TORONTO

REPORT FOR ACTION

Prioritization of Planned Higher-Order Transit Projects

Date: February 12, 2024
To: Executive Committee
From: Interim Chief Planner and Executive Director, City Planning
Wards: All

SUMMARY

This report provides a high-level assessment of the higher-order transit corridors identified in *Official Plan Map 4 Higher Order Transit Corridors* in order to provide a comprehensive policy context for on-going discussions on individual transit projects. The report responds to several motions from Council regarding advancing specific proposed higher-order transit projects: Finch LRT west extension to Woodbine GO Station, Waterfront West LRT, and western and eastern extensions to the Sheppard Subway. The report recommends further work to update Map 4 to establish a future transit network plan to respond to Toronto's growth. The analysis in this report is framed in the context of several considerations and challenges that will shape recommendations on advancing higher-order transit development over the coming decade and beyond.

The Official Plan emphasizes the importance of maintaining and expanding a strong transit network to support the growth and development of the city and seeks to encourage more movement by transit and active transportation. Transit plays an important role in increasing access to education, employment, and other opportunities city-wide. Increasing transit use helps the City to address its climate change objectives and be more inclusive. Developing complete communities around transit stations and corridors, with higher density employment and residential development, supports the City's housing, economic, and social development objectives.

Several trends, considerations and challenges shape the context in which this assessment of Map 4 is framed:

1) Fiscal gap: The City has a recognized large budget shortfall and unfunded transit capital program. Given the need to prioritize State of Good Repair in the existing system and high construction costs of higher-order transit, further comprehensive preliminary planning analysis of a range of projects is required to develop a strong evidence base upon which Council can decide which projects would deliver the best value for money.

2) Housing and homelessness crisis: The price of housing is a widespread issue affecting Toronto and all of Canada. This is compounded by mismatches in the

locations of higher population densities and higher-order transit; there are many areas composed primarily of single-family homes near existing high-order transit and conversely, areas with high population densities that are not as well served by higher-order transit, where residents have poorer transit access to employment and other opportunities. There is a historic trend of changing income distribution within Toronto with less affluent areas of the city shifting from being primarily downtown and near Lake Ontario to Toronto suburbs with poorer transit service. High house prices typically found around higher-order transit highlight the potential for transit-induced displacement when building higher-order transit.

3) Strong population and employment growth trends: Toronto is mandated by the Province to plan for roughly 30% growth between 2016 and 2051 but may exceed this target. A growing population may reinforce existing challenges and further increase the need for more space-efficient transportation such as transit. The current auto and transit transportation infrastructure will not adequately support the anticipated population growth.

4) Growing inequity: The COVID-19 pandemic, housing affordability and an overflowing shelter system have highlighted a growing gap where more people are struggling to meet basic needs. The analysis in this report uses new measures based on the concept of transport poverty to measure equity impacts of higher-order transit projects.

5) Climate emergency: To address a climate emergency, Council committed to reaching net-zero greenhouse gas (GHG) emissions in Toronto by 2040. A large shift to more people taking trips using transit and active modes of transportation is essential to meet this target.

6) Increasing crowding and congestion in the transportation system: Using ridership data provided by the TTC, there are many corridors not currently on Official Plan Map 4 that carry large numbers of riders on buses. Many surface transit corridors in the City experience very slow travel speeds, likely due to operating in mixed heavy traffic conditions. These analyses show the need to improve transit conditions in many parts of the City and not just along a small handful of corridors.

Staff evaluated 20 corridors on Official Plan Map 4 supplemented by four additional corridors with high transit ridership using the Rapid Transit Evaluation Framework (RTEF) established in the Official Plan. The evaluation does not cover new corridors being designed and constructed by Metrolinx nor the City's priority transit projects – the Waterfront East LRT and the Eglinton East LRT – as these projects are already advancing. As this work focuses on longer-term higher order transit, corridors that were part of RapidTO: Surface Transit Network Plan were not excluded. The focus is on how the range of corridors identified on Map 4 would augment the network of existing and under-development corridors, and guide future decision making.

Metrolinx is currently undertaking an Initial Business Case examining Line 4 extensions both westwards to Sheppard West Station and eastwards to McCowan Road. This report recommends that City staff engage with Metrolinx in this project to advance City interests along this important corridor. The Sheppard corridor between McCowan Road

and Morningside Avenue is also being considered as part of the Eglinton East LRT, one of the City's priority projects.

Metrolinx is also delivering the Finch West LRT and the new Woodbine GO Station. This report notes the value of planning for the extension of the Finch LRT, initially to Woodbine and then further to connect to Pearson Airport, and recommends the City urge the Provincial government to include planning for this important LRT connection in its work.

Given that many of the top corridors in this evaluation are not included in Official Plan Map 4 and that Map 4 does not establish priorities, this report recommends a further comprehensive evaluation of this map to identify new corridors required to respond to demand, to review existing proposed corridors to ensure that they should remain on Map 4, and to propose priorities for advancing higher-order transit corridors.

Given that most of the top corridors in this report were light rail transit or bus rapid transit, staff also recommend a review of *Official Plan Map 3 Right of Way Widths Associated with Existing Major Streets* to ensure that adequate right-of-way is protected for future surface higher-order transit corridors identified on a revised Official Plan Map 4.

This report recommends advancing surface transit priority measures, such as through the RapidTO: Surface Transit Network Plan. Surface transit priority measures are lower cost than new higher-order transit lines and can be delivered in the short-to-medium-term to help alleviate crowding and congestion on the transit system, support climate change goals by encouraging more travel on transit, better serve areas in the city with higher proportions of equity-deserving people and support a growing population while remaining mindful of the City's financial situation. Higher-order transit planning can be started alongside implementation of these measures to support further long-term growth.

Finally, the correlation between housing prices and proximity to higher-order transit within Toronto is clear. Given the housing affordability crisis within the city, the relationship between housing prices and the proximity to transit, and the City's objective of building complete communities around transit, this report also recommends further work to identify ways to better link the City's desired transit and housing outcomes.

RECOMMENDATIONS

The Interim Chief Planner and Executive Director, City Planning recommends that:

1. City Council reaffirm the policy that maintaining the existing system in a state of good repair is the first priority for investment in transportation.

2. City Council request the Chief Planner and Executive Director, City Planning, in consultation with the Executive Director, Transit Expansion Division, the General Manager, Transportation Services, Head, Strategy and Foresight at the TTC and other divisions as appropriate, to report back to Council in Q3 2025 on a comprehensive review of *Map 4 Higher Order Transit Corridors* of the Official Plan to:

a) Identify new corridors that would address identified gaps in future higher-order transit service;

b) Review existing proposed corridors which may not warrant future higher-order transit service; and

c) Propose priorities for advancing work on higher-order transit corridors.

3. City Council request the Chief Planner and Executive Director, City Planning, in consultation with the Executive Director, Transit Expansion Division, the General Manager, Transportation Services, Head, Strategy and Foresight at the TTC and other divisions as appropriate, to report back to Council in Q3 2025 on a review of *Map 3 Right-of-Way Widths Associated with Existing Major Streets* of the Official Plan to ensure Map 3 reflects appropriate Right of Way dimensions for potential BRT and LRT services in the revised Official Plan Map 4, where appropriate.

4. City Council request the Chief Planner and Executive Director, City Planning, the General Manager, Transportation Services, and the Head, Strategy and Foresight at the TTC to advance surface transit priority measures across the city.

5. City Council request the Chief Planner and Executive Director, City Planning and the Executive Director, Transit Expansion Division, to:

a) work with the Province to advance City interests in the current Metrolinx work on the Sheppard Subway Extension Study; and

b) request Metrolinx to advance planning of a Finch West LRT extension to Woodbine and beyond to Pearson International Airport.

6. City Council request the Chief Planner and Executive Director, City Planning and Executive Director, Housing Secretariat and other divisions as appropriate, to explore opportunities to advance more affordable and non-market housing around new and existing transit stations and corridors to support the City's Housing Strategy and build complete communities, including in partnership with Infrastructure Ontario and Metrolinx.

FINANCIAL IMPACT

City Planning confirms there are no financial implications resulting from the recommendations included in this report in the current budget year or in future years.

EQUITY IMPACT STATEMENT

Transit is a very important service for low-income households in Toronto. As per the Transportation Tomorrow Survey, low-income households are more likely to use transit

for both work and non-work trips compared with the population as a whole, and more likely to use transit than auto.

This report considers equity impacts of proposed higher-order transit improvements through the concept of transport poverty, where people and households are subject to the intersection of two types of disadvantages: social disadvantage and transport disadvantage. It has been shown that people with both types of disadvantages are more prone to social exclusion, which has been shown to affect both the quality of life of individuals and the equity and cohesion of society as a whole.

The City's term equity-deserving groups reflects different perspectives of social disadvantage. To present a multi-faceted perspective of equity, this report uses five equity deserving groups: low income, racialized people, single parent families, recent immigrants and people with a long commute. Transit service is a key component of transport disadvantage.

To provide context for the prevalence of transport poverty throughout the city, this report first provides an overview of where people in these equity deserving groups reside and their relative access to different types of opportunities. The ability of proposed higher-order transit to reduce transport poverty is analyzed for each corridor. Transport disadvantage is measured for the five selected equity deserving groups through three different measures: access to opportunities, travel time savings and immediate land use. Using these measures, the relative benefits of proposed higher-order transit corridors for these equity deserving groups compared to their non-equity deserving counterparts are analyzed and included directly in the corridor evaluation. Some corridors are seen to provide additional equity benefits compared with others, which is reflected in the overall evaluation.

DECISION HISTORY

On February 26, 2020, City Council adopted Official Plan Amendment 456 which, among other matters, included a new map of planned expansion higher-order transit corridors and stated that the City will establish project priorities among these corridors considering value-for-money and the broader city-building objectives of the Official Plan, including that transit should be built to serve people, strengthen places, and support prosperity (see PH13.3 Official Plan Review: Transportation - Recommended Official Plan Amendment. URL: https://secure.toronto.ca/council/agenda-item.do?item=2020.PH13.3).

On May 5, 2021, City Council requested that the feasibility of expanding the Finch West LRT south to connect to the Kitchener Go Line be considered through a forthcoming Transit Priorities Report (see MM32.24 - The Missing Link: Extending the Finch West LRT to the Kitchener GO Line - by Councillor Michael Ford, seconded by Councillor Stephen Holyday. URL: https://secure.toronto.ca/council/agenda-item.do?item=2021.MM32.24).

On May 11, 2022, City Council requested an approach to address transit requirements in south Etobicoke, including recommendations related to timing and approach to the

Bloor Danforth (Line 2) Westerly Extension to Sherway, be reported as part a broader transit network update report (see MM43.6 - Getting Etobicoke Transit Back on Track - by Councillor Mark Grimes, seconded by Councillor Stephen Holyday. URL: http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.MM43.6).

On June 15, 2022, City Council directed staff to determine potential undertakings to expedite the budgetary and design processes for the western extension of the Western Waterfront Light Rail Transit (see EX33.2 - Advancing City Priority Transit Expansion Projects - Eglinton East Light Rail Transit and Waterfront East Light Rail Transit. URL: http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.EX33.2).

