Transportation Overview

The Brampton Board of Trade
Since 1887

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This document is intended as a background resource piece, meant to provide an overview of current transit projects in and around Brampton, Ontario.

The information contained within these pages – both text and artwork – is based on publicly available sources, including various government agency websites and documents posted within, media websites, Public Information Centres for various projects, communication with officials of public agencies, as well as archival documents in private collections. The 'rating' of considerations related to each project is an individual, non-expert opinion, and is not necessarily reflective of The Brampton Board of Trade as a whole.

Given that all of these projects are in various stages of development, it stands to reason that the information contained within this document is subject to change. While we have done our best to ensure that the content of this document is both accurate and up to date, we are limited to publishing only information that is known by us to be in the public realm, and, at times, interpreting it to the best of our abilities. As such, we welcome any updates and/or corrections. Please send any relevant material (along with your contact information, in case we have questions), to office1@bramptonbot.com . Thank you.

Transportation Overview

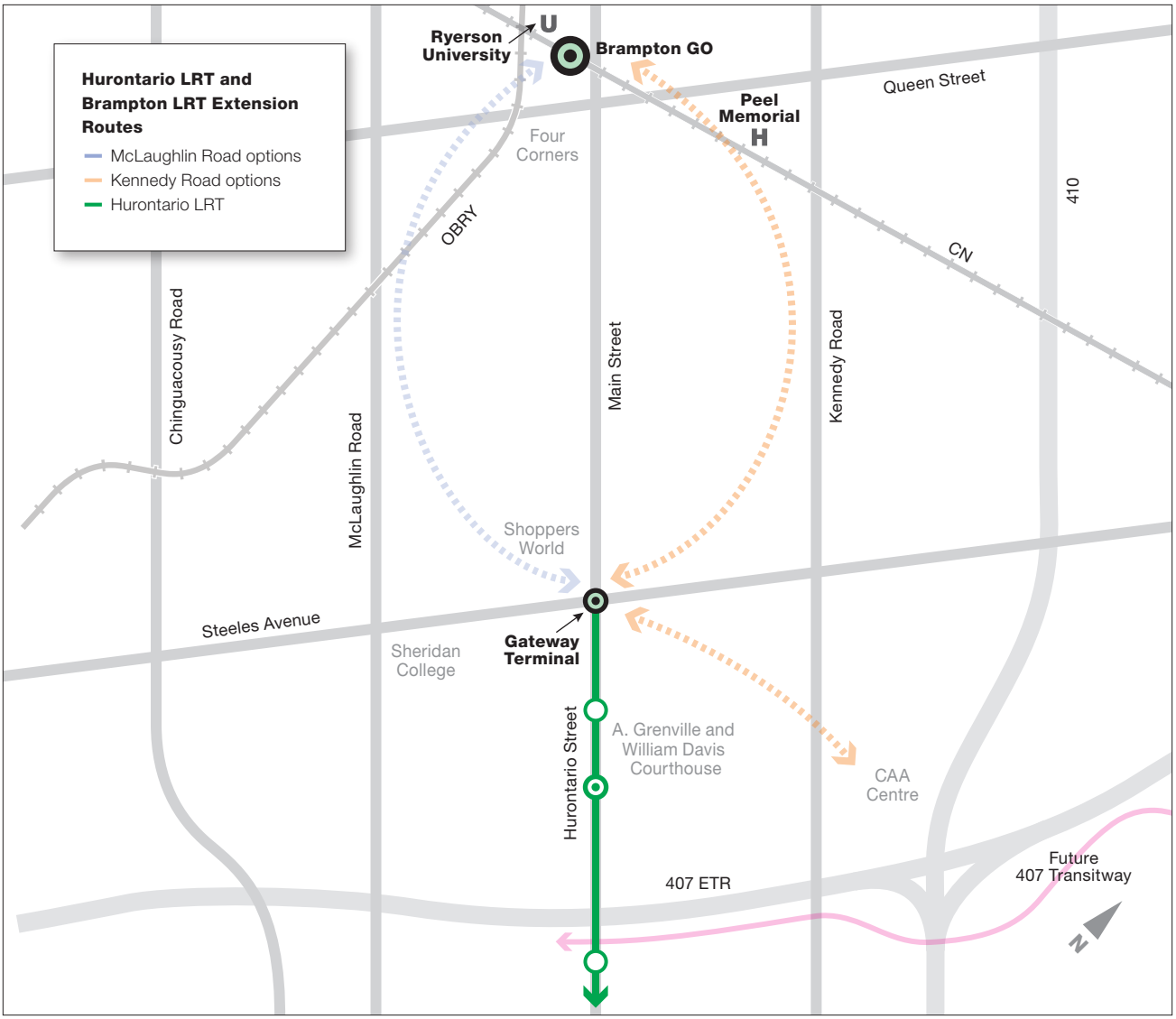
Light Rail Transit
Hurontario LRT and Brampton LRT Extension

OVERVIEW

Modern Light Rail Transit (LRT) systems use large-capacity, fully accessible rail vehicles operating on a dedicated right of way to move people quickly and frequently. Current initiatives promise to re-shape the look of public transit along the Hurontario Street corridor over the next decade. When completed in 2022, the Hurontario LRT will form a 20-kilometre route beginning at the city's Gateway Terminal and continuing south through Mississauga to Port Credit.[1] The Brampton LRT Extension will act as a complementary project, forming links between Gateway, the downtown Brampton GO station, Ryerson University, and possibly southeast toward the CAA Centre.

Potential North-South LRT Routes in Brampton[2, 3]

(planned or under review, as of April 2018)



Hurontario LRT

Upon its projected completion in 2022, the system will span the Hurontario Street/Highway 10 corridor from Port Credit GO station to Brampton Gateway Terminal. In addition to Gateway, the Brampton stops will include Highway 407, Ray Lawson Drive and Sir Lou Drive. In total, there will be 22 stops along the full length of the LRT route. A possible operating scenario "may include weekday/Saturday service from 5:00 a.m. to 1:30 a.m. and on Sunday from 7:00 p.m. to midnight, with an operating frequency of every 5 minutes during the peak hours." The LRT will integrate with local bus services.[4] In addition to the LRT tracks and stops, the project will include new sidewalks, separated bike lanes, and "streetscape and public realm improvements."[5]

HIERARCHY OF LRT STOPS

Three categories of stops will be built along the Hurontario LRT. They are defined as:

- **Level 1**: base design, acting as connectors to local neighbourhoods;
- **Level 2**: significant destinations; and
- **Level 3**: important gateways.

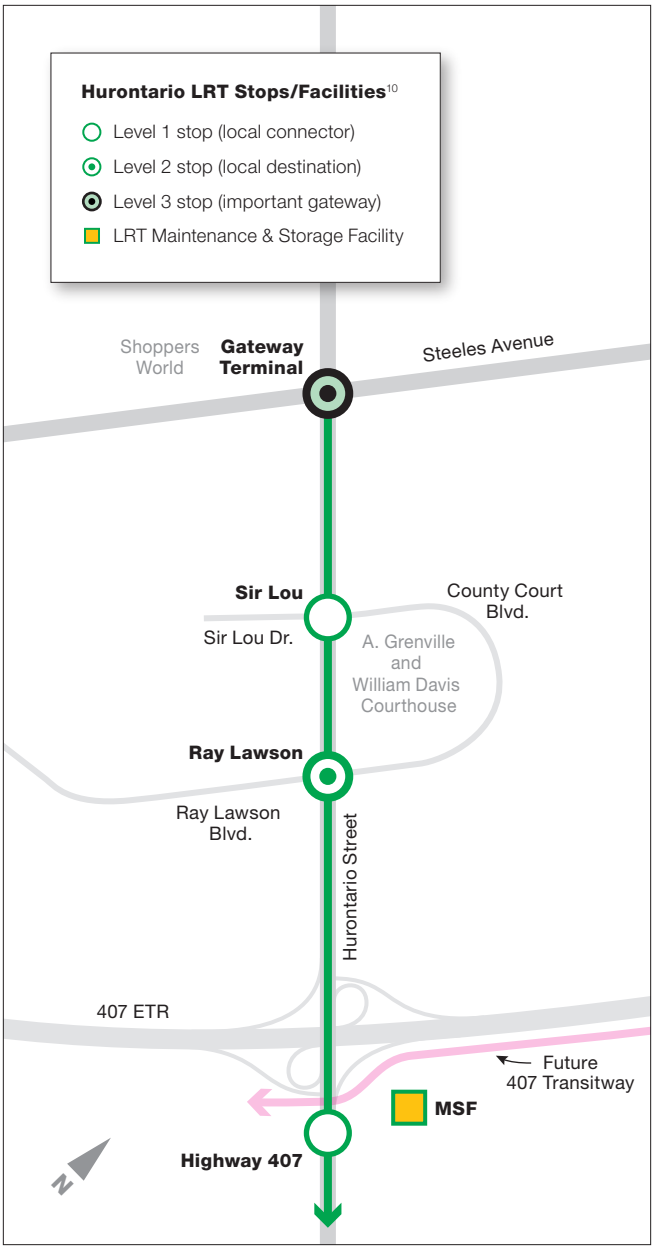
MAINTENANCE & STORAGE FACILITY (MSF)

All light rail vehicles assigned to the Hurontario LRT will be serviced and stored at a facility to be built in Brampton, adjacent to the Highway 407 stop.

PROJECT STATUS

Infrastructure Ontario (IO) and Metrolinx have issued a Request for Proposals (RFP) to three shortlisted teams to design, build, finance, operate and maintain the Hurontario Light Rail Transit project. Teams have been invited to respond to the RFP and will begin preparing proposals that detail how they will deliver the project. IO and Metrolinx expect to award the contract in 2018.[6] In the meantime, prepatory construction (e.g., relocation of telecommunications infrastructure) is slated to begin in Fall 2017.[7] Major construction is expected to begin in 2018, with completion anticipated for 2022.[8]

To keep the community 'in the loop' on the project, local Metrolinx engagement efforts will include a community office, information stands, and outreach to nearby residents and businesses.[9]

