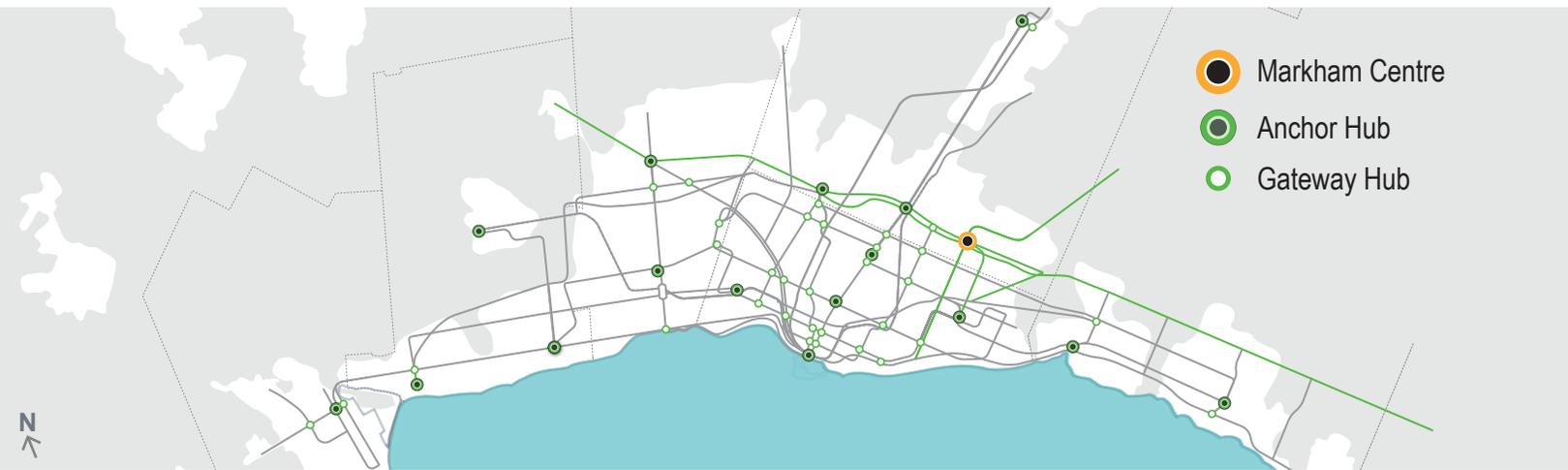


MARKHAM CENTRE

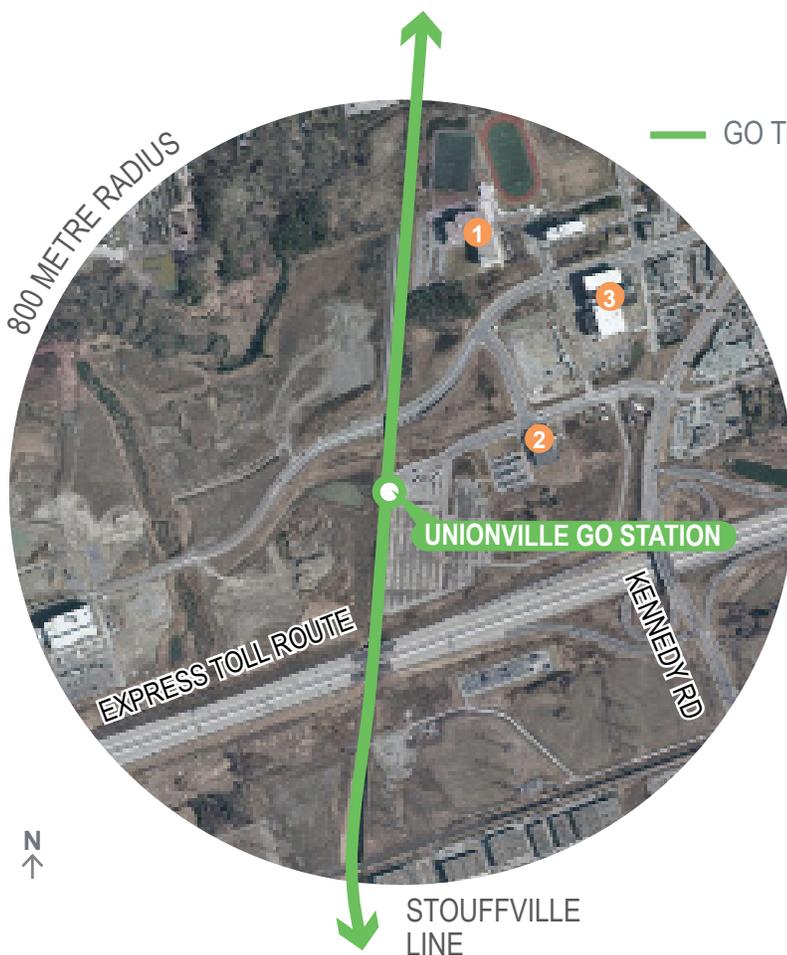
Mobility Hub Profile

December 2015



MOBILITY HUBS: Places of connectivity between regional and rapid transit services, where different modes of transportation come together seamlessly. They have, or are planned to have an attractive, intensive concentration of employment, living, shopping and enjoyment around a major transit station. There are two types of mobility hubs identified in The Big Move: Anchor Hubs and Gateway Hubs. Anchor Hubs are major transit station areas associated with an urban growth centre (as defined in the Province's Growth Plan for the Greater Golden Horseshoe). Gateway Hubs are major transit station areas that are located at the interchange of two or more current or planned regional rapid transit lines with anticipated high levels of ridership.

MARKHAM CENTRE is identified as an **ANCHOR HUB** in the Greater Toronto & Hamilton Area (GTHA) and includes Unionville GO Station on the Stouffville Line. This hub is planned to integrate Regional Express Rail, Rapid Transit, and local bus service.



