

Midtown Oakville - Transportation Impact Assessment for Council Resolution April 22, 2024

Date:	May 23, 2024	245 Consumers Road
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1. Introduction

The purpose of this memorandum is to provide a high-level technical assessment of the transportation impacts of two proposed concepts for Midtown. The first concept is based on the Midtown Draft OPA dated April 2nd, 2024 herein referred to as the April 2nd Draft OPA Concept. The requested concept is based on an alternative Midtown concept which considers a total of 35,000 people and jobs, as per council direction on April 22nd, 2024 herein referred to as requested Concept.

This memorandum provides only a high-level assessment. More detailed analysis, consultation, and engineering are required to confirm transportation infrastructure, phasing, and costs as part of the on-going technical studies being completed for the Midtown Implementation Program.

1.1 Growth Scenarios

For the purposes of assessing infrastructure needs, several high-level assumptions about the requested concept were made. This includes:

- A split between people and jobs of 65:35 - consistent with the directions of Regional Official Plan Amendment (ROPA) 49;
- Population and employment projections for 2031 are the same as the April 2nd Draft OPA Concept, consistent with provincial policy (Growth Plan for GGH, 2020) which requires Urban Growth Centres to reach a density of 200 ppl + jobs per hectare by 2031;
- Full build-out to be reached in 2051, distributed over the entirety of the Midtown development area;
- Linear growth between 2031 and 2051; and,
- Distribution of density across the Midtown development area is consistent with the April 2nd Draft OPA Concept.

Table 1 shows the assumed people and jobs for each concept for each time horizon and associated yields.

Transportation infrastructure is significantly influenced over time by changing travel demands within a regional context. As a result, to understand transportation infrastructure needs, 2051 is considered the long-term horizon. For the April 2nd Draft OPA Concept, additional growth is expected beyond 2051, and future updates to the Midtown Transportation Plan, or regional transportation plans, will be required as the area grows/develops to monitor and reflect travel patterns.

Table 1: People and Jobs by Horizon and Concept

	April 2 nd Draft OPA Concept	Requested Concept - Council Petition April 22, 2024
2031 People	11,710	11,710
2031 Jobs	7,376	7,376
2041 People	24,116	17,627
2041 Jobs	12,825	9,373
2051 People	32,472	22,849
2051 Jobs	17,268	12,151
Yield (people)	57,227	22,849
Yield (jobs)	23,690	12,151

1.2 Transportation Context

1.2.1 Area Context

Midtown is situated next to several important regional transportation corridors including the QEW Highway and Lakeshore West GO Line. Major arterials within the vicinity of Midtown including Trafalgar Road and Cornwall Road carry a significant amount of traffic and are congested during the AM and PM peaks due to:

- Vehicles to and from the Midtown GO Station for parking or pick-up and drop-off;
- Vehicles to and from the QEW via the Trafalgar Road interchange; and,
- Connections across Oakville through Midtown.

These congested conditions will continue to exist in the future. The Town’s ongoing Transportation Master Plan (TMP) will establish a comprehensive multi-modal plan to enhance mobility for all road users, including a focus on more sustainable modes of travel such as walking, cycling and transit, supporting the town’s vision to be a vibrant and livable community for all.

In alignment, Midtown’s transportation strategy will also focus on encouraging greater use of non-auto modes for new growth.

Midtown is also identified as an Urban Growth Centre¹. UGCs are areas for planned intensification which are well connected to ²regional transportation options. Regional long-term transportation planning identifies rapid transit along Trafalgar Road from Dundas to the Midtown GO Station, electrification, and frequent all-day service. These improvements will make transit a more attractive and viable mode of travel to and from Midtown, decreasing reliance on personal vehicle use for residents, employees, and visitors.

