

Pre-Survey Report for Transports

**MYRSKY:
SAARIJÄRVI - HILLONEVA**

24.4.2025

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1 BACKGROUND OF THIS REPORT

This report has been made as an assignment for Myrsky Energia Oy. Its purpose is to preliminarily describe the transportation options and plans of a project that is under planning.

The report describes options and plans concerning the transport of heavy transformers as well as wind turbine components.

This report is made as a “desktop” survey. The report has been written using information available at the time of making the report. Vuorsola Oy is not responsible for possible incomplete or incorrect information, nor for changes to circumstances or other reported matters after the time of making the report.

2 THE PROJECT

Myrsky Energia Oy is planning to build Vestas V172 or similar wind turbines and 100MVA 110kV powerstation to SAARIJÄRVI - HILLONEVA windpark.

The Hilloneva wind power project is located in Saarijärvi, west of the village of Pylkönmäki. The project area is a little over 25 kilometers west of the center of Saarijärvi. The municipality of Saarijärvi is located in the Saarijärvi-Viitasaari subregion, in the Central Finland province, approximately 60 kilometers north of Jyväskylä.

Planned transformer: Max power 100MVA, transport weight approximately 120t

Planned turbine type: Vestas V172 or similar,
blade length 85m,
heaviest component 120t
max height 300m

3 SUGGESTED PORT

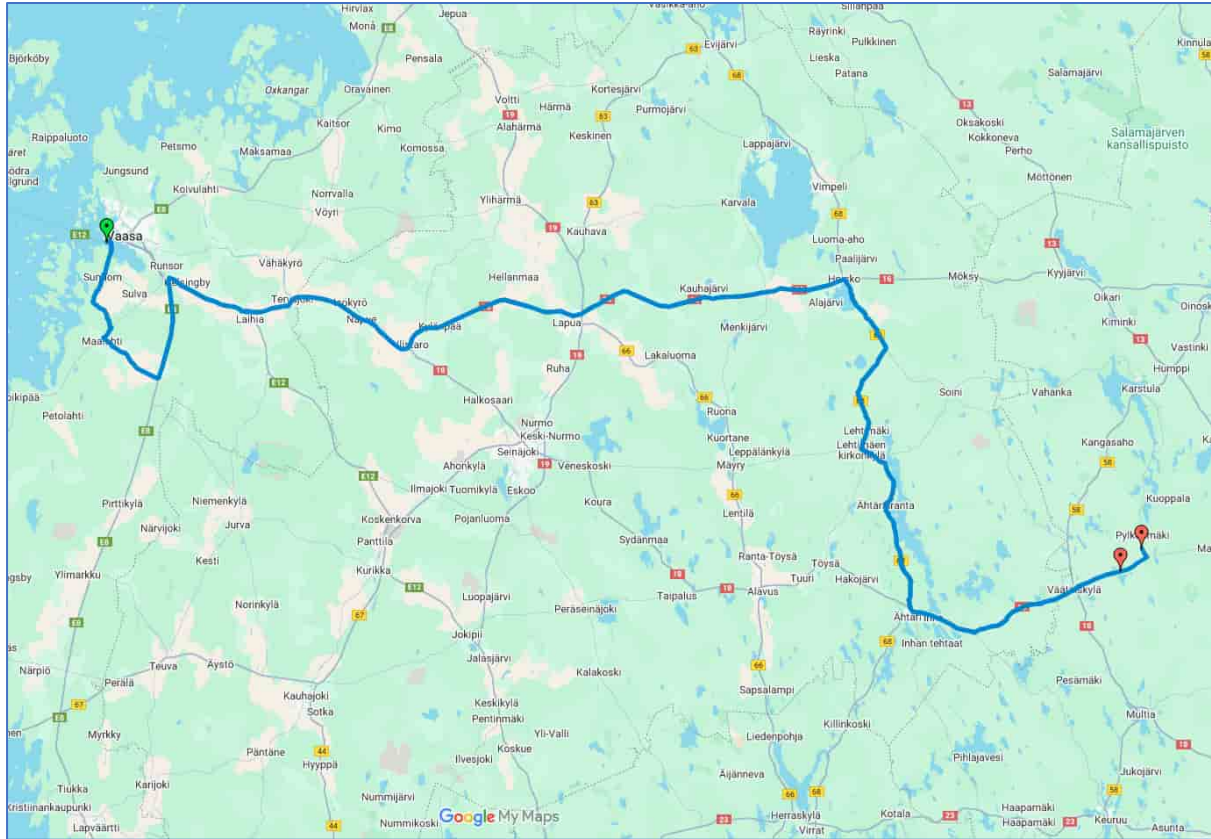
Geographically the best option would be to transport the transformer from Port of Vaasa to the power station / wind park. Turbine components will use the same port.

Port of Vaasa has the capacity and equipment needed for handling the windmill components and the transformer. Port of Vaasa is one of the Finland's main ports for logistics projects.

Here is link for Port of Vaasa's own website for more detailed information about the port:
<https://kvarkeports.com/en/vaasa.4.4117ebf317b9aa1fe012b7.html>

4 TRANSPORT FOR TRANSFORMER

4.1 Route



<https://www.google.com/maps/d/edit?mid=1gTeUSPaU58v-XhIk1CO-XoQO2ykJKeo&usp=sharing>

Rahtitie – Moottorikatu – 6741 – 673 – 679 – 8 – 7148 – 715 – 3 – 18 – 16 – 68 – 18 – 633
(Mätäsuontie 62.61614, 24.73873 / Murtolammintie 62.64876, 24.80482)

4.2 Special Notes About the Route

| Number | Km | Coordinates N/W | Map | Transport road | Class | Action |
|--------|-------|-------------------------|--------|----------------------------|-------|------------------|
| 1. | 0km | 63.086285, 21.575718 | Map 1 | Turn from Rahtitie to 6741 | 1 | Easy section |
| 2. | 15km | 62.963347, 21.577068 | Map 2 | Turn from 17663 to 673 | 1 | Easy section |
| 3. | 17km | 62.949639, 21.551491 | Map 3 | Turn from 673 to 679 | 1 | Easy section |
| 4. | 28km | 62.892364, 21.725128 | Map 4 | Turn from 679 to 8 | 1 | Easy section |
| 5. | 45km | 63.035521, 21.759323 | Map 5 | Turn from 7148 to 715 | 2 | Moderate section |
| 6. | 47km | 63.024455, 21.792745 | Map 6 | Turn from 715 to 3 | 1 | Easy section |
| 7. | 57km | 62.989775, 21.981124 | Map 7 | Turn from 3 to 18 | 1 | Easy section |
| 8. | 59km | 62.987411, 22.005432 | Map 8 | Turn from 18 to 18 | 1 | Easy section |
| 9. | 87km | 62.934740, 22.505122 | Map 9 | Turn from 18 to 16 | 1 | Easy section |
| 10. | 163km | 63.032876, 23.872405 | Map 10 | Turn from 16 to 68 | 1 | Easy section |
| 11. | 224km | 62.56282, 24.07806 | Map 11 | Turn from 68 to 18 | 1 | Easy section |
| 12. | 235km | 62.52777, 24.28201 | Map 12 | Turn from 18 to 18 | 1 | Easy section |
| 13. | 261km | 62.58913, 24.59232 | Map 12 | Turn from 18 to 633 | 1 | Easy section |

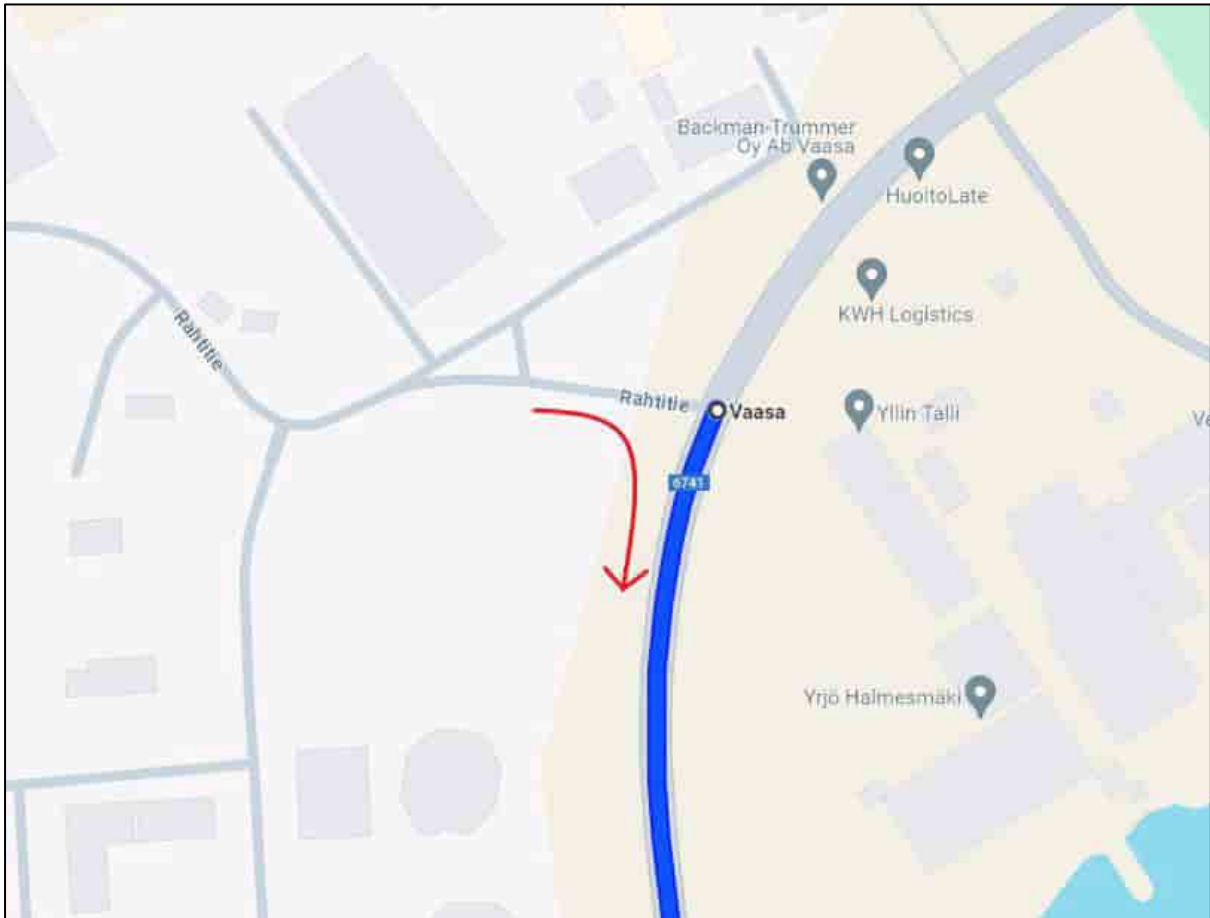
Classification of constructional measures

| Class | Category | Description |
|-------|-------------------|---|
| 1 | Easy section | Minor modifications needed, like e.g. removing road signs or arranging a parking section |
| 2 | Moderate section | Modifications necessary , like e.g. removing signs, fixing a traffic refuge or pedestrian path, covering with steel or concrete plates and other smaller road constructions or modifications |
| 3 | Complex section | Large modifications necessary, like e. g. removing crash barriers, reconstruction of roundabouts, establishment of turn tunnels, road enlargements, turning maneuver in general, private and undeveloped properties are affected, traffic lights and streetlamps must be removed, considerable long-term construction site with a high licensing effort. |
| 4 | Difficult section | Passage is doubtful , some additional investigations are necessary (e.g. expertise, swept path analysis, simulations, bearing capacity tests or dummy runs). |

In simulations:

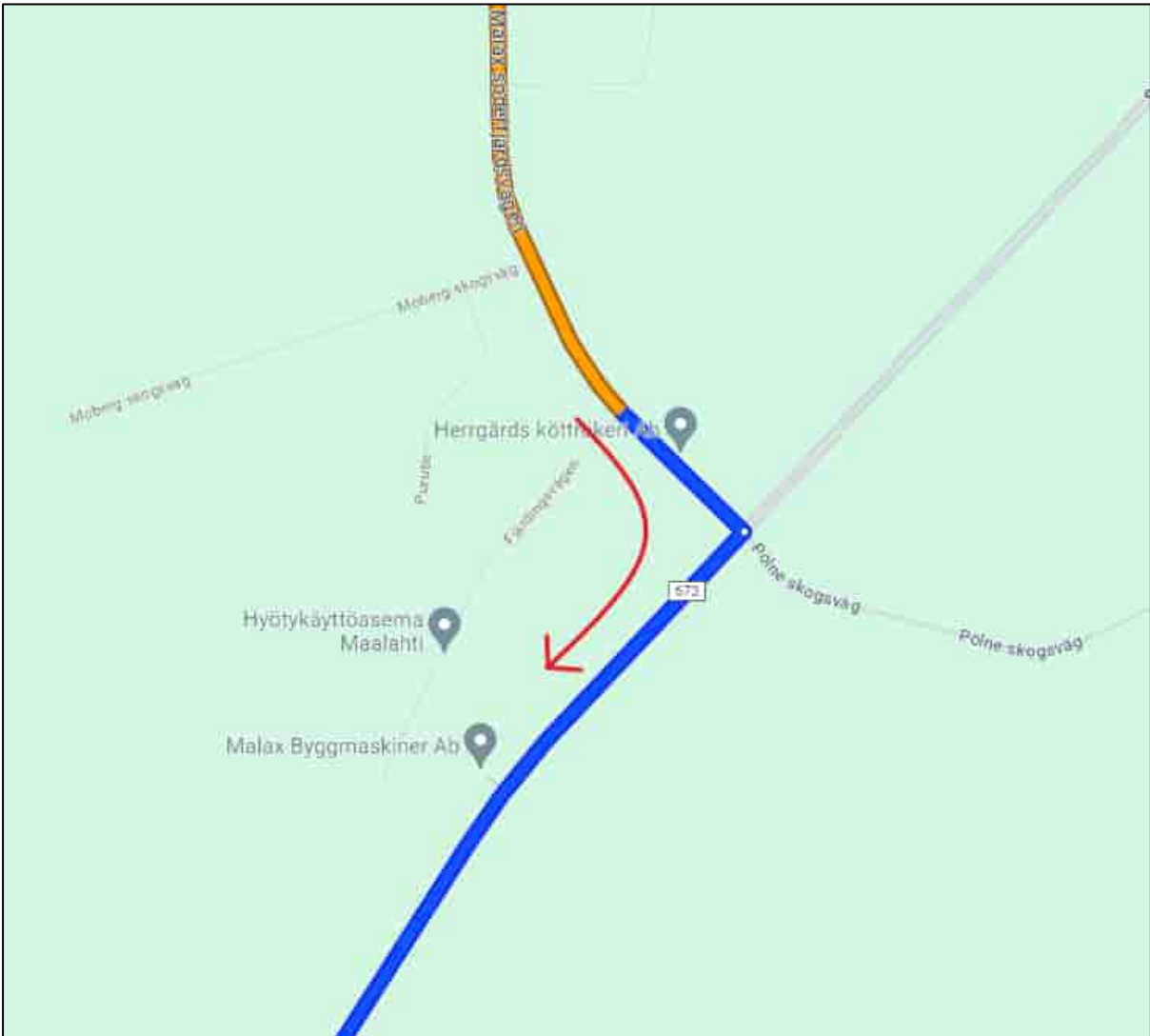
- Driveable Area
- Obstacle (Not passable. Traversable if the height of the obstacle allows it)
- Tire tracks of tractor
- Tire tracks of trailer
- Area covered by vehicle combination
- Area covered by cargo

| | | | |
|---|-----|-------|---------|
| 1. | 0km | Map 1 | Class 1 |
| Easy section with only minor modifications. | | | |



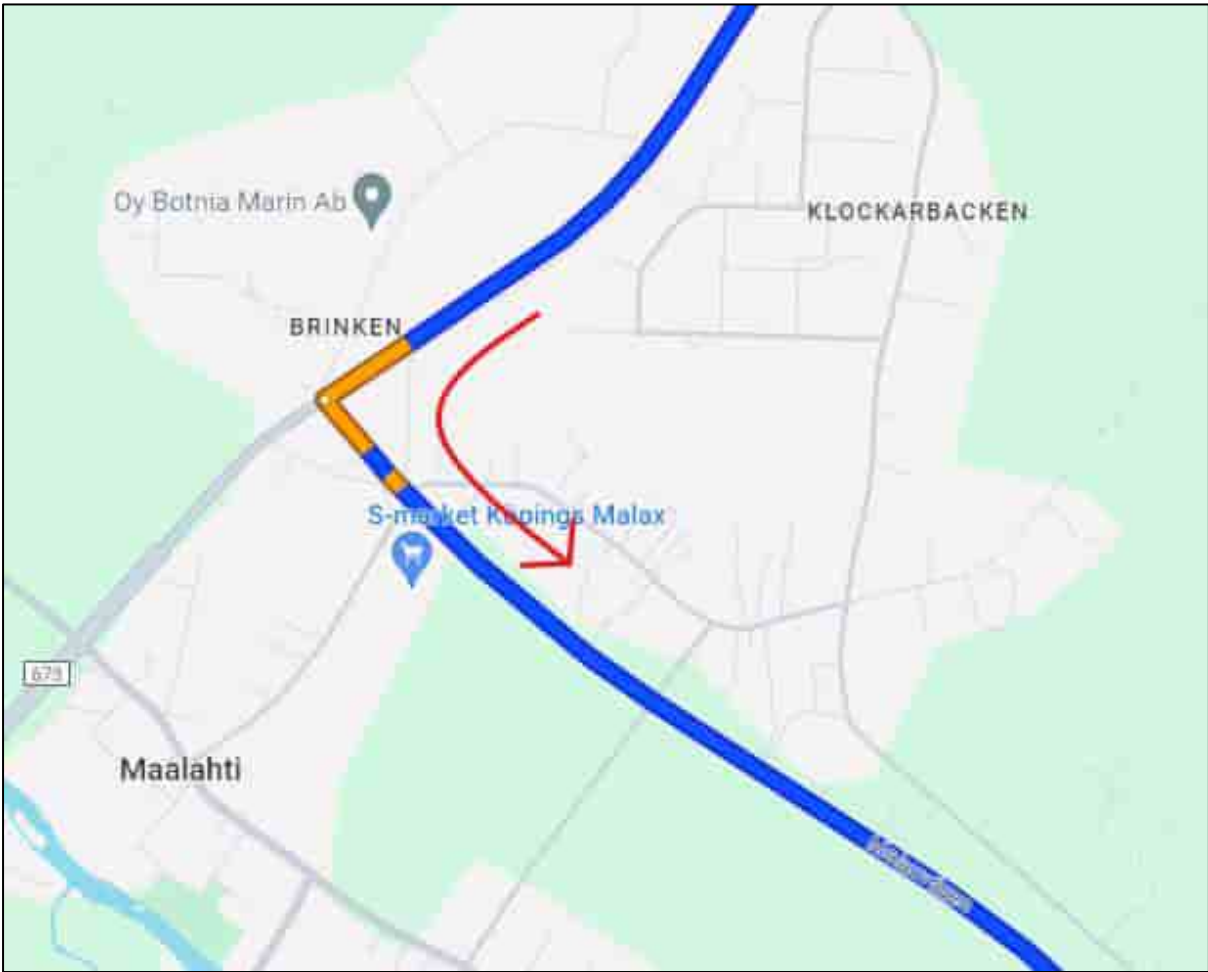
Map 1 – Turn from Rahtitie to 6741.

| | | | |
|---|------|-------|---------|
| 2. | 15km | Map 2 | Class 1 |
| Easy section with only minor modifications. | | | |



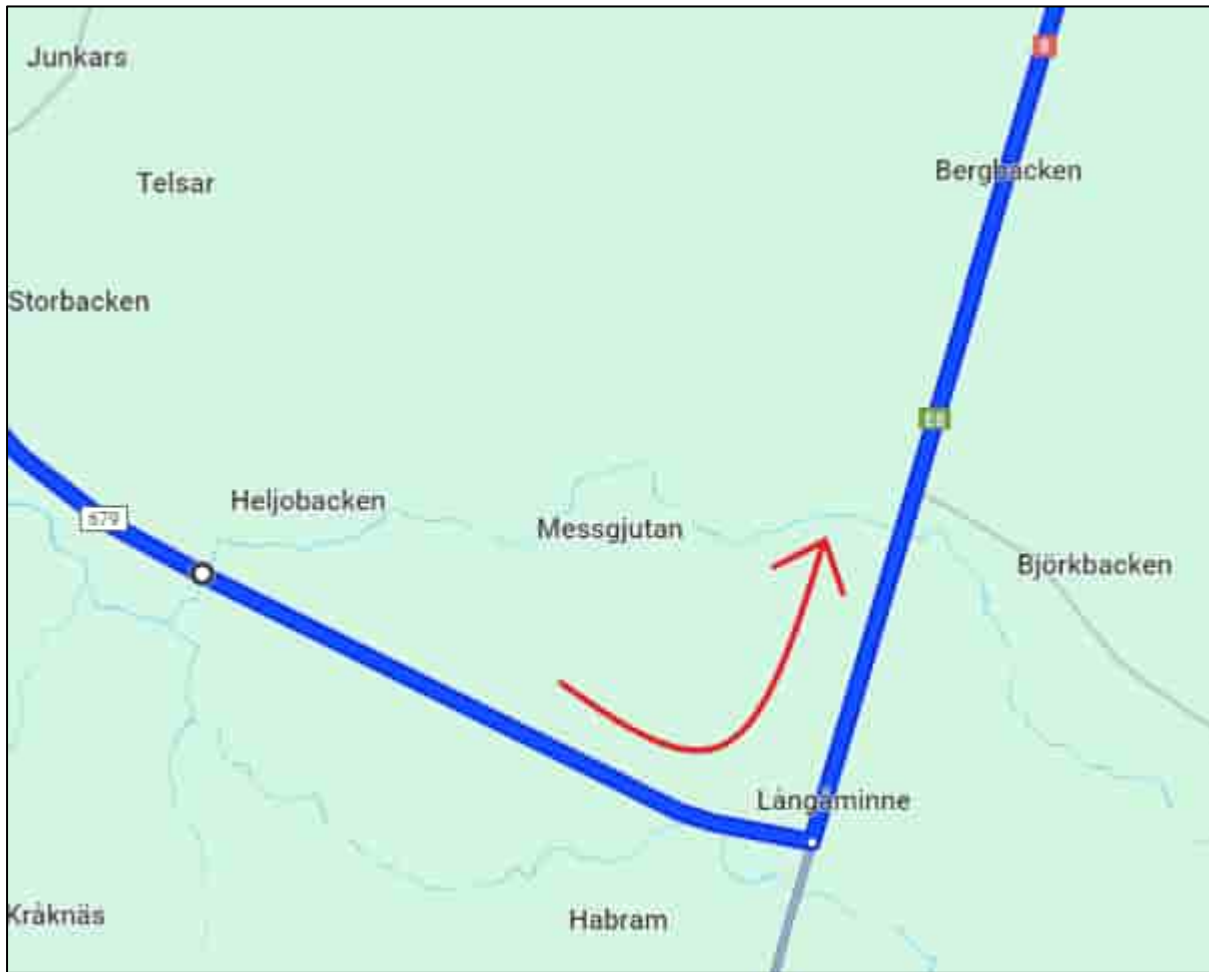
Map 2 – Turn from 17663 to 673.

