

Assessment of the stormwater solution

City of Jelgava

Žanna Barkovska / 07.05.2018



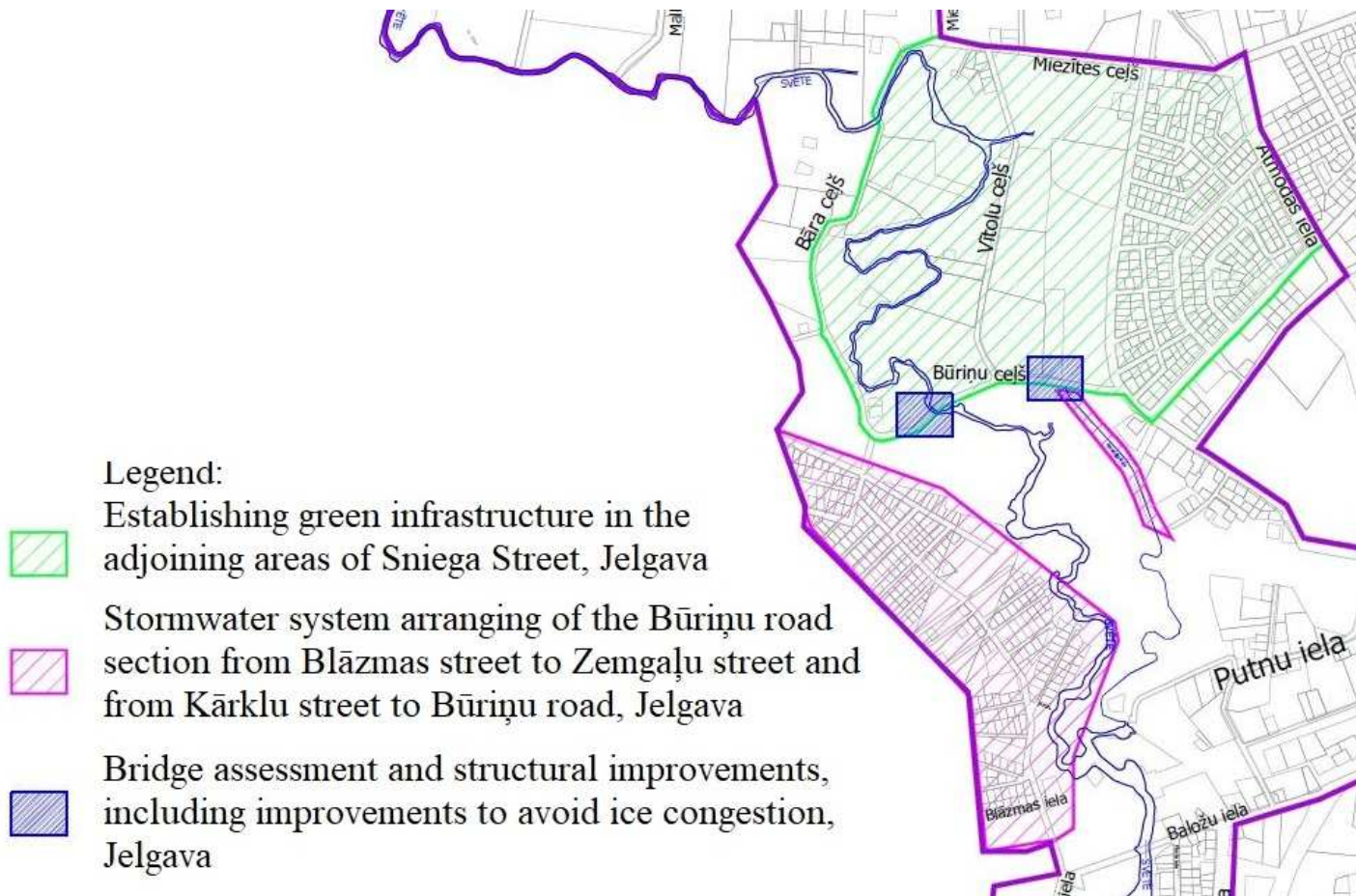
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Storm water system improvement



Stormwater system arranging of the Būriņu road section from Blazmas street to Zemgaļu street and from Kārklū street to Būriņu road (project development)

Description of the current situation:

The area is near by the Meadows of the Svēte River, 41 ha. The ditches are overgrown, partially eliminated. The pipes is of a different diameter, which does not provide water drainage. During springtime and during rain, it contributes to the risk of flooding adjacent areas. Private housing construction areas are densely populated. During the request, the area is flooded.