¹ A Place to Grow Growth Plan for the Greater Golden Horseshoe 2020

² Based on Metrolinx’s Regional Transportation Plan 2041

Midtown is currently an underdeveloped area; any growth and development will add additional pressures to the transportation system. With existing arterial roadways already congested, new growth will need to be encouraged to travel via non-auto modes, including transit, walking, and cycling or some combination thereof. Walking and cycling will be viable options for shorter trips, and transit will need to carry a significant portion of the travel demands for longer distance trips.

To enable the shift in travel behavior, Midtown needs to have a high-quality walking and cycling network that connects people, places, and transit facilities. Furthermore, transit trips to and from Midtown need to be competitive with driving from a travel time standpoint to be a realistic and viable choice. This will require both transit priority to increase travel speeds along key routes, and increased service to lower waiting times.

1.2.2 OPA Road and Active Transportation Network

Based on the existing transportation context around Midtown, the same overarching objectives need to be achieved. As a result, the same road network was applied for both concepts - following the principles below:

- A fine-grained local road network to allow access and mobility while reducing travel distances;
- A robust active transportation network to support walking and cycling, connecting both within Midtown and to adjacent areas; and,
- Prioritizing transit given the proximity to Midtown GO and future Trafalgar BRT/LRT.

Based on work completed for the April 2nd Draft OPA Concept, the following roads are intended for core functions that are fundamental to the functionality of the network in both Concepts including:

- Cross Avenue – Multi-modal arterial that provides multiple functions including transit priority, active transportation, goods movement, and general traffic.
- Argus Road / Davis Road – Main Street that facilitates active at-grade uses in adjacent developments and supports a vibrant public realm.
- North-South Road – Multi-modal arterial with a focus on providing transit priority across the QEW to allow efficient transit service for buses and by-passing congestion around the Trafalgar QEW off-ramps.

Additional refinements to the proposed transportation network will be addressed through the on-going Midtown Transportation Plan which includes a detailed evaluation of different options and further public consultation.

2. 2051 Transportation Impacts

2.1 Midtown Growth Impacts

A Midtown specific sub-area demand model was used to understand travel demand impacts of the proposed concepts. For the purposes of this analysis, the requested Concept represents a reduction in people and jobs in the 2051 horizon without growth being allocated to areas outside of Midtown.

Table 2 indicates the trips and mode shares for the 2051 AM peak and PM peak hours for both concepts. A mode choice model was calibrated to other comparable growth centres. Mode shares remain very similar between both concepts although the total number of trips is reduced by approximately 29% (3,500 reduction in the AM Peak and 3,700 reduction in the PM peak) for the requested Concept, in line with the reductions to jobs and people.

Note that these “missing” trips would likely be distributed to other areas within Oakville, in accordance with Halton Region’s Joint Best Planning Estimates for the Town of Oakville overall population and job projections. See section 2.1.1 for a high-level assessment of potential impacts to other areas of Oakville if the people and jobs were re-allocated to other areas of the Town.

Table 2: 2051 Trips and Mode Shares

	April 2 nd Draft OPA Concept 2051		Requested Concept 2051 Council	
	AM	PM	AM	PM
Auto Driver	7,032	6,579	5,080	4,759
Auto Passenger	535	592	394	438
Transit	2,854	3,843	2,054	2,759
Walk	1,486	1,702	969	1,131
Bike	182	210	125	146
Total	12,089	12,926	8,622	9,233
Auto Driver	58%	51%	59%	52%
Auto Passenger	4%	5%	5%	5%
Transit	24%	30%	24%	30%
Walk	12%	13%	11%	12%
Bike	2%	2%	1%	2%

Table 3 summarizes the key indicators of both concepts. Overall, the model indicates that changes due to the reduction in population and jobs from the April 2nd Draft OPA Concept versus the requested Concept (to 35,000) do not result in substantial differences in congestion levels or overall infrastructure requirements³. A significant amount of congestion in the network is due to increases in background traffic (not Midtown growth traffic) by 2051, along with continued vehicle access and use of the Midtown GO station which have similar impacts in the transportation network for both concepts as shown in Figure 1.

