

ROUTE SURVEY KÄRMEKALLIO

1. Implementation

Date	19.12.2023	
Revision nr - modified by	1.0 –SK	
Time	9:00-19:00	
Weather	+0 C	
Conditions	Snow	
Participants	Function	Company
Sami Kivelä	Site Manager	Silvasti

1.1 Start and end points of the route

Start point(s)	Coordinates	End point	Coordinates
Port of Pori Gate 1	61.592028, 21.482778	Site entrance Kärme kallio	61.395673, 22.674661
Port of Pori Gate 2	61.592124, 21.486144		

1.2 WTG type

Number of WEA	Type WTG	Type tower	Type blade
?	?	?	?

1.3. Total dimensions checked

Component	Length	Width	Height	Weight	Overhang
Blade	112,0m	4,50m	4,50m	?	? m
Tower	50,0m	6,50m	6,80m	?	



2. Result

Purpose of this survey was to define feasible route for transports with total dimensions stated in the report from port of Pori to site area Kärme kallio, in Sastamala municipality, Finland.

Location of the site entrance is known, since original entrance is not feasible, site entrance need to be moved. Used new estimated site entrance.

Survey is based on use of dollytrailer for blade transports and clamp trailer for tower transports.

Final dimensions of all drivable and oversail areas to be defined after transport dimensions of blades and heavy components are confirmed.

All modifications mentioned in the report are needed to enable the transports.

Modifications inside of port area are excluded from this report.

Planned site entrance need to be changed and new site entrance to be located on junction road 44 / Portaanpääntie.

On the basis of the executed survey, route from POL until to the site entrance is feasible when modifications shown in this document are made.

2.1 Disclaimer of liability

This survey is valid only on the day it is compiled.

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.

A second feasibility check of the proposed route must be done at least 10 weeks before start of deliveries.



3. Route and maps

3.1 Overall route

Total length of the route(s) from the port: Route 1 - 76km. Route 2 - 76km.

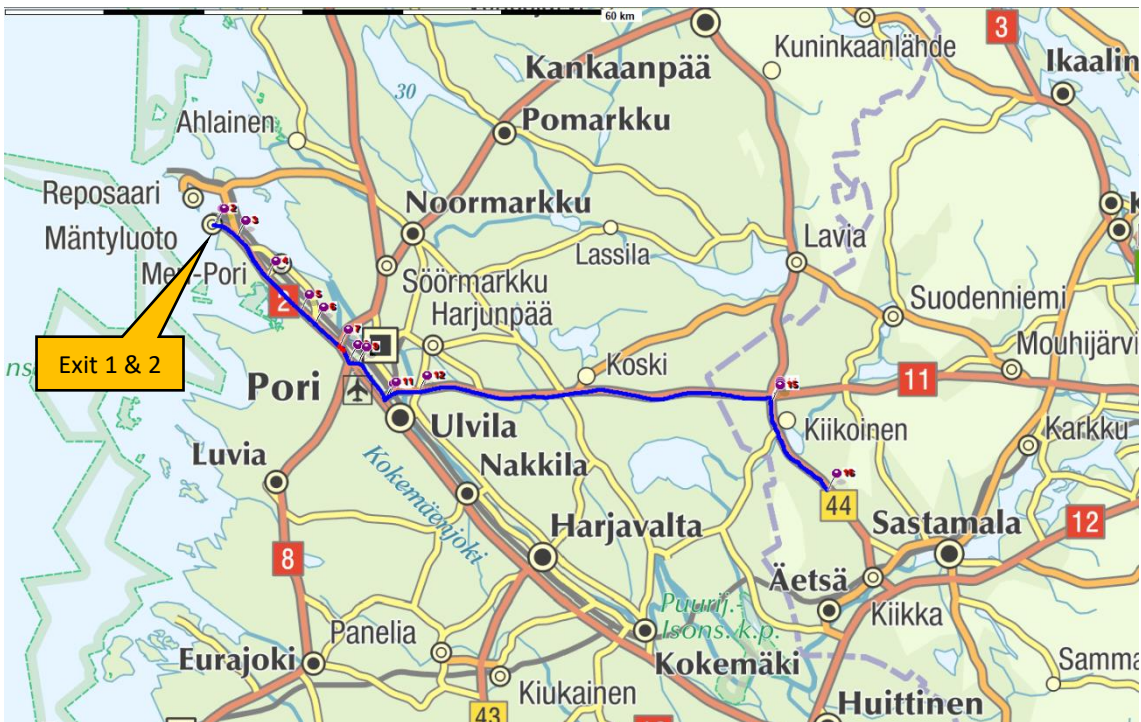
Route 1 (Blades) in google maps: <https://maps.app.goo.gl/Lj5ZWpEiTSkMCNiv5>

Route 2 (Towers) in google maps: <https://maps.app.goo.gl/sXDQJ1JJwEjDgN8v8>

Route description:

Route 1: Port of Pori – road 2 – road 11 – road 44 – New site entrance Portaanpäätie 1.

Route 2: Port of Pori – road 2 (bridge detour via ramps) – road 2 – road 11 – road 44 – New site entrance Portaanpäätie 1.



