Report for Action



New TTC Services - Southwest Toronto

Date: March 20, 2018 **To:** TTC Board

From: Chief Customer Officer

Summary

This report recommends two new TTC transit services in southwest Toronto.

The first route is to provide a new transit service connecting residents from the Mimico neighbourhood to Mimico GO Station. The TTC is working with City of Toronto Transportation Services division to implement this initiative as a quick-win identified as part of the City's Park Lawn Lake Shore Transportation Master Plan. A one-way loop through the Mimico neighbourhood will provide scheduled connections with eastbound and westbound Lakeshore West GO trains every 30 minutes during peak periods. This route is projected to carry 230 daily customer-trips (190 daily new customer-trips to the TTC). The projected performance of the route exceeds the performance targets for new service. The new service will result in 31 boardings per service hour (target = 20) and gaining 63 new customer-trips for every \$100 spent (target = 12).

The second route is to provide new transit service on The West Mall south of Dundas Street to The Queensway. The TTC worked with Smart Commute Etobicoke South to identify this opportunity to serve businesses in the area. The service will operate between Kipling Station and Sherway Gardens bus terminal during peak periods. The service meets the top three things that would encourage survey respondents along the West Mall to use transit which are a connection to Kipling Station, a connection to Sherway Gardens and a bus stop in front of the workplace. This route is projected to carry approximately 740 daily customer-trips (450 daily new customer-trips to the TTC). The projected performance of the route exceeds the performance targets for new service. The new service will result in 40 boardings per service hour (target = 20) and gaining 57 new customer-trips for every \$100 spent (target = 12).

These proposals will operate on some streets where the TTC does not currently have service. The operation of these services will require accessible bus stops and platforms on these streets, as well as some changes to parking regulations. These new transit services will improve transit connections in the area and expand the TTC's service coverage.

It is recommended that both initiatives begin with service in the peak periods only.

A follow-up report will be presented to the Board in the fall of 2019 to evaluate the success of these new services.

Recommendations

It is recommended that the Board:

- 1. Approve a bus service to operate between Park Lawn Loop and Mimico GO Station to be implemented by September 2018, subject to infrastructure and operational requirements being met.
- Approve a bus service to operate along The West Mall from Kipling Station to Sherway Gardens to be implemented in September 2018, subject to infrastructure and operational requirements being met.
- 3. Note that a post-implementation report will be submitted to the Board in the fall of 2019.

Implementation Points

The following lists items required to implement the two new services:

- New accessible stop/platforms are required for all new stops on streets with new service
- New accessible stop/platforms are required on Lake Shore Boulevard West between Park Lawn Road and Mimico Avenue
- Parking prohibitions are required around proposed bus stops, and along the south side of Newcastle Street from Royal York to beyond the curve at Audley Street
- Mimico GO Shuttle and The West Mall weekday peak period service will begin June 2018 and September 2018, respectively, subject to the completion of the above three points
- The West Mall service will be jointly promoted by TTC and Smart Commute Etobicoke South
- The Mimico GO Shuttle will be jointly promoted by TTC, Metrolinx and the City
- The TTC will monitor operations and ridership and report back to the Board in late 2019.

Financial Summary

For the first three months of operations (September to December 2018), there will be no additional financial impact beyond what has been approved in the 2018 Operating Budget. The TTC will temporarily fund the service through a reallocation of resources from routes with excess capacity.

The reallocated resources cannot be permanently committed to these services as these resources are required to address crowding and reliability needs. Therefore, annual costs for the two new routes will be approximately \$645,000, with the routes anticipated to generate fare revenue from new riders to the TTC of \$363,000, resulting in a net operating impact of approximately \$282,000 annually.

Mimico GO Shuttle

Starting in 2019, the Mimico GO Shuttle service will cost approximately \$185,000 annually to operate on weekday peak periods. This would provide a base level of service, as warranted by TTC's Service Standards, to meet projected demand and to provide connections to eastbound and westbound trains on Lakeshore West GO train line.

Mimico GO Shuttle service is projected to carry 190 daily new customer-trips, equating to projected annual revenue of approximately \$108,000. As a result, the annual net cost of this new service will be \$77,000.

The West Mall

Starting in 2019, The West Mall service will cost approximately \$460,000 annually to operate on weekday peak periods. This would provide a blended level of service with the existing 123 Shorncliffe route.