DESTINATIONS

- 1 Bill Crothers Secondary School
- 2 Markham YMCA
- 3 Markham Pan Am Centre

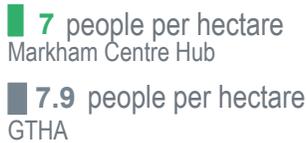
MARKHAM CENTRE

Demographics

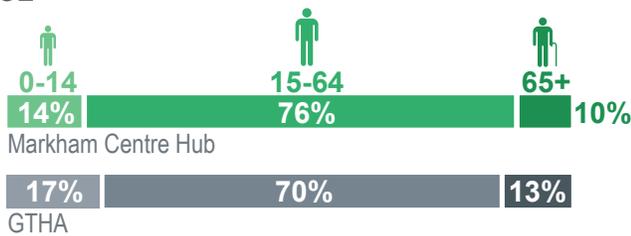
December 2015



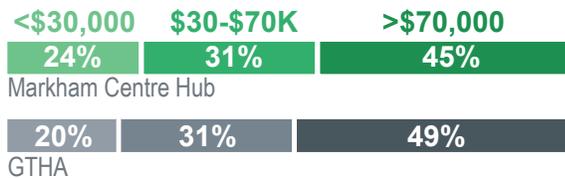
POPULATION DENSITY



AGE¹



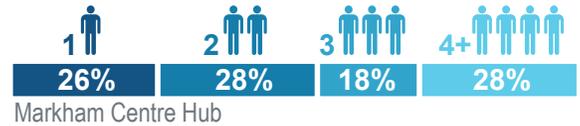
INCOME



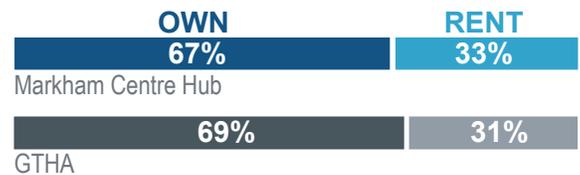
JOB DENSITY



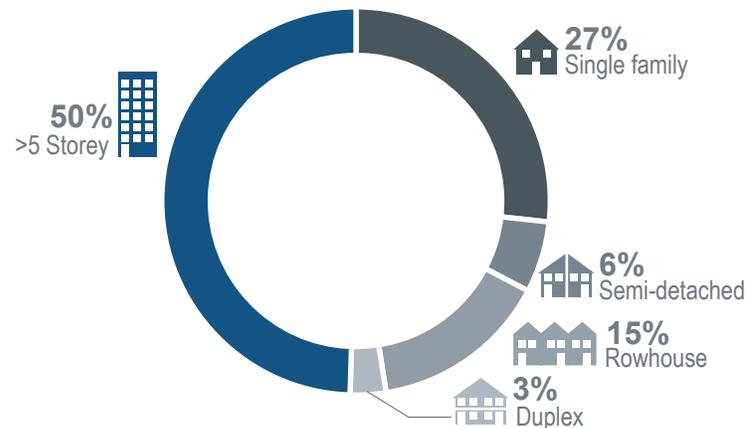
HOUSEHOLD COMPOSITION



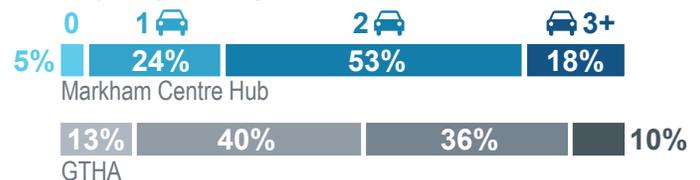
HOME TENURE¹



HOUSING TYPE¹



VEHICLE OWNERSHIP

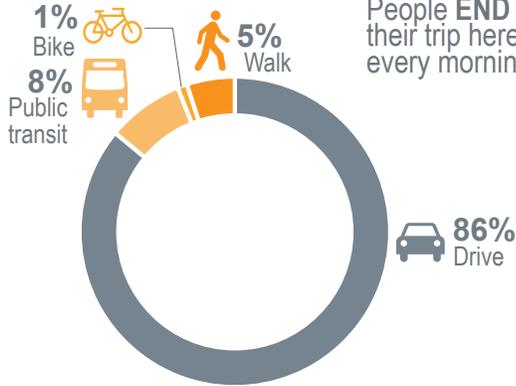


Note: document percentages may not add to 100 due to rounding

MORNING COMMUTE³

ARRIVAL MODE SPLIT

Peak Period: 6:00-9:30 a.m.



2,990

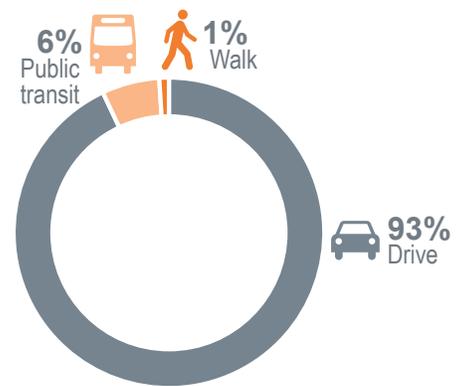
People **END** their trip here every morning

1,210

People **START** their trip here every morning

DEPARTURE MODE SPLIT

Peak Period: 6:30-9:30 a.m.



