



CITY OF BRAMPTON TRANSPORTATION MASTER PLAN UPDATE

EXECUTIVE SUMMARY

SEPTEMBER 2015



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1. PURPOSE OF THE TRANSPORTATION MASTER PLAN

The City of Brampton's Transportation Master Plan provides a blueprint for strategic planning and decision-making to achieve a balanced transportation network that addresses the City's growth and development needs over the long term, and is reviewed every five years. The City's Transportation Master Plan makes strategic recommendations for a sustainable, safe, and efficient multi-modal City-wide network, addressing roads, transit, active transportation, goods movement and transportation demand management.

This 2015 Transportation Master Plan Update (TMPU) sets a vision for how people and goods will travel within and through the city from now until the year 2041. The Brampton TMPU, which is an update to the City's 2009 Transportation & Transit Master Plan (TTMP), places a strong emphasis on transit, cycling, walking and carpooling. Since all of these travel modes often use the road corridor, roadway extensions, widenings and new road construction projects have also been identified in order to facilitate movement to all parts of the city.

2. PLANNING CONTEXT

Central to this Transportation Master Plan Update (TMPU) is the reflection of strategic policy changes at various levels of government, including Provincial, regional and municipal policy changes. Key plans influencing this TMPU are the Province's *Growth Plan for the Greater Golden Horseshoe* (2006), Amendment 2 to the *Growth Plan* (2013), Metrolinx's *The Big Move Regional Transportation Plan* (2008), the Region of Peel Official Plan and Long Range Transportation Plan, as well as the City of Brampton's Strategic Plan, Official Plan and other important plans such as the Hurontario-Main Street Corridor Master Plan.

Central to the vision of the Brampton TMPU is planning for 2041 population and employment forecasts, implementation of the Hurontario-Main Light Rail Transit (LRT) and two-way, all-day GO Rail service to the three train stations in Brampton. Coupled with the expansion of the City's ZUM transit network and improvements to the active transportation network, the City is providing viable options to facilitate travel by modes other than the personal automobile.

3. CHALLENGES AND OPPORTUNITIES FOR TRAVEL

The City needs to plan a transportation network that accommodates all modes of travel; which includes planning for roads, transit, active transportation (walking, cycling, etc.), and goods movement. Population and employment forecasts show



Brampton continuing to grow rapidly to the year 2041. As shown in **Table 1**, the population is expected to increase by 72% (approximately 375,000 additional people) and employment by 79%, adding 143,000 jobs by the year 2041. Transportation infrastructure needs to be planned and constructed to enable movement within Brampton for both people and goods, to maintain and enhance quality of life and to retain and attract jobs and talent.

Table 1: Brampton’s Forecast Population and Employment Growth

	2011	2016	2021	2026	2031	2041
Population	523,900	627,500	701,600	771,300	842,800	899,500
Employment	182,000	207,800	238,100	264,000	291,400	325,200

Source: City of Brampton, TAZ projections (population and employment) and Economic Development

4. INPUT FROM THE PUBLIC

In order to develop the vision for future travel, the general public, private sector and government stakeholders were consulted to help understand existing challenges, hear priorities and generate ideas for potential solutions. An innovative internet-based tool was used to engage the public. Two rounds of consultation were conducted; one in the Fall of 2013 to gauge the public’s perception of current conditions, and one in the Spring of 2014 to solicit feedback on draft plans for various modes of travel. The internet tool attracted about 3,000 visitors, of whom over 500 provided feedback. This resulted in over 2,000 data points on maps in addition to comments and ideas on ways to address Brampton’s transportation challenges.

Major themes expressed throughout the public consultation process included strong support to improve rail and bus service in Brampton, a desire for alternatives to the private automobile such as active transportation facilities and connections, and increased opportunities for carpooling. It was evident from the feedback that the public recognizes that multi-modal solutions are needed to facilitate travel both now and in the future.

