

DESKTOP SURVEY VALKEISVAARA-PALTAMO

1. Implementation

Date	21.7.2025
Time	
Weather	
Conditions	

Participants	Function	Company
Tino Haakana		Ville Silvasti Oy

1.1 Start and end points of the route

Start point	Coordinates	End point	Coordinates
Port of Raahе	64.660989, 24.411996	Site entrance Valkeisvaara, Paltamo	64.438746, 28.074798

1.2 WTG type

Number of WEA	Type WTG	Type tower	Type blade
6	6.6MW	165HH	SG170
	7.2MW	166HH	V172

1.3. Total dimensions checked

Component	Length	Width	Height	Weight	Overhang
Tower	57m	6,5m	7,8m	175t	
Blade	96m	4,5m	4,5m	69t	11m



2. Result

Purpose of this desktop survey was to define feasible route for transports with total dimensions stated in the report. Location of the site entrance is known.

Desktop survey is based on previous experiences, available maps and simulations based on maps available online.

The Port of Raahe was selected as the proposed port for the Valkeisvaara project transports due to its good transport connections and experience with wind power logistics. The port is located near the E8 highway, and investments have been made in the local road infrastructure in recent years—particularly on the route between Lapaluoto and the Route 8—to support long special transports through permanent infrastructure arrangements.

3. Routes

The transport routes from the port to the wind farm follow two different corridors, depending on the components being delivered. The routes primarily utilize the national highway and regional arterial road network.

For blade transports, a more direct route is proposed via the Lapaluoto Gate of the port, continuing along Lapaluoto Road and further via regional road 88, national road 28, national road 5, and national road 22 to the site area.

High-load transports exit via the gate on the SSAB side, passing through the SSAB port and industrial area to Koksaamontie, which connects to national road 8.

The route continues via the Haarasilta interchange in Liminka to national road 4, and further to Siikalatva, where the routes merge and continue together towards Kajaani. In Kajaani, the routes diverge due to height restrictions on national road 5.

Loads with lower transport height can proceed along the main road past Kajaani, while overheight transports are required to take a detour through the city street network.

3.1. Route clarifications

Route for the blade transport:

Port of Raahe – Lapaluodontie – Road 88 – Road 28 – Road 5 – Road 22 – Road 8852/Heikkisenjoentie – **Site entry**

Route for the heavy and high-load transport:

Port of Raahe - Koksaamontie – Road 8 – Road 4 – Road 88 – Road 28 – Road 5 – Reissumiehentie – Lönnrotinkatu – Sotkamontie – Kehräämöntie – Nuaskatu – Road 5 – Road 8890 – Kulunnantie – Road 5 – Road 22 – Road 8852/Heikkisenjoentie – **Site entry**

3.2 Disclaimer of liability

This desktop survey is only general feasibility study and does not include physical route measurements
The given route is subject to final approval by the local authorities.
A test permit needs to be applied in order to define if heavy transport is possible on the defined route.



4. Route and maps

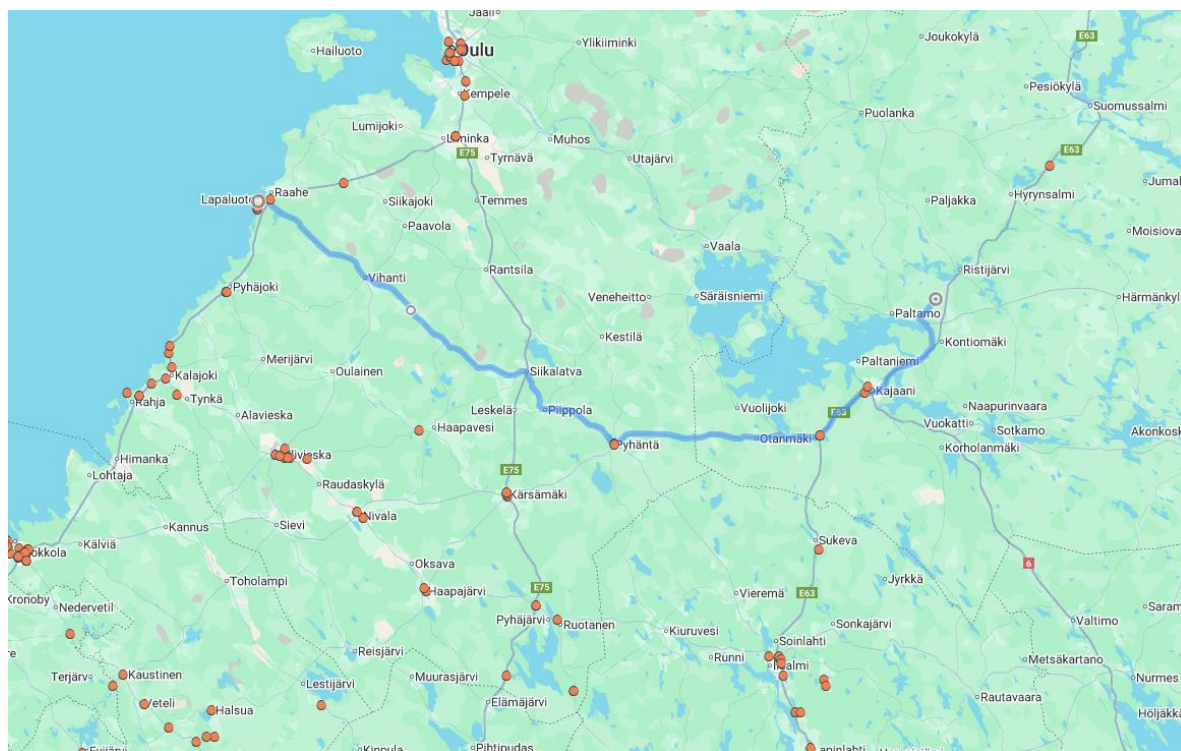
4.1 Overall route

Total length of the blade route 232 km (Google maps)