The West Mall service is projected to carry 450 daily new customer-trips to the TTC, equating to projected annual revenue of approximately \$255,000. The annual net cost of this service will be \$205,000.

The service summary and projected ridership for each new service is presented in Table 1.

Table 1: Summary of Operational Requirements

Project	Weekly Service Hours	Weekly KMs	Peak Vehicles	Number of Operators	Weekly Ridership Estimate	Net New Weekly Ridership
Mimico GO Shuttle	37	410 km	1 AM, 1PM	1	1,150	950
The West Mall	92	1,396km	2 AM, 3PM	2-3	3,700	2,250
Total	129	1,806km	3 AM, 4PM	3-4	4,850	3,200

The annual estimated costs, revenue, and net costs for each new service are shown in Table 2.

Table 2: Summary of estimated costs and revenue

		\$('000)			
Project	Annual Service Hours	Annual Incremental Cost	Annual New Revenue	Net Annual Impact	
Mimico GO Shuttle	1,906	185	108	77	
The West Mall	4,738	460	255	205	
Total	6,644	644	363	282	

Costs of \$240,000 are required for bus stops, poles and other signage along the route. Sufficient funds for this cost are included in the 2018 TTC Capital Budget as approved by the TTC Board on November 28, 2017.

The three buses required to operate this trial service are available in the budgeted fleet. These buses have been set aside for neighbourhood improvement studies. This results in no immediate need for capital funds to procure vehicles.

The Chief Financial Officer has reviewed this report and agrees with the financial impact information.

Equity/Accessibility Matters

Mimico GO Shuttle

All TTC bus services are provided by accessible, low floor vehicles with exterior and interior audible and visual stop and route announcements. A portion of the Mimico GO shuttle service will operate along roads with existing TTC service and will utilize existing stops along the route. On Lake Shore Boulevard West, five new accessible stops will be required where there are currently inaccessible stops utilized by 145 Downtown/Humber Bay Express and 501L Queen shuttle buses. Also, a portion of the route will operate on streets without current transit service and will require three new accessible bus stops. In total, eight new accessible bus stops will be required; these stops will be installed with accessibility features such as new pads and sidewalk connections.

Currently, the primary means of access to Mimico GO Station is by private automobile. TTC access to Mimico GO Station is limited to 76A Royal York, providing north-south service adjacent to the station. There are no direct transit connections between Mimico GO Station and neighbourhoods east of the station, such as Humber Bay Shores. The new bus service will improve access to the GO station and provide an affordable

alternative to driving for transit users east of the station. This service will also provide more travel options to customers travelling to and from Downtown Toronto, or westward towards Hamilton.

Mimico GO Station is not currently an accessible station. Metrolinx has plans to complete the necessary accessibility works between 2020-2023, including a new pedestrian tunnel from Manchester Street, south of the rail tracks. Today, the closest accessible stations on Lakeshore West are Exhibition GO Station to the east, and Port Credit GO Station to the west.

To reach either station from Mimico and Humber Bay Shores, customers must take a circuitous route with multiple transfers starting with 66 Prince Edward or 76 Royal York to reach the Queensway corridor. Westbound 80 Queensway connects to Kipling bus routes that service Kipling Station, where customers can take Line 2 to Dufferin or Bathurst Stations to connect with 29 Dufferin or 511 Bathurst respectively to reach Exhibition GO Station. Westbound 80 Queensway also connects to MiWay services at Sherway Gardens, which customers can utilize to travel further into Mississauga to reach Port Credit GO Station. Trip plans to either GO Station is lengthy and complicated.

As the TTC continues to deploy accessible low-floor vehicles onto all streetcar routes, the trip to an accessible GO Station will be simplified. To reach Exhibition GO Station, customers will be able to utilize eastbound 501 Queen to connect with southbound 29 Dufferin. To reach Port Credit GO Station, customers will be able to utilize westbound 501 Queen to connect with MiWay services at Long Branch. The TTC plans for the full deployment of low-floor vehicles on 501 Queen by the end of 2019.

The West Mall

Similar to the Mimico GO Shuttle, the West Mall service will also operate on streets without current transit service for a portion of the route. As a result, four new accessible bus stops, including new pads and sidewalk connections, will be required.

