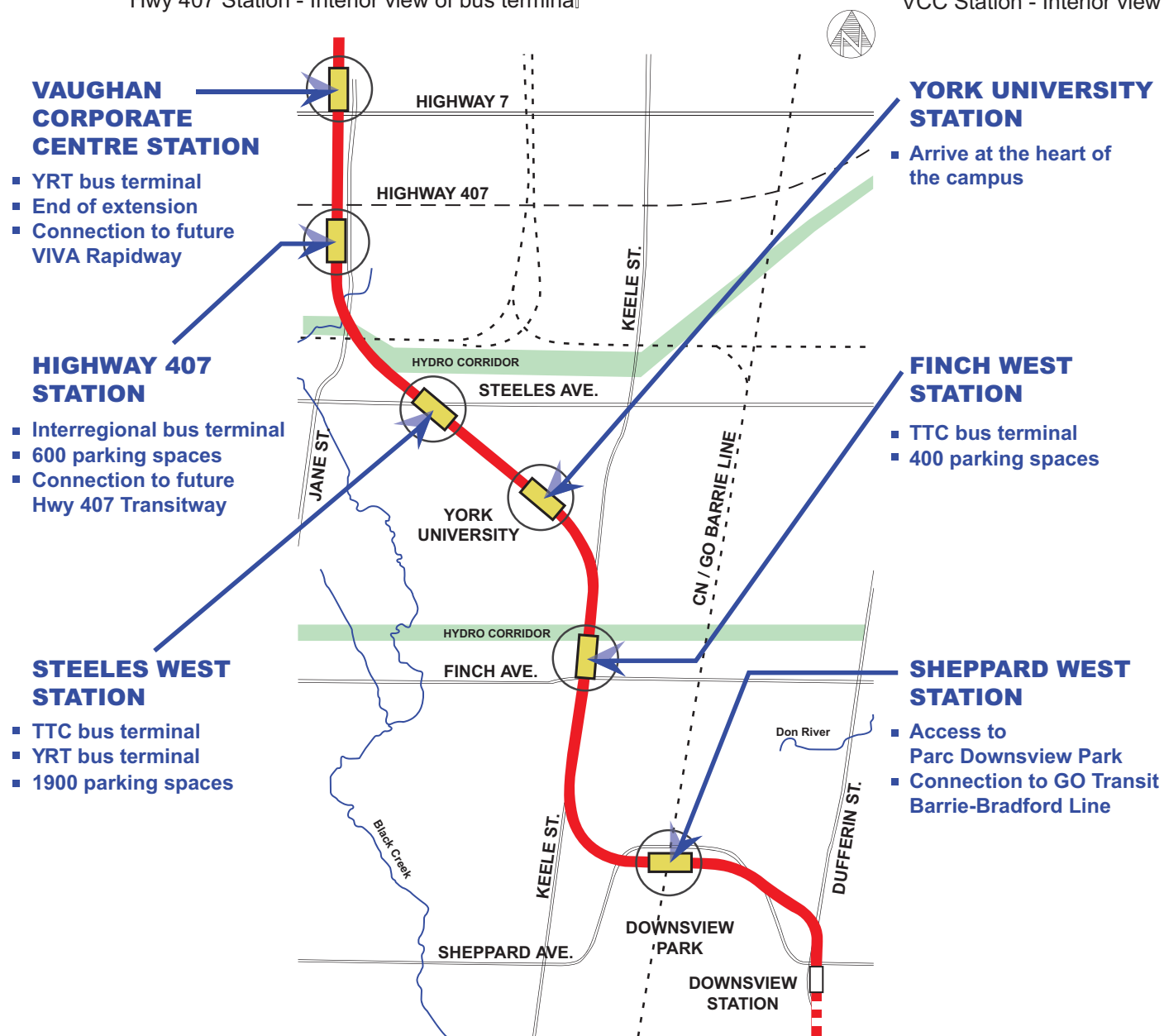
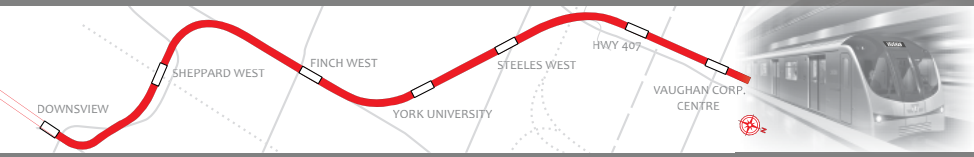




