METROLINX

New Station Initial Business Case Milton-Trafalgar

Final

October 2020

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Introduction

The Town of Milton in association with a landowner's group (the Proponent) approached Metrolinx to assess the opportunity to develop a new GO rail station on the south side of the Milton Corridor, west of Trafalgar Road. This market-driven initiative assumes the proposed station would be planned and paid for by the private sector. Once built, the station would be transferred to Metrolinx who would own and operate it. The proposed station location is on undeveloped land, at the heart of both the Trafalgar Corridor and Agerton Employment Secondary Plan Areas studied by the Town of Milton in 2017. As such, the project offers the Town of Milton the opportunity to realize an attractive and vibrant transit-oriented community that has the potential to benefit the entire region.

Option for Analysis

This Initial Business Case (IBC) assesses a single option for the proposed station. The opening-day concept plan includes one new side platform to the north of the corridor, with protection for a future second platform to the south. The site includes 1,000 parking spots, a passenger pick-up/drop-off area (40 wait spaces, 10 load spaces), bicycle parking (128 covered spaces, 64 secured spaces) and a bus loop including 11 sawtooth bus bays. Station sizing is based on future transit service planning and ridership forecasting conducted using the Greater Golden Horseshoe Model version 4 (GGHMv4) and input from Milton Transit.

Method of Analysis

The IBC utilizes the Metrolinx Business Case Guidance published in April 2019 to assess the merits of a proposed station at this location against a Business as Usual scenario (i.e. without a new station).

As with all Metrolinx Business Cases, the IBC is structured around four cases:

- The Strategic Case determines the value of addressing a problem or an opportunity based on local, regional, and provincial goals, plans and policies.
- The Economic Case uses standard economic analysis to detail the benefits and costs of the project to individuals and society, in economic terms.
- The Financial Case assesses the overall financial impact of the investment for Metrolinx.
- The Deliverability and Operations Case considers construction impacts, deliverability risks, and operating plans.

Business Case Results

The IBC evaluation shows that a new GO station at Trafalgar Road would support overarching provincial and municipal goals with respect to policy and strategic vision. The investment presents an opportunity to deliver infrastructure that can address current and future population and employment needs while offering the opportunity to develop an exemplary transit-oriented community. Given the proximity to two 400-series highways, the station also provides an additional connection between the growing communities of Milton, Oakville, Halton Hills, and Mississauga.

By providing better accessibility to the GO rail network, transit users benefit from shorter station access trips and in-train travel time savings. The location of the new station at the heart of the Agerton Secondary Plan Area will also allow people who live and work nearby to access the regional transit network by foot or transit instead of driving or being dropped off.

This reduction in auto use results in decongestion impacts, improved safety on the road network, and reduced transportation-related emissions. The station should also alleviate parking pressure at the existing Milton GO Station, which could allow the Town of Milton to unlock development potential in the vicinity of the existing station and realize their vision in the Milton GO MTSA Study.

The IBC relies on the GGHMv4 regional travel demand model to assess the impacts of the proposed station. The model generates key inputs to the Economic and Financial Case analyses, including station ridership, travel time savings, and modal shift/auto usage changes for the 2041 AM peak period. Once quantified and monetized, these benefits are not enough to outweigh the capital and operating costs necessary to build and operate the proposed station over a 60-year evaluation period. The Economic Case thus results in a negative net present value of approximately $40 million. However, from a financial perspective, the additional farebox revenue from new transit riders does not entirely the additional burden on Metrolinx and results in net revenue of -$3.5M in present value for the organization over the 60-year evaluation period.

In terms of deliverability, the site proposed for the station location reduces construction complexity, risks and impacts while providing ample space for the station platform, tracks, and amenities. As a result of the existing ownership along this section of the Milton GO line, Metrolinx would be required to seek permission from Canadian Pacific (CP) Railway to build the new station and stop trains.

The table below summarizes the key findings for each Case.

Strategic Case	
Strong Connections	• The proposed station will attract 2,000 boardings during the 2041 AM peak period, mostly representing diversions from nearby GO stations. • Parking constraints will be alleviated at Milton GO with the introduction of the proposed station, which will attract transit users who live near to the proposed station and must park and ride at Milton GO under the BaU scenario. • Opportunity to unlock land use potential for transit-oriented communities around the existing hubs. • The proposed station should serve as a transit hub for local and regional connections. • The site offers the opportunity to develop an employment node that integrates land use policy, transit planning, and economic development best practices. • The station should protect for a second platform on the south side of the track in the case future GO service levels increase along the Milton GO line.
Complete Travel Experiences	• The proposed station saves 5.6 million person-hours of travel over 60 years. • PUDO Passengers diverted from Milton GO incur in-train travel time savings of 4.9 minutes and those diverted from Lisgar GO incur an in-train penalty of 4.0 minutes. • Passengers boarding at Milton GO incur a travel time penalty of 2.8 minutes due to the additional dwell time at the proposed station. • Station increases safety on the road network from reduced auto use to access nearby stations in the BaU scenario. • Shift away from auto to transit or active modes of transportation to access the station reduces road congestion, especially on local roads near the existing stations.
Healthy and Sustainable Communities	• Modal shift from auto to transit or walk to access the station alleviates auto-related GHG emissions. • Potential to prioritize pedestrian access by including sidewalks, crosswalk and multi-use paths within and around the station site to ensure safe and efficient movements of active transportation users.

Economic Case		
Total Benefits	• Travel Time Savings (Transit): $31.7 M - $33.3 M • Travel Time Savings (Auto): $8.71 M • Vehicle Operating Costs Savings: $3.6 M • Road Safety Outcomes: $1.1 M • Environmental Outcomes: $0.5 M	$45.5 M - $47.1 M
	• Incremental Fare Revenue Adjustment	$22.1 M
Total Costs	• Capital Costs: $87.5 M • Operating and Maintenance Costs: $21.9 M	$109.4 M
Net Present Value	• The range represents results for two modelling scenarios, one where demand for parking at Milton-Trafalgar GO is constrained by capacity and one where demand is parking unconstrained. • Negative results indicate that the benefits, although positive, are not enough to outweigh the capital and operating costs for the proposed station.	$(40.2) M - $(41.8) M
Benefit-Cost Ratio	• A Benefit-Cost Ratio below 1.0 indicates that the project's costs outweigh the benefits.	0.62 – 0.63
Wider Economic Benefits	• Improvements to connectivity and accessibility to high-productivity employment hubs can make a significant contribution to integrating the GTHA labour market outside the downtown core of Toronto and thereby contribute to improved productivity and competitiveness for the region overall.	
Financial Case		
Total Incremental Fare Revenue	• Comprised of the additional fares from new riders shifting away from auto or existing riders diverted from Lisgar GO less the lost revenue from downstream users who can no longer board because of reduced train capacity at Cooksville GO and further downstream.	$22.1 M
Total Capital Costs	• The Proponent is expected to provide land and construction funding. • Metrolinx to bear major mid-life station rehabilitation costs less costs to maintain the parking lot, which falls under the responsibility of the Proponent.	$11.9 M
Total Operating and Maintenance Costs	• Metrolinx should bear operating and maintenance costs for the proposed station, except for the parking lot.	$13.7 M
Net Revenue	• Marginal net revenue loss for Metrolinx over 60 years.	-$3.5 M
Incremental Cost Recovery Ratio	• Ratio of incremental revenue to total costs borne by Metrolinx	0.86
Operating Cost Recovery Ratio	• Ratio of incremental revenue to operating and maintenance costs borne by Metrolinx	1.61

Deliverability and Operations Case	
Project Stakeholders and Governance	• CP Railway owns and relies on this corridor as part of its Galt Subdivision – a critical and busy section of rail; part of its Montréal-Detroit freight corridor. • Metrolinx does not have control of this corridor and GO Transit services do not have priority. • Metrolinx must enter into a negotiation with CP on operational and associated infrastructure upgrades. • Hydro One owns the transmission tower infrastructure north of the rail corridor, further discussions needed to determine if the project can use their land to accommodate a portion of the parking.
Constructability Considerations	• Vacant site, existing agricultural uses – ample space to accommodate the proposed station. • New platforms and track grading could be installed through weekend work, minimizing service interruptions. • Construction of pedestrian tunnels between north and south platforms may impact mainline service. • Construction access from Trafalgar Road – potential need for signal control (short term and long term) and co-ordination with CP intermodal yard. • Culvert construction and grading may be required over Sixteen Mile Creek tributary – requires a review of environmental impacts. • Retaining walls may be required on the north platform depending on the topography.
Operations and Maintenance Considerations	• Milton GO line is not currently identified for future two-way service, hence no proposed changes to service levels compared to today. • Additional riders boarding at the proposed station may reduce available capacity for downstream riders. • Stopped GO trains use the siding, not the mainline tracks to avoid any disruption to other rail services using the corridor (i.e., CP trains).

1

Introduction

Context

Metrolinx has developed an Initial Business Case (IBC) for a potential new GO rail station on the south side of the Milton GO Corridor, west of Trafalgar Road. The station is being proposed as a market-driven initiative, with the IBC being completed at the request of the Town of Milton and a landowner's group (collectively, the Proponent).

The assessment builds upon previous work completed by Metrolinx and local stakeholders, including an analysis conducted for a station at this location in 2016 as part of the Metrolinx New Stations Assessment. Since then the Town of Milton and Halton Region have commissioned a number of plans and studies, including the Region's Mobility Management Strategy which identifies Trafalgar Road as the north/south spine connecting the Town of Milton with local municipalities through higher-order rapid transit, and the Town of Milton's 2018 Transportation Master Plan, which identifies the area around Derry and Trafalgar Roads as a Major Transit Station Area (MTSA).

The identification of the MTSA was a key component in the development of both the Trafalgar and Agerton Employment Secondary Plans initiated by the Town of Milton in 2017. These plans establish a detailed planning framework and development concept for infrastructure and land use within the east Milton area. A common theme among these studies is the recognition of the importance of developing higher-order transit connections to accommodate forecasted population and employment growth within the Town of Milton.

In September 2018, the Town of Milton also completed the Derry and Trafalgar GO Station Feasibility Analysis (Feasibility Study) which presented a case for early investment in a new GO station at Derry Road and Trafalgar Road.

The Town of Milton has experienced rapid population and employment growth in recent years, increasing from 50,000 residents in 2006 to over 110,000 by 2016. This rate of growth is expected to continue to outpace the average growth rate in the Greater Toronto and Hamilton Area (GTHA), with the Town of Milton projected to have a population of 238,000 people by 2031[1]. This population growth has resulted in increased demand for transit, especially at Milton GO Station, which already experiences congestion from riders who use auto to access the station. Moreover, expanding parking capacity is not a sustainable strategy, given the high cost for acquiring new land and the impacts on traffic congestion in and around the station area.

The new community planned along the Trafalgar Corridor is expected to drive use of transit and active transportation to access the GO network via the proposed station. Adding a new station should relieve the demand for parking at Milton GO, allowing for more access to the GO network for people in the region.

Initial Business Case Overview

The purpose of this IBC is to determine if a new station on the south side of the Milton GO Corridor, west of Trafalgar Road would provide financial and broader societal benefits and be compatible with Metrolinx and regional strategic goals and objectives. In addition, the IBC identifies risks or barriers that may impact the implementation of the station as well as infrastructure and policy measures which may support its implementation.

The IBC evaluates one investment option for a new GO rail station at Trafalgar Road against a Business as Usual scenario (BaU) (i.e., without a new station). The proposed station concept examined in this IBC was developed by Metrolinx in collaboration with the Proponents. The station concept is assessed using the methodology from the Metrolinx Business Case Guidance Volume 2[2].

[1] Town of Milton. (2019). Derry and Trafalgar GO Station Feasibility Analysis. (Milton, ON, Town of Milton, 2019).
[2] Metrolinx. (2018). Business Case Manual Volume 2: Guidance.

As with all Metrolinx Business Cases, this IBC is structured around four key cases:

- The Strategic Case, which determines the value of addressing a problem or opportunity based on regional development goals, plans and policies;
- The Economic Case, which uses standard economic analysis to detail the benefits and costs of the options to individuals and society as a whole, in economic terms;
- The Financial Case, which assesses the overall financial impact of the options for Metrolinx; and,
- The Deliverability and Operations Case, which considers procurement strategies, deliverability risks, and operating plans and risks.

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The Case for Change

Introduction

This chapter defines the Case for Change, which is used to guide the evaluation of the investment in the proposed GO rail station within this initial business case framework.

Case for Change

Opportunity Statement

The Milton GO Corridor is an important part of the GTHA transportation network, currently providing one-way weekday peak period train service between Milton and Toronto to serve a daily line ridership of 7,000 passengers[3].

A new station at Trafalgar Road presents an opportunity to develop infrastructure that can address current and future population, employment, and ridership needs. The station and the development of surrounding lands have the potential to be an exemplary complete community that achieves transit-oriented community objectives through proactive and sustainable planning practices.

The proposed GO station should be a key component in attracting major employment and achieving the Region's and the Town's employment growth targets. Given the proximity to two 400-series highways and two future planned higher-order transit corridors – Trafalgar Road and Derry Road – the station should also provide an important connection between the growing communities of Milton, Oakville, Halton Hills, and Mississauga.