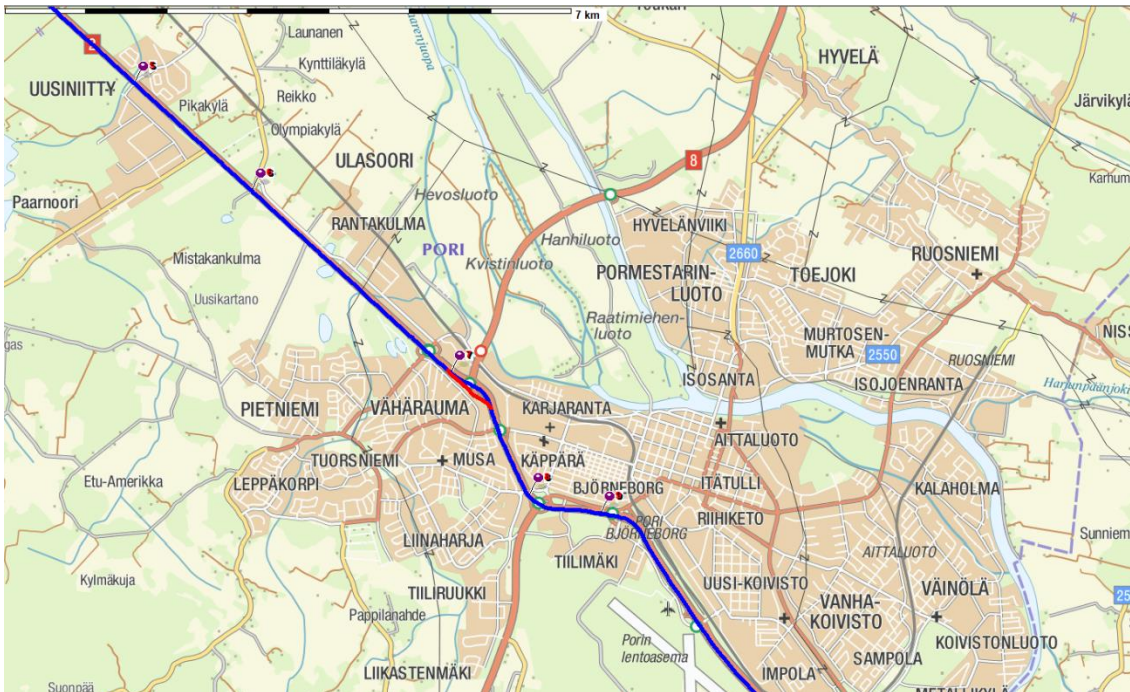
Map 1. Route overview.



3.2 Maps 2-6 – Positions noted.

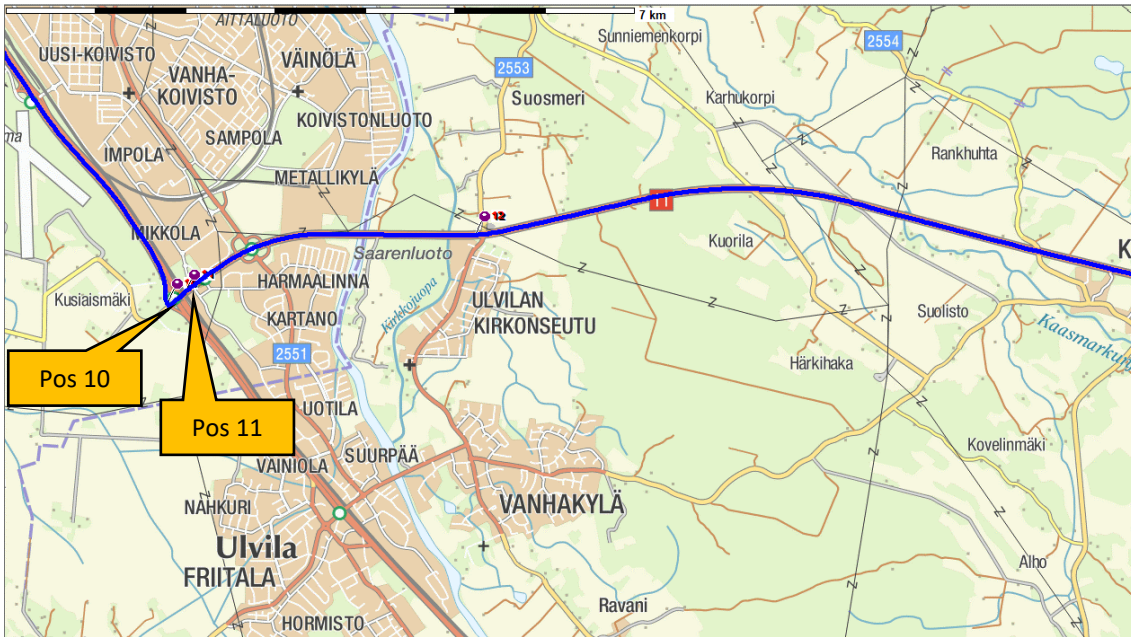


Map 2. First part of the route. Bridge detour marked as red.