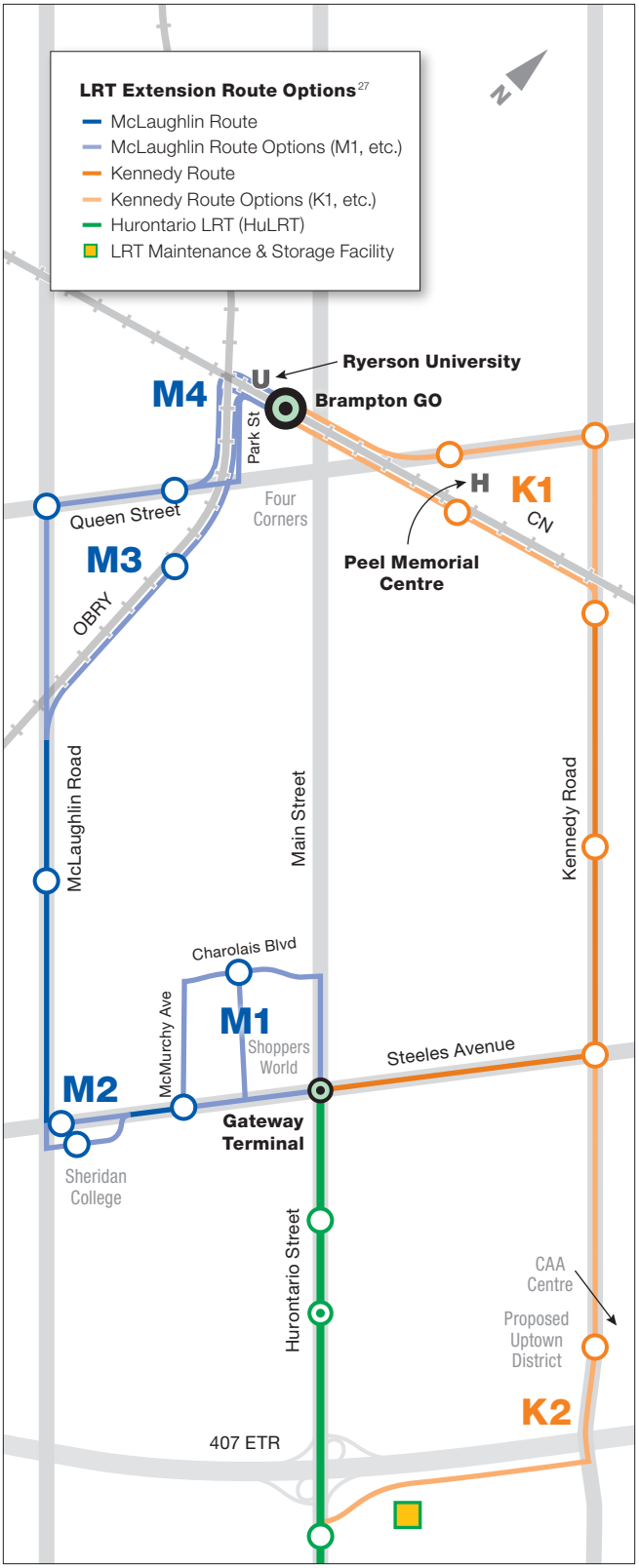


Hurontario LRT Considerations

Item	Comments
Concept	▲ Expected to improve service frequency, ride quality and capacity on the Hurontario corridor within Brampton and Mississauga;[11] ▲ Leverages existing investments in transit network,such as Züm 511 and GO Highway 407 bus;[12] ▲ By operating on a separate, dedicated right of way, LRT trains can avoid traffic congestion and offer improved service reliability;[13] ▲ The LRT will be provided traffic signal priority as needed to improve travel time;[14] ▲ The LRT will support growth along the corridor;[15] ▲ Design and construction of the LRT right of way provides an opportunity to rethink and refresh the Hurontario streetscape, providing not only aesthetic but also practical improvements for pedestrians, cyclists and drivers[16]
Design	▲ LRT stops will be in the centre of the roadway, with passenger platforms separated from traffic by the rail right of way;[17] ▲ LRT stops will be a highly visible central element of the streetscape, providing the opportunity to bring dynamic design to Brampton's primary north-south artery;[18] ▲ Design components include separated bike lanes, bike parking, sidewalks and multi-use trails;[19] ▬ Removes one lane of traffic from both north and southbound roadways, reducing vehicle capacity;[20] ▬ Adds turning restrictions for vehicular traffic[21]
Route	▲ Adds a Highway 407 stop to the local transit map, potentially connecting users with GO Transit Highway 407 Park & Ride as well as the future 407 Transitway;[22] ▬ The Gateway stop has been relocated from the north side of Steeles (original Main Street LRT proposal) to the south side to accommodate the McLaughlin and Kennedy route options for the Brampton LRT Extension. A bridge or tunnel may be needed to connect the LRT stop with Gateway Terminal and the Shoppers World property so that users don't need to cross both Hurontario and Steeles to transfer between systems. Brampton Council, at its July 5, 2017 meeting, approved $5.4 million toward enhancements at the Ray Lawson and Gateway LRT stops, conditional upon Metrolinx constructing a tunnel rather than a bridge. Curiously, the Metrolinx RFP for the Hurontario LRT project allows for either.[23] While the stop relocation may be a negative with respect to Gateway and Shoppers World, it may prove a benefit to adjacent businesses south of Steeles Avenue.

Brampton LRT Extension

As directed by Council, staff at the City of Brampton are currently studying route alternatives between Gateway Terminal and the downtown Brampton GO station, as well as a southeastern extension to the proposed 'Uptown' district extending from Gateway to the CAA Centre. Multiple options are being examined, including Bus Rapid Transit (BRT) instead of Light Rail Vehicles. In 2017, HDR, a consulting firm, was retained to undertake an EA study, expected to be completed in 2020. Metrolinx will be part of the Steering Committee for the project. An Introductory Open House was held April 25, 2018, and the first Public Open House on June 25, 2018. Additional Public Open Houses are planned for 2019 to present the preferred routes in detail, with a final Open House in 2020 to present the preferred overall LRT route. A final decision on the project by the Provincial Minister is expected later that year.[24] The LRT Extension could potentially be in service by 2028.[25]



ROUTES AND OPTIONS

According to the City's initial presentation, "the Study involves evaluating alternative Light Rail Transit (LRT) routes along two corridors – Kennedy Road and McLaughlin Road and any sub-options, including alternative alignments, underground or elevated sections, road widening, mixed-traffic running, and one-way or two-way loops [*which would combine compatible alignments of both the McLaughlin and Kennedy routes to form a complete 'loop'*].

Alternative LRT routes will look to "minimize potential effects on the environment, provide the most economic benefit to the City, and maximize intensification opportunities in the central area."[26]

The City's current initiative will not include previously studied LRT alignments, such as the Main Street corridor.

LRT Route Option Considerations

Route	Item	Comments
McLaughlin	Key sites served by alignment options	▲ Shoppers World, Sheridan College, Ontario Correctional Institute, Flower City Campus, Ryerson University, Brampton GO;
	Potential station locations[28]	▬ Charolais Blvd. at Shoppers World; ▲ McMurchy/Steeles; ▲ McLaughlin/Steeles OR ▲ Sheridan College; ▲ McLaughlin/Elgin; ▲ McLaughlin/Queen + Queen/McMurchy OR ▬ OBRY @ McMurchy; ▲ Brampton GO / Ryerson University;
	Technology	▬ It is unspecified whether LRT would be complemented by bus service to intermediate stops; ▬ An "interim transit solution" (e.g., bus) may be considered if "the need for LRT is found to be more long term";[29]
	M1 – Charolais alignments (see map, p7)[30]	▬ Charolais alignments (Main to Charolais, then turning south through Shoppers World property or along McMurchy) will remove turn at Hurontario/Steeles and serve a greater area, but may slow the overall route compared to running on Steeles;
	M2 – Sheridan College alternative[31]	▬ Alternative alignment via Sheridan College campus, rather than Steeles direct to McLaughlin, would remove turn at Steeles/McLaughlin and simplify transit for students, but may slow overall route compared to running on Steeles;
	M3 – OBRY vs. Queen alignment[32]	▬ OBRY alignment (two LRT tracks added to existing single-track rail freight right of way) would replace turn at McLaughlin/Queen with turn at McLaughlin level crossing and shorten overall route. Properties along the rail right of way may be adversely affected by noise and vibration caused by combined freight train and LRT operation within this corridor. Using Queen instead of OBRY would add a stop, but may increase complexity if crossing OBRY twice;
	M4 – North or south side of CN[33]	▬ Choice of alignment and elevation of LRT to the north or south side of the CN rail corridor may impact cost, connectivity to Queen BRT, design of downtown mobility hub, future LRT alignment options (e.g., north to Bovaird), as well as GO RER and High Speed Rail;
	Kennedy vs. Main[34]	▼ Main Street Züm bus route is shorter than any McLaughlin LRT option. If Main Züm is significantly faster, it may siphon potential LRT ridership;

LRT Route Option Considerations

Route	Item	Comments
Kennedy	Key sites served by alignment options	▲ Peel Memorial Centre (north of Steeles), CAA Centre ('Uptown', south of Steeles);
	Potential station locations[35]	▲ Steeles/Kennedy; ▲ Kennedy/Glidden.; ▲ Kennedy/Clarence; ▲ Kennedy/Queen + Queen/Centre OR ▬ CN @ Centre St.; ▲ Brampton GO / Ryerson University ▲ CAA Centre ('Uptown');
	K1 – CN vs. Queen alignment (see map, p7)[36]	▬ Alignment on south side of CN rail corridor, from Kennedy to Brampton GO) would remove the complex turn at Kennedy/Queen, and serve an area not covered by the Queen BRT, and shortening the overall route. It may, however, impact several properties. Alternatively, continuing north on Kennedy to Queen may impact the existing Kennedy rail underpass and retaining walls, while also requiring property to maintain turn lanes at Kennedy/Queen;
	K2 – 'Uptown' district option[37]	▬ Extension south from Steeles/Kennedy, past CAA Centre to Highway 407 corridor, where it would turn west to parallel the highway and proposed 407 Transitway before connecting with the Hurontario LRT. Such an extension would require a new bridge over the 407 to for an LRT. It remains to be seen how the south side of the 407 corridor could accommodate this LRT route, the 407 Transitway, the HuLRT Maintenance and Storage facility and related trackage, plus the proposed CN Freight Bypass;
	Kennedy vs. Main[38]	▼ Main Street Züm bus route is shorter than any Kennedy LRT option. If significantly faster, it may siphon potential LRT ridership;
Loops	Alignments[39]	▬ The loop concepts would connect the McLaughlin and Kennedy routes to form a giant loop across central Brampton. There are two loop route concepts being studied. Both would incorporate the options in the McLaughlin and Kennedy studies. The difference between the two concepts lies in whether they would connect on either the north or the south side of the CN rail corridor. The City is looking at whether such a loop would operate in one or two directions;
	One-way loop[40]	▼ A one-way loop route may necessitate bus service running in the opposite direction;

Footnotes

Overview

1. Anticipated in-service date per Hurontario Light Rail Transit page on Metrolinx website: http://www.metrolinx.com/en/projectsandprograms/projectpages/Hurontario.aspx#ProjectDocs .

Map / North-South LRT Routes in Brampton

2. **McLaughlin and Kennedy options**: Because the City of Brampton is looking at multiple options for both of these routes, this map distills the variables down to a single dotted line to convey the end points and approximate route between them. The short-listed routes being studied can be found in the PDF copy of the display boards from the June 25, 2018 display boards, which can be found at: http://www.brampton.ca/EN/residents/Roads/engineering-construction/LRTExtensionStudy/Documents/LRT-EA-Open-House-Display-Boards-June25.PDF; PDF page 10.
3. **Hurontario LRT**: Map is based on the version posted on the Metrolinx Hurontario LRT web page noted above; the Hurontario Light Rail Project Open House display panels (February 2017), available online as *HULRT_Brampton_OpenHouse_Feb2017.pdf*, PDF pages 2 and 13; as well as the 407 Transitway website, http://www.407transitway.com/ , with additional details from MTO document, *407TransitwayHurontariotoHwy400_PIC1_FINAL.pdf*. Please note that the exact locations of the Highway 407 stop and the 407 Transitway alignment, the Hurontario LRT Maintenance & Storage Facility have yet to be published.

Hurontario LRT

4. Possible service scenario from Metrolinx document, *HuLRT FAQs - EN.pdf*; PDF pages 1 and 2.
5. Per Agenda for City of Brampton Transit Council of Chairs meeting, November 7, 2017: *20171107tcc_Agenda.pdf*; PDF page 8, and the Metrolinx Hurontario Corridor Committee report dated November 1, 2017: *Metrolinx_Hurontario_Corridor Comittee - BS_Nov 1.pdf*; PDF page 2.
6. Project status per Metrolinx website, November 17, 2017. The Hurontario LRT project can be found online at http://www.metrolinx.com/en/projectsandprograms/projectpages/Hurontario.aspx .
7. Construction status per Metrolinx community notices dated October 2017: *Cooksville Construction Notice_Final.pdf*; *Mineola Construction Notice_Final.pdf*.
8. Per *HuLRT FAQs - EN.pdf* mentioned above; PDF page 1.
9. Per the Hurontario Light Rail Project Open House display panels (February 2017), available online as *HULRT_Brampton_OpenHouse_Feb2017.pdf*; PDF page 18, and the Metrolinx Hurontario Corridor Committee report dated November 1, 2017: *Metrolinx_Hurontario_Corridor Comittee - BS_Nov 1.pdf*; PDF page 11.The most recent PDF for the Hurontario LRT disoplay boards can be downloaded from http://www.metrolinx.com/en/projectsandprograms/projectpages/Hurontario.aspx .
10. Map is based on the version posted on the Metrolinx Hurontario LRT web page noted above; the Hurontario Light Rail Project Open House display panels (February 2017), available online as *HULRT_Brampton_OpenHouse_Feb2017.pdf*; PDF pages 2 and 13, as well as the 407 Transitway website, http://www.407transitway.com/ , with additional details from MTO document, *407TransitwayHurontariotoHwy400_PIC1_FINAL.pdf*. Exact locations of the Highway 407 stop, 407 Transitway alignment, the Hurontario LRT Maintenance & Storage Facility have yet to be published.

