401RT Express

1247 Mary-Lou Street, Innisfil, Ontario L9S 0C2; T: 705-294-4110; www.401rt.ca

Transforming
Transportation
in Toronto

November 22, 2026

An Implementation Scenario for Rescuing Highway 401 in Toronto

This document presents a scenario for the construction of a rapid transit line across the core of the Toronto area at a pace necessary to prevent Highway 401 from becoming gridlocked and non-functional.

What's happening

Highway 401 from Highway 410 to east of Highway 404 is at risk of becoming non-functional due to traffic congestion brought on by population and travel demand growth in the region. Much of highways 400, 404, 410 and 427 will also be operating at or over capacity within a decade. There is no plan for public transit that can reduce the travel demand for Highway 401 in Toronto – not the Sheppard Subway, not the Finch West LRT, not the Eglinton LRT; they are all too short, their operating speeds are too slow, or they're not well located to do the job.

The transportation crisis is a multi-billion annual drain on economic productivity and social wellbeing of Toronto. Costs and everyday travel misery will worsen, and Toronto's reputation as an attractive place to live or to do business will fall short of its potential.

To resolve the prospect of total gridlock on Highway 401, the government of Ontario is proposing to add road capacity to the highway by means of a highway tunnel (perhaps four lanes in each direction), or perhaps by double-decking portions of the highway. Unfortunately, the end result will be to encourage more travel by personal automobile, and by 2055 may add up to 400,000 more trips per day by automobile to, and 400,000 trips from, Highway 401. Moreover, the project won't be completed until several decades from now, after gridlock on the 401 has arrived. The Highway 401 tunnel may cost $90 billion to construct. The rapid transit component of the tunnel plan will not be operationally viable; limited stops and problems with access and egress will minimize its ridership.

Moving Travel Demand to Transit

Growth in travel demand by automobile needs to decline and to end. That will require enhancements to public transit well beyond what's in current plans by governments.

There is a ***short-term measure*** that can be taken while longer-term solutions are implemented. The government of Ontario can offer 100% capital grants to municipalities (province-wide) for expanding transit services, principally buses and supportive facilities. To encourage municipalities to maximize participation in the program, the capital grants should be coupled with an open-ended 50% annual subsidy for all transit operating deficits. These measures would be broadly welcomed.

However, that is far from enough. The more effective alternative to the government of Ontario's Highway 401 tunnel is more rapid transit. This should include a rapid transit line that can compete directly with Highway 401 across the core of the Toronto area, from central Mississauga to Pickering. The 401RT Express, a 65-kilometre east-west rapid transit line that follows the Highway 401 corridor from Derry Road to Liverpool Road, would do just that. It would be supplemented by a seamless 24-kilometre branch line that takes travelers to Pearson International Airport and its large adjacent employment area, and to downtown Mississauga.



The 401RT Express would have the ability to offset all travel demand for the 401 from Derry Road in Mississauga to Liverpool Road in Pickering. The 401RT Express is proposed to be almost-entirely elevated, and is estimated to cost approximately $70 billion to construct, and is likely to be cost-shareable with the government of Canada (historically at up to 40%). It will employ 40,000 workers at a time when unemployment is likely to be high, as a result of revised trade agreements with the U.S.A. and impacts of artificial intelligence. An extension of the Ontario Line northward to Highway 401 will also be required, to prevent 401RT Express users from overcrowding the Line 1 subway at Yonge Street.

Implementation Is A Race Against Time

The rapid march to gridlock on Highway 401 and other highways, and heightened unemployment, means that a wartime-like effort is needed to rescue the 401. During World War II, warships were built in a week or two, and warplanes rolled off the assembly line every hour. Given the seriousness of the Toronto area's transportation crisis, today's timeframes to build extensions of Toronto's subway lines are no longer good enough. According to the scenario below, the 401RT Express – almost all 89 kilometres of it elevated above grade – can be completed by 2040 – the expertise exists, the labour force can be trained to construct it, and underused industrial spaces can be put to work. It's a massive project comparable to, but much more effective than, the Premier's proposed Highway 401 tunnel. It is a project that is also multiple times as cost-effective as the federally-approved Alto high speed rail line between Toronto and Quebec City.

