CONSTRUCTION WASTE MUST BE REMOVED FROM THE OBJECT AREA, BEFORE THE START OF CONSTRUCTION, A CONTRACT MUST BE MADE WITH A COMPANY THAT DISPOSES OF CONSTRUCTION WASTE, WHICH MUST HAVE THE APPROPRIATE CERTIFICATE.
- EARTHWORKS NEAR EXISTING ENGINEERING NETWORKS ARE CARRIED OUT MANUALLY AND WITH THE PARTICIPATION OF REPRESENTATIVES OF THE RELEVANT UTILITIES.
- DURING THE CONSTRUCTION PROCESS, THE BOUNDARIES OF THE MAINTAINED TERRITORY, IF BROKEN OR DAMAGED BY EXISTING COATINGS, MUST BE FULLY RESTORED TO THEIR ORIGINAL STATE.
- ALL CONSTRUCTION MACHINERY MUST BE IN ORDER. LEAKAGE OF FUEL AND OIL INTO THE SOIL IS PROHIBITED. WHEELS OF CONSTRUCTION VEHICLES LEAVING THE CONSTRUCTION SITE AND OTHER MACHINERY MUST BE WASHED WITH WATER.
- WHEN PERFORMING WORK IN THE PROTECTION ZONES OF ENGINEERING NETWORKS, CALL REPRESENTATIVES OF THE RELEVANT UTILITIES.
- BEFORE PERFORMING WORK, CLARIFY THE POSITION AND ALTITUDES OF EXISTING NETWORKS, ESPECIALLY AT INTERSECTIONS WITH ROADS.
- WHEN PERFORMING ALL WORK, IT IS NECESSARY TO ADHERE TO THE CURRENT NORMATIVE DOCUMENTS AND THE PROJECT.
- No use of vibratory machinery is allowed within the 300 kV (NORDBALT) cable protection zone

"Longitudinal Profile of Temporary Road No. 2 (Phase I) During Construction, Mh 1:1000, Mv 1:100"