<https://maps.app.goo.gl/zkj8kKu58qWwxRac8>

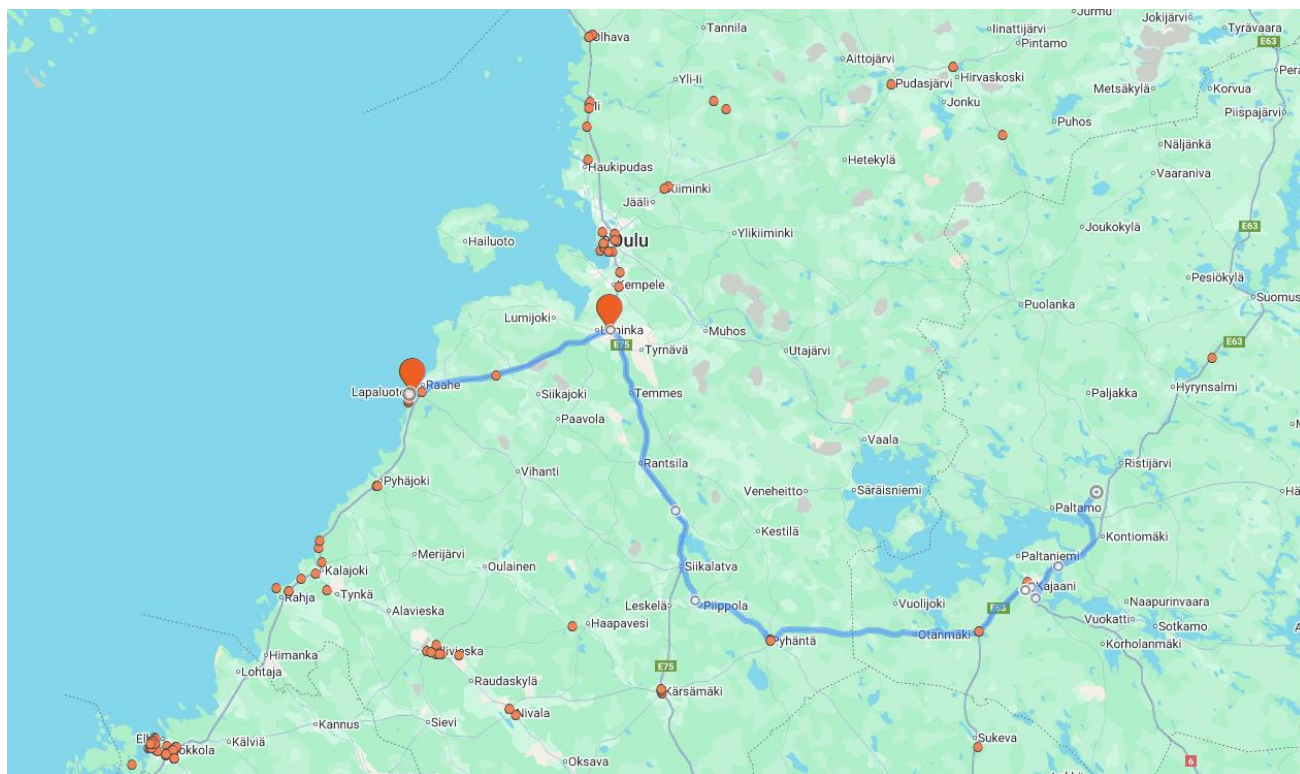
Total length of the heavy/high-load transports: 274 km (Google maps)

<https://maps.app.goo.gl/wm6Dwnv4QHLKf9Rd7>



Map 1. Route overview for blades





Map 2. Route for high-load and heavy

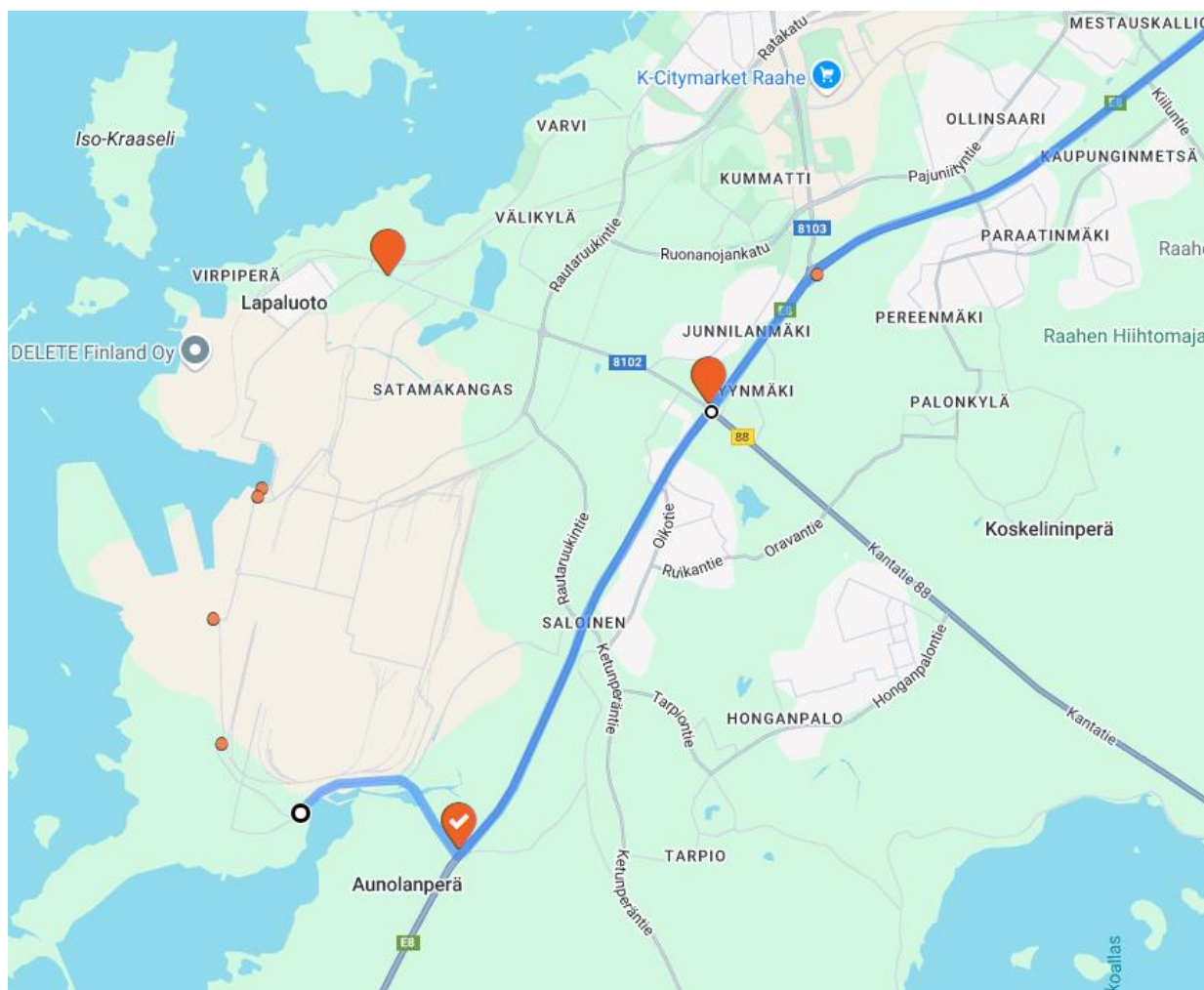


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Map 3. First part of the high-load and heavy route