Hwy 407 Station - Interior view of bus terminal



VCC Station - Interior view to street



**For more information:**

- Web: [www.spadina.ttc.ca](http://www.spadina.ttc.ca)
- Construction Info Line: 1.800.223.6192
- Email: [TYSSE@ttc.ca](mailto:TYSSE@ttc.ca)

The Toronto-York Spadina Subway Extension project is jointly funded by the Government of Canada, the Province of Ontario, the City of Toronto and The Regional Municipality of York.



**Winning names announced for Tunnel Boring Machines (TBMs)**

Holey, Moley, Yorkie and Torkie are the official names of the four machines that will bore and build the tunnels for the Toronto-York Spadina Subway Extension (TYSSE). Holley and Moley will work as a pair and Yorkie and Torkie will be paired.

Congratulations to Rosa Rinella of Vaughan, who proposed the names Yorkie and Torkie, and Thomas Cohen of Toronto, who submitted Holley and Moley.

It is a tradition to name tunnel boring machines (TBMs) that are manufactured for specific projects. The TYSSE ran a contest last fall inviting the public to suggest names for the two pairs of TBMs. A judging panel selected 10 names from 720 entries. The public

voted online and decided the winners, casting more than 2,000 votes.

With Holley and Moley, and Yorkie and Torkie stamped on the sides of the TBMs, the four powerful machines will work below the ground to excavate through soil and rock to build the tunnels. The machines will work almost in parallel to create the north and south tunnels for the subway extension.

TYSSE is an 8.6 kilometre extension of the existing Yonge-University-Spadina Subway line from Downsview Station in Toronto to the future Vaughan Metropolitan Centre, near Highway 7 and Jane Street in York Region.



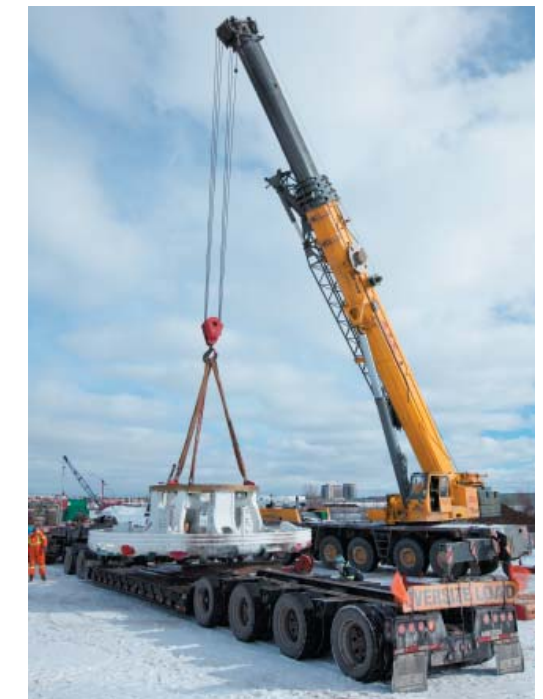
Tunnel Boring Machine "Holey"

**Tunnel Boring Machines (TBMs) Are Here!**

TTC began taking delivery of the first of four tunnel boring machines (TBMs) for the Toronto-York Spadina Subway Extension on January 17.

