Report to Civic Works Committee

To: Chair and Members

Civic Works Committee

From: George Kotsifas P. Eng.,

Deputy City Manager, Planning and Economic Development

Subject: A Conceptual Framework for Regional Transportation in

London

Date: December 14, 2021

Recommendation

That, on the recommendation of the Deputy City Manager, Planning and Economic Development, the following actions be taken with respect to regional transportation in Southwestern Ontario:

- a) The following conceptual framework **BE ENDORSED** for regional transportation as presented in this report; and
- b) Staff **BE AUTHORIZED** to use the conceptual framework as a basis for discussions with the Province of Ontario and municipalities to advance provincial participation in regional transportation in Southwestern Ontario.

Executive Summary

This report recommends that the conceptual framework for regional transportation as it relates to London described in this report be endorsed and be used as a basis for discussions with the Province of Ontario, municipalities, and other transportation stakeholders in the region to advance regional transportation and mobility in Southwestern Ontario.

The conceptual framework identifies opportunities within London to integrate different modes of regional travel, with a particular focus on rail, local transit and regional and inter-community bus systems. It is based on a review of the city's role in the region and planning framework, area transportation network and operations, and interviews with public and private transit service providers both within the city and in surrounding Southwest Ontario municipalities.

Linkage to the Corporate Strategic Plan

A conceptual framework for regional transportation addresses five strategic areas of focus, as presented in Council's Strategic Plan 2019-2023. These are:

- Strengthening our Community;
- Building a Sustainable City of London;
- Growing our Economy;
- Leading in Public Service; and,
- · Creating a Safe London for Women and Girls

Analysis

1.0 Background Information

1.1 Background

Recently several important developments have occurred that have implications for regional transportation in southwestern Ontario including:

- In January 2020, the Provincial government released 'Connecting the Southwest: A Draft Transportation Plan for Southwestern Ontario' for consultation;
- In December 2020, the Government of Ontario moved ahead with deregulation

for the intercommunity transit sector through the *Better for People, Smarter for Business Act*, 2020. Operators no longer require a license to provide services on a specific route due to the dissolution of the Ontario Highway Transport Board;

- In January 2021, the Minister of Transportation formed a task force and named Mayor Holder as Chair to identify opportunities to improve connections between rail, bus, and local transit services across Southwestern Ontario;
- In May 2021, Greyhound Canada announced an end to its bus operations;
- In July 2021, the Provincial government announced an extension of Community Transportation Grant Program funding to 2025 for municipalities to operate intercommunity transit services;
- Also July 2021, the Government of Canada announced its intension to explore rail service enhancements in southwestern Ontario in partnership with VIA Rail; and,
- In September 2021, GO Transit launched a pilot offering one early morning GO train trip from London to Toronto and one evening trip from Toronto to London.

At the same time, Southwestern Ontario continues to increase in population and employment. However, these opportunities are often dispersed across communities and neighbourhoods so that individuals are required to travel further for school, work or to spend time with family and friends. As commuting distances increase, effective and affordable regional transit becomes even more important. It's widely recognized that transit is more than moving people between one location to another. Transit reduces impacts on the environment, helps to adapt to demographic and economic changes, and provides an opportunity to further revitalize and build healthy communities.

Socio-Economic Trends

The need for improved regional connectivity in Southwestern Ontario and the London area is urgent. Based on the 2020 Ontario Population Projections, the Middlesex census area (CA) population, which includes London and Middlesex County, is anticipated to increase by 37% to 701,974 inhabitants in 2046. The London Census Metropolitan Area (CMA) which also includes portions of Elgin County, is estimated to be one of the fastest growing CMAs in Canada. Between 2018-2019, Statistics Canada estimated that London CMA had a population growth rate of 2.3% which was the second-fastest growing CMA in Canada.

Many economic sectors in the London CMA are experiencing labour shortages. According to the Business Development Bank Canada, fifty-five percent of small and medium-sized businesses in Canada are currently struggling to hire the workers they need. The London Community Recovery Framework report identifies that increases in employee retirements and resignations, talent shortages, and misalignment between job seekers and available positions have been exacerbated by the COVID-19 pandemic. The inability to find enough workers is limiting growth and forcing businesses to delay or refuse new orders, providing further challenges to London's post-pandemic recovery.