The requested Concept does result in some reduction of overall network travel times compared to the April 2nd Draft OPA Concept. Model runs indicate that the greatest reduction is in the PM peak, where on Trafalgar for the peak direction (NB), travel times were reduced by 11%. This results in a potential time savings of around 30 seconds for a trip from Cornwall to Leighland in peak times only. In non-congested times/off-peak hours, there would not be any time savings.

The greatest reductions in traffic are noted to be a maximum of 340 vehicles per hour on Trafalgar, which is less than the capacity of one local lane (500) and around half of that of an arterial lane (850). As a result, the proposed network capacities needed would be the same for both options. In the following figures and tables, traffic volumes and congestion levels on Midtown and the QEW are shown. Results indicate that the major corridors (Trafalgar, Cross, Cornwall, and North-South) will continue to be congested in some areas.

³ Model results do not account for a re-distribution of the “missing” trips elsewhere in Oakville.

Local roads within the Midtown area are not congested as shown in Figure 1 and will be designed to prioritize safety and access by all modes. The local road network combined with new mid-block connections and active transportation crossings will create a strong network for active transportation, supporting travel and recreation.

Table 3: Assignment Indicators – 2051 (April 2nd Draft OPA Concept vs Requested Concept)

Indicator	2051 AM April 2 nd Draft OPA Concept	2051 PM April 2 nd Draft OPA Concept	2051 AM Requested Concept	2051 PM Requested Concept
Average V/C ⁴ ratio on midtown links	0.91 (incl. QEW) 1.15 (excl. QEW)	0.79 (incl. QEW) 0.97 (excl. QEW)	0.90 (incl. QEW) 1.12 (excl. QEW)	0.77 (incl. QEW) 0.95 (excl. QEW)
Vehicle trips	7,032	6,587	5,080 (-28%)	4,759 (-28%)
Average O/D ⁵ travel time (car)	43.0 mins	39.0 mins	42.3 mins (-1.6%)	38.3 mins (-1.8%)
Total auto mode share	62.6%	56.3%	63.5% (+1.4%)	56.3% (-)
Total VKT ⁶	157,254 km	134,040 km	113,328 km (-28%)	97,188 km (-28%)
Δ Veh. on Trafalgar peak	-	-	-340 (max)	-342 (max)
Travel time on Trafalgar peak ⁷	3.55 mins	4.76 mins	3.31 mins (-6.7%) [14 seconds]	4.22 mins (-11%) [32 seconds]

⁴ V/C ratio – Volume to capacity ratio, higher value (typically over 0.85) represents congested conditions which will cause delays and increased travel times

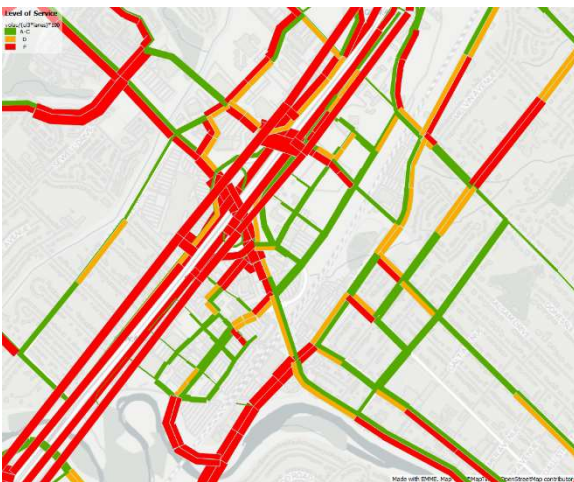
⁵ O/D – origin-destination, average O/D shown represents the average of all car trips to and from Midtown

⁶ VKT – Vehicle kilometres travelled, total travel distance for all trips to and from Midtown

⁷ Travel time only represents segment of Trafalgar within the sub-area, from Cornwall Road to Leighland Road for the peak direction (southbound in the AM and northbound in the PM)

Figure 1: Comparison of Congestion Levels in 2051 (April 2nd Draft OPA Concept vs Requested Concept)