On June 15, 2022, City Council requested the Province of Ontario and Metrolinx to provide the approach and timing to advance the planning for the Line 4 extension from Don Mills Station to the new McCowan/Sheppard Station on the Scarborough Subway Expansion (see MM45.5 - Get It Done - Complete the Scarborough Subway Network - by Councillor Cynthia Lai, seconded by Councillor Nick Mantas. URL: http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.MM45.5).

On July 19, 2022, City Council requested the Province of Ontario and Metrolinx to provide the approach and timing to advance the planning for the Line 4 extension from the Sheppard/Yonge Station to Sheppard West Station (see MM47.77 - Next steps in building the Sheppard West Subway Extension - by Councillor James Pasternak, seconded by Councillor Cynthia Lai. URL: http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.MM47.77).

On February 6, 2024, City Council endorsed, in principle, the Surface Transit Network Plan and directed staff to accelerate the proposed timeframes for the review of feasibility, design and implementation of projects within the Surface Transit Network Plan, where possible (see EX11.8 - RapidTO: Surface Transit Network Plan. URL: https://secure.toronto.ca/council/agenda-item.do?item=2024.EX11.8).

COMMENTS

The City of Toronto is in a period of extensive higher-order transit expansion with the current wave of Provincial priority projects expected to be delivered by approximately 2031 and other City priority projects - the Eglinton East LRT and the Waterfront East LRT - in advanced stages of planning that are anticipated to be delivered in the 2030s. Given the long time required to advance projects from concept to delivery, now is a reasonable time to consider which projects should advance through preliminary planning to be able to prepare high-value projects for delivery when the current projects are completed.

This report responds to several motions from City Council to advance or prioritize various higher-order transit projects. To assess the projects covered by these motions, City Planning staff evaluated all the higher-order transit corridors identified in the Official Plan Map 4 using the Rapid Transit Evaluation Framework (RTEF), which has been used by the City since 2013 to set priorities and objectives for transit expansion and guide decisions about higher-order transit projections through the planning process.

This evaluation and the recommendations in this report are framed within the context of several trends, considerations, and challenges including the City's fiscal gap; a housing and homelessness crisis; strong population and employment growth trends; growing inequity; a climate emergency; and increasing crowding and congestion in the transportation system. This report speaks to each of these in turn. These intersecting challenges have resulted in a backlog of unfunded yet vital state of good repair and transit improvement projects, a congested road and transit system, strong competition for housing with local access to the higher-order transit system, and many of Toronto's equity-deserving residents being forced to live in areas with lower access to employment and other opportunities, encouraging the use of auto modes or contributing to job loss.

The City is tackling these conditions and challenges through current initiatives to build transit and housing and to address the City's fiscal situation, among other City Council priorities. Continuing to build a fuller transit network will be an important priority for the City to help in addressing these challenges. This Prioritization of Planned Higher-Order Transit Projects report provides a framework on which to base these transit improvement initiatives.

Fiscal Gap

In September 2023, City Council acknowledged an unfunded capital program of $33.9 billion, of which $16.9 billion is for TTC and other transit projects.[1] A component of this is the State of Good Repair (SOGR) backlog, which is shown in Figure 1. The Official Plan identifies that the City's first priority for investment in transportation is to maintain the existing system in a state of good repair.

Compounding Toronto's financial constraints is the trend that higher-order transit construction costs in the region have increased significantly in recent years, which limits the amount of higher-order transit that can be built within a set budget. Similar cost increases have occurred in other jurisdictions, but they are not necessarily occurring globally. In a recent report on the Eglinton Crosstown[2], construction cost in Montreal and Vancouver for rail projects are above $400 million/km whereas in Toronto, they could be upward of $600 million/km.

1 EX7.1 - Updated Long-Term Financial Plan. URL: https://secure.toronto.ca/council/agenda-item.do?item=2023.EX7.1)
2 Public Policy and Governance Review Report by Anna Hardie – Why does it cost so much to build transportation in Canada?" An Analysis of the Eglinton Crosstown.

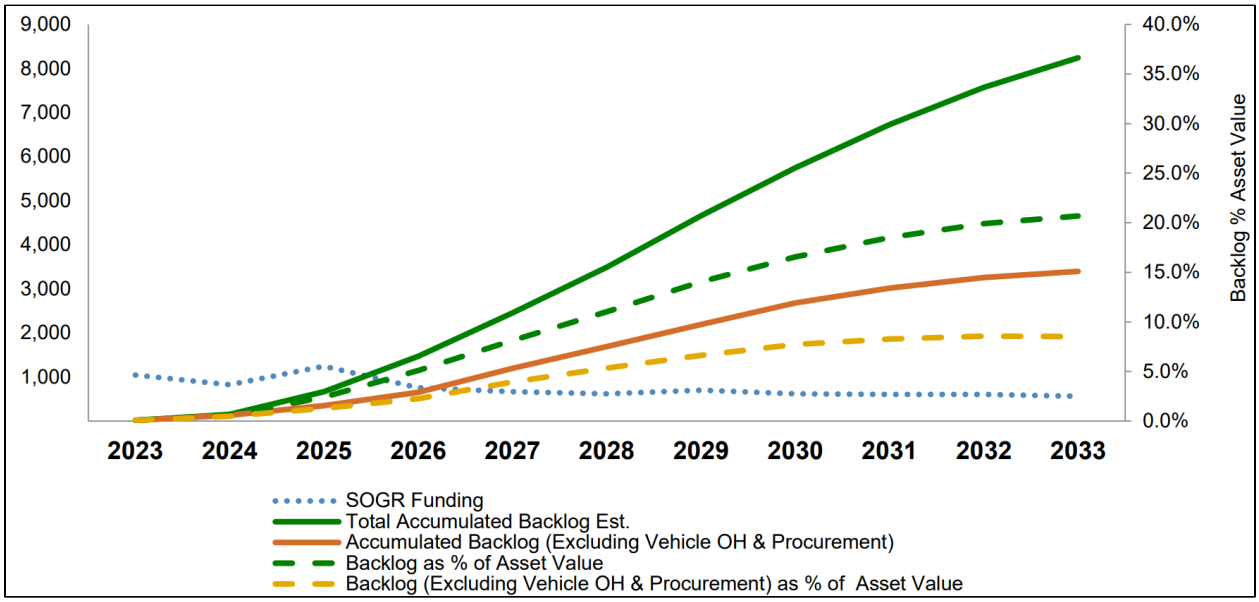

Figure 1: TTC State of Good Repair (SOGR) Backlog, 10-Year Outlook[3]

Due to the high costs and long planning and construction times of higher-order transit projects in Toronto, it remains critically important to also examine less expensive near-term transit improvements throughout the city. These sorts of improvements do not preclude future higher-order transit but instead support the ridership growth to justify future higher-order transit development. Council recently directed advancing the delivery of RapidTO: Surface Transit Network Plan. This is one approach to provide lower-cost wide-spread improvements in transit service. In addition to providing new improved transit service, the City should also focus on maintaining the state of good repair of its existing transportation system to avoid costly and disruptive emergency repairs.

Housing and Homelessness Crisis

Land use and socio-economic patterns clearly indicate that proximity to higher-order transit is attractive to Torontonians. This story is told in *The Three Cities Within Toronto: Income Polarization Among Toronto's Neighbourhoods, 1970-2005*. [4] This article demonstrates the suburbanization of poverty in Toronto and how more affluent areas of Toronto have shifted into areas closer to the downtown and around subway stations (see Figure 2). As we can see in this figure, primarily middle-income people lived in Scarborough, North York and Etobicoke in 1970. This was very different by 2005, however, as increased proportion of lower-income households now reside in much of these areas.

Further evidence of this is seen in current house prices. Figure 3 uses data from Toronto Regional Real Estate Board to show the price of single family detached homes throughout Toronto. This report only shows one dwelling type as it provides a more consistent comparator of land value across different areas in the city.

3 https://www.toronto.ca/legdocs/mmis/2024/bu/bgrd/backgroundfile-242096.pdf
4 http://3cities.neighbourhoodchange.ca/

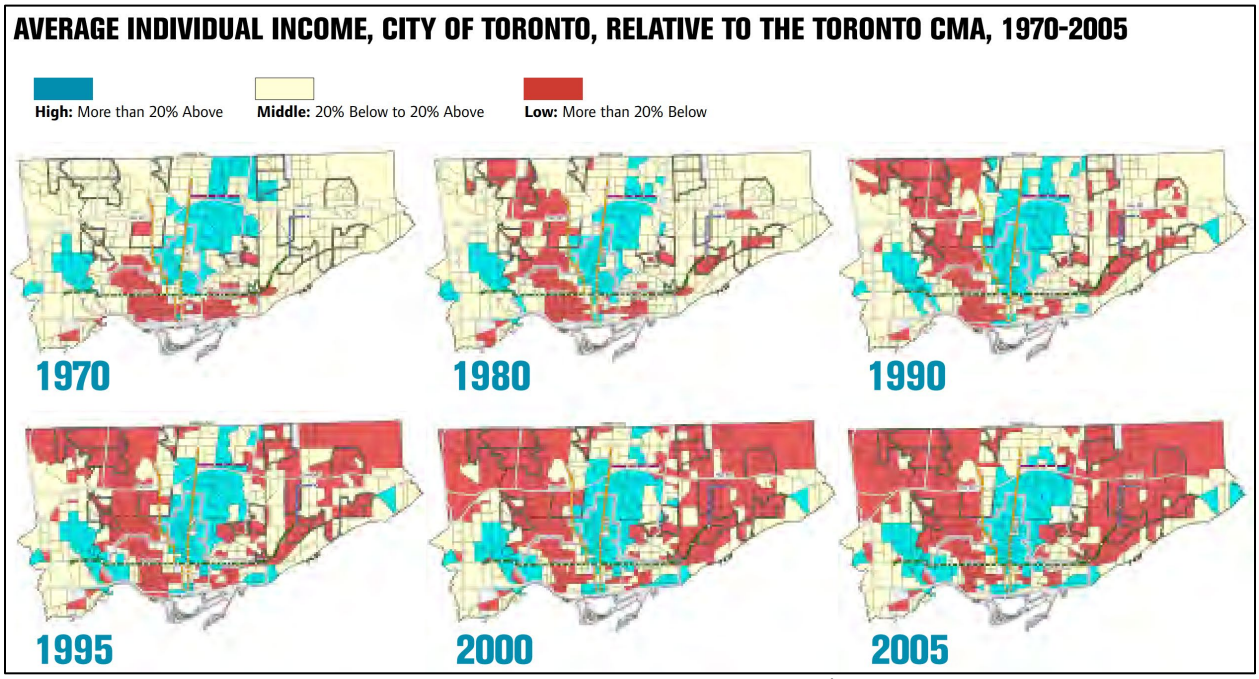

Figure 2: Change in average individual income in Toronto.[4]