Design Purpose:

Restoration and construction of the melioration system in the municipality's territories to ensure its management, improve the collection and discharging of stormwater from the areas of the Svēte River, to provide flooding of private territories.

- Provide for the rehabilitation of the drainage flow (purification and overtaking) in the section from Blāzmas Street to Zemgaļu Street;
- Restoration of the existing drainage profile, slope strengthening, reconstruction of the Keramiku, Stūrīšu, Pludmales, Āraišu, Upeņu, Ciema streets and Būriņu road;
- Rebuild the stormwater drainage system, ensuring the flow without pumping.



Stormwater system arranging of the Būriņu road section from Blazmas street to Zemgaļu street and from Kārķļu street to Būriņu road (project development)



Būriņa road bridge assessment and structural improvements, including improvements to avoid ice congestion (project development)

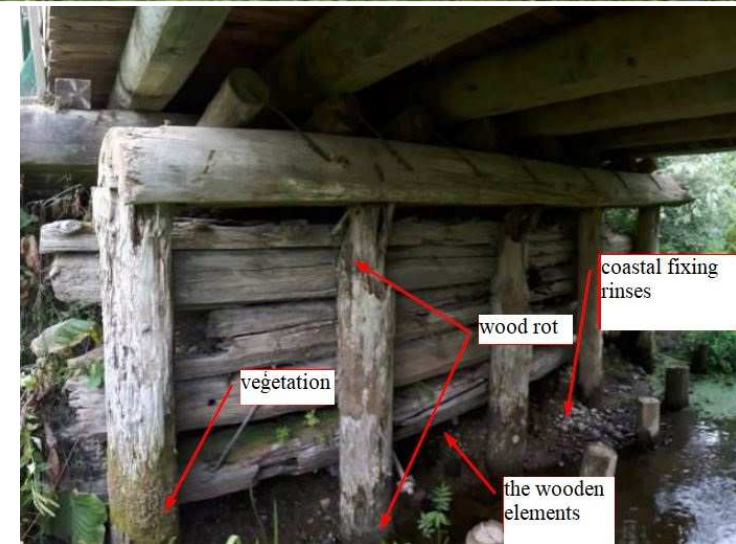


Description of the current situation:

The Būriņa road bridge is an important facility providing access to private property. The current bridge bearing capacity is 3.5 t, but in order to expand the infrastructure of populated areas, it is necessary to increase the load bearing capacity at least 10 t. The existing wooden bridge was built in 1980 over the River Svēte, the length - 15,75 m, the width - 4,20 m. The woodwork and water percolation is visible throughout the construction of the bridge.

Design Purpose:

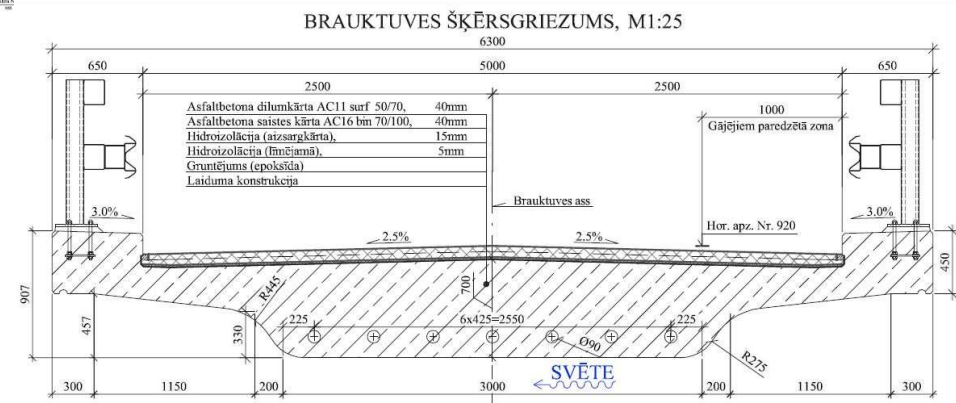
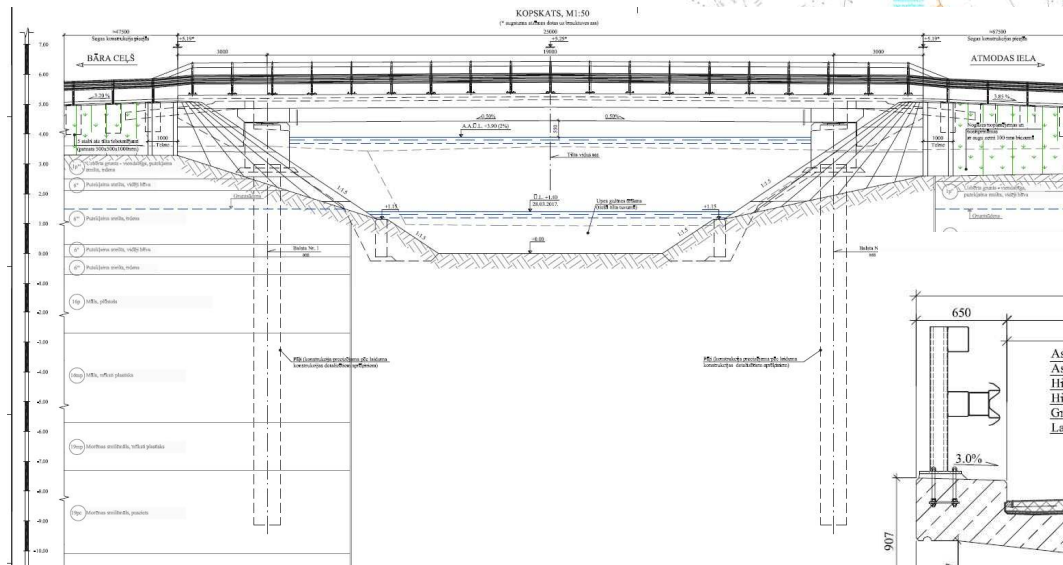
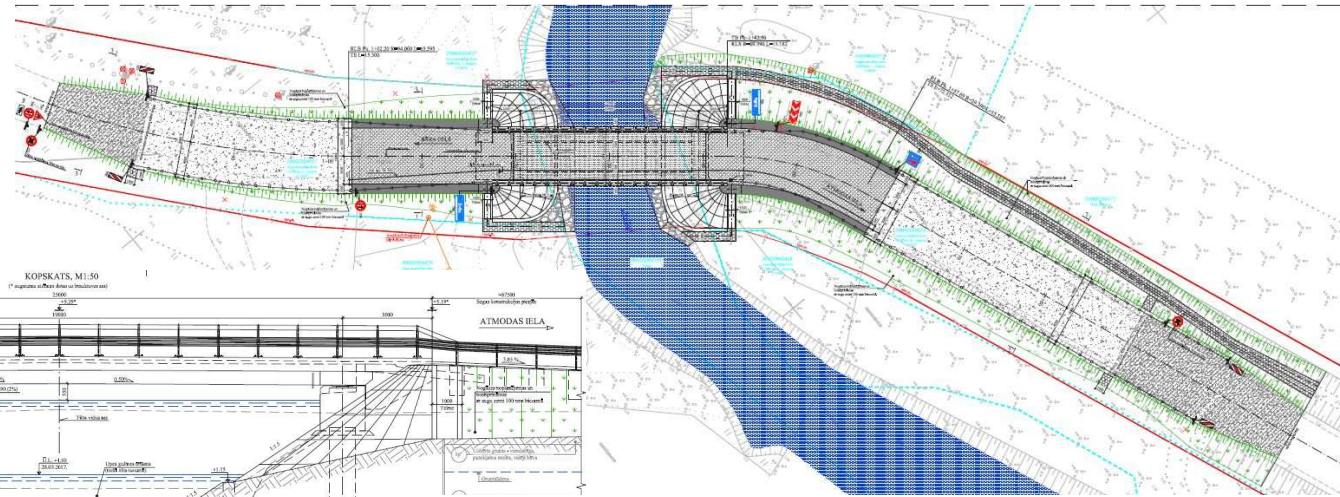
Reduction of ice congestion and sediment in the Svēte river and improvement of the river flow through the Būriņa road bridge reconstruction.