Bringing higher-order transit service to the Trafalgar area should not only provide localized benefits, but should also play a critical role in unlocking development potential around the existing Milton GO Station which is currently constrained by largely auto-oriented infrastructure and increasing congestion. Planned improvements have been proposed to the existing Milton GO Station to enhance users' experience by expanding the parking capacity. However, this solution is expected to only relieve congestion in the short term and issues may arise again as a result of long-term population and employment growth. The proposed station has the potential to alleviate parking pressure and provide access relief at the existing Milton GO Station, which could allow for ridership growth to be realized.

[3] Metrolinx. (2018). GO Expansion Full Business Case.

Key Drivers

Table 1 identifies the main drivers for this opportunity and summarizes how these drivers may influence the case for the new GO station.

Table 1: Opportunity Drivers

	Driver	How does this Driver influence the problem/opportunity?	What is the impact of not addressing the problem/opportunity?
Internal to the Transportation Network	Travel Behaviour	Future population and employment growth in the Agerton Employment Area and the Trafalgar Secondary Plan Area drives the need for higher-order transit within the area. Improving station access/egress efficiency and easing parking constraints may facilitate a modal shift towards transit and active transportation.	Lack of improvement in accessibility to higher-order transit in the area may result in mode shift to auto and further increase road congestion, resulting in longer commute times, loss of productivity, and a reduction in road safety and air quality.
	Transport Service Provision	Increased rapid transit coverage should reduce crowding at the existing Milton GO Station where parking operates at capacity and experiences access congestion from customers who use auto to access the station. Potential new ridership and associated incremental farebox revenue should be realized by the GO network by providing an additional access option at Trafalgar Road.	No increases in service provisions would result in continued auto congestion at Milton GO Station, which will be exacerbated by forecast population and employment growth. Failure to increase rapid transit coverage limits access to economic, cultural, and social opportunities in the MTSA and surroundings.
External to the Transportation Network	Government Policy and Planning	The Agerton Employment and Trafalgar Secondary Plans have both recognized this station location as an area of opportunity to accommodate higher density development and taller built form. Within the Halton Region Official Plan, the station site land is designated as an urban area. The proposed station is an opportunity to achieve the objectives of integrated population and employment growth in a planned community.	Without a station, there would be a lack of incentive to develop a dense, transit-accessible live-and-work community.
	Economic Activity, Land Use, and Demographics	The Agerton Employment Secondary Plan intends to initiate the development of a MTSA and encourage the attraction of 6,800 residents and 15,000 jobs over 20 years. The Trafalgar Secondary Plan sets out to encourage growth along the corridor with a minimum population of 26,000 residents and 4,000 jobs within the 2031 planning horizon.	The inability to address the development needs of specific areas of growth would hinder economic activity and miss the opportunity to transform the community into a new high-value employment destination.

Business as Usual

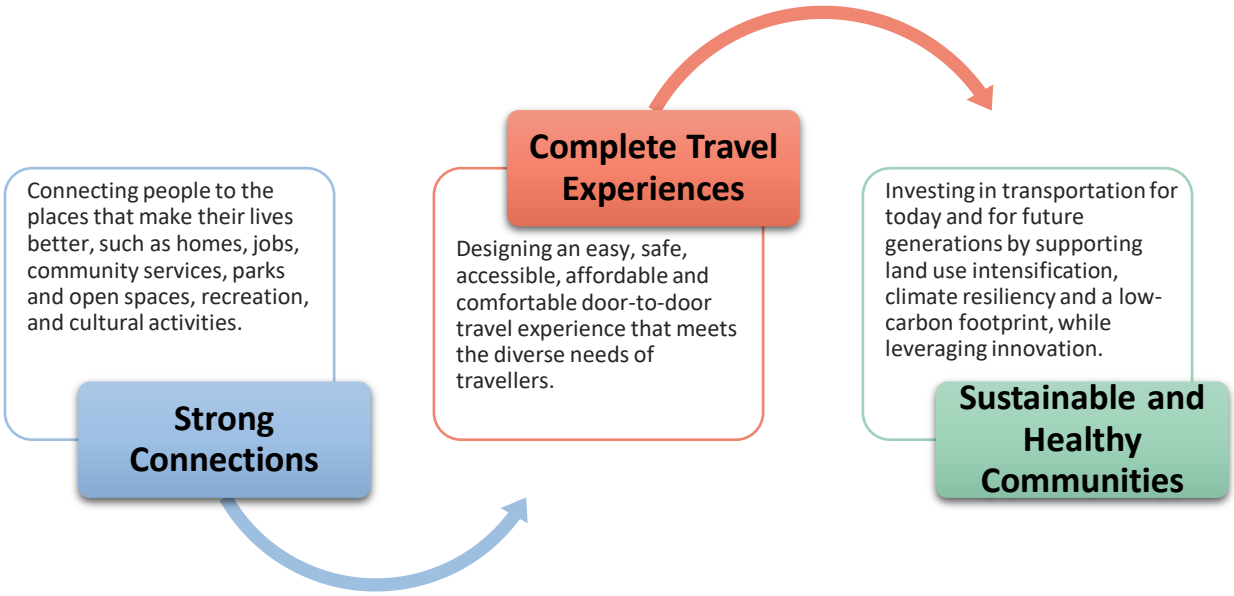
If the investment in the proposed GO station is not pursued, demand for higher-order transit services on the corridor would be served by twelve trains stopping at existing stations (increased from ten today) in each peak direction during the morning and afternoon peak periods. Metrolinx does not currently envisage GO Expansion service levels along the Milton GO line. However, Metrolinx continues to explore how to operate a two-way, all-day service along this corridor with CP Rail[4].

The existing Milton GO Station is well utilized, with parking operating at capacity today. Despite Metrolinx's plans to add 850 spaces to the existing station in the next few years, parking is projected to still operate at capacity in 2041 under the BaU. In the medium to long term, parking challenges will continue as demand for parking will outpace parking supply. These parking constraints are expected to impact ridership potential and may hinder growth on the line. The congestion at or around the existing station also contributes to less sustainable travel choices. GO users who drive to/from the station may choose to travel longer distances in search of parking at an alternative station or in place of rail travel altogether.

Strategic Outcomes and Objectives

The proposed station should support the realization of the Metrolinx 2041 Regional Transportation Plan goals of creating strong connections, complete travel experiences, and sustainable and healthy communities[5]. These goals would be achieved through the station's ability to connect new mixed-use communities with higher-order transit service and reduce reliance on auto use in the area. Figure 1 summarizes the three RTP goals.

Figure 1: 2041 RTP Goals



[4] Metrolinx. (2018). GO Expansion Full Business Case.
[5] Metrolinx. (2019). 2041 Regional Transportation Plan.

The 2041 RTP goals are used as a basis to define three strategic outcomes for the proposed Milton-Trafalgar Station, which are as follows:

Strong Connections | The proposed station should improve transit coverage, offer access to rapid transit to more communities, and serve key destinations. Improvements can be made to the current situation by investing in the proposed station while also considering opportunities to support future network expansion in the station catchment area.

Underlying benefits:

- Promote land-use intensification and encourage transit-oriented communities;
- Improve access to local and regional destinations; and,
- Provide transit investment that can expand for future growth.

Complete Travel Experiences | Ease of travel as a result of the proposed station will allow people to access different destinations at more convenient times. Daily lives of passengers will benefit from the reduced travel time and costs offered by the proposed station. The station design should provide an easy, safe, and comfortable travel experience that meets the diverse needs of travellers.

Underlying benefits:

- Increase parking capacity on the Milton GO line;
- Reduce travel times; and,
- Improve safety on the road network.

Healthy and Sustainable Communities | The location of the proposed station supports land-use intensification, GO rail accessibility and reduced reliance on the automobile. Land use and development patterns that utilize mixed-use, transit-supportive, and pedestrian-friendly urban environments can save energy, improve air quality, and support climate resilience through reductions in carbon emissions. An integrated transportation network in the Town that provides people with improved access should help encourage more sustainable transportation behaviours and reduce the reliance on the private automobile.

Underlying benefits:

- Encourage the use of active modes to access the GO rail network; and
- Improve air quality and reduce transportation-related emissions.

Alignment with Broader Policy

The proposed investment should contribute to provincial, regional, and local policy and planning objectives. These objectives aim to improve the quality of life and safety, guide economic growth and development, and achieve environmental sustainability throughout the region. A review of provincial, regional, and municipal policies and plans has been conducted to assess how the proposed station aligns with policies in the documents. Table 2 summarizes the key considerations and alignment with broader policies.

Table 2: Summary of Alignment with Broader Policies

Author	Document/Policy	Key Considerations
Metrolinx	2041 Regional Transportation Plan (2018)	The proposed investment aligns with four key strategies proposed to achieve the 2041 RTP goals. The strategies are as follows: • Strategy 2 – Connect more of the Region with Frequent Rapid Transit: the proposed station is expected to provide increased transit access and will connect more people with destinations while offering transit as an attractive alternative to driving. • Strategy 3 – Optimize the Transportation System: alleviate crowding issues and improve auto/pedestrian safety due to congestion at the existing Milton GO Station. • Strategy 4 – Integrate Land Use and Transportation: As one of the largest undeveloped areas and a designated area of growth in the Town of Milton and Halton Region, the proposed station is an opportunity to incorporate transit-oriented community principles to serve the anticipated growth of up to 25,000 new employees in the region. The proposed station also creates the opportunity to unlock the potential for transit-oriented communities and improvements to multimodal access around the existing Milton GO Station. • Strategy 5 – Prepare for an Uncertain Future: The existing Milton GO station already operates at capacity for autos and is expected to experience steady ridership increases. The proposed station provides a new connection should increase service be implemented along the Milton GO corridor in the future.
Ministry of Municipal Affairs and Housing	Places to Grow (2019)	Section 2.2.4 states that "all major transit station areas will be planned and designed to be transit-supportive and to achieve multimodal access to stations and connections to nearby major trip generators by providing, where appropriate: • connections to local and regional transit services to support transit service integration; • infrastructure to support active transportation, including sidewalks, bicycle lanes, and secure bicycle parking; and • commuter pick-up/drop-off areas." The proposed station area has been identified as a future mobility hub in local policy documents and is expected to be a catalyst for strategic growth areas (MTSA and the Downtown Milton Urban Growth Centre) by enhancing transportation options, transit supportive communities and infrastructure.
Halton Region	Regional Official Plan (2016)	The Regional Official Plan sets out population and employment targets to guide growth in Halton Region. The Official Plan identified the proposed MTSA in the vicinity of Derry and Trafalgar Roads and identified Trafalgar Road as a higher order transit corridor. The Trafalgar and Agerton Employment Secondary Plan Areas have been identified in the Official Plan as Urban Areas beyond 2021.
	Defining Major Transit Requirements in Halton Region Study (2019)	This study identifies where regional infrastructure investment needs to occur in order to unlock transit-oriented growth and enhanced connectivity and mobility in the Region. A priority bus corridor is proposed along Trafalgar Road between Steels Avenue to midtown Oakville GO as part of the Preliminary 2031 Recommended Transit Priority Corridor Network. This study also identifies to the Milton-Trafalgar proposed station as a Regional Transit Node in the Preliminary 2031 Transit Network.

Author	Document/Policy	Key Considerations
Town of Milton	Mobility Management Strategy (2016)	The Mobility Management Strategy was developed based on the concept of the mobility-as-a-service model, which provides users with the option to travel between a point of origin and destination through the most efficient or desirable means, whether it be through transit, active transportation, ride-sharing, etc. The area around the Milton GO corridor at Trafalgar Road was identified as a proposed MTSA and regional transit node to support future urban growth in northeast Milton and to serve as alternative access to the GO Rail network.
	Official Plan (2008)	The Official Plan, consolidated in 2008, establishes Council's priorities and policies on land use planning and development in the Town of Milton. In 2010, the Town adopted Official Plan Amendment No. 31 which implements population (239,000) and employment (114,000) targets for Milton to 2031. The Trafalgar Corridor is an attractive development opportunity for a transit station and transit-supportive community to accommodate these residential and employment growth targets.
	Strategic Plan (2015)	The Town's Strategic Action Plan, Destiny Milton 3, established a strong focus on complete, sustainable and livable communities, where people live, learn and play. In September 2017, Council endorsed the Town's Future Urban Structure report which envisions the Trafalgar Corridor to be developed as a mixed-use, high-density corridor to support the extension of higher-order transit and the proposed MTSA around Derry and Trafalgar Roads. A first principle of growth is the delivery of employment to residential ratio of one job for every two residents with an emphasis on knowledge-based jobs. The planned employment area around the proposed station offers an attractive option for employers from various sectors seeking an urban lifestyle complete with the amenities that the next generation of employees are looking for in an affordable transit-connected environment accessible to the broader region.
	Transportation Master Plan (2018)	The Transportation Master Plan ("TMP") addresses current and future needs of transit users, pedestrians, cyclists and drivers in a community that is experiencing a continuous stream of new urban development. The TMP includes transit-oriented design guidelines that create a balanced transportation system by encouraging transit-supportive communities and promoting active transportation. The introduction of a GO station at the Trafalgar site should encourage greater use of transit and will reduce reliance on car-based transportation and increase investment in transit infrastructure.
	Trafalgar Secondary Plan (2019)	The Trafalgar Secondary Plan envisions the Trafalgar Corridor to be developed as a mixed-use, higher density corridor which supports the extension of higher-order transit. A key planning objective for the Trafalgar Corridor (which encompasses both the Agerton Secondary Plan and Trafalgar Secondary Plan) is to sanction the delivery of key transportation and higher-order transit service along Trafalgar Road (inter- and intra-regional). It will also support the realization of a Major Transit Station, facilitate expedited servicing delivery to the employment areas, and support the achievement of employment forecasts in the Town of Milton.