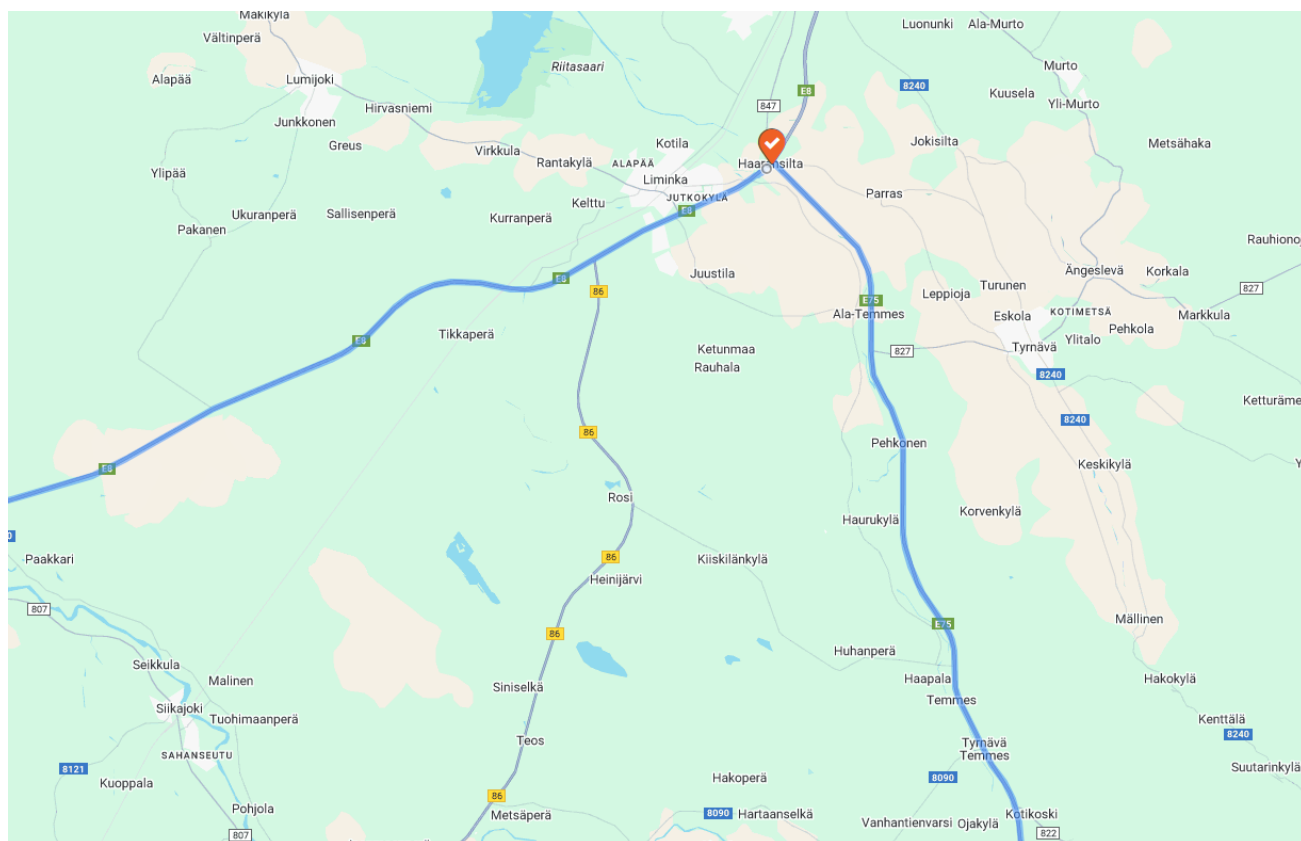


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Map 4. Second part of the high-load and heavy route



Map 5. Third part of the high-load and heavy route

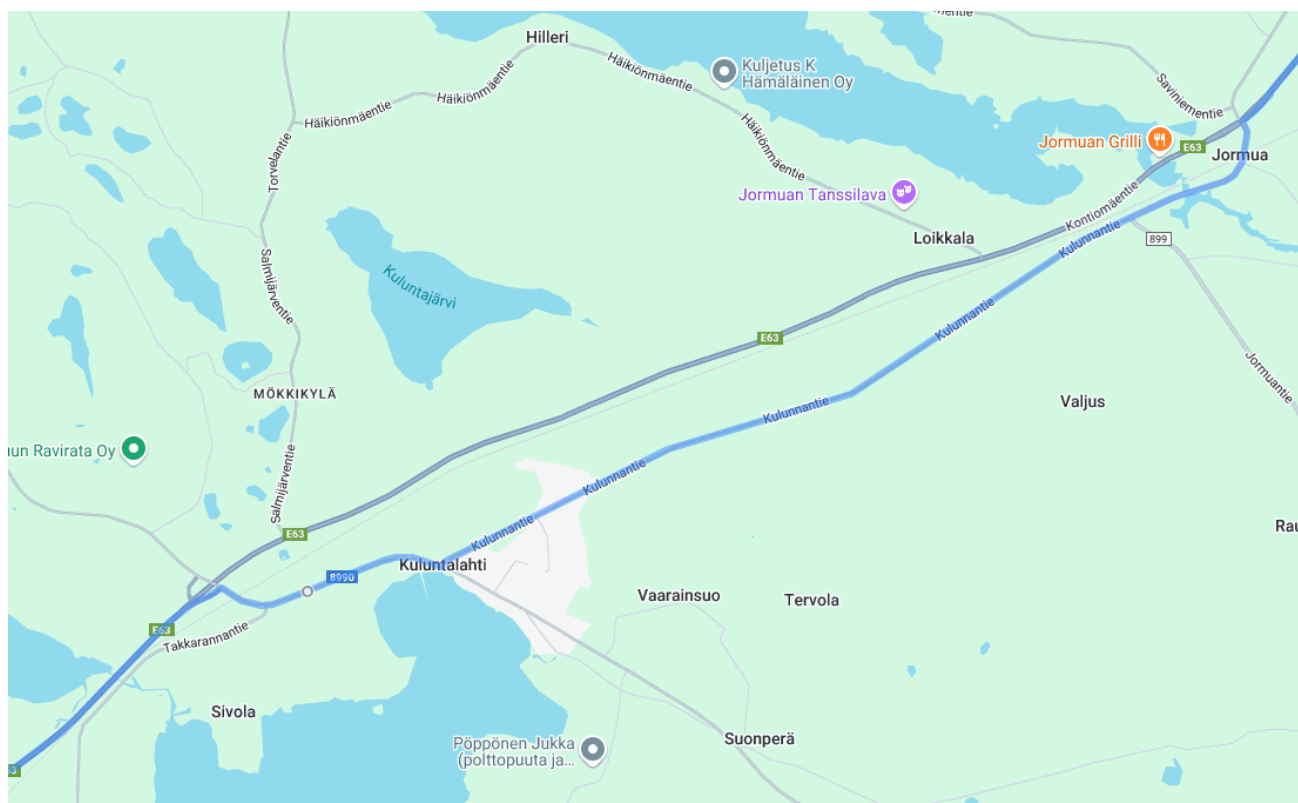


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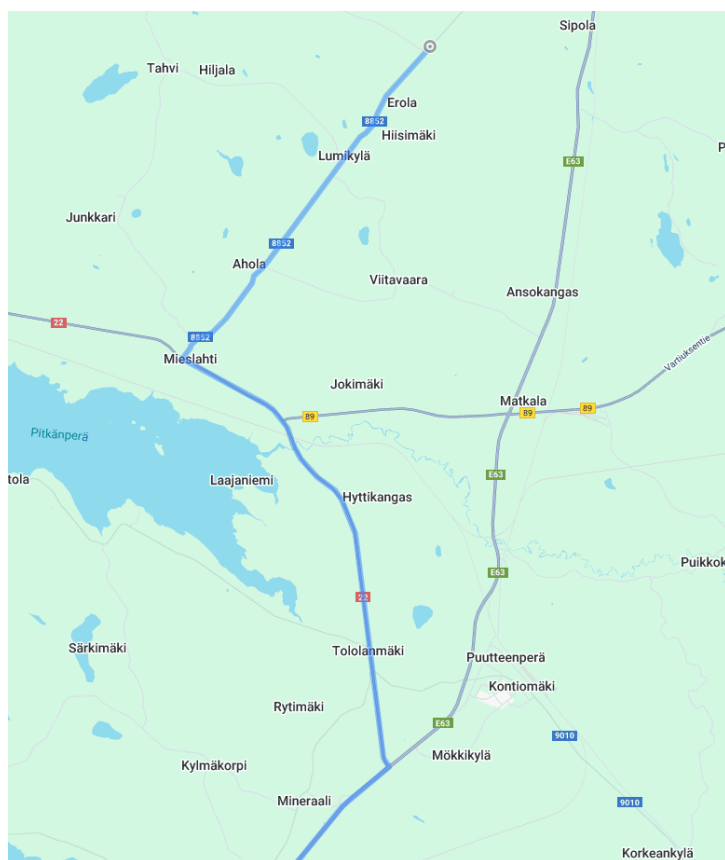