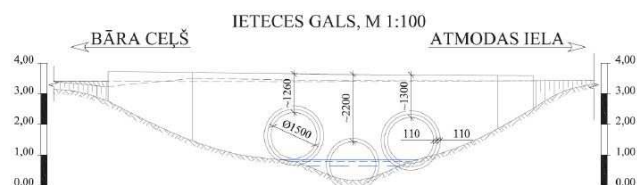
Būriņa road bridge assessment and structural improvements, including improvements to avoid ice congestion (project development)

Length - 25 m, width – 6,3 m,
pedestrian zone - 1m.

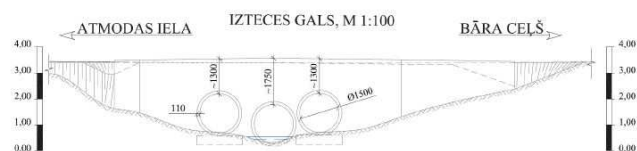
Approximate cost 273189 euro



Būriņa road pipes construction assessment and structural improvements, including improvements to avoid ice congestion (project development)



3.att. Caurtekas ietece gala shēma



4.att. Caurtekas iztece gala shēma



Description of the current situation:

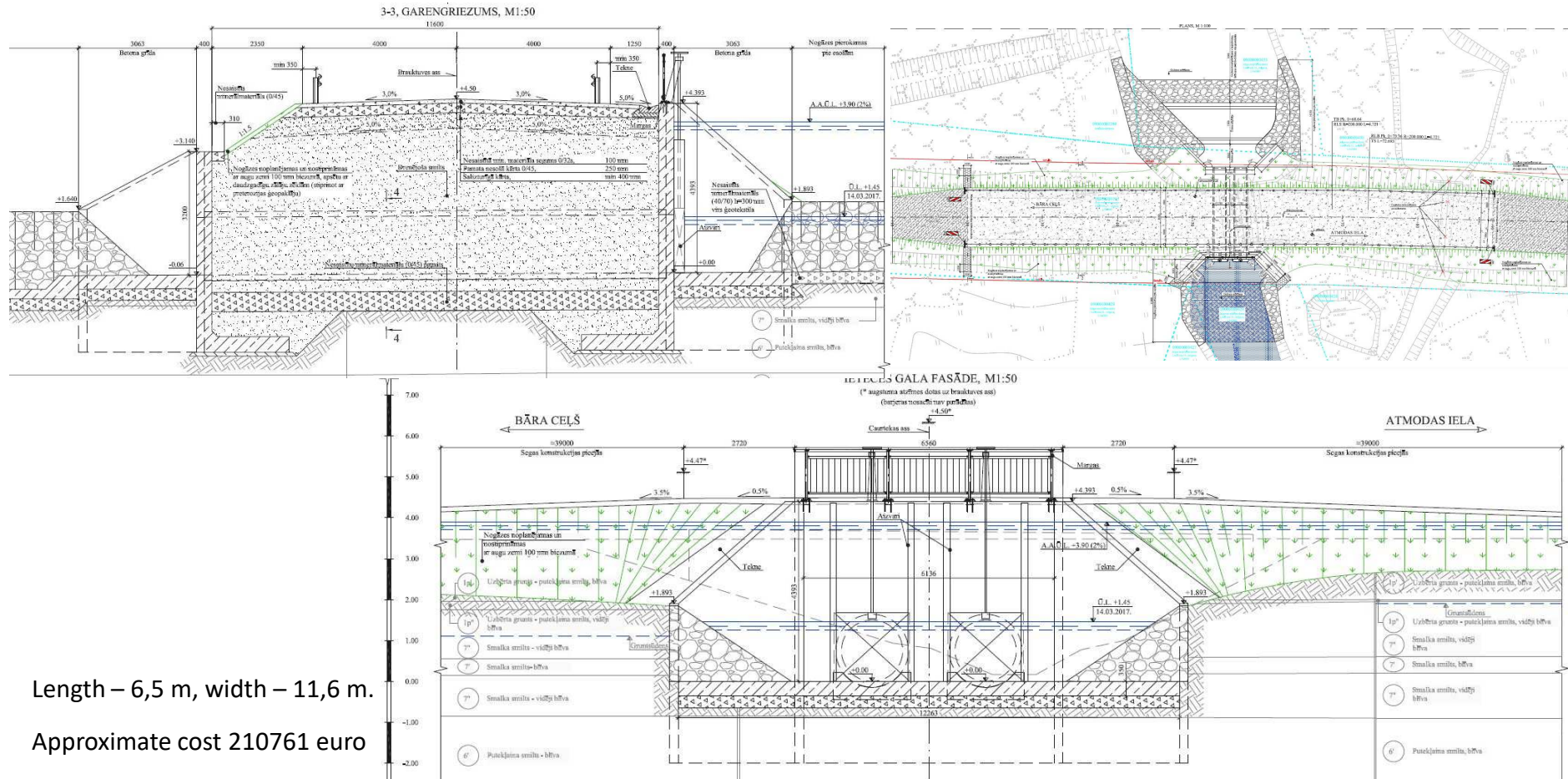
The Būriņa road pipes construction is an important facility providing access to private property. In order to expand the infrastructure of populated areas, it is necessary to increase the load bearing capacity at least 10 t. The existing construction consists of three concrete passes with a diameter of 1.5 m, the length - 5.94 m, the width - 5.5 m. Every year, during springtime, the construction is flooded. The sections of the pipeline consist of 1m concrete sections, are immersed and cracked, the supporting walls are suspended and rinsed.

Design Purpose:

Reduction of ice congestion and sediment in the grave and to improve the flow through the construction rebuilding.



Būriņa road pipes construction assessment and structural improvements, including improvements to avoid ice congestion (project development)



Establishing green infrastructure in the adjoining areas of Sniega Street, Jelgava (project development and realization)



Description of the current situation:

- Pilot territory - total area 95 ha; rivers and ponds – 4,5ha; housing area – 39,8 ha; green and other area – 50,7ha, stormwater drainage basin – 382 ha.
- The hydrology of the site is vital for the city of Jelgava since, in the springtime, when snow is melting, a lot of water flows into the river and causes floods in some parts of the city.
- Water level fluctuations 0.5 - 0.7 m. Historically, there have been mowing ditches in the meadow that overgrown, clogged and do not fulfill their function. There is an existing canal along the southern side, which leads to part of the waters of the Svete River. The channel is overgrown, the bottom of the bed does not ensure a smooth flow of water, and there is a rise in the risk of flooding in adjacent areas during both spring floods and heavy rain. In the summer season the water depth reaches 0.5m

Design Purpose:

Restoration of the drainage system. Apply green solutions to the adjacent areas of Sniega Street, which will reduce the risk of flooding and will make the area accessible to the public.