5. ROAD NETWORK

The road network is the foundation of the transportation system in the city. Both transit and goods movement activities rely heavily on the road network and many active transportation facilities are, or can be, within the road right-of-way. As much as this TMPU focuses on alternatives to the single occupant vehicle, the road network will continue to play an integral role in how people travel. The road network will need to be further expanded to accommodate new development and forecasted employment and development to 2041.



Seven alternative future road networks were analyzed in order to determine the preferred transportation network solution, which best accommodates forecasted population and employment growth. The various transportation alternatives were evaluated by MMM's Multiple Accounts Evaluation. This is a holistic approach which uses transportation modeling analysis output, in addition to other criteria to evaluate transportation solutions. The criteria include:

- Recognizing the need for appropriate network connectivity for effective routing choices;
- Supporting congestion relief in a sub-area of the City; and
- Protecting the natural environment by limiting further transportation impacts to natural areas.

The assumptions for the preferred alternative are based on the premise that road widening will be capped at six lanes throughout the City. Through an iterative process, the preferred alternative was identified and the resulting recommended road network needs for the short term (year 2021) are illustrated in **Figure 1**, and the recommended road network needs to the long term horizon of the year 2041 are illustrated in **Figure 2**.

6. TRANSIT

The public feedback was supported by a review of recent transit accomplishments since the 2009 TTMP. Annual ridership on Brampton Transit has increased 49% since 2009, whereas the population has increased 20%. The introduction of the first four ZUM routes on Main Street, Queen Street, Steeles Avenue, and Bovaird Drive has been a great success in terms of attracting more riders to transit.

Public input and increased transit ridership supports the continued emphasis on a robust public transit service in the Brampton. A key element of this strategy is the implementation of the Hurontario-Main LRT and securing two-way, all-day GO Rail service to the stations within the City. Brampton Transit's ZUM network is recommended to be expanded with four additional corridors. Regular transit service will also expand with further development to ensure that service is provided city-wide. The recommended transit network needs to the year 2041 are shown in **Figure 3**.

7. ACTIVE TRANSPORTATION

While active transportation facilities exist in Brampton, there is a need and an opportunity to develop these into a more comprehensive and connected network. This is necessary in order to take advantage of active transportation as a viable transportation mode and a practical alternative to the automobile. The active transportation strategy developed as part of this TMP Update builds upon existing facilities by rationalizing previously proposed routes and by identifying missing



linkages in the active transportation network. The result of this process is a network of on- and off-road facilities that connect throughout the city. The strategic active transportation network is illustrated in **Figure 4**.

The next steps for the City to achieve the active transportation strategic vision should be to prepare an Active Transportation Master Plan. Detailed site investigations need to be conducted for the routes identified on **Figure 4** in order to confirm the appropriate facility type. This work would be an essential part of the AT Master Plan, and is the next step in the implementation of additional AT facilities in the city.

The City will also continue to work with the Region of Peel to coordinate their Active Transportation activities with the City's initiatives.

8. TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a multi-faceted approach to reducing and managing travel demand through the use of sustainable modes and the redistribution of trips beyond traditional peak travel periods. Transit and active transportation are forms of TDM.

The work in the Brampton TMPU related to TDM is focused on additional measures such as carpooling, flexible working hours and telecommuting, among others, to help manage traffic during peak periods. The City is already doing considerable work in support of TDM. The Brampton TMPU recommends leveraging these activities by designating a staff person to lead the City's TDM planning and programming. This person would be tasked with developing and implementing a detailed TDM action plan that would build upon programs already in place.

The City will also continue to work with the Region of Peel to advance their 5-year Transportation Demand Management Plan.

9. GOODS MOVEMENT

Goods movement is an important part of the economy and planning for the efficient movement of freight is important to the overall wellbeing of Brampton. The City will continue to work with the Region of Peel to advance the Region's Goods Movement Strategy and to ensure the safe and efficient movement of goods throughout the City of Brampton.

