

SCOPE OF WORK

Repair of RW road No 235

1. General.

[General description, purpose and place of works]

The length of RW road No 235 (from Switch No 374 towards dead end siding) section that needs repair is 200 m. Type of existing rails – R65. Shunting speed – 25 km/h.

Defects identified:

Track ballast is contaminated and soaked, therefore the track is unstable and sleepers are breaking. This is not in conformity with Par. 6.6.1 of Railroad Maintenance Regulations K/111 stipulating that the ballast prism must be clean, unsoaked, of established profile and dimensions. See Photo 1 and Photo 2.

According to Railroad Maintenance Regulations K/111, defects under the following codes were identified:

1. Codes 10.1, 10.2: 'Delamination and spalling of the metal on the rolling surface of railhead due to workmanship defects: small cracks, films, overlays, etc.'
2. Codes 11.1, 11.2: 'Spalling of the metal on the side working fillet on the middle part of the rail head due to insufficient resistance of metal to contact fatigue.'
3. Codes 41.1, 41.2: 'Smashing and vertical wear of the railhead due to insufficient strength of metal'.
4. Code 43: 'Smashing of the railhead of the railroad curve inner rail due to rail overload.'

Rails with defects under codes provided above shall be qualified as defective.

2. Attachments.

[List all related additional material (reference number and exact title of document). If any pictures, drawings or diagrams are provided to describe/illustrate the requirements, make sure that they are consistent with the requirements indicated in SOW].

1. Work site scheme
2. Photo 1
3. Photo 2
4. Photo 3

3. Description and specifics of work.

3.1. Work description.

*[Define and explain each work that needs to be done. Indicate the main steps and actions to be executed by Contractor. Specify preliminary sequence of works. **When planning the scope of work, it is necessary to evaluate the results of inspections performed for the facility / equipment, to take into account the data of continuous inspections and previously recorded incidents (if any).**]*

Description of simple repairs

Develop the description of the simple repair of RW road No 235 (section of 200 m) - the section is between IP374 - dead end siding. The description must be provided together with railroad marking diagram with displayed center line of the track, the existing railroad, circular and transition curves, the top and end, marking coordinates and longitudinal profile with the existing and design lines of the railroad. The description must provide for track cants. Contractor shall consider the geodetic works needed for these diagrams. The Contractor must agree the description of basic repairs

SCOPE OF WORK

Repair of RW road No 235

(including the diagrams with design center lines of railroad and design lines of longitudinal profile) with the Owner.

Repair of RW road No 235 (IP374 - dead end siding)

1. Demount upper structure of the railroad. Total – 200 m + 2.5 m after both junctions. It is required to shorten R43 rails after IP 374 switch to the length of 6.25 m.
2. Remove the ballast and subgrade layer to width 5 m, length 200 m and depth 0.51 m. Total – 500 m³.
3. Install non-woven geotextile Tipptex BS20W (250 g/m²). Total – 660 m².
4. Install soil reinforcement geogrid Secugrid 80/80 Q6. Total – 660 m².
5. Install and compact a ballast from fr. 31.5/63 mm gravel. Total – 400 m³. The ballast layer beneath the sleeper should be 30-35 cm. Curve shoulder width: internal - 35 cm, external - 45 cm.
6. Install reinforced concrete sleepers for rail UIC60. Total – 368 pcs. Sleeper density – 1840.
7. Replace 5 wood IIa type sleepers.
8. Install used (to be provided by Contractor) R50 2 x 6.25 m rails and connect to R43 rail.
9. Install UIC60 rails using fastenings and all required fittings and rubber gaskets. Total – 200 m along the railway road.
10. Install transition rail joints from R50 to UIC60 with all required fittings, total of 1 set.
11. Install transition rail joints from R65 to UIC60 with all required fittings, total of 1 set.
12. Install the railroad based on the design line and the marking diagram.
13. Fill up the spaces between the sleepers and tamp the sleepers.
14. Construct new dead end siding.