Currently the primary means of access to the corridor along The West Mall that is occupied by offices and other places of employment is by single occupancy vehicles. This new service will offer an equitable, accessible, and affordable alternative to driving and will also work towards achieving the recommendations of the city of Toronto's Poverty Reduction Strategy, by improving transit services to jobs and services in the inner suburb of southwest Etobicoke.

Decision History

Mimico GO Shuttle

The proposed service is in response to the Park Lawn Lake Shore Transportation Master Plan Phase 1 public consultation sessions held in September to December 2016. Interest in, and support for alternatives to access Mimico GO Station was recorded through public feedback, summarized in *Public Consultation Report – Phase 1* dated January 2017.

https://www.toronto.ca/wp-content/uploads/2017/11/91b8-pcu-park-lawn-lake-shore-TMP-Phase1Report-FINAL.pdf

The West Mall

The proposed service is in response to both customers' and Smart Commute Etobicoke South's requests for service along The West Mall south of Dundas Street West.

Issue Background

Mimico GO Shuttle

Mimico GO Station is located in southwestern Toronto along the Lakeshore West GO train line, serving the Mimico neighbourhood and southern Etobicoke. From 2011 to 2016, Mimico was one of the fastest growing neighbourhoods in Toronto, due in part to growth in the Humber Bay Shores neighbourhood on Lake Shore Boulevard east of Park Lawn Road. Three thousand residential units have been constructed in the area in the past ten years, and more than 9,000 additional units are currently proposed, approved, under construction or recently occupied. At full build out, the Mimico area is forecasted to grow from approximately 35,000 people and 9,000 jobs to approximately 55,000 people and 10,000 jobs in 2031.

In January 2017, the City of Toronto hosted a series of public open houses for the Park Lawn Lake Shore Transportation Master Plan. From public feedback received, TTC recognized a high demand for faster travel into Downtown Toronto from Mimico and the Humber Bay Shores neighbourhood. This led to staff exploring the possibility of fixed route transit service to Mimico GO Station from the Humber Bay Shores area. Additionally, this service could potentially connect to westbound train trips towards Hamilton.

Figure 1 below, shows the catchment area of Mimico GO Station by traffic zone as identified by Metrolinx in 2015. The total passengers reported using Mimico GO Station was 1098, with the majority of users within two kilometres of the station. The proposed shuttle route will be accessible to 32% of the ridership base within the Mimico GO Station catchment area.

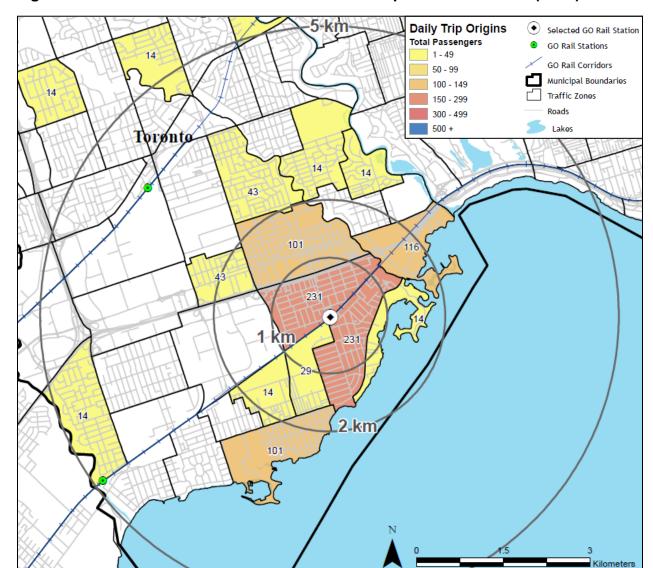


Figure 1: Metrolinx – Mimico GO Station Ridership Catchment Area (2015)

The West Mall

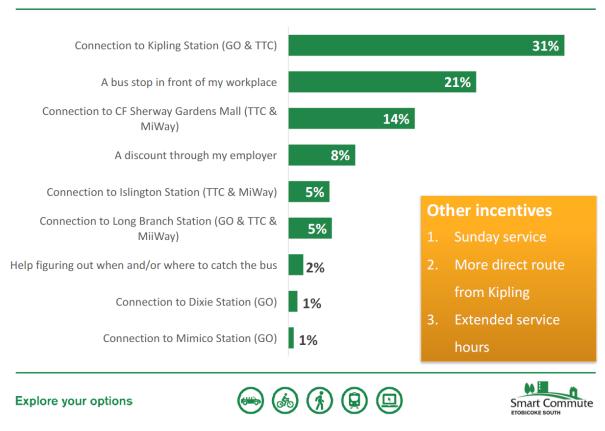
Over the years, employment along The West Mall corridor has grown. It is currently estimated that 10,000 people work along the corridor. At full build out, The West Mall corridor is forecasted to grow from approximately 2,000 people and 15,000 jobs to approximately 3,600 people and 16,000 jobs in 2031. The TTC has been receiving increasing requests to implement service along this corridor.