AM Peak

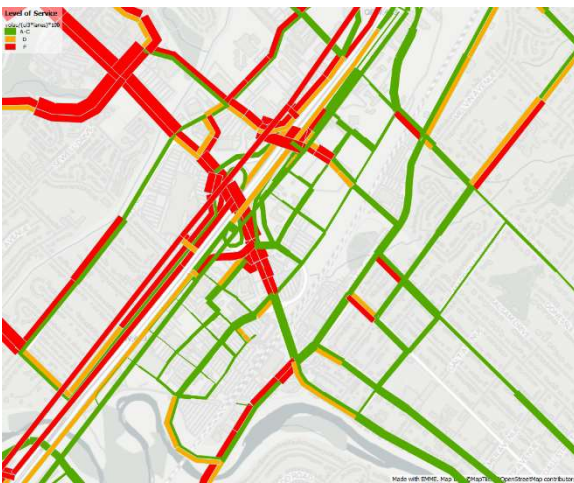


April 2nd Draft OPA Concept

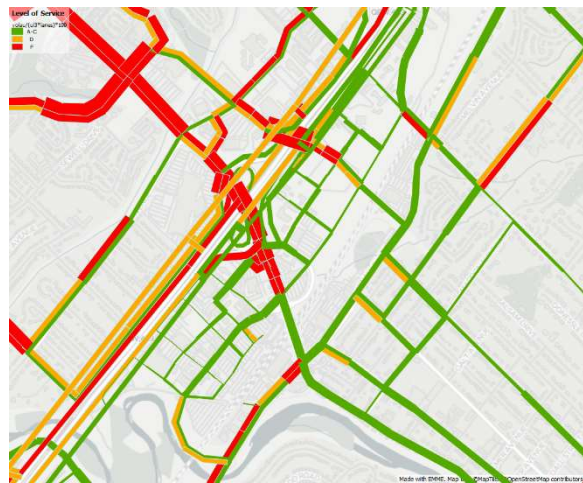


Requested Concept

PM Peak



April 2nd Draft OPA Concept



Requested Concept

2.1.1 Impacts to Other Oakville Areas

As previously shown, vehicle trips in the Midtown area would be reduced by around 28% or 3,500 – 4,300 trips for the requested Concept compared to the April 2nd Draft OPA Concept for the AM and PM peak hours.

In accordance with Halton Region’s Joint Best Planning Estimates for Oakville to 2051, if proposed growth were directed to other areas in Oakville instead of Midtown, these missing trips would likely exhibit higher car driver mode share than is expected for Midtown due to Midtown’s compact urban structure and better access to transit and/or active transportation amenities. Specifically, the car driver mode share for the Town of Oakville is 66-77% compared to less than 60% expected for Midtown).

The resulting increase in car trips across Oakville is shown in Table 4. An additional 280 vehicles trips in the AM peak and 1,000 vehicle trips in the PM Peak could be expected and would contribute to generally increased congestion levels in the Town. As Midtown includes regional connections via the QEW/Trafalgar interchange and Midtown GO station, some of these trips may ultimately end up traversing through the Midtown area to access these connections.

Table 4: Comparison of Traffic Reductions (effect of April 2nd Draft OPA Concept and Requested Concept)

		Δ Total Trips	Diver Mode Share (ref.)	Δ Vehicle Trips
AM Peak	Midtown	-3,500	58%	-2,030
	Rest of Oakville	+3,500	66%	+2,310
	Total	0	-	+280
PM Peak	Midtown	-4,300	52%	-2,236
	Rest of Oakville	+4,300	77%	+3,311
	Total	0	-	+1,075

2.2 Opportunities

Analysis of both concepts indicates that, regardless of the expected growth in Midtown, the road capacities of major arterials in the area will be constrained due to existing and future travel demands outside of Midtown and/or to the Midtown GO station. Background traffic along major arterials and highways will grow and continued use of the Midtown GO station via park and ride is expected.