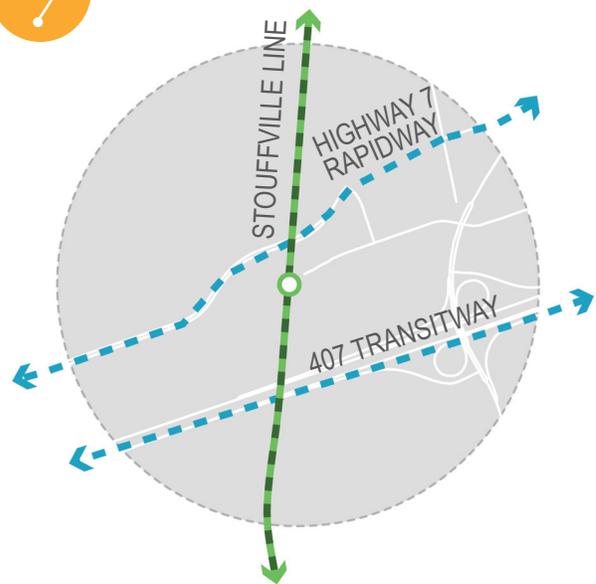
ACCESS + URBAN PATTERN

- Intersection
- Parking lot
- Bikeway



- 18%** WALKSCORE™ - CAR DEPENDENT⁴
- 6** INTERSECTIONS⁵
- 0.03** INTERSECTIONS PER HECTARE
- 2.1** KM OF BIKEWAYS⁶
- 9.5** HECTARES OF SURFACE PARKING
- 5%** OF MOBILITY HUB AREA IS USED FOR SURFACE PARKING

PROPOSED RAPID TRANSIT NETWORK



- EXISTING
- GO Train
- FIRST WAVE
- Highway 7 Rapidway
- OTHER BIG MOVE PROJECTS
- 407 Transitway
- RER*
- Regional Express Rail

*Based on 2015 RER Service Concept

MARKHAM CENTRE

Station Information

December 2015



UNIONVILLE GO STATION⁷



2 PUBLIC WASHROOMS



2 BIKE RACKS



8 BIKE SHELTERS



WHEELCHAIR ACCESSIBLE



1604 DEDICATED PARKING SPACES



NO PAID PARKING SPACES



NO CARPOOL SPACES



PICK-UP & DROP-OFF



UNIONVILLE GO STATION INFORMATION

GO STATION ACCESS⁹

AM PEAK

start of service
-9:30 a.m.

14%

Public transit



3%

Carpool

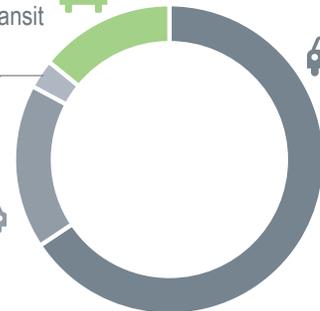


17%

Drop off



65%
Drive



GO TRAIN USE⁸

AM PEAK



start of service-9:30 a.m.



30 Arrivals

2,310 Departures

PM PEAK



3:30-7:30 p.m.



30 Departures

2,300 Arrivals

PROXIMITY TO GO STATION⁹



85% of GO Train users live within 5.5KM of the station.

REFERENCES

1. Environics Analytics, "DemoStats 2011," (Toronto, ON)
2. Environics Analytics, "DemoStats 2009 and 2014," (Toronto, ON)
3. University of Toronto, "Transportation Tomorrow Survey," (Toronto, ON: 2011)
4. Walk Score, "https://www.walkscore.com/score/155-ymca-blvd-markham-on-canada", (GTHA, ON: 2015)
5. Based on LEED Neighbourhood Development Rating System Connectivity definition
6. Metrolinx, "Mobility Hubs Cycling Network Interface Analysis," (Toronto, ON: 2013)
7. Metrolinx Intranet Site, "Facilities Inventory," (Toronto, ON: 2015)
8. GO Transit, "Rail Cordon Counts - Fall 2013," (Toronto, ON: 2013)
9. GO Transit, "2013 GO Rail Passenger Survey", (Toronto, ON: 2013)

Additional mobility hub profiles and the documentation methodology is available at metrolinx.com/mobilityhubs

ANCHOR HUBS

Mobility hubs that have strategic importance due to their relationship with urban growth centres (UGCs), as well as Pearson Airport and Union Station due to their roles as the GTHA's primary international gateways. Anchor Hubs have the potential to transform the regional urban structure and act as anchors of the regional transportation system. Anchor Hubs are identified in Schedules 1 and 2 of The Big Move Regional Transportation Plan (RTP). (For more information see the backgrounder "Mobility Hubs, December 2008").