The TTC had previously serviced this section of The West Mall. Between 1972 and 1984 route 87 West Mall operated along the corridor. Between 1984 and 1985 route 124 Sherway operated along the corridor. In 1985, route 124 Sherway was cut due to low ridership. Between 1982 and 1996 route 2A Anglesey operated along The West Mall corridor until system-wide cuts discontinued the route, the service was restored in 1998 as a trial but ridership was too low to continue operation. TTC Staff consider this to be an appropriate time to re-examine transit service along The West Mall corridor.

In 2017, Smart Commute Etobicoke South conducted a study to understand travel patterns of commuters along The West Mall and to present a business case to the TTC for new/improved service in the area. An employer and employee survey was distributed to employment locations along The West Mall. A total of 13 responses were received from companies along The West Mall and 1,654 responses from West Mall employees. The results of the survey indicated a high level of interest from both the employers and employees for new/improved bus service to the area. Figure 2 below identifies what improvements would encourage survey respondents to take transit more.

Figure 2: Smart Commute Etobicoke South Survey Results for Incentives to Encourage Transit Use





In response to these requests TTC staff assessed routing options and conducted ridership forecasting to see if service along the corridor would pass the TTC service standards.

Mimico GO Shuttle

Current Conditions

The nearest TTC service to Mimico GO Station is the 76A Royal York service. The 76A services north-south adjacent to Mimico GO Station, providing GO Station access for potential customers living in the neighbourhoods around Royal York Road, and the area bounded by Mimico Avenue, Lake Shore Boulevard, and Royal York Road. Service on the 76A operates every 6 to 11 minutes, all day, every day.

There are currently 330 parking spaces at Mimico GO Station. Due to the recent population growth of the Mimico neighbourhood however, parking spaces are quickly filled and customers, particularly east of Mimico GO Station with no direct TTC service, experience difficulties accessing the station. Today, residents from Humber Bay Shores have to take 501 Queen to Mimico Avenue then transfer to 76A Royal York to reach Mimico GO Station. The scheduled travel time for this trip is 21 minutes with one transfer.

Today, there are three main public transit options for customers travelling to Downtown Toronto from Humber Bay Shores. These options and their scheduled travel times in the morning peak period are listed below in Table 3. Due to the mixed traffic operations of some of these options, route reliability may be inconsistent, especially during peak periods, and may result in greater than scheduled travel times.

Table 3: Existing Transit Options

Existing Options	Scheduled Travel Time to Downtown (Bay and Wellington)	
66B Prince Edward (via Line 2 and Line 1)	59 minutes	
145 Downtown / Humber Bay Premium Express	55 minutes	
501 Queen (assuming regular routing)	55 minutes	

The city of Toronto Transportation Service division is currently conducting the Park Lawn Lake Shore Transportation Master Plan study to enhance transportation options in the Mimico neighbourhood including Humber Bay Shores. The Transportation Master Plan will identify transportation problems and opportunities in the area, and develop solutions to address these issues.

Demand Review

Based on the most recent ridership data from GO Transit, approximately 1,500 customers use Mimico GO Station on a daily basis. Approximately 350 customers originate from the Humber Bay Shores area and Mimico south of the Lakeshore West GO Train tracks.

Based on the surrounding context, a ridership projection for the Mimico GO Shuttle was developed which projected approximately 230 customer-trips per day with 190 new customer-trips per day using the service. A shuttle service scheduled every half hour in the peak periods of travel would be most effective to meet GO train arrivals and departures for these customers. Table 4 summarizes how the proposed service meets the TTC's productivity standard and Table 5 summarizes the change in ridership per net dollar spent.