Creating a high-quality transportation network which encourages active transportation and transit use is critical to the mobility of residents and employees in the Midtown area. Midtown is planned to have several regional transit improvements which will enable faster and more frequent transit services along Lakeshore West GO, Trafalgar Road, and Cornwall Road/Speers Avenue. Midtown GO serves as a critical transit node which provides both local and regional transit services.

Allocating growth to Midtown from a transportation perspective will be beneficial to townwide goals in increasing non-auto mode shares by taking advantage of existing and planned transit services. There will also be more shorter distance trips due to the proximity to adjacent services and attractions within Midtown, which will allow walking and cycling to be a viable option to make those trips.

Further refinement of the transportation network, development of policies to manage travel demand such as parking, shared mobility, micro-mobility, and more are to be further explored as part of the Midtown Transportation Plan. Work will also be coordinated with Town’s on-going Transportation Master Plan and Halton Region’s Integrated Master Plan to ensure a cohesive network within Midtown and across the Town of Oakville and Halton Region.

3. Phasing

Based on preliminary analysis completed the following improvements are recommended for each time horizon, 2031, 2041, 2051. As noted, there is no significant difference in the transportation needs of the Midtown Area for the two concepts. As a result, the same phasing plan is proposed for both.

The proposed phasing is primarily with respect to major roads which will be delivered by the Town and partner agencies, local roads, and active transportation connections for the purposes of access and connectivity will be timed based on when development in the adjacent areas move forward. Table 5 describes the rationale for timing of each proposed improvement, and a map is provided in Figure 2.

The Midtown Implementation Program will further review and refine potential phasing through additional technical analysis and discussions with stakeholders.

Table 5: Proposed Phasing of Improvements

Horizon	Proposed Improvements
2031	<ul style="list-style-type: none"> ▪ North South Road between Iroquois Shore Road and Cross Avenue (7B) <ul style="list-style-type: none"> - Provides additional travel capacity and relieves some congestion along Trafalgar Road; and, - Provide transit priority to and from the Midtown GO Station to Trafalgar Road north of the QEW/Trafalgar interchange. ▪ Cross Avenue between Argus Road (existing) and Chartwell Road (4A) <ul style="list-style-type: none"> - Provide connectivity to Midtown GO and the new North-South Road; and, - Connection to Chartwell Road will provide some additional relief to the intersection of Trafalgar and Cornwall by allowing traffic to access the North-South Road from the east. ▪ Iroquois Shore Road Widening – Trafalgar Road to Eighth Line (1B) <ul style="list-style-type: none"> - Provide connectivity to the north end of the new North South Road to Trafalgar and to Eight Line.
2041	<ul style="list-style-type: none"> ▪ North-South Road underpass to Cornwall (7D) <ul style="list-style-type: none"> - Additional north-south capacity and providing relief to the intersection of Trafalgar/Cornwall by providing access to Trafalgar Road north of the QEW via the North-South Road. ▪ Argus-Davis Underpass – South Service to South Service (6A) <ul style="list-style-type: none"> - Connect east and west portions of Midtown and relieving southbound left turns at Trafalgar Road and Cross Avenue. It is assumed that some development of the Argus-Davis Main Street will be completed by 2041, improvement can be deferred if depending on progression of the Argus-Davis Main Street. ▪ Cross Avenue Widening/Transit Lanes – Lyons Lane to Argus (4B) <ul style="list-style-type: none"> - Completing upgrades to Cross Avenue to provide transit priority from Midtown GO to Cornwall Road which connects to priority growth areas in Kerr Village and Downtown Oakville. If additional transit priority is pursued along Cornwall Road/Speers Road, timing should be aligned.
2051	<ul style="list-style-type: none"> ▪ Royal Windsor Interchange Upgrades and Associated Links (2A, 2B, 2C, 2D, 3A, 3B) <ul style="list-style-type: none"> - Early implementation of this new interchange will likely induce additional traffic through the Midtown Area for travelers attempting to bypass QEW congestion. It would also encourage more car-oriented travel for new residents of Midtown. This set of improvements should be implemented once development has significantly progressed, travel demands should be monitored and reviewed. ▪ Cross Avenue Realignment and Widening – Chartwell to RWD (5B) <ul style="list-style-type: none"> - Connects Cross Avenue to the Royal Windsor Interchange upgrades proposed allowing Midtown travelers to access the QEW via both Trafalgar Road and Royal Windsor Drive.

