

Backgrounder: Port Lands Bridge & Road Openings

As part of Port Lands Flood Protection, two new bridges will open in January 2024. The Commissioners Street Bridge connects the future Villiers Island to the rest of the Port Lands. The Cherry North Bridge connects the future island to downtown Toronto. At the same time, two new roads will open. The new alignment of Cherry Street between Lake Shore Boulevard and Commissioners Street, and the rebuilt Commissioners Street between Cherry and Saulters Streets.

The Port Lands



Figure 1 A conceptual map of the Port Lands at the end of the flood protection project. The bridges that are opening are identified by the pink squares.

About the New Bridges

- Four new bridges are being delivered as part of Port Lands Flood protection.
- The bridges were designed and engineered by Entuitive, Grimshaw and Schlaich Bergermann.
- After an open procurement process, Halifax-based Cherubini Metal Works won the contract to fabricate the bridges. Some specialized work was also done in the Netherlands by a firm called CGI Specifically, 3D bending of steel plates, which is something only a limited number of firms do.
- The steel is Canadian with the exception of the 3D shell components.

Commissioners Street Bridge

- This bridge is orange and white – the longest of the new bridges, it has two arches.
- The western half of the bridge weighs 650 tonnes and measures 83 metres long.
- The eastern half of the bridge weighs 560 tonnes and measures 69 metres long.

Cherry Street North Bridges

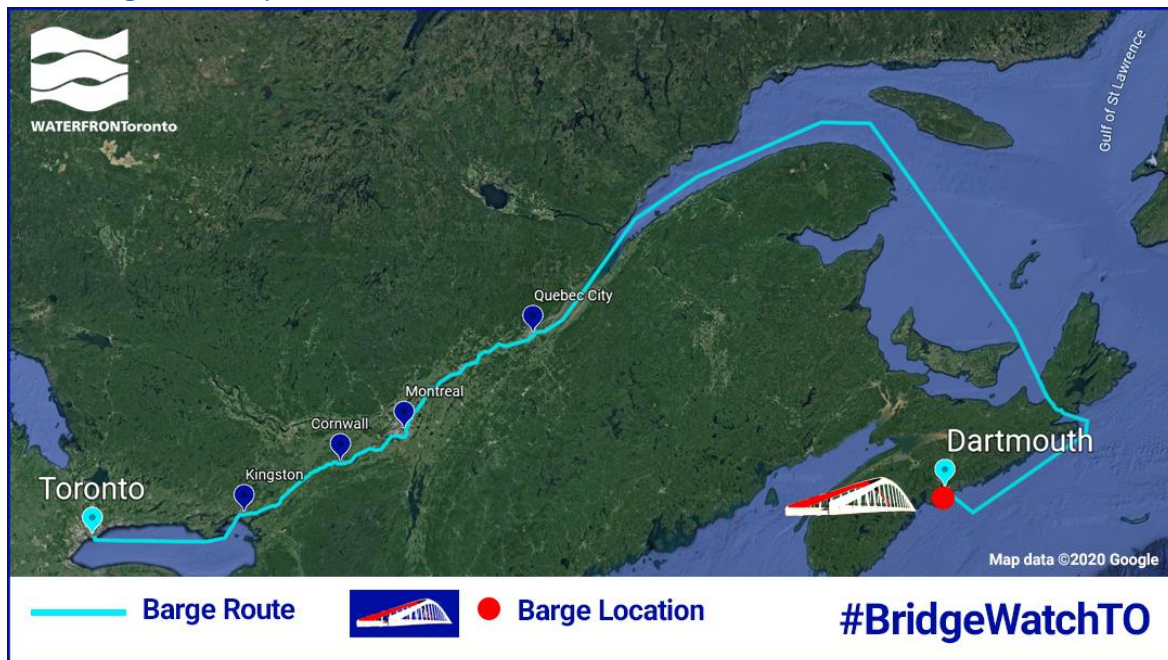
- This location has two bridges. The wider bridge will carry vehicles, pedestrians, and cyclists. The narrow bridge is dedicated to transit

- The transit bridge weighs 340 tonnes and measures 57 metres long.
- The vehicular bridge is also 57 metres long and weighs 450 tonnes.
- Both bridges are red and white.
- The Cherry Street North transit bridge was the first to arrive in Toronto. The milestone was marked with an event: <https://www.youtube.com/watch?v=iaiiL2c3NRQ>