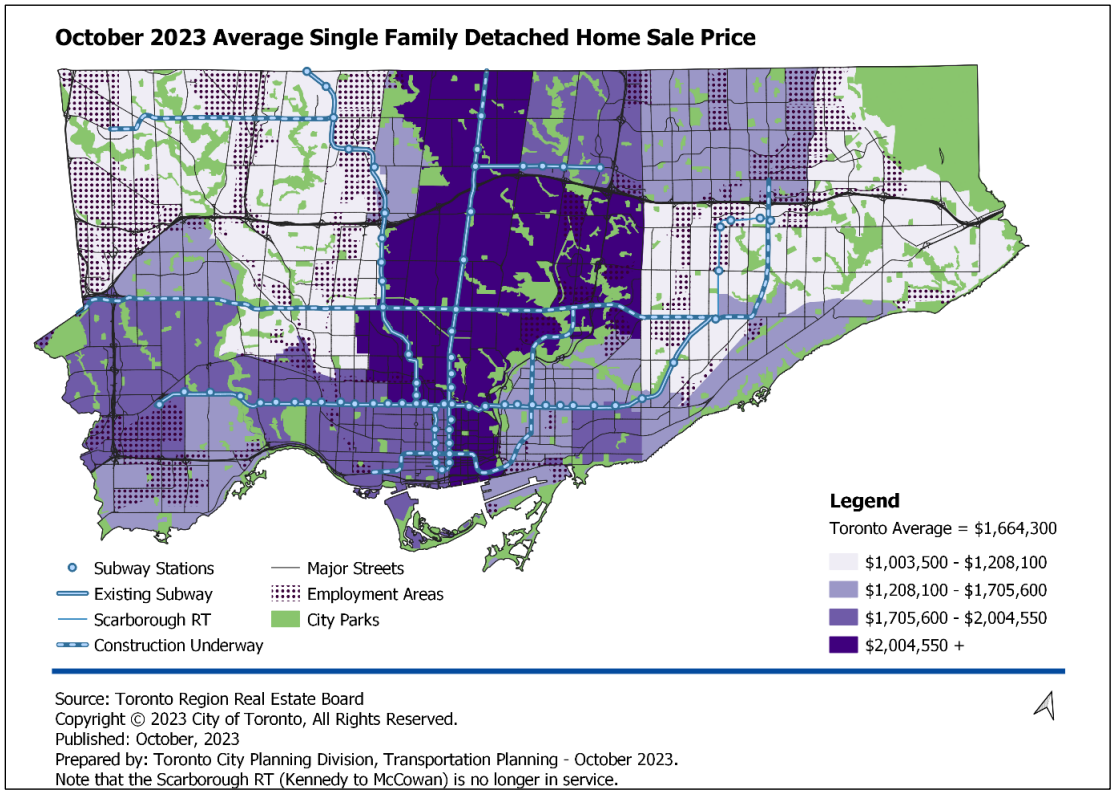

Figure 3: Toronto Average Single Family Detached House Prices in October 2023

Beyond land value, transit oriented development encourages a good interaction between higher-order transit and land use to make access to transit convenient for larger numbers of people. Figure 4 shows the distribution of population density within Toronto. In general, the population density is highest downtown and in nearby areas. Outside of these areas, however, there is only a weak relationship between higher-order

transit and population density. Many areas of the city have high population densities that are not served by current or funded higher-order transit. By contrast, there are also many areas of the city in close proximity to higher-order transit that have lower population and employment densities, which puts additional stress on the available housing close to higher-order transit. Increasing the amount of available higher-order transit and allowing higher densities close to it would allow more people to live near transit.

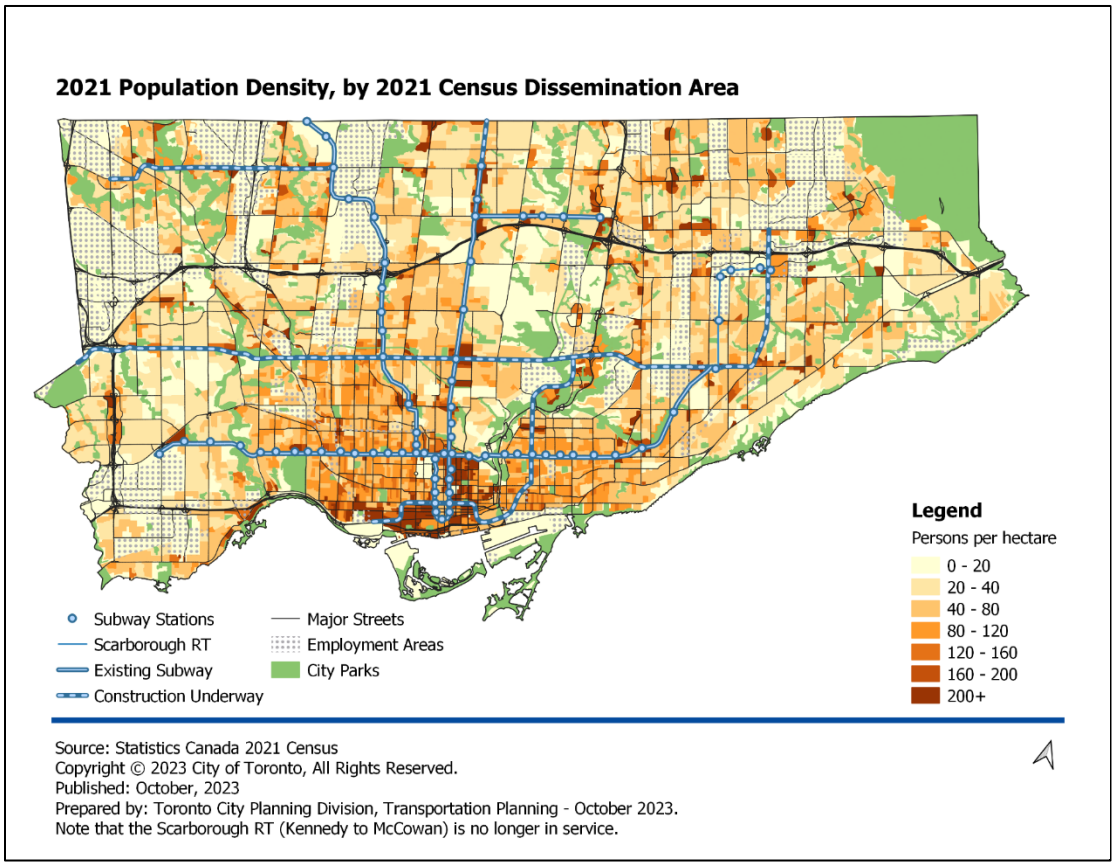

Figure 4: 2021 population density

Taking these population trends near higher-order transit into account, changes in density along existing transit lines and the development of higher-order transit lines can have unintended negative consequences on equity-deserving groups. When households with higher wealth move into areas close to transit, they can out-compete households with lower wealth for housing, a process called transit induced displacement. Transit induced displacement may be mitigated by deliberate policies and programs, such as encouraging affordable and non-market housing near transit. The City's rental housing replacement policies are another example of a means to address this. The City should focus on these and other such actions to help people living around higher order transit remain in their communities and benefit from new transit infrastructure.

Population and Employment Growth Trends

Toronto is expected to grow significantly in population and employment over the next three decades. *A Place to Grow: Growth Plan for the Greater Golden Horseshoe*[5] (the provincial Growth Plan) mandates that Toronto plan for a minimum population of 3.65 million people in 2051, 30% growth over the 2016 population of 2.82 million people, and forecasted employment of 1.98 million jobs, 23.1% over the pre-pandemic employment of 1.61 million jobs in 2016 and 22.5% growth over mid-pandemic employment in 2021. Ontario's Ministry of Finance projects that Toronto's population will be 4.2 million people in 2046.[6]

Figure 4 shows the distribution of population density within the city. Similarly, Figure 5 shows the employment density distribution within Toronto. Higher employment densities exist in Downtown, the Centres and in designated Employment Areas.

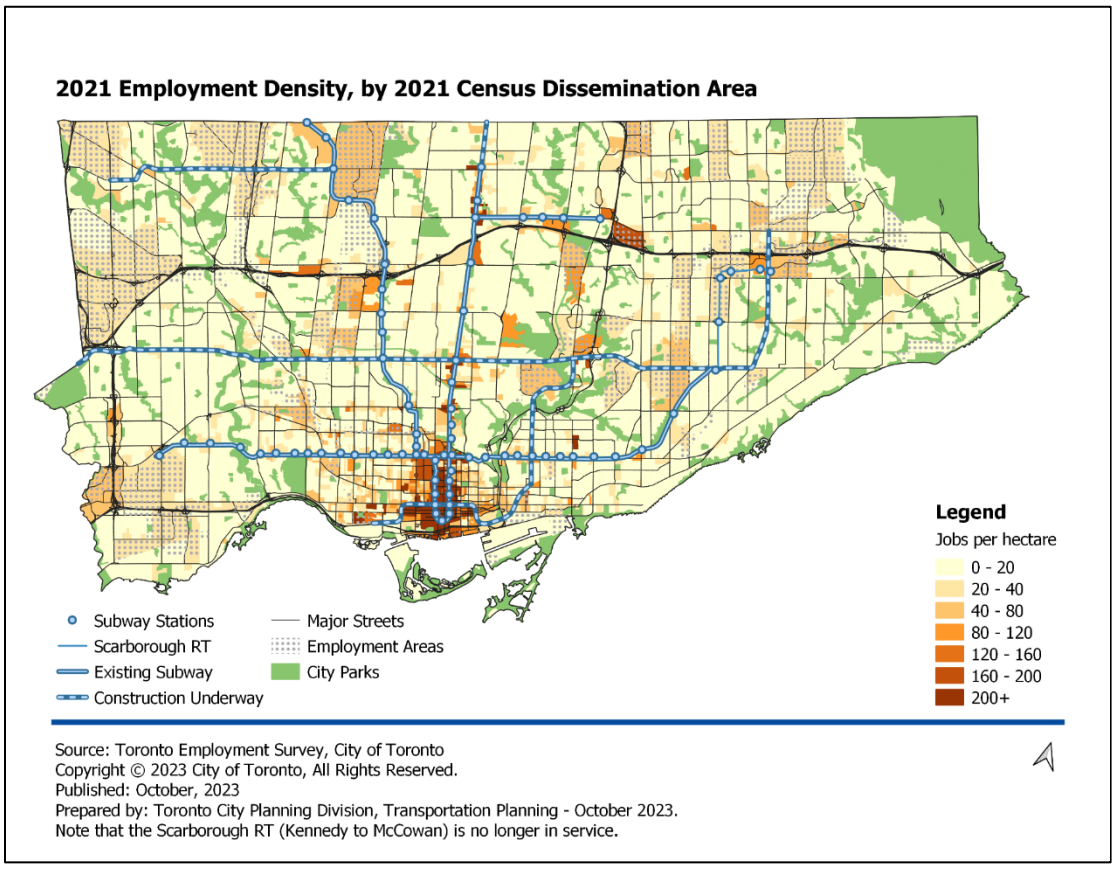

Figure 5: 2021 employment density

City Planning recently developed updated population and employment projections for 2051 as part of the Land Needs Assessment component of the Municipal Comprehensive Review of the Official Plan.[7] Figure 6 shows estimated population

5 https://www.ontario.ca/document/place-grow-growth-plan-greater-golden-horseshoe
6 https://www.ontario.ca/page/ontario-population-projections
7 Land Needs Assessment – Final Report, presented to Planning and Housing Committee at its meeting on April 27, 2023 as 2023.PH3.7 https://secure.toronto.ca/council/agenda-item.do?item=2023.PH3.7

growth from 2016 to 2051 using the *Hemson Reference Scenario*, which is the basis of the population and employment targets specified in the provincial Growth Plan.