Hurontario LRT Considerations

11. Based on comparison of possible service scenario from Metrolinx documents, HuLRT FAQs - EN.pdf, PDF pages 1 and 2; and HULRT_Brampton_OpenHouse_Feb2017.pdf, PDF page 6; as well as Brampton Transit Route 502 (Züm Main) schedule dated September 5, 2017. The Metrolinx documents suggests that peak service could operate on 5-minute headways (compared to 8-minute peak headways with the current Züm service), and 10-minute headways during the rest of the day.
12. Extrapolation, based on Metrolinx *HULRT_Brampton_OpenHouse_Feb2017.pdf*, PDF page 9.
13. From above report, PDF page 6.
14. From above report, PDF page 16.
15. From above report, PDF page 9.
16. Extrapolation, based on above report, PDF pages 6 and 16. While there is no mention of 'benefits' for drivers, it stands to reason that segregating LRT and vehicular traffic would benefit each to varying degrees.
17. From above report, PDF page 16.
18. Extrapolation, based on above report, PDF page 12.
19. From above report, PDF pages 5, 6 and 7.
20. From above report, PDF page 16.
21. From above report, PDF page 16.
22. Extrapolation, based on above report, PDF pages 2 and 9.
23. Relocation of Gateway stop noted in Agenda for City of Brampton Transit Council of Chairs meeting, November 7, 2017: *20171107tcc_Agenda.pdf*, PDF page 20. The issue of a pedestrian bridge or tunnel is covered in PDF pages 31, 32 and 34.

Brampton LRT Extension

24. Per City of Brampton / LRT Extension Open House display boards (June 25, 2018) available from http://www.brampton.ca/EN/residents/Roads/engineering-construction/LRTExtensionStudy/Documents/LRT-EA-Open-House-Display-Boards-June25.PDF ; PDF page 4.
25. Anticipated in-service date of LRT Extension per verbal answer given by City of Brampton staff to public question at LRT Extension Open House, April 25, 2018. Subject to change.
26. Per display boards noted above, PDF page 2.

Map / LRT Extension Routes

27. LRT Extension routes per City of Brampton / LRT Extension Open House display boards (June 25, 2018) noted above; PDF page 10. Precise details of each alignment to be provided in the next stage of the study. Please note that labelling (such as options 'M1', 'K1', etc.) has been simplified and is unique to this map, and therefore does not correspond to the labelling on the City's PDF download. The Hurontario LRT section of the map is based on the same source material identified in footnote 10.

Footnotes (continued)

LRT Extension Considerations

McLaughlin

28. Station locations per City of Brampton / LRT Extension Open House display boards (June 25, 2018) available from http://www.brampton.ca/EN/residents/Roads/engineering-construction/LRTExtensionStudy/Documents/LRT-EA-Open-House-Display-Boards-June25.PDF ; PDF page 10.
29. Per above PDF, page 5.
30. Charolais options description per above PDF, page 10. Also worth noting on PDF page 8 are the 'complex turns' for the LRT at Main/Charolais, Charolais/Shoppers World, Shoppers World/Steeles, as well as the potential impact of LRT turns on vehicular traffic at Hurontario/Steeles, Main/Charolais, and Charolais/Shoppers World. The referenced PDF does not quantify these impacts or suggest mitigating strategies, such as elevated or underground rights of way – though the possibility of alternatives to at-grade construction is mentioned on page 2 of the document. Comment regarding Charolais being slower than Steeles is an extrapolation/assumption, based on the route map.
31. Sheridan College options description per above PDF, page 10. There is no analysis of the route through Sheridan College in the referenced PDF. Comment regarding the route through Sheridan being slower than Steeles is an extrapolation/assumption, based on the route map.
32. The City has advised the Board that: "The next stage of the study will provide further details about LRT operations within the OBRY right-of-way, which will also depend on discussions with OBRY. The study will consider impacts such as noise and recommend mitigations measures where required. Provincial and Federal regulations will be followed in designing the LRT in this corridor including adequate separation and protective measures where required." The comments in this document are based only on information that is currently publicly available.

    Orangeville-Brampton Railway (OBRY) options description per above PDF, page 10. PDF page 8 suggests "No direct impacts to accesses; however, there is a potential for impacts to residential commercial properties adjacent to this segment. LRT would likely not negatively impact neighbourhood character due to existant railway." This is debatable, given that OBRY trains currently run twice weekly in two directions, compared to LRT trains running every few minutes in two directions, seven days per week. Also, the City has not confirmed whether LRT operation within the OBRY right of way can occur simultaneously with freight operations. If those operations must be separated, it remains to be seen what the nature of those operations would be. One possibility is that freight operations would be pushed to the overnight hours, as is expected in Waterloo, Ontario. Such a change would affect not only the quality of life for residents adjacent to the right of way, but could also affect the operations of OBRY and its customers.

    PDF page 8 suggests that using the McLaughlin/Queen alignment would incur the use of a "complex turn" at that intersection. A grade separation may be required to cross OBRY on McLaughlin. There is no mention of crossing OBRY on Queen, so it assumed that the LRT tracks would turn from Queen to the west side of the OBRY right of way here (as opposed to using the east side of OBRY, if accessed from McLaughlin). There is no analysis of the impact of LRT turns to/from the OBRY right of way on McLaughlin or Queen.

    PDF page 10 suggests a Park Street alternative for the OBRY right of way north of Queen, but there is no analysis of how this alignment would be accessed – either from Queen or from the OBRY right of way south of Queen, nor is there analysis of Park Street's capacity to accommodate LRT.
33. Options with respect to north or south side of CN corridor per above PDF, page 10. Comments are extrapolations/assumptions. Worth noting is that the alignment to the south side of the CN corridor would require full use of Railroad Street right of way – either LRT only or mixed traffic (PDF page 8). There is no analysis in this document of how LRT operation on Railroad Street would affect LRT or vehicular traffic (particularly in a mixed-traffic scenario), or its effect on property access.
34. Extrapolation/assumption, based on map in above PDF, page 10.

Kennedy

35. Station locations per City of Brampton / LRT Extension Open House display boards (June 25, 2018) available from http://www.brampton.ca/EN/residents/Roads/engineering-construction/LRTExtensionStudy/Documents/LRT-EA-Open-House-Display-Boards-June25.PDF ; PDF page 10.
36. Extrapolation/assumption, based on above PDF, pages 9 and 10.
37. Extrapolation/assumption, based on above PDF, pages 9 and 10.
38. Extrapolation/assumption, based on map in above PDF, page 10.
39. Based on map in above PDF, page 10.
40. Extrapolation/assumption, based on map in above PDF, page 10.

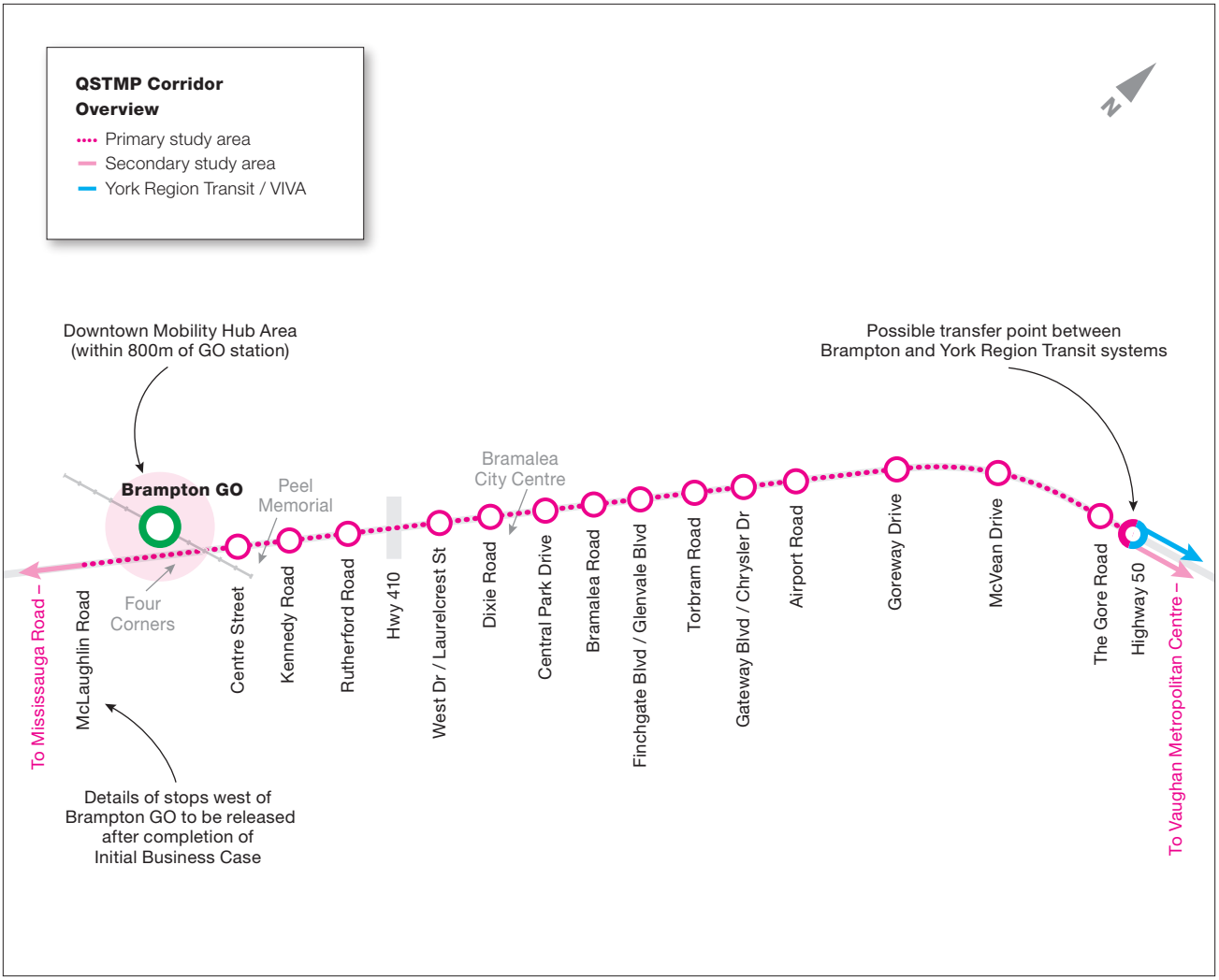
Queen Street Transit Master Plan
Bus Rapid Transit from Brampton to Vaughan

OVERVIEW

The City of Brampton is currently working on a Transit Master Plan for Queen Street (QSTMP), primarily focused between McLaughlin Road and Highway 50, with a broader vision to evolve service with dedicated multi-modal corridor extending from Mississauga Road to mobility hubs in Downtown Brampton and the Vaughan Metropolitan Centre. The City's current work centres on a Bus Rapid Transit (BRT) solution and builds on its own previous studies published in 2007, 2008, 2013 and 2015, as well as the 2015 Metrolinx Regional Transportation Plan, and the Brampton 2040 Vision, published in 2018. It is also being coordinated with the LRT Extension Study, development of the Ryerson University Campus, as well as the Downtown Re-imagined Project. The City is currently working on QSTMP feasability analyses, in support of an Initial Business Case.[1]

Queen Street Transit Master Plan Study Area[2]

(Details of route and transfer point to be announced)



Queen Street BRT Considerations

Item	Comments
Bus Rapid Transit as chosen technology solution[3]	▲ Allows for seamless service from Brampton through York Region, which is using BRT on the connecting Viva Rapidway corridor from Highway 50 to Warden Avenue in Markham; ▲ Works within the physical constraints of downtown Brampton; ▲ Operationally flexible, less infrastructure-intensive, and less costly to implement, given the changing landscape in the downtown area; ▲ Future-ready, in that it allows for upgrades to capacity, infrastructure, technology (e.g. electric propulsion, vehicular automation, autonomous vehicles, Smart Lanes), or conversion to Light Rail Transit (LRT) if warranted
Complete Streets design approach[4]	▲ Balance between space allocated to roadway and boulevard allows for pedestrian, cyclist, auto and dedicated transit usage; ▲ Supports multi-modal mobility and access, public health and safety, economic development, environmental quality, liveability and quality of life, and equity;
Street configuration options[5]	**Median transit (dedicated BRT in centre lanes of street):** ▲ Consistent design mid-block and at intersections; ▲ Pedestrian 'refuge' in the centre of wide roadway; ▲ Left turns in shadow of platforms, no impact on boulevards; ▲ Potential curbside activities/lay-bys; ▼ 4 traffic lanes only (without widening of right of way); ▼ Addition of right turn lanes would negatively impact boulevards; **Curbside transit (dedicated BRT in outer lanes of street):** ▲ Transit stops at curbside; ▲ Potential pedestrian 'refuge' in the centre of wide roadway; ▲ Left turns in centre lane; ▼ Crossing of BRT lanes to access properties and right turns; ▼ No curbside activities/lay-bys; ▼ 4 traffic lanes only (without widening of right of way); ▼ Addition of right turn lanes would negatively impact boulevards; **One-side transit (dedicated BRT on one side of street):** ▲ Transit stops at curbside and in median; ▲ Potential pedestrian 'refuge' in the median; ▲ Left turns in centre lane; ▬ Crossing of BRT lanes to access properties and right turns limited to one side of street only; ▼ No curbside activities/lay-bys; ▼ 4 traffic lanes only (without widening of right of way); ▼ Addition of left and right turn lanes would negatively impact boulevards

Footnotes

Overview

1. From the current City of Brampton's *Queen Street Transit Master Plan* document, available at http://www.brampton.ca/EN/Business/planning-development/projects-studies/QSTMP/Documents/QSTMPPIC_BoardsJune21.pdf .