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Map 8. Sixth part of the high-load and heavy route

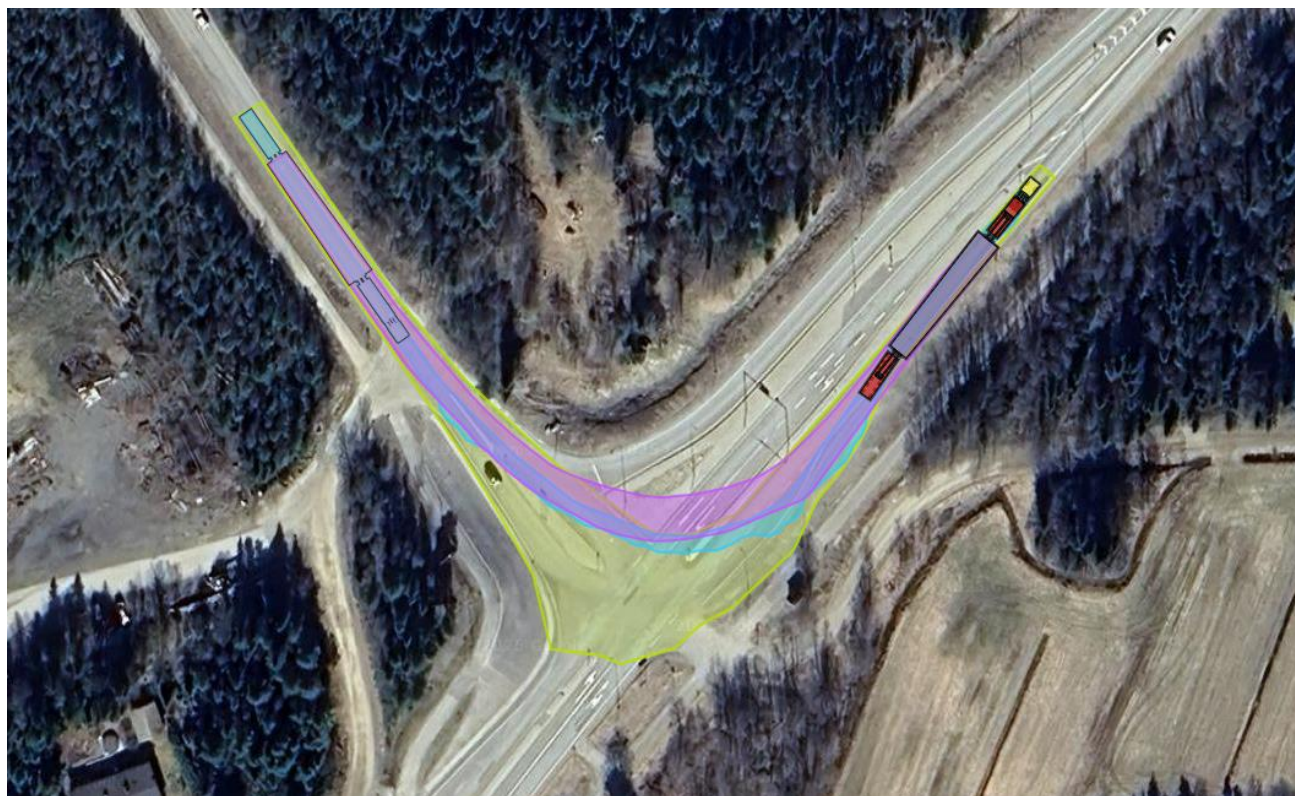


Map 9. Seventh part of the high-load and heavy route



5. Intersection simulations

5.1. Heavy/High-load



Intersection 1. Koksaamontie - Road 8



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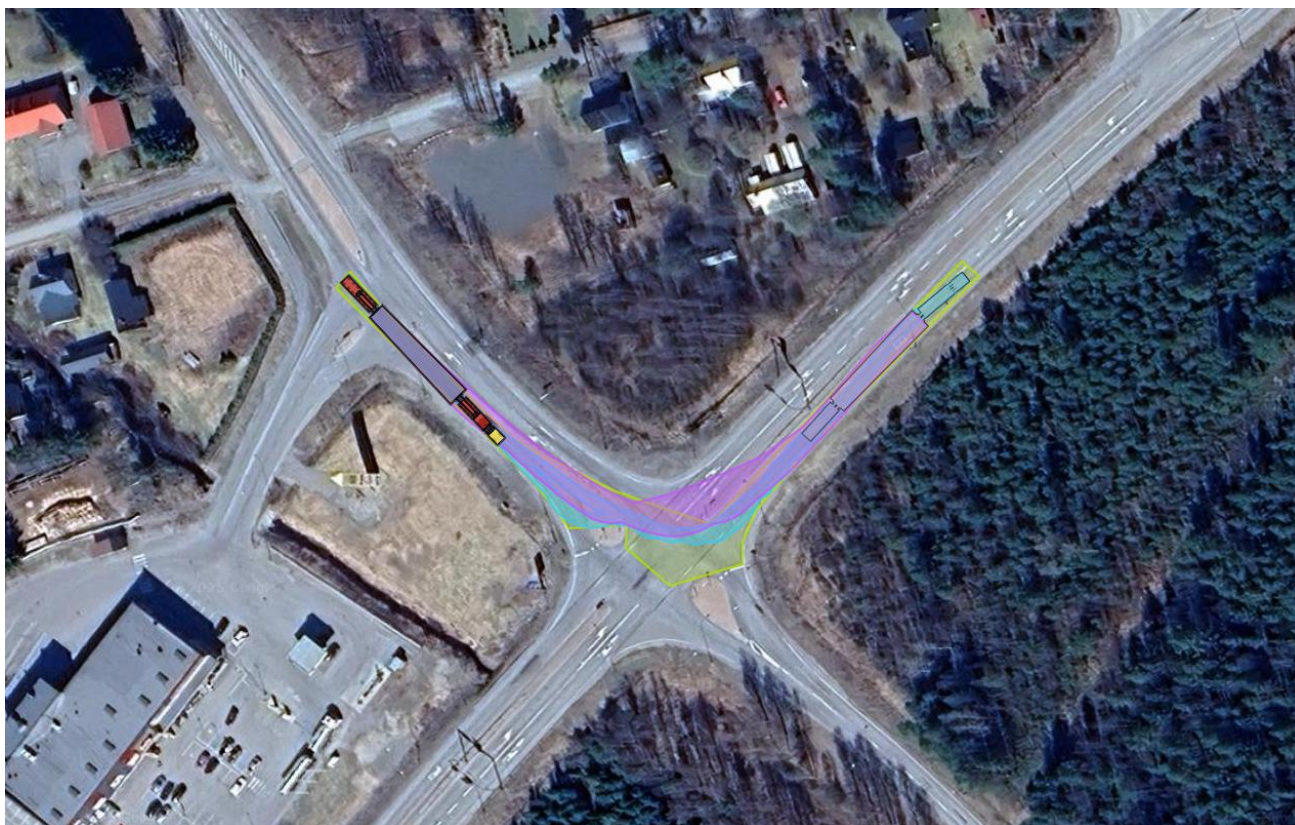