BIKEWAYS

Bikeways in the Mobility Hub Profiles include the following types of cycling infrastructure: segregated or protected bike lanes, marked bike lanes, paved shoulders, multi-use paths, bicycle boulevards (local streets optimized for bicycle travel), marked shared-use lanes, and signed routes. Bikeways were identified in the Mobility Hub Cycling Network Interface Analysis (2013) developed by Metrolinx. The purpose of the analysis was to better understand cycling access to mobility hubs within the GTHA and involved providing a common bikeway typology for the GTHA, allowing cycling infrastructure to be compared across the region.

BUS RAPID TRANSIT (BRT)

Similar to light rail transit operating predominantly in protected rights-of-way, separate from other traffic, but using advanced bus technology. Also includes buses operating in mixed traffic on controlled-access expressways that employ congestion management such as tolls, thereby allowing the buses to maintain high average speeds. The capacity of BRT is typically 2,000 to 10,000 passengers per hour, peak direction. Average speed: 15 to 40 km/h depending on station spacing, with higher speeds possible on grade-separated rights-of-way on controlled access highways. Example: York Region Transit's Viva.

DESTINATIONS

Destinations are unique places within the region that have significant drawing and trip-generating power. Destinations have the potential to influence travel demand within the hub and signify the diversity of land uses, an important factor in creating dynamic and interesting places.

FIRST WAVE PROJECTS

First Wave projects were identified as priority projects in The Big Move based on their ability to strengthen transit in the GTHA by improving regional connectivity and bringing new rapid transit services to underserved areas. Metrolinx has allocated funds to deliver the majority of the First Wave transit projects that were identified in Metrolinx's Investment Strategy (Investing in our Future, Investing in our Region, 2013) and work is currently underway on many of these key pieces of transit infrastructure.

GATEWAY HUBS

Metrolinx has defined gateway hubs as major transit station areas that are located at the interchange between two or more current or planned regional rapid transit lines as identified in The Big Move RTP and have 4,500 or more forecasted combined boardings and alightings in 2031 (in the morning peak period). In addition, these areas are generally forecasted to achieve or have the potential to achieve a minimum density target of approximately 10,000 people and jobs combined within 800 metres.

GO REGIONAL EXPRESS RAIL (RER)

RER will provide electrified service on Metrolinx-owned rail corridors with 15-minute frequencies in core areas. Service will be provided in both directions, throughout weekdays, in evenings and on weekends. All-stop and limited stop service will help to meet demand and reduce travel times. RER was formerly referred to as "Express Rail" in The Big Move.

GREATER TORONTO & HAMILTON AREA (GTHA)

The metropolitan region encompassing the City of Toronto, the four surrounding Regional Municipalities (Durham, Halton, Peel and York) and the City of Hamilton.

GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE

The Growth Plan for the Greater Golden Horseshoe is a comprehensive strategy to maximize the benefits of growth and maintain our high quality of life. It is a plan to grow in a more complete way – so communities offer a good mix of places to live, work, shop and play. It is a plan that will create communities where it is easier for people to walk, bike or take transit to get around.

LIGHT RAIL TRANSIT (LRT)

Trains (up to three or four cars per train) operating on protected rights-of-way adjacent to or in the medians of roadways or rail rights-of-way. Generally at-grade, possibly with some sections operating in mixed-traffic and/or in tunnels. Electric power is normally via an overhead trolley or pantograph. Capacity of 2,000 to 10,000 passengers per hour in the peak direction, with higher capacities where there are significant stretches of completely segregated rights-of-way. Average speed: 15 to 35 km/h depending on station spacing and extent of grade separation. Examples: Eglinton Crosstown LRT.

MAJOR TRANSIT STATION AREA

The area including and around any existing or planned higher-order transit station within a settlement area, or the area including and around a major bus depot in an urban core. Station areas generally are defined as the area within an approximate 500 metre radius of a transit station, representing about a 10-minute walk.