Map

2. Per above document; PDF page 1.

Queen Street BRT Considerations

3. Per above document; PDF page 10.
4. Per above document; PDF page 4. For additional information, please refer to the referenced PDF.
5. Per above document; PDF page 6. For additional information, please refer to the referenced PDF.

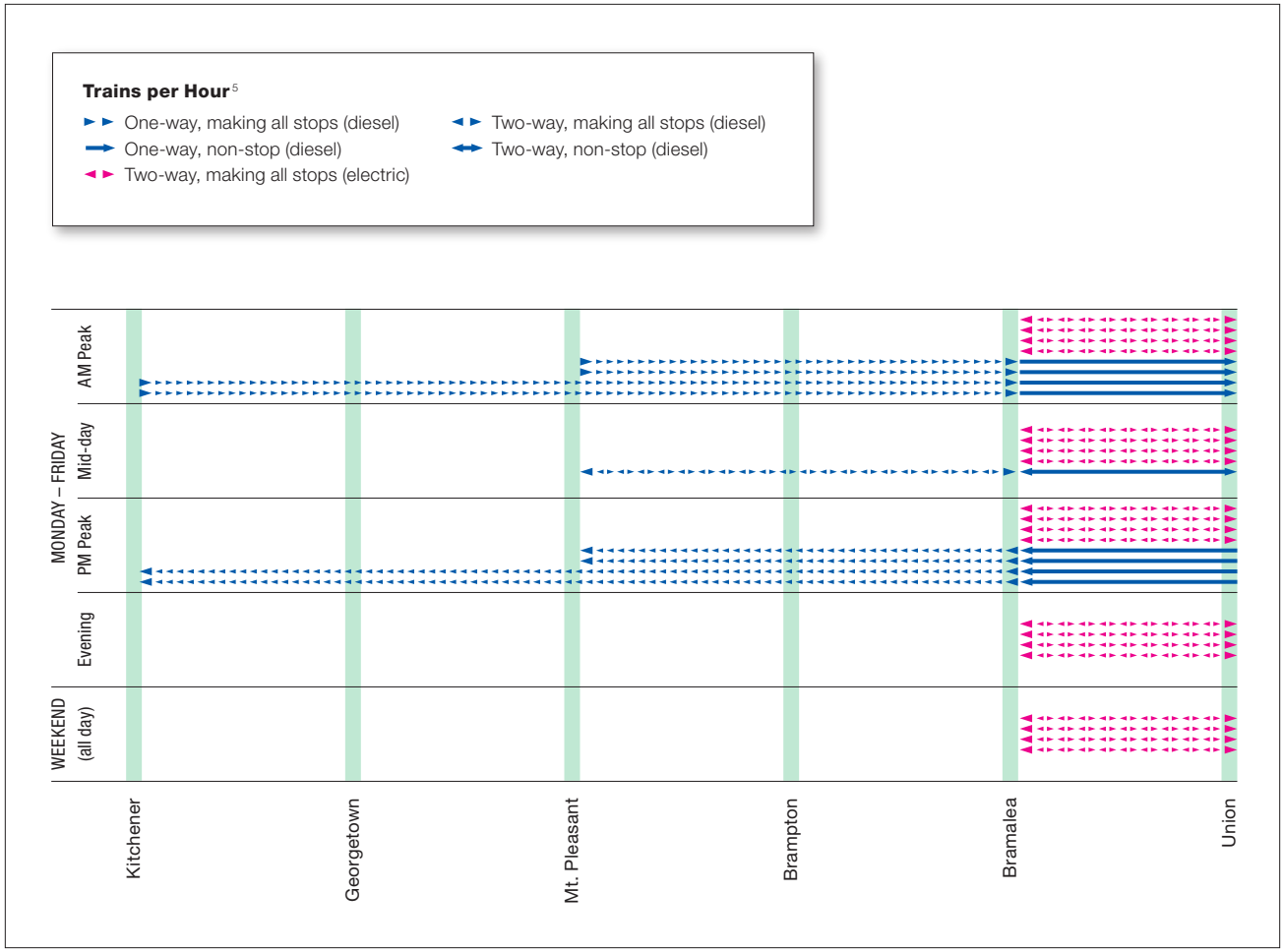
GO Transit
Regional Express Rail (RER)

OVERVIEW

In March 2015, Metrolinx released its Initial Business Case to provide GO RER under a 10-year implementation plan.[1] RER is defined as electrified two-way, all-day train service, in contrast to the current schedule, which is focused mainly on diesel-powered, weekday-only, rush-hour service. Bramalea was initially set as the western endpoint of electrified service on the Kitchener Corridor, however this was extended to Kitchener itself with a further announcement in June 2016 of an agreement in principle between the Province, Metrolinx and CN to build a separate bypass for freight traffic, which, once completed, would clear the way for increased GO service west of Bramalea.[2] (A formal agreement to proceed has yet to be announced.) On March 31, 2017, federal funding of $752 million was announced for various upgrades, including track, train layover facilities, parking facilities, bridges and station modifications on the Kitchener Corridor.[3] As of April 6, 2018, the projected in-service date for RER on the Kitchener Corridor was 2024/25.[4]

Target for Train Frequency between Kitchener and Bramalea

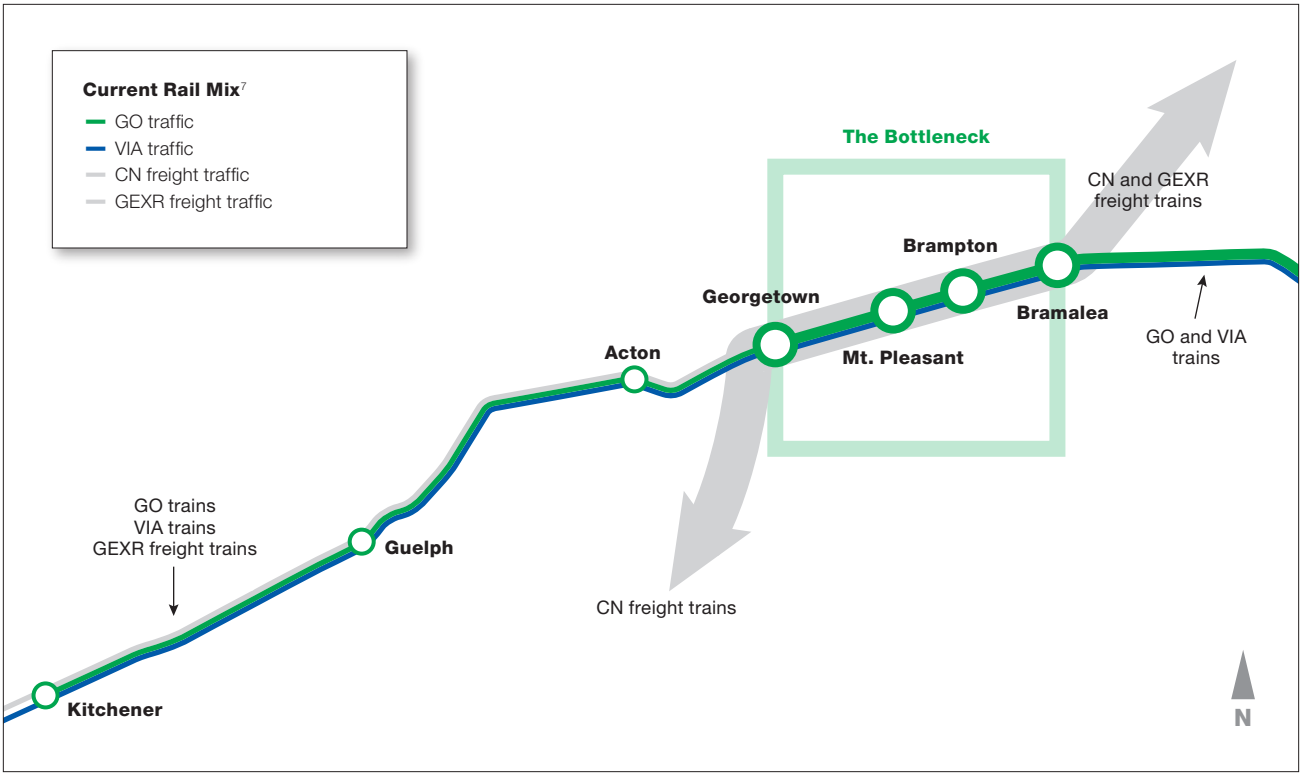
(based on electrifying Union Station to Bramalea only; to be updated once details of full Kitchener Corridor electrification/RER are released)



Increasing GO Train Service West of Bramalea

Increased GO train service west of Bramalea is constrained by two factors: (a) the amount of track capacity available to GO on CN's Halton Subdivision between Bramalea and Georgetown; and (b) the limitations of Metrolinx's single-track Guelph Subdivision between Georgetown and Kitchener. The Province's announced intention to extend electrified RER service to Kitchener addresses both issues.[6]

GO KITCHENER CORRIDOR (BRAMALEA – KITCHENER SEGMENT)
(January 2017)