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Intersection 2. Haaransilta roundabout Road 8 - Road 4



Intersection 3. Pyhäntä Road 88 - Road 28



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Intersection 4. Mainua Road 28 – Road 5

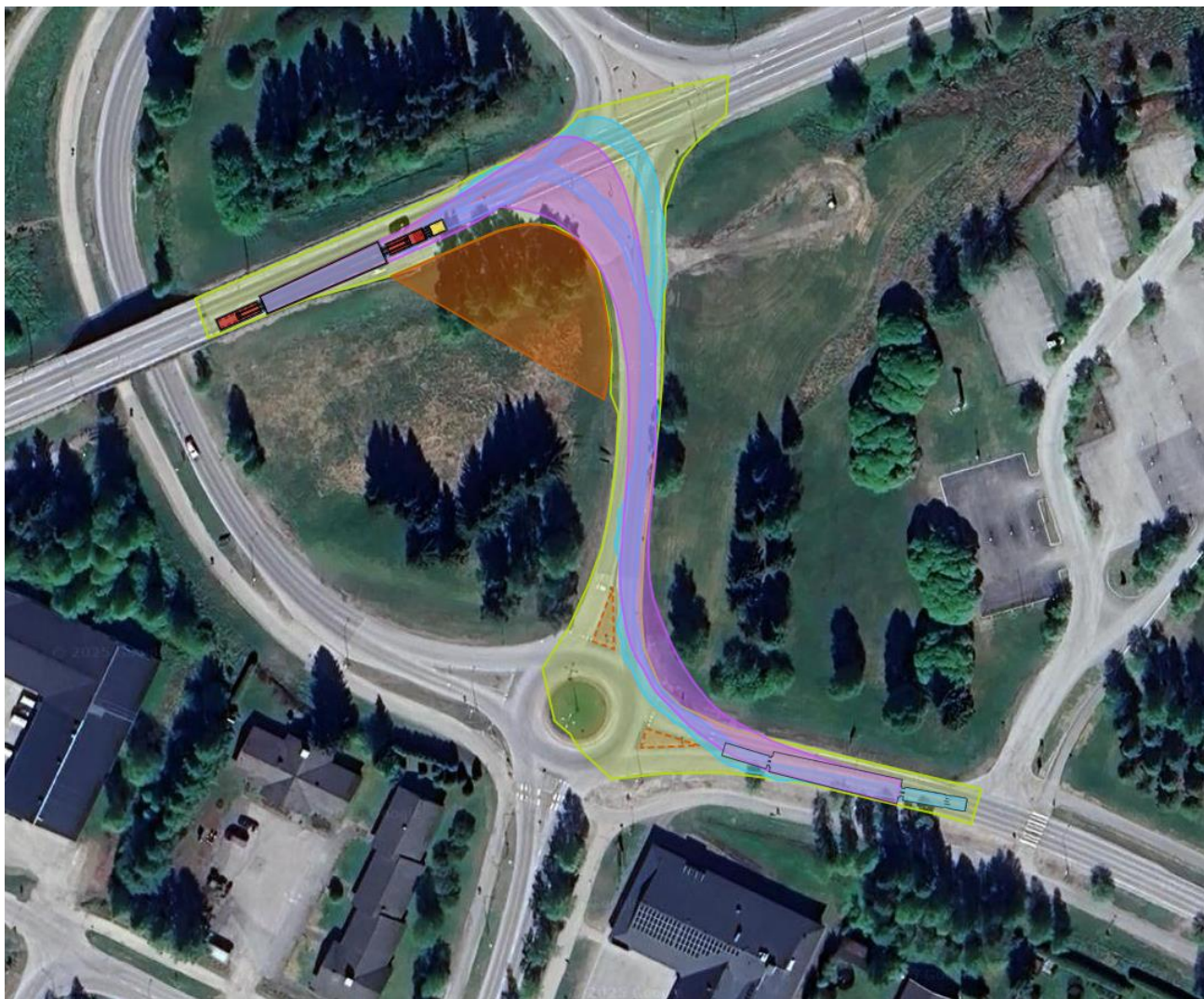


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Intersection 5. Road 5 - Reissumiehentie – Lönnrotinkatu