Author	Document/Policy	Key Considerations
	Agerton Employment Secondary Plan (2019)	The Agerton Employment Secondary Plan envisions the development of mixed-use employment and higher density residential community which supports the extension of higher-order transit. Through the Regional Official Plan Amendment ("ROPA") 38, a proposed major transit station was identified in the vicinity of the intersection of Derry and Trafalgar Roads within the Agerton Secondary Plan area. The Agerton Secondary Plan provides detailed policies to facilitate the development of a MTSA within the proposed station area. The MTSA is a planned urban area with an approximate 500-meter radius of the proposed station that is a focal point of strategic intensification with an abutting medium- to high-density mixed-use community and employment lands between the hydro corridor and Derry Road, as well as an office priority Employment Area in the northern portion of the plan, between Highway 401 and the hydro corridor.

3

Investment Option

Introduction

This chapter presents the study area and prevailing conditions under the Business as Usual scenario as well as an initial concept plan for the proposed station.

Study Area

The land proposed for the station site is subject to the Town of Milton Official Plan as well as to the Halton Region Official Plan. Under the Town of Milton Official Plan (OP), the subject lands for the station site, which currently consists of undeveloped area designated as Agricultural Area. The subject lands are within the Urban Expansion areas from 2021 to 2031, as identified in the Town's Official Plan Update (OPA 31) and will be considered an Urban Area as of 2021. Within the Halton Region OP, the station site land is designated as an urban area. Both the Town of Milton and Halton Region Official Plans are currently under review and are being updated.

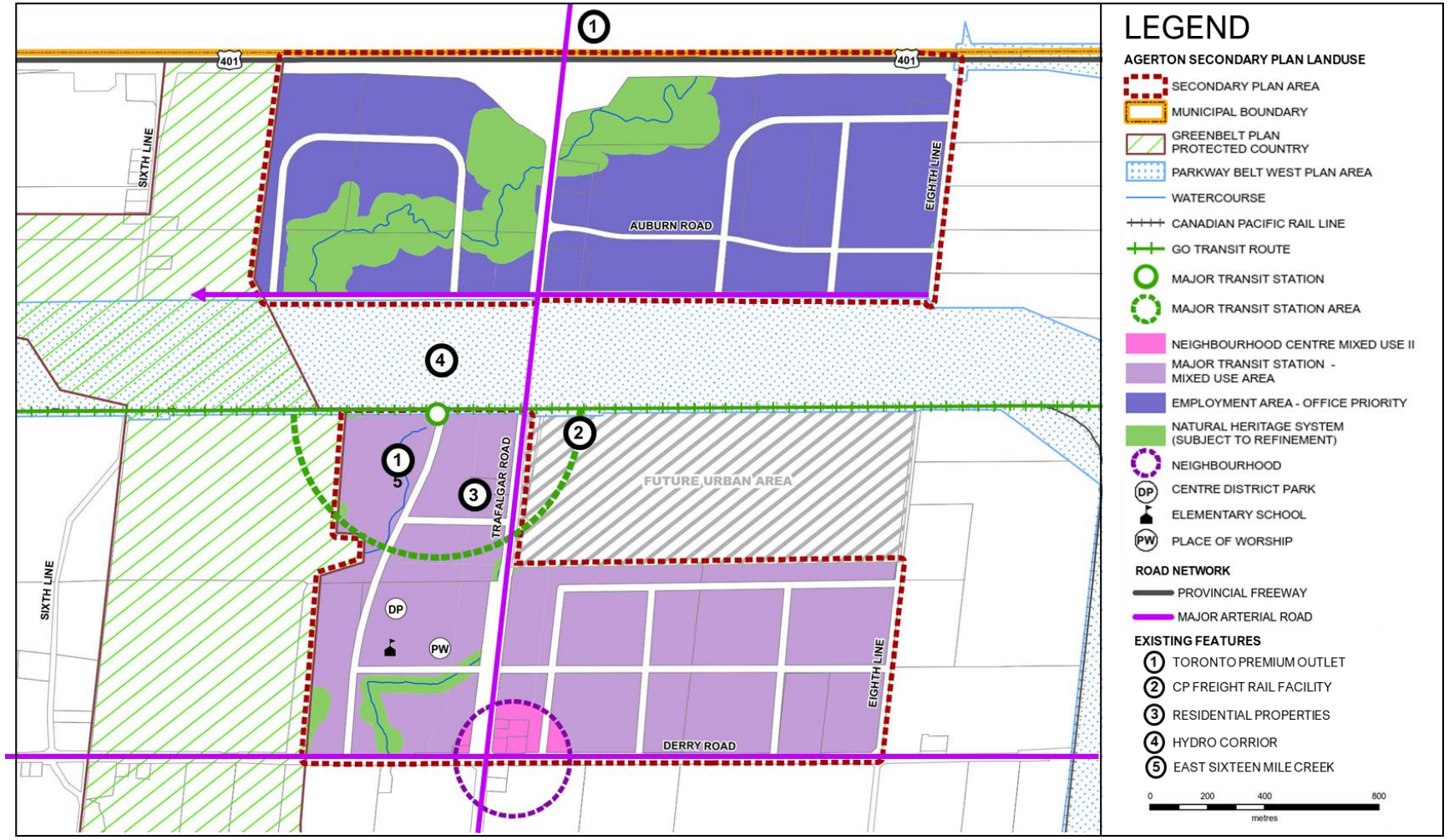
The land that surrounds it to the north and east is designated as Prime Agricultural Areas and to the west is Greenbelt Plan Protected Countryside Area, and therefore are subject to specific policies in the Greenbelt Plan (2017); however no station elements are anticipated to be located within Greenbelt protected lands. The station is also located within the lands of the Treaty 14, Head of Lakes Purchase with the Mississaugas of the Credit First Nation.

The following elements are within the vicinity of the station site:

- **North**: To the north beyond the hydro corridor that runs parallel to the rail corridor, there is additional undeveloped land with some commercial properties along Trafalgar to Highway 401. This land is designated as Parkway Belt West Plan Area in the existing OP, which is a special planning area designated for linear facilities and to provide a boundary to adjacent urban areas. The proposed land use in the Agerton Secondary Plan is "Employment Area – Office Priority." Toronto Premium Outlets is also located north of this area (approximately 2 km) at the intersection of Trafalgar Road and Steeles Avenue, which is an important trip generator.
- **East**: The area between Trafalgar Road and Eighth Line is designated as urban area with the exception of the "CP Lands", which contain an intermodal freight rail facility. This site is designated as "Future Urban Area" in the Agerton Secondary Plan.
- **South**: There are two existing properties to the southeast and two existing properties on the southwest corners of the proposed station site. Beyond these properties, between the site and Derry Road, there is more vacant land that is designated Agricultural Area in the existing OP and designated as "Mixed-Use" in the Agerton Secondary Plan. In the area extending from the Milton GO corridor to south of the station site, there is evidence of wetland vegetation and a watercourse flowing south.
- **West**: To the west of the station site is vacant land, some containing environmental features including Sixteen Mile Creek and small body of water. In the OP (OPA 31), the land is designated as "Natural Heritage System" as per the Greenbelt Plan. Future consideration will be given to ensure any structure is appropriately sized and designed to mitigate current and future climate risks.

Figure 2 depicts the proposed station site, the study area, the surrounding transportation network, and designated land-uses.

Figure 2: Study Area Existing Features and Planned Land Uses (From Town of Milton Agerton Secondary Plan)



Station Concept Plan

The concept plan presented in this section is intended to provide a basic design illustrating the scale of the site and station amenities. For the purposes of this market-driven IBC, the concept plan is considered representative in nature and is only to be used for the purposes of cost estimating and facility sizing for input to the IBC analysis. It is expected that the ultimate station configuration and arrangement would be determined by the Proponent with requirements set by Metrolinx. The station concept plan is presented in Figure 3.

Track and Platform Arrangement

The Milton GO Corridor at the subject location is currently comprised of two mainline tracks. This IBC considers the opening-day addition of a north siding track servicing a new north side platform. The additional platform and track on the north side of the mainline tracks are considered as the minimum requirement for station operations, considering that the current peak-direction service on the Milton line utilizes the existing north track. Therefore, stopped trains should not impact other freight operations along the corridor. The concept plan protects for a south platform and siding track, which may be required in the future if two-way all-day service or other service improvements are implemented on the Milton line.

The north and future south siding tracks turn out from the mainline tracks to the west of the Trafalgar Road overpass and over the tributary of the Sixteen Mile Creek; track turnouts may require the existing culvert over the creek to be widened or reconstructed, subject to additional study and detailed track design.

Widening to account for the north track and platform brings the station platform and track in proximity to the existing hydro corridor. A detailed review of the feasibility of constructing the new north platform in proximity to the hydro corridor was not conducted as part of this IBC as technical data and mapping were not available. A detailed grading assessment, in addition to discussions with the utility would be required to confirm impacts.

Station Amenities

Station sizing parameters were estimated based on ridership forecasting conducted by Metrolinx using the Greater Golden Horseshoe Model version 4 (GGHMv4). The analysis produced the following station amenities sizing requirements:

- Parking Lot - 1000 parking spaces
- Passenger Pick-up/Drop-off – 40 wait spaces; 10 load spaces
- Bike Parking – 128 covered spaces; 64 secure spaces
- Transit – 9 bus bays for local routes; 2 bus bays for GO bus routes

Access to the station site from Trafalgar Road is anticipated to be provided via a signalized intersection with an east-west collector road south of the Trafalgar Road overpass. The precise location of this east-west collector road should be evaluated further by the Town of Milton. However it should be noted that because of grade differences resulting from the Trafalgar Road overpass, it is not likely that it can intersect with Trafalgar Road further north than what is shown in the concept plan. This new road leads to a bus-only entrance to the bus loop, a signalized main access to the pick-up/drop-off areas (PUDO) and parking lots, and secondary minor access to the parking at the far west side of the site. These intersections should be coordinated with the future Agerton Secondary Plan road network.

The bus loop includes 11 bus bays, all sized to accommodate GO buses, in a standard sawtooth configuration. The location of the bus loop on the east side of the site close to the station building shortens travel times from Trafalgar Road and provides direct access for riders originating at/destined to development between the station site and Trafalgar Road.

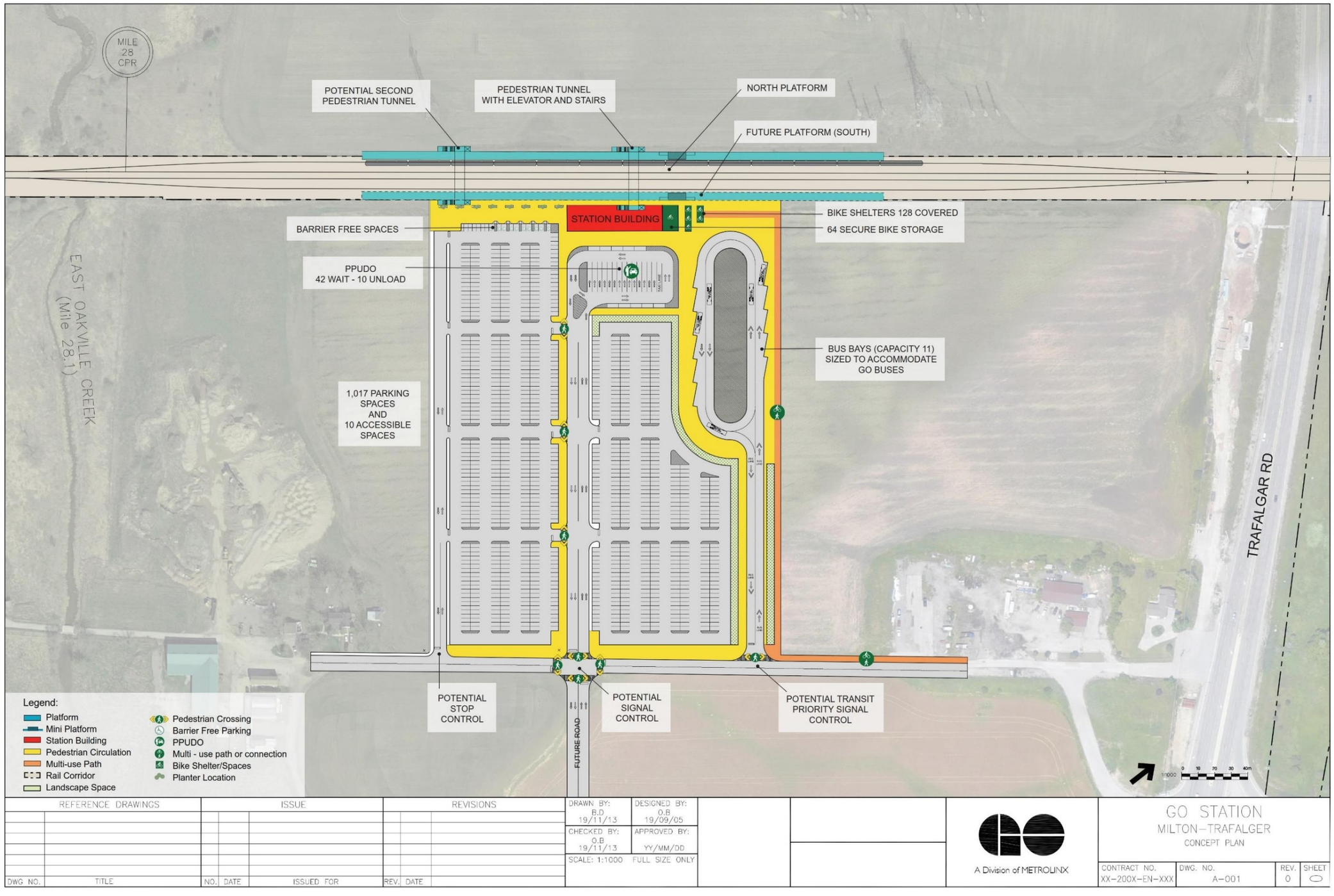
Pedestrian and cyclist access to the site is provided via a multi-use path on the north side of the east-west collector road, leading into the site adjacent to the bus loop and terminating at the bike parking facilities to the east of the

station building. Pedestrian crossings at the main station access and generous pedestrian space leading from the east-west collector road to the station building provide safe and efficient pedestrian access from developments south of the station.