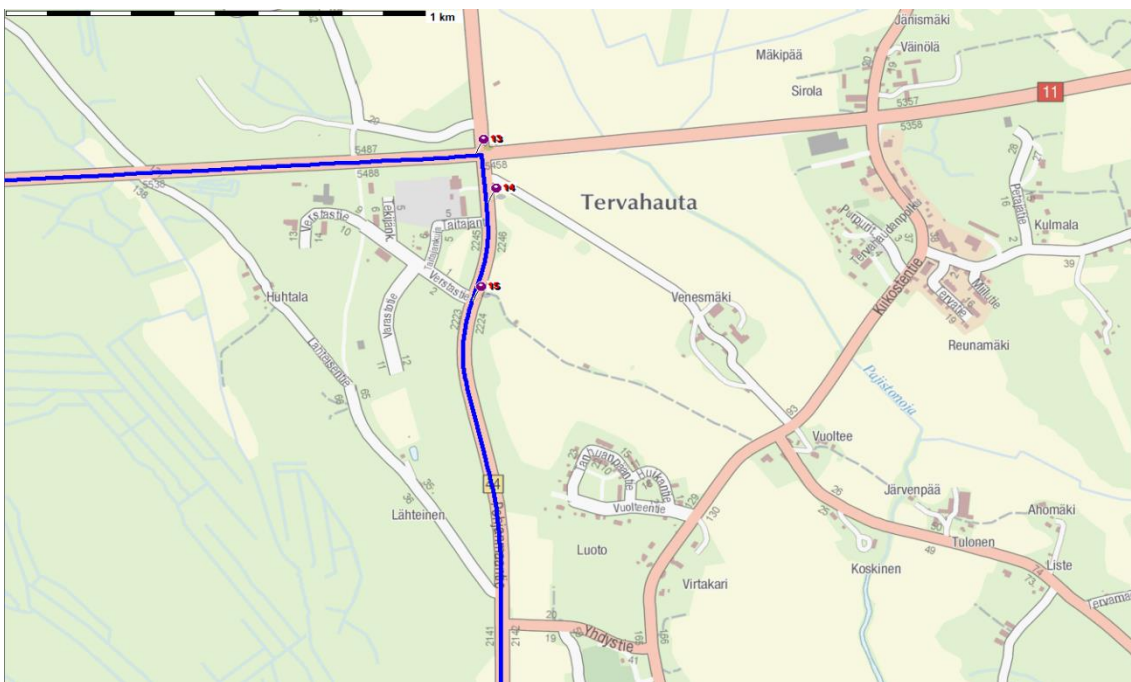


Map 3. Second part of the route. Bridge detour marked as red.



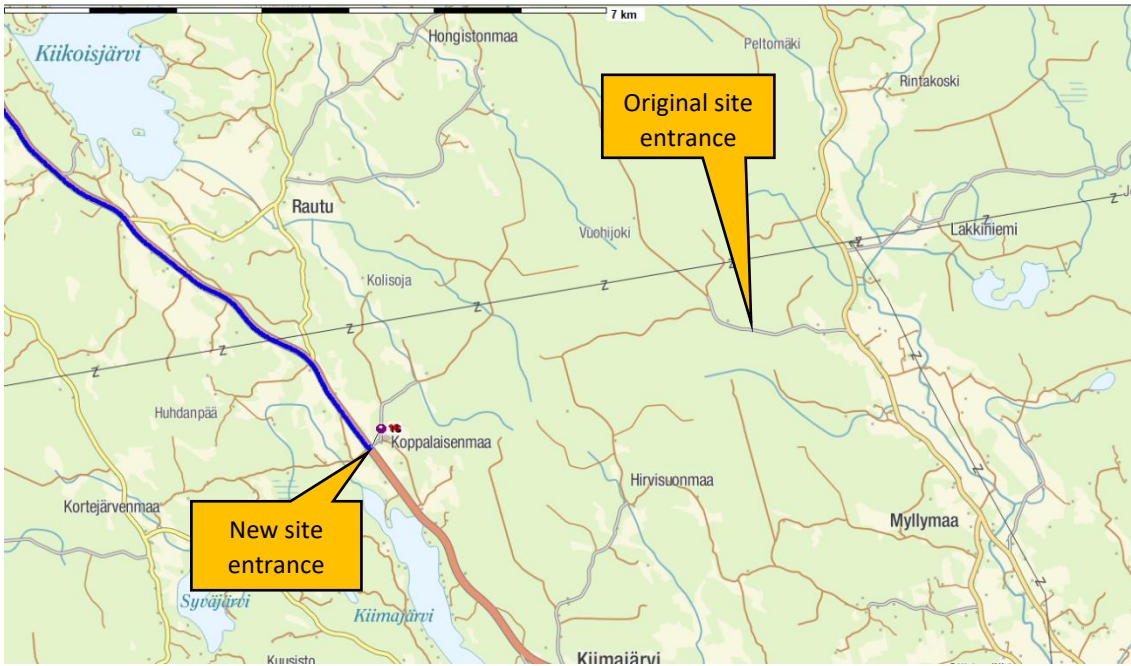


Map 4. Third part of the route.



Map 5. Fourth part of the route.





Map 6. Last part of the route. New site entrance position 16 (Junction road 44/Portaanpääntie). Original site entrance is not feasible via road 2492 without big road modifications.



4. Individual route sections



Pos 1/Pic 1. Exit from port via gate EK1. <https://goo.gl/maps/BamiPLb9PiQk4WWk7>
This gate to be used for blades. Marked lamp post need to be removed.



Pos 1/Pic 2. Exit from port via gate EK1.
Marked trees need to cut. Marked lamp posts need to be removed. Marked area need to be filled and drivable.





Pos 1/Pic 3. Exit from port via gate EK1.
Marked area need to be free during transport period, no parking allowed. Marked trees need to cut.