The 401RT Express will require multiple partners working simultaneously on segments of the 401RT Express – teams of designers, teams of station builders (up to 50 stations of basic design), a team to build several maintenance and storage yards, perhaps eight+ separate teams to build the segments between stations, and several teams to construct the rail tracks and operational systems to make it work. Additionally, the 401RT Express concept includes more buses, and almost 800 Ontario-built rail cars.

A 'Race-Against-Time' Scenario for Implementation of the 401RT Express

2027 – The 401RT Express concept and its potential benefits become widely known. Consultations with communities, First Nations, and other levels of government begin. There is acceptance that a feasibility study of the 401RT Express is warranted; it begins in the Spring of 2027. The Highway 401 tunnel feasibility study is completed, and awaits the outcome of the 401RT Express study. Negotiations with the government of Canada regarding cost sharing occur.

2028 – By year end, the feasibility study of the 401RT Express is completed; the decision is made to forgo the Highway 401 tunnel project. Negotiations with Ottawa for funding support succeed. Legal issues are addressed, and enabling legislation for the 401RT Express project proceeds through the Legislature in the Fall. Facilities are acquired for construction of 401RT Express stations and rail beds. The Ontario Government initiates a plan to provide 100% funding for municipal surface transit infrastructure, and 50% funding for municipal operating deficits.

Planning for the $7.5 billion Sheppard subway extension to Scarborough Centre and the $4.65 billion Scarborough LRT are paused. Consultations with the City of Mississauga regarding the 401RT Express alignment above Burnhamthorpe Road are concluded. The City of Pickering agrees to an elevated alignment on Liverpool Road.

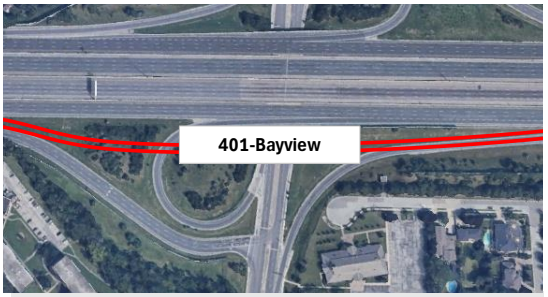
Detailed construction planning begins. Bus manufacturers scale up production for hundreds of new buses as a result of the Premier's capital and operating grant programs. Railcar manufacturers in Ontario gear up for the production of 130 six-car trains.

2029 – A single coordinating organization and decision centre is established. Speed of construction is set as a high priority, to keep pace with travel demand growth. GO Transit becomes a partner in building the six GO Rail stations that intersect with the 401RT Express. Planning & design for the 401RT Express is completed by year's end; contracts with construction partners are negotiated. Recruitment and training of workers by construction companies proceeds. The Greater Toronto Airports Authority modifies its plans for parking requirements and rail access alignments. The 401RT Express segment between Renforth Drive and Pearson International Airport replaces the Eglinton West LRT extension to Pearson. Overall, the 401RT Express is estimated to create 40,000 job equivalents per year during the planning, design, and construction period.

2030 – Work on the Hazel McCallion LRT is completed; work crews are diverted to the 401RT Express. Construction of the 401RT Express begins in the Spring as multiple crews work simultaneously on stations, maintenance facilities, and track segments between stations along the 401RT Express's 89-kilometre route. Tunneling begins at the Pearson and Yorkdale segments of the 401RT Express.

During construction, the rightmost eastbound collector lane and shoulder of the 401 are closed, and ramp access is adjusted where necessary for station construction. Highway traffic congestion worsens, and more people avoid Highway 401, or use the newly-enhanced bus services, or drive in ever-shorter off-peak periods. Construction of the Islington-to-Erindale GO segment begins; Mississauga has agreed to an elevated 401RT Express segment above Burnhamthorpe Road..