The City can enhance its support of the goods movement industry by preparing a freight audit. This is a planning and economic development tool used to assist municipalities in making informed decisions to enable the safe and efficient movement of goods. The objectives of a freight audit include identifying locations



where goods movement are or will be generated or attracted, specifying operating constraints and fostering stakeholder dialogue within the goods movement industry.

10. FINANCING

A Development Charges (DC) Study was prepared in conjunction with the TMPU. The DC Study identifies road improvements that are needed due to development, and provides a mechanism to collect funds to construct these roads. Some aspects of transit projects are eligible for development charges, but there remains a sizable gap between the amount of monies being collected for future transit expansion and the actual funding available for capital and operating costs. Active transportation projects also require funding for construction and maintenance. The City needs to explore multiple avenues for additional funding in order to build and operate the multi-modal transportation network needed to keep Brampton moving into the future.

11. PERFORMANCE MONITORING

Ambitious goals have been set through the TMPU to increase the number of people traveling by modes other than the personal automobile during peak travel periods. The performance goals are listed in **Table 2**. These goals represent more than a 100% increase in the transit mode split, a 300%+ increase in the walking and cycling modal split and a 56% increase in the carpooling modal split by the year 2041, compared to 2011 travel patterns.

The goals have been set for a city-wide average for a three hour period between 3:30 and 6:30pm. Some routes in the city, such as the Hurontario-Main LRT and other routes with higher order transit, are expected to have an even higher percentage of travelers using transit than are shown in these city-wide goals.



Table 2: Performance Indicators and Measures

Indicator	Measure	Data	Existing	Goal
Transit	Modal share of transit trips during the PM peak period	Brampton Transit and GO Transit ridership data, Transportation Tomorrow Survey (TTS)	9%	20%
Walking and Cycling	Modal share of walking and cycling during the PM peak period	TTS, City counts	3%	10%
Carpooling	Modal share of auto passengers during the PM peak period	TTS	18%	28%

12. SUMMARY OF SHORT-TERM RECOMMENDATIONS

Multi-modal recommendations are made throughout the TMPU report. The short-term recommendations have been grouped in the following sub-sections as an action plan for the City over the next five years, until such time as the TMPU is reviewed and updated again. City actions to be undertaken over this time period for the areas of transit, active transportation, transportation demand management, goods movement and the enhancement of the road network are summarized below.

12.1 Road Network Short-Term Actions

Recommended road projects for construction have been grouped into the 2021, 2031 and 2041 horizon years. As part of the short-term action plan for roads, the City should:

- Begin to implement the road projects contained within the short-term horizon (2021), as shown in **Figure 1**. There are 41 road projects recommended in this horizon year. It is recognized that some of these are development-driven and will only proceed concurrent with land development in the area; and
- Review and revise the City’s engineering and design standard drawings, as appropriate, to embrace best practices such as “complete streets.” This approach ensures that the road network is designed for all types of road users and all modes of transportation.



12.2 Transit Short-Term Actions

Building upon the success of the ZÜM network, three additional corridors have been identified for implementation by the year 2021. These include:

- Steeles West ZÜM from Main Street to Lisgar GO (in 2015)
- Queen West ZÜM from Main Street to Mississauga Road and to Mount Pleasant GO (in 2016)
- Airport ZÜM from Steeles Avenue to Bovaird Drive (in 2018)

Additionally, the implementation of the Hurontario-Main LRT and the introduction of two-way, all-day GO train service to the three GO train stations in Brampton are critical to the City's ability to achieve mobility goals set forth in this TMPU. The City should strongly advocate for the prompt implementation of these two important transit projects in Brampton.