| | | | |
|---|------|-------|---------|
| 3. | 17km | Map 3 | Class 1 |
| Easy section with only minor modifications. | | | |



Map 3 – Turn from 673 to 679.

| | | | |
|---|------|-------|---------|
| 4. | 28km | Map 4 | Class 1 |
| Easy section with only minor modifications. | | | |



Map 4 – Turn from 679 to 8.

| | | | |
|---|------|-------|---------|
| 5. | 45km | Map 5 | Class 2 |
| Moderate section with smaller road constructions or modifications needed. | | | |



Map 5 – Turn from 7148 to 715.

| | | | |
|---|------|-------|---------|
| 6. | 47km | Map 6 | Class 1 |
| Easy section with only minor modifications. | | | |



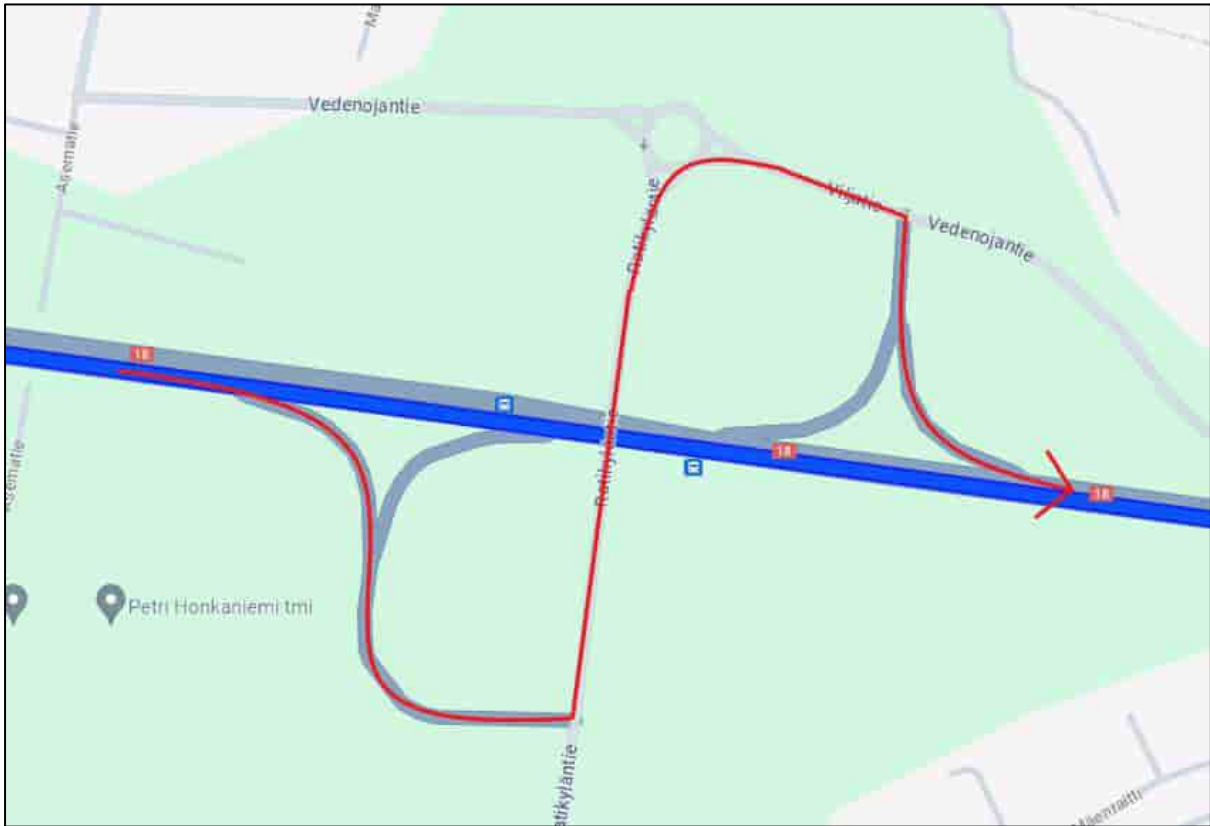
Map 6 – Turn from 715 to 3.

| | | | |
|---|------|-------|---------|
| 7. | 57km | Map 7 | Class 1 |
| Easy section with only minor modifications. | | | |



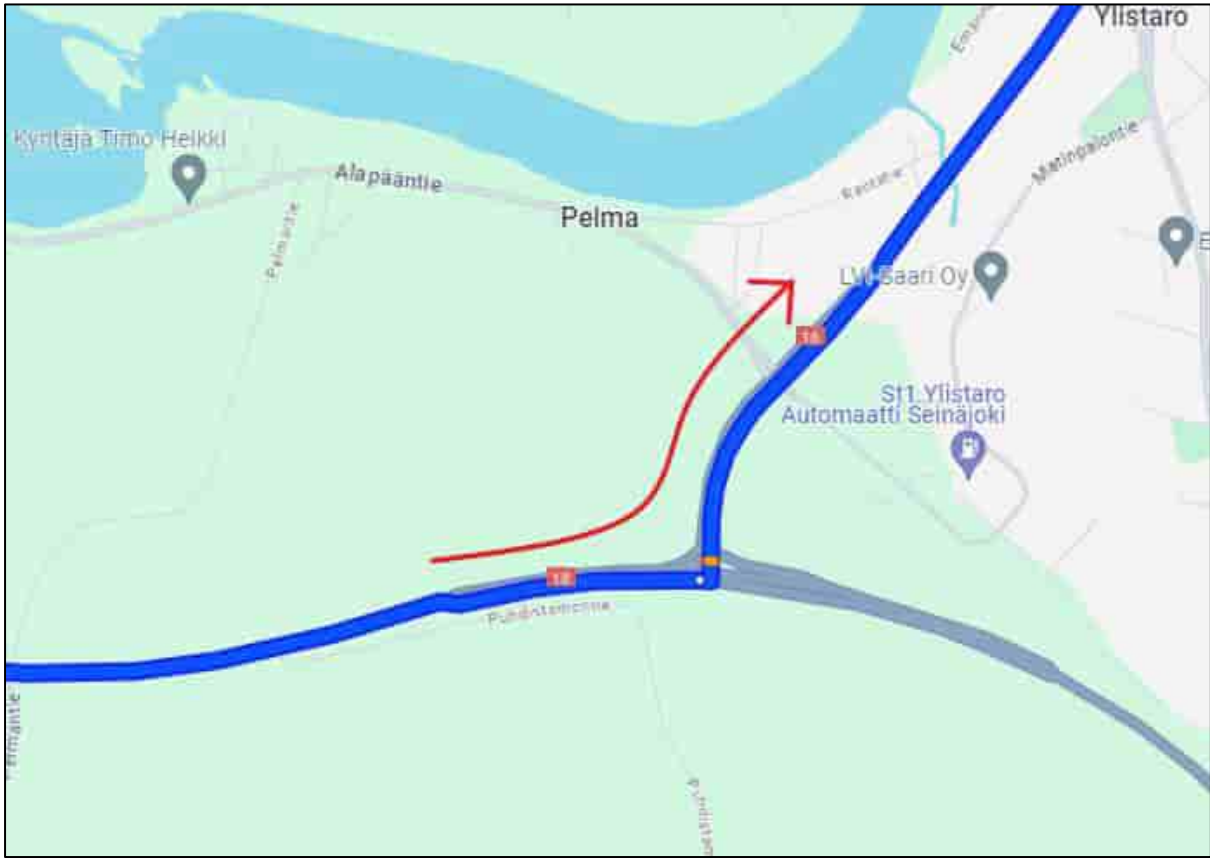
Map 7 – Turn from 3 to 18.

| | | | |
|--|------|-------|---------|
| 8. | 59km | Map 8 | Class 1 |
| Bypassing Ratikylä bridge. Easy section with only minor modifications. | | | |



Map 8 – Turn from 18 to 18. Red arrow marks the route.

| | | | |
|---|------|-------|---------|
| 9. | 87km | Map 9 | Class 1 |
| Easy section with only minor modifications. | | | |



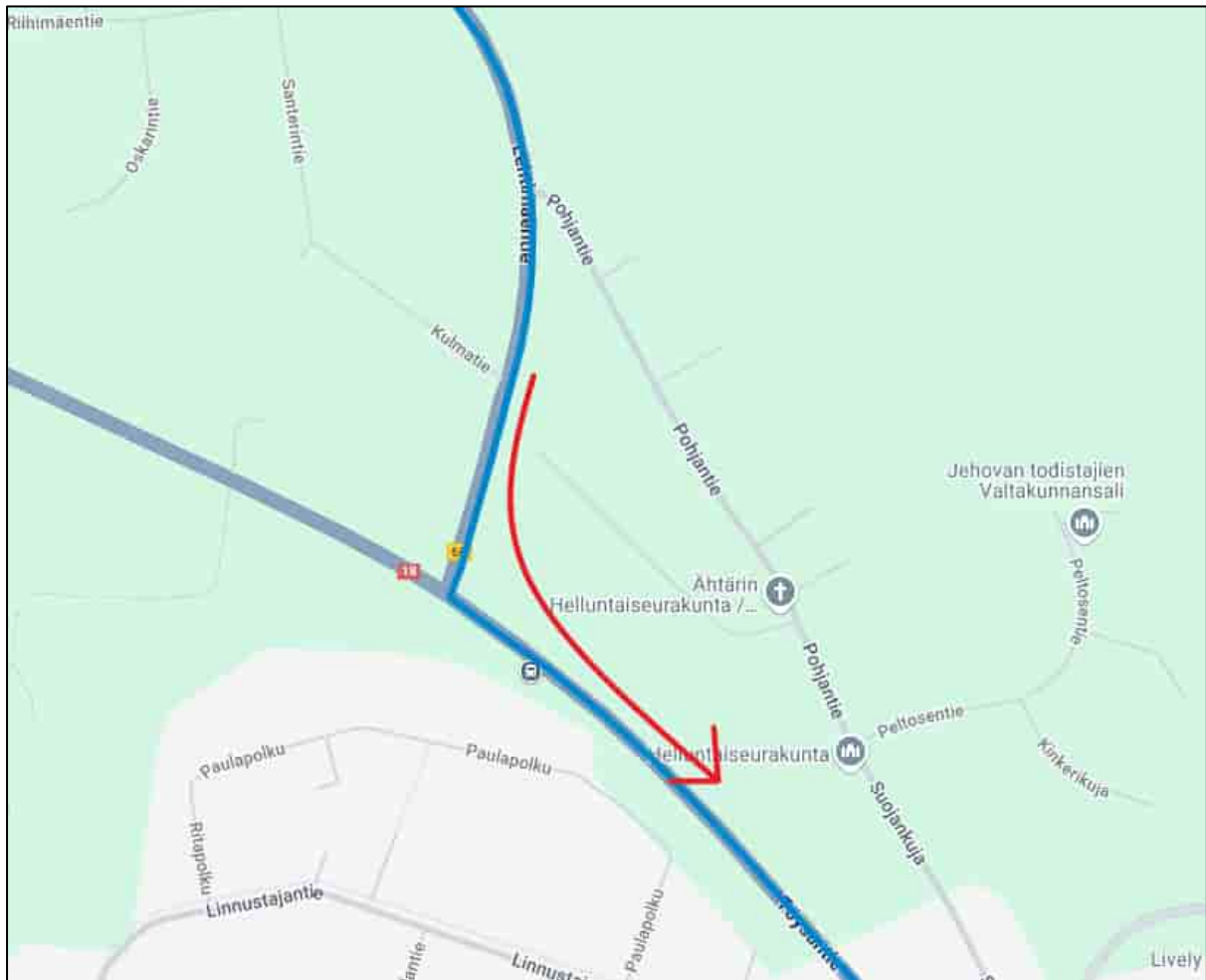
Map 9 – Turn from 18 to 16.

| | | | |
|---|-------|--------|---------|
| 10. | 163km | Map 10 | Class 1 |
| Easy section with only minor modifications. | | | |



Map 10 – Turn from 16 to 68.

| | | | |
|---|-------|--------|---------|
| 11. | 224km | Map 11 | Class 1 |
| Easy section with only minor modifications. | | | |



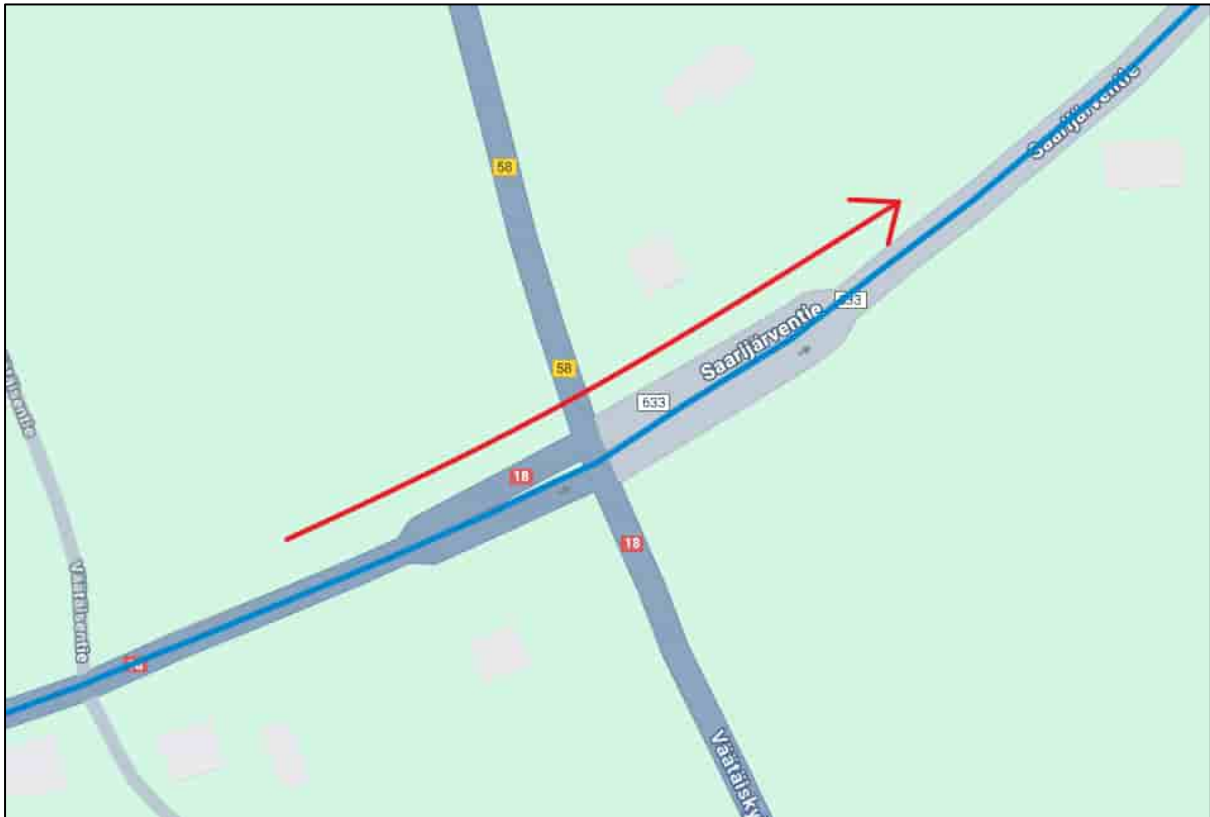
Map 11 – Turn from 68 to 18.

| | | | |
|---|-------|--------|---------|
| 12. | 235km | Map 12 | Class 1 |
| Easy section with only minor modifications. | | | |



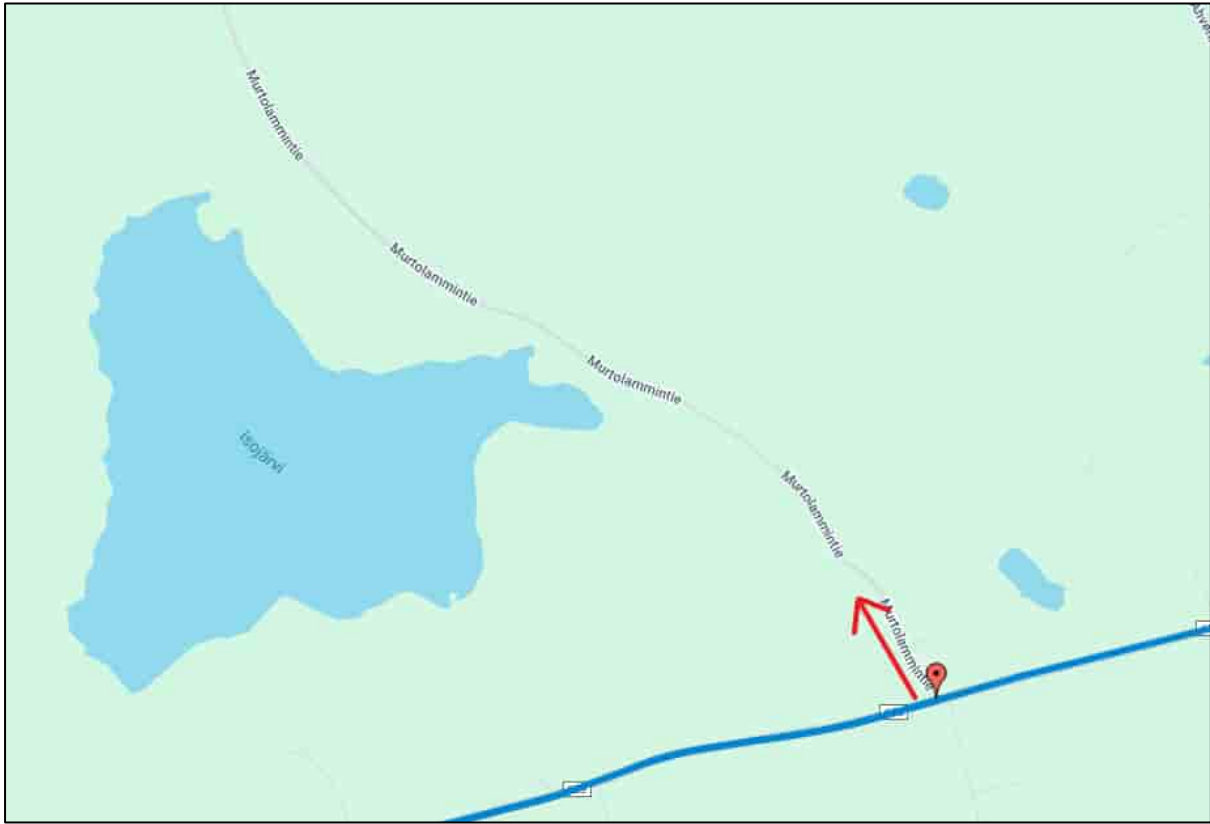
Map 12 – Turn 18 to 18.

| | | | |
|---|-------|--------|---------|
| 13. | 261km | Map 13 | Class 1 |
| Easy section with only minor modifications. | | | |

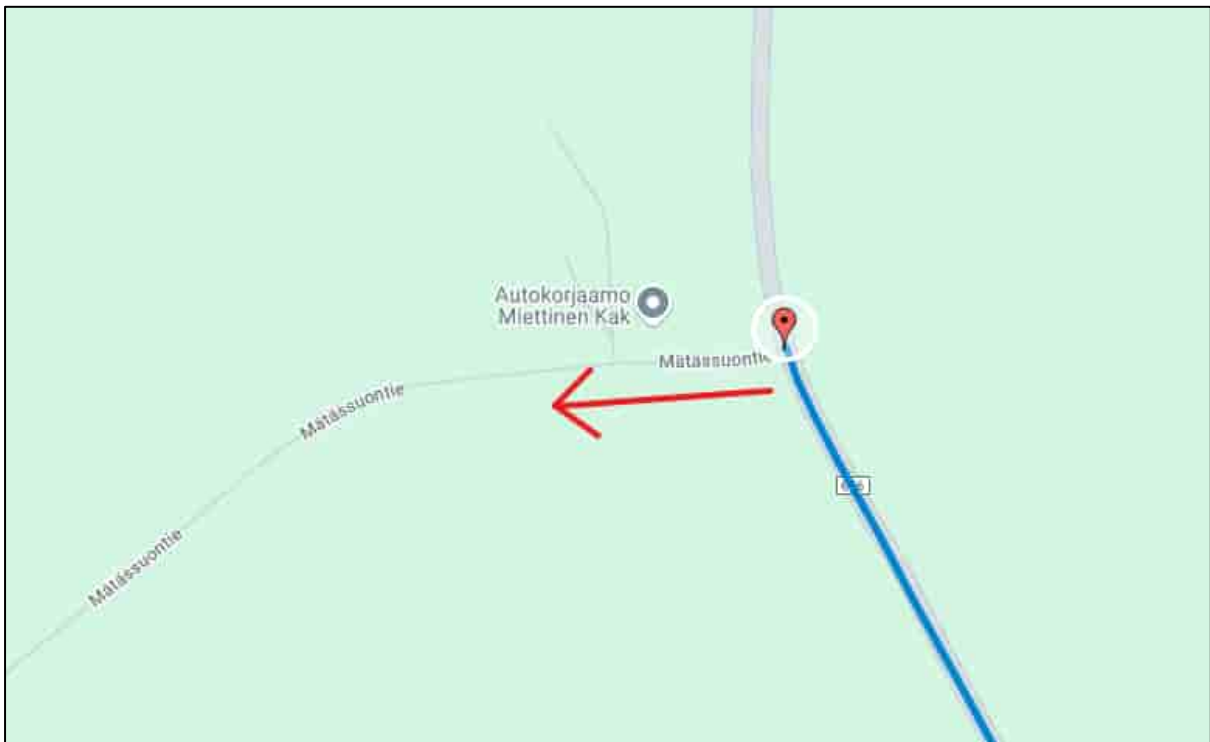


Map 13 – Turn 18 to 633.