MOBILITY HUB

Major transit station areas, as defined in the Growth Plan for Greater Golden Horseshoe, that are particularly significant given the level of transit service that is planned for them and the development potential around them. They are places of connectivity between regional rapid transit services, and also places where different modes of transportation, from walking to high-speed rail, come together seamlessly. They have, or are planned to have an attractive, intensive concentration of employment, living, shopping and enjoyment around a major transit station. To be identified as a mobility hub, a major transit station area must be located at the interchange of two or more current or planned regional transit lines as identified in the RTP, and be forecasted in the RTP to have 4,500 or more combined boardings and alightings in the morning peak period in 2031. In addition, these areas are generally forecasted to achieve a minimum density of approximately 10,000 people and jobs within an 800 metre radius. The primary major transit station area associated with an urban growth centre are also identified as mobility hubs, as are Pearson Airport and Union Station due to their roles as the GTHA's primary international gateways. There are two types of mobility hubs identified in The Big Move: Anchor Hubs and Gateway Hubs.

NEXT WAVE PROJECTS

Next Wave projects have been identified in Metrolinx's Investment Strategy (Investing in our Future, Investing in our Region, 2013) as the successive priority transit projects that are required to achieve the objectives set out in The Big Move. The Next Wave project represent additional investment in the region's transit infrastructure. Most Next Wave projects have secured funding.

RAPID TRANSIT (RT)

Transit service separated partially or completely from general vehicular traffic and therefore able to maintain higher levels of speed, reliability and vehicle productivity than can be achieved by transit vehicles operating in mixed traffic.

REGIONAL RAIL IN THE REGIONAL TRANSPORTATION PLAN

Diesel or electric trains serving primarily longer-distance regional trips; approximate capacity at 10-minute headways of 5,000 to 20,000 passengers per hour peak direction; service can be enhanced by electrification, enabling better train performance (acceleration) and therefore higher average speeds even with relatively close station spacing. Average speed: 30 km/h with two km station spacing; 50 km/h with wider station spacing or electrified trains. Example: GO Transit rail system.

REGIONAL RAPID TRANSIT NETWORK

The network of Express Rail, Regional Rail, Subway, and Other Rapid Transit services identified in Schedules 1 and 2 of The Big Move.

SMART COMMUTE

Smart Commute is a program of Metrolinx and the municipalities of the GTHA. The program mandate is to encourage those living and working in the region to choose more efficient transportation choices that reduce congestion, make best use of our transportation infrastructure, and help to improve the quality of life in the GTHA. At Metrolinx, the program incorporates workplace, school and community travel.

THE BIG MOVE

The Regional Transportation Plan for the GTHA – entitled “The Big Move” – is Metrolinx's 25-year transportation plan. It sets the vision, goals and objectives that are to guide transportation planning in the region for the future. The RTP also establishes a transportation network to guide future investments in transportation infrastructure.

UP EXPRESS

UP Express connects the country's two busiest transportation hubs, Toronto Pearson International Airport and Union Station in downtown Toronto. UP Express departs from both Pearson Airport and Union Station every 15 minutes, providing a quick and reliable connection between downtown Toronto and the airport.

URBAN GROWTH CENTRE (UGC)

Urban growth centres are identified in the Growth Plan for the Greater Golden Horseshoe, 2006 as focal areas for directing significant high-density employment and population growth, major transit infrastructure, and a mix of land uses such as commercial, recreational, cultural, entertainment, institutional and public services. As such, they contain current or planned major regional destinations such as major institutions, employment centres, town centres or regional shopping centres, and they have significant potential to attract and accommodate new growth and development. The Growth Plan designates 25 UGCs in the Greater Golden Horseshoe, of which 17 are in the GTHA.

WALKSCORE

Walk Score is a widely used indicator that measures an area's walkability based on accessibility and proximity to amenities. Walk Score both describes the quality of the walking environment and can explain differences in walking behaviour across space. Walk Score identifies four neighbourhood walkability categories: Walker's Paradise (where daily errands do not require a car), Very Walkable (where most errands can be accomplished on foot), Somewhat Walkable (where some errands can be accomplished by foot), and Car-Dependent (where almost all errands require a car).