To account for alternative possible futures, the Land Needs Assessment also included other population growth scenarios. As such, Figure 7 shows the estimated population growth from 2016 to 2051 using the *Maximum Scenario,* which includes all of the additional potential housing identified from all sources. This explicitly includes the additional development potential identified in Secondary Plan areas, in Transit Oriented Communities proposals and near higher-order transit stations. Figure 8 shows employment growth projections from the Medium (preferred) employment growth scenario.

The Official Plan recognizes the importance of coordinating transportation and land use planning. The City is undertaking several projects to identify areas where future growth can best be accommodated, including Major Transit Station Areas, Avenues Policy Review, and Expanding Housing Options in Neighbourhoods. Planning to accommodate this growth and the future transportation system should be done in coordination with revisions to Official Plan *Map 3 Right-of-Way Widths Associated with Existing Major Streets*, *Map 4 Higher Order Transit Corridors* and *Map 5 Surface Transit Priority Network*.

Recognizing that there are always uncertainties in long-term population and employment projections, staff will continue planning for improved future transit in areas that are anticipated for growth using multiple land-use scenarios. Better integrating the transit system with population and employment density will make transit faster, more convenient and more desirable for all resident and workers in Toronto.

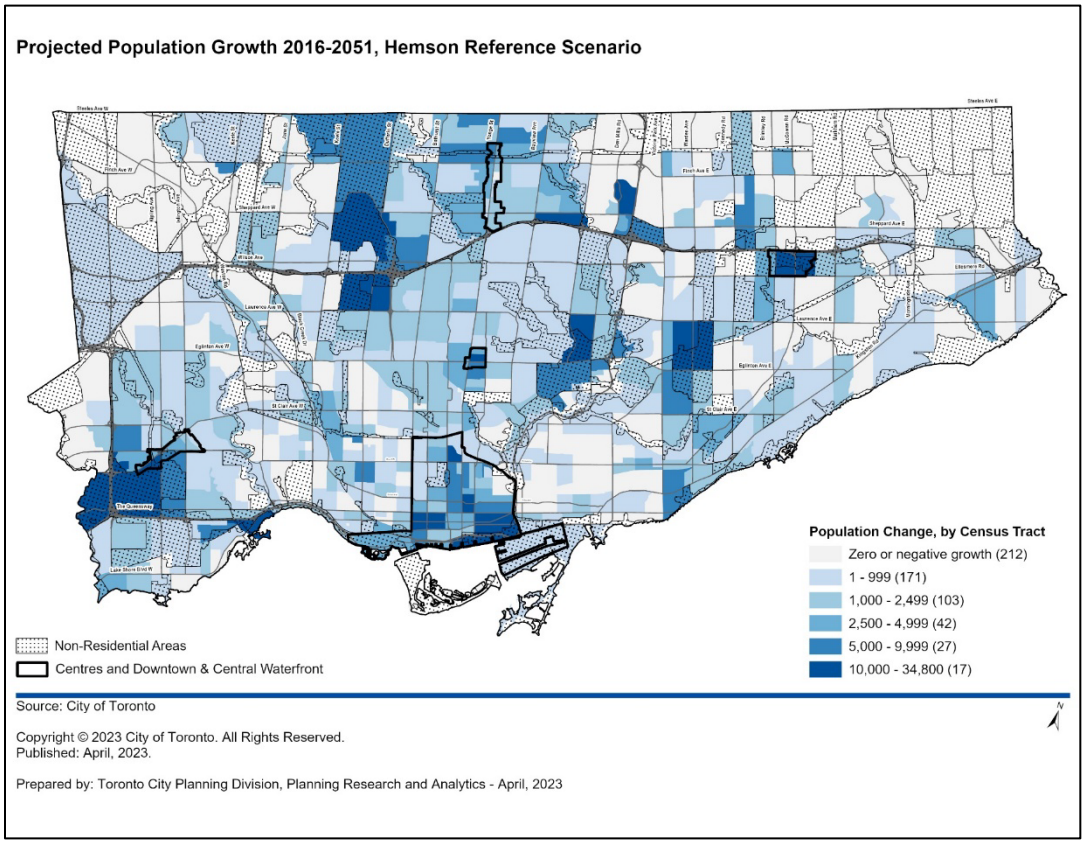

Figure 6: City Planning projected change in population density from 2016 to 2051, Hemson Reference Scenario.

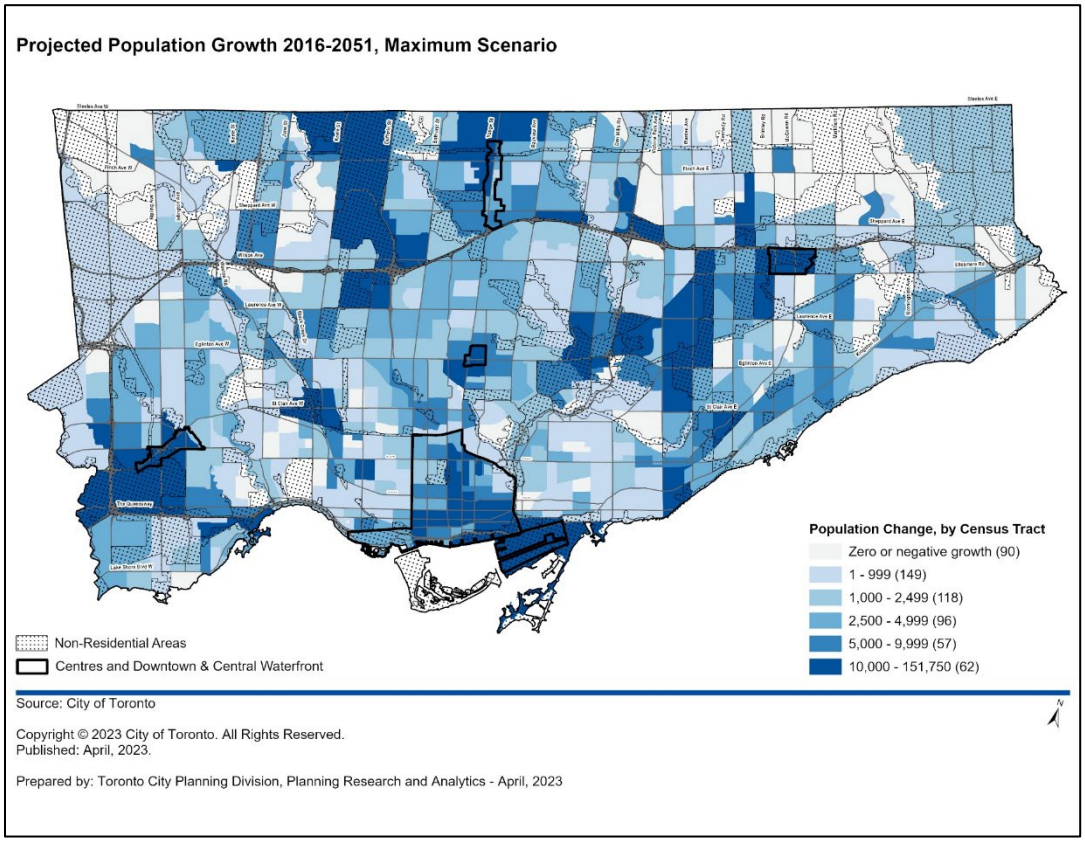

Figure 7: City Planning projected change in population density from 2016 to 2051. Maximum Reference Scenario.

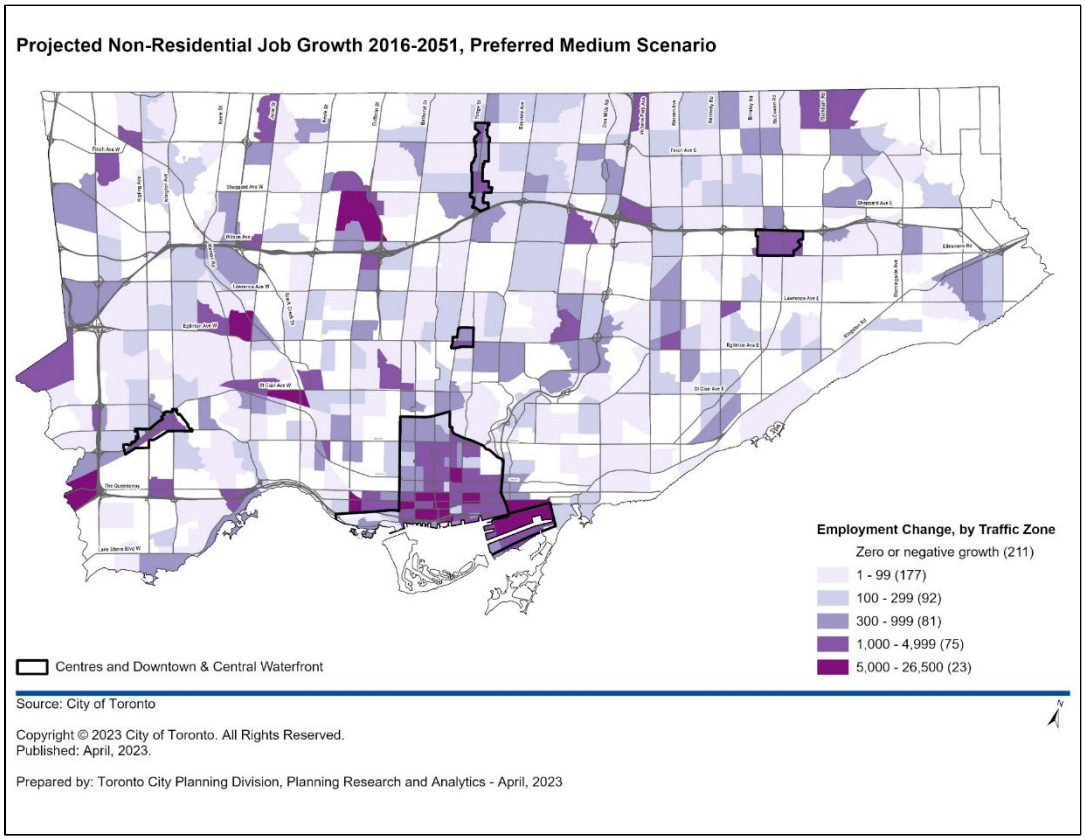

Figure 8: City Planning projected change in employment density from 2016 to 2051, preferred medium scenario.

Growing Inequity

The COVID-19 pandemic, housing affordability crisis and an overflowing shelter system have highlighted a growing gap with more people struggling to meet their basic needs.

The analysis in this report uses new measures based on the concepts of transport poverty to highlight areas in Toronto with concentrations of equity deserving people. Transport poverty is defined as the intersection of people having both a social disadvantage and a transport disadvantage. People with this combination of disadvantages are more frequently subject to social exclusion, which has been defined as "the lack or denial of resources, rights, goods and services, and the inability to participate in the normal relationships and activities available to the majority of people in a society. It affects both the quality of life of individuals and the equity and cohesion of society as a whole."[8]

Staff from City Planning, Transportation Services Division and the TTC are engaged in a broad-based initiative led by the University of Toronto Scarborough Campus called Mobilizing Justice, with a focus on understanding and addressing issues of transport disadvantage.

8 Levitas, R., Pantazis, C., Fahmy, E., Gordon, D., Lloyd-Reichling, E. and Patsios, D. (2007). *The multi-dimensional analysis of social exclusion*, University of Bristol.