Table 4: Summary of Projected Boardings per Service Hour

	Service Standard	Mimico GO Shuttle
AM Peak	20	36
PM Peak	20	27

 Table 5: Summary of the Change in Ridership per Net Dollar Spent

Service Standard	Mimico GO Shuttle
12 new customers gained per \$100 spent	63 new customers gained per \$100 spent

Service Concept

The proposed service will operate a 4.9 kilometre clockwise loop through the Mimico neighbourhood anchoring at Mimico GO Station. This routing will take approximately 20 minutes to travel. The shuttle service will be scheduled to operate every 30 minutes, and will connect with eastbound and westbound Lakeshore West GO trains. A significant feature of this pilot service is to reliably meet the scheduled GO Train times, so as to provide customers with the most convenient transfer with minimal waiting time.

The proposed routing is illustrated in Figure 3. Buses will operate clockwise from Mimico GO Station, via Newcastle Street, Audley Street, Portland Street, Grand Avenue, Manitoba Street, Legion Road, the Gardiner Service Road, Park Lawn Road, Lake Shore Boulevard West, Mimico Avenue, and Royal York Road. All local stops will be serviced along the route.

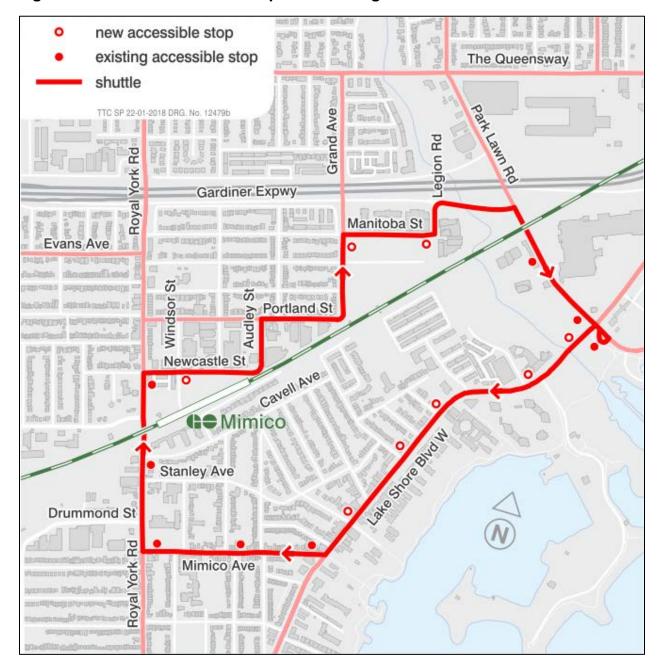


Figure 3: Mimico GO Shuttle Proposed Routing

The service will operate Monday to Friday from approximately 6:00 a.m. to 9:00 a.m., and from approximately 3:00 pm to 7:00 pm. When conducting the post-implementation review, the TTC will investigate the feasibility of expanding the service to other time periods and extending the catchment area.

From end to end, the total expected travel time in the morning peak period from Humber Bay Shores to Downtown Toronto (Bay and Wellington) is 50 to 55 minutes. The travel time takes into account wait time between connecting services, and walking time to and from transit services. The scheduled travel time using the new shuttle route and GO train are only slightly less than the existing travel options; however, there is a

greater reliability of service on Lakeshore West GO than TTC surface routes, so trip travel times will be more consistent.

Two other options were tested for operational feasibility in October 2017. These options are shown below in Figure 4.

Figure 4: Alternative Mimico GO Shuttle Routings Evaluated through Operational Assessment



Option 2 was deemed not physically feasible for regular bus operations at the westbound left turn from Park Lawn Road to the Gardiner Service Road, and at the southbound left turn from the Service Road onto Legion Road. Significant geometric modifications and the removal of curbs and jersey barriers would be required. In

addition, travel time of 20 to 25 minutes would be required for this routing, which would prevent reliable connections with GO trains at 30 minutes headway. For these reasons Option 2 was eliminated.

Option 3 was deemed feasible for bus operations; however it would require a minimum of 27 minutes to travel. The duration of travel time would prevent reliable connections with GO trains at 30 minutes headway. Option 3 was therefore eliminated due to reliability concerns.

Consultations

On January 18, 2018, TTC staff also attended a public meeting that Councillor Grimes hosted to discuss the Mimico GO Shuttle and to collect feedback from local residents. As a result of the feedback from the public meeting, TTC staff also analyzed additional routing alternatives in order to minimize additional traffic on Mimico Avenue between Lake Shore Boulevard and Royal York Road. TTC staff reviewed the feasibility of routing on Hillside Avenue, Symons Street, and on Lake Shore Boulevard and Royal York. These alternatives are shown in Figure 5.