4.3 Suggested Handover Points



Suggested handover points. Murtolammentie.



Suggested handover points. Mätässuontie.

Suggested handover points are located on road Murtolammentie on point 62.61614, 24.73873 and on road Mätäsuontie on point 62.64876, 24.80482.

Or the handover point could also be before the given point or after it.

Roads onwards this point are not suitable for transports. Roads from handover point to offloading sites are responsibility of the client/builder and need to be constructed according to the turbine manufacturers site road specifications.

4.4 Preliminary Transport Permit

Preliminary transport permit has been applied on 30.4.2024. The Preliminary transport permit for max weight 120Tn (4652/2024) was accepted 10.3.2025 with condition.

The condition is bridge control (sillanvalvontaehto).

On the suggested route there are five bridges that need to pass under supervision. The bridge controls and other possible conditions will become more exact with the final transport permits and which are those supervised bridges.

The Preliminary transport permit was applied with the estimated dimensions of the transformer. It is the limiting component on the transport because it is so short and heavy.

4.5 Other Notes

Port of Vaasa and the special transport route from the port to the main road 8 is used by many transport operators so the needed modifications are heavily related to the situation with the route at the time of the transports.

On the route there are traffic portals that can be necessary to remove but that will become clear with the full route survey.

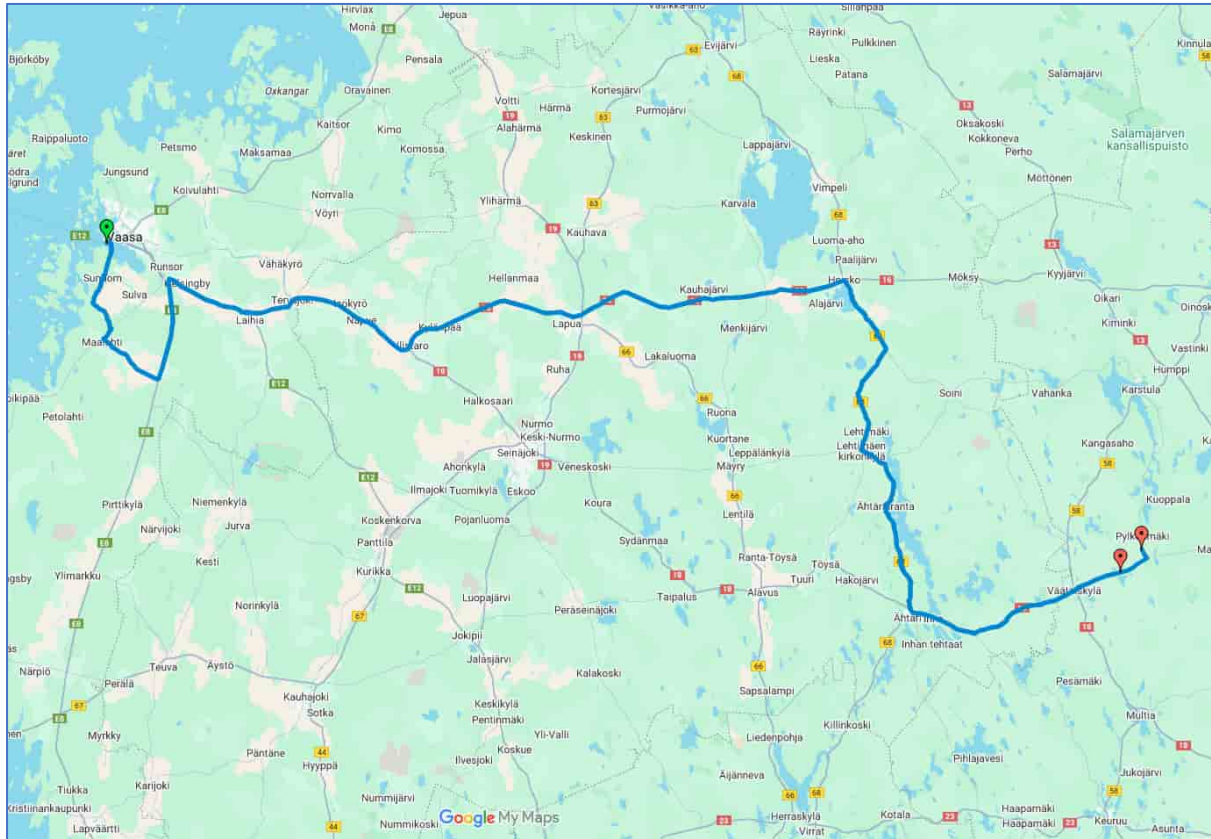
A full route survey is needed to determine all possible modifications and to confirm that the route is suitable for the transports. For example, the amount of overhead cable work will be confirmed when the route is measured.

The suitability of the route for transports depends on:

- Transport permit is granted

5 TRANSPORT FOR TURBINE COMPONENTS

5.1 Route for blades



<https://www.google.com/maps/d/edit?mid=1gTeUSPaU58v-XhIk1CO-XoQO2ykJKeo&usp=sharing>

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5.2 Special Notes About the Route

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| 15. | 15km | 62.963347, 21.577068 | Map 15, Sim 2 | Turn from 17663 to 673 | 3 | Complex section |
| 16. | 17km | 62.949639, 21.551491 | Map 16, Sim 3 | Turn from 673 to 679 | 3 | Complex section |
| 17. | 28km | 62.892364, 21.725128 | Map 17, Sim 4 | Turn from 679 to 8 | 2 | Moderate section |
| 18. | 45km | 63.035521, 21.759323 | Map 18, Sim 5 | Turn from 7148 to 715 | 3 | Complex section |
| 19. | 47km | 63.024455, 21.792745 | Map 19, Sim 6 | Turn from 715 to 3 | 3 | Complex section |
| 20. | 57km | 62.989775, 21.981124 | Map 20 | Turn from 3 to 18 | 1 | Easy section |
| 21. | 59km | 62.987411, 22.005432 | Map 21 | Turn from 18 to 18 | 1 | Easy section |
| 22. | 87km | 62.934740, 22.505122 | Map 22 | Turn from 18 to 16 | 2 | Moderate section |
| 23. | 163km | 63.032876, 23.872405 | Map 23, Sim 7 | Turn from 16 to 68 | 3 | Complex section |
| 24. | 224km | 62.56282, 24.07806 | Map 24, Sim 8 | Turn from 68 to 18 | 3 | Complex section |
| 25. | 235km | 62.52777, 24.28201 | Map 25, Sim 9 | Turn from 18 to 18 | 3 | Complex section |
| 26. | 261km | 62.58913, 24.59232 | Map 26 | Turn from 18 to 633 | 1 | Easy section |

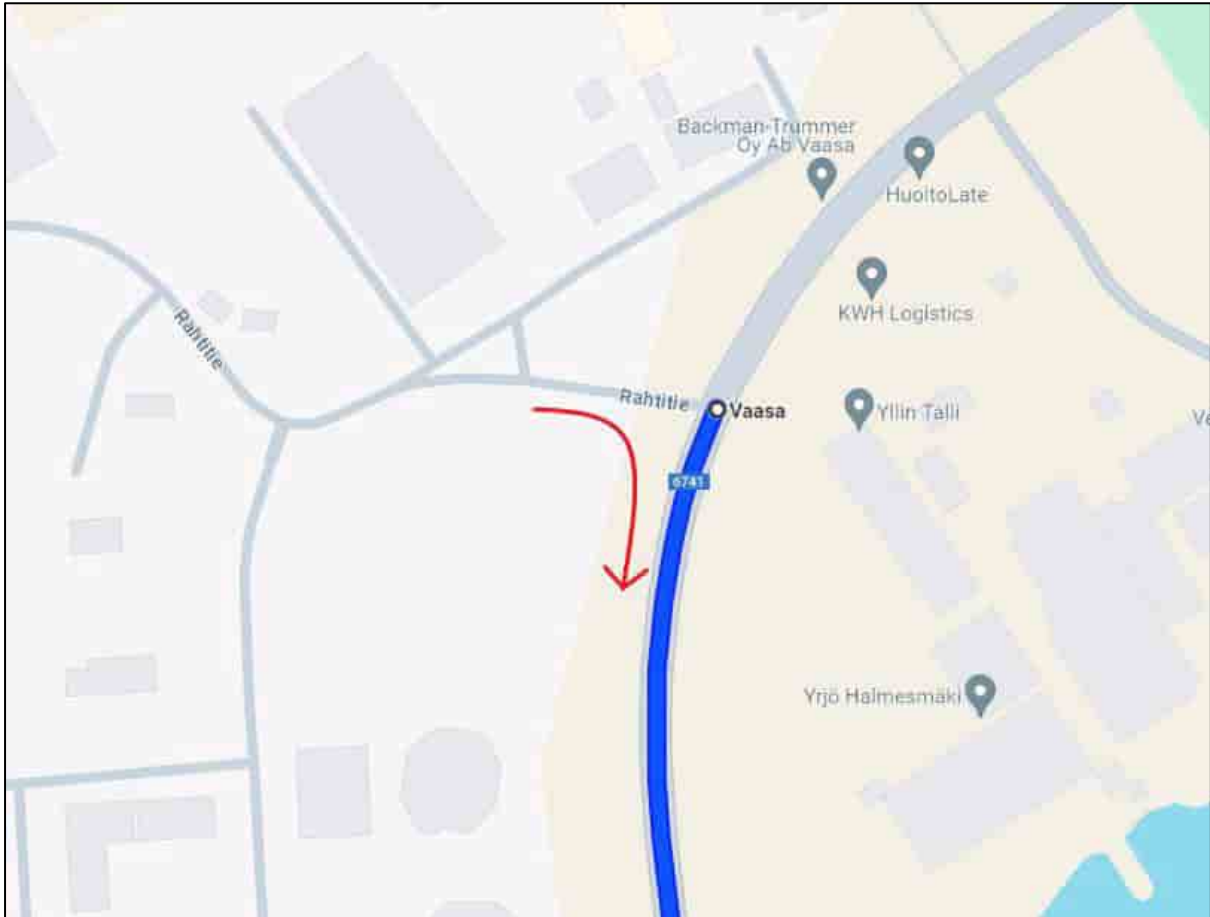
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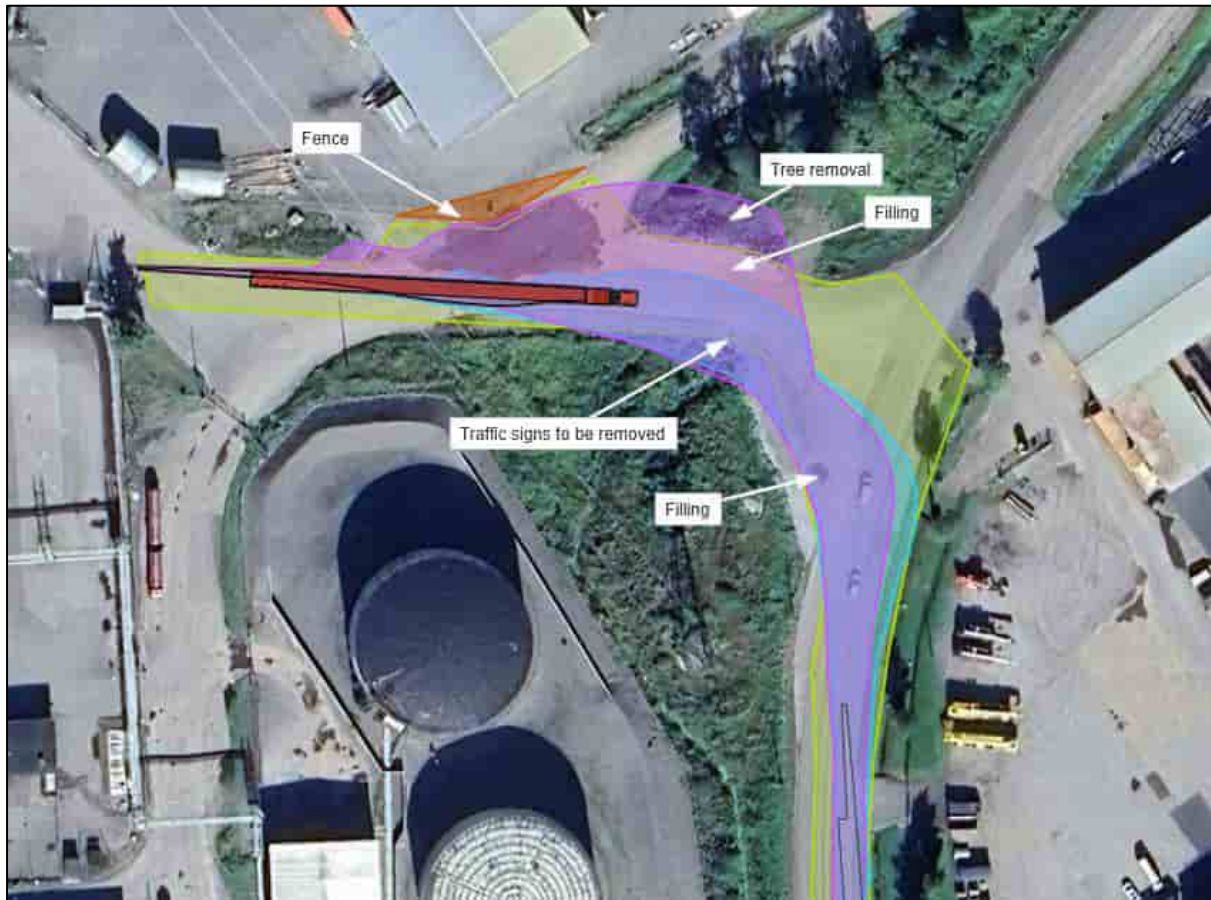
In simulations:

- Driveable Area
- Obstacle (Not passable. Traversable if the height of the obstacle allows it)
- Tire tracks of tractor
- Tire tracks of trailer
- Area covered by vehicle combination
- Area covered by cargo

| | | | |
|---|-----|--------|---------|
| 14. | 0km | Map 14 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



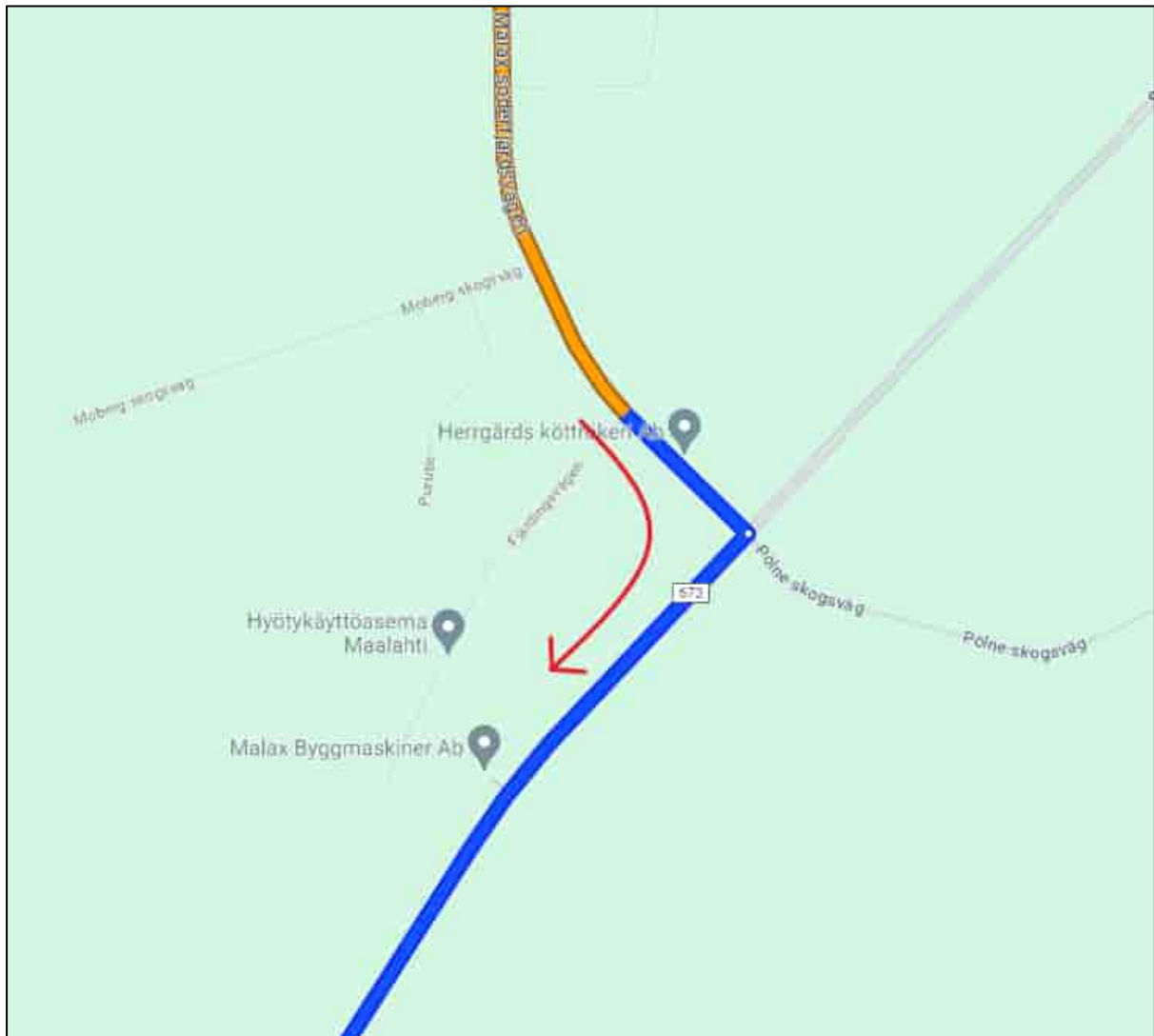
Map 14 – Turn from Rahtitie to 6741.



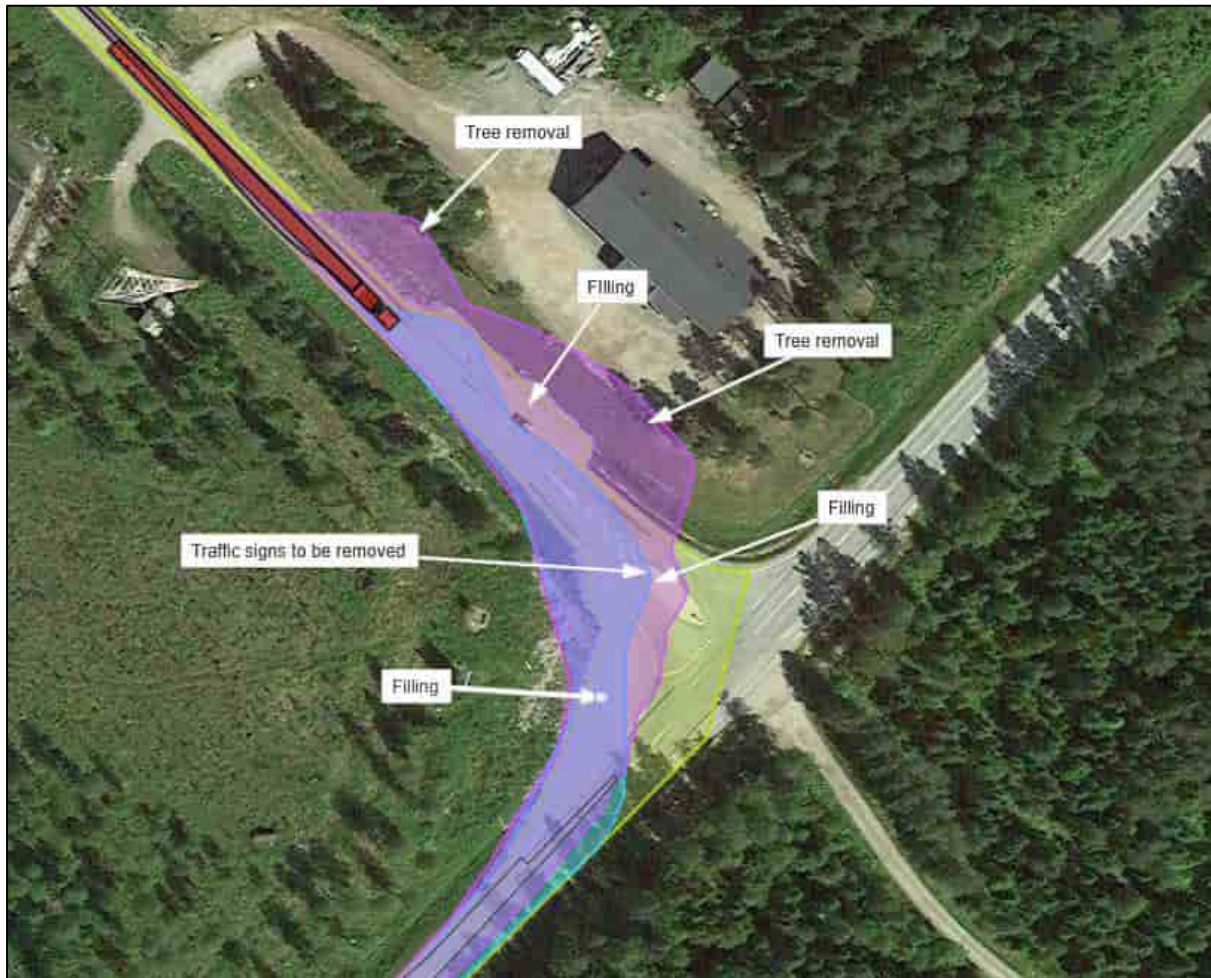
Sim 1 – Turn from Rahtitie to 6741.