THE BOTTLENECK

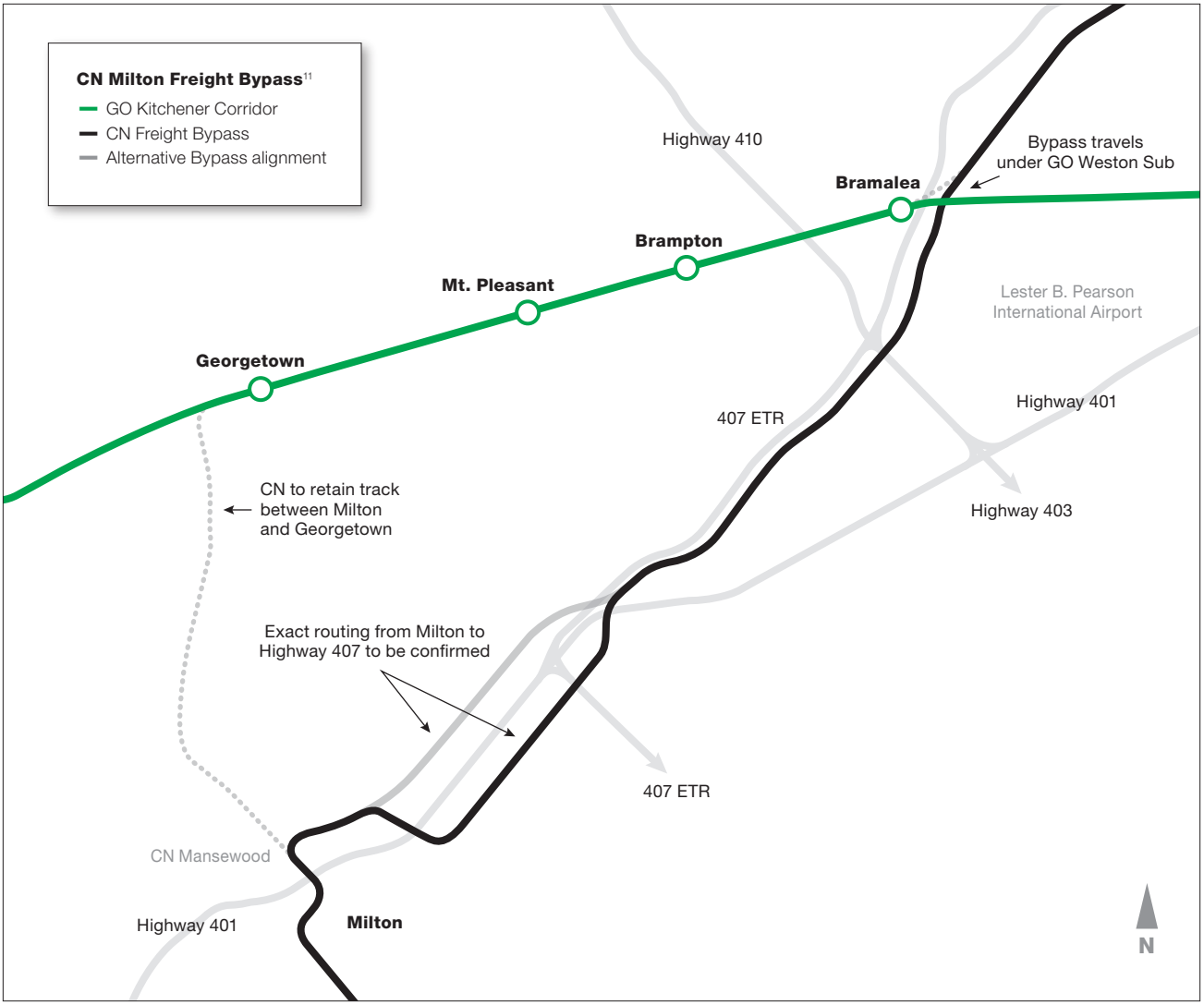
Between Bramalea and Georgetown, CN's Halton Subdivision is composed of two or three mainline tracks. It is a major thoroughfare for freight trains hauling goods travelling in and out of CN's Brampton Intermodal Terminal well as MacMillan Yard in Vaughan. In addition, it hosts GO and VIA service. At present, weekday traffic on the line consists of: 25–30 CN freight trains; 2 Goderich-Exeter (GEXR) freight trains; 29 GO trains; and 4 VIA trains.[8] As such, there are instances when one or more trains must be stopped to allow other traffic to pass. As train frequency rises within a fixed corridor such as this, it is inevitable that more such delays will occur. The solution is to either lay more track or to remove some traffic to free up capacity. Metrolinx has done extensive studies and planning with regard to the former, but these may be set aside in light of the June 2016 announcement of an agreement-in-principle to further study the potential for a new CN freight bypass between Milton and Bramalea which would effectively remove the heavy freight traffic component from GO's Kitchener Corridor.

CN Freight Bypass

Removing heavy freight traffic from the stretch of track between Bramalea and Georgetown would provide Metrolinx with the flexibility to design this section of the Kitchener Corridor to meet its own needs and optimize its operating schedule. It would also provide CN with a shorter route between Milton and Bramalea.[9]

The exact route of the bypass has not yet been formally announced. It may follow a path that begins on the existing CN right of way near 'Mansewood' north of Milton, turning east to parallel Highway 401, and then follow the hydro corridor on the south side of Highway 407 ETR to Bramalea, where it would rejoin the existing Halton Subdivision. Details released thus far suggest an initial design with two tracks, expandable to six at a later date. Included would be an accommodation for possible future passenger rail service in the longer term.[10]

ANTICIPATED ROUTE
(to be confirmed)



GO Regional Express Rail and CN Freight Bypass Considerations

Item	Comments
HALTON SUBDIVISION	
Traffic	▲ Operational interference between freight and passenger operations reduced;[12] ▲ Impact of running freight trains through downtown Brampton largely removed;[13] ▬ Although through freight traffic may be eliminated or substantially reduced, CN may retain running rights. Freight trains might continue to run in certain situations;[14] ▬ Operations will need to accommodate CN continuing to service industrial customers in Brampton;[15] ▬ Impact on Goderich-Exeter freight trains, which use this track to access MacMillan Yard will need to be determined;[16] ▬ Metrolinx ownership may impact the option for OBRY to sell its right of way south of Halton Sub. and connect with CN in Brampton instead of CP in Streetsville. (Selling the right of way might make the McLaughlin LRT route more feasible.)[17]
Changes to infrastructure requirements for RER	▲ Less track construction, signals, etc. required on Bramalea to Georgetown segment than if there was no Bypass;[18] ▬ Even though freight trains will largely be absent here, electrical clearances will still need to accommodate CN's height requirements for double-stacked containers.[19]
RER Construction[20]	▬ It has been previously indicated that no RER construction could begin until the Bypass is completed and operational. If true, this may mean that Metrolinx may be limited to engineering and EA work on the Halton Sub. while the Bypass project proceeds and that a construction start date would be at the mercy of any delays on the Bypass project; ▲ Once freight traffic is diverted, construction of electrification infrastructure could proceed with less interruption.
FREIGHT BYPASS	
Traffic	▲ CN can operate absent any conflicting GO and VIA traffic;[21] ▲ The Bypass may introduce the potential for extension of rail freight service to new areas in Bramalea and in Milton;[22] ▼ Will introduce a new source of noise and vibration to adjacent residential areas along the Highway 407ETR Corridor.[23]
Right of way	▬ The combined presence of a hydro corridor, future bus transitway and potential six-track rail corridor may impact the expandability of 407ETR and any one of these other elements;[24] ▬ The compact nature of the right of way may limit the option for a large buffer zone between the rail line and residences.

Double-tracking the Guelph Subdivision

The Province's announcement in June 2016 of a commitment to bring electrified, two-way, all-day GO train service to Kitchener cements the Metrolinx plan to double-track the Guelph Subdivision west of Georgetown. With only a single track and no functioning passing sidings at present, this section of the Kitchener Corridor is a significant impediment to increased service.[25] Adding a second track and strategically spaced passing sidings along its length could allow trains to pass one another in either direction and eliminate bottlenecks created by mechanical failures, work blocks, etc. This service improvement will extend benefits to Brampton in the form of enhancing bi-directional mobility across the western half of the Toronto-Waterloo Innovation Corridor.

No indication has been provided yet as to when construction on this project would be undertaken, whether the double-tracking could take place well in advance of electrification, or if interim steps such as a pre-build of passing sidings could be undertaken to introduce a basic level of two-way operation during the AM/PM peak periods.

Project Status

On April 6, 2018, the Province of Ontario issued an update on the progress being made on bringing GO RER to the Kitchener Corridor. It states, "Ontario is moving ahead with two environmental assessments (EAs), which are required to provide faster, electrified, two-way, all-day train service on the Kitchener line. One EA is to provide electrified service between Georgetown and Kitchener, and the other EA is the next step for the freight bypass to provide unrestricted rail access for passenger trains between Toronto and Kitchener. To help guide this work and deliver a near-term increase in service and faster travel times for customers, the province is hiring a technical advisor. As part of this EA phase, Ontario is now working with the Greater Toronto Airport Authority (GTAA) to explore options to connect two-way, all-day service on the Kitchener GO line to the proposed multimodal transit hub at Toronto Pearson International Airport. The major transit hub the GTAA is proposing to build at Pearson will offer seamless connections between trains, buses, airplanes, light rail vehicles and high speed rail along the Toronto-Windsor corridor."[26]

Footnotes

Overview

1. Refers to Metrolinx documents, *GO_RER_Initial_Business_Case_EN.pdf*, *GO_RER_Initial_Business_Case_Appendix_A-J_EN.pdf*, *GO_RER_Initial_Business_Case_Appendix_K_EN.pdf* and *GO_RER_Initial_Business_Case_Summary_EN.pdf*, dated November 11 – 30, 2015.
2. Based on Province of Ontario announcement, *Ontario Expanding GO Rail Service to Waterloo Region*, dated June 14, 2016. Also, per reports in the Guelph Mercury, *New freight route opens door for two-way, all-day GO service by 2024*, dated June 16, 2016, and The Waterloo Region Record, *Province will deliver two-way, all-day GO Train service, Wynne says*, dated June 14, 2016. **Such projected in-service dates for RER should be treated with caution.** Implementation of full RER west of Bramalea hinges on a formal agreement to build the freight bypass as well as the interconnected planning and construction timelines of that project and RER build-out between Bramalea and Kitchener. As of this writing, said formal agreement has yet to be announced, and thus any target dates for implementing RER service west of Bramalea would seem speculative at best. To illustrate, in an October 2017 email to the author of this report on the subject of RER rollout on the Kitchener Corridor, the Metrolinx Electrification Team confirmed only that 'GO Expansion' would be completed by 2025, with no specifics identified.
3. Funds destined for the Kitchener line are part of a $1.8 billion federal investment in GO's RER plan. See http://pm.gc.ca/eng/news/2017/03/31/prime-minister-announces-support-public-transit-greater-golden-horseshoe-area for the government announcement and http://www.cbc.ca/news/canada/kitchener-waterloo/toronto-waterloo-innovation-corridor-federal-funding-1.4049446 for an overview of the work to be done on the Kitchener line.
4. Based on Province of Ontario news release dated April 6, 2018: https://news.ontario.ca/opo/en/2018/04/two-way-all-day-go-for-waterloo-region-takes-next-steps-forward.html . It should be noted, however, that Metrolinx currently shows an in-service date of 2025 on its Kitchener Corridor page: http://www.metrolinx.com/en/greaterregion/projects/kitchener-go-expansion.aspx#projectupdate , hence the 2024/25 date in this document.

Map

5. Based on Metrolinx document, *GO_RER_Initial_Business_Case_Appendix_A-J_EN.pdf*, dated November 30, 2015, PDF page 26. Adjusted to reflect changes to train service enacted in September, 2016. This diagram does not reflect service under full RER extended to Kitchener as service scenarios for that plan have yet to be published.

Increasing GO Train Service West of Bramalea

6. Based on Province of Ontario announcement, https://news.ontario.ca/opo/en/2016/06/ontario-expanding-go-rail-service-to-waterloo-region.html, dated June 14, 2016. Also, per reports in the Guelph Mercury, https://www.guelphmercury.com/news-story/6726318-new-freight-route-opens-door-for-two-way-all-day-go-service-by-2024/, dated June 16, 2016, and The Waterloo Region Record, http://www.therecord.com/news-story/6721969-province-will-deliver-two-way-all-day-go-train-service-wynne-says/, dated June 14, 2016.
7. Based in part on IBI/Stantec document, *Feasibility Study and Business Case of Constructing the Missing Link*, dated August 18, 2015; PDF page 21. Also partially based on anecdotal evidence.
8. Traffic volume for CN derived from Canadian Transportation Agency Section 98 Application titled, *In the matter of an application by Canadian National Railway Company (CN) Pursuant to subsection 98(2) of the Canada Transportation Act, For an order authorizing the construction of certain railway lines associated with CN Milton Logistics Hub*, dated January 22, 2016, accessible via www.ceaa-acee.gc.ca/050/documents/p80100/116633E.pdf; PDF page 13. Volume for GEXR is based on *The Canadian Trackside Guide 2017*, published by The Bytown Railway Society Inc., page 13-45. GO Transit train data is based on its June 24, 2017 Kitchener schedule, while VIA train data is from its May 29, 2017 system timetable.

CN Freight Bypass

9. Based on the assumption that the expected route of the CN freight bypass is similar to the earlier 'Missing Link' concept, which would be approximately 11 km. shorter than CN's Halton Subdivision route from Bramalea to Milton via Georgetown. Per the IBI/Stantec document, *Feasibility Study and Business Case of Constructing the Missing Link*, dated August 18, 2015; PDF page 12.
10. Details based on Metrolinx document, *20160909_BoardMtg_Regional_Express_Rail_Update_EN.pdf*, dated September 9, 2016; PDF page 9.
11. Speculative; based on anecdotal information.