Each alternative increased the travel distance and subsequently travel time of the route. Based on the travel time analysis performed, the extra distance would result in longer trip times beyond the maximum travel time to reliably maintain 30 minutes headway to meet Lakeshore West GO Trains in both directions. The extra travel time would cause missed connections and significantly reduce the attractiveness and ridership potential of the service, while also reducing competitiveness of this service compared to existing alternatives. A reduction in demand may jeopardize the ability of this route to meet the service standard of 20 boardings per hour of service.

Operational Requirements

The TTC completed an operational assessment for bus service along the proposed routing in October 2017, and the following operational requirements were identified:

- An accessible stop/platform will be required eastbound farside on Newcastle Street, east of Windsor Street, to facilitate connections to Mimico GO Station. The platform will require a drop curb at Windsor Street for pedestrians to cross to the existing sidewalk on the west side of Windsor. This stop will need to be integrated with the development proposed at 39 Newcastle Street and the bike lanes proposed in front of this development.
- New accessible stops and platforms will be required at proposed locations along the new routing as follows: northbound nearside on Grand Avenue at Manitoba Street; and eastbound nearside on Manitoba Street at Legion Road.
- Parking prohibitions will be required around bus stops, as well as on the south side of Newcastle Street from Royal York Drive to beyond the curve on Audley Street. In total, 50 parking spots will need to be removed.



Figure 5: Alternative Routings to Proposed Mimico GO Shuttle

The West Mall

Current Conditions

There are two existing TTC services near the unserved portion of The West Mall. The 112 West Mall is the nearest TTC service to the north and the 123 Shorncliffe is the nearest to the south. On average customers may have to walk up to 1.1 km from the closest bus stop on these existing routes to reach their destination.

The Smart Commute Etobicoke South survey highlighted challenges and barriers to taking transit with the current services available. Such challenges included: total transit travel time to The West Mall is inconvenient as customers often have to make multiple transfers and then walk a long distance to their final destination. The lack of various mobility options along the corridor has resulted in some employers offering to pay for staff transportation via ride-hailing.

Demand Review

Based on the surrounding context, a ridership projection along the unserved portion of The West Mall was developed by using the transit mode share (for each time period) of surrounding routes and applying them to the area's current population and employment, resulting in a projected ridership of approximately 310 customers trips per day in the AM peak periods and 430 customer trips per day in the PM peak period, for a total of 740 daily customer trips (450 daily new customer trips). Table 6 summarizes how the proposed service meets the TTC's productivity standard and Table 7.

Table 6: Summary of Projected Boardings Per Service Hour

	Service Standard	West Mall Service Projection
AM Peak	20	48
PM Peak	20	36

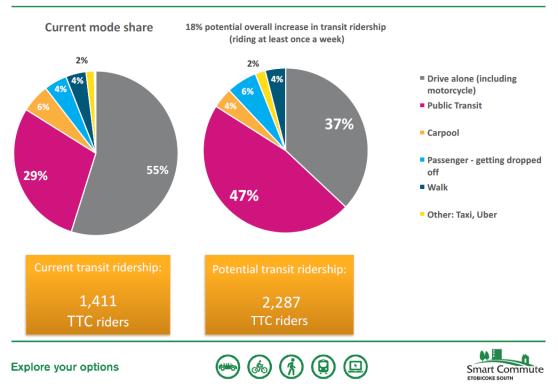
Table 7: Summary of the Change in Ridership per Net Dollar Spent

Service Standard	West Mall Service
12 new customers gained per \$100 spent	56 new customers gained per \$100 spent

The Smart Commute survey results support the ridership projection by indicating this new service has the potential to shift the mode share by 18% (of customers riding at least once a week). Figure 6 displays a comparison of current and potential employee mode share, if the proposed service is implemented. The survey results do indicate a potential ridership higher than the projected ridership discussed above, this is caused by the survey assuming the proposed service span would be longer than the peak periods.