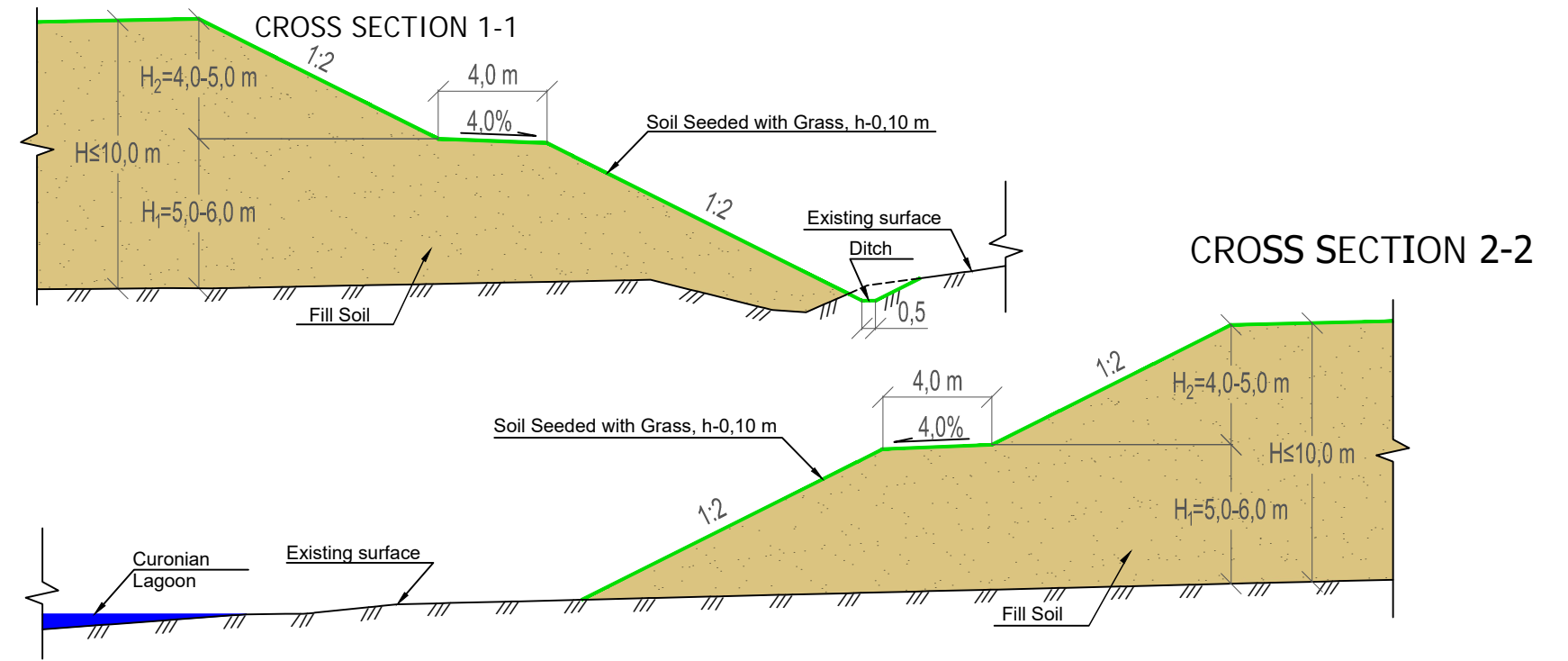
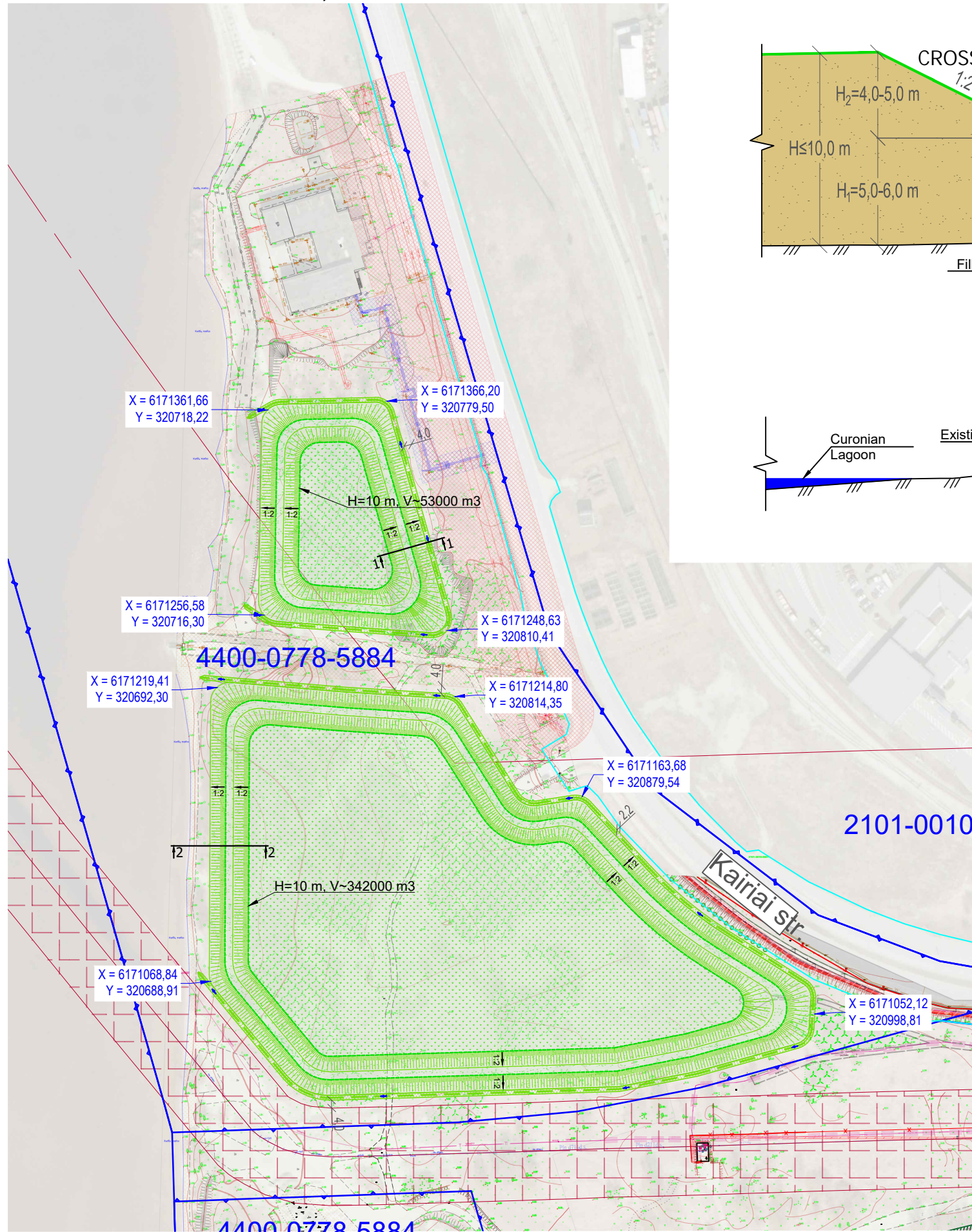
**Temporary road cover construction**  
 coating layer without binders from unbound mixture of mineral materials 0/16 - 0,05 m  
 gravel base layer from unbound mixture of mineral materials 0/45 - 0,15 m  
 layer of cold-resistant materials ≥0,30 m