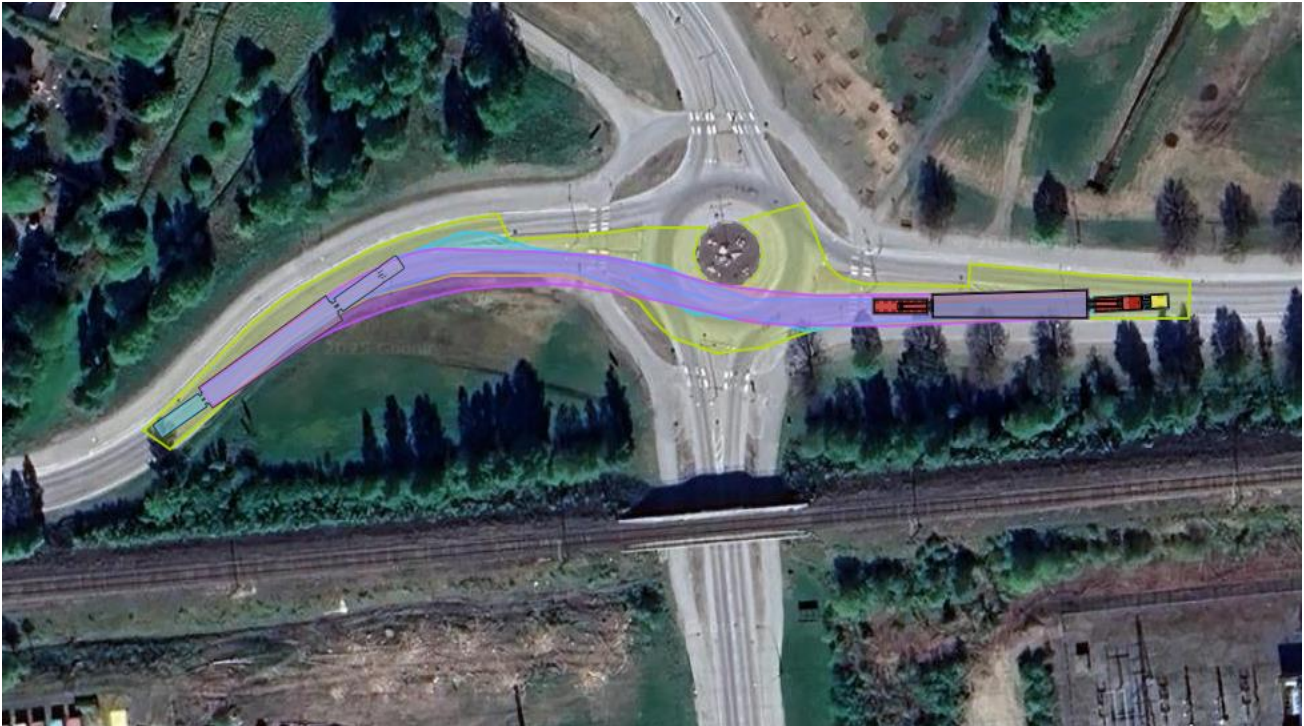


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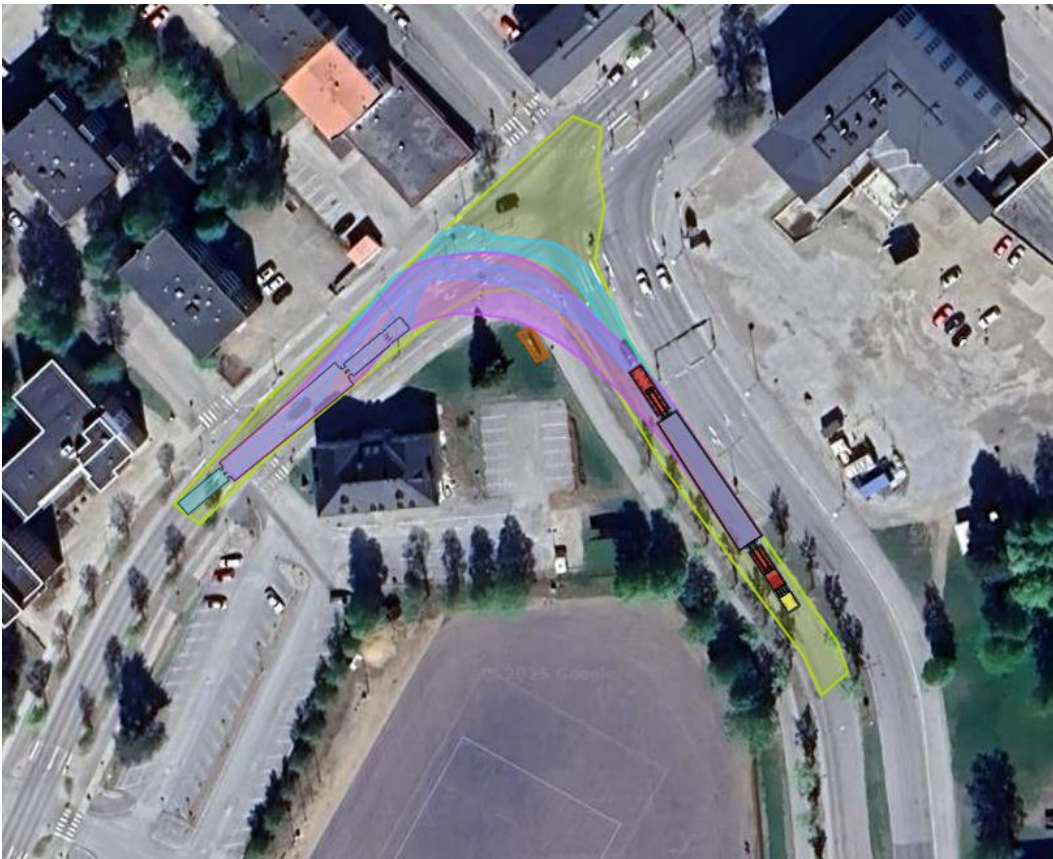


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Intersection 6. Lönrotinkatu roundabout



Intersection 7. Lönrotinkatu - Sotkamontie

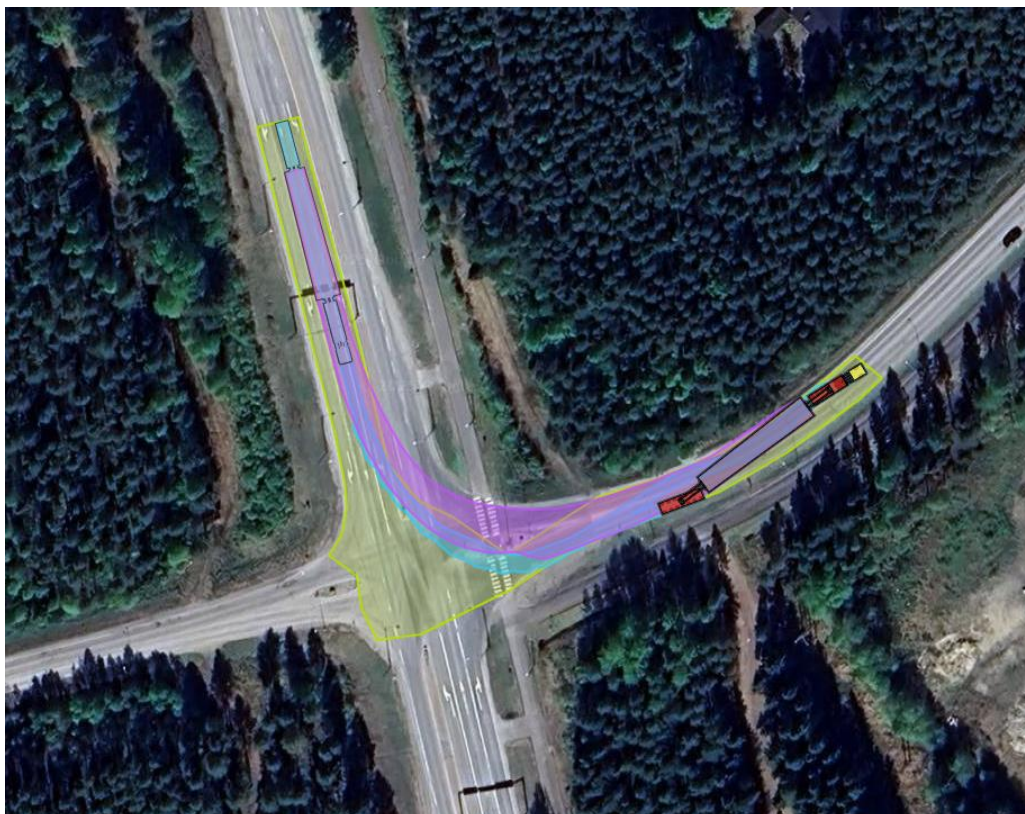


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Intersection 8. Sotkamontie - Kehräämöntie



Intersection 9. Kehräämöntie - Nuaskatu



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Intersection 10. Nuaskatu - Road 5