12.3 Active Transportation Short-Term Actions

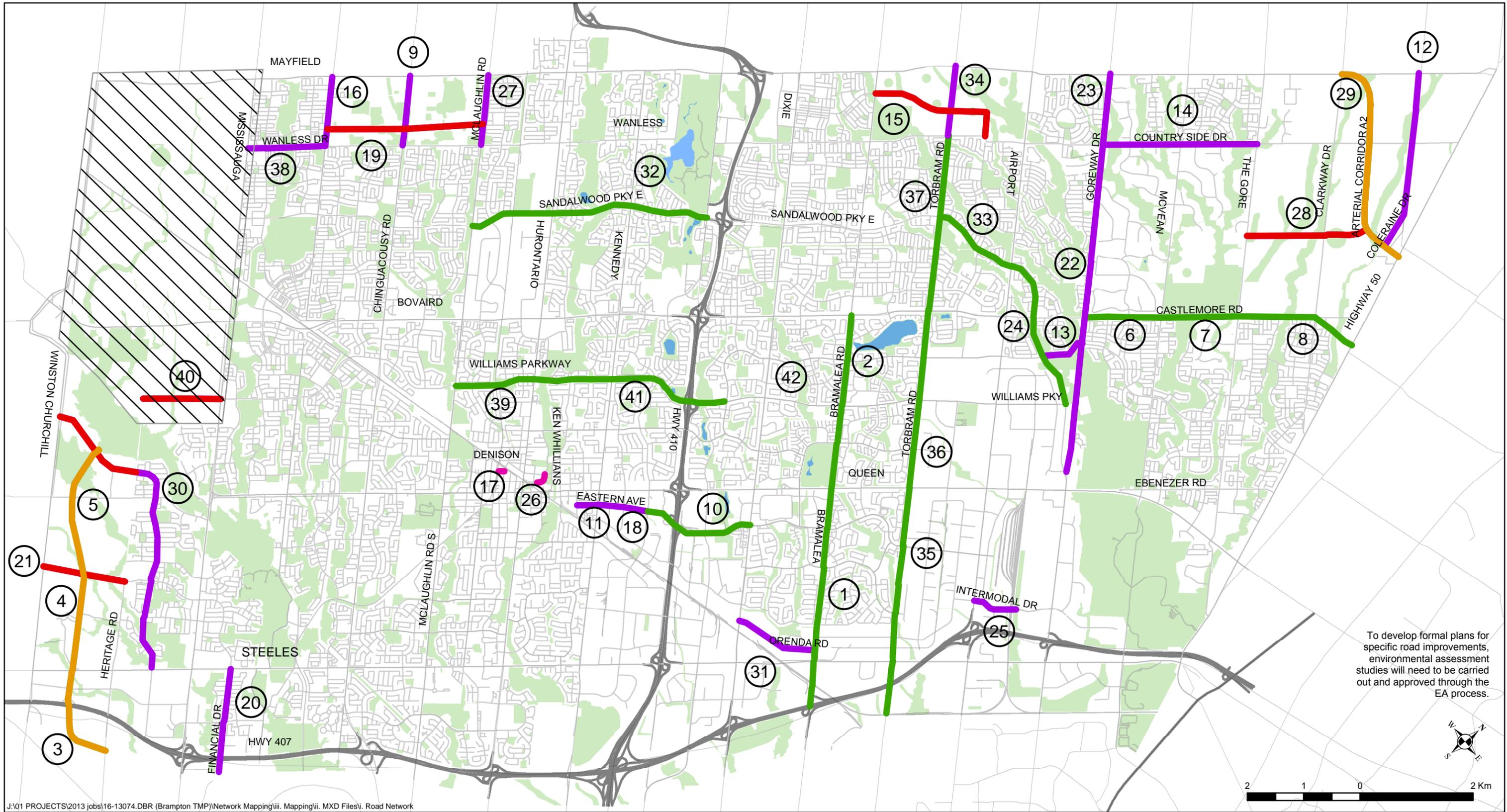
The City of Brampton should prepare its own Active Transportation (AT) Master Plan. The work in this TMPU has laid the foundation for such a plan by identifying candidate AT routes to complement the City's existing network of on- and off-road facilities. The next step in the process is the identification of facility types for these candidate routes. Detailed site investigations are needed to determine the best routes and the most appropriate types of facilities, as well as the phasing and budgeting for implementation.