People can be socially disadvantaged for different reasons, and there is no single measure of a socially disadvantaged, or equity-deserving, person. In consultation with academics involved in Mobilizing Justice, City staff selected five equity-deserving groups for this analysis: 1) low-income; 2) racialized; 3) single-parent households; 4) recent immigrants; and 5) people with long commutes[9]. Collectively, the groups provide a broad – although non-exhaustive – lens to evaluate equity considerations in the City's transit system. Figure 9 through Figure 13 show the population distributions of these groups throughout Toronto as reported by the 2021 Census. In these figures, darker shades show regions with increased proportions of the equity-deserving population with respect to the city-wide distribution.

Access to opportunities measures the ability of people to participate in everyday activities, including employment, education, shopping for necessities and community activities. Access depends on two components: the speed of travel and the proximity of suitable activities. This analysis measures access to opportunities using Fall 2022 transit schedules to assess the *transport disadvantage* component of equity analyses.

Figure 15 shows transit access to employment. Darker shades show regions with relatively high transit access to employment compared with city-wide access. In general, transit access to employment is highest near the subways and is lower in the east and northwest areas of the city. Good transit access is also available along streets with frequent bus service such as Wilson Avenue and York Mills Road/Ellesmere Road. It is not just transit, nor the opportunities alone that creates the access to these opportunities, but the locations of employment opportunities combined with the transit service.

Comparing the distribution of different equity-deserving populations and the areas with lower transit access to every-day activities, it is apparent that there are many areas within the city that have higher proportions of different equity-deserving groups and poorer transit access. This intersectionality indicates a higher prevalence of transport poverty for residents of these areas. This has a strong equity implication given that equity-deserving populations often live outside of the regions with more competitive transit access.

While City staff have considered equity in transit (and other transportation) projects for many years, the ability to understand and measure this, and to factor this more fully into decisions, requires ongoing work. City staff continue to expand the capacity to address transportation equity with a focus on helping to alleviate transport poverty.

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9 Indigeneity was not included due to the coarse nature of the analysis and the low proportion of Indigenous peoples in Toronto compared with the selected equity deserving groups. For context, Figure 14 shows the distribution of Indigenous people within Toronto. Gender was not included since the distribution of different genders does not differ significantly from that of the total population and this study primarily analyzes social disadvantage through differences in the proportion of the equity-deserving group around the city. A different lens would be more appropriate for these two equity-deserving groups.

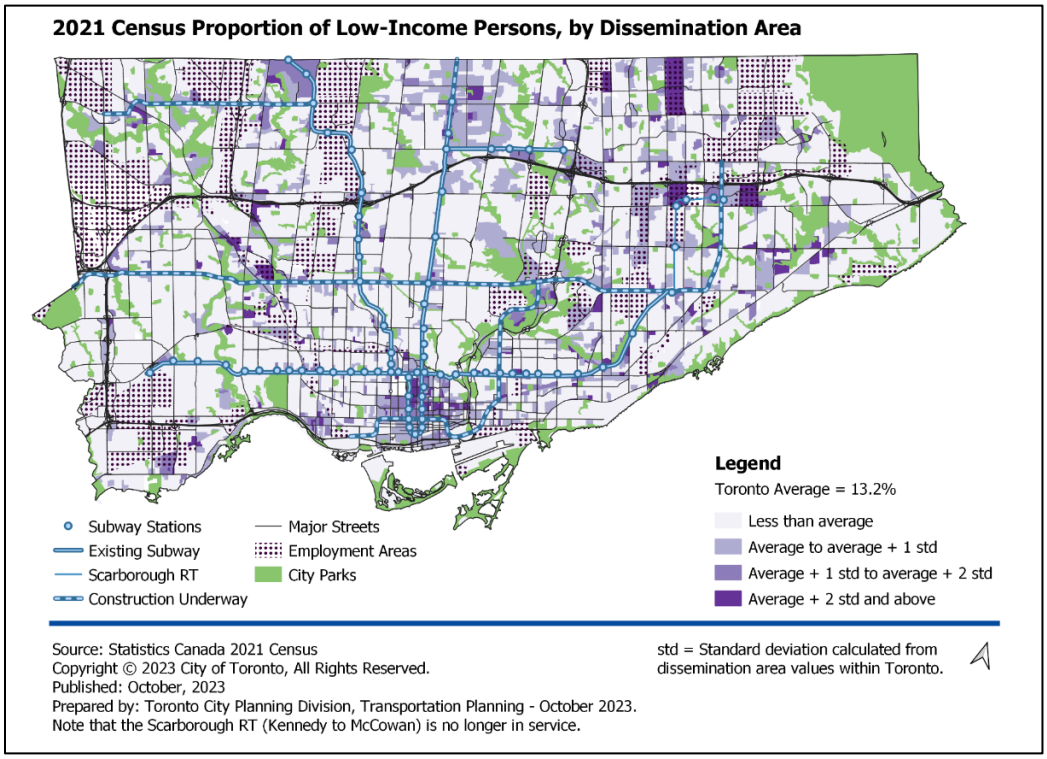

Figure 9: 2021 Census proportion of low-income people (measured by LIM-AT)

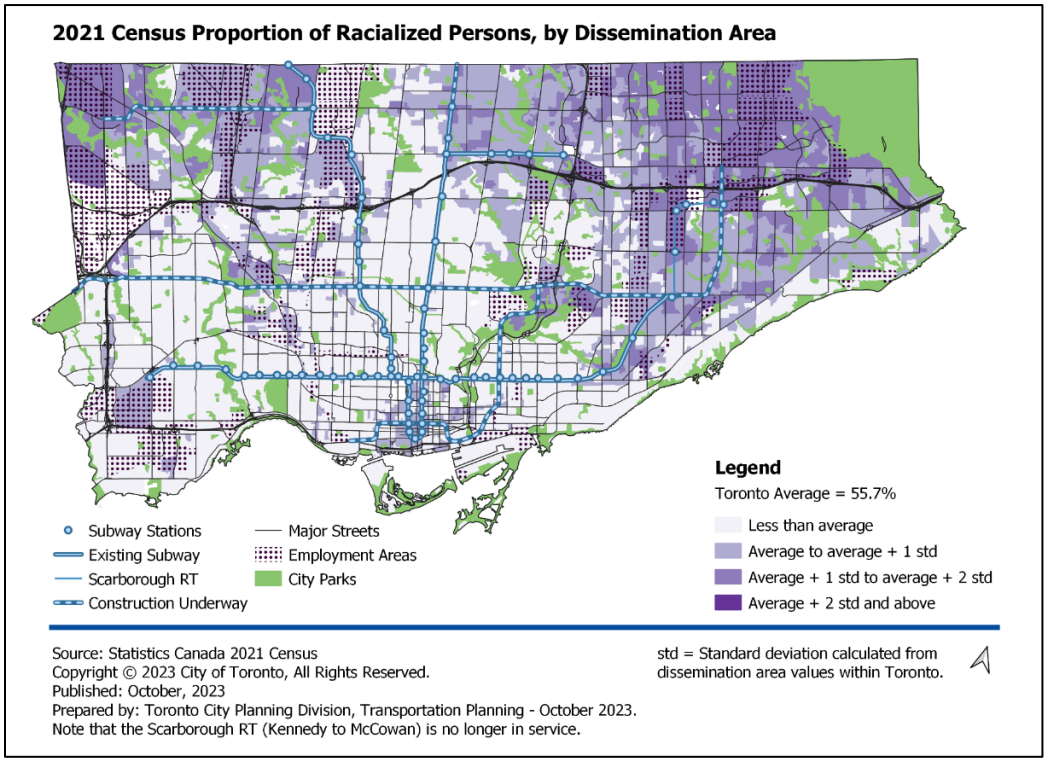

Figure 10: 2021 Census proportion of racialized people[10]