Cherry Street South Bridge

- This bridge is yellow and white
- This bridge weighs 830 tonnes and measures 110 metres long
- An event in December 2021 marked the bridge's arrival:
<https://www.waterfronttoronto.ca/news/arrival-new-bridge-marks-milestone-port-lands-flood-protection-project>
- It opened in fall 2022 to great public support: <https://www.waterfronttoronto.ca/news/toronto-loves-new-cherry-street-bridge>

The Bridge Delivery Route



The bridges all travelled to Toronto from Dartmouth, Nova Scotia via the St. Lawrence Seaway. The journey was captured and is viewable here: <https://www.youtube.com/watch?v=YR3llfLEiqo>

About the New Roads

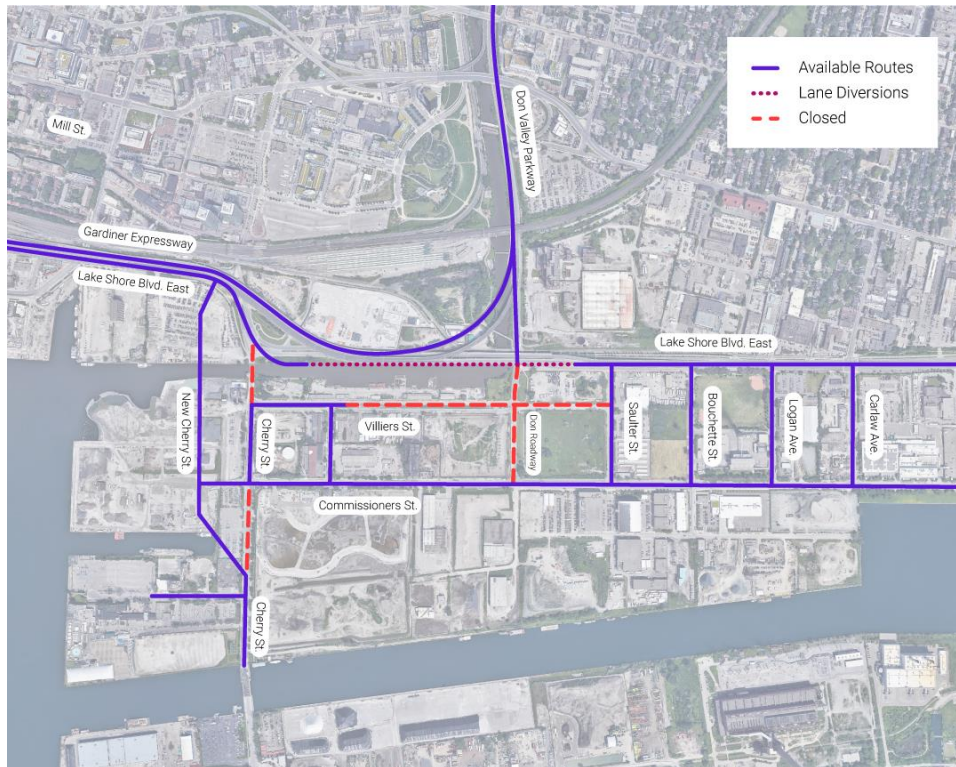


Figure 2 A map showing the road network once new sections of Cherry and Commissioners Street open in January 2024.

- The roads were designed by WSP and DTAH.

New Cherry Street

- Cherry Street has been realigned between Lake Shore Boulevard East and Commissioners Street. The realigned street is now further west and creates a more typical intersection and better future transit connections.
- The street includes space for a future dedicated transit right-of-way.
- The Martin Goodman Trail – a multi-use path that traverses almost the entire waterfront – will follow this new alignment.
- The original alignment of Cherry Street will remain open between Villiers and Commissioners Streets.

Commissioners Street

- Commissioners Street has been rebuilt along its original alignment.
- The street was widened to accommodate a future dedicated transit right-of-way.
- The historic Fire Hall 30 building was moved approximately 24-metres (78 feet) to create space for the future transit right-of-way.
- Commissioners Street features a uni-directional separated cycle lane on either side of the street.

The Port Lands: History and Context



Figure 3. Looking southeast from downtown Toronto towards the Port Lands before construction began.

The Port Lands, bounded by the Keating Channel/Don River and Lake Shore Boulevard in the north, the Toronto Inner Harbour in the west, Ashbridges Bay in the east and Lake Ontario and Tommy Thompson Park in the south, was created by decades of infilling what was once one of the largest wetlands on Lake Ontario. Beginning in the late 1800s, the area was gradually filled in to make more land available for industry and shipping. As the natural mouth of the Don River was filled in, the Keating Channel was created to provide an outlet for the Don River watershed into Lake Ontario and a means to convey storm water.