2031 – The Eglinton West LRT extension from Mt. Dennis station to Renforth Drive is completed. Construction crews divert to 401RT Express construction. Each of multiple (8+) crews working separately on segments of the 401RT Express complete an overall average of 1.2 support pillars and elevated rail bed sections per week. Stations are built using modular construction where possible. Because almost all of the 401RT Express is elevated above ground, work proceeds faster than if it were underground or at grade. Some stations are built by urban development companies who are offered air rights over stations in exchange for funding and constructing stations. All of the work is within transportation corridors, avoiding almost all community concerns. New buses continue to be put into service.



Most stations are elevated above arterial roads and on-off-ramps.

2032 – Enhanced bus services are implemented on Highways 401, 410/403, 404, the 427/Gardiner, and Highway 400 (to Keelesdale station at Eglinton). The Ontario Line south of Eglinton Avenue East is completed. Its builders begin to extend the Ontario Line northward to Sheppard Avenue East.

2034 – The Line 2 subway extension to Scarborough Centre has become operational, and includes an intersecting station for the 401RT Express. The Line 1 subway extension into York Region is completed. By this year, other transit enhancements will have been completed or are near completion, such as the Scarborough LRT to Kingston Road (and no farther), several BRT routes (Steeles Avenue, Airport Road, others), and GO Rail enhancements.

2035 – Highway 401 capacity is reached; congestion is moderated by shifts to enhanced bus services and the effects of artificial intelligence on employment. The high visibility of 401RT Express construction brings hope for relief. Many tens of thousands of car drivers have been waiting to give up the frustrations and costs of driving, and plan to shift to rapid transit for their commutes. Rail cars begin to be delivered and are stored until the 401RT Express comes into service.

2037 – Some segments of the 401RT Express are completed and await testing. 401RT Express segment above or along Eastgate Parkey are most easily constructed, and awaits connectivity to the Hurontario and Eglinton Junction segments. By year end, some are brought into service (for example, the Yorkdale-to-Pearson segment; the Yonge-to-McCowan segment).

2039 – 401RT Express construction is complete, including the segment through downtown Mississauga and at Pickering City Centre. Full-length testing begins and operational systems are finalized. Corrections and adjustments are made. Transit operators and other service staff are hired. The almost-entirely elevated Ontario Line extension to the 401RT Express, needed to prevent 401RT Express users from overcrowding the Line 1 subway at Yonge Street, is complete.

2040 – The 401RT Express begins full operations, ten years after construction began. Construction employment drops rapidly, partly offset by operations staff increases. Ridership on the closely-parallel Sheppard Subway plummets, and the subway is closed. GO Transit's six links to the 401RT Express increase GO ridership. The extended Ontario Line becomes highly used, including for travel between Scarborough and downtown Toronto via the 401RT Express. Major modal shifts to transit