The location of the PUDO is situated to prioritize passenger pick-up/drop-off over park and ride passengers; immediately adjacent to the station building. The main station access road, while shared with park and ride users, provides priority for vehicles accessing/egressing the PUDO and uses stop controls for the parking lot drive aisles.

The east and west parking lots are approximately equal in capacity and are divided by the station access road. The secondary parking lot access on the west side of the site provides redundancy and greater egress capacity.

Figure 3: Milton-Trafalgar GO Station Concept Plan



4

Strategic Case

Introduction

The Strategic Case sets out the rationale for proceeding with the proposed station investment and provides key criteria including the relationship to market demand, social and environmental impacts, network connectivity, and accessibility improvements.

This chapter uses the three strategic outcomes and their associated benefits to determine how the implementation of the proposed GO station aligns with local and regional policy goals. The three strategic outcomes are as follows:

- Strong Connections;
- Complete Travel Experiences; and,
- Sustainable and Healthy Communities.

Strategic Outcome 1: Strong Connections

The proposed station is expected to play a key role in accommodating future population and employment growth in the region by supporting the objectives of transit-oriented communities. The station is expected to provide relief to the existing Milton GO Station, where parking capacity has been reached today. Reducing parking pressure could, in turn, unlock the development potential of the land surrounding the existing station and achieve the visions outlined by the Town of Milton in their MTSA study. Moreover, improved connectivity to local transit and the GO rail network will provide more opportunities for mobility and accessibility within the Town of Milton and to the surrounding areas.

This section assesses the proposed station's ability to achieve the three benefits that support the realization of the "Strong Connections" outcome, namely:

- Promote land-use intensification and encourage transit-oriented communities;
- Improve access to local and regional destinations; and,
- Provide transit investment that can expand for future growth.

Benefit 1: Promote land-use intensification and encourage transit-oriented communities

To maximize the benefits of a proposed station investment, transit infrastructure should not only be built where people reside and jobs are located today, but also where there is potential for growth in the future. The proposed station is expected to bolster land-use intensification around the station site and support development around the existing Milton GO Station.

Being an undeveloped site, the proposed station site currently has minimal population and employment density with agriculture being the primary land use. This area is physically separated from the Milton urban area by the Sixteen Mile Creek Valley. The site provides an opportunity to accommodate higher density development and taller buildings in a way that contributes positively to the overall urban structure[6]. The site provides a rare opportunity to develop an exemplary complete community that achieves transit-oriented built form, rather than retrofitting and trying to fit a proposed station within an already built and potentially constrained area.

Taking advantage of this unique opportunity, the Trafalgar and Draft Agerton Employment Secondary Plans have established a detailed planning framework and development concept for infrastructure and land use that supports intensification along the Trafalgar Corridor and surrounding the proposed station site. The Agerton Employment Secondary Plan intends to initiate the development of an MTSA and encourage the attraction of 6,800 residents and 15,000 jobs over 20 years. The Trafalgar Secondary Plan sets out to encourage growth along the corridor with a minimum population of 26,000 residents and 4,000 jobs within the 2031 planning horizon.

The Draft Agerton Secondary Plan stipulates that the MTSA is intended to provide a full mix and range of uses within a 500-metre radius of the proposed station with a minimum overall density of 300 residents and jobs per

[6] Town of Milton. (2019). Derry and Trafalgar GO Station Feasibility Analysis.

hectares. This density is considered transit-supportive, according to Metrolinx's density guidelines for express rail stations (150–300 P+J/ha)[7]. Tall buildings and mid-rise buildings are encouraged within the MTSA while low-rise buildings (fewer than four storeys) are prohibited.

The proposed station is not only expected to benefit from and contribute further to land use intensification around the Trafalgar Corridor, but it is also expected to alleviate parking pressures at the nearby Milton GO Station. Reduced demand for parking should provide the opportunity to unlock land for transit-oriented communities around the existing stations.

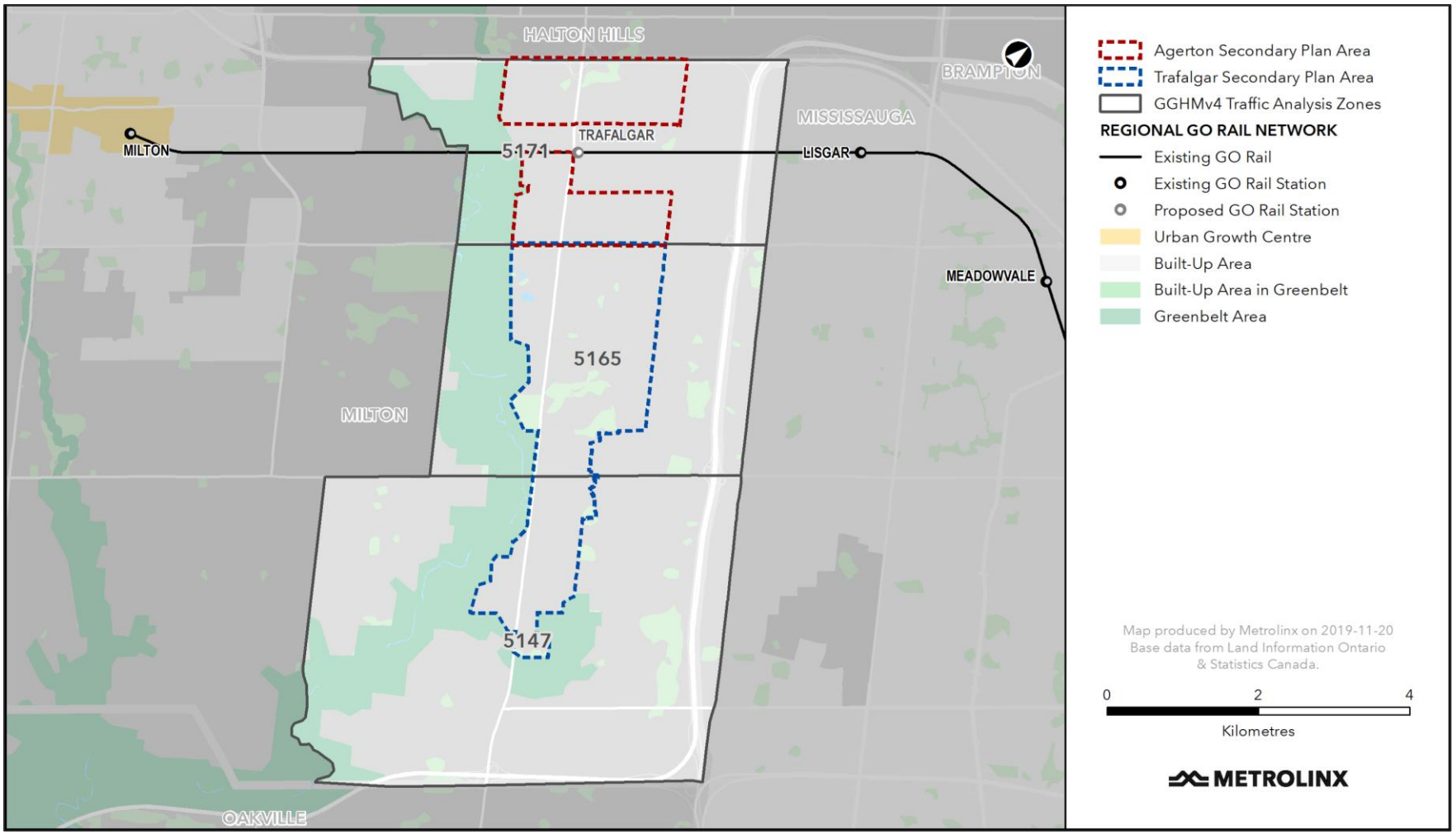
The Milton GO Station is located within a provincially designated Urban Growth Centre, a focal area for investment in institutional and region-wide public services, major transit infrastructure, and the accommodation of a significant share of population and employment growth[8]. In May 2020, the Milton Major Transit Station Area and Mobility Hub Study was completed which provides recommendations to guide the transformation of the Milton GO Station and surrounding area (800 m radius) into a transportation hub with pedestrian-oriented streetscapes and mixed-use communities. At full build out, the area extending from Milton GO Station to Main Street East, Thompson Road South and Ontario Street South (i.e. the Primary and Secondary Zones) are expected to have a total of 25,100 residents and 4,100 jobs[9]. Recognizing that park-and-ride may be an important mode of access for the existing Milton GO Station, an additional 850 spots will be provided at the existing station as a short-term solution to parking constraints. In the medium to long term, parking challenges may continue at the station as demand for parking could outpace parking supply. The proposed station could provide the relief necessary at the existing stations to release lands currently used for parking.

For business case analysis purposes, land use inputs are held constant in the GGHMv4 for the BaU and the proposed station scenario to ensure that a consistent base of comparison is provided between scenarios. As such, real estate developments and projected population and employment surrounding the proposed station are assumed to exist even in the BaU scenario[10]. These assumptions are common practice across all Metrolinx IBCs in order to isolate the benefits and costs of the proposed station and avoid conflating the impact of the proposed station with the impact of the development on travel demands.

However, it is recognized that this methodology does not reflect the fact that the proposed Secondary Plan developments are contingent on the proposed station. If the proposed station is not constructed, the Milton-Trafalgar area may be less attractive to future employers and residents, resulting in a lost opportunity for transit-oriented communities surrounding the MTSA. Further, deferring this infrastructure investment would result in exacerbated parking constraints at existing stations which may result in increased traffic congestion, reduced ridership, lost revenue and more lost opportunities for transit-oriented communities. It is recognized that even if the proposed station is implemented, there is a risk that the planned development identified in the Agerton Employment Secondary Plan does not occur. This would result in an "island station" at the Milton-Trafalgar location, which is a standalone station with minimal commercial, residential or mixed land uses in its vicinity, resulting in passengers accessing it primarily by auto.

[7] Metrolinx. (2011). Mobility Hub Guidelines for the Greater Toronto and Hamilton Area.
[8] Neptis. (2013). Implementing the Growth Plan for the Greater Golden Horseshoe.
[9] Town of Milton. (2020). Milton Major Transit Station Area & Mobility Hub Study Final Report.
[10] In the Agerton Employment Secondary Plan Draft, the MTSA is identified as a contiguous urban area surrounding the proposed station.

Figure 4: Milton-Trafalgar and Agerton SPAs



Benefit 2: Improve access to local and regional destinations

A key objective for the project is to improve users' access to local and regional destinations, business nodes, and employment centres through increased accessibility to transit services. Enhancing transit infrastructure, particularly in areas posed for urban growth, will improve connectivity to existing and future employment clusters and residential communities.

Under the BaU scenario, people who live and work around the proposed station need to travel to nearby stations to access the GO rail network, either by car or by transit. With the proposed station, residents and workers will have a more direct and faster access to the network, which will promote the use of active modes of transportation.

Improved connectivity will also be achieved through the integration of the new GO station with local and regional bus services in the broader northwest GTHA including the Mississauga MiWay transit system, Brampton Transit, Oakville Transit, and Milton Transit. Several local and regional transit routes have been planned to serve the new station site in the 2041 AM peak period, which will provide additional connections for people who live, work, and play along the immediate Trafalgar corridor area and the surrounding region.

Given its proximity and accessibility to other major transportation connections such as Highway 401, Highway 407, and Derry Road West, the proposed station should become a complete multimodal mobility hub in the medium to long term. Table 3 details the transit services and route assumptions within the study area considered in the GGHMv4 for the 2041 AM peak period.