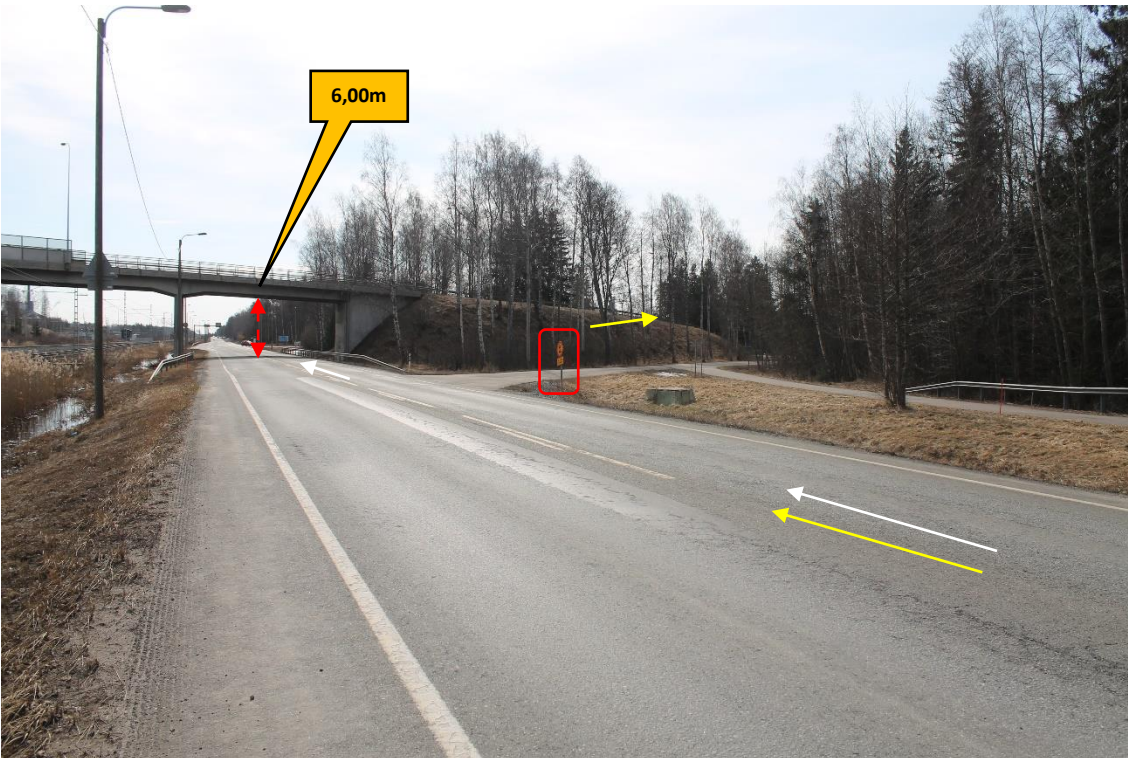


Pos 2/Pic 4. Exit from port via gate EK2. <https://goo.gl/maps/i92xEntjmmgKHUeD6>
White arrow points driving direction for blades. Gate EK2 is not suitable for blades.





Pos 2/Pic 5. Exit from port via gate EK2.
White arrow points driving direction for blades. Gate EK2 is not suitable for blades.



Pos 3/Pic 6. Bridge detour on road 2. <https://goo.gl/maps/p72e9yQF2igHNxZo6>
Blades continue straight under bridge. Marked sign need to be removed.



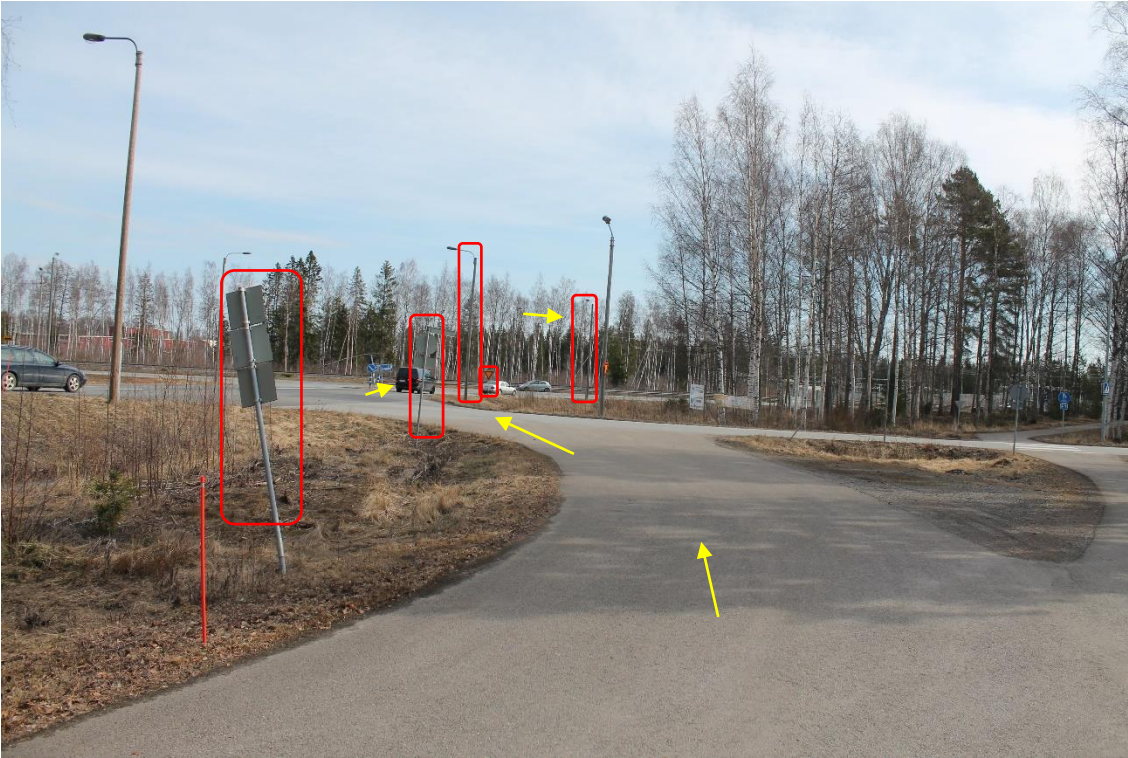


Pos 3/Pic 7. Bridge detour on road 2.
Marked sign to be removed. Marked tree branches need to cut.



Pos 3/Pic 8. Bridge detour on road 2.
Marked sign to be removed. Marked tree branches need to cut.





Pos 3/Pic 9. Bridge detour on road 2.
Marked signs and lamp posts need to be removed.