The components of the first TBM are being delivered to the launch shaft near the Sheppard West station site from the LOVAT - A Caterpillar Company factory in Etobicoke. The southern tunnel contractor for the subway extension is Aecon. A contract for the northern tunnels and the Highway 407 station was awarded in January to Obrascon Huarte Lain (OHL), in joint venture with Fomento de Construcciones y Contratas (FCC).

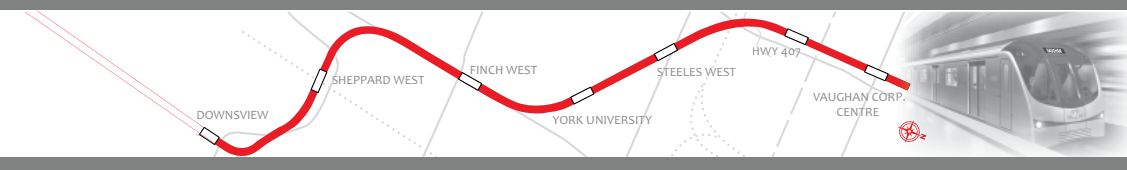
It took 21 truckloads of parts three weeks to complete the delivery of the first machine. The second machine is scheduled to be delivered to the launch shaft near the Steeles West station site in March. Excavation or tunnelling will begin in late spring 2011.



Tunnel Boring Machine Cutting Head

"The last two TBMs will be delivered in a similar manner in the coming months," said Chief Project Manager Andy Bertolo. "In all, the four units will excavate more than 12 kilometres of running tunnels for the subway extension, which is scheduled for completion in late 2015."

In the first of several tunnel drives, the machine at Sheppard West will bore northward toward the Finch West station site and the machine at Steeles West will drive south through the York University station site.



## What's In a name?

Yorkie and Torkie, Holey and Moley are the paired names that Rosa Rinella and Tom Cohen entered in the recent contest to name the Toronto - York Spadina Subway Extension's four tunnel boring machines. The machines will be operating together in pairs.

When asked why she chose Yorkie and Torkie, Rosa said, "It was a brainstorm of ideas – knowing that the subway would service both Toronto and York Region made me think of Yor and Tor, and then I added 'kie' to make the names warm and friendly."



Rosa Rinella

Tom chose Holey and Moley as a play on a popular catchphrase from the Batman comic book series, and he likes their easy connection to moles, famous for impressive hole digging. He crafted slogans such as "Go to Bat, man, for Holey and Moley" and "I'm wholly for Holey and Moley" and used an email, Facebook and Twitter campaign to encourage votes for Holey and Moley.

Rosa lives in the City of Vaughan and commutes to north-west Toronto for her work as a client service representative. Tom lives in midtown Toronto and commutes to York University to teach courses in history and humanities.

## HWY 407 Station

Highway 407 station is located west of Jane Street and south of Highway 407, west of Black Creek.

The Highway 407 station will be a multi-modal transportation hub with parking for 600 commuters, a 30 passenger pick-up and drop-off facility and an 18-bay York Rapid Transit and GO Transit bus terminal. The design also contains provisions for future connection to the proposed Highway 407 Transitway (for bus rapid transit). A new bridge over Black Creek will provide access to the bus terminal and its car parking lot.

The design of the Highway 407 station was conceived by an architectural and engineering design team known as Aecom in association with Aedas, an international design practice.

An elegant, sloping roof on the bus terminal will be clad in aluminum, with landscaped berms where the structure curves down toward ground level. Attractive landscaping

Tom takes transit for commuting and for daily tasks, and also bicycles and walks when he can. Rosa drives to Yorkdale station to go to Toronto attractions on weekends but she says once the Spadina Subway is extended to Highway 7, she looks forward to commuting daily by subway from the future Vaughan Metropolitan Centre.



Tom Cohen  
Photography by Jenny Pitt-Clark

Tom hopes transit improvements will reduce suburban sprawl and encourage walkable, transit-friendly development. He says, "There are two types of streets in the GTA – streetcar streets that are interesting places to walk, and car arteries that are wide and fast but not walkable."