CN Freight Bypass Considerations

12. Operational benefits are comparable to those of the 'Missing Link' concept. Per the IBI/Stantec document, *Feasibility Study and Business Case of Constructing the Missing Link*, dated August 18, 2015; PDF page 12.
13. Based on above report; PDF page 13.
14. Assumption, based on anecdotal evidence.
15. Based on above report; PDF page 13.
16. Extrapolation, based on above report; PDF page 12.
17. This is a theoretical scenario. OBRY has no customers between the Brampton 'diamond' (its crossing of the Halton Subdivision) and its connection to the CPR at Streetsville. Given that there was until recent years a connection between OBRY's track and the CNR at Brampton, it might be possible to re-establish that connection, freeing up the OBRY right of way south of it for LRT use. Whether this would be a viable option if the Halton Subdivision was under Metrolinx ownership is unknown at this time.
18. Extrapolation, based on above report; PDF page 11. The 'Missing Link' concept would entail widening sections of the York, Halton and Galt Subdivisions, estimated in the report at $2.84B, compared to $1.51B plus land costs for widening the Halton Subdivision in its present form to accommodate RER.
19. The Metrolinx document, *20160909_BoardMtg_Regional_Express_Rail_Update_EN.pdf*, dated September 9, 2016; PDF page 9, suggests that "…*most* of the CN freight traffic would be shifted from the existing CN corridor to the new corridor…" Anecdotal evidence suggests that CN would retain the Halton Subdivision track between Georgetown and Milton if the Bypass is built, and retain running rights across its entire current route. One assumes, then, that the catenary infrastructure necessary for RER would need to be built to accommodate all types of freight traffic. The Metrolinx document, *GO_RER_Initial_Business_Case_EN.pdf* dated March 22, 2016; PDF page 161, Table 33 – 'Transport Canada Double Stack Total Structural Clearance' illustrates the agency's clearance requirements.
20. Anecdotal evidence, to be confirmed.
21. Per the IBI/Stantec document, *Feasibility Study and Business Case of Constructing the Missing Link*, dated August 18, 2015; PDF page 12.
22. Assumption, based on anecdotal evidence.
23. Assumption, based on anecdotal evidence. The Bypass design may include noise/vibration mitigation measures to fully or partially negate these impacts.
24. The proposed 407 Transitway is currently listed as a 'beyond 2041' project in the Metrolinx *Draft 2041 Regional Transportation Plan*, dated September 27, 2017; page A-29 (PDF page 176).

Double-tracking the Guelph Subdivision

25. Description from Metrolinx document, *Metrolinx Electrification Project, Conceptual Design Report Part 3 – Kitchener Corridor, Version 03*, dated October 27, 2014; PDF page 88.

Project Status

26. Based on Province of Ontario news release dated April 6, 2018: https://news.ontario.ca/opo/en/2018/04/two-way-all-day-go-for-waterloo-region-takes-next-steps-forward.html .

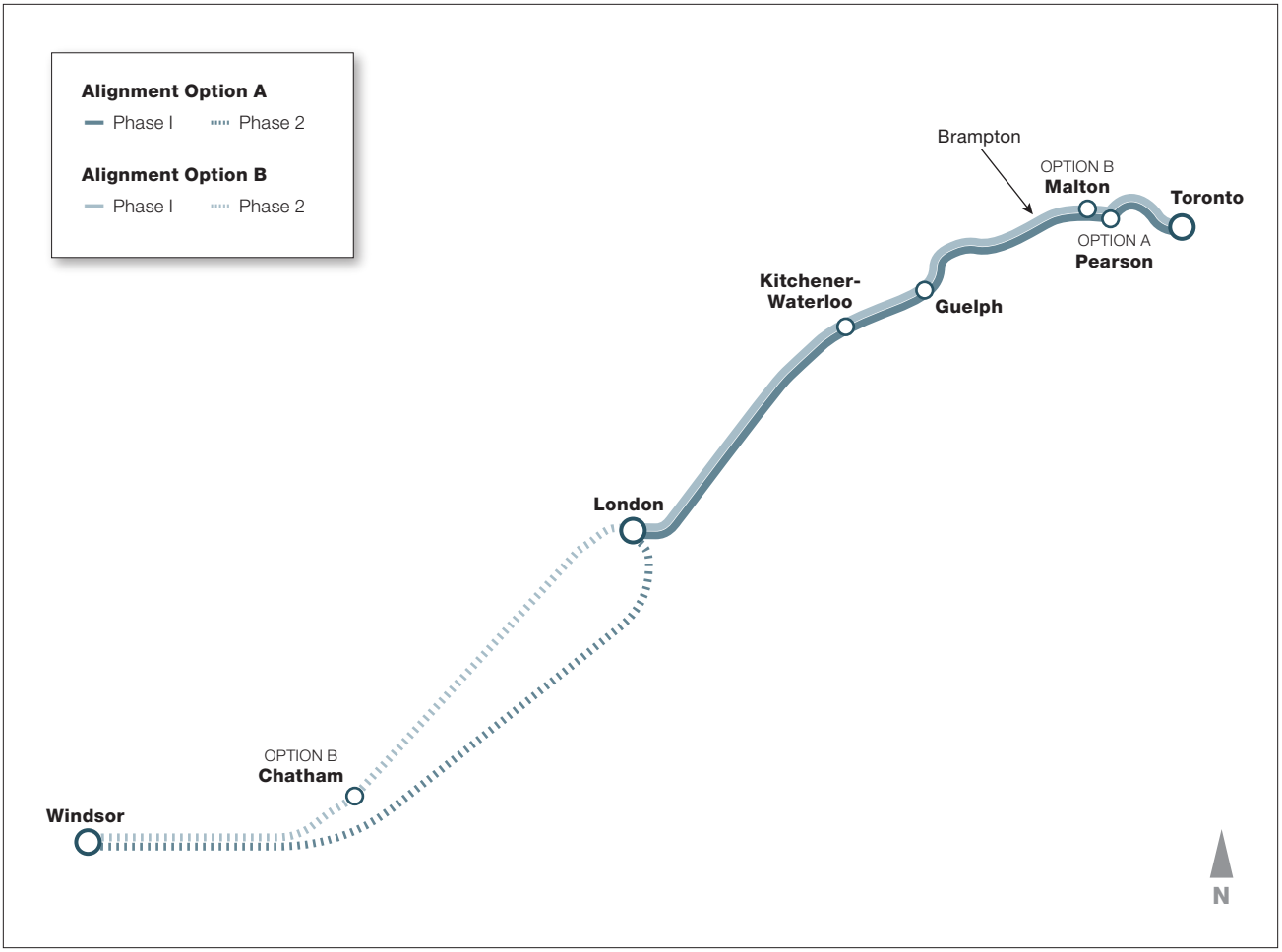
High Speed Rail (HSR)

OVERVIEW

"To transform mobility in Southwestern Ontario in order to connect communities, integrate centres of innovation, and foster regional and economic growth and development." Thus reads the Vision Statement of a report released May 19, 2017, describing the Ontario Government's High Speed Rail concept, which looks at two possible scenarios for a new service in the Toronto–Windsor corridor: (a) electrified HSR service operating primarily on a dedicated right-of-way and capable of achieving a top speed of 300 km/h; or (b) electrified HSR service capable of achieving a top speed of 250 km/h operating on a combination of mixed conventional and dedicated right of way. In both cases, the route would look largely similar to that of existing rail lines between Toronto and London, while using different alignments between London and Windsor. The report concludes that Option B would yield the best value for money. Worth noting is that while both route alternatives would pass through Brampton, neither includes a stop in the city.[1]

HSR Routes[2]

(preliminary concepts)



Project Background

In October 2015, the Government of Ontario appointed former federal transport minister David Collonette as Special Advisor on High Speed Rail. The Special Advisor's final report[3] was published in December 2016 and released to the public in May 2017. As noted on page 21 of the report PDF, "The Province has been studying the feasibility of HSR for more than two decades. In 1991, it implemented the Ontario/Quebec Rapid Train Task Force, whose findings provided a basis for studies conducted in 1993 and 1995. In 2011, a detailed study on the feasibility of HSR between Windsor and Quebec City, referred to as the EcoTrain report[4], was conducted jointly by MTO, Transport Canada, and the Ministère des Transports du Québec (MTQ)."

The current proposal grew from a Toronto-to-London concept originally suggested in early 2014 by the then-provincial transport minister.[5] A pre-feasibility study, *Toronto-Kitchener-London Ontario High Speed Rail*, prepared by UK-based First Class Partnerships (FCP) looked at options for the Toronto–London segment.[6] The FCP document outlined a route that would primarily follow the existing right of way between Toronto and Kitchener[7], before striking out on new route from there to London. Intermediate stations would include Pearson Airport (requiring a transfer to UP Express to reach Terminal One) and Kitchener, with the possibility of service to Guelph. Frequency was envisioned as two 'High Speed Intercity' trains per hour in the Toronto-Pearson-Kitchener-London corridor, supported by other operators providing service to communities not part of the HSR system. Building on the geographic focus of the FCP study and drawing from a preliminary business case study by transportation consultancy Steer Davies Gleave, the Special Advisor's report recommends an expanded system that would continue west from London to Windsor. It considers two alignment options:

> **Alignment Option A**
  - Electrified HSR service on a primarily dedicated right of way, with a 300 km/h top speed
  - Stations: Toronto Union Station; Pearson Airport; Guelph; Kitchener; London; Windsor
  - Target operational dates: 2025 (Toronto–London); 2031 (London–Windsor)[8]
  - Service to replace VIA Rail within the Toronto–Kitchener corridor[9]
  - Design includes a tunnel from the Humber River to "western Brampton" to accommodate an underground station at Pearson Airport; includes a tunnel under University of Guelph; all-new rail corridors between Kitchener and London and between London and Windsor[10]

> **Alignment Option B (recommended by Special Advisor)**
  - Electrified HSR service on a mix of conventional and dedicated right of way, with 250 km/h top speed
  - Stations: Toronto Union Station; Malton (with 'people mover' link to Pearson Airport); Guelph; Kitchener; London; Chatham; Windsor
  - Target operational dates: 2025 (Toronto–London); 2031 (London–Windsor)[8]
  - Service to replace VIA Rail within the Toronto–Kitchener corridor[9]
  - Design includes an all-new rail corridor between Kitchener and Windsor[11]

Project Status: In 2018, the Province announced "the Honourable David Collenette to lead Ontario's High Speed Rail (HSR) Planning Advisory Board."[12] The first stage of the Environmental Assessment is now underway.[13]

HSR Proposal Considerations (Kitchener Corridor segment only)

Item	Comments
Absence of Brampton HSR Station	▼ Without an HSR stop included at any of Brampton's three GO and/or VIA stations, the 600,000 residents[13] of the city (as well as visitors) would need to travel at least west as far as Guelph or east to Malton in order to access HSR service, severely limiting its advantages and appeal. It is worth noting that Brampton's population is far greater than most communities included in the HSR plan;[14] ▼ Conversely, without an HSR stop included at any of Brampton's three GO and/or VIA stations, travellers from west of the city would need to transfer to GO by Kitchener or Guelph in order to reach any part of Brampton;[14] ▬ Because HSR would entirely replace VIA Rail in the Kitchener Corridor, 'non-stop' VIA Rail service would no longer be available as an option between downtown Brampton and Toronto (Union Station) – an important issue, given that Metrolinx plans to add stations at St. Clair West and Liberty Village, which, once operational, may impact the overall travel time of GO train trips between Brampton and Union Station. It is unknown whether GO would introduce express train service between Brampton and Union Station to replace any lost VIA services;[15]
Impact on GO RER	▬ Given that HSR trains operate at much higher speeds than RER, the design of the track and electrical infrastructure would need to accommodate both types of traffic.[16] Whether this has been accounted for in the existing plans for GO RER on the Kitchener Corridor – and, if not, what impact any necessary changes would have on the rollout of the service – is unknown at the present time.

Interview with David Collenette

CBC London's February 13, 2018, report and interview with David Collenette regarding the High Speed Rail project can be accessed by clicking here.

Footnotes

Overview

1. *High Speed Rail in Ontario: Transforming mobility, connecting communities, integrating centres of innovation and fostering regional economic growth and development – Special Advisor for High Speed Rail: Final Report, December 2016*, available at http://www.mto.gov.on.ca/english/publications/high-speed-rail-in-ontario-final-report/pdfs/high-speed-rail-in-ontario-final-report.pdf .