Attracting and retaining quality talent will be critical for London's private and public sectors to not only survive but to thrive in a post-pandemic environment. Talent is the driving force behind operations - having the most talented and skilled employees contributes to the improvement of economic performance, innovation, and competitiveness. According to the Workforce Planning & Development Board Elgin Middlesex Oxford (WPDB), more than 3,400 job positions are currently available in the region, with 2,700 of those positions available in London itself. It is anticipated that an additional 3,000 new jobs will be created in the London region over the next two years, with major employers investing in settling or growing their existing footprint in London. The demand for workers and talent is hitting all sectors, suggesting economic growth in the London region is both broad and deep. The Conference Board of Canada has projected the London area economy will grow by 5.9% in 2022, with economic growth projected to outpace labour market growth.

Despite this recent economic success, London has one of the lowest labour market participation rates in Canada. Of particular concern is the relatively low participation rate of those aged 25-54 (prime-age). Looking at recent data on the labour market in the London CMA, between 2015-2019 the number not participating in the labour force

increased from 152,900 to 181,700 (an increase of 28,800 individuals). In contrast, Ontario saw an increase in prime-age participation during the same period.

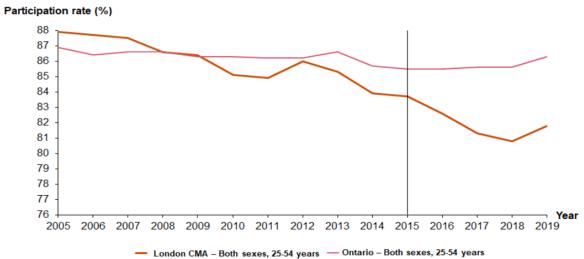


Figure 1: London CMA participation rates for prime-age individuals compared to Ontario, 2005-2019.

More recently, the London Community Recovery Network (LCRN) has identified that women's involvement in the workforce was at a 30-year low due to the pandemic and that employment losses have been more severe for women than men. The Labour market participation in the London Economic Region Final Report (completed by PricewaterhouseCoopers and the City of London) identifies some factors that are contributing to this trend including:

- Poverty and low income: The London CMA has the second-highest low income rate in Southwestern Ontario. Low income can be a barrier to participate in the labour market as it is often associated with poor health, challenges searching for jobs, accessing transportation and pursuing education and training.
- Shifts in industrial activity: A loss of manufacturing and other trades-oriented jobs has affected the labour market outcomes in the London region.
- Mismatch between skills and available opportunities: Many non-participants have a post-secondary education of some kind but are unable to match with jobs that meet their requirements in terms of pay, schedule and other job conditions.
- Homelessness and housing: Although higher costs of living and housing costs
 has been a trend seen across Canada and Ontario, relatively higher rates of
 homelessness in the City of London compared to other CMAs in Ontario
 reinforce the idea that there are higher rates of poverty and unaffordable costs of
 living for residents in the London region compared to the rest of the province.
- Transportation: Compared to the average Ontarian, employed London economic region (ER) residents are more likely to travel to work by driving a personal vehicle, and are also less likely to travel by public transit. Given the relatively low population density of the London ER, the need for a vehicle to access labour market opportunities has implications for low-income residents and could significantly affect labour market outcomes in the London ER compared to the rest of Ontario, particularly areas with better access to public transportation.

A lack of transportation and poor health conditions are identified as the primary barriers for prime-age respondents without a post-secondary education. Similarly, among low-income respondents (earning less than \$30,000 when last employed), the lack of access to transportation is the top barrier to participation. As those with low income are less likely to be able to afford a car, lack of transportation can make jobs inaccessible if public transit is not a viable option. The implications of the need to have a vehicle to reach places of employment that are more distant, or at a location where public transit does not reach, creates significant issues in labour market participation and employment opportunities for those who cannot afford to purchase or own a vehicle.

To cope with this barrier, employers have started to provide support for transportation such as busing services or having supervisors give rides. As London rebuilds its

economy, there is an opportunity to re-envision the labour market and deliberately close existing gaps such as a lack of transportation. Accessible and affordable transportation would help those looking for work to pursue jobs in more remote areas and support those who may have accessibility issues due to a physical health condition or disability.