10 Called Total Visible Minority in the census, does not include indigenous population.

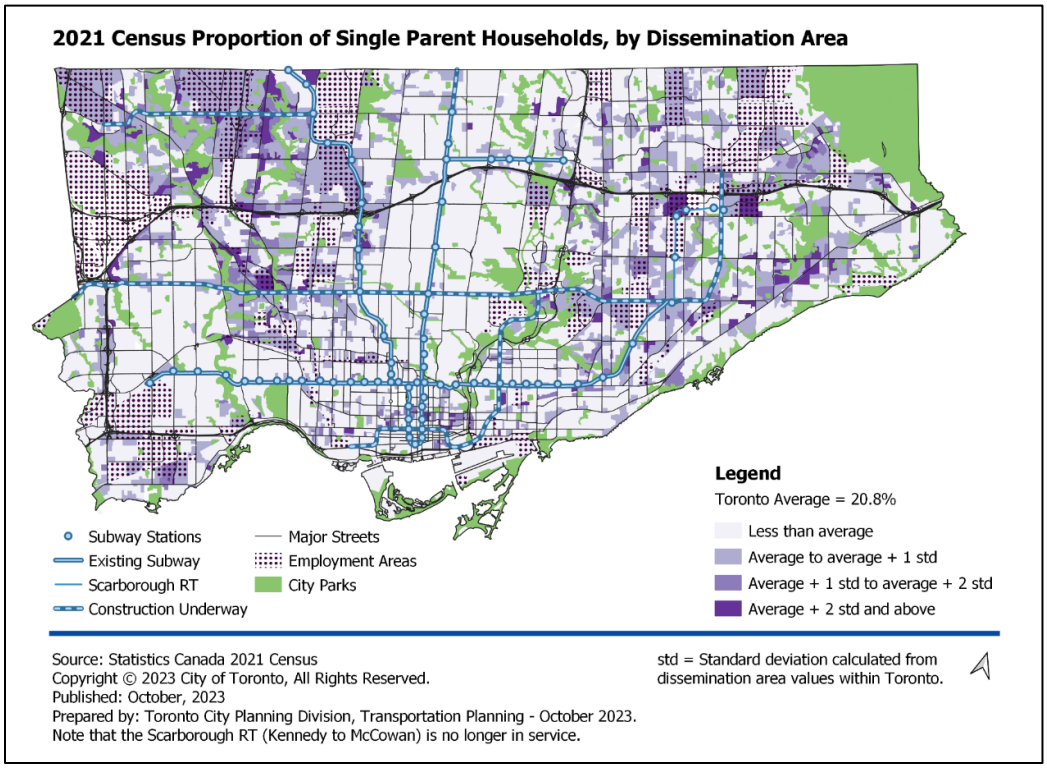

Figure 11: 2021 Census proportion of people living in single parent households

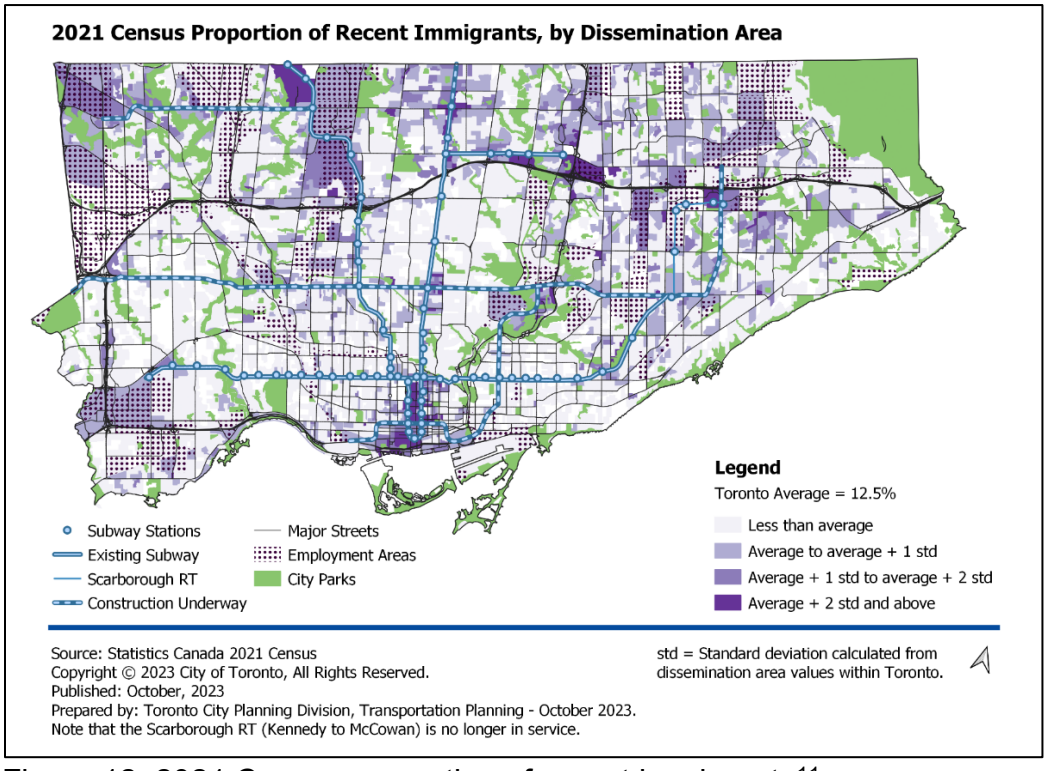

Figure 12: 2021 Census proportion of recent immigrants[11]

11 Recent immigrants are defined here as people immigrating between 2016 and 2021, and non-permanent residents.

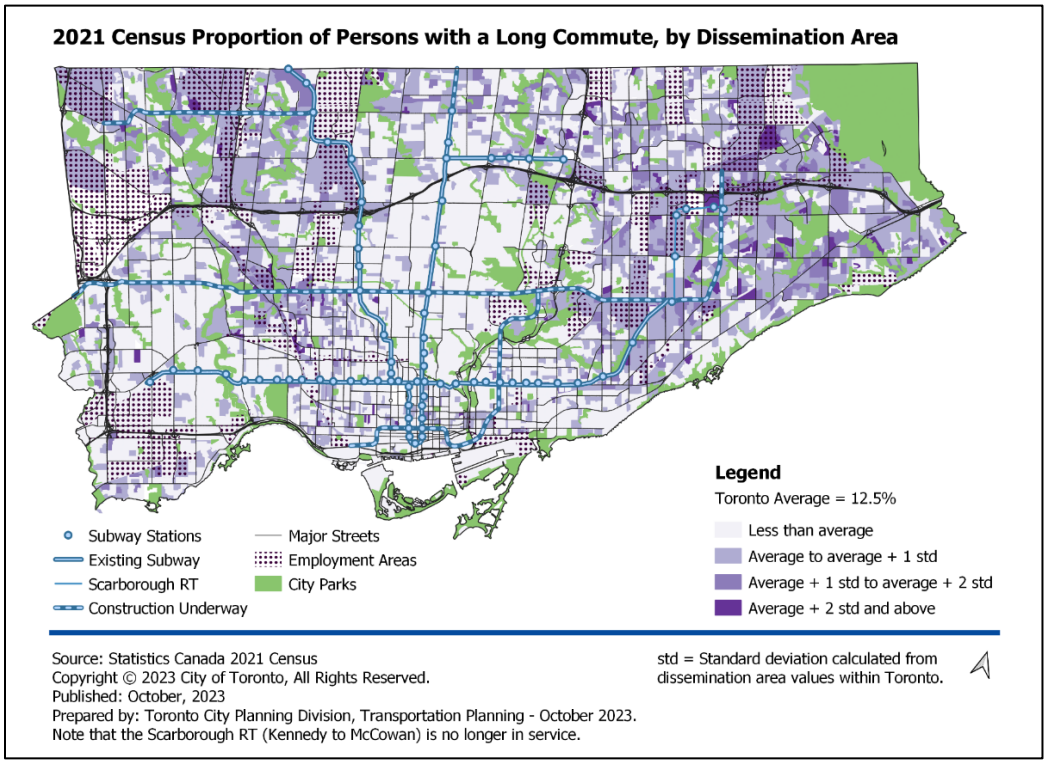

Figure 13: 2021 Census proportion of people with a commute to work of 1 hour or more

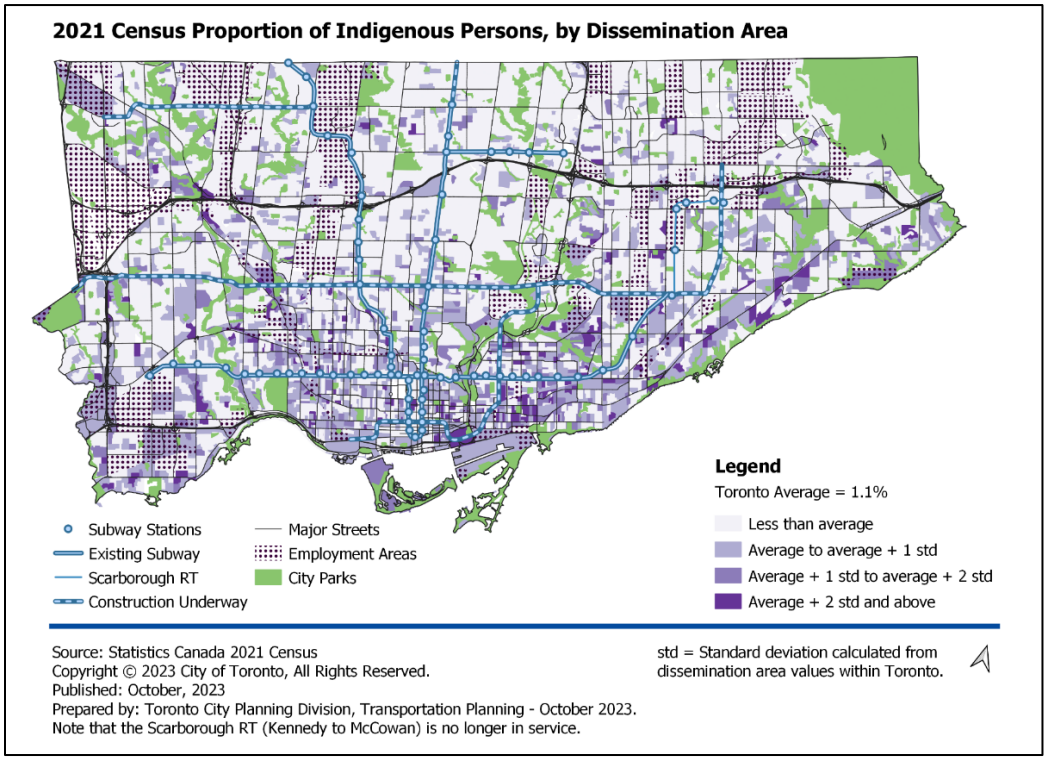

Figure 14: 2021 Census proportion of Indigenous population

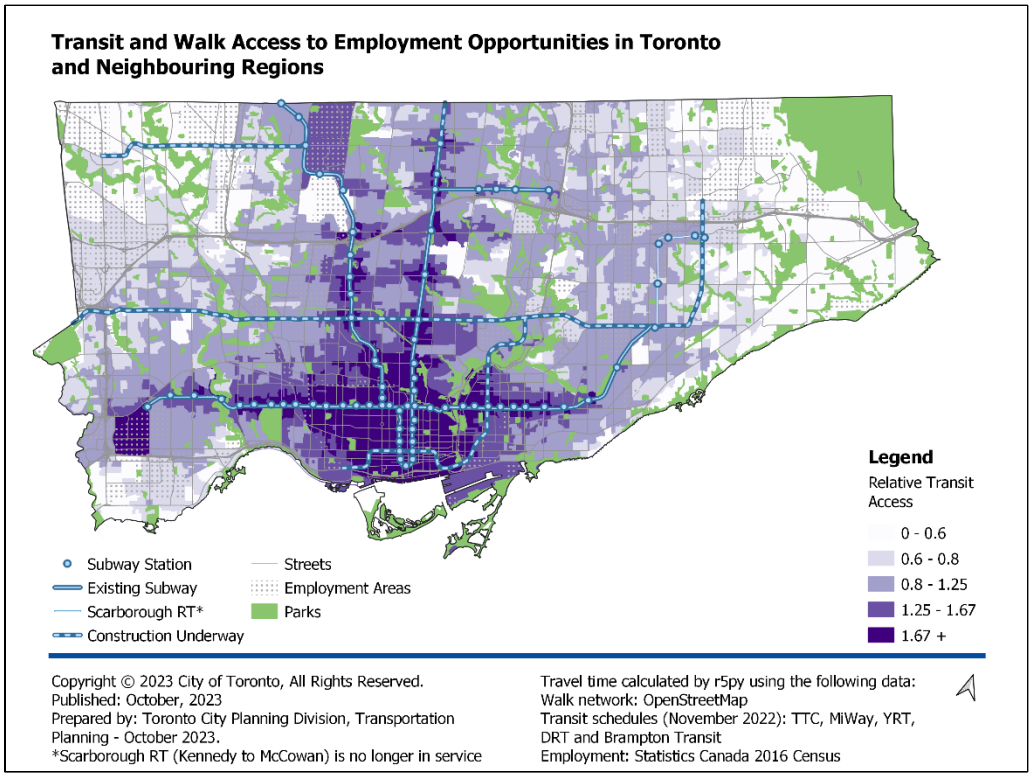

Figure 15: Transit and walk access to employment opportunities in Toronto and in neighbouring regions) based on Nov 2022 transit schedules

Climate Emergency

In 2019 Council declared a climate emergency (2019.MM10.3). To address the emergency, Council committed to reaching net-zero greenhouse gas (GHG) emissions in Toronto by 2040. As of 2020, transportation accounted for 33% of GHG emissions. More fuel-efficient transportation is a key component of reaching net-zero, including increased trips by walking, cycling and transit.

Additionally, while increased adoption of electric vehicles will reduce auto tailpipe emissions in these vehicles, GHG emissions are still produced to generate the electricity and vehicles themselves. Furthermore, the vehicles will still contribute to road congestion, and contribute to delays and increase emissions from remaining internal combustion engine vehicles.

An often-overlooked contributor to climate change is embodied carbon. These are carbon emissions associated with the construction, maintenance, operation and end-of-life of infrastructure or goods. Large quantities of carbon dioxide are emitted when extracting resources to produce batteries, concrete, asphalt and steel, which are key materials in transportation vehicles and infrastructure. Large transportation infrastructure projects are only a climate benefit if the carbon emissions they mitigate exceed the emissions emitted in their construction.