Today, the Port Lands area sits within a designated floodplain, which is an area anticipated to experience flooding in the event of a regional storm or the 100-year flood – whichever is greater. Providing flood protection for the Port Lands was identified as a top priority by all three orders of government when they first established Waterfront Toronto in 2001.

In the last decade, governments across the country have had to contend with weather events that are occurring with more frequency and severity. In particular, floods are happening more often in urban areas and the financial risk to governments to pay for the damages is also increasing.

Currently, about 290 hectares (715 acres) of southeastern downtown Toronto, including parts of the Port Lands, South Riverdale, Leslieville, south of Eastern Avenue and the East Harbour development site, are at risk of flooding from the Don River watershed and cannot be revitalized until they are flood protected.



Figure 4 Area shown in blue is currently at risk of flooding from the Don River during a Regulatory Storm, defined as the greater of 100-year storm or 1954's Hurricane Hazel.

About Port Lands Flood Protection

Port Lands Flood Protection is a comprehensive solution to flood risk that also addresses the fundamental challenge of transforming the underused and post-industrial Port Lands into a long-term asset that will support Toronto's growth and economic competitiveness.

This is one of the largest infrastructure projects underway in Canada, funded by three levels of government. This eight-year construction project is well underway, due to be complete by the end of 2024.

When complete, Port Lands flood protection will:

- Improve Toronto's climate resiliency and enable development of much-needed housing
- Provide over 70 acres hectares of new parks and greenspace, including 30 acres of new coastal wetland and 10 acres of terrestrial habitat, and 1,000 meters of new river channel and flood plain
- Provide new transportation infrastructure including four new bridges, expanded and improved pedestrian and cycling facilities throughout the project area
- Provide an improved public realm, conserved and interpreted heritage features, and new features that reflect the area's significance to Indigenous communities
- Flood protect almost 600 acres of land around the mouth of the Don River and unlock the development – and value – of lands located within the existing flood plain.

Project Breakdown



Figure 5 Left: An aerial view of the Port Lands before the start of construction. Right: Future vision of the Port Lands once Port Lands Flood Protection is complete. Villiers Island will emerge as a connected and complete community with parks and opens spaces along the Don River, the Keating Channel and Lake Ontario.

Find a project breakdown with details about each component at <https://portlandsto.ca/interactive-project-map/>

Project Timeline:

The project has been informed by extensive engagement and consultation with the public, government agencies, stakeholders, landowners and developers, and is consistent with the City of Toronto's primary waterfront planning document, the Central Waterfront Secondary Plan. Waterfront Toronto has worked closely with Indigenous communities throughout the process of studies, envisioning the waterfront design and early construction and has continued to engage and consult as design and construction progress.

In December 2017, construction began on the Cherry Street Lakefilling project, part of the larger Port Lands Flood Protection project. This early start was thanks to \$65-million in tri-government funding through the Clean Water and Wastewater Fund. Construction on Cherry Street Lakefilling was completed in 2020.

Construction began on the full Port Lands Flood Protection program in July 2018. Work to date includes:

- The Cherry Street Lakefilling project was complete in 2019, creating two new habitat coves, a renaturalized shoreline and a new landmass in what used to be Cousins Quay
- Installation of on-site soil management and water treatment facilities
- Completion of dock walls in the Keating Channel
- Most of the river valley has been constructed, including excavation, installation of the riverbed materials, and plantings
- Excavation and planting of the Don Greenway
- All of the bridges have been installed
- The first portion of the new alignment of Cherry Street was constructed and opened in fall 2022
- Stabilization and rehabilitation of the Atlas Crane, a heritage structure in the future promontory park

- Building new and rebuilt roads, including the installation of new utilities and green infrastructure features like bioswales
- Excavation of 'Canoe Cove', in future Promontory Park South
- Two new pedestrian bridges in the river valley
- Surcharging, subgrading and utilities installation in the future parks
- Demolition and rebuilding the south half of the Lake Shore Bridge, including lengthening and widening it
- Excavation and dredging of the Don River north of Lake Shore Boulevard in what is called the 'Sediment and Debris management area'
- Relocated the historic Fire Hall 30 approximately 24m south to move it out of the way of the reconstructed Commissioners Street