Map

2. Based on above document, page 113 (PDF page 56).

Project Background

3. *High Speed Rail in Ontario: Transforming mobility, connecting communities, integrating centres of innovation and fostering regional economic growth and development – Special Advisor for High Speed Rail: Final Report, December 2016*, available at http://www.mto.gov.on.ca/english/publications/high-speed-rail-in-ontario-final-report/pdfs/high-speed-rail-in-ontario-final-report.pdf .
4. Details at https://www.tc.gc.ca/eng/policy/acg-acgb-high-speed-rail-2956.htm .
5. Announcement of the proposal can be found at http://www.cbc.ca/news/canada/kitchener-waterloo/liberals-to-study-71-minute-toronto-kitchener-london-rail-trip-1.2627252 and https://www.therecord.com/news-story/4492194-kitchener-to-toronto-in-48-minutes-by-train-that-s-the-plan-transportation-minister-says/ .
6. The FCP study, dated March 11, 2014, can be found at http://www.mto.gov.on.ca/english/publications/pdfs/toronto-kitchener-london-ontario-high-speed-rail-feasibility-study.pdf .
7. The FCP study proposed possible new alignments in the Acton–Guelph segment (page 12) and downtown Guelph (page 15) that would replace existing track, therefore relocating GO/VIA services.
8. Special Advisor's report, PDF page 123.
9. Special Advisor's report, PDF page 10.
10. Special Advisor's report, PDF page 57.
11. Special Advisor's report, PDF page 58.
12. Per Province of Ontario news release: https://news.ontario.ca/mto/en/2018/02/ontario-appoints-chair-to-drive-high-speed-rail-project-forward.html .
13. From Province of Ontario announcement, dated April 6, 2018: https://news.ontario.ca/opo/en/2018/04/ontario-commits-over-11-billion-to-build-first-phase-of-high-speed-rail.html .

HSR Proposal Considerations (Kitchener Segment Only)

14. Current figure, rounded from 593,638. Current figures for communities included in the Special Advisor's recommended HSR proposal are as follows: Toronto: 2,731,571; Malton (Mississauga): 721,599; Guelph: 131,794; Kitchener: 233,222 (523,894 for the entire Kitchener Metropolitan area, which includes Waterloo and Cambridge); London: 383,822; Chatham: 43,550; Windsor: 217,188. Sources: Brampton (https://en.wikipedia.org/wiki/Brampton); Toronto (https://en.wikipedia.org/wiki/Toronto); Malton/Mississauga (https://en.wikipedia.org/wiki/Mississauga); Guelph (https://en.wikipedia.org/wiki/Guelph); Kitchener (https://en.wikipedia.org/wiki/Kitchener,_Ontario); London (https://en.wikipedia.org/wiki/London,_Ontario); Chatham (https://www.chatham-kent.ca/EconomicDevelopment/LabourForceStatistics/Demographics/Pages/population%20by%20community.aspx); Windsor (http://www.cbc.ca/news/canada/windsor/census-windsor-census-1.3971906).
15. Extrapolation, based on information available in the Special Advisor's report, *High Speed Rail in Ontario: Transforming mobility, connecting communities, integrating centres of innovation and fostering regional economic growth and development – Special Advisor for High Speed Rail: Final Report, December 2016*, available at http://www.mto.gov.on.ca/english/publications/high-speed-rail-in-ontario-final-report/pdfs/high-speed-rail-in-ontario-final-report.pdf . The report makes no mention of HSR's impact on travel to and from Brampton.
16. Recommendation to replace VIA Rail with HSR in the Kitchener Corridor appears on PDF page 123 of the Special Advisor's report. It should be noted that GO RER scheduling could be designed to account for this change (e.g., by adding 'Express' trains between Brampton and Toronto Union Station). To that end, the Special Advisor's report recommends "The Province should align provincial mandates to optimize rail services by directing Metrolinx and MTO to collaborate on the development of an Integrated Rail Strategy for the Toronto-Kitchener corridor." (PDF page 123). The new GO station locations are identified in the Metrolinx June 28, 2016 Board Meeting report available from http://www.metrolinx.com/en/docs/pdf/board_agenda/20160628/20160628_BoardMtg_Regional_Express_Rail_EN.pdf .
17. With respect to RER, the Special Advisor's report states on PDF page 25, "…core segments of the GO network will feature allday service with faster trip times operating at expected maximum speeds of 160 km/h based on the number of station stops on each corridor. The track alignment design on the Kitchener corridor is assumed to accommodate possible speeds of up to 200 km/h, although faster speeds are assumed not to be precluded." Further, the report suggests in Recommendation 19 (PDF page 63), that "The Province should ensure that GO RER commitments, planning and capital works accommodate future HSR on the Kitchener corridor."

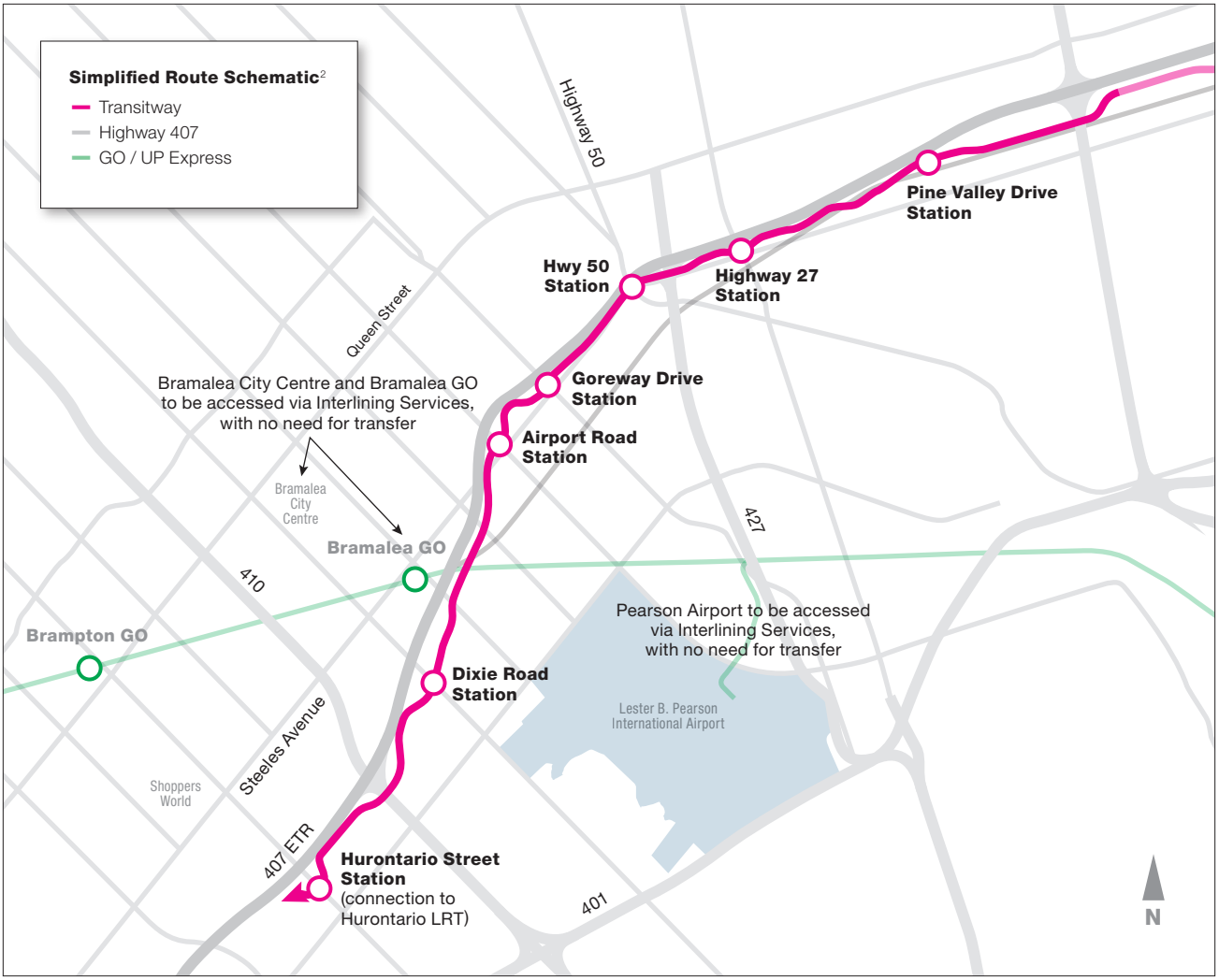
407 Transitway

OVERVIEW

In 2007, the Province of Ontario announced *MoveOntario 2020*, a provincial plan to fund 52 transit projects in the Greater Toronto Area (GTA) and Hamilton over a 12-year period starting in 2008. The province identified Highway 407 as one of its priority corridors for new rapid transit initiatives in the GTA. The 407 Transitway is envisioned as an exclusive right-of-way, fully grade-separated Bus Rapid Transit runningway parallel to Highway 407. The project would eventually connect Burlington to Highway 35/115, a length of 150 km, with up to 50 surface stations. The Transit Project Assessment Process (TPAP) phase for the Hurontario – Highway 400 section ends August 23, 2018. This will be followed by a 30-day agency/stakeholder/public review ending September 24, and then a Ministerial decision, due by October 29, 2018.[1]

Hurontario Street to Highway 400

(per December 2016 Public Information Centre)



407 Transitway Considerations

Item	Comments
Design	▲ The design "will protect for BRT or LRT operation," meaning that it could be converted from bus to LRT operation if traffic volumes warrent;[3] ▲ This section of the Transitway supports park-and-ride, passenger pick-up and drop-off, and transit interface facilities;[4] ▬ The Transitway would connect to the HuLRT at the Highway 407/ Hurontario Street station, however the two stations would be physically separated by grade and distance (requiring the use of a signalized crosswalk) rather than being built as a single, integrated facility;[5] ▬ The Transitway will share the available space on the south side of the 407 with a hydro corridor, the HuLRT Operations, Maintenance and Storage Facility (OMSF) at Hurontario Street, as well as a potential CN Freight Bypass. How the space requirements of a fully built-out Bypass (six tracks plus possible GO train stations[6]) might impact the Transitway design/operation has not been documented;
Operation	▲ Enhances east-west cross-regional mobility and increases transit capacity to meet forecast of travel demand;[7] ▲ Reduces 407 ETR congestion;[8] ▲ Travels at speeds up to 100 km/h between stations;[9] ▲ Can offer a combination of **Spine Services** (which operate exclusively on the Transitway) and **Interline Services** (which can extend off the Transitway with no need to transfer);[10] ▲ AM peak ridership projected at 5,500 riders.[11]

Footnotes

Overview

1. Overall project description and status derived from http://www.407transitway.com/ , with additional details from MTO document available from that site, *407TransitwayHurontariotoHwy400_PIC1_FINAL.pdf*. Status of the TPAP and EA studies is found in MTO document, *PIC2 Presentation Panels.pdf*; PDF page 6. The project timeline can be found at http://www.407transitway.com/hurontarioTo400/studySchedule.html .
2. Based on MTO document *PIC2 Presentation Panels.pdf* referenced above.

407 Transitway Considerations

3. Based on MTO document, *PIC2 Presentation Panels.pdf*; PDF page 10.
4. Based on above document; PDF page 10.
5. Based on above document; PDF pages 13-14.
6. The potential composition of the Bypass is detailed in Details based on Metrolinx document, *20160909_BoardMtg_Regional_Express_Rail_Update_EN.pdf*, dated September 9, 2016; PDF page 9.
7. Based on MTO document, *PIC2 Presentation Panels.pdf*; PDF page 5.
8. Based on above document; PDF page 5.
9. Based on above document; PDF page 8.
10. Based on above document; PDF page 8.
11. Based on above document; PDF page 9.