The City should prioritize improved transit, as shifting travel away from personal automobiles to transit is a key element of meeting the City's climate change objectives. This includes both improving higher-order transit but also aiming for short-term

improvements that will help move buses faster throughout the City. This addresses the climate emergency by both increasing the capacity of fuel and space-efficient transportation, as well as avoiding the need for expensive investments in infrastructure.

Increasing Crowding and Congestion in the Transportation System

In 2016, 27% of all trips made by residents of Toronto were by transit[12]. Figure 16 shows the number of passengers on board TTC surface routes on major streets in Fall 2022. This figure shows that there are many highly-travelled corridors throughout the city that would benefit from improved transit service.

A crucial issue impacting the efficiency of transit on surface routes throughout the city – most of which operate in mixed traffic – is slow travel speeds. Figure 17 shows the travel speeds corresponding to the 95th percentile travel time in the Fall of 2022 in the PM peak period.[13,14] This map illustrates that there are many routes that experience low travel speeds throughout Toronto. Given the auto congestion levels on Toronto roads, it is inevitable that buses and streetcars would also be affected by this congestion. Improvements to surface transit, including such measures as dedicated facilities and/or signal priority can help to improve transit performance.

The Official Plan already calls for prioritizing walking, cycling and transit over other forms of passenger mobility. As the City grows over the next decade, it will become imperative to move people using more space-efficient modes of transportation such as transit, walking and cycling rather than cars, to avoid worsening congestion.

12 2016 Transportation Tomorrow Survey
13 Construction projects also contribute to low transit and auto speeds in some corridors.
14 Planning on the 95th percentile travel time ensures that a person travelling will reach their destination on schedule 19 times out of 20.

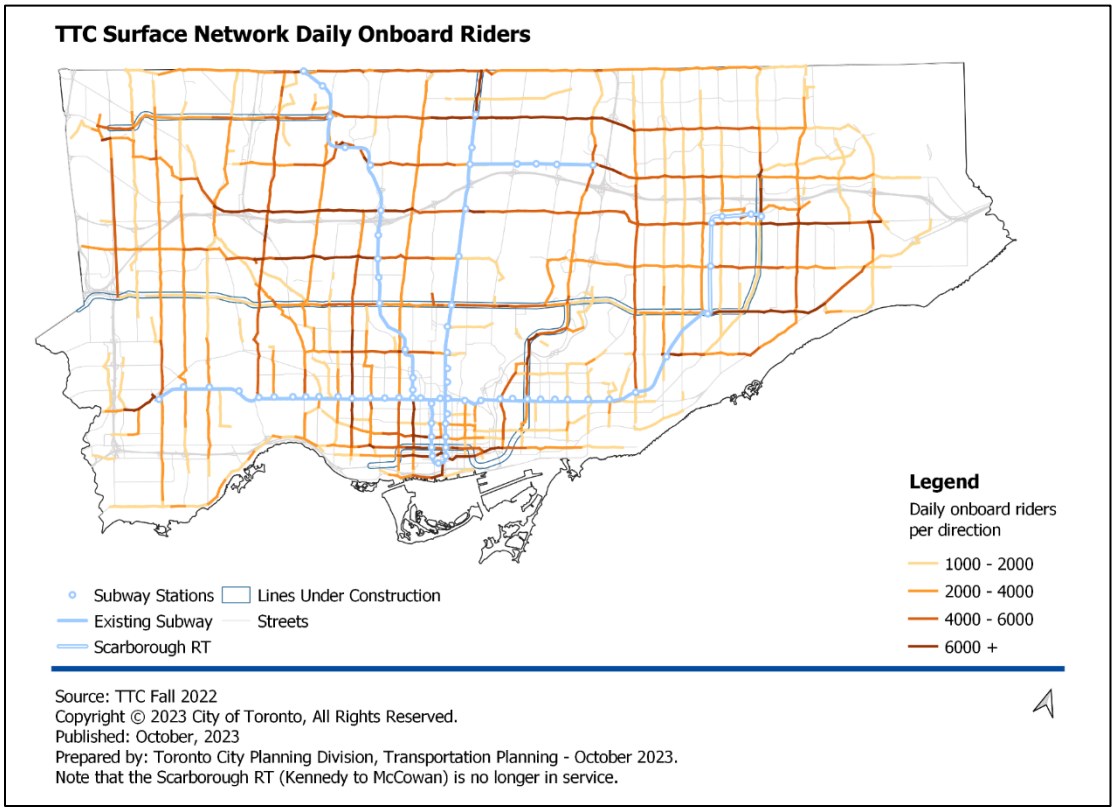

Figure 16: Directional TTC Surface Network Daily Onboard Riders

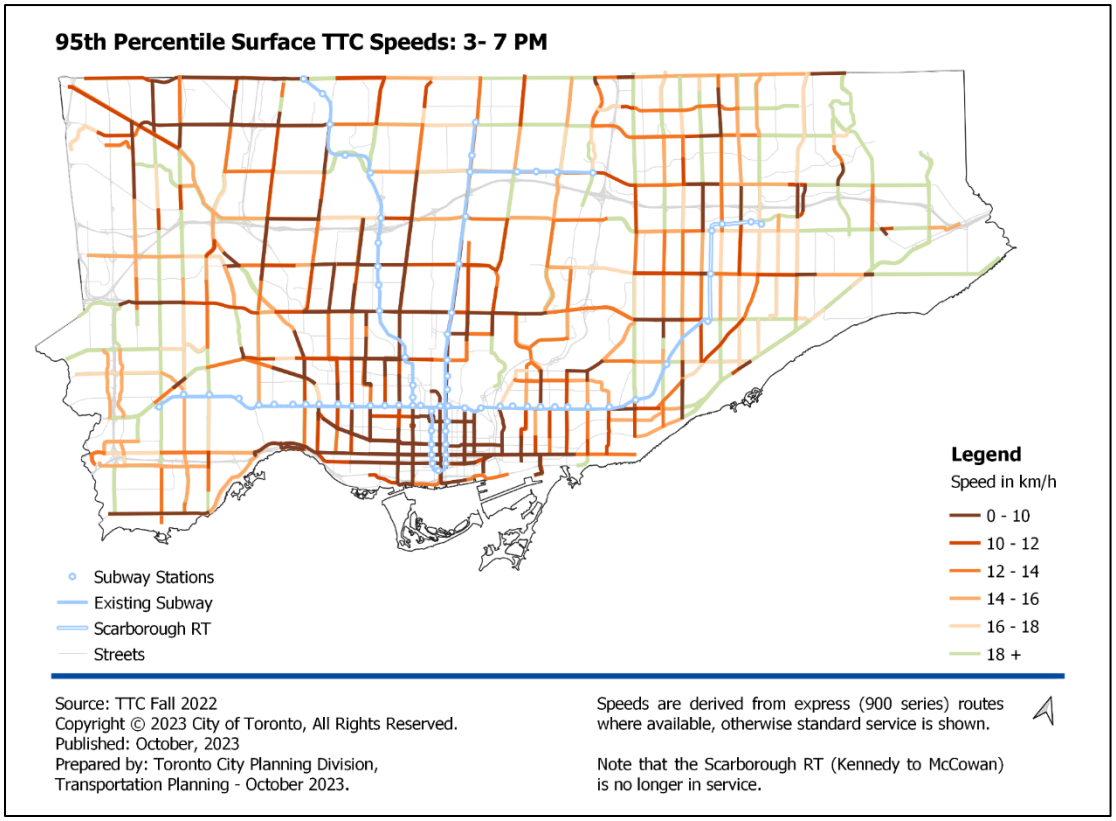

Figure 17: PM peak period (3 pm - 7 pm) speeds corresponding to 95th percentile travel time.

Corridor Evaluation

The previous section outlined six different challenges faced by the city and its residents to set the context for future higher-order transit expansion in Toronto. These six different challenges also shaped the procedure used for corridor evaluation by informing updates to the RTEF, which was adopted by the City in 2013 to set priorities and objectives for transit expansion and guide decisions about higher-order transit projects through the planning process. Attachment 1 explains the RTEF, details the measures used in the corridor evaluation and presents detailed results, by corridor and measure.

The Official Plan identifies corridors for future higher-order transit expansion on *Map 4 Higher Order Transit Corridors*. This Map has developed and evolved over many years with the identification of potential transit corridors. Map 4 does not specify delivery timelines for these corridors or define a relative priority of the identified corridors. It has never been comprehensively reviewed.

For the purposes of this report, a set of 24 corridors was selected for evaluation, including corridors on Official Plan Map 4, except:

- Rail corridors, as these are the responsibility of various rail operators (e.g. Metrolinx, CN Rail, and CP Rail)
- Corridors operating on 400-Series highways, as these roads are the responsibility of MTO
- Corridors predominantly serving areas outside of Toronto's boundaries, such as the Eglinton LRT extension from Renforth Drive to Pearson Airport and Steeles Avenue east of Morningside Avenue, which continues into Durham Region.
- Corridors already in advanced planning by Metrolinx, including the Dundas West BRT and the Durham Scarborough BRT.
- Corridors that are already in advanced planning by the City, including Eglinton East LRT and Waterfront East LRT.

The focus is on how the range of corridors identified on Map 4 would augment the network of existing and under-development higher order transit corridors to serve demand in Toronto. While Official Plan Map 4 does not define technologies (e.g. subway, LRT or BRT), most of these corridors have an expected technology, which was maintained for this assessment.

To test whether there may be other corridors in the city that could justify higher-order transit, the following corridors were also added based on their current high surface transit ridership.[15] Most of these corridors are already being considered as part of the RapidTO: Surface Transit Network Plan, but are included here from a higher-order transit perspective.

- Wilson Avenue West from Weston Road to Wilson Station
- Dufferin Avenue from Dufferin Gate Loop to Eglinton Avenue West
- Lawrence Avenue West from Weston Road to Lawrence West Station
- Finch Avenue East from Yonge Street to Victoria Park Avenue

15 This list of additional corridors was created using only one measure, and is greatly simplified compared to the corridor evaluation used in this work, as is shown in Attachment 1.

- Finch Avenue East from Victoria Park Avenue to Morningside Avenue

Figure 18 shows the corridors selected while Table 1 provides a description of the corridors. Several of these corridors are already being considered as part of other transit projects by the City or by Metrolinx, which is noted in this table.

Corridor Evaluation Results

The 24 corridors are ranked by their evaluated results and then categorized by quintile, which is presented in Table 2. A higher overall quintile means that a corridor provides larger relative benefits compared to the other corridors. In this table, corridors are listed in order of their final score.