0	2023-11	BUILDING PERMIT, COMPETITION	NAME OF PROJECT
REVISION	DATE	SHOW STATUS, REASON FOR CHANGE (IF APPLICABLE)	Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Kairiai str. 17, Klaipėda, construction project
QUAL. DOC. NO.	KELPROJEKTAS		DESIGN NUMBER AND TITLE
39928	BPM	R. Valančius	All buildings - No. XX
[Redacted]			DOCUMENT TITLE
[Redacted]			Site plan and temporary road No 2 (Phase I) during construction works, scale 1:1000
[Redacted]			REVISION
[Redacted]			0
EN	BUILDER AND (OR) CLIENT	DOCUMENT MARK	SHEET SHEETS
	AB Klaipėda State Seaport Authority J. Janonio st. 24, LT-92251 Klaipėda	8858-00-TP-SO-07.01.B-03	1 1

# Excavated Soil Storage Layout Plan, Scale 1:2500

Plan, Scale 1:2500

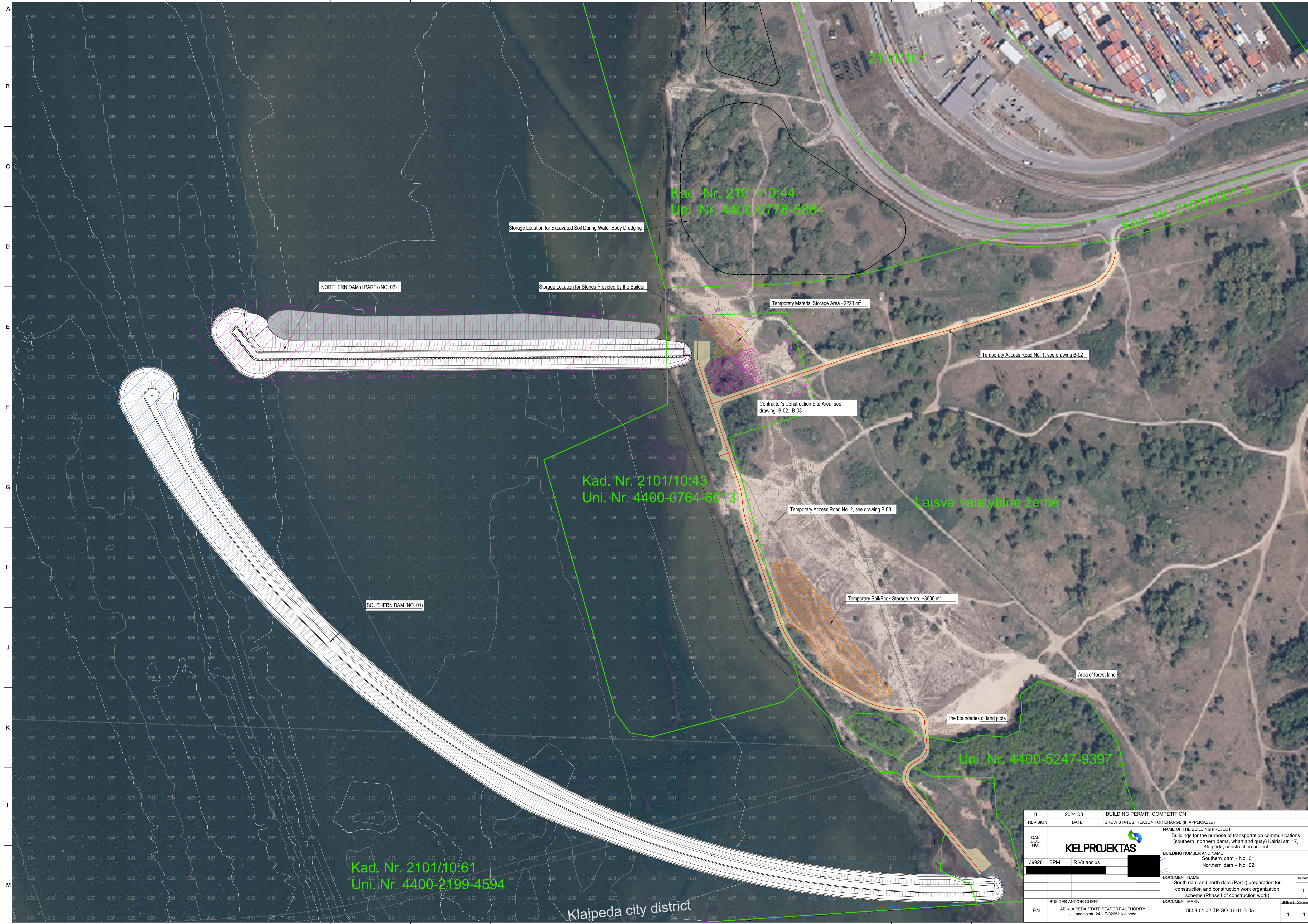
Cross sections, Scale 1:250



## LEGEND:

- Registered Eng. road plot boundary
- The boundaries of land plots
- Main gas pipeline protection zone