12.4 Transportation Demand Management Short-Term Actions

There are a series of 14 recommended actions listed in the TDM Strategy Technical Report. These are all focused on enhancing the City's existing TDM efforts. First and foremost among the recommendations is to hire a staff person that would be dedicated to lead the TDM program for the City. This person would work with Peel Region and Smart Commute Brampton – Caledon and would be able to develop and implement a detailed TDM action plan that would build upon the City's existing TDM initiatives.

12.5 Goods Movement Short-Term Actions

Goods movement is generally directed to Regional roads in the City; however, many industries use City roads to access Regional roads. To further develop and support the freight industry, the City should conduct a freight audit. This is a planning and economic development tool that would assist the City in making informed decisions to enable the safe and efficient movement of goods. The objectives of a freight audit include identifying locations where goods movement activities are or will be generated or attracted, specifying operating constraints, and fostering stakeholder dialogue. It is necessary to conduct a freight audit in order to identify issues affecting local freight movements and help establish priorities to support its safe and efficient movement.

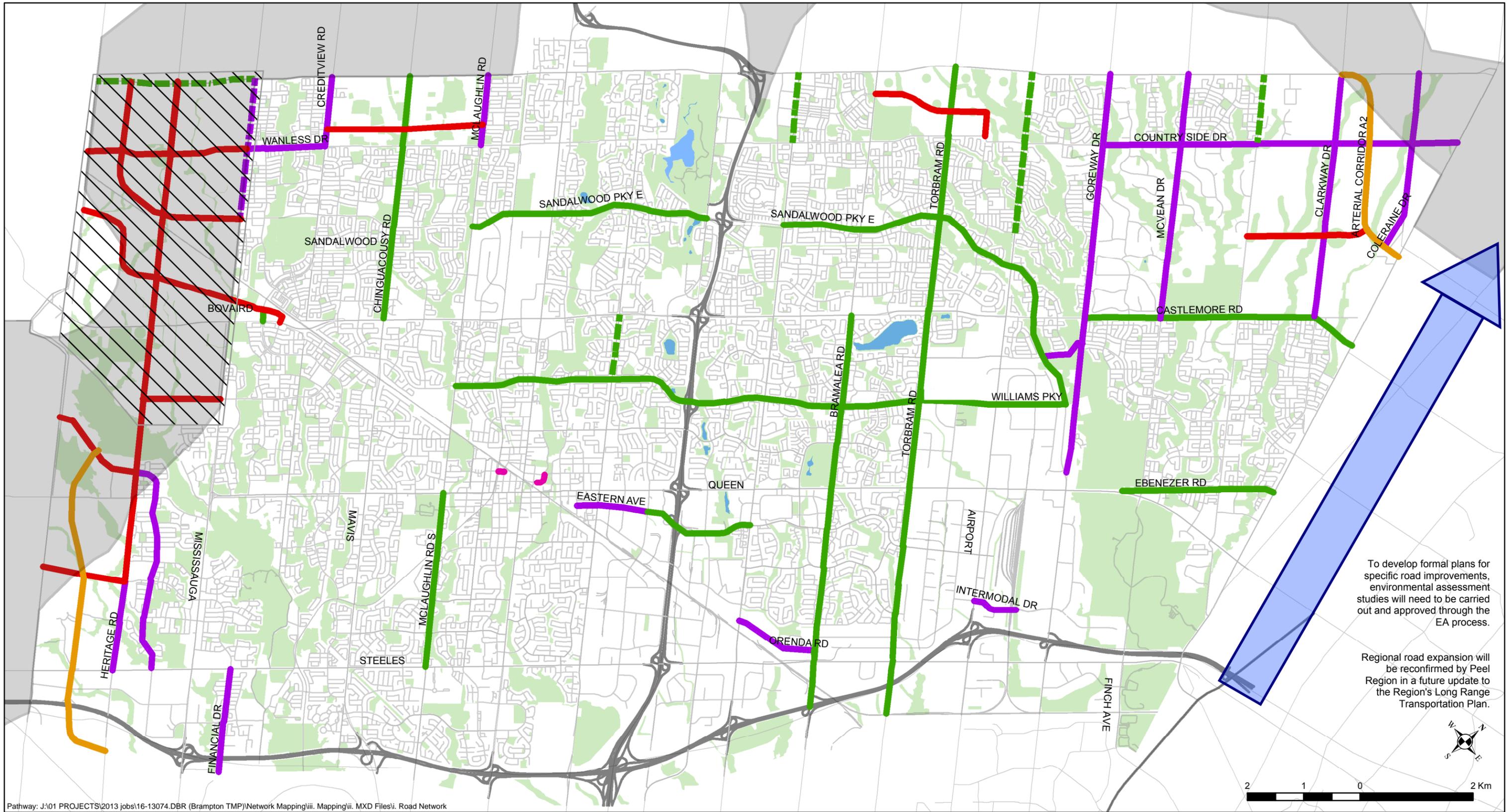


J:\01 PROJECTS\2013 jobs\16-13074.DBR (Brampton TMP)\Network Mapping\iii. Mapping\ii. MXD Files\i. Road Network

Legend

- Expanded to Two Lanes
- Expanded to Four Lanes
- Expanded to Six Lanes
- New Road Construction Four Lanes
- New Road Construction Six Lanes
- Provincial Highway
- GTA West Corridor Study Area
- Conceptual Road Network for use in the Development Charges Background Study

Figure 1
Recommended City Short Term Road Needs (to 2021)