Intersection 11. Road 5 - Kulunnantie

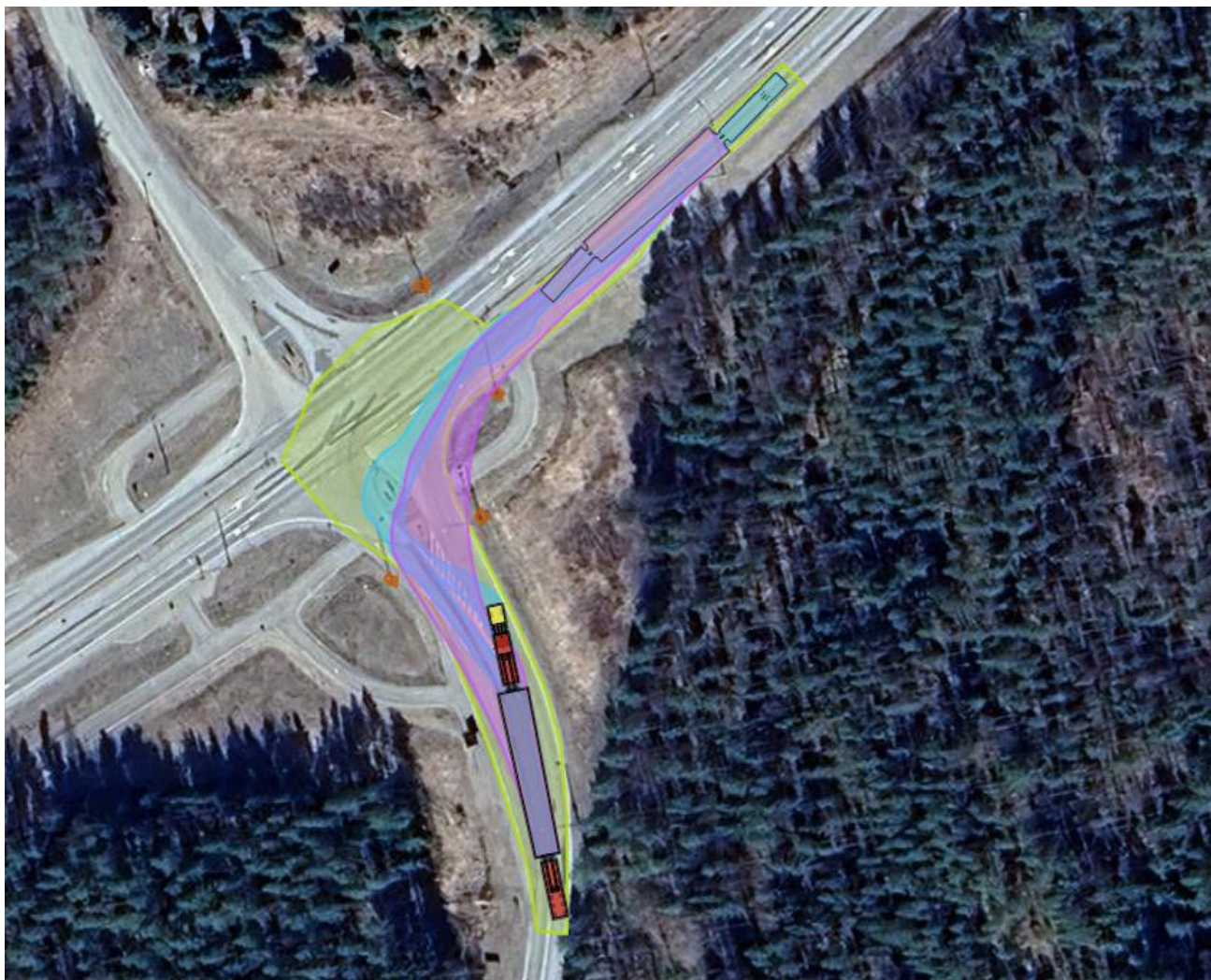


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Intersection 12. Kulunnantie - Road 5



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Intersection 13. Road 5 - Road 22



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Intersection 14. Road 22 - Heikkisenjoentie