- Electric network air line protection zone
- Surface wastewater network protection zone
- Heat transfer network protection zone
- Electric network air line protection zone
- Protection Z one for Underground Cables of Electrical Networks
- Soil is sown with grass
- Ditch

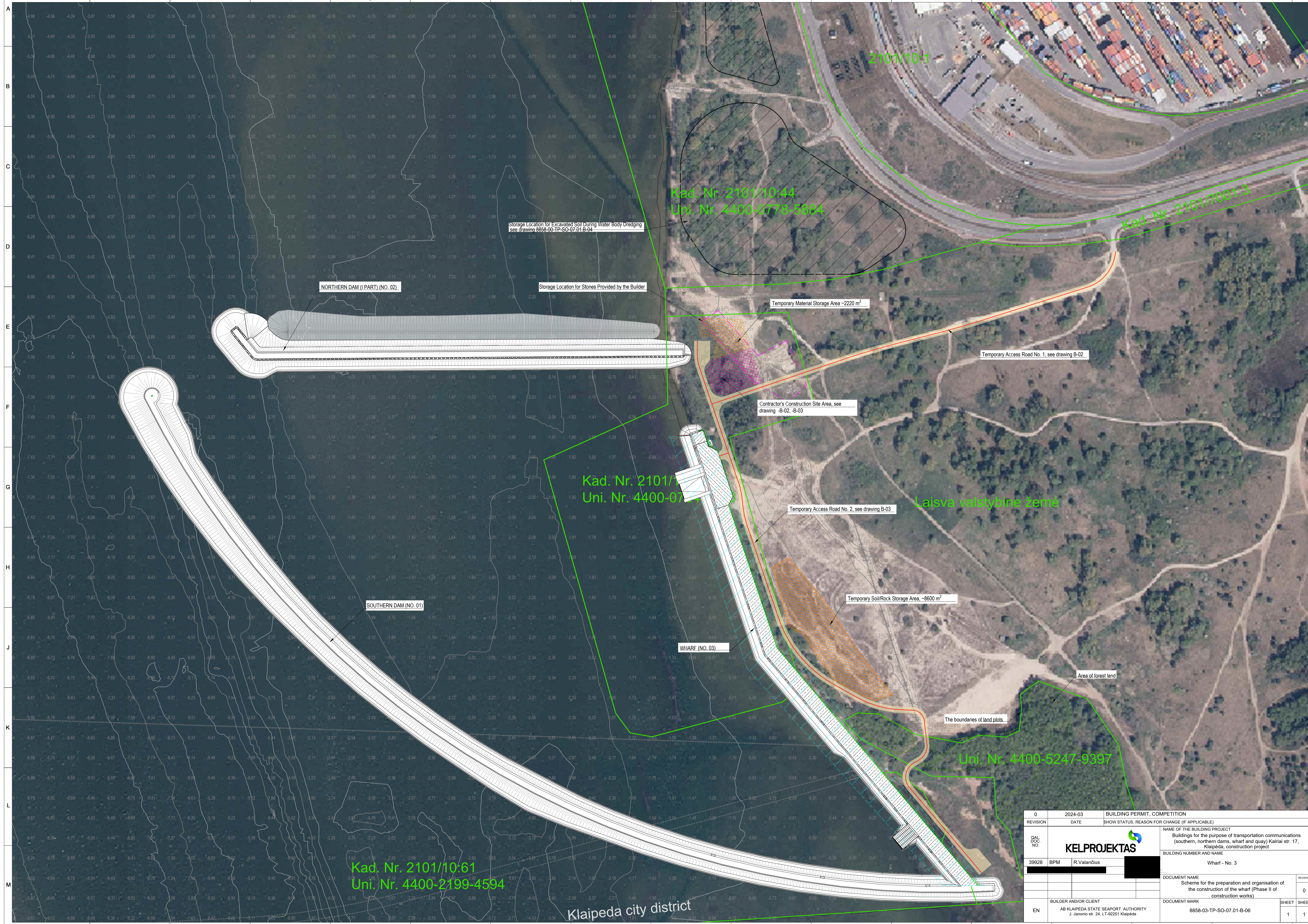
0	2024-03	BUILDING PERMIT, COMPETITION	
REVISION	DATE	SHOW STATUS, REASON FOR CHANGE (IF APPLICABLE)	
QUAL. DOC. NO.			NAME OF PROJECT
			Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Kairiai str. 17, Klaipėda, construction project
39928	BPM	R. Valančius	DESIGN NUMBER AND TITLE
			All buildings - No. XX
			DOCUMENT TITLE
			Excavated Soil Storage Layout, Scale 1:2500
			REVISION
			0
EN	BUILDER AND (OR) CLIENT		DOCUMENT MARK
	AB Klaipėda State Seaport Authority J. Janonio st. 24, LT-92251 Klaipėda		8858-00-TP-SO-07.01.B-04
			SHEET
			1
			SHEETS
			1