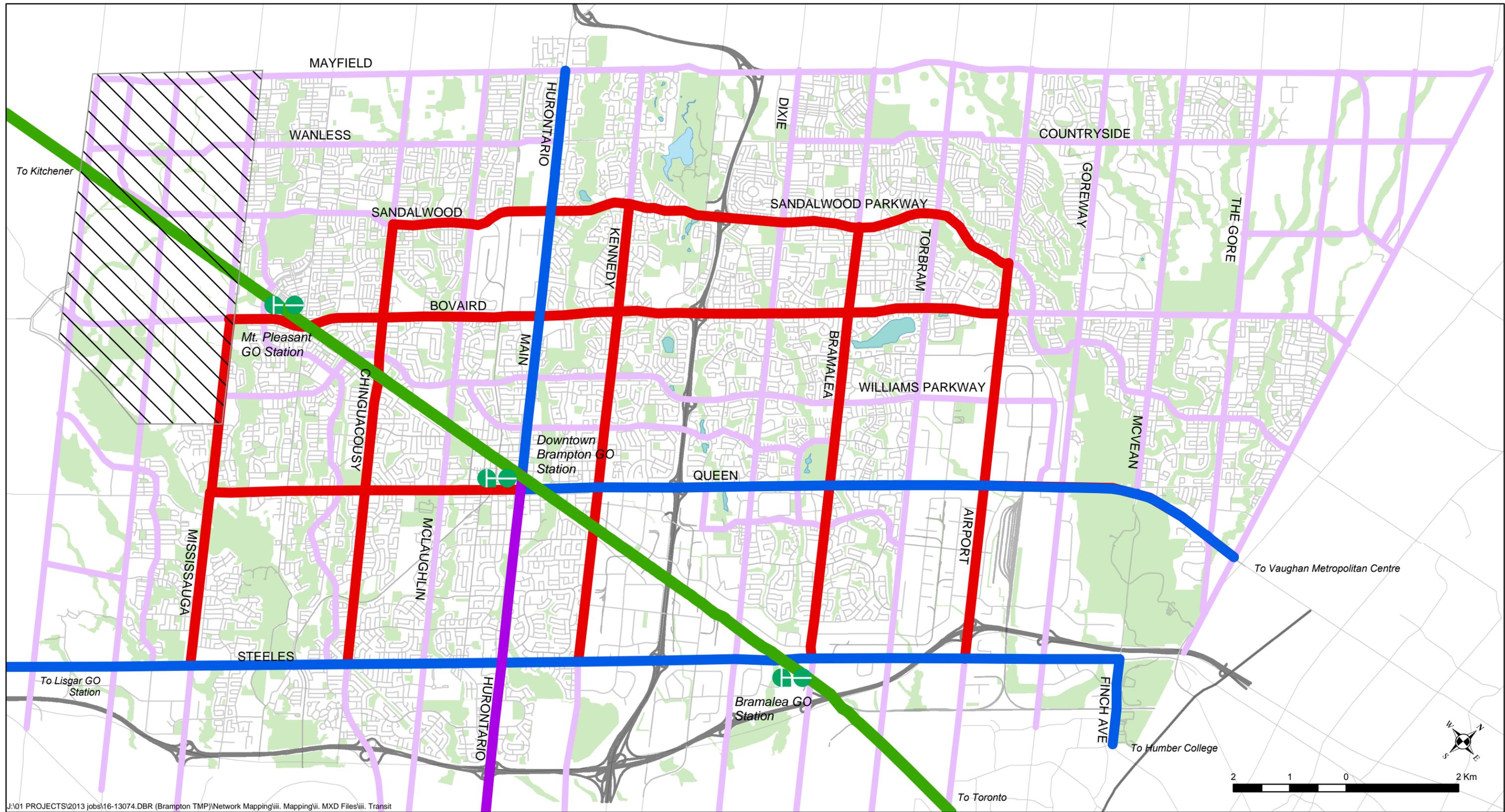


To develop formal plans for specific road improvements, environmental assessment studies will need to be carried out and approved through the EA process.

Regional road expansion will be reconfirmed by Peel Region in a future update to the Region's Long Range Transportation Plan.

Pathway: J:\01 PROJECTS\2013 jobs\16-13074.DBR (Brampton TMP)\Network Mapping\iii. Mapping\ii. MXD Files\i. Road Network

	<p>Transportation Master Plan</p>	<p>Legend</p>	<ul style="list-style-type: none"> City Road Expanded to Four Lanes City Road Expanded to Four Lanes City Road Expanded to Six Lanes Regional Road Expanded to Six Lanes 	<ul style="list-style-type: none"> City Road Extension by Two Lanes New Road Construction Six Lanes New Road Construction Four Lanes Provincial Highway 	<ul style="list-style-type: none"> GTA West Corridor Study Area Highway 427 and Extension Conceptual Road Network for use in the Development Charges Background Study
	<p>Figure 2 Recommended City Road Network Needs to 2041</p>				