- Filling on the inside
- Filling on the outside before the turn
- Tree removal on the outside before the turn
- Traffic signs to be removed

| | | | |
|--|------|--------|---------|
| 15. | 15km | Map 15 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



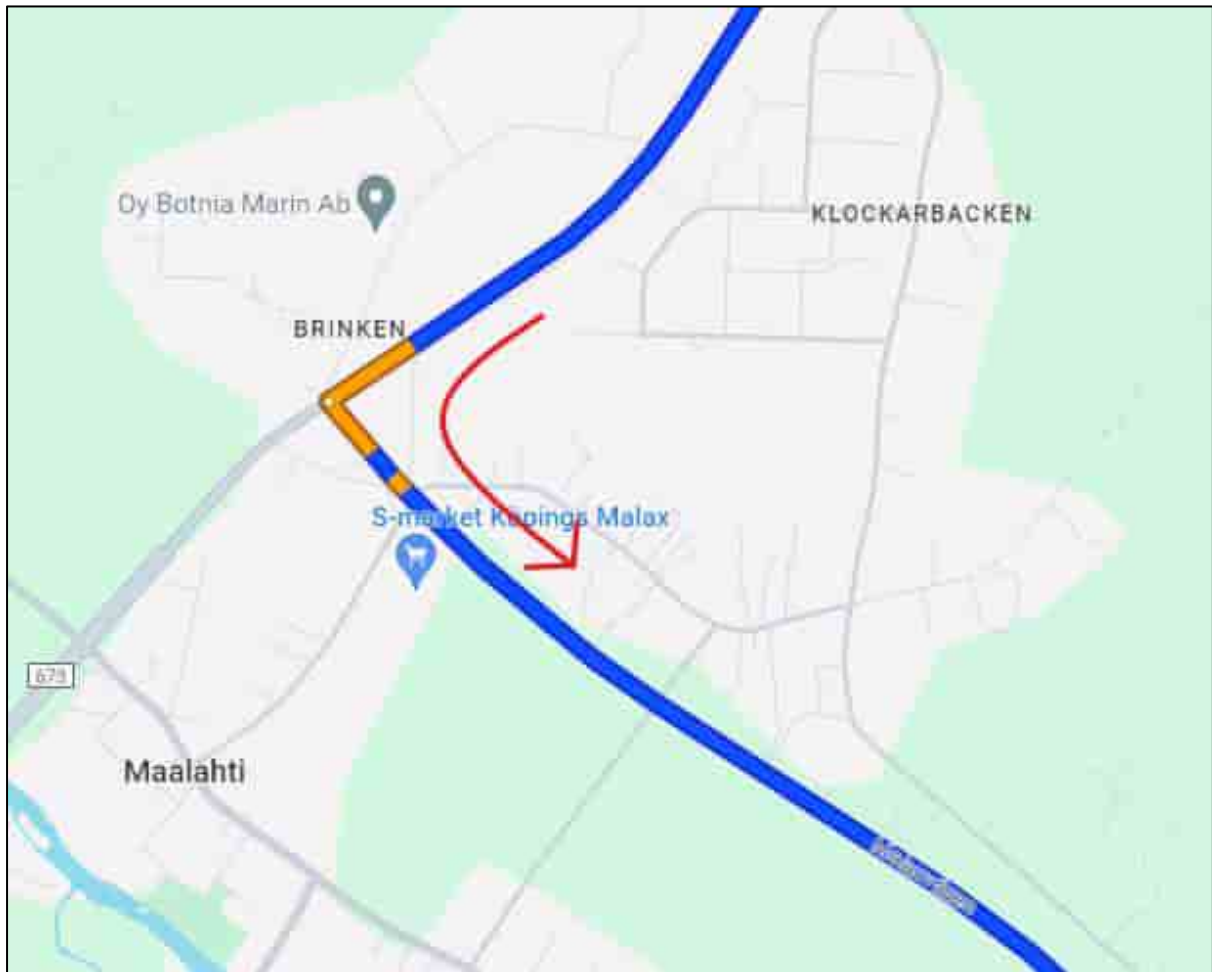
Map 15 – Turn from 17663 to 673.



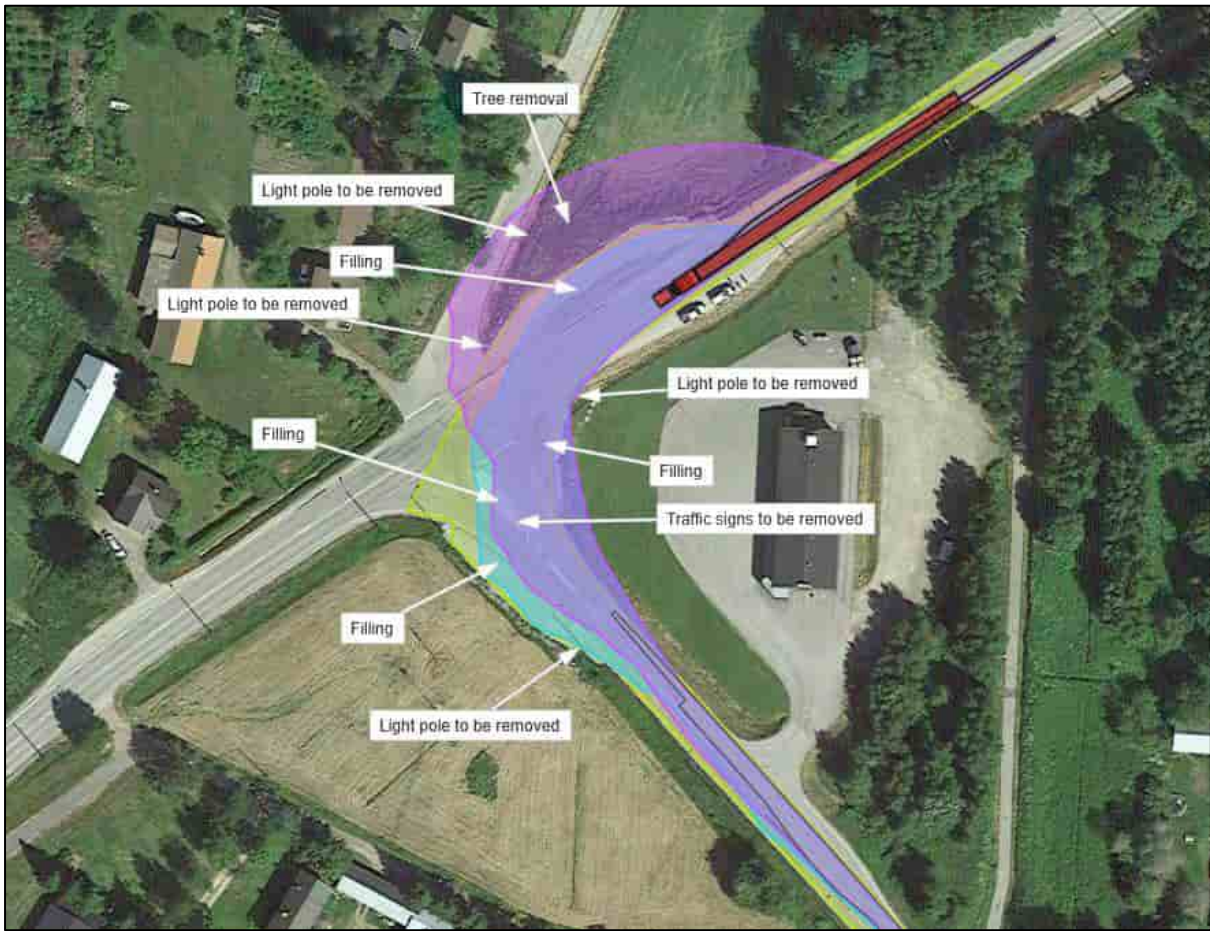
Sim 2 – Turn from 17663 to 673.

- Filling on the inside
- Filling on the outside before the turn
- Tree removal on the outside before the turn
- Traffic signs to be removed

| | | | |
|--|------|--------|---------|
| 16. | 17km | Map 16 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



Map 16 – Turn from 673 to 679.



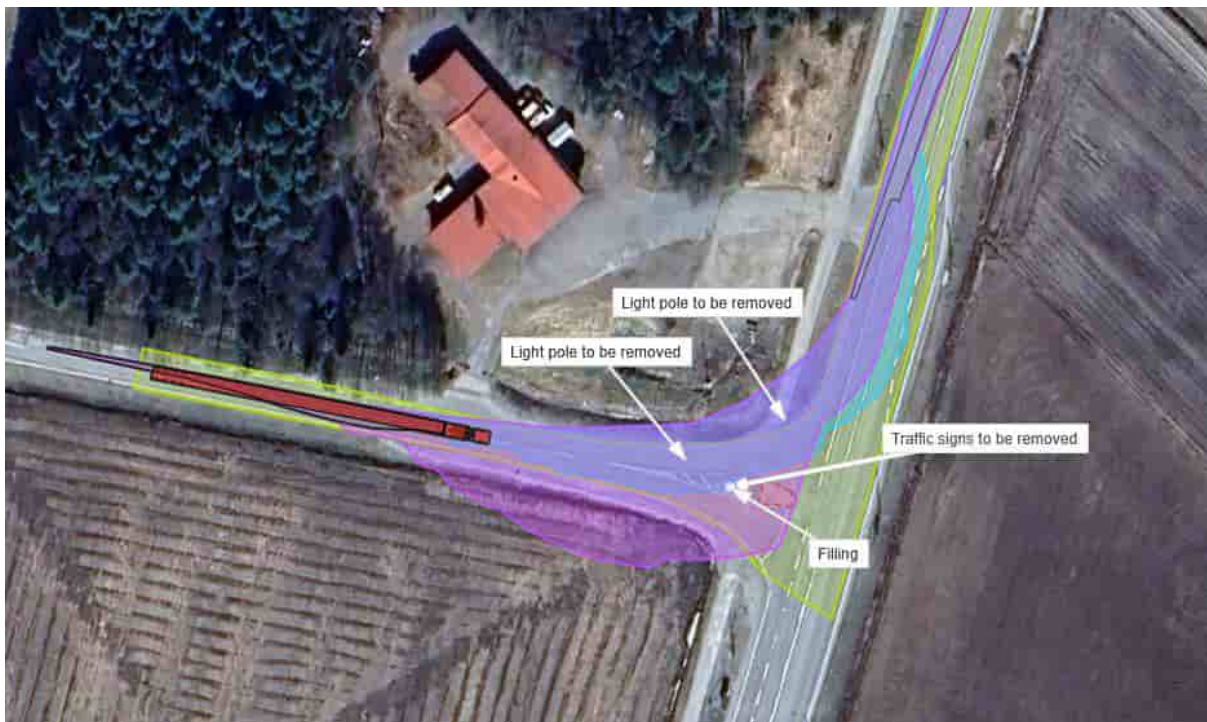
Sim 3 – Turn from 673 to 679.

- Filling on the inside
- Filling on the outside before the turn
- Filling on the outside after the turn
- Tree removal on the outside before the turn
- Four lamp poles to be removed
- Traffic signs to be removed

| | | | |
|---|------|--------|---------|
| 17. | 28km | Map 17 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



Map 17 – Turn from 679 to 8.



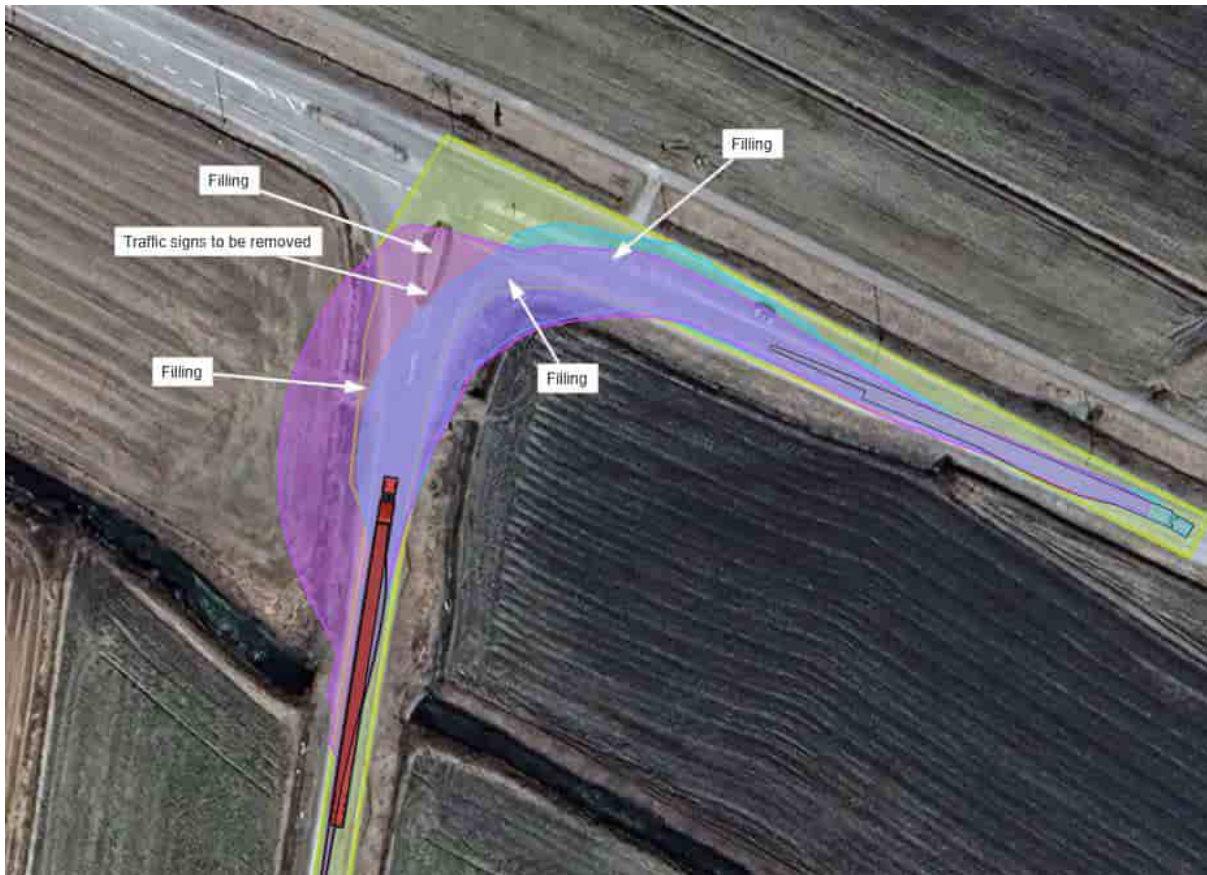
Sim 4 – Turn from 679 to 8.

Filling on the traffic island.
Two lamp poles to be removed.
Traffic signs to be removed.

| | | | |
|--|------|--------|---------|
| 18. | 45km | Map 18 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



Map 18 – Turn from 7148 to 715.



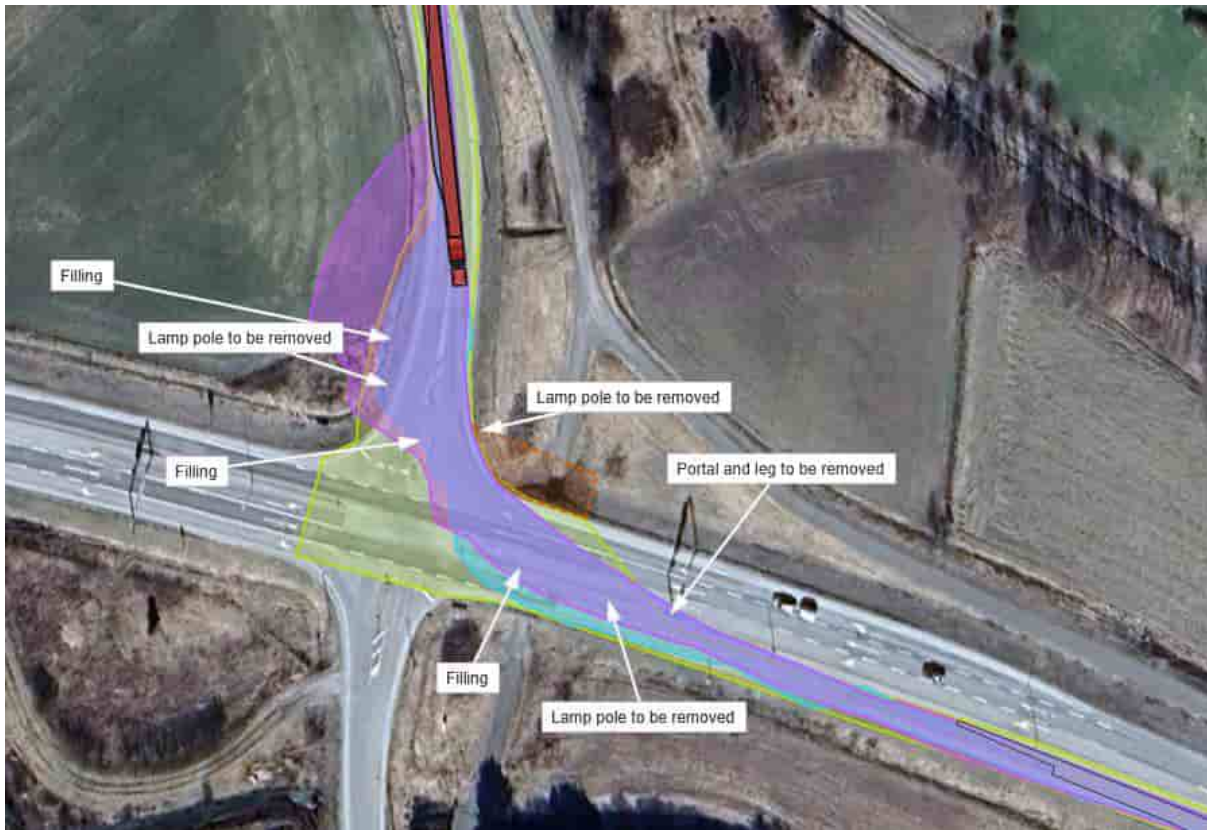
Sim 5 – Turn from 7148 to 715.

- Filling on the traffic islands.
- Filling on the outside before the turn.
- Filling on the inside.

| | | | |
|--|------|--------|---------|
| 19. | 47km | Map 19 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



Map 19 – Turn from 715 to 3.



Sim 6 – Turn from 715 to 3.

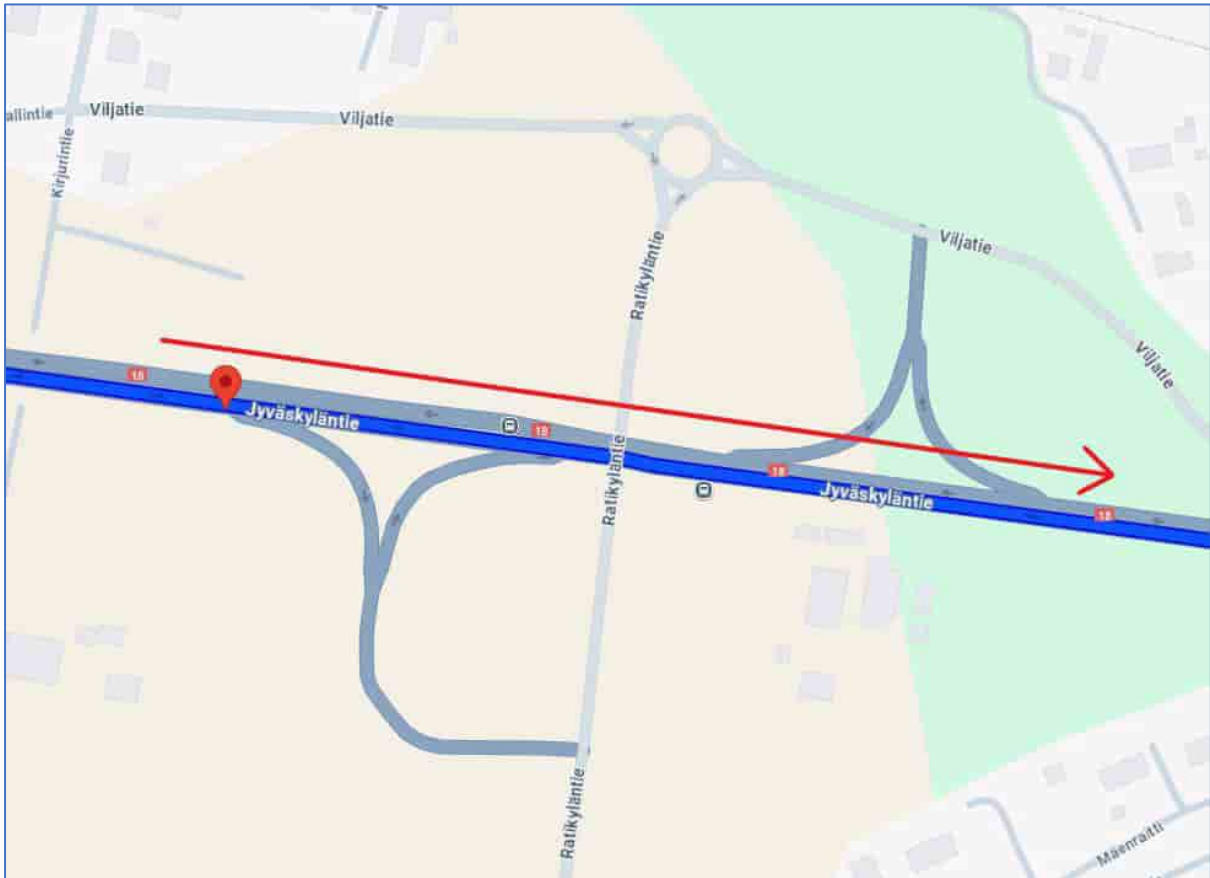
- Fillings on the traffic islands.
- Traffic portal and leg to be removed.
- Three lamp poles to be removed.
- Traffic signs to be removed.

| | | | |
|---|------|--------|---------|
| 20. | 57km | Map 20 | Class 1 |
| Easy section with only minor modifications. | | | |



Map 20 – Turn from 3 to 18.

| | | | |
|---|------|--------|---------|
| 21. | 59km | Map 21 | Class 1 |
| Blades can drive straight under the bridge. | | | |