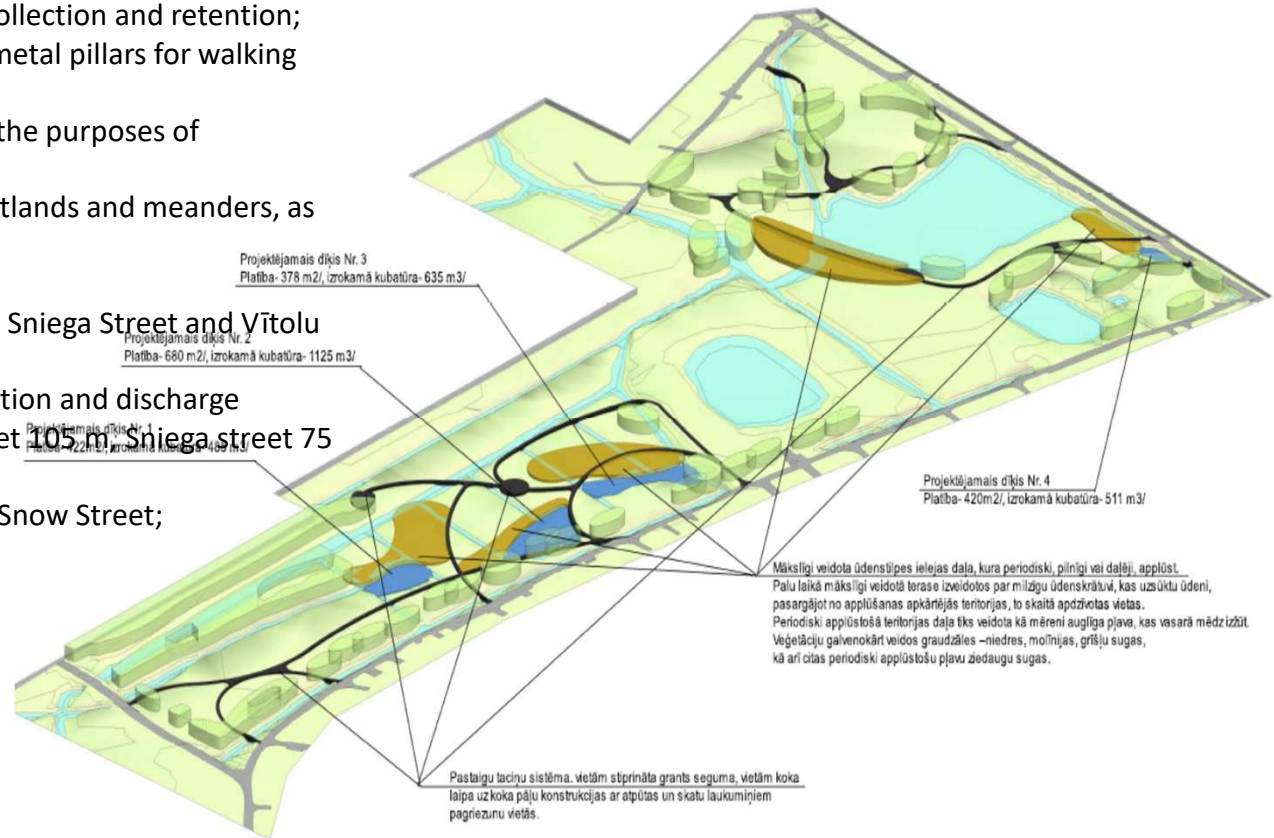


Establishing green infrastructure in the adjoining areas of Sniega Street, Jelgava