Figure 6: Smart Commute Etobicoke South Survey Results for Potential Mode Shift





Service Concept

The proposed service will operate between Kipling Station and Sherway Gardens bus terminal. This was identified as the number one incentive for survey respondents along the West Mall to use transit. The fixed route will operate as a branch service of the existing 123 Shorncliffe. The service provides a direct and accessible connection to Kipling Station and Sherway Bus Gardens bus terminal. This will allow customers to connect to Line 2 Bloor Danforth and access to 12 other TTC bus routes that connect to various parts of Etobicoke, and one MiWay bus route connecting to the City of Mississauga.

The proposed route is illustrated in Figure 7. Buses will operate both ways via Dundas Street West, West Mall Crescent, The West Mall, Sherway Gardens Ring Road, and terminate at Sherway Gardens bus terminal. All local stops will be served along the route.

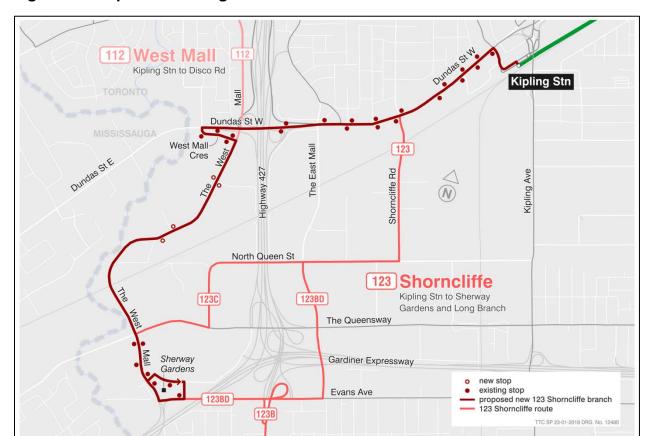


Figure 7: Proposed Routing of The West Mall Branch for 123 Shorncliffe

The service will operate Monday to Friday from approximately 6:00 a.m. to 9:00 a.m., as well as between 3:00 p.m. and 7:00 p.m., approximately every 16 to 19 minutes, depending on the time of day. When conducting the post-implementation review, the TTC will investigate the feasibility of expanding the service to other time periods.

The proposed concept responds to the top three incentives to encourage public transit ridership (shown in Figure 2) by providing accessible bus stops in front of workplaces and connecting customers to two major transfer nodes.

Operational Requirements

The TTC completed an operational assessment for bus services along The West Mall in January of 2018 and no operational issues were identified. However, two of the proposed bus stops do not have sufficient access from the sidewalk to the curb which will require stop pads and one of the proposed bus stops requires an additional assessment of sight lines to ensure appropriate placement.

Contact

Jacqueline Darwood, Head - Strategy & Service Planning 416-393-4499 Jacqueline.Darwood@ttc.ca

Signature

Kirsten Watson Chief - Strategy & Customer Experience

Attachments

Attachment 1: Proposed TTC Shuttle to Mimico GO Station
- Mimico / Humber Bay Shores Open House panels (January 18, 2018)



Proposed TTC Shuttle to Mimico GO Stn Moronto



Background

- City & TTC staff working on Park Lawn/Lake Shore Transportation Master Plan
- Phase 1 involved public consultations & identified transportation problems and opportunities in the area
- Staff are in the process of developing and evaluating recommendations to address these problems and opportunities

Improve Connection with GO

- Improved access to Mimico GO Station from the Park Lawn/Lake Shore area emerged from consultations as major priority
- TTC staff have since investigated the feasibility of a new shuttle service and assessed ridership projections through modelling
- Different routing options were also tested in-field

Parameters for Shuttle

- Approximately 200 daily customer-trips are projected from the Humber Bay Shores area to Mimico GO Station
- The shuttle meets the service standard of 20 boardings per service hour if only one bus is scheduled to the shuttle routing during peak periods
- Shuttle service would be most effective if it was scheduled to meet GO train arrivals/departures at Mimico GO Station

Requirements for Shuttle

- Depending on stop selection, new accessible platforms and sidewalks will need to be constructed
- New parking prohibitions would need to be added near new bus stops, especially along the south side of Newcastle from Royal York to Audley
- This pilot will operate for a year and the TTC will collect ridership information to evaluate its success

Existing Routes Travel Time to Downtown

66B Prince Edward
145 Downtown Humber Bay 55 minutes Premium Express
501 Queen

Mimico GO Shuttle 50-55 minutes





Proposed TTC Shuttle to Mimico GO Stn Moronto



Recommended Peak Period Mimico GO Stn Shuttle