Environmental and Health Benefits

In addition to the economic and labour market participation benefits of increased regional transit, improved mobility has various environmental and health benefits. In the environmental realm, individuals switching from private car use to public transportation contribute to reductions in air pollution, greenhouse gases, noise emissions, water pollution and land use impacts.

A key direction for London is to become one of the greenest cities in Canada, which can only be achieved if we reduce our carbon footprint as a city and manage growth in ways that support green and active forms of mobility. As shown in the City's 2020 Greenhouse Community Energy Use & Greenhouse Gas Emissions Inventory, transportation represented 41% of all greenhouse gas emissions in the City of London for 2020. As London and the region's population grows and the number of vehicles registered in London increases traffic congestion, opportunities to improve regional transportation that strengthen regional connectivity and mobility would promote more sustainable modes of travel and reduce automobile dependence.

Taken together, the economic, environmental and health benefits that regional connectivity can provide offers London an opportunity to enhance its role as the regional hub for Southwestern Ontario. Greater regional connectivity can boost economic competitiveness, labor market participation, and improve connections to employment, services, health, educational and recreation amenities to London and vice-versa.

1.2 Draft Regional Transportation Plan

In January 2020 the Province released a draft transportation plan for Southwestern Ontario titled, "Connecting the Southwest". The draft plan outlines a regional transportation vision with a focus on a safe, efficient, and connected transportation network. Recognized needs and opportunities include:

- More intercommunity bus service;
- More reliable passenger train service;
- More local public transit;
- A strong highway network;
- Reliable local roads; and
- Regional airports and ferry services.

Across these different modes of travel, more than 40 improvements and strategies are identified that are categorized into five themes: connect people to places; further build a strong and competitive economy; keep our highways safe and reliable; make life more convenient for travellers; and prepare us for the future.

The draft Plan notes that it is a living document that is intended to evolve from continuing partner and stakeholder input to stay relevant as technology and the needs of people and businesses evolve. Key actions include to:

- Indigenous communities as a venue to discuss transportation service needs and opportunities to better integrate transportation services in the region. The task force, chaired by Mayor Holder, has been working to identify opportunities to make it easier for people to travel between communities and access services such as healthcare, education, and employment. The task force has focused on improving connections between rail, bus, and local transit services across southwestern Ontario and ensure that our plan is informed by local needs and considerations. (Action #9)
- Investigate and identify priority actions to integrate different modes rail, intercommunity bus, public transit, ridesharing, scooters, bikes – to make it

easier for people in southwestern Ontario to get around and provide more options to get there. (Action #34)

With the creation of the Southwest Ontario Transportation Task Force in early 2021 - and its mandate to focus on improving regional connectivity and better integration of transportation services in the region - now is an opportune time to review how various modes of regional transportation can best connect to London and identify opportunities to integrate these different modes of travel.

1.3 Council Resolution

At its meeting on August 10, 2021, Council adopted the following actions regarding regional transportation and mobility across Southwestern Ontario:

- a) the Civic Administration BE DIRECTED to develop a conceptual framework for a Regional Transportation/Mobility Hub in downtown London, including working with London Transit to explore potential connections between a regional transportation/mobility hub and local City of London transit routes, including the proposed bus rapid transit system, for Council's consideration; and,
- b) the Mayor BE REQUESTED to engage with the Southwest Ontario Transportation Task Force membership on the opportunity of positioning the City of London as a Regional Transportation/Mobility Hub for consideration by the Province of Ontario under the Connecting the Southwest: A Draft Transportation Plan for Southwestern Ontario.

2.0 Discussion and Considerations

2.1 London in the Regional Context

The Southwestern Ontario region is home to over 1.6 million people and extends from Essex and Lambton Counties in the west, Norfolk and Oxford Counties in the east and Bruce and Grey Counties in the north. At its western edge, the region is connected to the State of Michigan, and to the east is connected to Waterloo Region, Wellington County, Brant County and the rest of the Greater Golden Horseshoe (GGH).