Pos 3/Pic 10. Bridge detour on road 2.
Marked signs and lamp posts need to be removed. Marked bushes need to cut.





Pos 3/Pic 11. Road 2. Bridge detour on road 2.
Marked Lamp post need to be removed.



Pos 4/Pic 12. Road 2. <https://goo.gl/maps/jZqxmZeLSkBpwQDDA>
Continue straight on counter lane.





Pos 5/Pic 13. Road 2. <https://goo.gl/maps/MFgg2rdeQ5U3TRn2A>
Continue straight on road 2.



Pos 6/Pic 14. Road 2. <https://goo.gl/maps/qUL7vx7awnimZaHNA>
Continue straight on road 2.





Pos 7/Pic 15. Road 2. <https://maps.app.goo.gl/bQaGLEET4wToPbx99>

Blades continue straight under bridge. All other transports will use detour via ramps. White arrow points driving direction for blades. Yellow arrow points driving direction for towers etc.



Pos 7/Pic 16. Road 2.

Modifications: N/A. Blades continue straight under bridge. All other transports will use detour via ramps. White arrow points driving direction for blades on counter lane. Yellow arrow points driving direction for towers etc.





Pos 7/Pic 17. Road 2. Bridge detour via ramps.
Marked sign need to be removed. Yellow arrow points driving direction for towers etc.

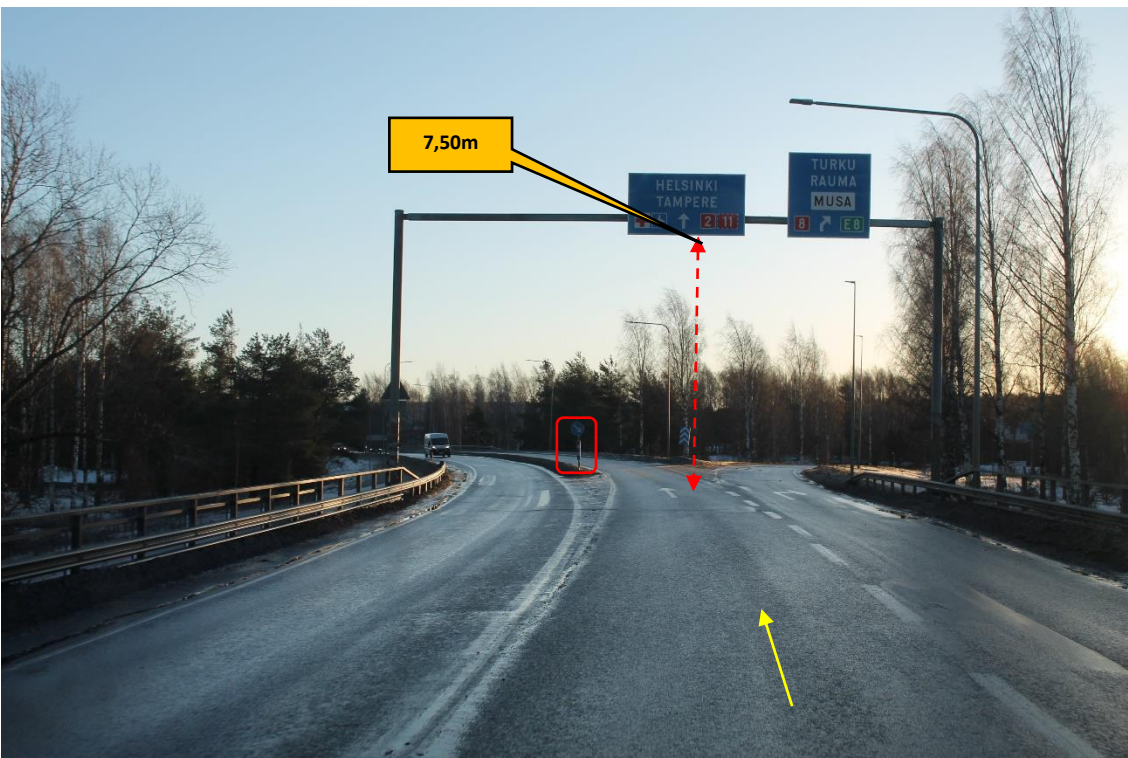


Pos 7/Pic 18. Road 2. Bridge detour via ramps.
Marked sign need to be removed. Yellow arrow points driving direction for towers etc.





Pos 7/Pic 19. Road 2. Bridge detour via ramps.
Yellow arrow points driving direction for towers etc. White arrow points driving direction for blades.