Table 3: Proposed Local and Regional Routes within the Study Area

Service	Routes	Service Description
Local Bus	10A/B – Derry NE 11A/B – Derry SE 12A/B – Derry SW 14A/B – Derry NW	• Stops at all intersections and connectors • 15 min peak headway / 30 min off-peak
Regional Bus	501(NB) / 511(SB) – Trafalgar North / South	• Stops at all intersections and connectors • 10 min peak headway / 20 min off-peak
	502(EB) / 522(WB) – Steeles East / West	• Stops at all intersections and connectors • 15 min peak headway / 30 min off-peak
	503(EB) / 533(WB) – Derry East / West	• Stops at all intersections and connectors • 15 min peak headway / 30 min off-peak
	504(EB) / 544(WB) – Britannia East / West	• Stops at all intersections and connectors • 15 min peak headway / 30 min off-peak

In the short term, the station will be served by GO trains operating during peak periods in the peak direction. However, it is important to consider the effect of improved bus services at the nearby Oakville GO Station as a result of GO Expansion service levels on the Lakeshore West line. Located at the intersection of Trafalgar Road and the QEW Highway, Oakville GO is served by a combination of all-day GO service, express GO service, VIA Rail, and expanded bus service as a precursor to the north-south Trafalgar BRT project. This expanded bus service can provide a connection between the new station and the regional rapid transit network via Oakville GO. Figure 5 and Figure 6 illustrate the local and regional transit route assumptions within the study area, respectively.

Figure 6: Regional Transit Route Assumptions (2041)

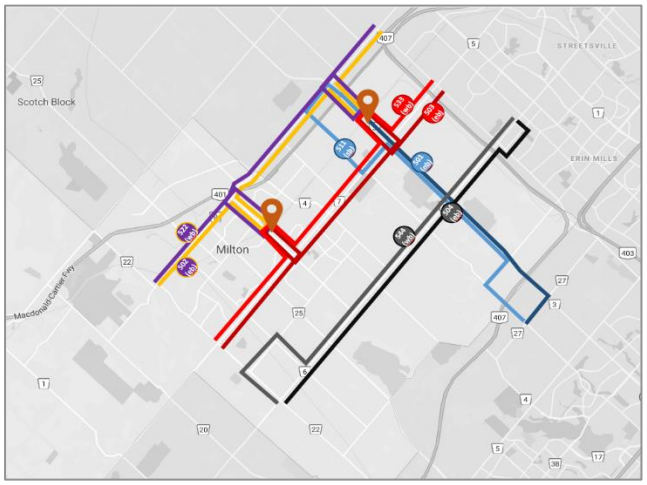
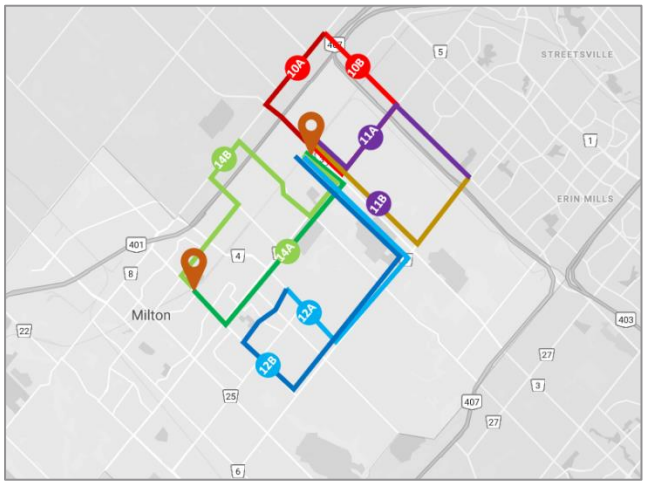


Figure 5: Local Transit Routes Assumptions (2041)

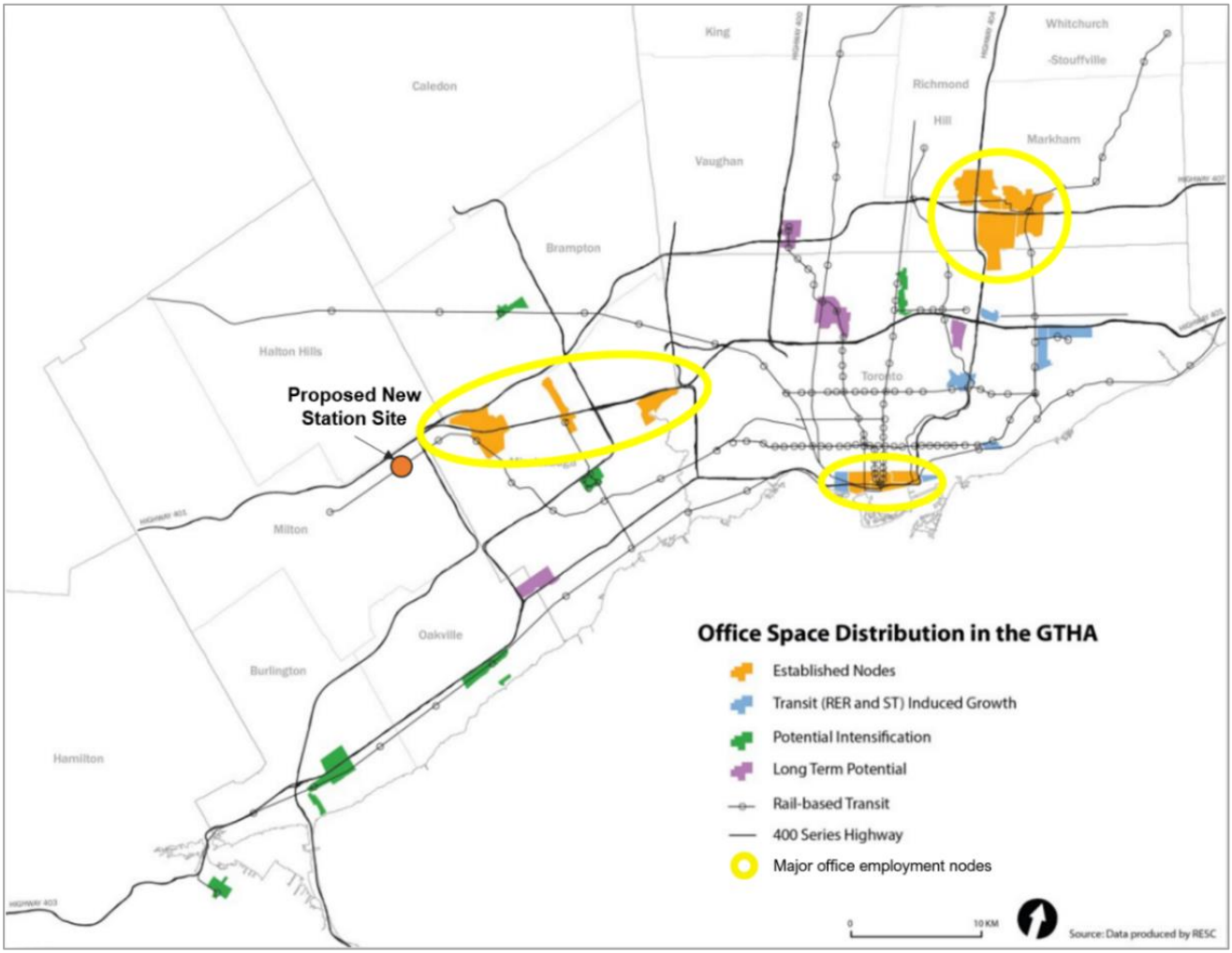


In addition to serving as a transit hub for local and regional connections, the new GO station should enable the development of an employment area intended to provide a range and mix of employment and retail uses[11]. The new station has the potential to provide additional options to commuters through an efficient transit connection for businesses in the region. The planned employment area offers an attractive option for employers seeking an urban lifestyle complete with the amenities that the next generation of employees are looking for in an affordable transit-connected environment.

Currently, the greater region of southern Ontario has three major office employment nodes: Downtown Toronto, Markham-Richmond Hill, and the Highway 401 corridor between Airport Corporate Centre and Meadowvale. As illustrated in Figure 7, the proposed MTSA would be an extension of the Highway 401 corridor employment node located between Meadowvale and Milton. The site provides a unique opportunity to develop an employment area that incorporates best practices for land use policy, transit planning and economic development. Demand for land around the MTSA arises from its location relative to important regional nodes and connections such as downtown Toronto, Pearson Airport, and two major trade corridors leading to the U.S. The site is also located immediately abutting the Kitchener/Waterloo Toronto Innovation Corridor, where many organizations have launched initiatives to attract high-tech jobs[12].

[11] Town of Milton. (2019). Agerton Employment Secondary Plan Draft.
[12] Town of Milton. (2019). Derry and Trafalgar GO Station Feasibility Analysis.

Figure 7: Major Office Employment nodes in the GTHA[13]



Benefit 3: Provide transit investment that can expand for future growth

The initial concept plan includes one platform on the north side of the tracks, although a second platform on the southern track has been protected for in the event that two-way service is implemented on the Milton GO corridor in the future. Further design and analysis would be required to determine the feasibility of additional tracks and property requirements for potential overhead contact system infrastructure in the case of electrification. Potential spatial constraints around the Trafalgar Road overpass, hydro corridor and culvert at the Sixteen Mile Creek tributary would require further investigation to ensure the feasibility of the proposed station concept and track configuration.

Strategic Outcome 2: Complete Travel Experiences

The proposed station would help residents and employees within and surrounding the Town of Milton to achieve a higher quality of life by reducing travel times and providing an easy, safe, and comfortable travel experience. This

[13] Strategic Regional Research Alliance. (2015). The Future of Office Development in the GTHA.

enhanced passenger experience will meet the diverse needs of all transit users and make transit a more attractive mode of transportation.

This section assesses the proposed station's ability to deliver the three benefits that support the realization of the "Complete Travel Experiences" outcome:

- Increase capacity on the Milton GO line;
- Reduce travel times; and,
- Improve safety on the road network.

Benefit 4: Increase capacity on the Milton GO line

The proposed station is expected to attract 2,000 riders during the AM peak period of a typical weekday in 2041. These riders consist of existing GO riders who board at nearby stations under the BaU Scenario. These diversions are primarily comprised of passengers from Milton GO and Lisgar GO stations, with 1,530 passengers from Milton GO and 230 passengers from Lisgar GO diverting their trips to the proposed station. An additional 90 passenger diversions are observed from Georgetown GO and Mount Pleasant GO and 120 passengers are expected to divert from Oakville GO, despite shorter travel times on the Lakeshore West GO line, in favour of comfort, better accessibility to the station, and a less crowded commute. This is represented graphically in Figure 8.

Figure 8: Ridership Diversions, 2041 AM Peak Period

The model anticipates negligible gain in net new daily boardings on the GO system. This is in part because the GGHMv4 considers the Milton GO line to be operating at capacity in 2041, even under the BaU scenario. As such, any new boarding results in someone not able to board further downstream. Improvements in line capacity or service frequency would likely attract new transit riders to use the proposed station in the future. As a result of CP ownership of the corridor, electrification and level boarding are not currently possible on the Milton line.

Benefit 5: Reduce travel times

In 2041, passengers using the proposed station are likely to live or work in the vicinity of the station. Under the BaU scenario, these users drive, are dropped off or use local transit to access the closest or most accessible station. The proposed station is expected to reduce travel times for existing transit users through faster station access and station diversion and for auto users remaining on the road network through reduced congestion on the local road network.

Transit users will save 5.6 million person-hours of travel over 60 years compared to the BaU. These travel time savings consist of reductions in in-train and in station access travel times.

In-train travel time encompasses changes in trip travel times for all passengers boarding (or alighting) at the proposed station instead of existing stations. Passengers diverted from Milton GO would incur savings of 4.9 minutes while passengers who board at the proposed station instead of Lisgar GO would incur a time penalty of 4.0 minutes since the station is upstream of Lisgar GO. For these riders, the travel time penalties are offset by the station access travel time savings, otherwise they would not change their boarding station. As well, the proposed station is expected to incur 2.8 minutes upstream delay to passengers boarding at Milton GO due to the extra dwell time at the new station. The loss in ridership due to the additional delay is negligible.

Transit users accessing the station by auto, as either park-and-ride or PUDO users, and by local transit will save 1.3 minutes and 12 minutes on average respectively compared with the BaU. Travellers egressing the station via transit will experience a total travel time savings of 12 minutes compared with the BaU. Travel time savings for the walk mode are not included since it is assumed that no passengers would be walking from the station site to an existing station in the BaU.

Table 4 shows the travel time savings for passengers boarding and alighting at the proposed station.

Table 4: Proposed Station Travel Time Savings (Boarding and Alighting)

	Access Mode Savings (min)	Access Mode Savings (min)
Park and Ride	1.3	-
PUDO	1.3	-
Transit	12	12

These average access travel time savings encompass any additional travel times incurred by users who change access mode for boarding at a closer station (e.g., someone living near the proposed station could be willing to walk 10 minutes to access the proposed station on foot instead of driving 5 minutes to Milton GO Station to avoid the fuel costs and the additional fare).