The region is well connected with 1,670 lane kilometres of 400-series highway, 3,000 lane kilometres of provincial roadways and two of Canada's largest three road and rail border crossings by volume. In the southern portion, it is served by a network of rail infrastructure. Additionally, Southwestern Ontario contains 2 international airports and 14 municipal airports. A regional map identifying the region and its current transportation network is provided below:

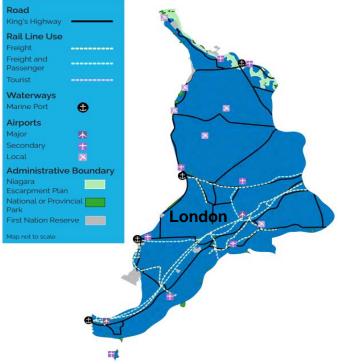


Figure 2: Southwestern Ontario's Current Transportation Network, Province of Ontario

The City of London is located near the geographic centre of the region and is its largest population centre; the city is one of Canada's fastest growing cities and ranks currently as its 11th largest city. Several major transportation corridors, including 400-series highways and Class 1 railways, converge in London. The rail station is the fourth busiest ViaRail terminal in Canada. As well, the London International Airport serves as the highest volume passenger airport for the region.

London is the regional centre for health care with three hospitals having specialized health care and diagnostic services and is a major centre for education being home to the Western University and Fanshawe College. London is also a major regional retail and tourism destination and acts as a hub for exhibitions and cultural events through venues such as the Western Fair and Budweiser Gardens.

Based on the 2020 Ontario Population Projections, the Middlesex Census Division population (City of London and County of Middlesex) is anticipated to increase by 37% to 701,974 by 2046. In addition, commercial uses, offices, institutions, and industries are anticipated to increase. Over this period, the economy will expand, and the number of people that are employed in the city will increase significantly.

Given its location, population base, regional services and transportation connectivity, London functions as the logical transportation and mobility hub for the broader region. In the regional context, London serves as the primary centre for regional services and as a focal point to connect the Southwest Ontario region to the broader world.

2.2 Planning Context

The Provincial Policy Statement (PPS), 2020 provides policy direction on matters of provincial interest related to land use planning and development. It provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment. Improved land use planning and management is supported, which contributes to a more effective and efficient land use planning system. The City is required to be "consistent with" the PPS when exercising its authority on planning matters.

In accordance with policy 1.2.1 "A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards…" As it relates to regional transportation in particular, policy 1.1.6.7 identifies that "as part of a multimodal transportation system, connectivity within and among transportation systems and modes should be maintained and, where possible, improved including connections which cross jurisdictional boundaries."

The City's Official Plan – The London Plan – provides a framework for London's growth and change over the next 20 years. The Downtown is located at the centre of the urban area and is recognized as the highest-order centre in the city. Four Transit Villages located to the north, west, east and south of Downtown are identified as higher-order centres that together with the Downtown allow for the broadest range of uses and the most intense forms of development in the city, with highly urban, transit-oriented environments.

Rapid Transit Corridors connect the Downtown and Transit Villages with highly urban forms of development, allowing for a broad range of uses and moderate intensity arranged in a linear configuration along rapid transit routes. The city structure identified in The London Plan is shown below.



Figure 3: City Structure, London Plan

The city structure also illustrates important transportation connections between London and the surrounding region, including the rail network with the rail station located Downtown, the London International Airport, and important highways including Highways 401, 402 and 4. Key gateways into the city are also illustrated. Directions to augment these gateways include collaborating with surrounding municipalities to foster regional rail and bus service.

2.3 London Area Transit Network

This section outlines the current and planned inter-regional, inter-community and local transit services and facilities in London.

Local Transit

The London Transit Commission (LTC) is responsible for the operation of the public transit system on behalf of the City of London. Currently, the LTC has 35 regular bus routes, and six community bus routes.

Consistent with the city structure Plan above, the LTC uses a hub and spoke transit system, whereby the system provides for routes (the spokes) that generally converge in the Downtown (the primary hub). Secondary hubs are located at the end of the spokes where more localized transit routes converge. The routes between the primary and secondary hubs function as the spine of London's mobility network and typically provide the highest transit frequency and ridership in the city.

In 2019, Council approved proceeding with Rapid Transit projects to serve as higherorder transit routes for the downtown, southern and eastern parts of the city. The first project, the Downtown Loop, is under construction and is anticipated to be fully complete by 2023. The Loop will run buses along Queens Avenue, King Street, Ridout Street and Wellington Street, and include curbside bus-only lanes and enhanced rapid transit stops. The Downtown Loop will function as the rapid transit hub for the city.