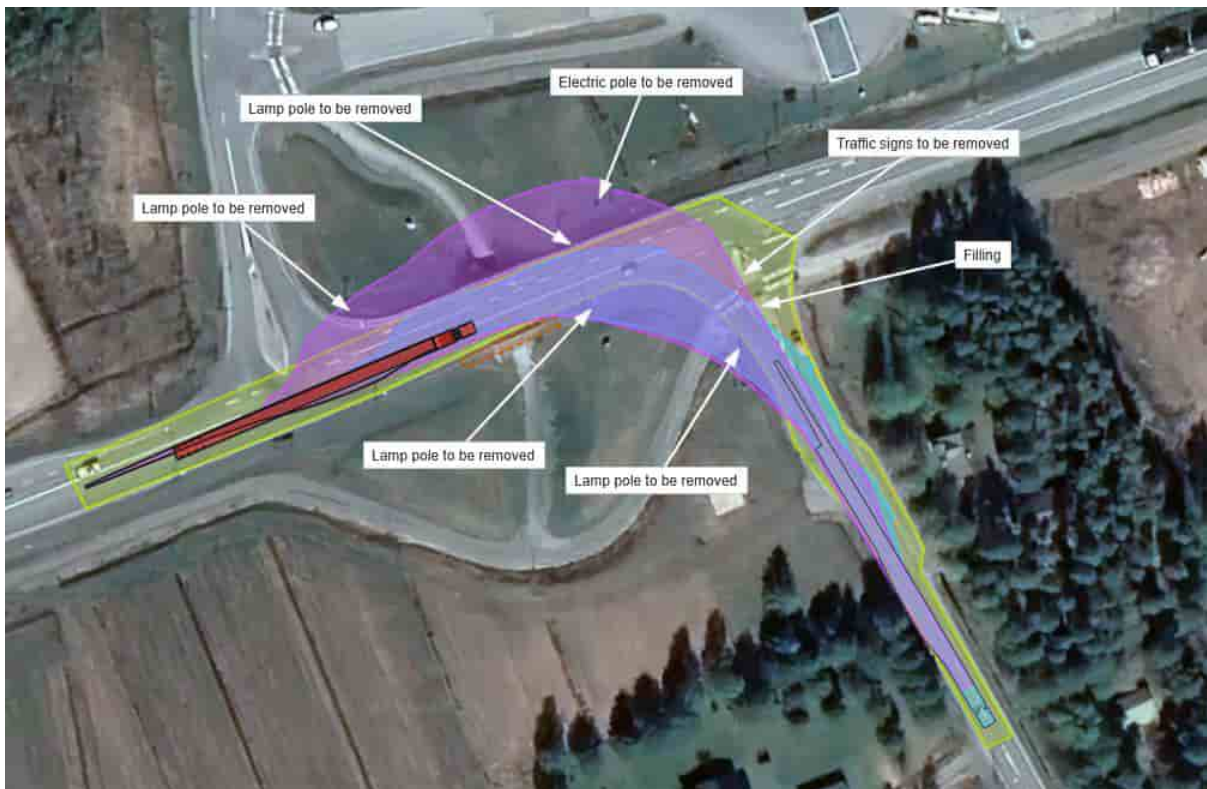


Map 21 – Turn from 18 to 18. Blades can drive straight under the bridge.

| | | | |
|--|-------|--------|---------|
| 23. | 163km | Map 23 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



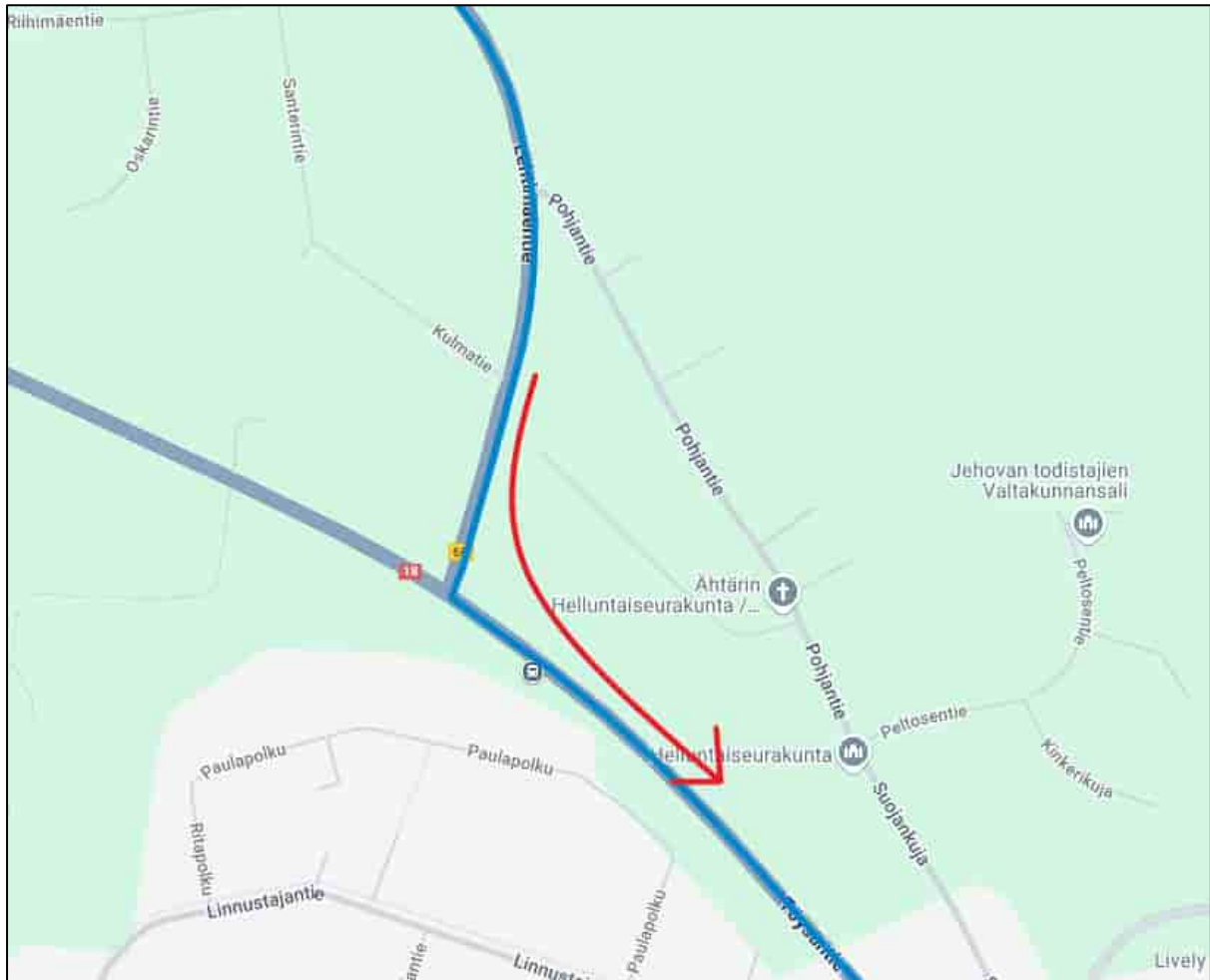
Map 23 – Turn from 16 to 68.



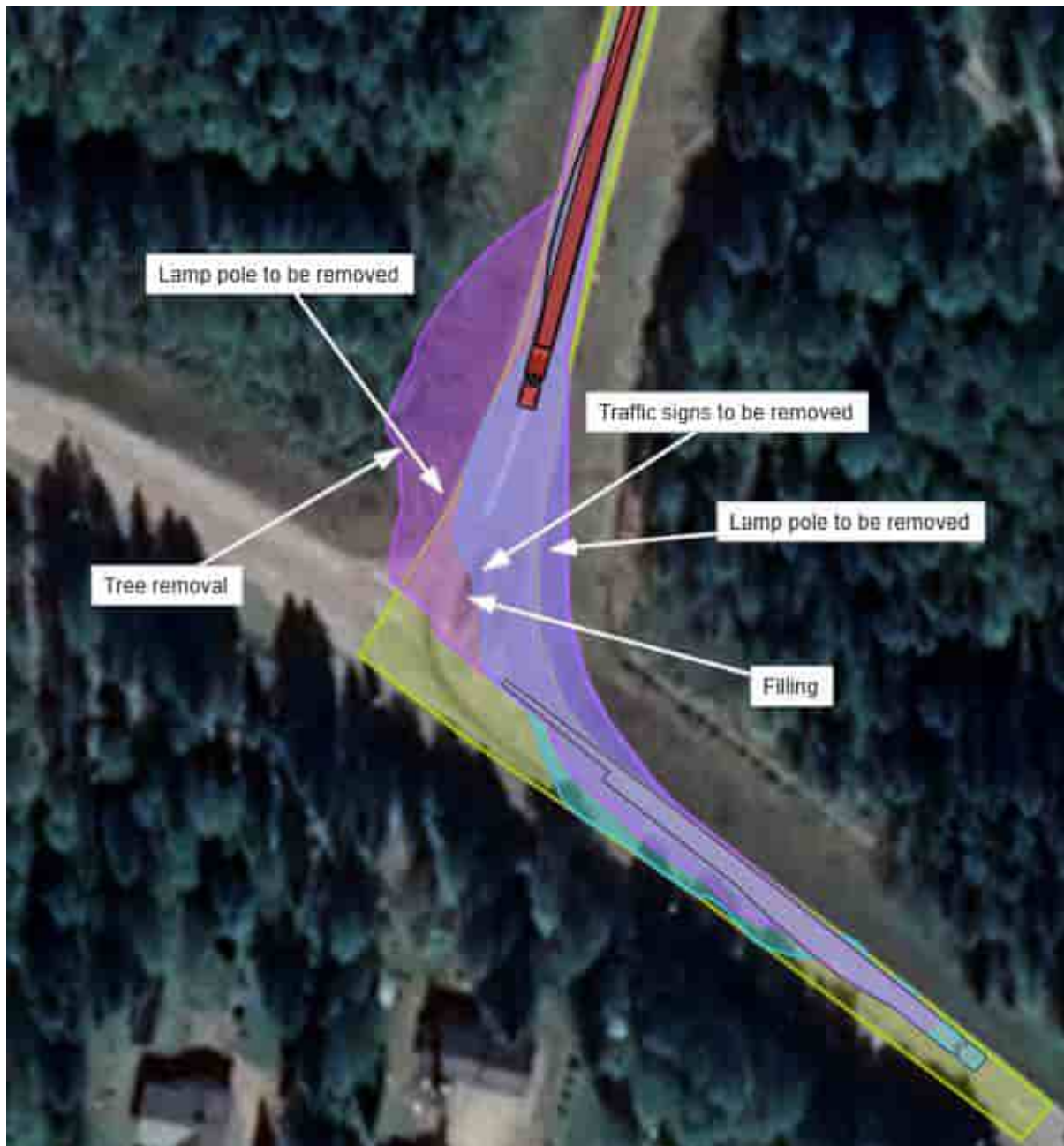
Sim 7 – Turn from 16 to 68.

- Filling on the traffic island.
- Four lamp poles to be removed.
- Electric pole to be removed.
- Traffic signs to be removed.

| | | | |
|--|-------|--------|---------|
| 24. | 224km | Map 24 | Class 3 |
| <p>Complex section with large modifications needed. See driving simulation below. Lamp poles to be removed. Filling needed. Possible tree removal.</p> | | | |



Map 24 – Turn from 68 to 18.



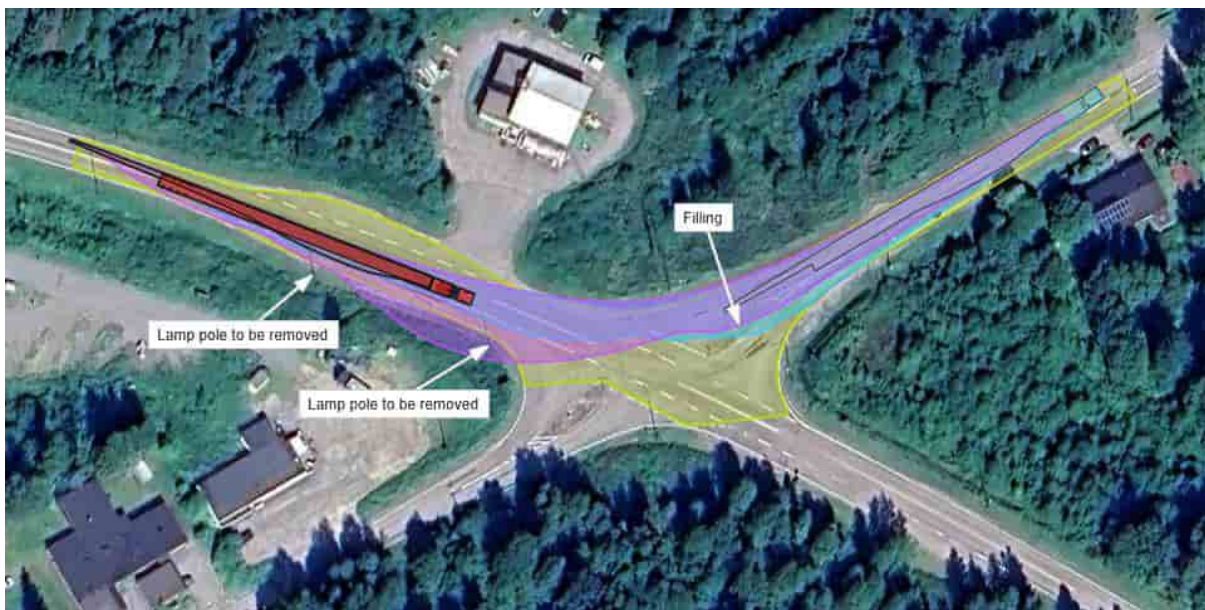
Sim 8 – Turn from 68 to 18.

- Filling on the traffic island.
- Two lamp poles to be removed.
- Tree removal on the outside before the turn.
- Traffic signs to be removed.

| | | | |
|--|-------|--------|---------|
| 25. | 235km | Map 25 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



Map 25 – Turn 18 to 18.



Sim 9 – Turn 18 to 18.

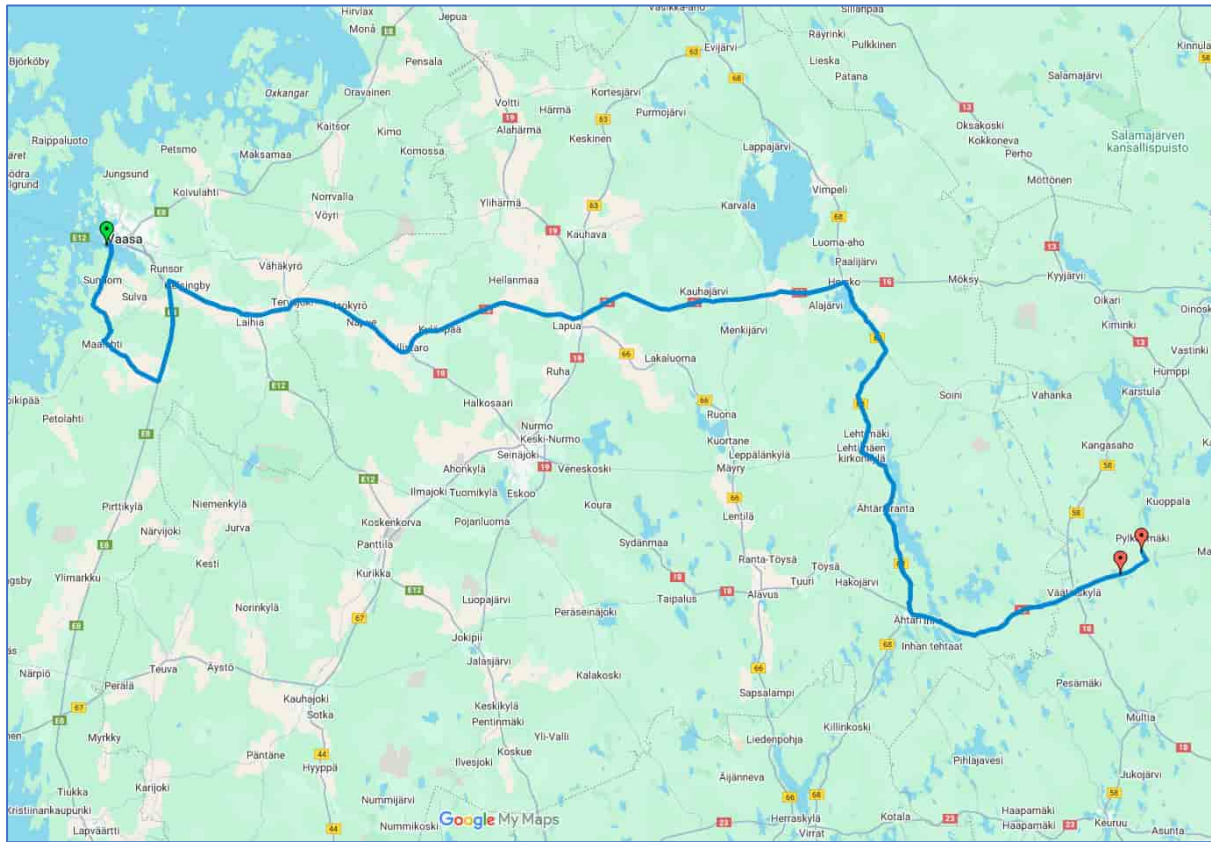
Filling on the traffic island after the turn.
Lamp pole to be removed.

| | | | |
|---|-------|--------|---------|
| 26. | 261km | Map 26 | Class 1 |
| Easy section with only minor modifications. | | | |



Map 26 – Turn 18 to 633.

5.3 Route for main components and tower sections



<https://www.google.com/maps/d/edit?mid=1gTeUSPaU58v-XhIk1CO-XoQO2ykJKeo&usp=sharing>

Rahtitie – Moottorikatu – 6741 – 673 – 679 – 8 – 7148 – 715 – 3 – 18 – 16 – 68 – 18 – 633
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5.4 Special Notes About the Route

| Number | Km | Coordinates N/W | Map | Transport road | Class | Action |
|--------|-------|-------------------------|-------------------|----------------------------|-------|------------------|
| 27. | 0km | 63.086285, 21.575718 | Map 27, Sim 10 | Turn from Rahtitie to 6741 | 2 | Moderate section |
| 28. | 15km | 62.963347, 21.577068 | Map 28, Sim 11 | Turn from 17663 to 673 | 2 | Moderate section |
| 29. | 17km | 62.949639, 21.551491 | Map 29, Sim 12 | Turn from 673 to 679 | 2 | Moderate section |
| 30. | 28km | 62.892364, 21.725128 | Map 30, Sim 13 | Turn from 679 to 8 | 1 | Moderate section |
| 31. | 45km | 63.035521, 21.759323 | Map 31, Sim 14 | Turn from 7148 to 715 | 3 | Complex section |
| 32. | 47km | 63.024455, 21.792745 | Map 32, Sim 15 | Turn from 715 to 3 | 3 | Complex section |
| 33. | 57km | 62.989775, 21.981124 | Map 33 | Turn from 3 to 18 | 1 | Easy section |
| 34. | 59km | 62.987411, 22.005432 | Map 34, Sim 16 | Turn from 18 to 18 | 3 | Complex section |
| 35. | 87km | 62.934740, 22.505122 | Map 35 | Turn from 18 to 16 | | Moderate section |
| 36. | 163km | 63.032876, 23.872405 | Map 36, Sim 17 | Turn from 16 to 68 | 3 | Complex section |
| 37. | 224km | 62.56282, 24.07806 | Map 37, Sim 18 | Turn from 68 to 18 | 2 | Moderate section |
| 38. | 235km | 62.52777, 24.28201 | Map 38, Sim 19 | Turn from 18 to 18 | 2 | Moderate section |
| 39. | 261km | 62.58913, 24.59232 | Map 39 | Turn from 18 to 633 | 1 | Easy section |

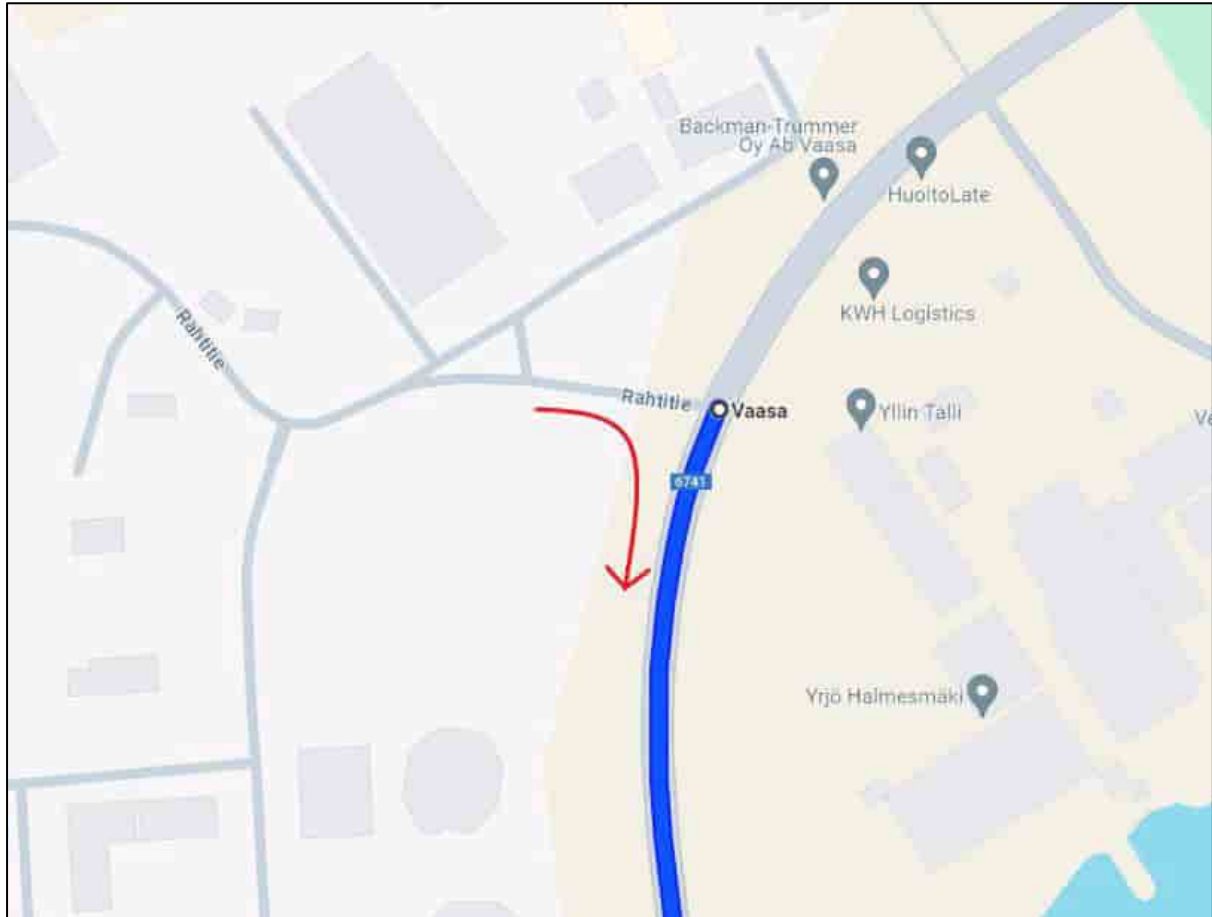
Classification of constructional measures

| Class | Category | Description |
|-------|-------------------|---|
| 1 | Easy section | Minor modifications needed, like e.g. removing road signs or arranging a parking section |
| 2 | Moderate section | Modifications necessary , like e.g. removing signs, fixing a traffic refuge or pedestrian path, covering with steel or concrete plates and other smaller road constructions or modifications |
| 3 | Complex section | Large modifications necessary, like e. g. removing crash barriers, reconstruction of roundabouts, establishment of turn tunnels, road enlargements, turning maneuver in general, private and undeveloped properties are affected, traffic lights and streetlamps must be removed, considerable long-term construction site with a high licensing effort. |
| 4 | Difficult section | Passage is doubtful , some additional investigations are necessary (e.g. expertise, swept path analysis, simulations, bearing capacity tests or dummy runs). |