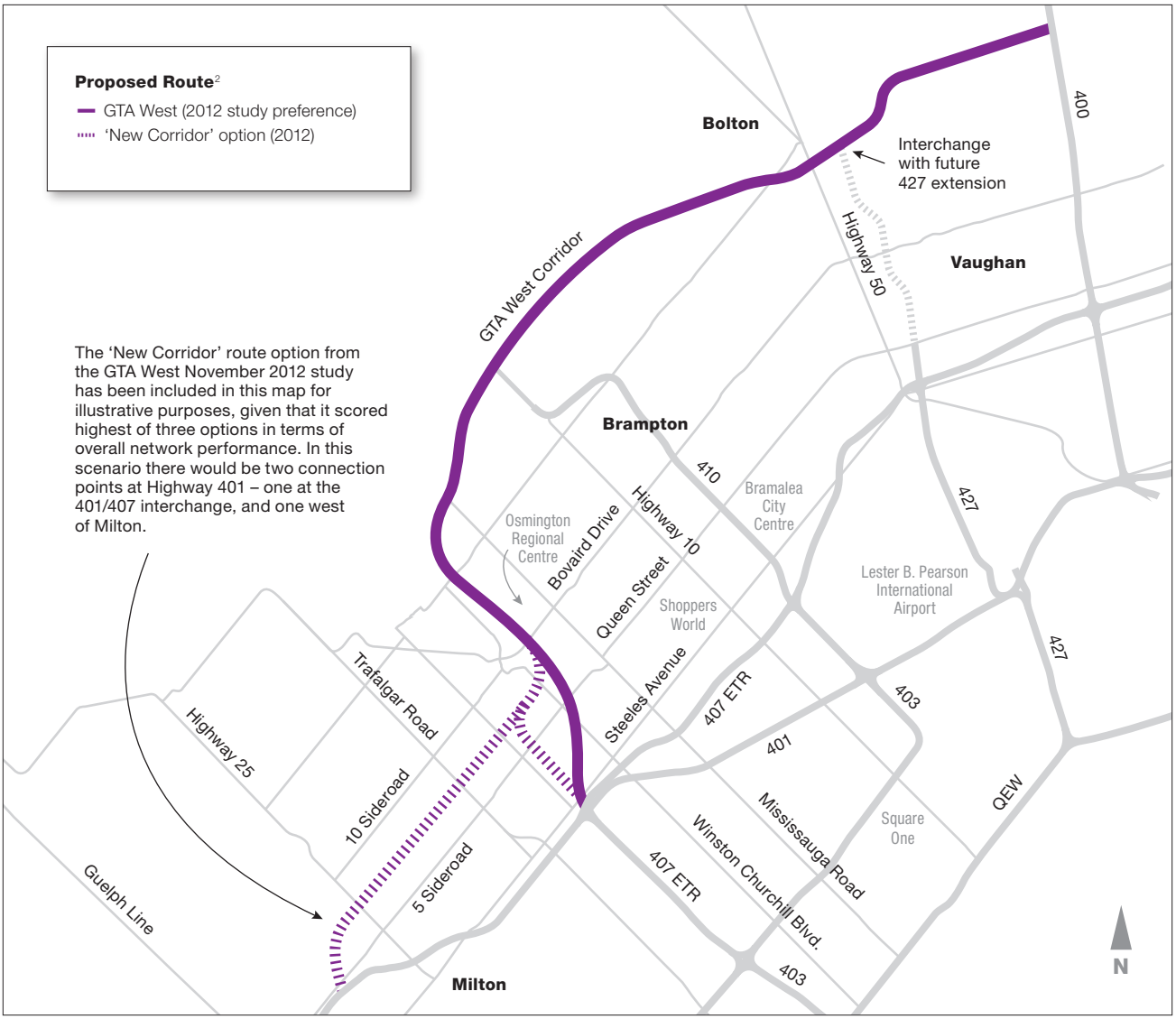
GTA West Corridor

OVERVIEW

The GTA West Corridor was a proposed multi-lane, divided roadway that would provide a high-speed thoroughfare around the fast-growing communities of Brampton and Vaughan, connecting to Highways 401 and 407 ETR in the west and Highway 400 in the east. On February 9, 2018, it was announced that "that the province will not proceed with an environmental assessment for a proposed highway in the GTA West corridor." Instead, MTO and the Independent Electricity System Operator "have initiated a joint study to identify a smaller corridor that will be protected for future infrastructure needs such as utilities, transit or other transportation options developed as part of the Ministry's comprehensive Greater Golden Horseshoe Transportation Plan."[1]

The Corridor

(alternative connection to Highway 401 also included)



GTA West Corridor Considerations

Item	Comments
Concept[3]	▲ Helps to accommodate future travel demand; ▲ Reduce travel times for commuters and goods movement; ▲ Provide greater connectivity between urban growth centres, with both transit and highway facilities; ▲ Provide better connections to residential and employment lands; ▲ Address the needs for goods movement in the west GTA and regions beyond; ▲ Help to accommodate 'just in time' delivery for goods movement; ▲ Provide greater economic vitality; ▲ Provide an alternate route in the event of an incident or road closure on local and regional roads. ▬ Whether GTA West will be a toll road is undecided. *(A possible concern is that a non-toll highway could draw traffic from 407 ETR, partly reducing the benefit of the new artery.)*
Design[4]	▲ 4- to 6-lane highway (within a 110-m right of way); ▲ Separate adjacent transitway (within a 60m right-of-way). Transitway stations will be located at key interchanges and connection points; ▲ **Potential features to attract truck traffic include:** – Truck only lanes or combined truck/transit lanes; – Truck use of potential HOV lanes during off-peak hours; – Intelligent Transportation Systems (ITS) features, such as variable message signs and real time traveler information; – Enhanced design to accommodate Long Combination Vehicles; – Truck only interchange ramps, as warranted by truck volumes; – Truck parking facilities; – Enforcement features (weigh and inspection stations), including automated weigh stations.
Route	▲ Possible connection to future 427 extension;[5] ▲ The *Halton-Peel Freeway* section of the current GTA West route (401/407 to Mayfield Road) is "required to provide infrastructure for inter-regional transit services connected to the 407 Transitway, Halton BRT services, Brampton BRT services and GO services.;[6] ▼ 'Preferred' southwest route option (401/407 jct. connection only, 401 widened to 12 lanes) has: – the worst overall network performance of all options; – Hwy 401 performance is also the worst; – limited capacity for demand above base past 2031;[7] ▬ (Alternate 'New Corridor' route ending west of Milton had lowest amount of delay / greatest residual capacity with 4-lane corridor)[7] ▼ Loss of area under major crops, fruit crops and vegetable crops;[8] ▼ Possible fragmentation of agricultural operations.[9]

Footnotes

Overview

1. Quotes from home page of GTA West website, http://www.gta-west.com/index.html . Worth noting is that "as part of the planning study, MTO and the IESO have identified a study area, which will be protected as the study moves forward over the next 9–12 months. This study is not conducted as an environmental assessment, and any infrastructure development in the area would require the completion of an applicable environmental assessment."
2. Routes are based on GTA West Corridor map, *Short List Of Route Alternatives and Potential Interchange Locations (*also titled*, 36x91 PIC Display_SHORT LIST)*, dated July 2015, and Province of Ontario document, *GTA West Corridor Environmental Assessment Study, Transportation Development Strategy Report*, dated November 2012; PDF page 152.

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3. Based on content found within GTA west web page, http://www.gta-west.com/faqs.html .
4. Based on GTA West newsletter, *GTA West at a Glance_February 2015.pdf*.
5. Based on the web page noted above, item #16.
6. From the *Halton-Peel Boundary Area Transportation Study, Amended Final Report*, dated May 2010; PDF page 16. The report goes on to state, "The construction of the Halton-Peel Freeway is necessary to meet the Provincial Growth Plan objectives, exceeds the financial capabilities of Halton and Peel and should be financed from other sources (presumably Provincial). The Freeway will serve not only Peel and Halton but also the GTA and the Golden Horseshoe and would provide connectivity with the GTA West Corridor identified by the Provincial Growth Plan." (PDF page 23); and "… the Halton-Peel Freeway will also have a major provincial function, in providing a much needed north-south multi-modal freeway link in the West GTA that will connect with Highways 401 and 407, and with a potential GTA West Corridor. It would be a key north-south link in the 400-series network in the GTA, as a northerly extension of 407 north to the GTA West Corridor. As a multi-modal provincial corridor, it would also serve longer-distance, inter-regional traffic including goods movement." (PDF pages 201–202). Given that Halton-Peel Freeway concept was developed independently of the GTA West Corridor, the suggestion is that it is a much-needed artery that should be developed regardless of the fate of the GTA West Corridor proposal.
7. From the Province of Ontario document, *GTA West Corridor Environmental Assessment Study, Transportation Development Strategy Report*, dated November 2012; PDF page 152, and further explained on PDF page 158, 'The New Corridor' and 'Further 401 Alternatives' alternatives address transportation need to 2031 to an adequate level of service ('New Corridor' alternative would provide more redundancy, while 'Further 401 Widening to 12 Lanes ' would be close to capacity shortly after 2031). The 'New Corridor' alternative reflected more opportunities to achieve efficient and reliable transportation connections than the 'Further 401 Widening' alternatives over the long term." The aforementioned *Halton-Peel Boundary Area Transportation Study, Amended Final Report* also weighs in on the viability of the 401/407 connection, stating, "Peak direction travel demand on Highway 401 and 407 ETR east of Trafalgar Road consistently exceeds capacity provided. This deficiency becomes more pronounced in the case where the GTA West corridor is connected to 401/407 via the Halton-Peel Freeway."; PDF page 186.
8. From the Province of Ontario document, *GTA West Corridor Environmental Assessment Study, Transportation Development Strategy Report*, dated November 2012; PDF page 137.
9. From the above report; PDF page 127.

Other Initiatives

These additional projects are covered in the City of Brampton's Transit Council of Chairs report of November 7, 2017. Where appropriate, items in this section will be explored in greater detail in future updates to this document.

Highway 410 Expansion (MTO)

> Widening of Highway 410 between Eglinton Avenue on Highway 403 and north of Queen Street including one High Occupancy Vehicle (HOV) Lane and one General Purpose Lane in each direction
> Construction completion by end of 2018

Regional Transportation Plan (Metrolinx)

> Legislated review of the Regional Transportation Plan (RTP), which outlines a strategy to develop an interconnected, seamless transit/transportation system across the Greater Toronto and Hamilton Area (GTHA)
> Extensive stakeholder outreach and consultation through Fall 2017
> Final RTP Update presented to Metrolinx Board on December 7, 2017

Peel Region Sustainable Transportation Study (Region of Peel)

> Plan to make walking, cycling, public transit, and carpooling desirable for more people in the Region, leading to a 50% sustainable mode share by 2041
> Completion of study in 2018

Goods Movement (Region of Peel)

> Several goods movement initiatives underway, including: Peel Goods Movement Task Force; implementation of Peel Region's Goods Movement Strategic Plan; delineation of Prime Employment Areas; Greater Golden Horseshoe Multi-modal Transportation Plan; goods movement components of upcoming Complete Street study and TMP Update

Vision Zero (Region of Peel)

> Vision Zero is a road safety initiative with the goal of achieving zero fatalities or serious injuries on the road network
> Region to complete detailed report in first quarter 2018

Pearson Transit Hub (Greater Toronto Airports Authority – GTAA)

> New multi-modal regional transit centre at Toronto Pearson Airport that will connect the airport area with key employment and residential areas throughout the Greater Golden Horseshoe
> GTAA hosted meeting on October 10, 2017, with various agencies including Transport Canada, MTO, Metrolinx, and municipalities, outlining the need for a new mobility hub (Phase 1 by 2027)

continues…

Brampton Transportation Master Plan (City of Brampton)

> The Transportation Master Plan (TMP) provides strategic direction for a sustainable, safe and efficient multimodal city-wide transportation network addressing transit, active transportation, roads, goods movement and transportation demand management
> Complete Streets Review initiated, which is essentially 'Part 1' of the TMP Update that will establish a framework for TMP approach and analysis
> Confirm work plan for scheduled TMP Review by Spring 2018
> Coordinate with Development Charges By-law update due by August 2019

Active Transportation Master Plan (City of Brampton)

> Develop an implementation strategy to build a connected cycling and pedestrian network to enable safer, more convenient travel by non-motorized modes
> Public Information Centre #2 held on November 9, 2017
> Study completion by Spring 2018
> Begin implementation of recommended active transportation projects work plan upon completion of master plan

Züm Airport Road (City of Brampton)

> Züm Airport Road extends current Züm Bovaird service via Airport Road between Bovaird Drive and Steeles Avenue with buses connecting to Malton GO
> Construction began in mid-August 2017
> In-service by Fall 2018