Kad. Nr. 2101/10:61  
Uni. Nr. 4400-2199-4594

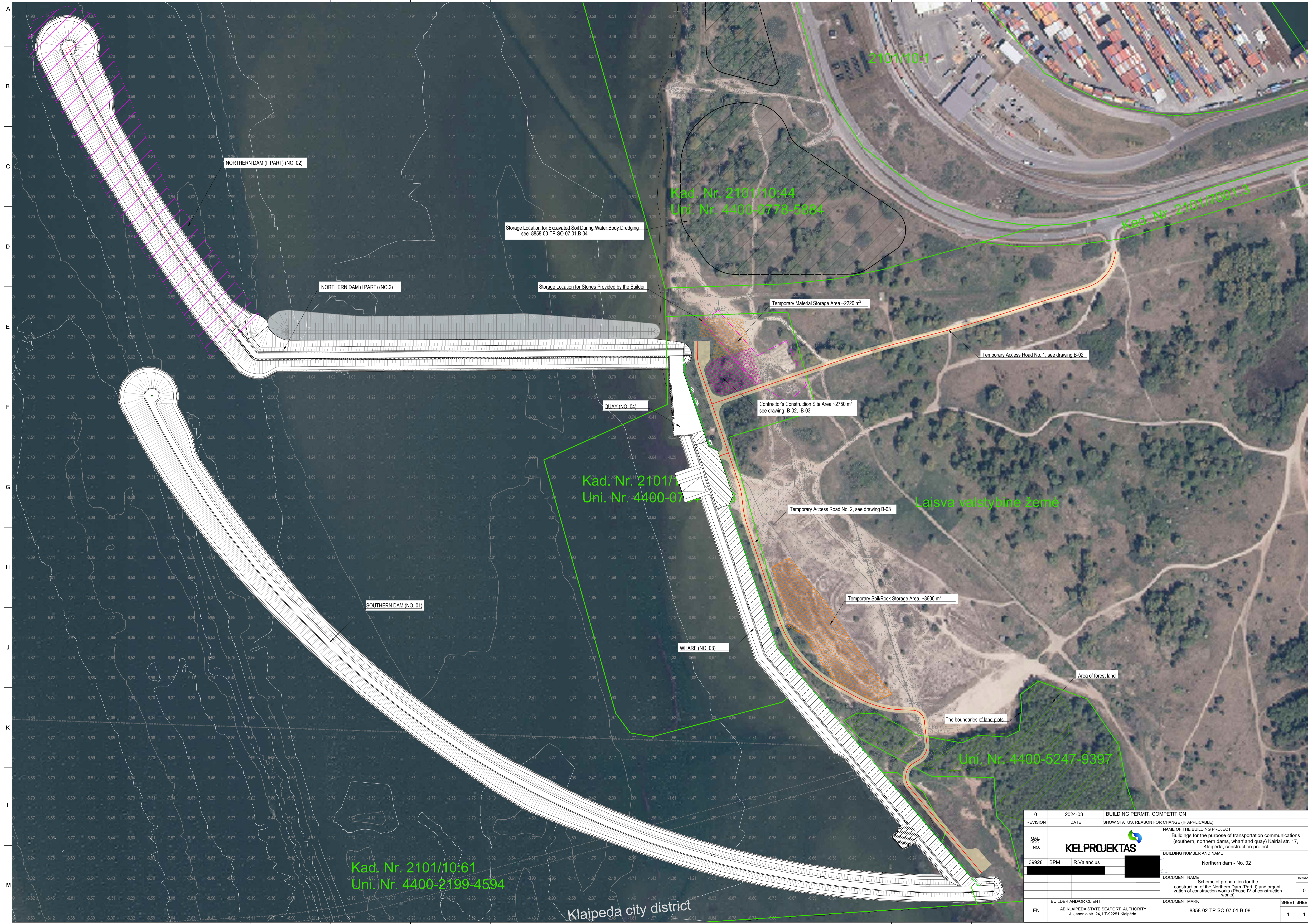
Klaipeda city district

0	2024-03	BUILDING PERMIT, COMPETITION	
REVISION	DATE	SHOW STATUS, REASON FOR CHANGE (IF APPLICABLE)	
GAL. DOC. NO.			
39928	BPM	R.Valančius	
NAME OF THE BUILDING PROJECT Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Klaipėda, construction project			
BUILDING NUMBER AND NAME Southern dam - No. 01 Northern dam - No. 02			
DOCUMENT NAME South dam and north dam (Part I) preparation for construction and construction work organization scheme (Phase I of construction work)			0
DOCUMENT MARK 8858-01-02-TP-SO-07-01-B-05			SHEET SHEETS 1 1
EN	BUILDER AND/OR CLIENT AB KLAIPEDA STATE SEAPORT AUTHORITY J. Janonio str. 24, LT-92251 Klaipėda		



0	2024-03	BUILDING PERMIT, COMPETITION		
REVISION	DATE	SHOW STATUS, REASON FOR CHANGE (IF APPLICABLE)		
GAL. DOC. NO.	39928	BPM	NAME OF THE BUILDING PROJECT	
			Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Kairiai str. 17, Klaipėda, construction project	
39928			BUILDING NUMBER AND NAME	
R.Valančius			Wharf - No. 3	
			DOCUMENT NAME	
			Scheme for the preparation and organisation of the construction of the wharf (Phase II of construction works)	
			DOCUMENT MARK	
EN			8858-03-TP-SO-07-01-B-06	
			SHEET SHEETS	
			1 1	