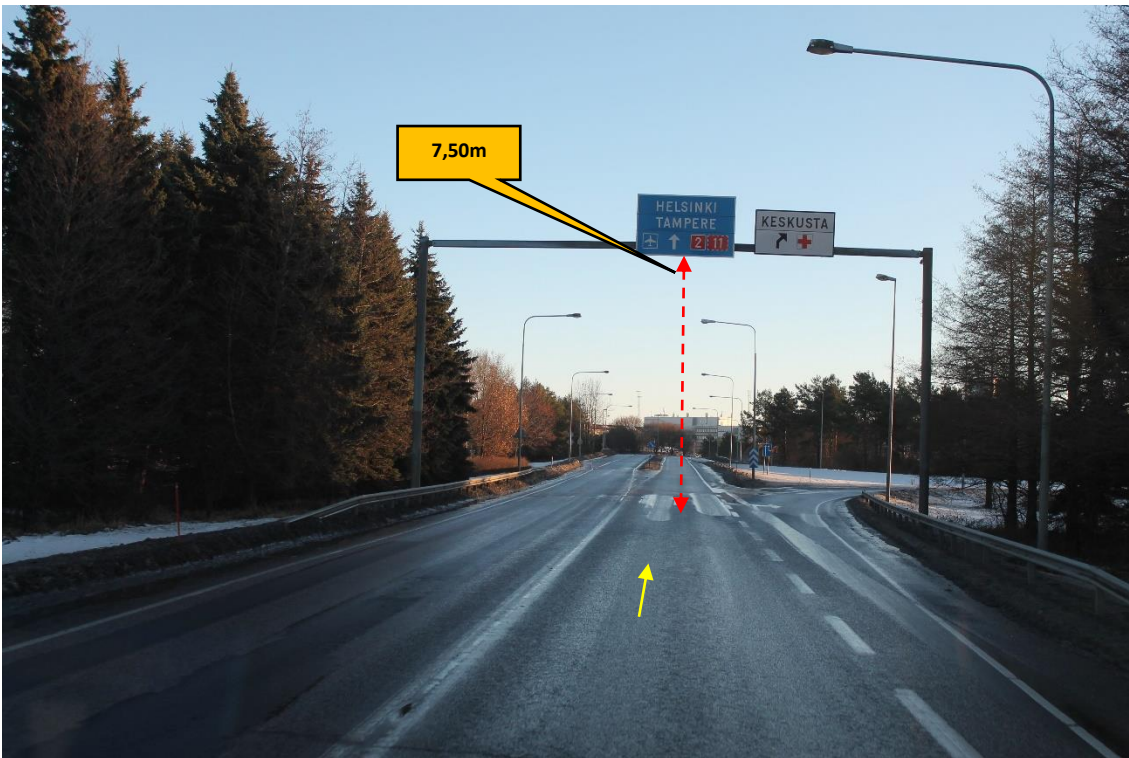


Pos 8/Pic 20. Road 2. <https://goo.gl/maps/rJKK61MdyGmQWw7jz>
Marked sign need to be removed.





Pos 8/Pic 21. Road 2. Marked signs (2pcs) need to be removed.



Pos 9/Pic 22. Road 2. <https://goo.gl/maps/efeZeRciesAur8NY8>
Info.



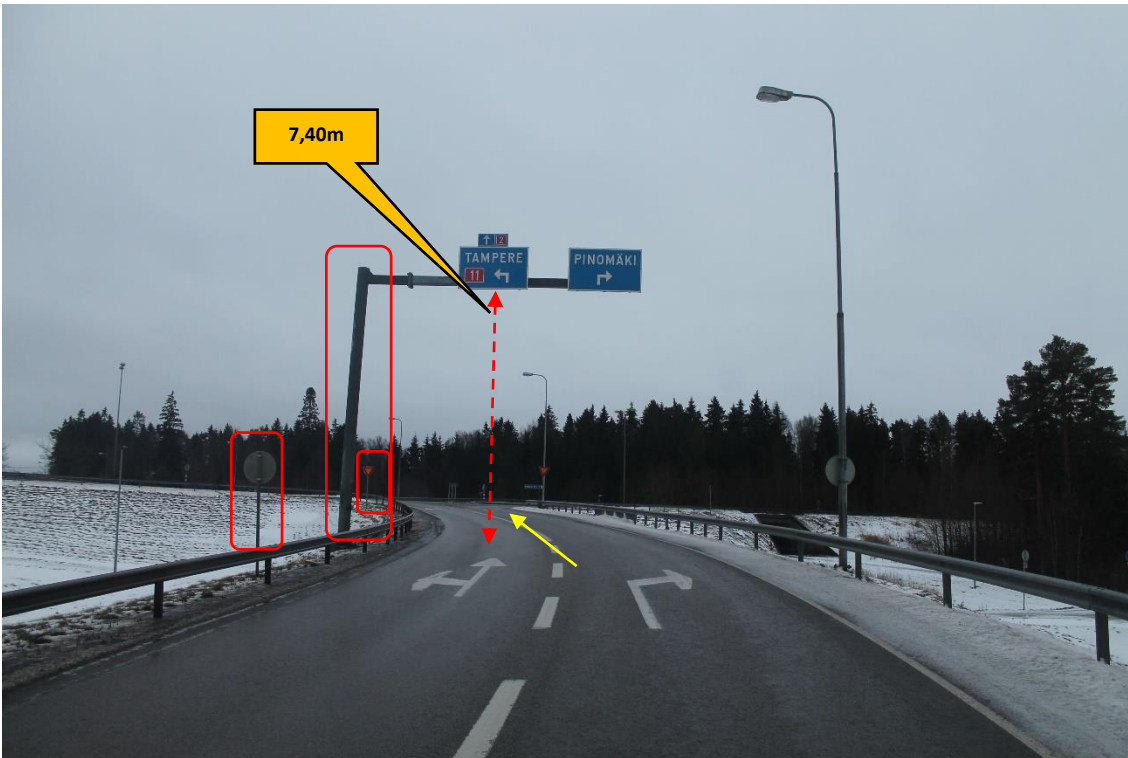


Pos 10/Pic 23. Turning from road 2 toward road 11. <https://goo.gl/maps/M8QLQMqDzs4V5PaA>