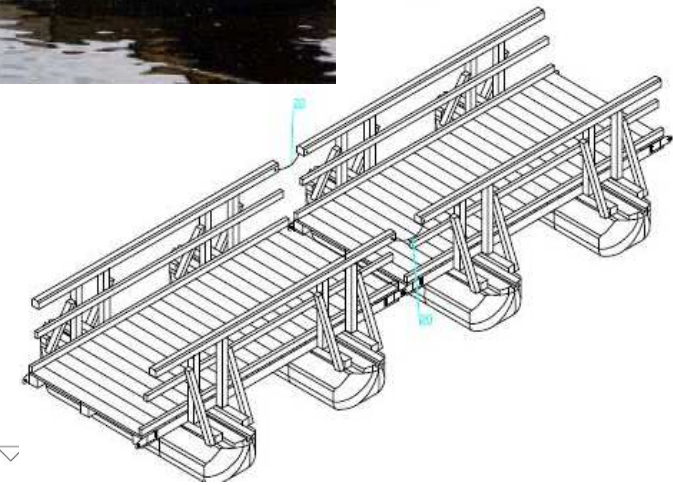
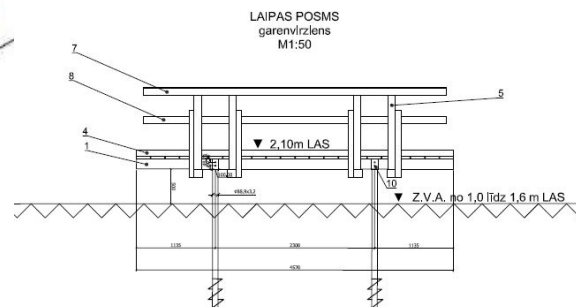
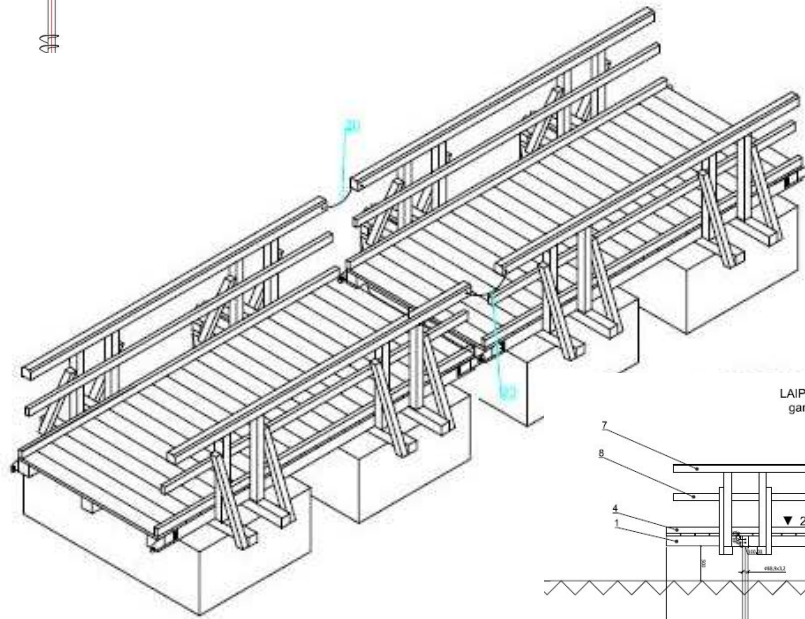
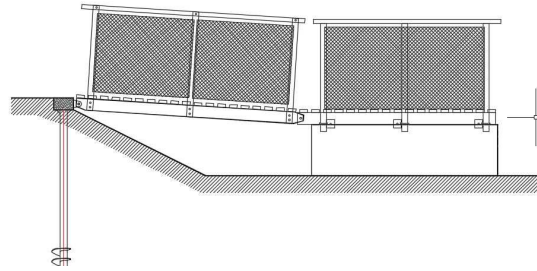
Project solutions:

- Ponds and ditch system for stormwater collection and retention;
- Wooden pathways built on pontoons or metal pillars for walking and recreational activities (2 886 m²);
- Meanders and wetlands (12 877 m²) for the purposes of sedimentation and retention;
- Technical paths for managing ponds, wetlands and meanders, as well as for walking purposes (1199 m²);
- Renovation of ditches 2648 m;
- Restoration of the existing ditch between Sniega Street and Vītoli road - 808 m;
- Rehabilitation of existing rainwater collection and discharge pipelines: Bebru road 715 m, Smilgu Street 105 m, Sniega street 75 m;
- Construction of three flow-regulators on Snow Street;
- Rebuilding of pipelines - 47 units;

Approximate cost 1136917 euro.



Establishing green infrastructure in the adjoining areas of Sniega Street, Jelgava Pathway





Thank you!

Contact

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