Transit users shifting away from auto use to access the GO rail network not only alleviate parking pressure at the existing stations, but also contribute to reducing congestion on local roads, which translates to travel time savings for auto users remaining on the network.

Benefit 6: Improve safety of the road network

The proposed station is expected to improve overall safety in the network through a reduction in distance travelled due to a modal shift away from auto access. Reduced automobile use also results in fewer accidents on local roads that can lead to serious injury or death. The proposed station will result in savings of 1,895 vehicle kilometres travelled during the 2041 AM peak period compared with the BaU. Every auto trip contributes to increased congestion on the road network and a higher likelihood of a car collision. This reduction, combined with the alleviation of station congestion at Milton GO, should improve overall safety for all users in the network.

Strategic Outcome 3: Sustainable and Healthy Communities

The proposed station should encourage sustainable travel patterns and contribute to healthy communities through improvement of environmental factors such as air quality. This section compares the proposed station's ability to deliver the two benefits that support the realization of the "Sustainable and Healthy Communities" outcome:

- Encourage the use of active modes of access to the GO rail network; and,
- Improve air quality and reduce transportation-related emissions.

Benefit 7: Encourage the use of active modes of access to the GO rail network

Building a new station within a densely built environment should reduce reliance on auto use to access the GO rail network. The planned development within an 800-metre radius of the station in 2041 illustrated in Figure 9 includes a mixed-use employment and residential area that encourages active modes of transportation to access the station. Walking and cycling are highly dependent on convenience, density, built form, and supportive infrastructure – all of which are provided by the proposed station design and surrounding land uses. Cycling and pedestrian access are prioritized in the proposed station design, which includes covered bike shelters and secure storage space to encourage cycling as a first and last-mile solution. Infrastructure such as sidewalks, crosswalks, and multi-use paths are provided within and around the station site to ensure safe and efficient movements of users accessing the station.

The new rapid transit infrastructure, coupled with land-use intensification in the area, encourages healthy commuting practices and more sustainable communities. This will ultimately lead to more people walking to transit stations, fewer people being auto-dependent, and a greater tendency for non-auto-dependent people to walk or bike more often. A recent study demonstrates that getting workers to walk or bike on their commute to work makes them healthier and more productive[14]. As companies seek ways to lower health care costs, employees who exercise – burn calories, clear their minds and strengthen their hearts and lungs – during their commute help boost overall hourly productivity and reduce healthcare costs borne by employers. Directly or indirectly, employers that save on health care costs for their employees tend to pass the savings on in the form of higher wages and/or lower prices[15].

Amenities are provided at the proposed station that facilitate ease of passenger movements throughout the station site. Pedestrian connections along the south side of the parking lot and adjacent to the main parking lot driveway will ensure safe and efficient pedestrian circulation through the parking lot. The proximity of the PUDO to the station building will reduce walk time for passengers getting dropped off / picked up and will minimize pedestrian conflicts with vehicles. The site is an attractive transfer point for passengers as it includes a bus loop for local transit connections. The proximity of the station entrance to the bus loop would minimize transfer walking time and provide a seamless, direct connection for passengers using local or regional bus services. The location of the bus bays on the outside of the loop eliminates the potential of pedestrians crossing transit vehicle areas.

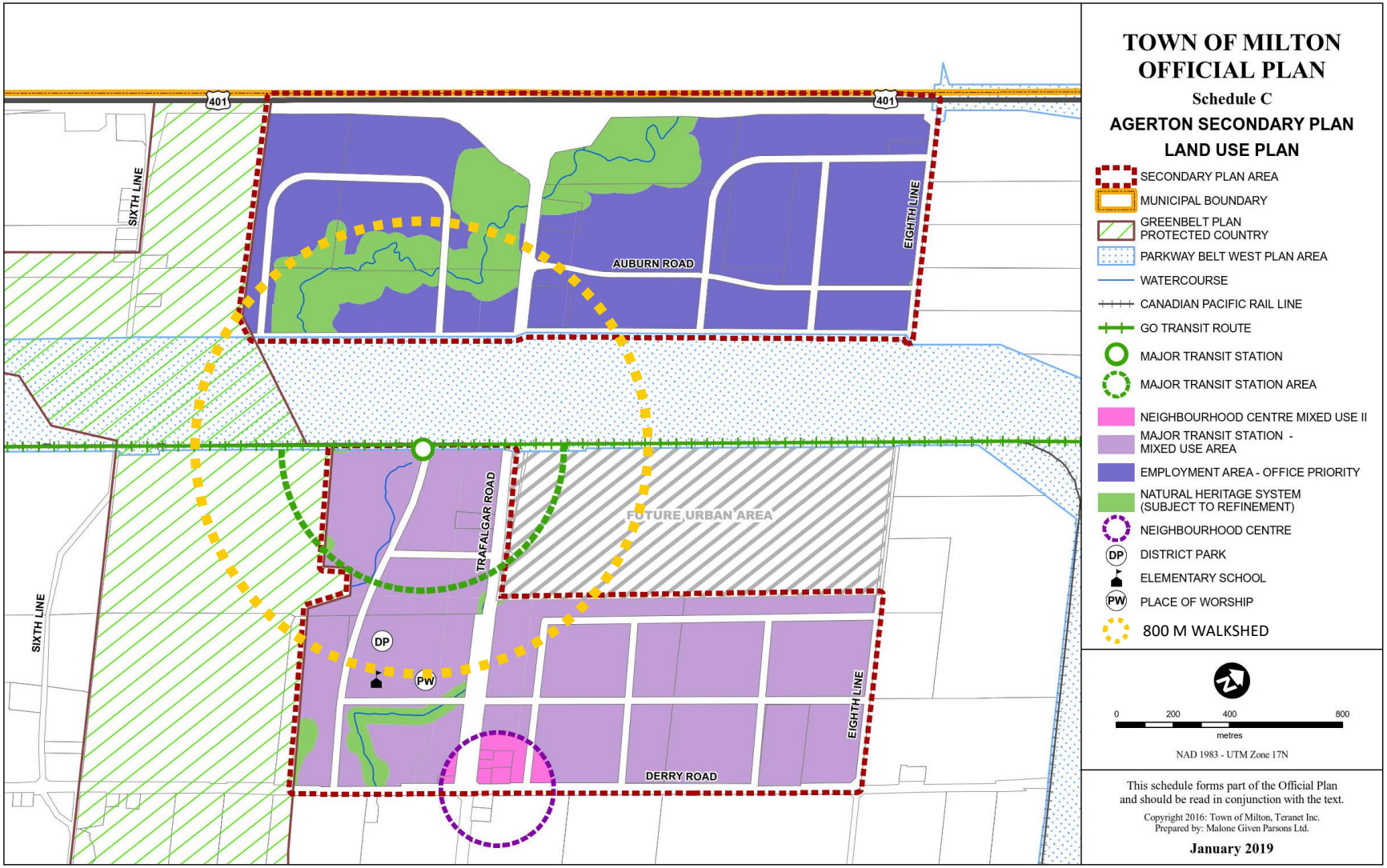
Benefit 8: Improve air quality and reduce transportation-related emissions

Motorists switching modes from auto to transit or active transportation reduce the number of cars on the road network and results in fewer transportation-related emissions. The reduction in distances travelled by auto will alleviate auto-related greenhouse gas (GHG) emissions and Criteria Air Pollutants compared to the BaU. Fewer emissions would lead to an improvement in air quality, and ultimately healthier and more sustainable communities.

[14] Loong, C., van Lierop, D., & El-Geneidy A. (2016). The road to productivity: An analysis of commuters' punctuality and energy levels at work or school. Paper to be presented at the 95th Annual Meeting of the Transportation Research Board, Washington, D.C., USA.

[15] People for Bikes and Alliance for Biking and Walking. (2014). Protected Bike Lanes Mean Business: How 21st Century Transportation Networks Help New Urban Economies Boom.

Figure 9: Agerton Employment SPA - 800 Metre Walkshed (From Town of Milton Agerton Secondary Plan)



Strategic Case Summary

The proposed station performs well in the Strategic Case, particularly when considering the benefits it provides in terms of parking and congestion relief to the existing Milton GO Station. Table 5 summarizes the strategic case for the proposed station against the key objectives.

Table 5: Summarizing the Strategic Case

2041 RTP Goal	Objective	Proposed Station
Strong Connections	Promote land-use intensification and encourage transit-oriented communities	• The station is expected to encourage further developments – in addition to what is currently planned – around the proposed station site to achieve an exemplary case of transit-oriented community building. • Providing a station in between Milton and Lisgar GO Stations is expected to alleviate access congestion at the existing stations which may unlock land use potential for transit-oriented communities around the existing hubs. Redevelopment of expansive surface parking areas surrounding the existing station would be necessary to realize the policy objective of increasing compact urban development in the vicinity.
	Improve access to local and regional destinations	• Enhancing transit infrastructure, particularly in areas posed for urban growth, will improve connectivity to existing and future employment clusters and residential communities. • The proposed station should integrate existing and planned transportation connections, as well as local and regional rapid bus transit services. This will set the stage for the station to transform into a mobility hub that offers connections to employment centres and destinations within the vicinity and throughout the broader region.
	Provide transit investment that can expand for future growth	• Station concept protects for a second platform on the south side of the track in the case that future GO expansion levels of service are implemented along the Milton GO line.
	Increase capacity on the Milton GO line	• The proposed station will attract 2,000 boardings during the 2041 AM peak period, with most of the boardings being diversions from Milton GO. • The proposed station includes 1,000 surface parking spaces and ample opportunity for park and ride, which should alleviate parking constraints at Milton GO. Moreover, the proposed station site is served by two transit priority corridors (Derry and Trafalgar Roads), which should disperse traffic and thereby improve station access and egress efficiency.
Complete Travel Experiences	Reduce travel times	• Transit users will save 5.6 million person-hours of travel over 60 years, comprised of: – Station access travel time savings of 1.3 minutes for park/PUDO and 12 minutes for transit trips in the 2041 AM peak period; – In-train travel time savings of 4.9 minutes for passengers diverted from Milton GO and in-train travel time penalties of 4.2 minutes for passengers diverted from Lisgar GO; – Travel time penalty of 2.8 minutes for upstream riders due to the additional dwell time at the new station. • Auto users remaining on the road network will also experience travel time savings resulting from the shift away from auto to transit or active

2041 RTP Goal	Objective	Proposed Station
		modes of transportation to access the station, which reduces road congestion, especially on local roads near existing stations.
	Improve safety on the road network	• Reduced auto use increases safety and reduces the number of collisions on the road network.
Sustainable and Healthy Communities	Encourage the use of active modes of access to the GO rail network	• Reduced reliance on auto use to access the GO rail network with numerous planned developments around the station. • The proposed station concept prioritizes pedestrian and cyclist access. • Sidewalks, crosswalk and multi-use paths provided within and around the station site to ensure safe and efficient movements of active transportation users accessing the station. • The proposed station location and layout facilitate comfortable and efficient passenger movements throughout the station
	Improve air quality and reduce transportation-related emissions	• The proposed station will result in a reduction of 1,895 vehicle-kilometres travelled due to a modal shift from auto to transit or walk to access the station. • The reduction in auto use alleviates auto-related GHG emissions and Criteria Air Pollutants.

5

Economic Case

Introduction and Assumptions

The Economic Case evaluation consists of a benefit-cost analysis, which tests whether there is a clear basis for proceeding with the implementation of the proposed station from a societal perspective. The analysis compares the additional costs arising from the project against the incremental transportation-user benefits and environmental outcomes.

The net present value (NPV) measure provides the value of benefits net of all costs, while the benefit-cost ratio (BCR) offers an indication of the economic return per dollar of investment. The analysis is based on the costs and benefits that can be quantified and converted to monetary values. The costs include capital expenditure and any additional station operating and maintenance costs. The benefits include transportation-user impacts (i.e. travel time savings, reduced vehicle operating costs and safety impacts) and the environmental and health outcomes resulting from the changes in travel behaviour.

Assumptions provided by the Metrolinx Business Case Guidance are listed in Table 6.

Table 6: Economic Case Assumptions

Input	Impact Type
Analysis Approach	All costs and benefit are expressed in 2019$
Evaluation Period	60 years
Economic Discount Rate	3.5%
Real Inflation	0%
Value of Time	$18.06 / hour
Value of Time Growth Rate	0%
Average Auto Occupancy	1.077
Auto Operating Cost Savings (2019$)	$0.09/km
Decongestion Benefit	0.01 hours/vehicle-km (peak) 0.0013 hours/vehicle-km (off-peak)
Safety Improvements (Accident Mitigation) (2019$)	$0.09/km
Environmental Impacts (2019$)	$0.03/km

Costs

Project costs were estimated based on the station concept plan, including all the capital outlay as well as incremental operating and maintenance costs. All cost figures presented below are incremental to the BaU scenario.

Capital Costs

The capital costs, estimated at $87.5 million in present value, represent the fixed one-time costs incurred during the implementation of the investment. Capital costs include the labour and materials required for construction of the station, the adjacent parking and other station facilities, as well as track and on-corridor work. Since the station is being delivered through the Transit Oriented Communities program, initial capital costs would be completely borne by the Proponent. However, the capital costs also include $13.7 million for major rehabilitation throughout the lifecycle of the project borne by Metrolinx after transfer of ownership. Property costs are excluded from the economic analysis.