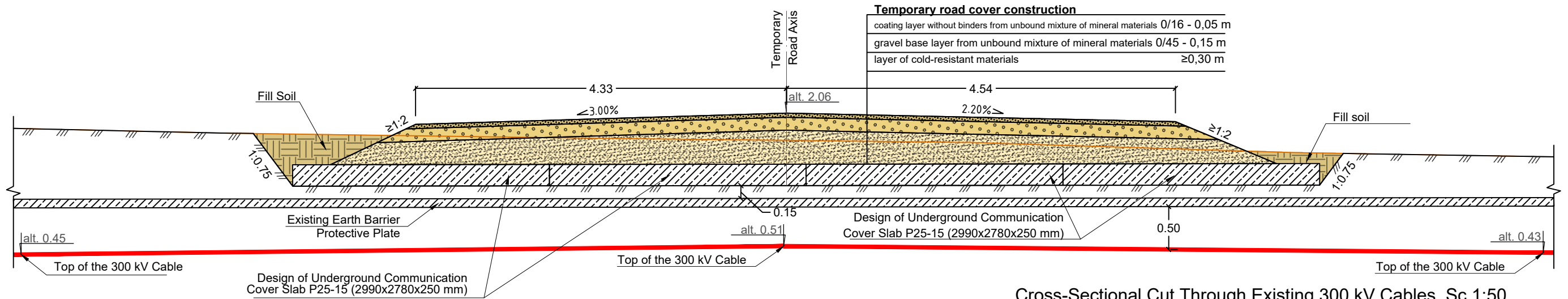




0	2024-03	BUILDING PERMIT, COMPETITION	
REVISION	DATE	SHOW STATUS, REASON FOR CHANGE (IF APPLICABLE)	
DAL. DOC. NO.			NAME OF THE BUILDING PROJECT
39928	BPM	R.Valančius	Buildings for the purpose of transportation communications (southern, northern dams, wharf and quay) Kailiai str. 17, Klaipėda, construction project
			BUILDING NUMBER AND NAME
			Northern dam - No. 02
			DOCUMENT NAME
			Scheme of preparation for the construction of the Northern Dam (Part II) and organization of construction works (Phase IV of construction works)
			REVISION
			0
			DOCUMENT MARK
EN	BUILDER AND/OR CLIENT	AB KLAIPEDA STATE SEAPORT AUTHORITY J. Janonio str. 24, LT-92251 Klaipėda	8858-02-TP-SO-07.01-B-08
			SHEET SHEETS
			1 1

# Temporary Road Installation at AB 'Litgrid' Cable, Scale 1:500

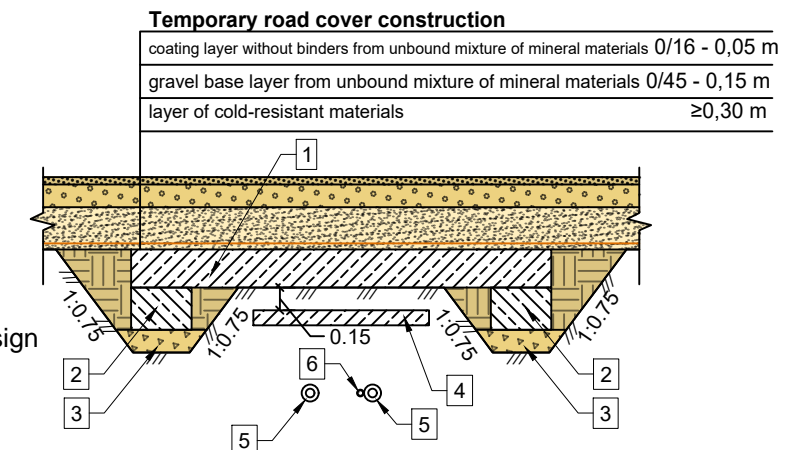
Cross-Sectional Cut 1-1, Scale 1:50



**Temporary road cover construction**

coating layer without binders from unbound mixture of mineral materials 0/16 - 0,05 m
gravel base layer from unbound mixture of mineral materials 0/45 - 0,15 m
layer of cold-resistant materials $\geq 0,30$ m

Cross-Sectional Cut Through Existing 300 kV Cables, Sc 1:50



**Temporary road cover construction**

coating layer without binders from unbound mixture of mineral materials 0/16 - 0,05 m
gravel base layer from unbound mixture of mineral materials 0/45 - 0,15 m
layer of cold-resistant materials $\geq 0,30$ m