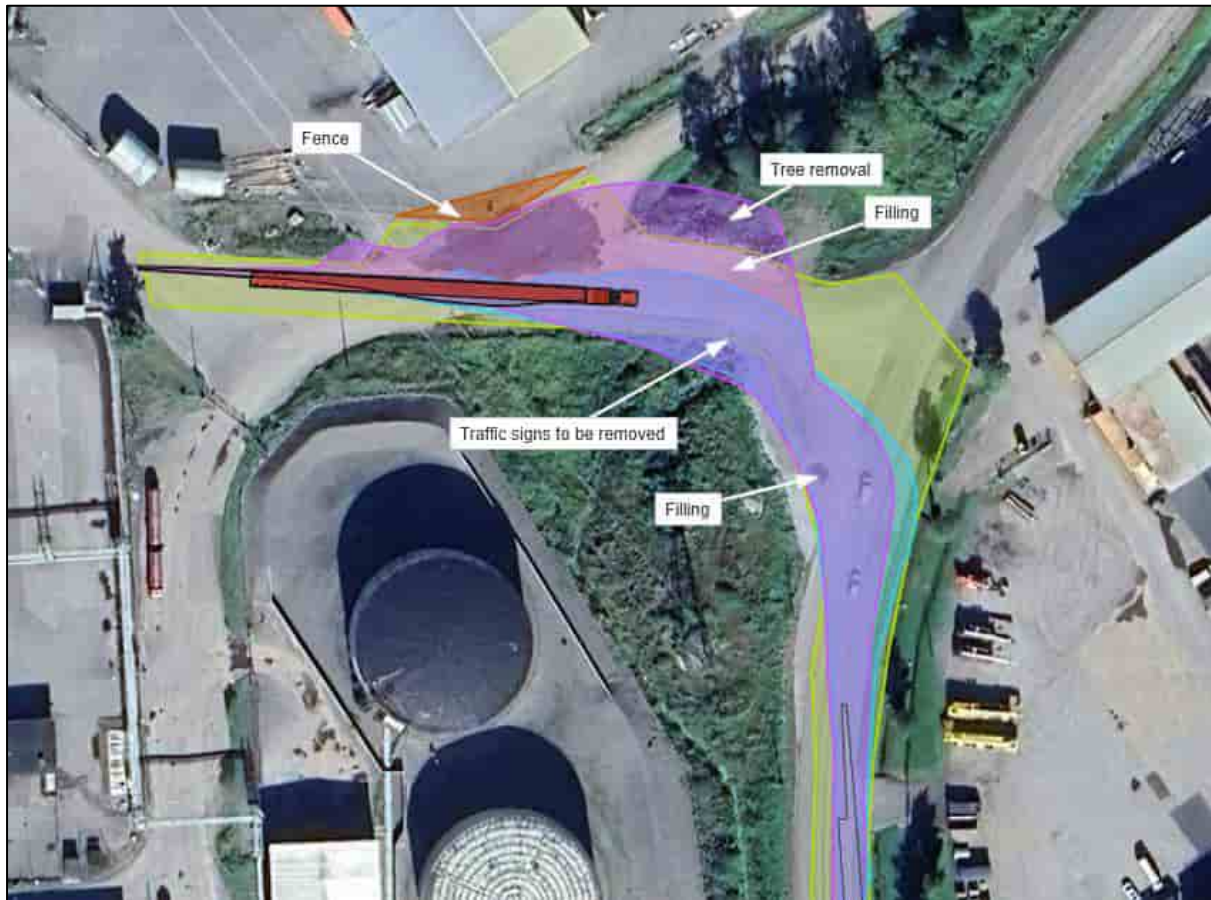
In simulations:

-  Driveable Area
-  Obstacle (Not passable. Traversable if the height of the obstacle allows it)
-  Tire tracks of tractor
-  Tire tracks of trailer
-  Area covered by vehicle combination
-  Area covered by cargo

| | | | |
|---|-----|--------|---------|
| 27. | 0km | Map 27 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



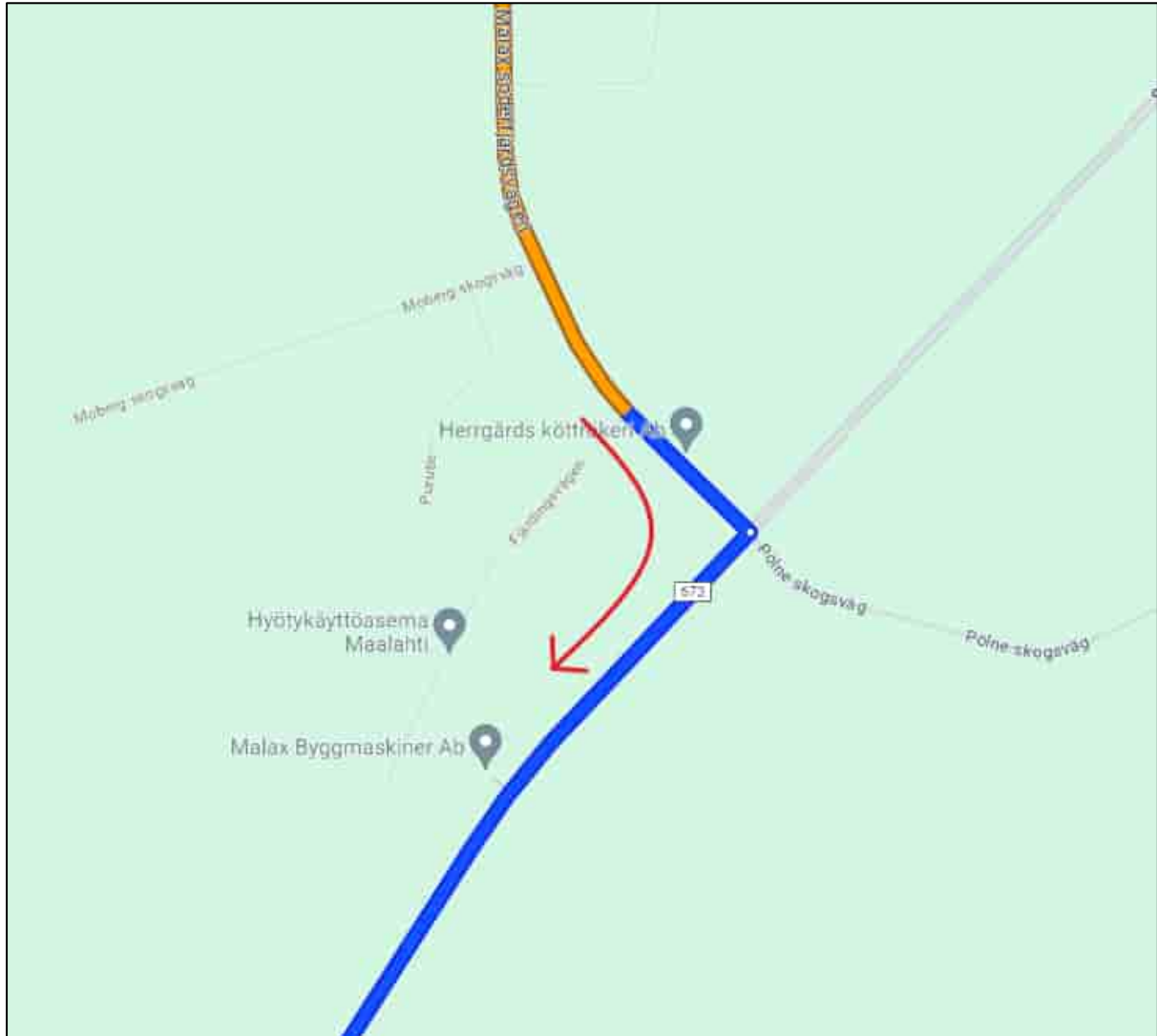
Map 27 – Turn from Rahtitie to 6741.



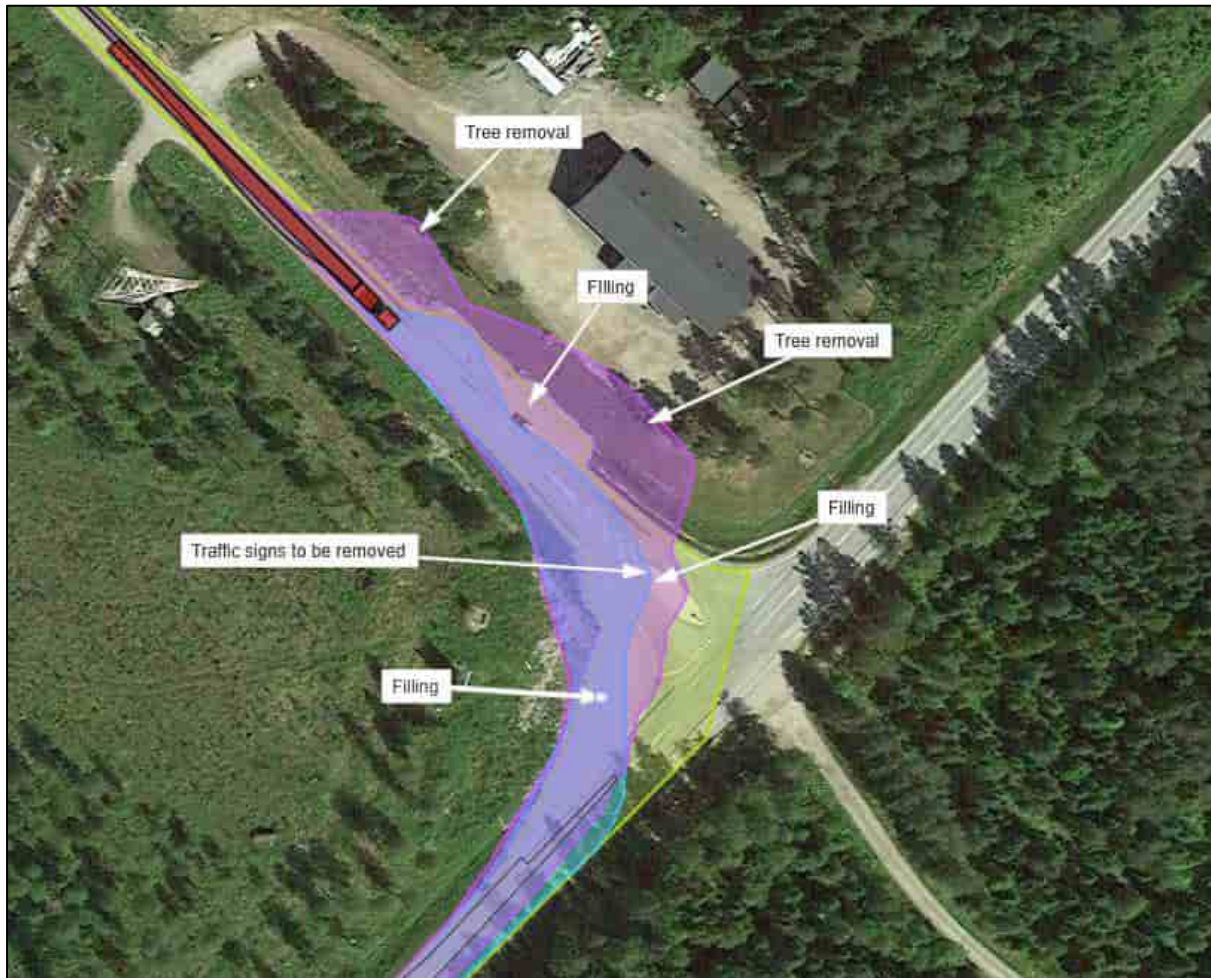
Sim 10 – Turn from Rahtitie to 6741.

- Filling on the inside
- Filling on the outside before the turn
- Tree removal on the outside before the turn
- Traffic signs to be removed

| | | | |
|---|------|--------|---------|
| 28. | 15km | Map 28 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



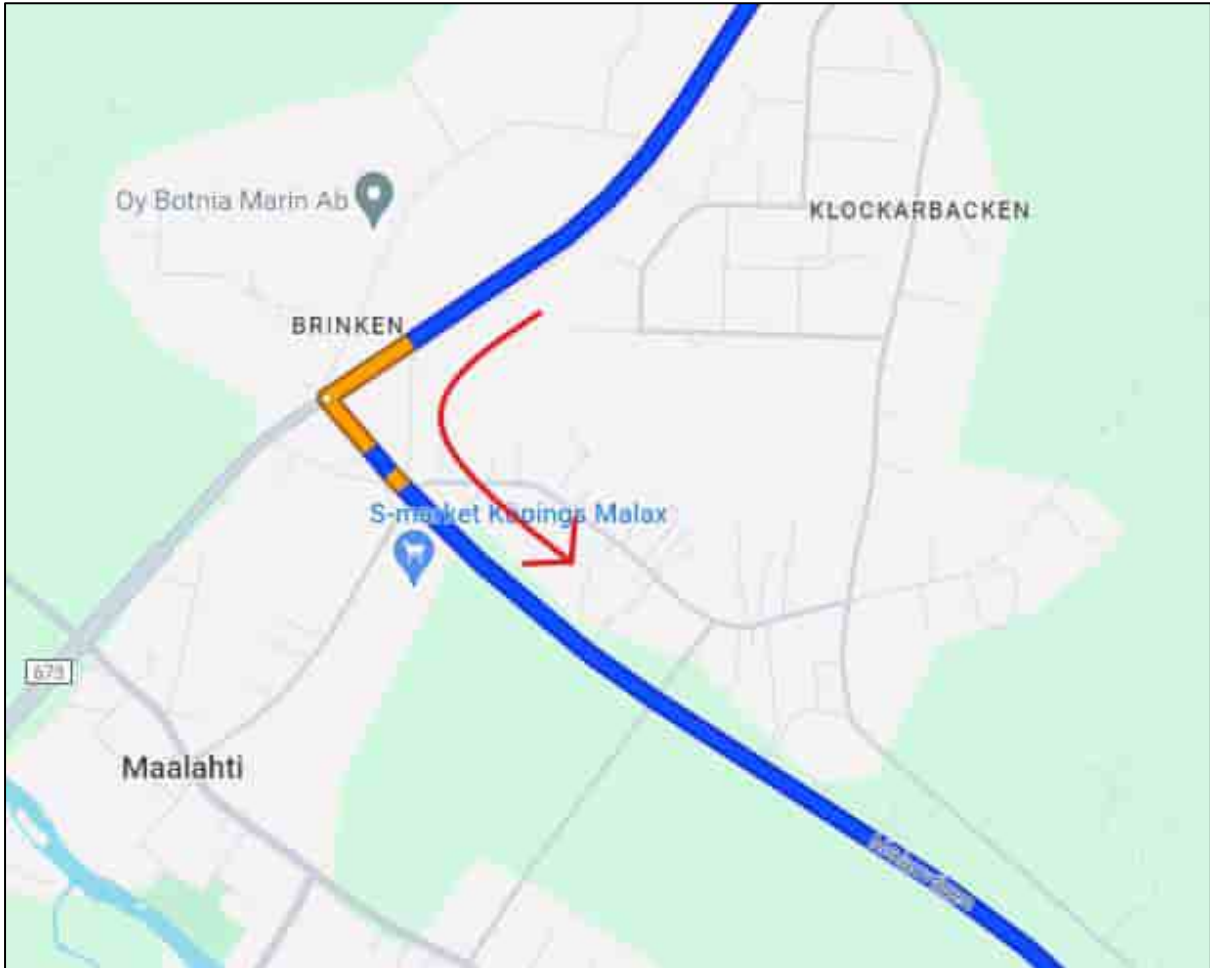
Map 28 – Turn from 17663 to 673.



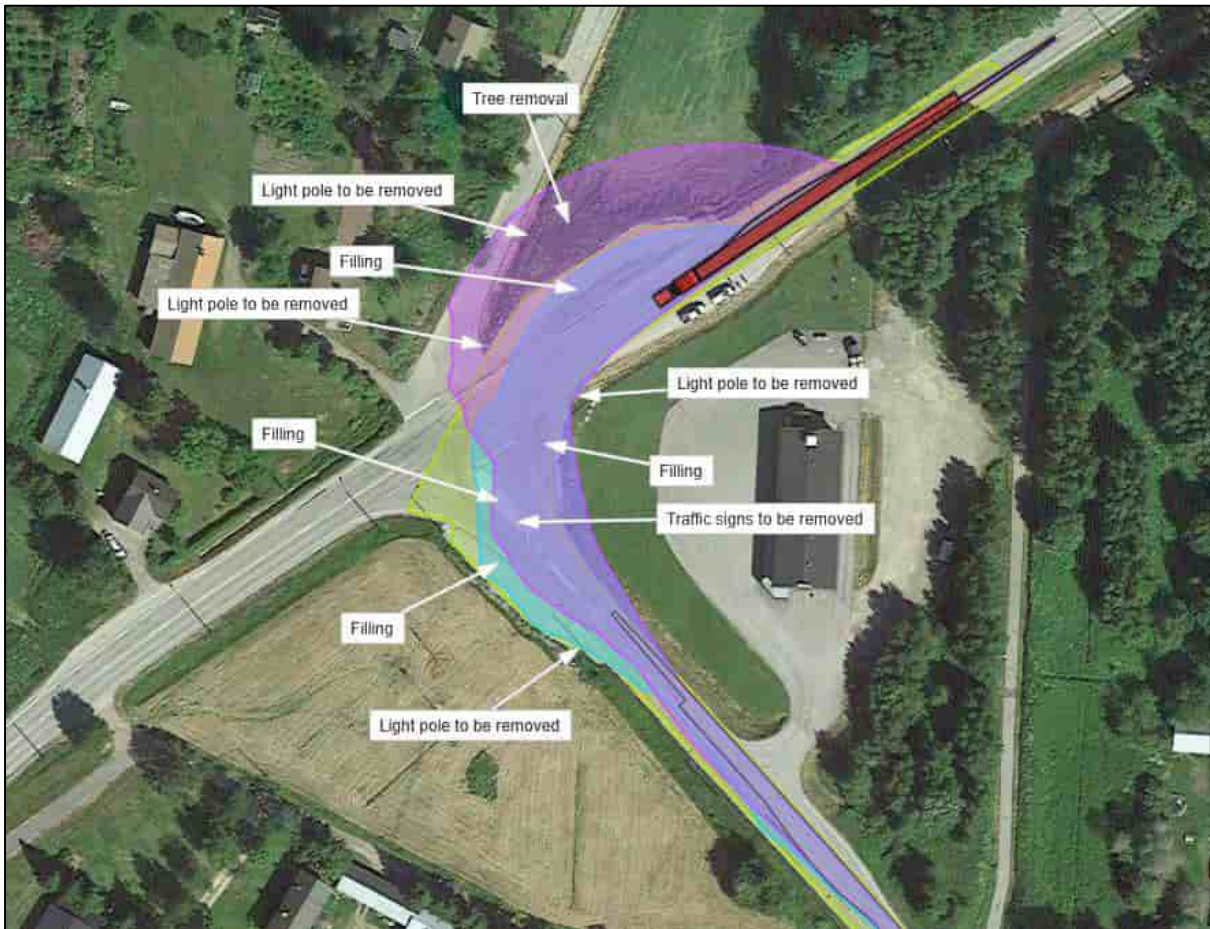
Sim 11 – Turn from 17663 to 673.

- Filling on the inside
- Filling on the outside before the turn
- Tree removal on the outside before the turn
- Traffic signs to be removed

| | | | |
|---|------|--------|---------|
| 29. | 17km | Map 29 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



Map 29 – Turn from 673 to 679.



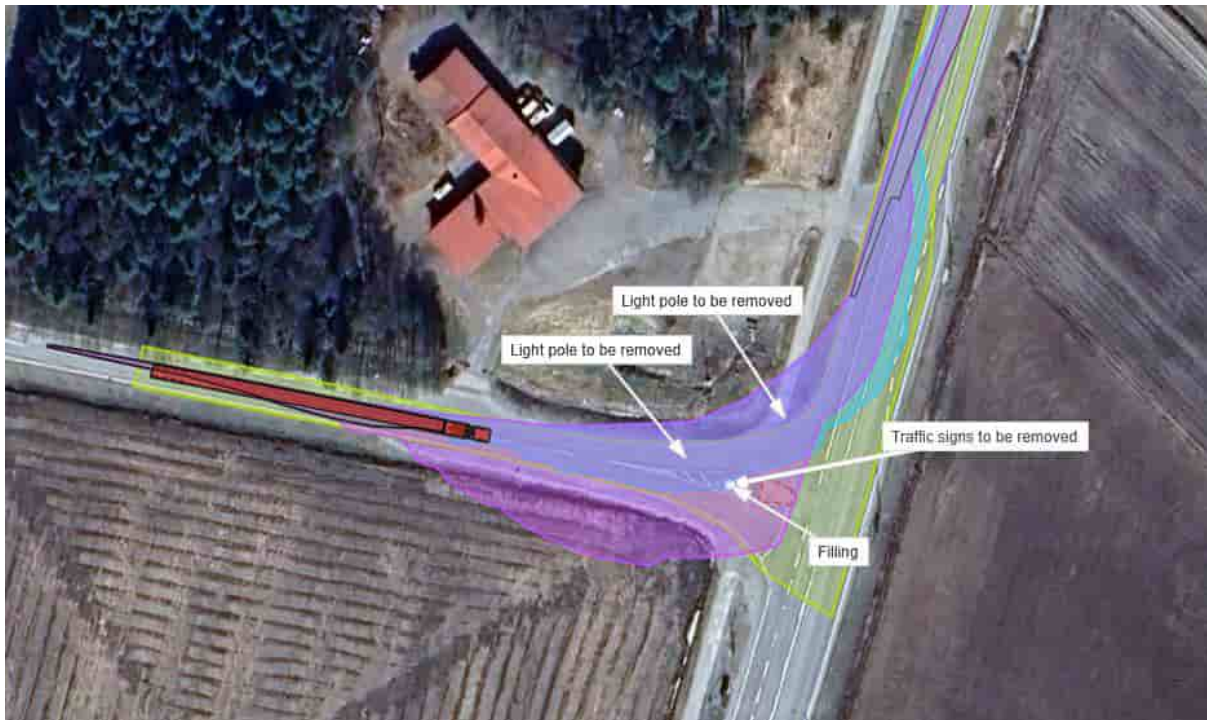
Sim 12 – Turn from 673 to 679.