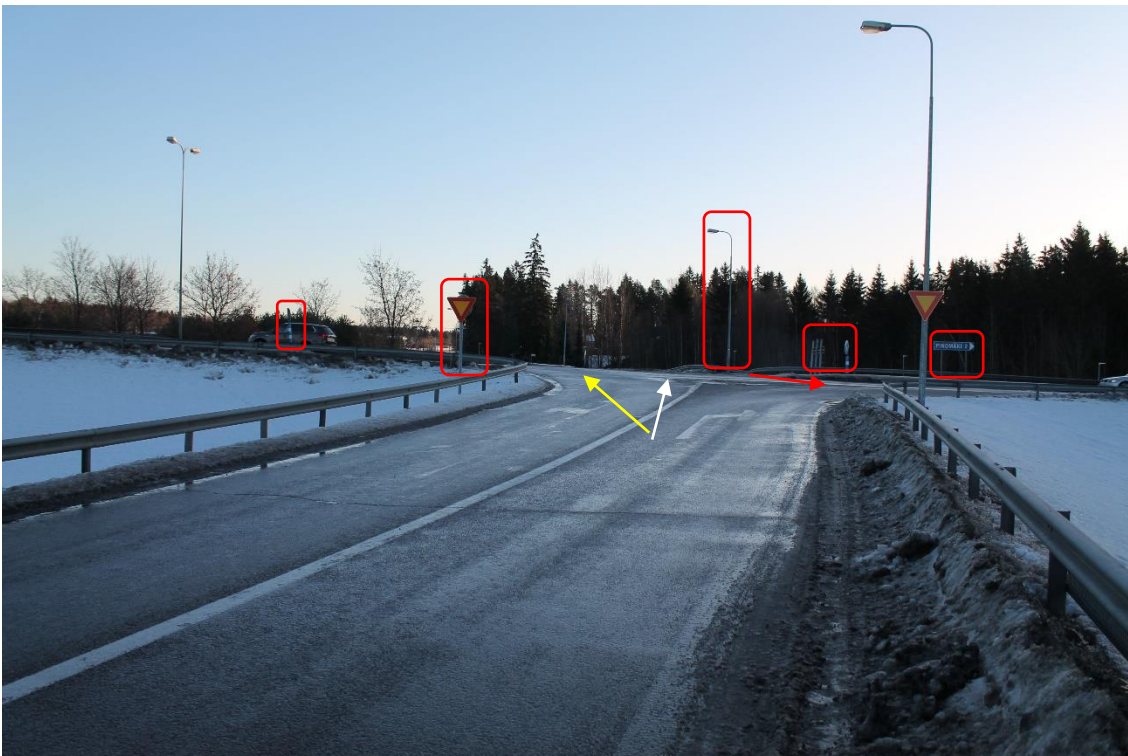


Pos 10/Pic 24. Turning from road 2 toward road 11.
Marked sign, lamp post and portal need to be removed.



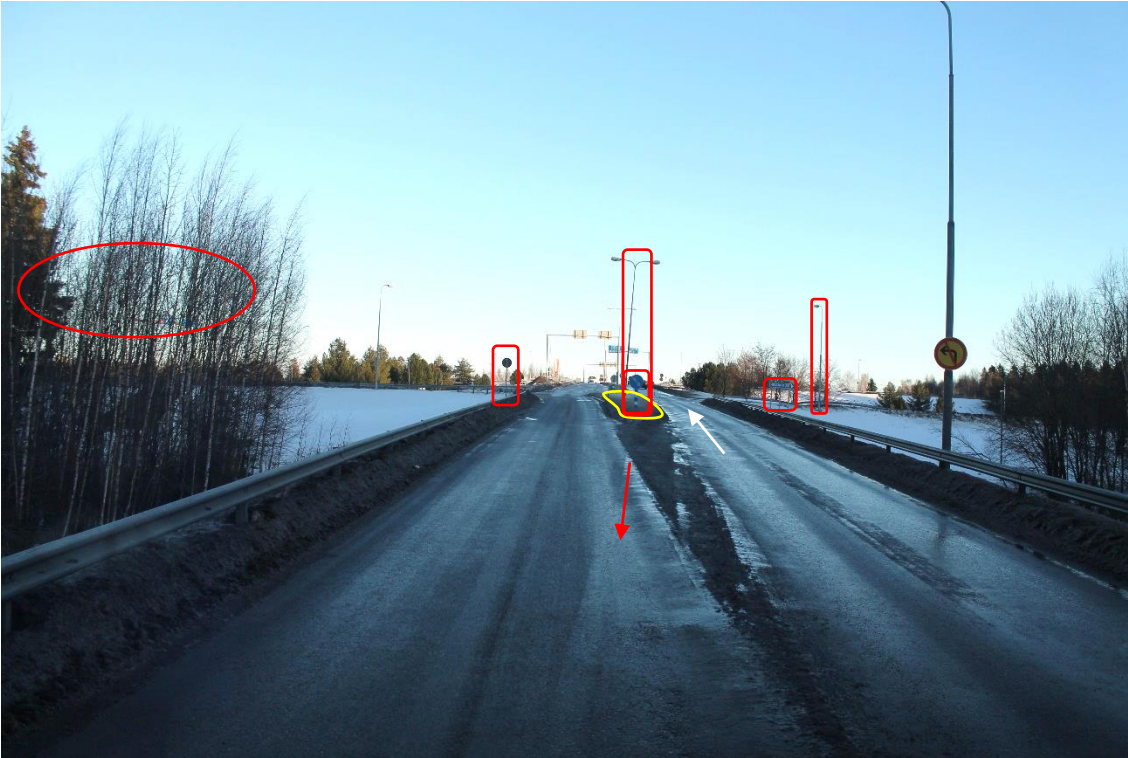


Pos 10/Pic 25. Turning from road 2 toward road 11.
Marked signs and portal need to be removed.



Pos 10/Pic 26. Turning from road 2 toward road 11.
Blades need to drive to ramp and reverse to right. Marked signs and lamp post need to be removed. Marked traffic island need to be flat and drivable.
Yellow arrow points driving direction for towers. White arrow points driving direction for blades.
Red arrow points reversing direction for blades.





Pos 10/Pic 29. Turning from road 2 toward road 11.