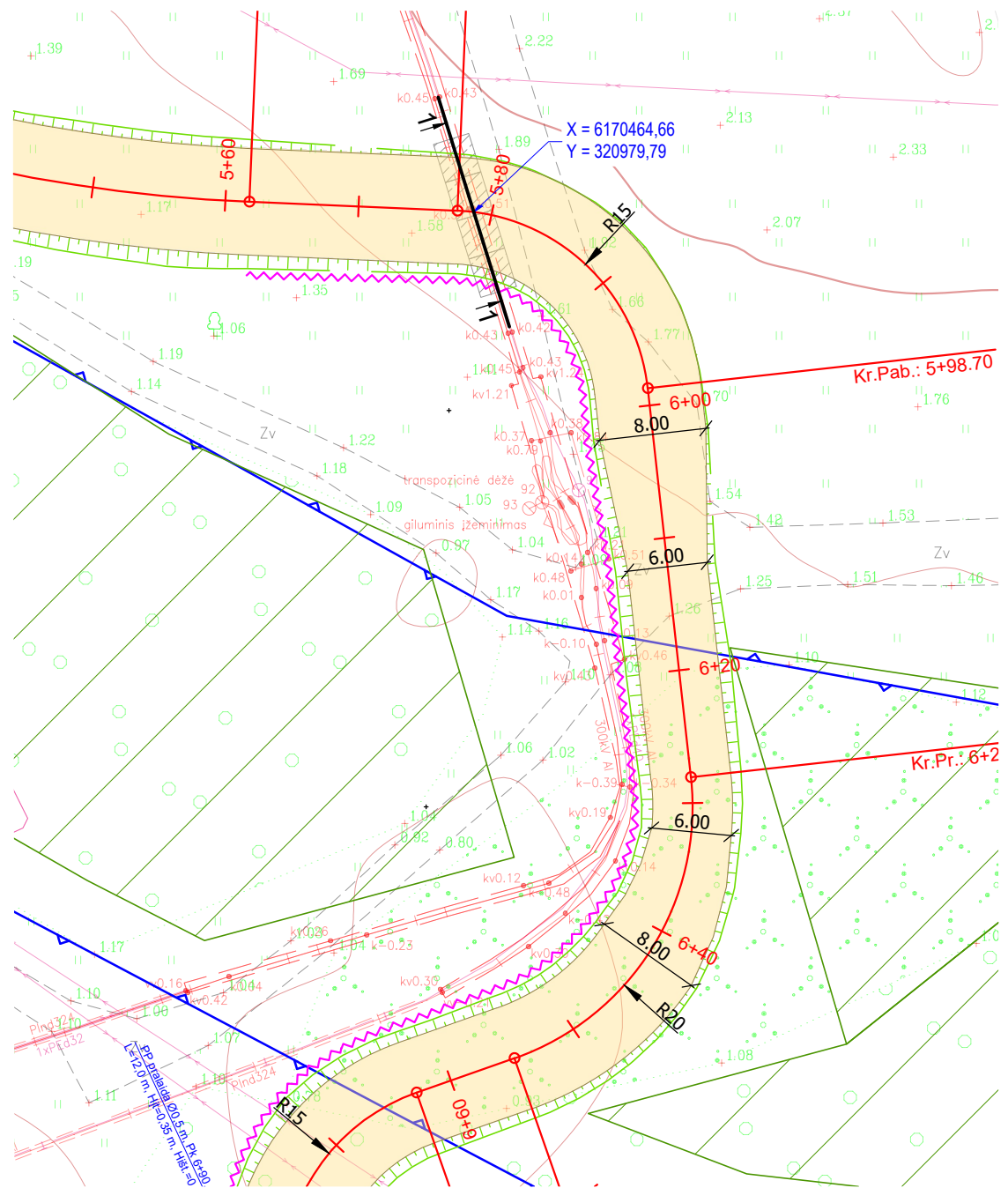
1	Design cover slab for underground communications P25-15 (2990x2780x250 mm)
2	Design support blocks B12.3.4 (1180x400x280 mm)
3	Design base made of crushed mixture 0/45, h=0.15 m
4	Existing earth barrier protective plate
5	Existing 300 kV cable
6	Existing technological communication cable

## LEGEND

- Temporary Road Axis Design
- Temporary Road Surface Design
- Temporary Road Embankment Design
- Temporary Earth Barrier Guards - Design

## NOTES:

- When performing works in the protection zones of engineering networks, call representatives of interested authorities;
- Before carrying out works, verify the positions of existing networks, altitudes, especially at intersections with roads;
- When performing all works, adhere to applicable regulatory documents and the project;
- The cable trench zone and the perimeter of the temporary road near the 300 kV cables are opened with temporary earth barriers;
- The calculated load for the cover slabs of the designed underground communications is 15.0 t/m<sup>2</sup>;
- After completing all construction works of the entire project, the temporary road is dismantled, the environment is arranged, areas are reclaimed, and seeded with grass;
- The use of vibrating machines is prohibited in the protection zone of the 300 kV (NordBalt) cable."



0	2023-11	BUILDING PERMIT, COMPETITION		
REVISION	DATE	SHOW STATUS. REASON FOR CHANGE (IF APPLICABLE)		
QUAL. DOC. NO.			NAME OF THE BUILDING PROJECT	
39928			BPM	R.Valančius
			BUILDING NUMBER AND NAME	
			All buildings - No. XX	
			DOCUMENT NAME	REVISION
			Temporary Road Installation at AB 'Litgrid' Cable, Scale 1:500	0
EN	BUILDER AND/OR CLIENT		DOCUMENT MARK	SHEET SHEETS
	AB KLAIPĖDA STATE SEAPORT AUTHORITY J. Janonio st. 24, LT-92251 Klaipėda		8858-XX-TP-SO-07.01-B-09	1 1