- Filling on the inside
- Filling on the outside before the turn
- Filling on the outside after the turn
- Tree removal on the outside before the turn
- Four lamp poles to be removed
- Traffic signs to be removed

| | | | |
|---|------|--------|---------|
| 30. | 28km | Map 30 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



Map 30 – Turn from 679 to 8.



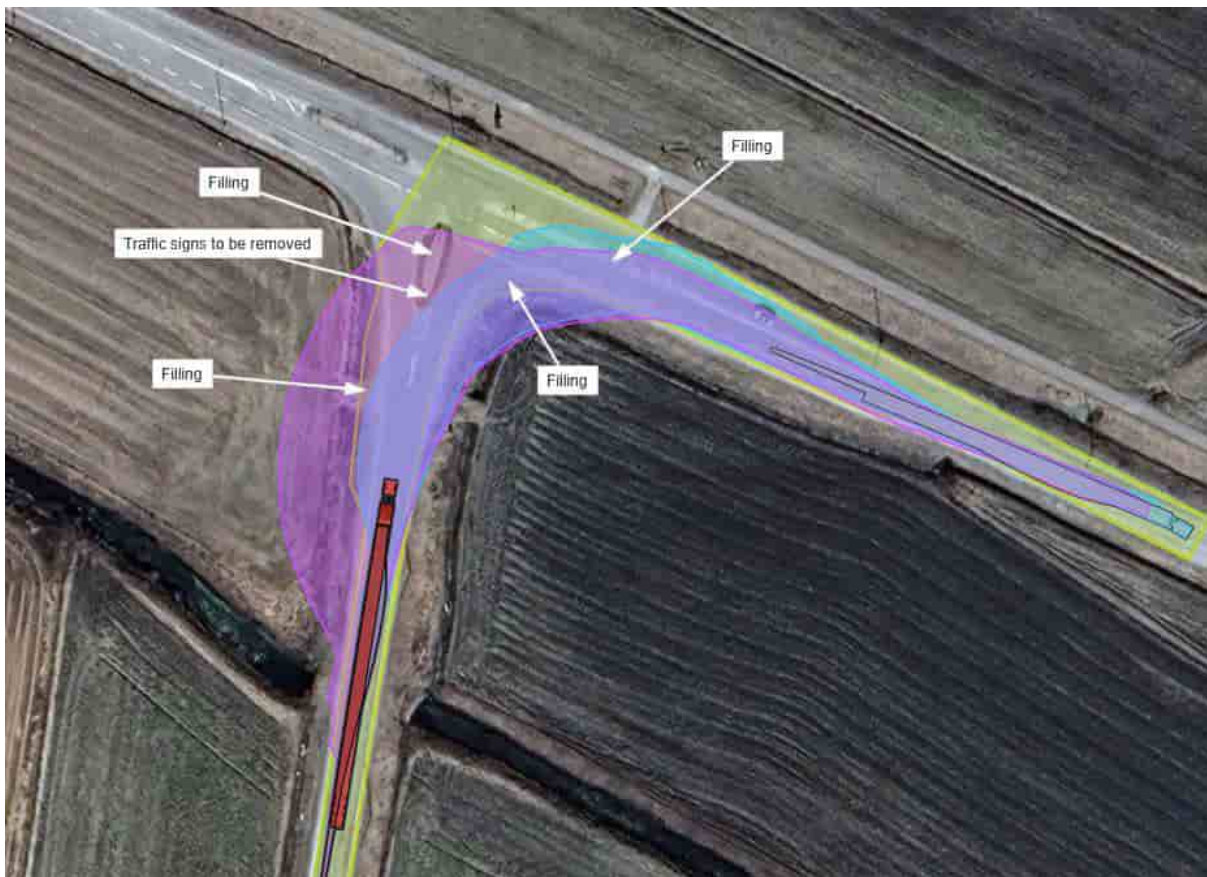
Sim 13 – Turn from 679 to 8.

Filling on the traffic island.
Two lamp poles to be removed.
Traffic signs to be removed.

| | | | |
|--|------|--------|---------|
| 31. | 45km | Map 31 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



Map 31 – Turn from 7148 to 715.



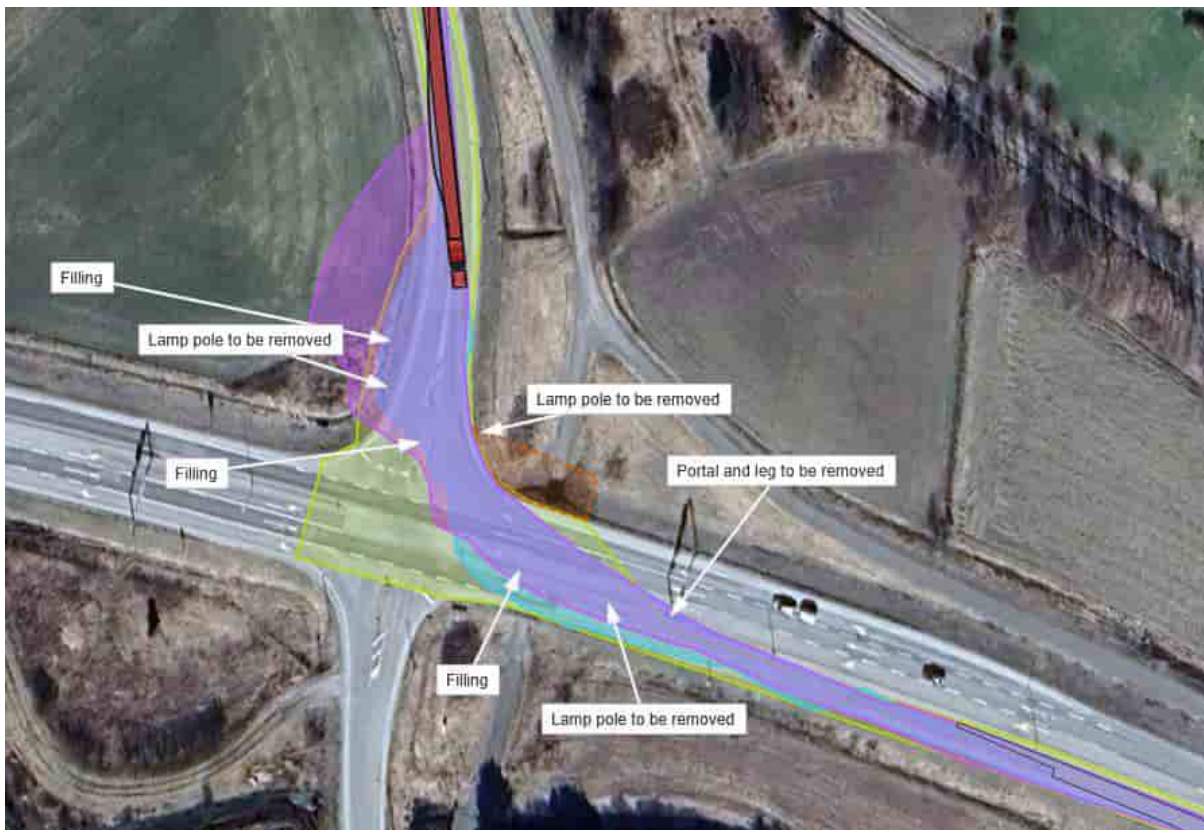
Sim 14 – Turn from 7148 to 715.

- Filling on the traffic islands.
- Filling on the outside before the turn.
- Filling on the inside.

| | | | |
|--|------|--------|---------|
| 32. | 47km | Map 32 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



Map 32 – Turn from 715 to 3.



Sim 15 – Turn from 715 to 3.

- Fillings on the traffic islands.
- Traffic portal and leg to be removed.
- Three lamp poles to be removed.
- Traffic signs to be removed.

| | | | |
|---|------|--------|---------|
| 33. | 57km | Map 33 | Class 1 |
| Easy section with only minor modifications. | | | |

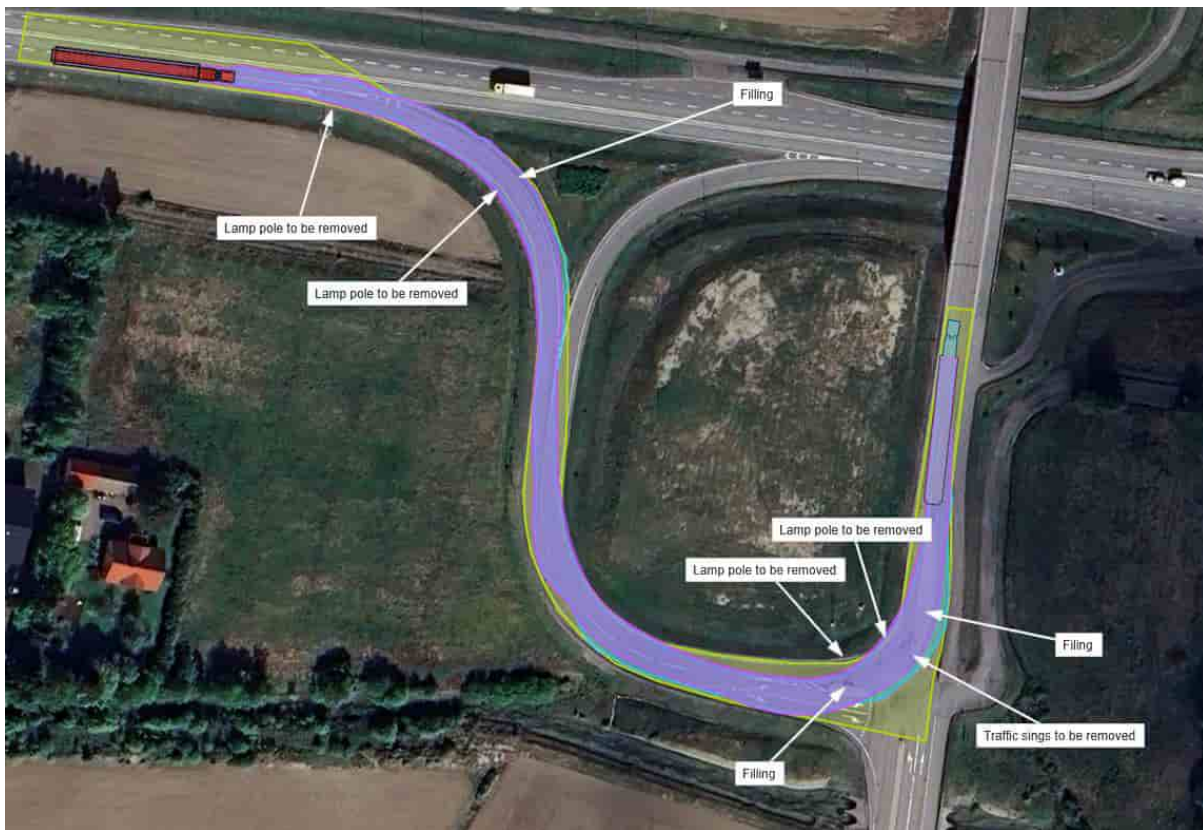


Map 33 – Turn from 3 to 18.

| | | | |
|--|------|--------|---------|
| 34. | 59km | Map 34 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



Map 34 – Turn from 18 to 18. Red arrow marks the route.



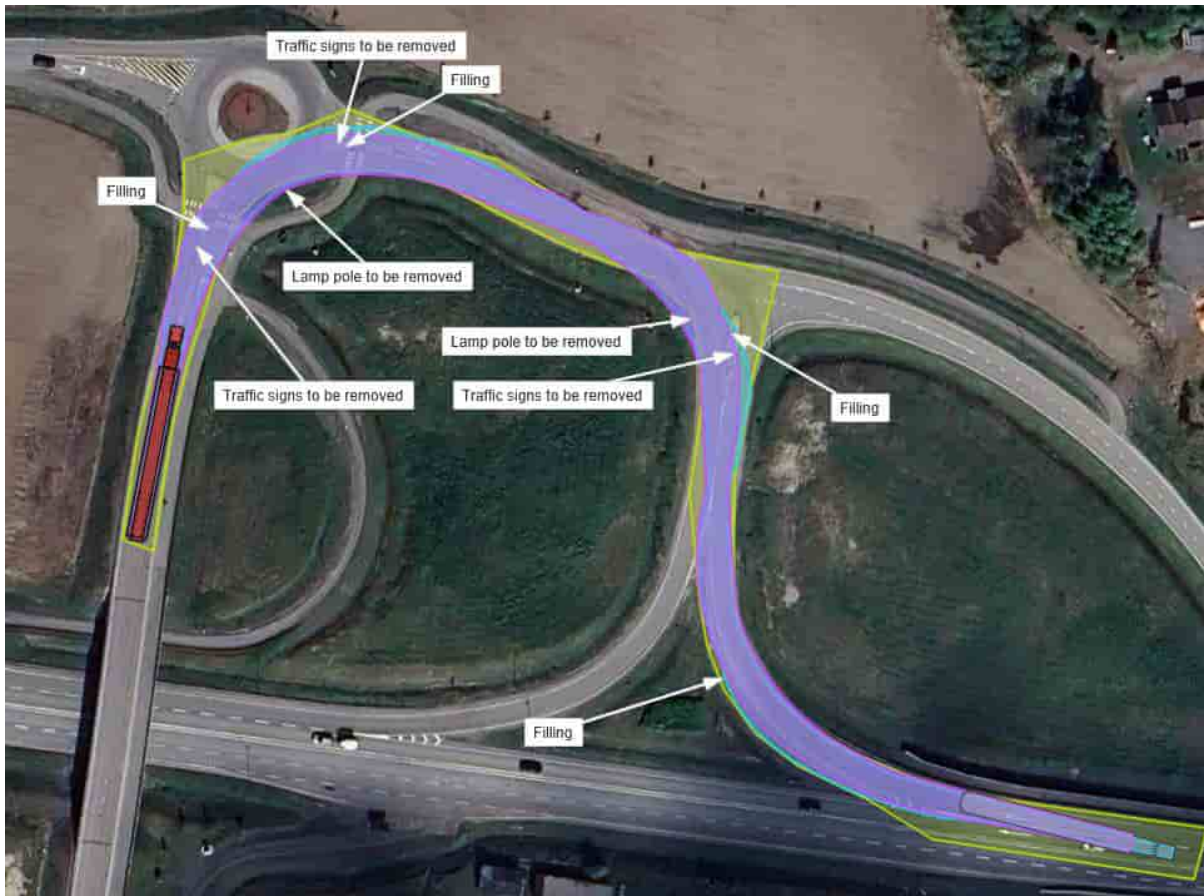
Sim 16 – Turn from 18 to 18. Part 1

Filling on the left side at the beginning of the ramp.

Filling on the traffic islands.

Four lamp poles to be removed.

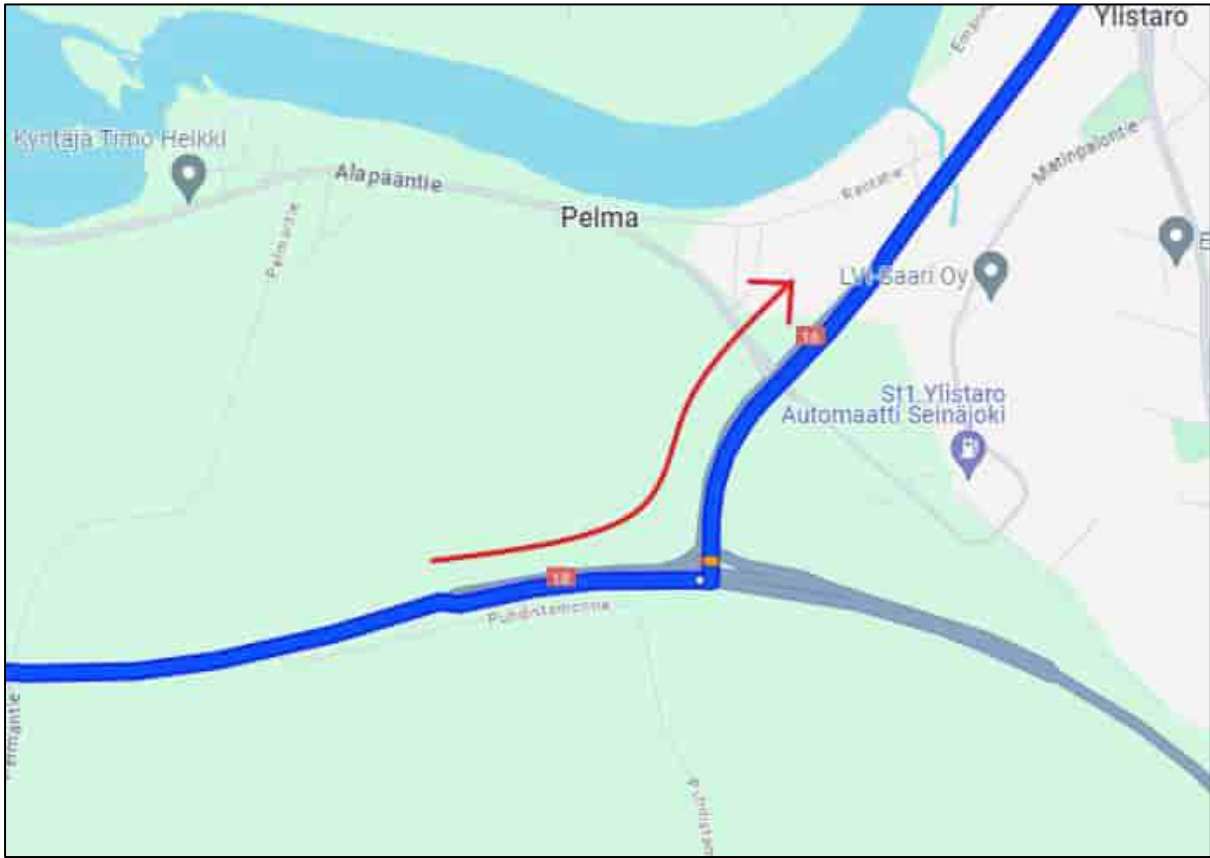
Traffic signs to be removed.



Sim 16 – Turn from 18 to 18. Part 2

- Filling on the right side at the end of the ramp.
- Filling s on the traffic islands.
- Two lamp poles to be removed.
- Traffic signs to be removed.

| | | | |
|--|------|--------|---------|
| 35. | 87km | Map 35 | Class 2 |
| No aerial view of the new intersection, driving simulation cannot be done. | | | |

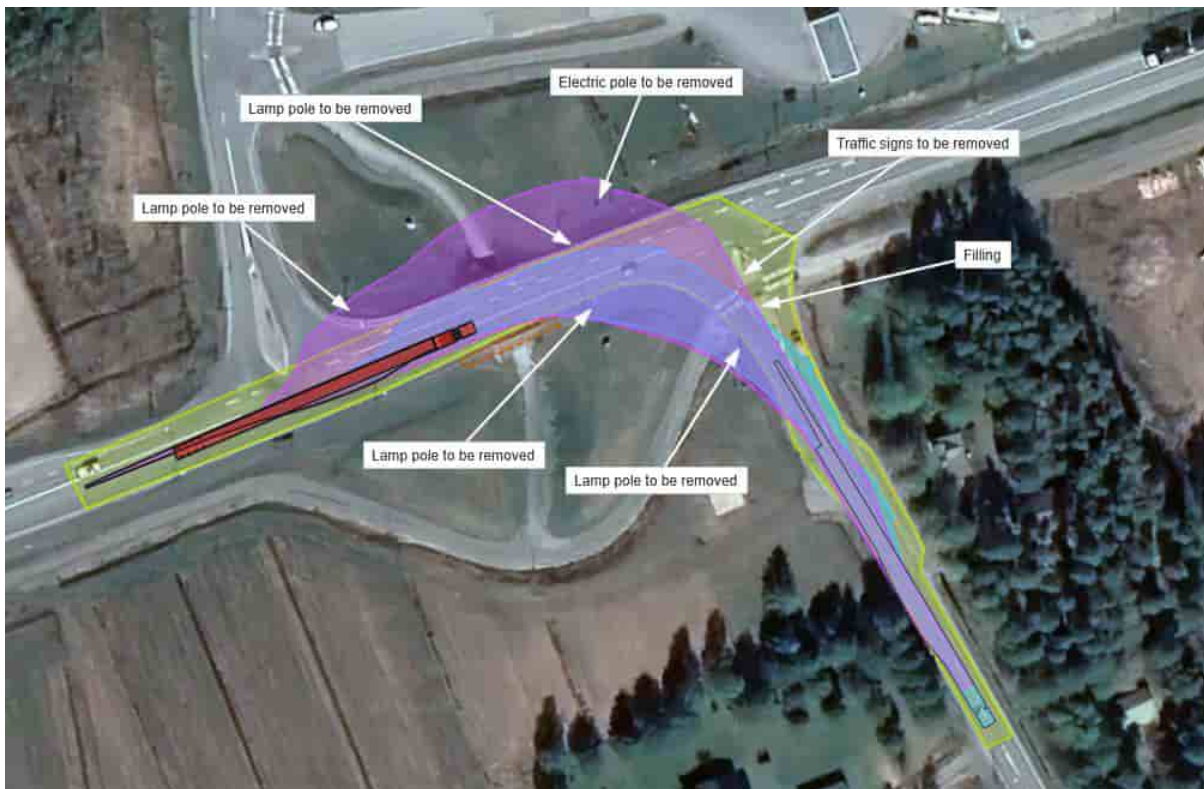


Map 35 – Turn from 18 to 16.

| | | | |
|--|-------|--------|---------|
| 36. | 163km | Map 36 | Class 3 |
| Complex section with large modifications needed. See driving simulation below. | | | |



