

# World's largest TBM on hold as Orlovsky tunnel cancelled

RUSSIA

The City of St Petersburg has cancelled the Orlovsky Tunnel project. The plan to create a new full-time route beneath the River Neva was shelved according to local reports. The project had called for the world's largest TBM, a 19.25m-diameter Mixshield machine from Herrenknecht.

Deputy governor of St Petersburg Sergei Vyazalov, who is in charge of finance, announced the cancellation at the end of April. It followed suspension of city funding for the PPP project announced in September last year. Since then there has been industry doubt about the future of the Russian project.

Sources close to the project have indicated to T&TI that they are hopeful that the project will resume soon. The fact that a large proportion of the project is privately financed is believed to be

the source of the optimism.

The *St Petersburg Times* reported that Vyazalov said a project evaluation had shown that it would entail significant expenses to the city's budget without improving the transport situation. He suggested that the allocated funds could be used to double the number of the city's trams.

The Herrenknecht machine was intended to create a 1km passage through soft ground to link the city centre with the Smolny and major embankment highways. The order by project concessionaire Nevskaya Concession Company (NCC) was announced July 2011.

The project would have involved substantial cut-and-cover work or surface and elevated motorway-standard highways linking junctions at both ends of the tunnel. Site preparatory and design work was already under way.

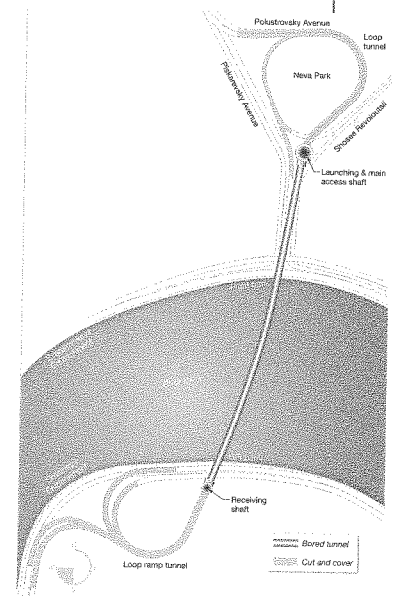
City governor Georgy Poltavchenko effectively called a

halt to the project in September and suspended two other major infrastructure projects during a re-evaluation of projects started under the previous governor Valentina Matviyenko.

He said the city "needed to establish how rational and urgent the projects are today". Orlovsky had been valued at a total of RUB 70bn (USD 2.2bn), including interchange construction, but estimates have increased substantially. NCC had won the right by tender to construct and manage the tunnel and to charge a toll over 30 years. And was reported to have been paid for work done so far.

The project was to be jointly and equally financed by the City of St Petersburg, the Russian Federal Investment Fund and NCC.

A major 'Roads, Bridges, Tunnels' exhibition is scheduled for 19-21 September this year at the Winter Stadium, St Petersburg.



Above: The passage under the River Neva called for the world's largest TBM at 19.25m. The machine would have beaten the current record by 3.7m

## Crossrail starts digging

GREAT BRITAIN

The first Crossrail TBM to break ground, Phyllis, began tunnelling one bore of the project's twin western tunnels from the Royal Oak portal work site to Farringdon Station.

A Crossrail spokesman said, "Phyllis is now beginning to slowly disappear below ground and will steadily ramp up to the planned average tunnelling rate of around 100m a week."

Following the official unveiling of 1,000t Phyllis, Crossrail's first TBM travelled 400m to Royal Oak Portal including under Hampden Street footbridge, which was jacked up to allow the 7.1m diameter machine to pass beneath.

The arrival of the TBM at the portal in mid-March allowed for remaining major works to get underway to support tunnelling.

A major piece of work has been the construction of the launch structure, which allows the TBM to propel itself forward.

A steel seal has been fitted around the portal entrance to support the ground during the early stages of the drive.

Work has also been underway to install the major conveyor system behind the TBM to remove more than one million tonnes of excavated material from the cutter head to the portal entrance. A total of 24km of conveyor belt will be used to construct the western tunnels. Rail sidings have been

constructed to allow freight trains to access Westbourne Park to transport the excavated material to Northfleet from where it will be shipped to Wallasea Island to create a nature reserve.

A narrow gauge railway has been laid to provide for small locomotives to transport materials and supplies into and out of the tunnel. Work has also been continuing at the Old Oak Common concrete segment plant. Over 8,000 segments have now been produced and stockpiled for the western tunnels.

A second TBM, Ada, had yet to be launched from Royal Oak as T&T went to press. Once the first machine has progressed sufficiently, Ada will be brought down to the portal headwall.

When the second TBM has reached Paddington, both machines will progress forward

through the Paddington station box to Bond Street and onwards to Farringdon. The tunnels between Royal Oak and Farringdon should be completed late in 2013.

Eight TBMs will be used to construct 21km of Crossrail's twin bore tunnels running between Royal Oak in west London and Pudding Mill Lane and Plumstead in east London.

The Crossrail route will pass through 37 stations and run 118km from Maidenhead and Heathrow in the west, through new twin-bore 21km tunnels to Shenfield and Abbey Wood in the east.

When Crossrail opens it will increase London's rail-based transport network capacity by 10 per cent, supporting regeneration across the capital. Crossrail services are due to commence through central London in 2018.