Operating and Maintenance Costs

Operating and Maintenance Costs consist of ongoing costs required to operate the service, provide day-to-day maintenance. Metrolinx estimated that the proposed station would incur incremental annual operating and maintenance costs of $373,000 (in 2019$) for a total of $21.9 million in present value terms over the 60-year evaluation period.

Benefits: User Impacts

Transportation user impacts capture how the investment will improve the welfare of network users. Impacts to transit and automobile users consist of the travel time impacts and the vehicle operating cost savings for riders who park and ride at an existing GO station under the BaU scenario and are now able to use transit or active transportation modes to access the proposed station located closer to their place of residence or work.

User impacts considered in this IBC were determined using outputs from the GGHMv4. Modelling outputs enable benefit and ridership calculation for the 60-year project lifecycle under analysis. User benefits are considered through the lens of changes in costs, or 'willingness to pay' for a trip.

Travel Time Savings

The travel time savings are comprised of the in-train travel time savings of 4.88 minutes for riders diverted from the existing Milton GO Station located upstream. These travel time savings are reduced by the delay of 2.8 minutes incurred by upstream riders due to the additional stop at the proposed station as well as the travel time penalty of 4.18 minutes to boarders diverted from Lisgar GO. The travel time analysis also includes the change in access time to get to the station. For users diverted from Lisgar GO, the combination of monetized station access travel time and out-of-pocket cost (i.e., fuel costs) must be greater than the in-train travel time penalty; otherwise users would not change station.

The analysis assumes that the average travel time savings per trip will remain constant over time for all user segments. In other words, the annual travel time savings increase proportionally to the year-on-year ridership growth, assumed at 3.6% until 2047. The impacts are monetized using a value of time of $18.06 per hour, as per the Metrolinx Guidance.

Vehicle Operating Cost Savings

Vehicle operating costs consist of out-of-pocket costs to individuals driving their vehicles. These cost savings are based on the total change in auto distances travelled between the investment option and the BaU. The operating cost savings are monetized by applying a value of 9 cents per vehicle-kilometre.

Benefits: External Impacts

External impacts include safety outcomes from the reduced number of vehicles on the road network and greater separation of pedestrians from moving vehicles, as well as greenhouse gas emission reductions. Auto use carries a higher risk of death or injury than transit use. Consequently, any reduction in auto usage will result in a safety benefit. The safety benefits are monetized by applying a unit cost of 9.5 cents per vehicle-kilometre to account for the increase in accidents and collisions. External impacts also consist of environmental impacts such as the reductions in GHG emissions. These impacts do not account for any changes in GHG emissions from the additional transit activities in the area. The GHG emissions reduction is monetized by applying a unit cost of 1 cent per vehicle-kilometre.

Economic Case Summary

The cost-benefit analysis indicates the proposed station meets the objectives set out by the 2041 RTP to reduce auto trips and to improve transit services and overall mobility in one of the Region's fastest-growing areas. Adding a new GO station in a densely-built environment reduces auto trips and increases transit trips, alleviates congestion around the existing Milton GO Station and reduces travel times. The reduction in auto trips also improves safety outcomes and reduces greenhouse gas emissions.

In total, the economic benefits are in excess of $45 million in present value terms over the 60-year evaluation period. The value of the benefits is not enough to offset the $109.4 million in capital and operating costs to build and operate the proposed station. Over the 60-year evaluation period, the total costs are in excess of $40 million in present value terms relative to the project benefits that can be monetized and included in the cost-benefit analysis. The benefit-cost ratio (BCR), calculated by dividing total discounted benefits by total discounted costs, of 0.62:1 means that for every dollar invested in the project, the project generates $0.62 in net benefits to society. Table 7 provides a summary of key results of the Economic Case. The range represents high-end and low-end results for two modelling scenarios, one where demand for parking at Milton-Trafalgar GO is constrained by capacity and one where demand is unconstrained.

Table 7: Summarizing the Economic Case (2019 $ Millions, Present Value)

Impact Type	Proposed Station
Total Costs (Present Year $)	**$109.4 M**
Capital Costs	$87.5 M
Operating and Maintenance Costs	$21.9 M
Incremental Fare Revenue	**$22.1 M**
Total Benefits (Present Year $)	**$45.5 M - $47.1 M**
Travel Time Savings (Transit)	$31.7 M - $33.3 M
Travel Time Savings (Auto)	$8.7 M
Vehicle Operating Cost Savings	$3.6 M
Accident Reduction Benefits	$1.1 M
Environmental Benefits	$0.5 M
BCR	**0.62 – 0.63**
NPV (Present Year $)	**$(41.8) M - $(40.2) M**

Limitations

It is important to note that these results rely on inputs from the GGHMv4, which considers the Milton GO line to be operating at capacity during the 2041 AM peak period; as such, the model does not allow significant net new riders on the GO network. Hence, the benefits estimated above only consider individuals who, in 2041, already use GO rail and board or alight at a nearby station. These assumptions and associated model results may artificially reduce the overall benefits of the project. In addition, by allowing an unlimited number of passengers to park and ride at Milton GO, the model artificially inflates ridership in the BaU since more passengers are able to board than actual capacity. In reality, the excess passengers in the BaU who may have otherwise driven directly to their destination may now choose to take GO transit. These modal shifts away from auto generate additional vehicle operating cost savings, improve safety and environmental outcomes and reduce congestion on the road network, further reducing the gap between the project costs and benefits.

Sensitivity Analysis

A sensitivity analysis was completed to determine the change in overall benefits and costs when assumed growth rates were modified. The results of this analysis are presented below in Table 8.

Table 8: Economic Sensitivity Analysis (2019 $ Millions, Present Value)

Criteria	Base Assumption	Sensitivity	Resulting BCR
VOT Growth Rate	0%	0.7%	0.69 – 0.71
Discount Rate	3.5%	2.5%	0.79 – 0.81
Ridership Growth Rate	3.6%	2%	0.59 – 0.61
Ridership Growth Rate	3.6%	1%	0.59 – 0.60

Wider Economic Impacts

Milton is a modern and innovative community with a population of nearly 130,000 and a highly skilled labour force of over 60,000 people[16]. Its population is estimated to be 145,000 by 2021 and 235,000 by 2031. Milton ranks first for employment growth in Halton Region and has one of the youngest and most educated workforces in Ontario:

- 35.3 median years of age, youngest in Ontario;
- 73 per cent of the population has a post-secondary education; and
- 62 per cent of Milton's labour force works in knowledge-based jobs.

Improvements in connectivity and accessibility to knowledge-based employment hubs such as the one planned for in the Agerton Employment Secondary Plan Area can contribute to higher standards of living for people who live or work in the area and productivity gains for businesses in the region. These benefits are almost entirely incremental to the transportation user benefits included in the cost-benefit analysis.

A higher standard of living for people can take the form of a wider range of job opportunities for workers and/or higher take-home pay. For businesses, productivity gains are achieved when they produce the same amount of output using fewer resources.

[16] Statistics Canada. 2017. Milton, T [Census subdivision], Ontario and Ontario [Province] (table). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017.

In highly congested metropolitan areas, some businesses incur higher labour costs in the form of higher wages to compensate workers for high commuting costs[17]. Alternatively, some businesses may take longer to fill job vacancies and some vacancies could remain unfilled (or filled by less appropriate workers). Travel cost savings and improved accessibility may provide businesses with access to a larger pool of labour to fill vacancies more easily and, in some cases, allows them to have easier access to a greater diversity of skilled labour without bearing the payroll costs needed to attract such workers and other costs associated with unfilled vacancies or poor worker-job matches. In time, firms may also consider relocating or establishing their business in the proposed station area to benefit from the comparative advantage, thus furthering the economic development of the area.

Furthermore, increasing cyclist and pedestrian activity in the proposed station area increases footfall and, in turn, can increase sales for retail shops. Although customers who bike or walk to a store tend to buy less in a single visit, they tend to return more often, spending as much or more over time than the average customer who arrives by car[18]. Also, pedestrians and cyclists are more likely to shop locally.

When firms achieve higher productivity through increased sales or lower production costs, they also have the opportunity to increase their market share relative to their competition. The increase in market share results in more output which generates more employment and more disposable income for the households in the GTHA. Ultimately, this means that the area becomes more attractive either as a residential location for individuals and/or as a business location for firms (i.e., as a location for additional employees and investment).

Equity and Distributional Impacts

Adding a proposed station to the GO network could contribute social/community benefits for social groups that are particularly reliant on transit to access jobs, schooling, services or other amenities. Further analysis should be completed as part of the planning process to assess the potential impacts of the proposed station on lower-income households and other potentially vulnerable groups, such as the elderly.

The analysis should seek to determine how these groups are impacted by the change in accessibility arising from the proposed station, relative to the overall population affected. Also, in addition to considering the distributional impacts in the station catchment area, the analysis should also consider the impacts of the additional time penalty on the generalized journey cost for those vulnerable population groups travelling from upstream.

[17] U.S. Department of Transportation, National Cooperative Highway Research Program. (2001). Report 463 Economic Implications of Congestion (Washington, D.C, Federal Highway Administration, 2001).

[18] People for Bikes and Alliance for Biking and Walking. (2014). Protected Bike Lanes Mean Business: How 21st Century Transportation Networks Help New Urban Economies Boom.

6

Financial Case

Introduction

The Financial Case assesses the financial viability of the proposed station from the perspective of Metrolinx. Typically, the Financial Case assesses the investment option through net revenue, revenue to cost ratio, and operating cost recovery ratio analyses, taking into account all the costs incurred by Metrolinx as well as any incremental revenue.

The assessment is based on 2041 ridership estimates and assumes that demand will grow at 3.6% per year, the same rate as the demand in the corridor. Dollar figures for the 60-year evaluation period from the hypothetical service start date of 2024 through to the end of 2083 are in nominal dollars (i.e., the dollar figure expected to be paid or received expressed in the year of the payment). Nominal dollars are calculated assuming an annual inflation rate of 2%. The annual costs and revenues are discounted back to a single value using a nominal discount rate of 5.5%. Once discounted, total costs are compared against incremental revenues to derive the net present value in 2018$ for the financial case as well as the operating cost recovery ratio. The dollar figures below are in present value (PV) terms, unless otherwise indicated.

Costs

The project costs were estimated based on the station concept plan, including all the capital outlay as well as incremental operating and maintenance costs. All cost figures presented below are incremental to the BaU scenario. In this particular case, since the initiative is market-driven, private developers would incur the costs to plan and build the new station. Hence, Metrolinx would only incur incremental train and station operating and maintenance costs.

Capital Costs

The analysis assumes that the new station is delivered through the Market-Driven Strategy and will be funded and constructed by a third party. This third party would incur the costs associated with building the station and investing in the compact mixed-use development around the station to benefit from land value uplift around the station.

Metrolinx would only incur major rehabilitation work and incremental train and station operating costs less any cost associated with the parking lot, which will fall under the responsibility of the third party. Once adjusted for inflation and discounted using a 5.5 per cent nominal discount rate, the major rehabilitation costs borne by Metrolinx amount to $11.9 million.

Operating and Maintenance Costs

Operating and Maintenance Costs consist of ongoing costs required to operate train service and provide day-to-day maintenance of the station. Metrolinx would incur incremental train and station operating costs less any cost associated with the parking lot, which will fall under the responsibility of the third party. Over the 60-year evaluation period, total incremental operating and maintenance costs amount to $13.7 million in present value terms.

Revenue Impacts

Incremental revenues may include fare revenue, advertising, and proceeds from the disposal of assets. At the IBC stage, the assessment only considers additional fare revenues for Metrolinx. As discussed in the Strategic Case, the GGHMv4 suggests that the proposed station is not likely to attract new riders to the GO network. This is due to two built-in assumptions which may artificially inflate demand for GO in the BaU scenario, namely:

- Parking capacity at GO stations is unconstrained; and
- GO line capacity is constrained.

For the purposes of the Financial Case, a post-modelling adjustment was performed to circumvent these assumptions, assess the actual number of new riders, and determine the potential net fare revenue for Metrolinx on an annual basis throughout the 60-year evaluation period.

Parking capacity at GO stations is unconstrained: Under the BaU Scenario, parking demand at Milton GO Station in 2041 is expected to exceed capacity by approximately 900 spaces, while Lisgar GO has approximately 500 free spaces. The GGHMv4 is not currently calibrated to account for parking capacity constraints. Therefore, 900 "excess vehicles" are permitted to park and ride at Milton GO in the model, whereas in reality the number of park and ride vehicles would be limited by the number of parking spaces at the station. As a result of unconstrained parking in the model, the ridership at the existing station (and along the Milton GO line) is inflated in the BaU since more passengers are allowed to board than what could be accommodated in reality.

A post-modelling adjustment was performed to reallocate excess riders boarding at Milton GO Station under the BaU scenario. The 900 parking spaces are estimated to accommodate approximately 1,100 riders. These riders are distributed equally between three options in the BaU:

1) Changing access mode at Milton GO Station (e.g. carpooling, PUDO, cycling, walking);
2) Parking at Lisgar GO Station; or
3) Choosing not to use GO anymore and instead taking another mode (e.g. auto, carpool) to their destination.