Horizon	Proposed Improvements
	<ul style="list-style-type: none"> ▪ Chartwell Road Improvements – South Service Road to Cornwall Road (9A) <ul style="list-style-type: none"> - Urbanization and road improvements will be required given the existing context of Chartwell Road as the area matures and more developments come online to provide sidewalks, bike lanes, and other urban amenities. ▪ North South Road – Iroquois Shore Road to Trafalgar Road (7C) <ul style="list-style-type: none"> - Additional relief for Trafalgar Road north of Iroquois Shore Road. Timing should be reviewed in alignment with the redevelopment of the Town Hall property.
	<ul style="list-style-type: none"> ▪ West QEW AT Crossing (8B) <ul style="list-style-type: none"> - Currently in progress. ▪ East QEW AT Crossing and East Rail AT Crossing (8A) <ul style="list-style-type: none"> - Supports movement to and from the proposed GO Station on the east side, timing should be aligned with station relocation. ▪ Trafalgar Midblock AT Crossing (8C) <ul style="list-style-type: none"> - Timing should be aligned with development on both east and west side of Trafalgar Road along with midblock connections in those blocks. ▪ West Rail AT Crossing (8E) <ul style="list-style-type: none"> - Timing should be aligned with redevelopment of station lands to the north and south of the rail line.
Local Roads	<ul style="list-style-type: none"> ▪ All local roads will be constructed as development progresses and access is required.