Marked signs and lamp posts need to be removed. Marked traffic island need to be flat and drivable. Marked trees need to cut. Yellow arrow points driving direction for towers. White arrow points driving direction for blades. Red arrow points reversing direction for blades.



Pos 10/Pic 30. Turning from road 2 toward road 11.

Marked sign need to be removed.





Pos 11/Pic 31. Road 11. <https://maps.app.goo.gl/UWgJ2rpyX1LDJPos6>
Info.



Pos 11/Pic 32. Road 11.
Marked sign need to be removed.





Pos 12/Pic 33. Road 11. <https://maps.app.goo.gl/dxjqsU7FoGuEHns66>
Info.



Pos 13/Pic 34. Turning from road 11 toward road 44. <https://maps.app.goo.gl/Dfo2ygXznNgfgHkAA>
Marked sign and lamp posts need to be removed. Marked trees need to cut.





Pos 13/Pic 35. Turning from road 11 toward road 44.
Marked signs and lamp posts need to be removed.

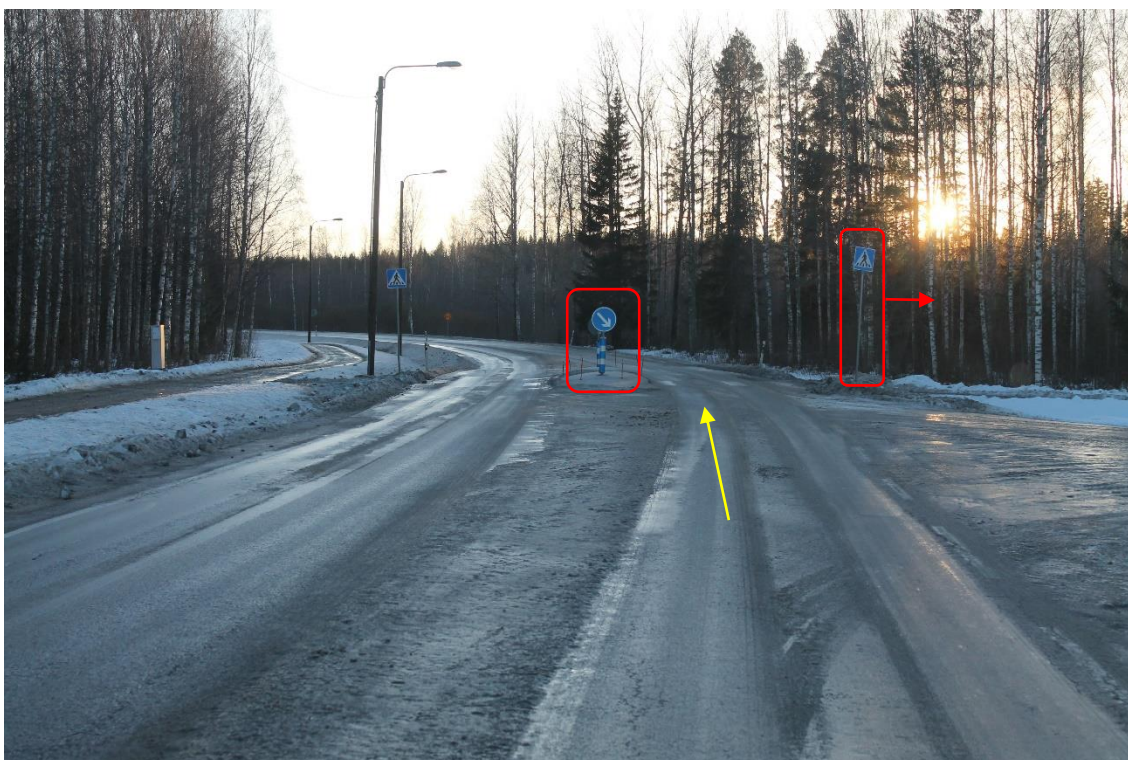


Pos 13/Pic 36. Turning from road 11 toward road 44.
Marked signs and lamp posts need to be removed. Marked area need to be filled.





Pos 14/Pic 37. Road 44. <https://maps.app.goo.gl/de5SA72tbh2o43a1A>
Marked signs need to be removed. Marked signs need to be moved more to the right.



Pos 15/Pic 38. Road 44. <https://maps.app.goo.gl/CK4715pskmGgyrJb7>
Marked signs need to be removed. Marked sign need to be moved more to the right.





Pos 16/Pic 39. Turning from road 44 toward Portaanpääntie. <https://maps.app.goo.gl/dbt7bWs6cA1BkCiK8>
This junction to be considered as new site entrance. Site entrance to be build according to specifications for site roads. Original site entrance is not feasible without big road modifications.



Pos 16/Pic 40. Turning from road 44 toward Portaanpääntie. <https://maps.app.goo.gl/dbt7bWs6cA1BkCiK8>
This junction to be considered as new site entrance. Site entrance to be build according to specifications for site roads. Original site entrance is not feasible without big road modifications.





Pos 16/Pic 41. Turning from road 44 toward Portaanpäätie. <https://maps.app.goo.gl/dbt7bWs6cA1BkCiK8>
This junction to be considered as new site entrance. Site entrance to be build according to specifications for site roads. Original site entrance is not feasible without big road modifications.



5. General notes regarding overhead lines

Based on the survey 19.12.2023 there are following amount of overhead lines between port of Pori and site Entrance KärmeKallio :

Low voltage protected height under 6,80m 0 pcs.

Phone cable protected height under 6,80m 0 pcs.

High voltage height under 7,80 m (transport height + safety margin 1,0 m) 0 pcs.

High voltage (110kV) height under 9,80 (transport height + safety margin 3,0 m) 1 pcs.

Traffic portal height under 6,80 m 0 pcs.