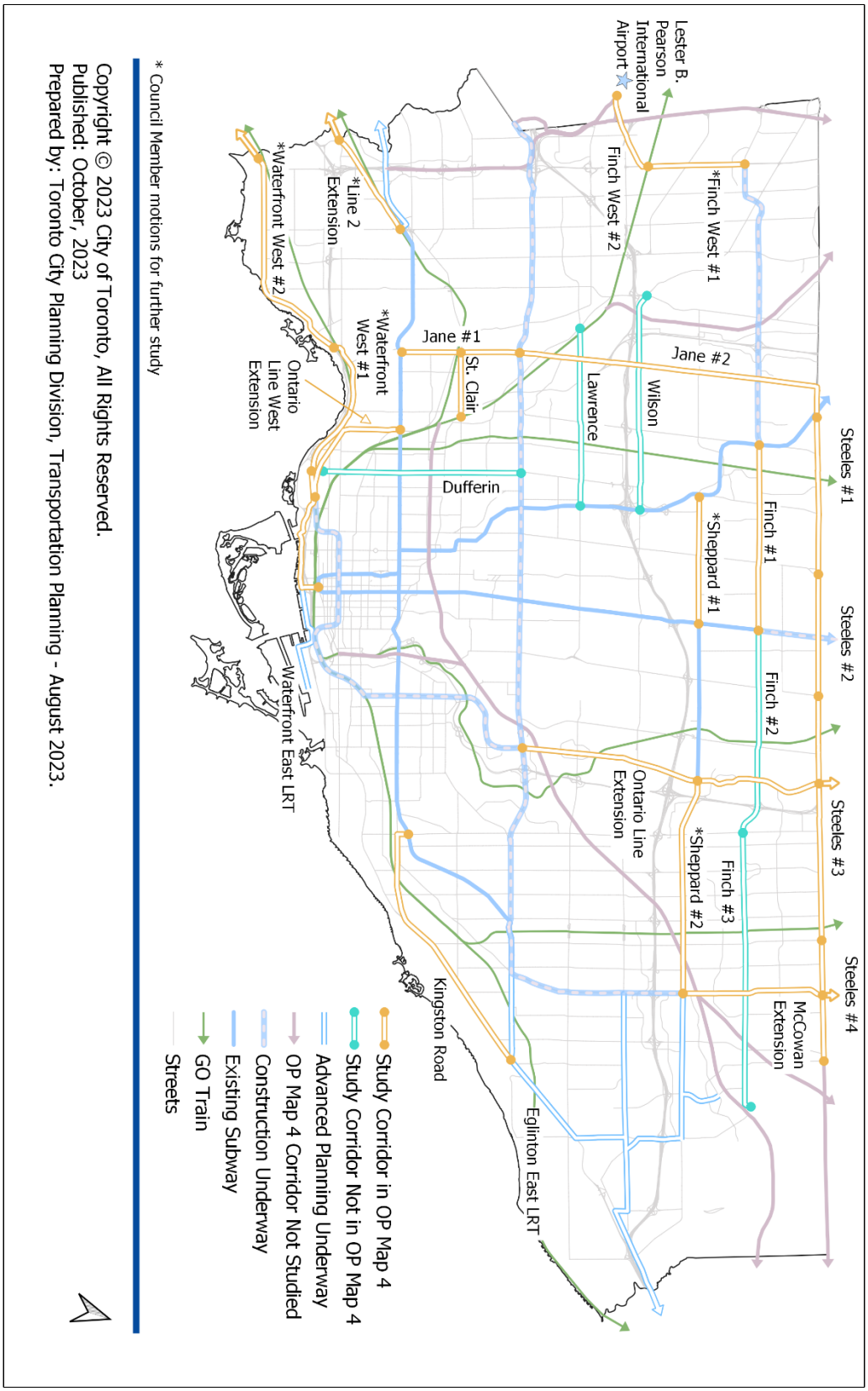

Figure 18: Evaluated Higher Order Transit Corridors

Table 1: Evaluated Higher Order Transit Corridors - Description

Corridor	From	To	Assumed Technology	Assumed Length (km)	Relative Cost	Additional Studies
Sheppard Ave West	Sheppard W Station	Sheppard Station	Subway	4.404	88	Metrolinx IBC; RapidTO
Sheppard Ave East	Don Mills Station	McCowan Rd	Subway	7.387	148	Metrolinx IBC; RapidTO
Waterfront West LRT #1	Long Branch	Park Lawn	Streetcar /LRT	3[16]	12	
Waterfront West LRT #2	Park Lawn	Union Station	Streetcar /LRT	9.3	37	
Finch West LRT Extension #1	Humber College	Woodbine GO	LRT	3.3	13	
Finch West LRT Extension #2	Woodbine GO	Pearson Airport	LRT	2.8	11	
Finch Ave West	Finch West Station	Finch Station	LRT	6.344	25	RapidTO
Ontario Line West extension	Ontario Place	Dundas West Station	Subway	4	80	RapidTO (partial)
Ontario Line North extension	Eglinton Ave E	Steeles Ave	Subway	10.57	211	RapidTO
Line 2 west extension	Kipling Station	Sherway Gardens	Subway	4.3	86	
Jane St	Bloor St	Eglinton Ave	LRT	11.269	46	
Jane St	Eglinton Ave	Pioneer Village Station	LRT	4.076	16	RapidTO
St Clair Ave W	Weston Rd	Jane St	Streetcar /LRT	2.04	8	
Steeles Ave W	Pioneer Village Stn.	Bathurst St	BRT	5.34	5	RapidTO
Steeles Ave	Bathurst St	Bayview Ave	BRT	4.316	4	Steeles Ave; RapidTO
Steeles Ave E	Bayview Ave	Milliken Go Stn.	BRT	8.367	87	
Steeles Ave E	Milliken Go Station	Morningside Ave	BRT	4.123	4	
Kingston Rd E	Victoria Park Station	Eglinton Ave E	BRT	8.851	9	
McCowan Rd	Sheppard Ave E	Markham Centre	Subway	4.85	97	RapidTO
Wilson Ave W	Weston Rd	Wilson Station	BRT	7.398	7	RapidTO
Dufferin St	Dufferin Gate Loop	Eglinton Ave W	BRT	7.04	7	RapidTO
Lawrence Ave W	Weston Rd	Lawrence Ave W Station	BRT	6.055	6	RapidTO
Finch Ave E	Yonge St	Victoria Park Ave	BRT	7.101	7	RapidTO
Finch Ave E	Victoria Park Ave	Morningside Ave.	BRT	9.514	10	RapidTO

16: Reduced length as a grade-separated track already exists in much of this corridor.

Table 2: Corridor Evaluation Results

Corridor	From	To	Assumed Technology
5th (highest) quintile			
Wilson Ave W	Weston Rd	Wilson Station	BRT
Steeles Ave W	Pioneer Village Station	Bathurst St	BRT
Dufferin St	Dufferin Gate Loop	Eglinton Ave W	BRT
Lawrence Ave W	Weston Rd	Lawrence Ave W Station	BRT
Kingston Rd E	Victoria Park Station	Eglinton Ave E	BRT
4th (second highest) quintile			
Finch Ave E	Yonge St	Victoria Park Ave	BRT
Steeles Ave	Bathurst St	Bayview Ave	BRT
Finch West LRT	Humber College	Woodbine GO Station	LRT
Jane St	Eglinton Ave	Pioneer Village Station	LRT
Ontario Line North (Toronto)	Eglinton Ave E	Steeles Ave	Subway
3rd (middle) quintile			
Finch West LRT	Woodbine GO	Pearson Airport	LRT
Finch Ave West	Finch West Station	Finch Station	LRT
Finch Ave E	Victoria Park Ave	Morningside Ave.	BRT
Steeles Ave E	Bayview Ave	Milliken Go Station	BRT
2nd (second lowest) quintile			
Steeles Ave E	Milliken Go Station	Morningside Ave	BRT
Waterfront West LRT	Long Branch	Park Lawn	Streetcar/LRT
Sheppard Ave East	Don Mills Station	McCowan Rd	Subway
Sheppard Ave West	Sheppard W Station	Sheppard Station	Subway
Line 2 extension	Kipling Station	Sherway Gardens	Subway
1st (lowest) quintile			
McCowan Rd	Sheppard Ave E	Markham Centre	Subway
St Clair Ave W	Weston Rd	Jane St	Streetcar/LRT
Waterfront West LRT	Park Lawn	Union Station	Streetcar/LRT
Ontario Line West Extension	Ontario Place	Dundas West Station	Subway
Jane St	Bloor St	Eglinton Ave	LRT

Corridors Covered by Council Motions:

- Finch West LRT from Humber College to Woodbine GO Station: Scored in the fourth (second-highest) quintile. A further extension to the airport scored in the third (middle) quintile.
- Waterfront West LRT Western Extension: The section from Park Lawn to Union station scored in the first (lowest) quintile, while a further extension west to Long Branch scored in the second lowest quintile.
- Line 4 extension: both the western and eastern extensions to this corridor scored in the second lowest quintile.

Conclusions

Metrolinx is currently undertaking an Initial Business Case examining Line 4 extensions both westwards to Sheppard West Station and eastwards to connect to the future Scarborough Subway Extension at McCowan Road. The City considers the Sheppard corridor between McCowan Road and Morningside Avenue part of the Eglinton East LRT, one of the City's priority projects. The report recommends that City staff engage with Metrolinx in this project to advance City interests along this important corridor.

Metrolinx is also delivering the Finch West LRT and the new Woodbine GO Station. The strong performance of the project in this evaluation, combined with the uncertain alignment from Woodbine GO to Pearson Airport make this a strong candidate for preliminary planning initially to Woodbine GO Station and then further to connect to Pearson Airport. The report recommends the City urge the Provincial government to include this important LRT connection in its work.

The top performing corridors were all designated as BRT technologies. This stresses the importance of using less expensive transit technologies where feasible. The evaluation would change with a decision to pursue LRT or subway technologies.

Another critical observation is that many of the top-scoring corridors, such as Wilson Avenue, Lawrence Avenue and Dufferin Street, are not on Official Plan Map 4. Given that many of the top corridors in this evaluation are not included in Official Plan Map 4, that a simplified criterion of only considering high transit ridership was used to identify additional corridors, and that Map 4 does not establish priorities among the corridors or a timeline for their development, a further comprehensive evaluation of this map is proposed to identify new corridors required to respond to demand, to review existing proposed corridors to ensure that they should remain on Map 4, and to propose priorities for advancing higher-order transit corridors.

Given that the top corridors in this report were predominantly using light rail and bus rapid transit, staff also recommend a review of Official Plan Map 3 Right of Way Widths Associated with Existing Major Streets to ensure that adequate right-of-way protections are provided for future higher-order transit corridors. Recent designs for BRT and LRT projects in the region have identified necessary rights-of-way in excess of 40m while very few major streets have designated rights-of-way more than 36m. Protecting for the additional right-of-way required for BRT and LRT projects early will make them easier to implement when it comes time to do so. Preliminary results from this study can be used to assist the review of Avenues policies in the Official Plan, which is currently being undertaken by City Planning staff.

The existing widespread need for improved transit in the city and high-scoring of BRT technology corridors both emphasize the need for programs such as the RapidTO: Surface Transit Network Plan to quickly and cost-effectively improve transit services throughout the City. The RapidTO: Surface Transit Network Plan used a separate set of evaluation criteria due to the different focuses of the works. The focus of this study is to create a relative priority among higher-order transit corridors with a primary focus of those shown in Official Plan Map 4; the evaluation results presented here are not intended to inform prioritization, evaluation and suggested interventions on the surface transit network. Consistent with Official Plan Policy 2.2(8)(c), enhanced surface transit services in these corridors will help build ridership to support future implementation of higher-order transit. Higher-order transit can be built later when demand is warranted.

Finally, the correlation between housing prices and proximity to higher-order transit within Toronto is compelling and clear. Given the housing affordability crisis within the city, the relationship between housing prices and the proximity to transit and the City's objective of building complete communities around transit is even more important. This report also recommends further work to identify ways to better link the City's desired transit and housing outcomes.

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ATTACHMENTS

Attachment 1: Corridor Analysis Procedure