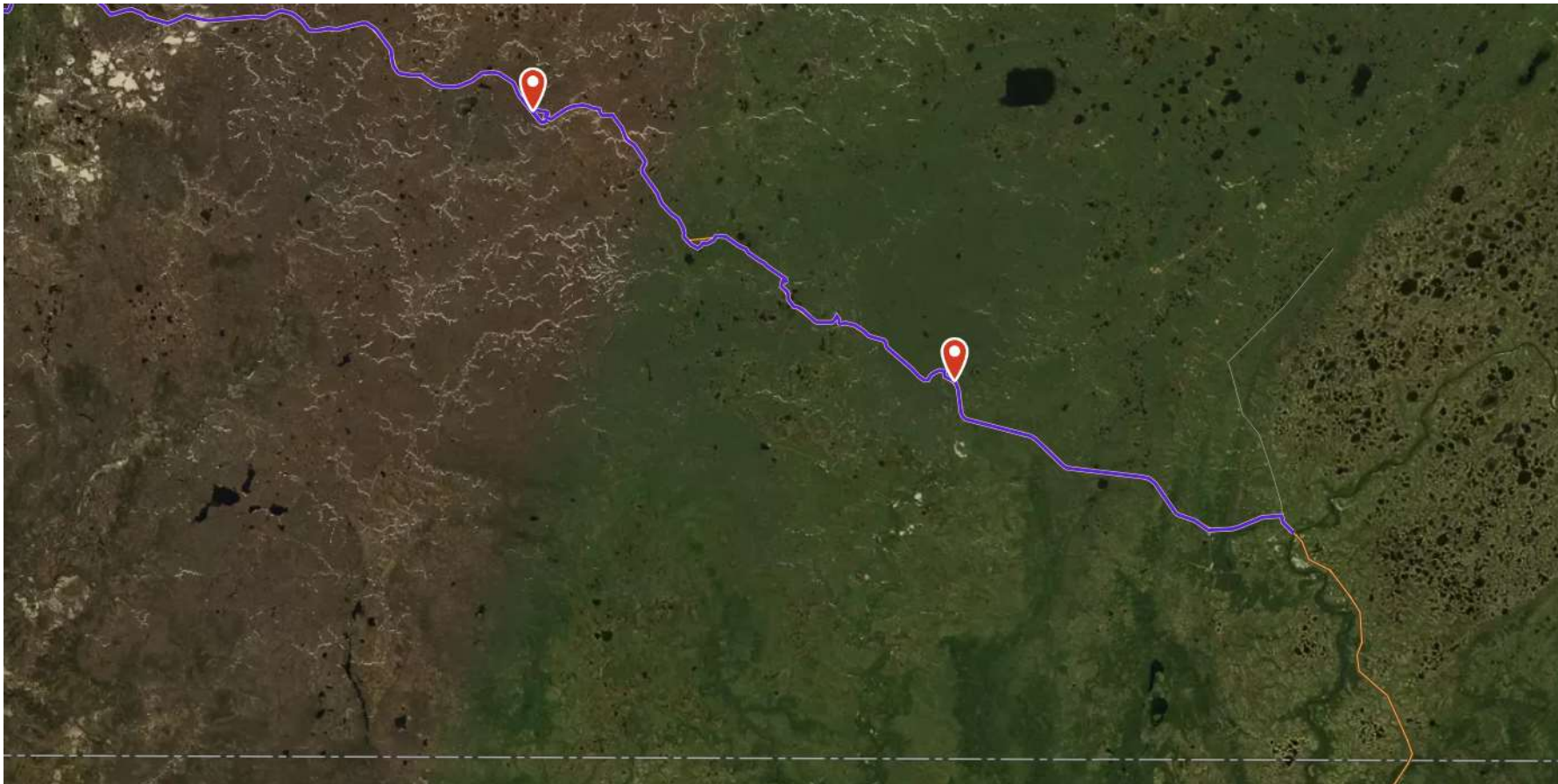




Establishment and maintenance of winter roads

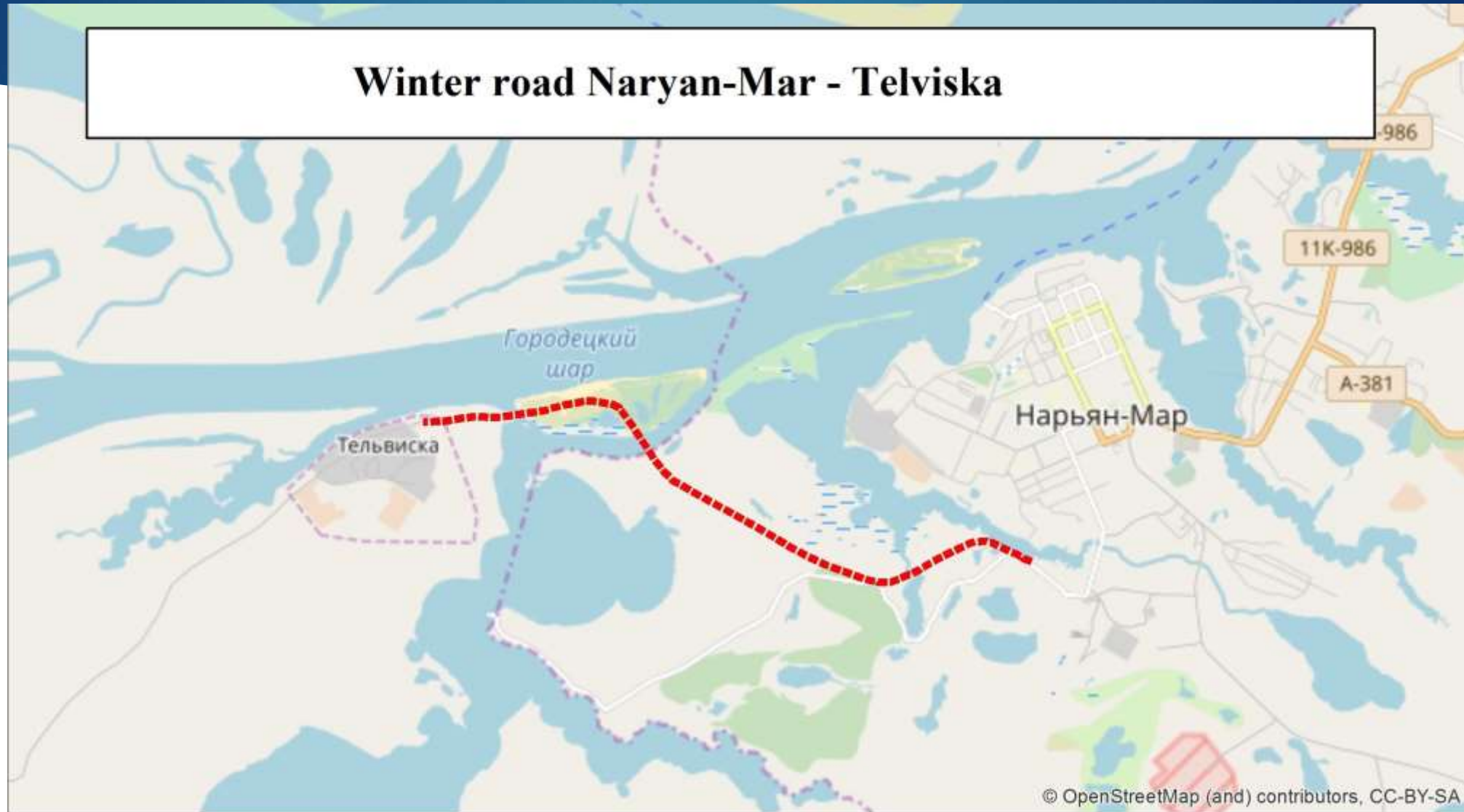
Establishment and maintenance of winter roads

Winter road Naryan-Mar — Usinsk



Establishment and maintenance of winter roads

Winter road Naryan-Mar - Telviska



Establishment and maintenance of winter roads

Major parameters of the Naryan-Mar — Usinsk winter road in Nenets Autonomous Okrug:

| | |
|------------------------------------|--|
| Total length of winter road | Season 2016-2017 – 85.95 km Season 2017-2018 – 71.3 km Season 2018-2019 – 71.3 km Season 2019-2020 – 54.8 km Season 2020-2021 – 54.8 km |
| Starting point | 97th km of motor road Naryan-Mar - Laya-Vozh |
| End point (in 2019-2020) | 147th km+531 through kilometerage of Naryan-Mar — Usinsk motor road |
| Winter road category | III |
| Design speed: | |
| General speed | -50 km/h |
| On rough terrain | -30 km/h |
| Number of lanes | 2 |
| Full roadway width | 9,0 m |
| Lane width | 3,0 m |
| Maximum longitudinal slope: | |
| General | 60‰ |
| On rough terrain | 90‰ |
| Artificial structures | 3 ice bridges |

Establishment and maintenance of winter roads

Government contracts for the establishment and maintenance of winter roads are awarded at open tenders. To establish and maintain winter roads contractors use tracked and wheeled bulldozers, tank trucks for watering, truck-mounted cranes, drop-side trucks, loaders and other auxiliary machinery when needed.



Establishment and maintenance of winter roads

Contractor's obligations for the establishment of the Naryan-Mar – Usinsk winter road:

- clean and maintain construction sites, organize transportation of garbage from the winter roads and road repair points;
- organize properly marked garbage collection points every 15 km of the winter road;
- set up display panels with information on the traffic situation on the winter road and ensure their continuous operation and updating with latest information on road conditions;
- organize rest areas for drivers at road repair points;
- have at least 4 tractor units on standby at the winter road's most challenging sections (with more than 50% uphill/downhill gradient).



Thank you for your attention!