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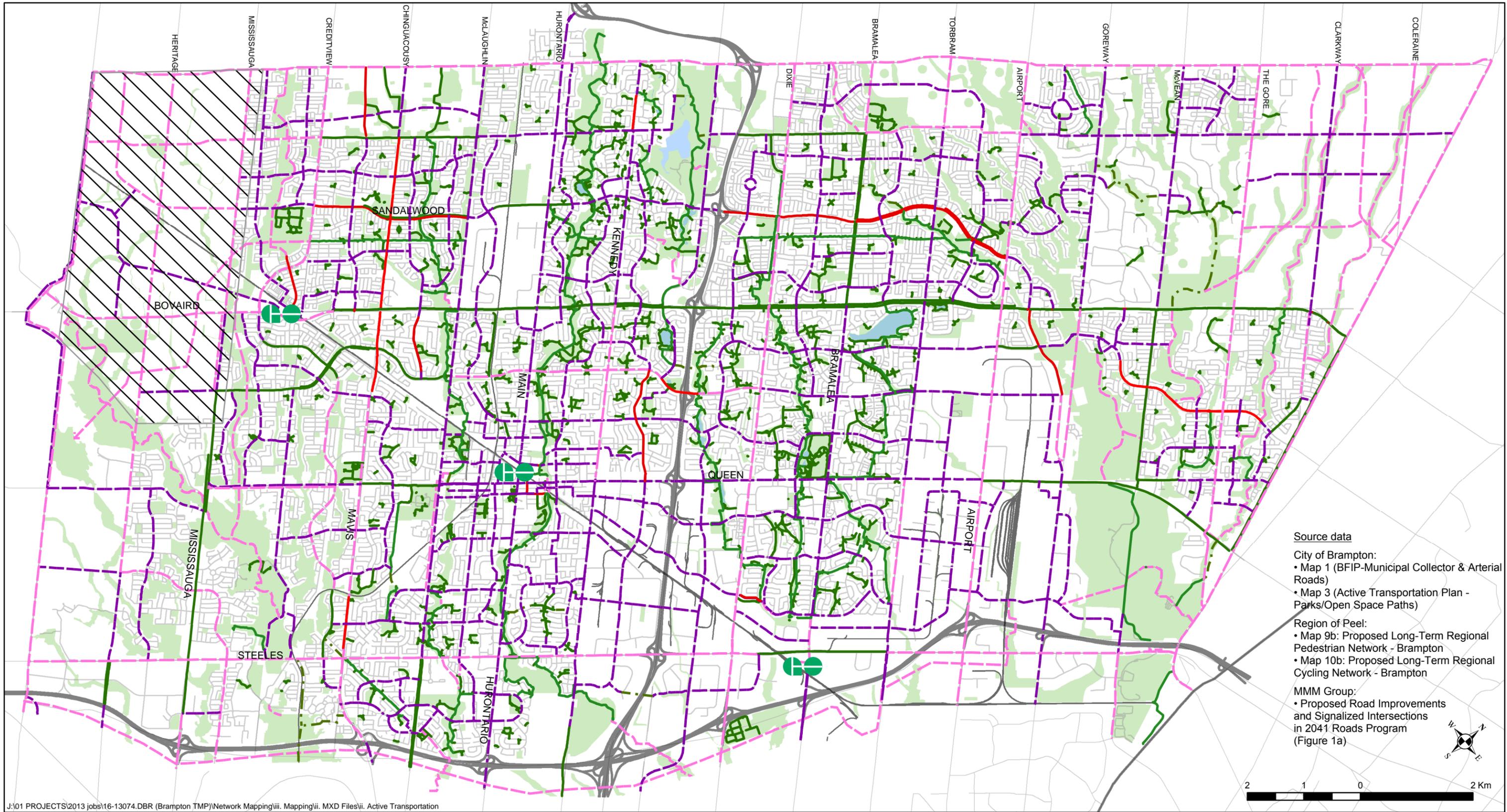
Legend

- █ Higher Order Rapid Transit
- █ ZUM
- █ Hurontario / Main LRT
- █ GO Rail
- Support Corridor
- T GO Train Station
- Conceptual Road Network for use in the Development Charges Background Study

Notes:

1. All routes running outside of the City of Brampton will be determined through additional detailed service planning on strategic corridors.
2. Transit services will be provided to new growth areas in Bram West, Northwest Brampton, and Northeast Brampton. Determination of corridor types will be established through the Secondary Planning Process. Connections to key future transit routes outside of Brampton should be provided as required.
3. "Higher Order Transit" are projects identified by Metrolinx in the Big Move.

Figure 3
Recommended Rapid Transit Implementation by 2041



Legend

Existing Routes		In Right-of-Way (on-road or in-boulevard)	Future Routes		In Right-of-Way (on-road or in-boulevard)		GO Train Station	
		Off-road trail			Off-road trail			Conceptual Road Network for use in the Development Charges Background Study

Note:
Future Proposed Routes are subject to further detailed planning.

Figure 4
Existing, Proposed and Candidate Cycling Network