3.2. Special requirements (if any).

[Indicate specific requirements which might impact performance of works, price, results. (E.g. recommend to visit the site at specified time, etc.)]

Not applicable.

3.3. Requirements for work execution and documentation.

[Specify the documentation to be provided by Contractor for work execution. If this is some data, indicate and describe the exact data needed and the standards to comply with. In case Contractor has to fill in some documentation, specify the desired format and contents, or refer to the requirements for the document preparation.]

Type of maintenance – simple repair.

Description of simple repair shall be developed in accordance with STR 1.04.04:2017 CONSTRUCTION DESIGN, EXPERT EXAMINATION OF DESIGN DOCUMENTATION.

Performing railroad No 235 repairs in accordance with the Railway Station Design Rules, Railroad Maintenance Regulations, technological cards for occupational health and safety of road, road structures, embankment maintenance works, Technical Regulations for the Use of Railway.

Railway sleepers must comply with LST EN 13230-1:2016, LST EN 13230-2:2016. Reinforced concrete sleepers must be suitable for curves with transitional gauge.

Fishplates with 6 holes must be used for rail joints, rails are fixed to sleepers using W21 fastenings with all required fittings and rubber gaskets.

SCOPE OF WORK

Repair of RW road No 235

Required rails – UIC60, R350HT steel as per EN 13674-1.

Granite rubble – 31,5/63 mm, as per LST EN 13450 requirements.

Contractor must consider the overlay welding of rail ends.

The Contractor must take into account that re-tamping and road curve adjustment might be needed if in two months after completion of works road track sagging or other misalignments occur. In case of adverse weather conditions (e.g. winter, snow, etc.), re-tamping and road curve adjustment works shall be postponed for a season suitable for such works.

Contractor must take into account all minor additional works that might be required.

3.4. Qualification requirements for Contractor.

[Specify exact qualification requirements to be met by the Contractor. Describe requirements for works execution, design, reliability, staff, etc.]

1. Construction contractor qualification certificate for construction of structures of exceptional significance (railroads).
2. Construction manager qualification certificate for structures of exceptional significance (railroads).
3. Geodetic surveyor's license.
4. Certificate issued by the State Railway Inspectorate for employee whose work is related to railway traffic.
5. Minimum 5 years of experience in railway construction and maintenance.

4. Materials, equipment, and services to be provided by the Owner.

[If certain materials and equipment provided by Owner will be used by Contractor for specific tasks, indicate what exactly will be provided and when]

Not applicable.

5. Materials, equipment, and services to be provided by the Contractor.

[List the items to be provided by Contractor as a part of works, and to be included in the price.]

All materials shall be procured by the Contractor. All materials must be new. Equipment and services shall be provided by the Contractor.

6. Requirements for work completion.

[Set the main milestones and deadlines or control points in the course of task execution where the Owner is to review the completed tasks, approve, accept such as proper, or reject them.]

Upon the works completed, the work area shall be cleaned up. All wastes must be sorted and delivered to the Transport Shop waste collection area located next to RW road 201 within 2.5 km distance. Removed soil may be transported to clean soil storage site in the distance of 2.5 km, orderly spread and leveled.

SCOPE OF WORK

Repair of RW road No 235

7. Requirements for work acceptance.

[Describe criteria according to which completed work will be deemed compliant with requirements and accepted.]

Contractor is required to present quality certificates of materials, marking diagrams, longitudinal profiles, AS-BUILT documentation, curve passports and schedules. The quality of works must comply with the regulations and standards of the Republic of Lithuania, and overhaul tolerances provided in Table 1 of Railroad Maintenance Work Acceptance Rules K/138. The work site shall be cleaned up.

8. Requirements for work schedule.

[Indicate preliminary work execution period. If period is indicated from the contract signature, such shall be given in calendar days, weeks or months.]

Works must be completed by 31 DECEMBER 2025. Traffic break unlimited.

Prepared by:

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