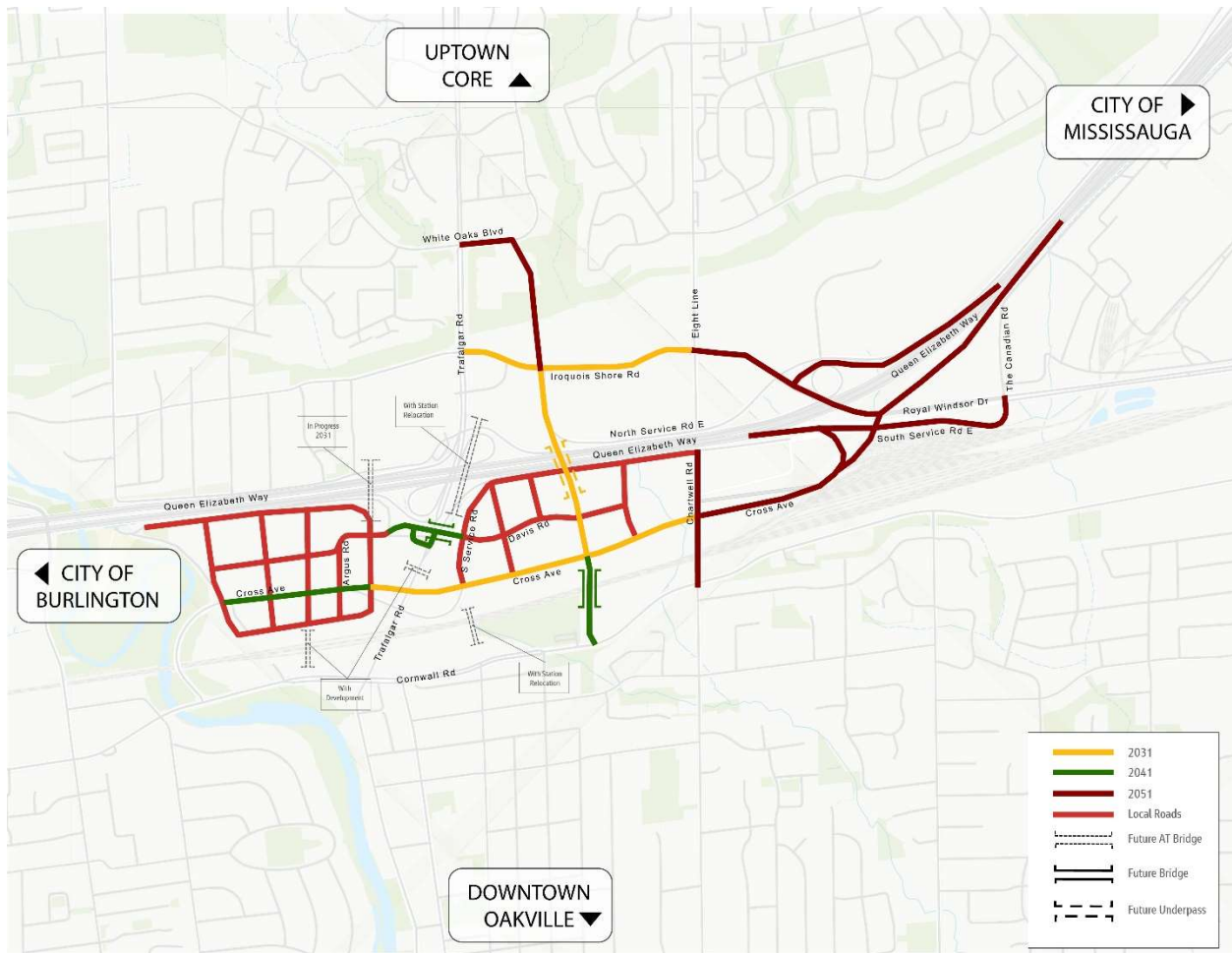


Figure 2: Phasing Index Map

4. Conclusions

Midtown is situated next to several important regional transportation corridors including the QEW Highway and Lakeshore West GO Line. Major arterials within the vicinity of Midtown including Trafalgar Road and Cornwall Road carry a significant amount of traffic and are congested during the AM and PM peaks. These congested conditions will continue to exist in future horizons and there are limited opportunities to expand these roadways. Encouraging greater use of non-auto modes for new growth will be critical to the Town's transportation system in alignment with the Townwide Transportation Master Plan.

Preliminary traffic modelling indicates that overall, changes in travel demands due to the reduction in population and jobs from the April 2nd Draft OPA Concept (OPA/2051 JBPE) to the requested Concept (Council requested up to 35,000 people+jobs) do not result in substantial differences in congestion levels or overall infrastructure requirements. A significant amount of congestion in the network is due to increases in background traffic by 2051 and continued vehicle access and use of the Midtown GO station from other areas of Oakville. Local roads within the Midtown area are not congested and will be designed to prioritize safety and access by all modes. The local road network combined with new mid-block connections and active transportation crossings will create a strong network for active transportation, supporting travel and recreation.

The preliminary analysis completed does not consider re-distribution of the people and jobs from Midtown to other areas of the Town or Region. However, Midtown is anticipated to have higher non-auto

mode shares compared to other areas of the Town given its planned transit and active transportation connections. As a result, the re-distribution of growth to other areas in the Town would likely result in an overall increase in the number of vehicle trips , potentially resulting in additional overall congestion Townwide.

Further refinement of the transportation network around Midtown and supporting strategies will be developed through the Midtown Transportation Plan. Work will be coordinated with the Townwide Transportation Master Plan and Halton Region's Integrated Master Plan. The proposed phasing prioritizes early implementation of the North-South Road to relieve some congestion from Trafalgar Road across the QEW interchange and provides transit priority to and from the Midtown GO station. Segments of Cross Avenue and Iroquois Shore Road would need to be improved to supplement connectivity to this new roadway. The proposed phasing is the same for both development concepts as the transportation infrastructure needs are the same. Local roads and active transportation crossings should be completed with development when access is required/appropriate.