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Intersection 15. Site entry



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5.2 Blades

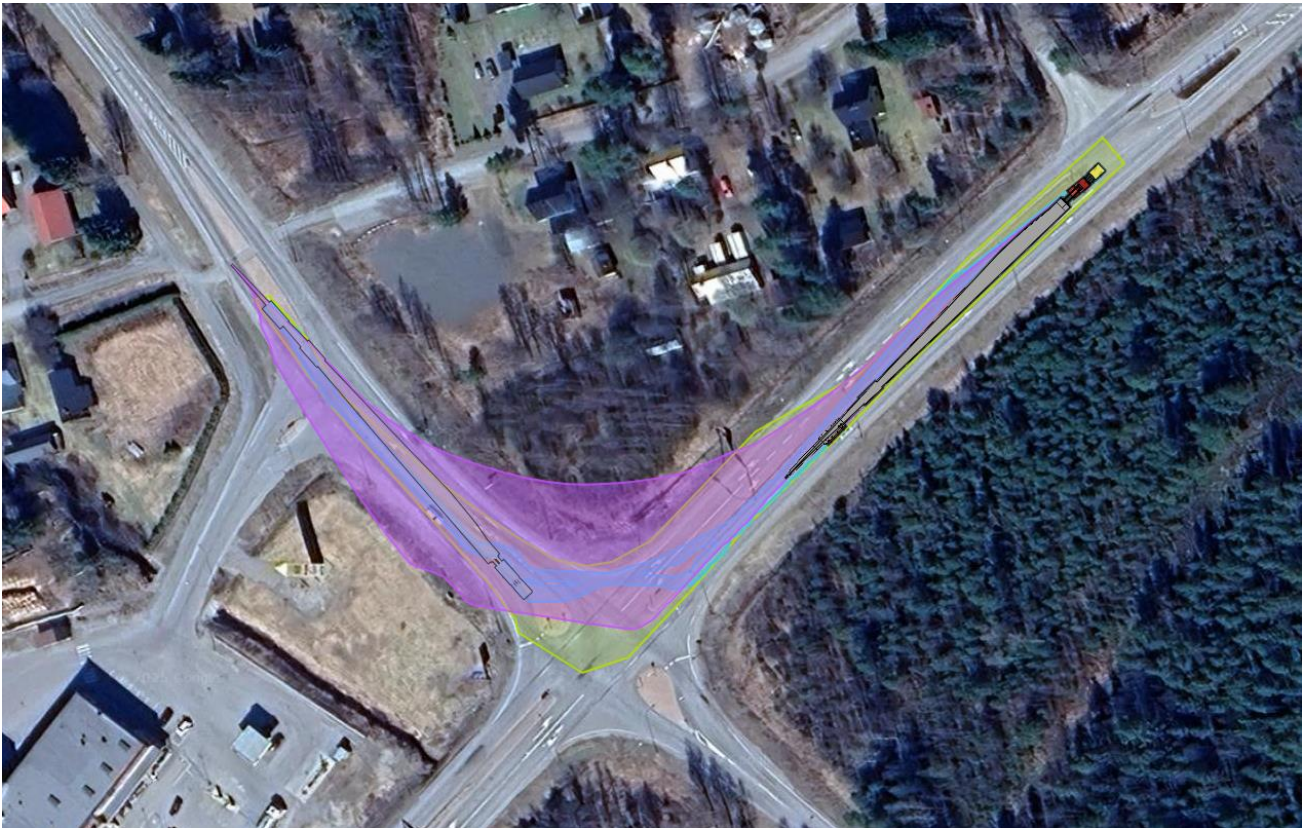


Figure 1. Pyhäntä Road 88 – Road 28



Figure 2. Mainua Road 28 – Road 5



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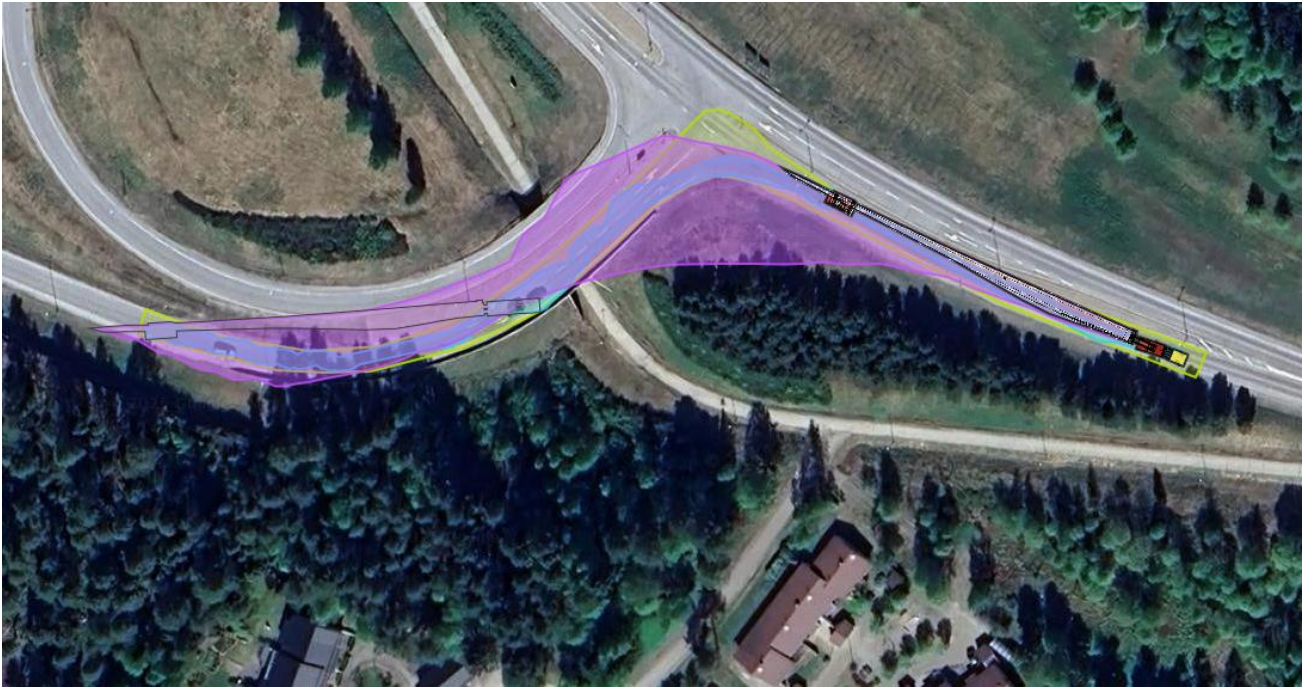


Figure 3. Road 5 Kajaani junction



Figure 4. Road 5 - Road 22



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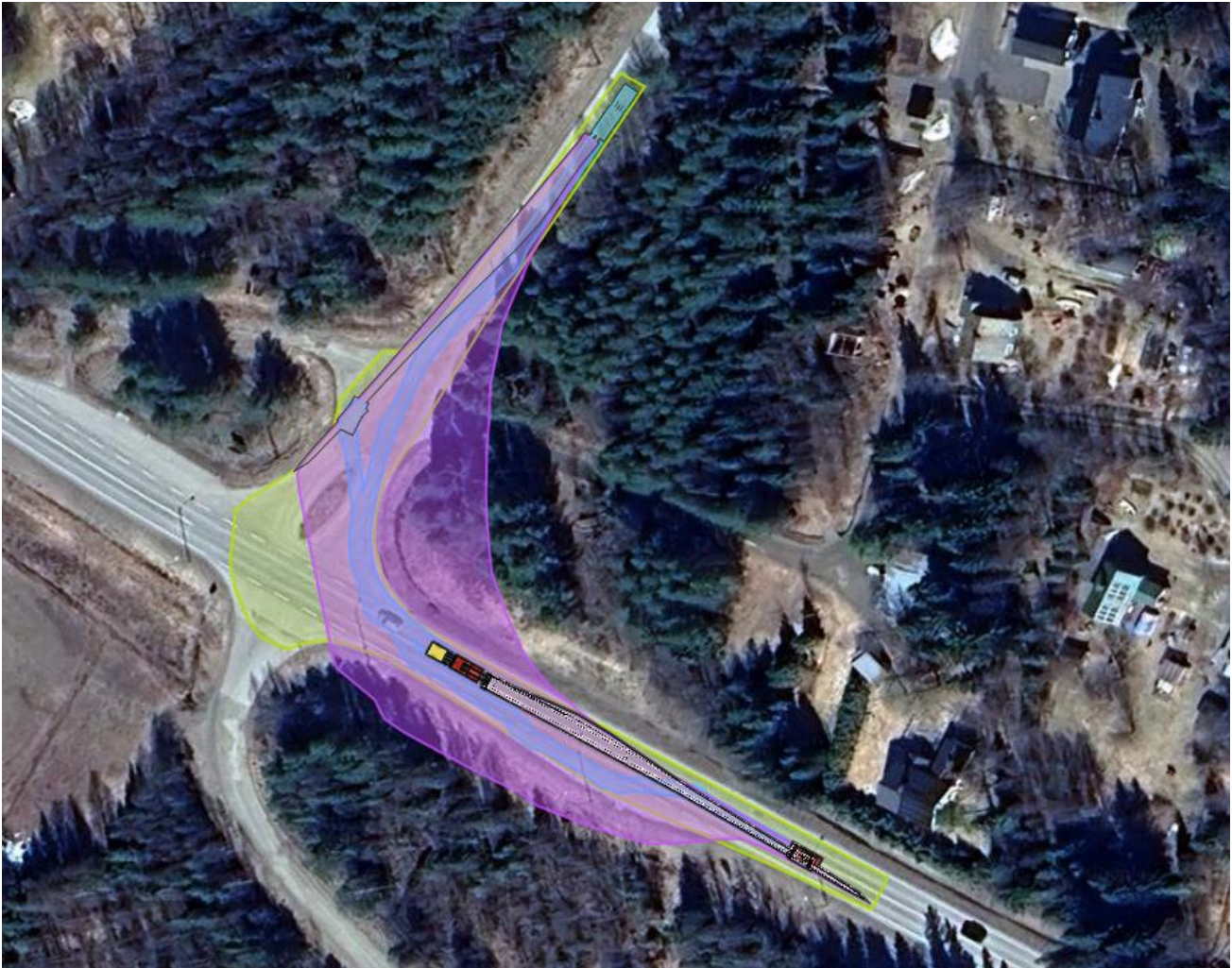


Figure 5. Road 22 - Heikkisenjoentie

5. General notes

Based on virtual turning simulations, it can be anticipated that certain intersection modifications will be necessary. The primary constraints include traffic signs, traffic islands, and other types of street furniture, which may require removal or temporary relocation to accommodate turning maneuvers. The simulation has been conducted with an emphasis on utilizing the public road network while minimizing the use of private property or non-public areas.



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