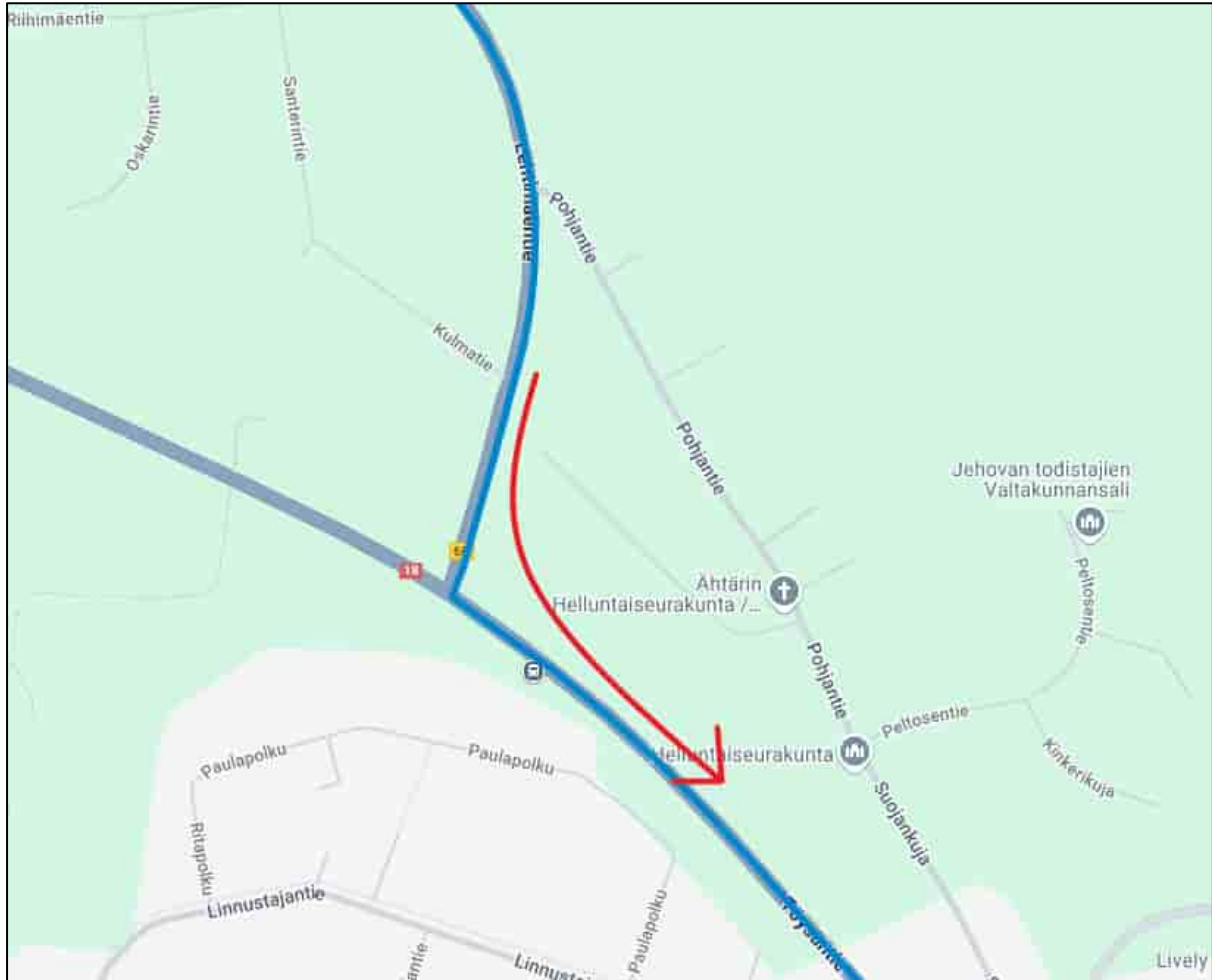
Map 36 – Turn from 16 to 68.



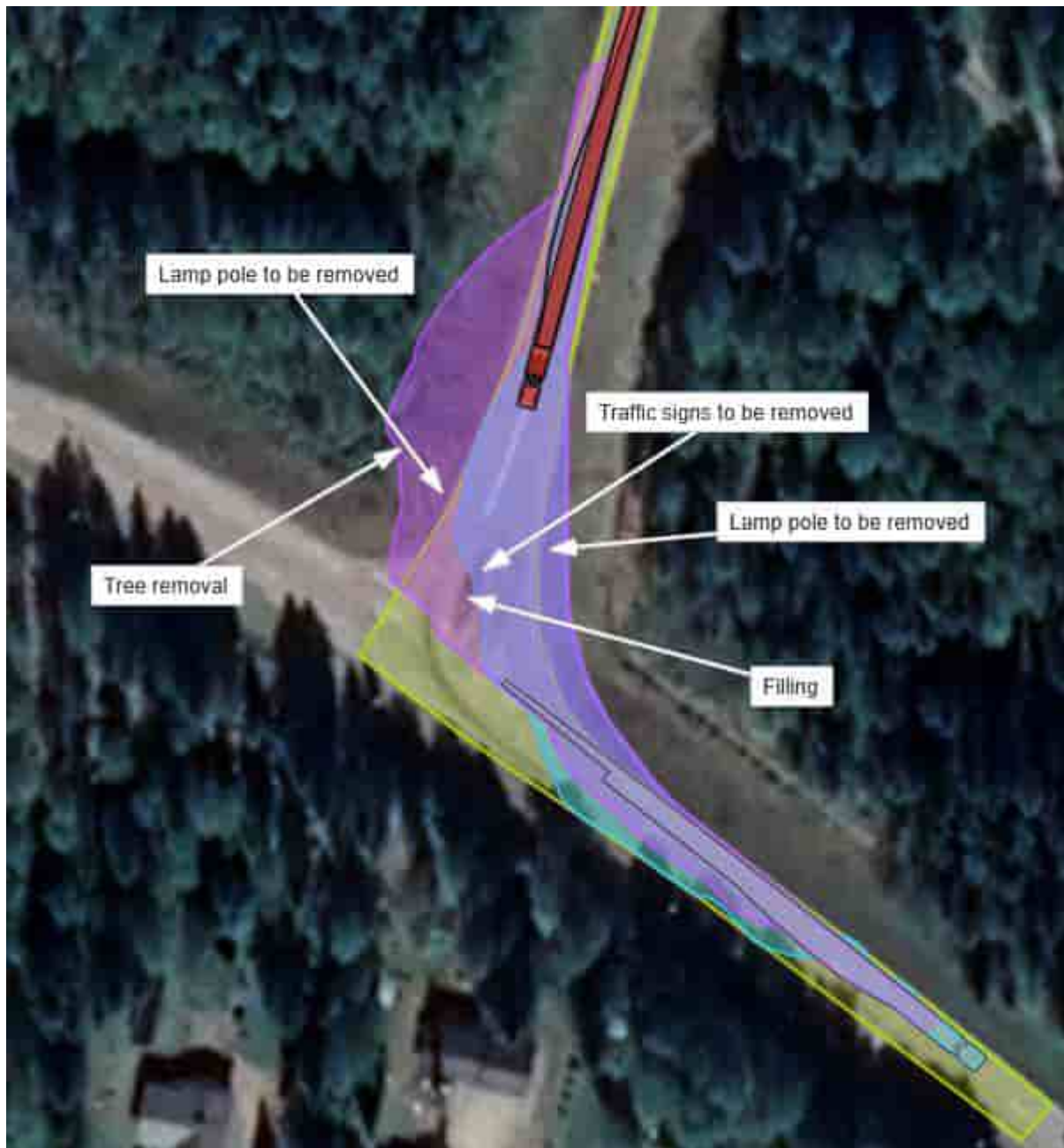
Sim 17 – Turn from 16 to 68.

- Filling on the traffic island.
- Four lamp poles to be removed.
- Electric pole to be removed.
- Traffic signs to be removed.

| | | | |
|---|-------|--------|---------|
| 37. | 224km | Map 37 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



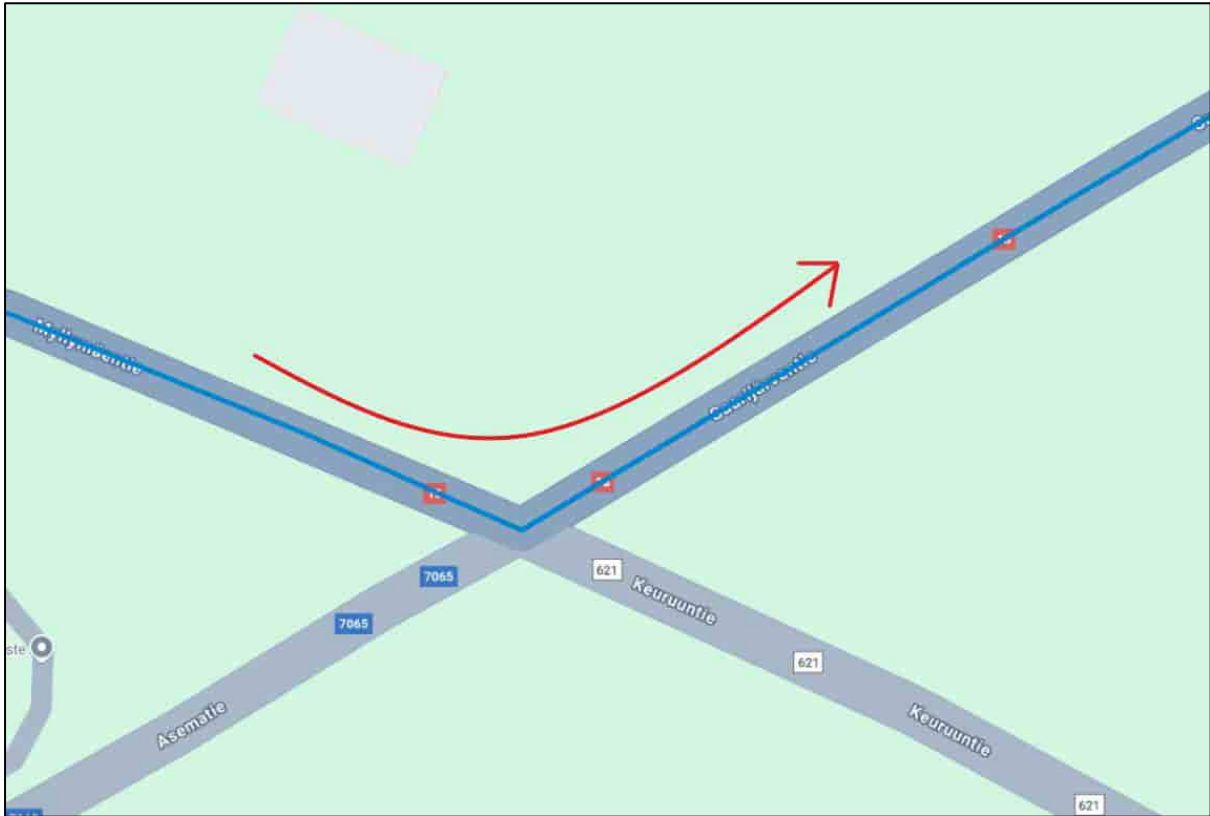
Map 37 – Turn from 68 to 18.



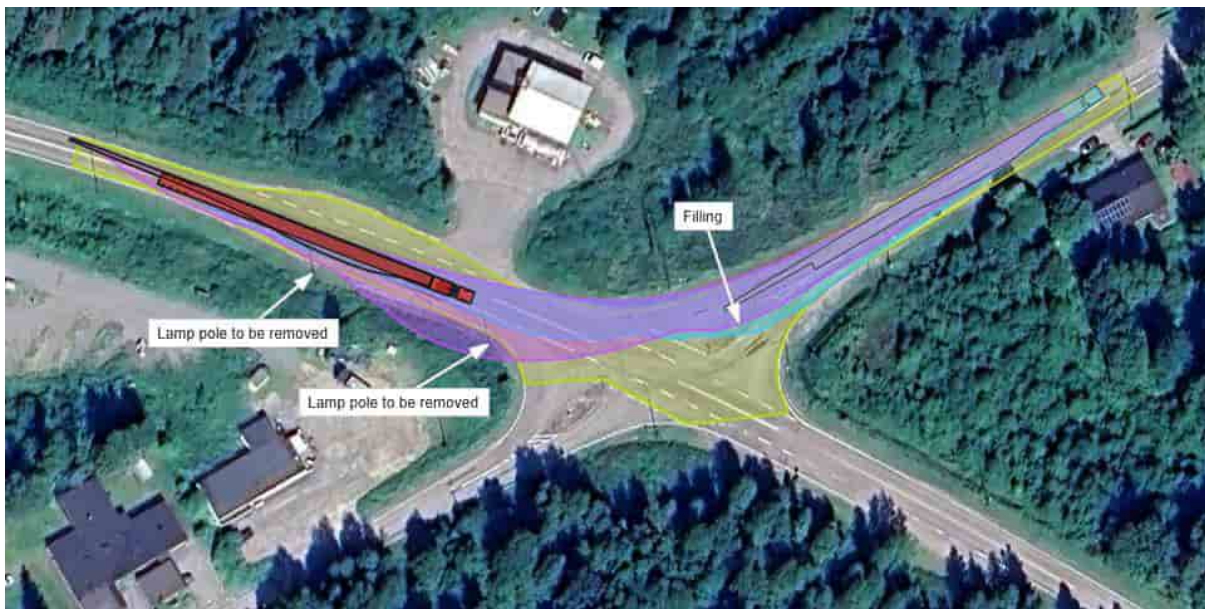
Sim 18 – Turn from 68 to 18.

- Filling on the traffic island.
- Two lamp poles to be removed.
- Tree removal on the outside before the turn.
- Traffic signs to be removed.

| | | | |
|---|-------|--------|---------|
| 38. | 235km | Map 38 | Class 2 |
| Moderate section with small road constructions or modifications. For more information see driving simulation below. | | | |



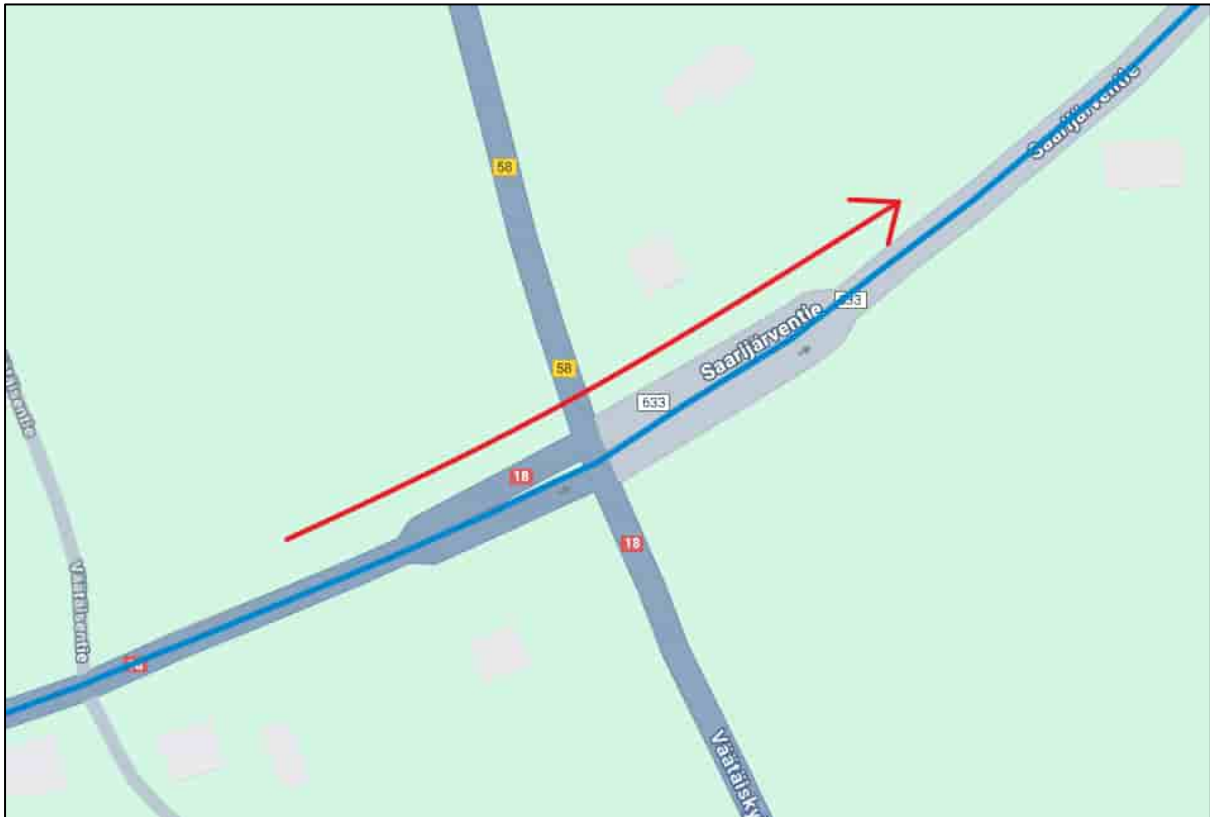
Map 38 – Turn 18 to 18.



Sim 19 – Turn 18 to 18.

Filling on the traffic island after the turn.
Lamp pole to be removed.

| | | | |
|---|-------|--------|---------|
| 39. | 261km | Map 39 | Class 1 |
| Easy section with only minor modifications. | | | |

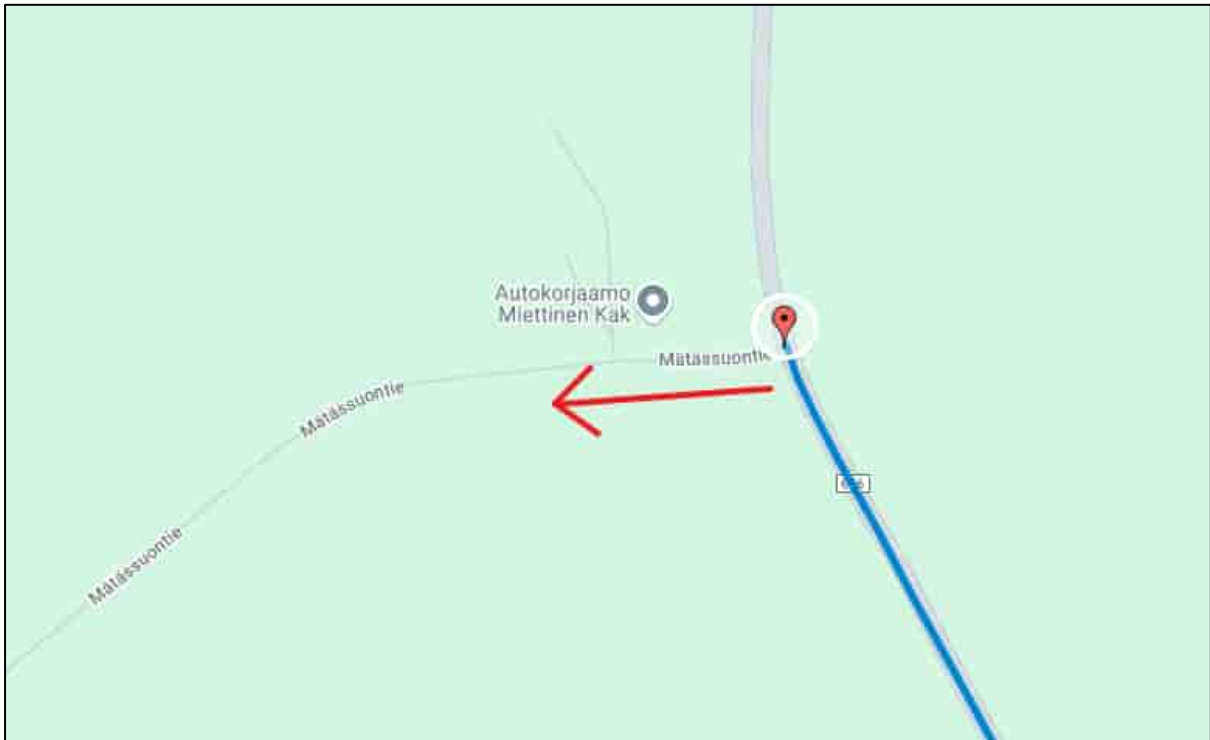


Map 39 – Turn 18 to 633.

5.5 Suggested Handover Points



Suggested handover points. Murtolammin tie.



Suggested handover points. Mätässuontie.

Suggested handover points are located on road Murtolammentie on point 62.61614, 24.73873 and on road Mätässuontie on point 62.64876, 24.80482.

Or the handover point could also be before the given point or after it.

Roads onwards this point are not suitable for transports. Roads from handover point to offloading sites are responsibility of the client/builder and need to be constructed according to the turbine manufacturers site road specifications.

5.6 Preliminary Transport Permit

Preliminary transport permit has been applied on 30.4.2024. The Preliminary transport permit for max weight 105Tn (4650/2024) was accepted 10.3.2025 with condition.

The condition is bridge control (sillanvalvontaehto).

On the suggested route there are three bridges that need to pass under supervision. The bridge controls and other possible conditions will become more exact with the transport permits. Then it's possible to know what components will have the bridge control and which are those supervised bridges.

The Preliminary transport permit was applied with the estimated dimensions of the powertrain. It is the limiting component on the transport because it is so short and heavy.

5.7 Other Notes

Port of Vaasa and the special transport route from the port to the main road 8 is used by many transport operators so the needed modifications are heavily related to the situation with the route at the time of the transports.

On the route there are traffic portals that can be necessary to remove but that will become clear with the full route survey.

A full route survey is needed to determine all possible modifications and to confirm that the route is suitable for the transports. For example, the amount of overhead cable work will be confirmed when the route is measured.

The suitability of the route for transports depends on:

- Transport permit is granted

6 CONCLUSIONS

In summary, there are suitable routes for the transformers and for each turbine component. These routes will need road modifications.

The transport route is suitable for transport with some modifications. A full route survey including more exact simulations is needed to determine necessary modifications. Modifications might include fillings, removal of lamp poles, traffic signs and trees, and other needed modifications. Cost estimate for these road modifications can be estimated after a full route survey and final simulations.

The suitability of the route for transport depends on whether the transport permit is granted.

6.1 Next steps

- Full route survey for transformer/turbine transports.
- Cost estimate for road modifications.
- Permitting road modifications.
- Transport permit for each component.
- Project execution.