To be conservative, the Economic Case was not adjusted to account for the unconstrained parking assumptions at Milton GO since this would introduce uncertainty given that there is not enough information to reliably assess the economic impacts and benefits of these riders. However, the Financial Case accounts for the increase in line ridership and fare revenue using this new allocation. The IBC assumes that with the proposed station, riders diverted to Lisgar GO or choosing not to use GO anymore would be able to board at the proposed station and incur additional fares of $0.80 and $8.40 respectively.

GO line capacity is constrained: As a result of the influx of passengers boarding upstream at the proposed station in the 2041 AM peak period, trains may be operating at capacity by the time they reach downstream stations on the Milton GO Line. Based on an analysis of GGHMv4 transit assignments, it is expected that the Milton GO Line would begin to exceed capacity at Cooksville Station during the 2041 AM peak period when the proposed station is in service. This would effectively prevent passengers from boarding at stations downstream of Erindale Station and result in a loss in ridership due to passengers choosing alternative modes. The lost farebox revenue associated with these riders is considered in the Financial Case. Table 9 summarizes the impacts of the post-modelling adjustment.

Table 9: Summarizing the Impacts on the Post-Modelling Adjustment on the Economic and Financial Cases

Business as Usual Scenario	Proposed Station Scenario	Economic Case	Financial Case
366 change access mode and board at Milton GO	No change	No impact	No impact
366 diverted to Lisgar GO	366 diverted to Milton-Trafalgar	Marginal positive benefit	+ $0.80 per rider
366 choose not to use GO	366 New riders boardings at Milton-Trafalgar	Positive benefit	+ $8.40 per rider

Downstream riders not impacted	366 lost riders unable to board at Cooksville GO and beyond	Negative benefit	- $5.30 per lost rider

Financial Case Summary

Table 10 summarizes the results of the Financial Case. With the post-modelling adjustment, additional farebox revenue for Metrolinx amounts to $22.1 million in present value terms. The incremental revenue outweighs the incremental station and train operating and maintenance costs of $13.7 million born by Metrolinx. However, when major rehabilitation costs are included, Metrolinx experiences a net revenue loss of approximately $3.5 million in present value. Hence, the proposed station results in a total incremental cost recovery ratio of 0.86 and an operating cost recovery ratio of 1.6.

Table 10: Summarizing the Financial Case ($ Millions, Present Value)

	Proposed Station
Incremental Farebox Revenue for Metrolinx	$22.1 M
Capital Costs	$11.9 M
Operating and Maintenance Costs	$13.7 M
Net Revenue	-$3.5 M
Incremental Cost Recovery Ratio	0.86
Operating Cost Recovery Ratio	1.61

7

Deliverability and Operations Case

Introduction

The deliverability and operations case details the operational and constructability constraints of the proposed station as compared to the BaU scenario. This case also outlines further considerations and steps that should be taken into account before implementing the investment option along with respective project risks known at this stage.

Project Delivery

The project delivery section considers the delivery aspects of the investment option including identifying project stakeholder(s) and governance arrangements, constructability review, project management plans, environmental assessment requirements, construction impacts and operations and maintenance reviews.

Project Stakeholders and Governance

The Milton GO corridor has the third-highest ridership of all GO corridors, after the Lakeshore West and Lakeshore East lines. Nearly the entirety of the Milton line operates on Canadian Pacific Railway's freight line, as part of the Galt Subdivision. This is a critical and highly-used section of track, and constitutes part of the Montréal-Detroit freight corridor. Most of the corridor is two-track; during peak periods GO Transit uses one track while the other track is reserved for freight operations[19]. Currently, two-way all-day GO service is not viable because Metrolinx does not own this corridor and GO services do not have priority. In order to deliver service expansion, Metrolinx would have to enter into negotiations with CP on operational and associated infrastructure upgrades.

As a result of the existing ownership structure, Metrolinx would be required to seek permission from CP to build the new station and stop trains at this location. Once approval is received from CP, negotiations would begin with the landowners to translate the concept plan into development. The proposed station development would be funded by the landowners and owned by Metrolinx. In addition to CP and Metrolinx, additional stakeholders and their respective interests/responsibilities include:

Hydro One:

- Review any potential for impacts to transmission tower infrastructure north of rail corridor, due to turnout track, north platform, grading requirements, etc.
- Ensure clearance requirements are met and whether or not any work will be required on Hydro One equipment (at the cost of the Proponent).

Town of Milton, Halton Region, and Landowners Group:

- Ensure that municipal land use approvals and secondary plan area documents are in compliance.

Construction Complexity and Risks

This section discusses the constructability complexities and associated risk for the proposed station concept.

Station Site

The site proposed for the station location reduces construction complexity and risks. The open site provides ample space to accommodate the proposed station as well as surface parking. Existing agricultural uses would be removed or shifted elsewhere.

The concept plan includes the station building, a bus loop and bus bays, surface parking, a north platform and protection for a future south platform. A pedestrian tunnel, accessible with an elevator and stairs, is proposed between the station building and north platform. A potential second pedestrian tunnel to the west of the station is also protected for. The method of construction for the tunnel(s) will need to be confirmed in order to minimize

[19] Town of Milton. (2019). Derry and Trafalgar GO Station Feasibility Analysis.

impacts to existing rail operations. Furthermore, the need for retaining walls on the north platform may be necessary to reduce grading impacts, depending on the site topography.

Turnout Track

The construction of the turnout tracks and the addition of side platforms have the potential to impact the adjacent existing through tracks as well as rail signals. In order to mitigate impacts and reduce risk to rail operations during construction, the platform could be constructed through night-time/weekend work.

With respect to environmental impacts, a tributary of the Sixteen Mile Creek is located on the west side of the site and crosses beneath the tracks via a culvert. The turnouts would be added over the creek; therefore, an extension to the existing culvert may be required. A review of potential environmental impacts and mitigation measures associated with the culvert extension and adjacent grading near the creek would be required.

Construction Impacts

The construction of the proposed station in an undeveloped area is expected to have fewer impacts than if the station were to be constructed within a built-up urban environment. When building in a mature urban environment, there are additional considerations that need be taken into account such as noise and air quality impacts on residential and commercial properties in close proximity to the station site, as well as impacts on local traffic and transit services. Identifying a lay-down area for construction equipment may prove to be more challenging in an urban area with a denser concentration of buildings and public infrastructure (i.e. roads and transit infrastructure).

For construction site access, heavy vehicles, including concrete trucks and dump trucks are assumed to access the site from Trafalgar Road. However, given that the existing CP Intermodal yard access is located on the east side of the future shared intersection, there is the potential for access impacts to their operations. Traffic operations should be reviewed and the need for signal control considered, as appropriate.

With respect to utilities, in addition to the adjacent Hydro One high tower transmission corridor, the potential for impacts to the Halton Region water/wastewater infrastructure along Trafalgar Road need to be confirmed.

At present, several agricultural, commercial/industrial, and residential structures exist west and east of the proposed station site. Although these structures are not directly impacted by the proposed station concept plan, it is anticipated that impacts are likely during construction activities such as noise, dust, and heavy truck/equipment traffic. However, it is possible that these properties are owned by the proponent landowners' group and it can be assumed that these structures would likely be removed as part of the larger development plans of the immediate area.

Operations and Maintenance Plan

The operations and maintenance plan examines the technical and commercial feasibility of the operations of the proposed station.

Operating Impacts and Risks

The proposed concept plan attempts to minimize or avoid operating impacts and risks as there are no proposed changes to the existing level of GO train service. As CP owns the corridor and manages its use, the concept plan assumes the continued use at the existing level of service.

No off-peak or express services are proposed as part of the proposed concept plan, and any stopped GO trains at the proposed station would be on the station rail siding and not the mainline.

An area of potential impact to consider with respect to operations relates to the impact of added passengers. Although it is assumed that some passengers presently using Milton GO Station would start to use the proposed station, there is the possibility of the addition of new riders to the line. Added passengers at this location may

reduce the capacity to accommodate passengers at downstream stations on the Milton GO line. This may negatively impact the overall passenger experience.

Maintenance and Storage Facility Access

The proposed station and rail siding do not result in any changes to the Milton GO line maintenance and storage facilities. The concept plan assumes the existing level of service.

Future Demand

The future demand associated with the proposed station is directly related to proposed development in the immediate area as well as the addition of any future GO-specific track and increased level of service and passenger capacity.

In its proposed location on an existing undeveloped site, the station concept is designed to accommodate the anticipated needs of the future planned development in the area. It is expected that opportunities to protect for future station facility expansion will be fully considered in order to facilitate implementation if and when required.

Project Dependencies

The principal project dependencies for the proposed station concept are the implementation of the landowner's group development plans and the availability of capacity on the existing GO service.

One of the key drivers of this initiative is the construction of a station in order to serve as a transit hub and catalyst for future planned development. The planned development is for a mixed-use community that caters to residential, commercial, employment, and institutional uses.

8

Business Case Summary

The development of a new GO rail station at Trafalgar Road in the Town of Milton has been consistently identified in Local and Regional plans and is a key element for the Town achieving Growth Plan goals. This project has been subject to multiple studies by Metrolinx and other authorities, the results of which have fed into this Initial Business Case.

The location of the proposed station at the heart of the Trafalgar and Agerton Secondary Plan areas suggest there is a high potential to develop an exemplary transit-oriented community if the proposed station is built in conjunction with the new developments.

The proposed station will also provide a more efficient and a safer travel experience for both transit users and road users. By providing better accessibility to the GO rail network, the proposed station allows transit users to benefit from shorter station access trips and in-train travel time savings. The location of the new station at the heart of the Agerton Secondary Area will also allow people who live and work in the area to access the regional transit network on foot or via transit instead of driving or being dropped-off at a nearby station. This reduction in auto use results in decongestion impacts for auto users, improves safety on the road network and reduces transportation-related emissions. In addition to the benefits accrued to transportation users in the proposed station area, the project also alleviates parking demand at Milton GO Station. In the long run, reduced demand for parking at Milton GO may allow the Town of Milton to unlock development potential in the vicinity of the Milton GO Station.

Once quantified and monetized, these societal benefits are not enough to offset the capital and operating costs necessary to build and operate the proposed station over a 60-year evaluation period. The Economic Case thus results in a negative net present value of approximately $40 million in present value terms. From a financial perspective, the additional farebox revenue from new transit riders estimated as part of a post-modelling adjustment are not enough to outweigh the additional burden on Metrolinx and result in a net revenue loss of $3.5 million in present value for the organization over the 60-year evaluation period although operating costs are more than offset by fare revenue. As part of the Market-Driven Strategy, the IBC assumes that the Proponent will bear the land acquisition costs, the construction costs, and any expenditure associated with parking lot maintenance.

Lastly, this station location does not pose any major risks or issues in terms of constructability or operations. The main uncertainties reside with CP, who owns the subdivision which is part of its Montréal-Detroit freight corridor. Metrolinx will need to enter into discussions with CP to confirm the feasibility of building the station at this location.

Glossary

Term	Definition
Benefit Cost Ratio (BCR)	Present value of benefits divided by present value of costs, which is used to indicate benefits realized per dollarspent.
Business Case (BC)	A generic term for a collection of evidence which, when assembled in a logical and coherent way, explains the contribution of a proposed investment to organizational objectives. It supports decision-making process to sift options, select a preferred option and optimize the preferred option.
Business as Usual Scenario (BaU)	The baseline against which options are compared where the intervention has not occurred and existing business practices, committed plans and general trends continue into the future.
Canadian Pacific Railway (CP)	The Canadian Pacific Railway owns the Milton GO line and as such is an important stakeholder in the project.
Greater Golden Horseshoe Model Version 4 (GGHMv4)	A regional travel demand model used to support the assessment of the benefits and impacts of the proposed station. The model generates key inputs to the Economic and Financial Case analysis, including station ridership, travel time savings, and modal shift/auto usage changes.
Greater Toronto and Hamilton Area (GTHA)	The combined area of the Cities of Hamilton, and Toronto; and the Regions of Durham, Halton, Peel, and York.
Initial Business Case (IBC)	This first Business Case in the Business Case process that compares investment options and selects a preferred option for further refinement and design.
Major Transit Station Area (MTSA)	The Major Transit Station Area at Derry and Trafalgar Roads is a development site with highly attractive locational attributes for a GO Station. It is considered as an essential place making piece in the development of the Agerton Employment Area and Trafalgar Secondary Plans.
Net Present Value (NPV)	Present value of benefits minus present value of costs, which is used to indicate total net benefits to the region.
Pick-Up and Drop-Off (PUDO)	Designated areas at GO stations for passenger pick-up and drop-off.
Vehicle-Kilometres Travelled (VKT)	A measure of roadway use, commonly used in estimating congestion, that reflects the distance that an individual drives, or, more typically, the cumulative distance driven by all vehicles in an urban region during a specified period of time. Vehicle kilometres travelled can reflect the link between land use and transportation. Land uses that are further away from each other result in longer trip lengths, more traffic on roadways and more vehicle kilometres travelled, for example.