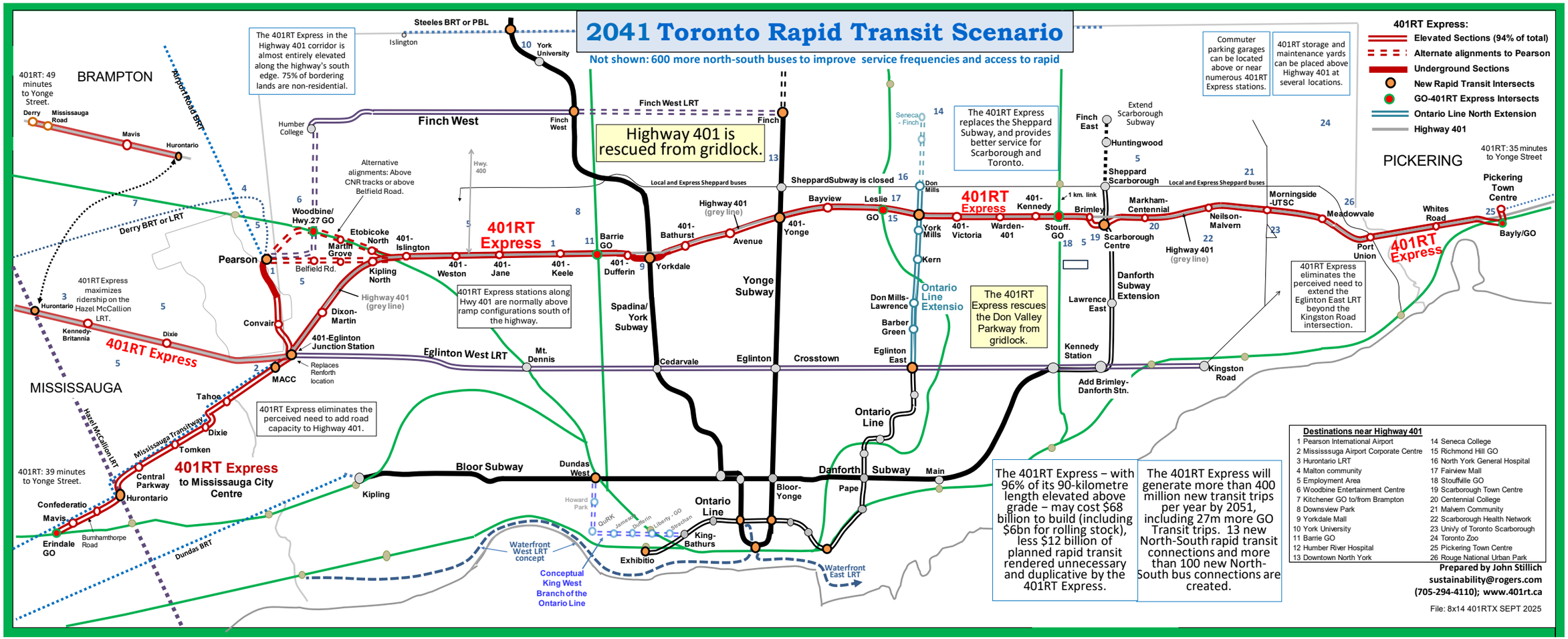
occur, and Highway 401 congestion is contained and reduced. A modal equilibrium is established, with user shifts between the 401 and the 401RT Express occurring depending on which is faster. Many tens of thousands of households are able to divert spending from car costs to other household priorities. Buses on arterial roads that intersect with the 401RT Express become heavily used. Toronto becomes renowned as the premier example of sustainable city-building in North America.

Visit www.401rt.ca for more information about the 401RT Express, including benefits, alignments, ridership, Sheppard subway impacts, costs and affordability, and more.

John Stillich

2041 Toronto Rapid Transit Scenario

Not shown: 600 more north-south buses to improve service frequencies and access to rapid





30+ years from now, there will be a million more people living in Toronto. The **401RT Express** is essential if highways and local streets in Toronto are to be decongested. Currently-planned rapid transit expansions will struggle to keep up with travel demand growth, and will not reduce overall use of motor vehicles on city streets. Adding road capacity to Highway 401 is not a solution; its impact will be to encourage driving and to increase congestion on local roads.

The **401RT Express** should be recognized as inevitable and urgent. The 401RT Express's seamless length, speed of service, connectivity, and high visibility will make it a success. It will render numerous current rapid transit initiatives unnecessary and operationally nonviable: the Eglinton West LRT Phase 2 extension to Pearson International Airport, the Sheppard Subway extn (and the Sheppard Subway itself), most of the Eglinton East LRT, and the Jane Street LRT. Spending on these will waste an estimated $12 billion.

The $68 billion **401RT Express** (including $5bn rolling stock) is highly affordable, and is estimated to be more than twice as cost-effective as rapid transit initiatives currently being implemented, based on new transit trips generated. Its net cost to build would be as low as $57 billion (after cost avoidances of aforementioned initiatives). Federal cost sharing can be 40%. The 401RT Express (or similar) would be transformative for transportation in Toronto, and is essential for achieving climate change goals. It is essential for tens of thousands of households that struggle with the high costs of automobile ownership and use. Visit www.401rt.ca for more information. Call John Stillich at 705-294-4110 or visit www.401rt.ca for more information.