Rosa agrees, "The subway extension will encourage development of a walkable area in Vaughan and provide more options for affordable living - like smaller homes and condos near the subway."

Both Tom and Rosa expect that once the subway extension is complete it will dramatically reduce travel time between Vaughan and downtown Toronto, resulting in more travel in both directions by GTA residents, including them.

around the main entrance and the bus terminal will welcome commuters into the station. The station's sloped window glazing will allow daylight to illuminate the platform. At the same time, David Pearl's artwork of expressive coloured glass will be brought to life by the natural light through the station windows.



Artist rendering of Hwy 407 station

## New Toronto Rocket unveiled

The first "Toronto Rocket" subway train was officially unveiled to the public and media at Downsview station last fall. TTC's unveiling event was the first opportunity to see the train's new electronic information displays, multimedia video screens and cameras.

TTC will receive a total of 70 new trains (totalling 360 cars) over the next three years. The first train, which arrived October 2010, is still being tested and is scheduled to enter service on the Yonge-University-Spadina subway in mid 2011.

The contract for the first 39 Toronto Rocket trains, which have 234 cars in total, was signed four years ago. Last year, the TTC exercised contract options and ordered 31 additional trains (186 cars) for delivery between 2012 and 2013. These trains will replace the TTC's train fleet as it reaches its 30-year life expectancy, helping the TTC to meet future ridership demands once the Toronto-York Spadina Subway Extension opens for service by the end of 2015.

### Toronto Rocket features

The most visible new feature of these trains is that they are continuously linked without doors between the six cars. Riders can see and move freely from one end of the train to the other. This will reduce congestion because passengers can move to less crowded sections of the train.



The New Rocket

Passenger alarm audio intercoms are located in every second doorway and multi-purpose area. The intercoms allow for voice communication with either the operator or guard. Five-foot-wide doorways will include vertical posts on either side that have an anti-bacterial coating and will be brightly coloured so people can easily see them.

Yellow strips with black lettering are passenger assistance alarms in current subway trains that customers can press in the event of an emergency. This will continue to be a feature in the new Rockets.

Each new car will include two multi-purpose accessible areas (12 per train). The space includes three individual, user-friendly fold-down seats that can be folded up when needed to create space for wheelchairs or other assistive devices.

Another feature on the new trains is electronic information displays of flashing subway route maps to visually announce the next station. They will work in conjunction with

ceiling-mounted visual displays. Synchronized audio and visual announcements are provided with additional electronic displays for broadcasting operational messages, such as information about a delay. Security cameras are also positioned to cover the entire interior of each car so the operator and guard can see live images when the passenger alarm is activated.

## Vaughan Corporate Centre Station

The design for the subway station to be built at the Vaughan Metropolitan Centre in the City of Vaughan was conceived by the engineering design team Arup Canada Inc. in association with Grimshaw Architects, an international design firm. The station will be located north of Highway 7 to the west side of the relocated Millway Avenue. It will be a transportation hub, designed to provide convenient passenger pickup and drop off. It will have connections to the York Region Transit bus terminal and to Viva rapid transit running along Highway 7 in its own lanes.

The most distinctive feature of Vaughan Corporate Centre station will be the domed main entrance building with its metal roof. The roof, in environmental terms, is called a "cool roof" with skylights as part of a collaborative artwork that allows daylight to penetrate down into the concourse. Passengers arriving at the station can enter the main entrance through four sets of doors and experience the collaborative effort by Grimshaw Architects and the artist, Paul Raff.

Paul Raff's artwork, entitled "Atmospheric Lense", will transform the station's metal dome into a sculpture of reflections and natural light. Mirrors and skylights will be positioned to align with solstice and equinox sun angles, accentuating the effects of sunlight and the reflections of people moving through the station.



Artist rendering of VCC station