The East London Link connecting Downtown with Fanshawe College and the east part of the city is anticipated to start in 2022. This project will provide improved transit links to the City's eastern employment areas and allows for a future extension to the London International Airport. The Wellington Gateway to connect Downtown with the south part of the city along Wellington Road is expected to begin construction in 2023. This project will include a secondary transit hub and Park and Ride facility near Highway 401.

The map below identifies the city transit network, including these higher-order projects.

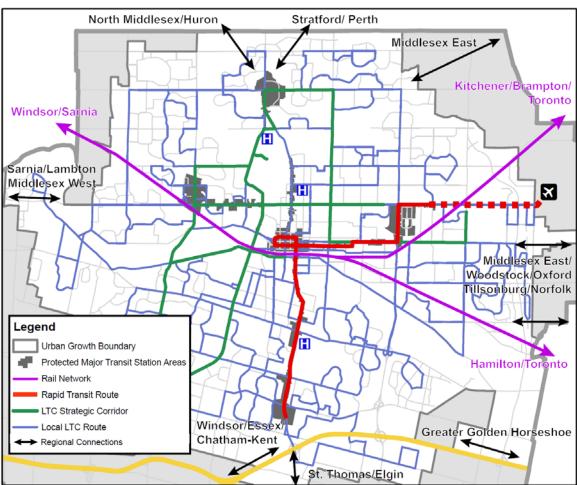


Figure 4: London Transit Network

Rail System

The London Plan recognizes that the rail network provides important connections to the surrounding region, the Quebec-Windsor corridor and beyond. The Plan identifies that the primary hub for international, interprovincial, and inter-municipal connections by rail and bus will be directed to a central location within the Downtown, and that the City's rapid transit hub (the Downtown Loop) should coincide with the rail station within Downtown London to make rapid transit connections to rail as convenient as possible. The rail station is to be well connected to major destinations within the Downtown and these routes are to offer a very high level of pedestrian amenity.

The London rail station is located at 205 York Street and is owned and operated by ViaRail Canada. Currently, VIA operates six daily trains in each direction between London and Toronto Union Station. Five of these take the CN South Main Line route through Brantford, Aldershot & Oakville, and one route takes the CN North Main Line route through Stratford, Kitchener and Brampton. Additionally, four VIA trains each way connect London to Windsor daily with stops in Chatham and Glencoe. Finally, one daily train each way connects London with Sarnia, with stops in Strathroy and Wyoming.

In September 2021, Metrolinx announced the launch of pilot service along the North Main Line to London Station. The service launched on October 18, 2021, extending one

GO Train in each direction from Kitchener to London, serving stops at Stratford and St. Marys using existing VIA Rail Stations. Trips will run each weekday between Toronto's Union Station and London. The eastbound train leaves London VIA station at 5:30 am, arriving at Toronto's Union Station at 9:13 am. The westbound train leaves Union Station at 4:10 pm, arriving in London at 8:17 pm.

Inter-Community Transit

The London Plan recognizes the importance of intercommunity transit and encourages collaborating with surrounding municipalities to foster regional rail and bus service. Regional transit is to be pursued and the requisite infrastructure to support it is to be established. The Plan identifies that supportive infrastructure can be established at the Transit Villages to allow for the regional population to easily connect to the Downtown and rail services.

Improving intercommunity bus service is identified as a key action of the provincial draft transportation plan as it plays an important role to connect people to jobs and essential services, especially in rural communities. Through the Ontario Community Transportation Grant Program, the Province has provided funding to support local transit and intercommunity bus service in areas that are currently unserved or underserved by public transit.

Locally, the Southwest Community Transit (SCT) association has been established as an organizational body to oversee intercommunity transit in the region. Working together with the South-Central Ontario Region Economic Development Corporation (SCOR EDC), participating transit providers include Brant Transit, Grey Transit, Huron Shores Area Transit, Middlesex County Connect, Norfolk County Transit, Perth County Connect, City of Sarnia, Strathroy-Caradoc & City of London and Tillsonburg Transit. SCT member inter-community routes are identified on the map below.

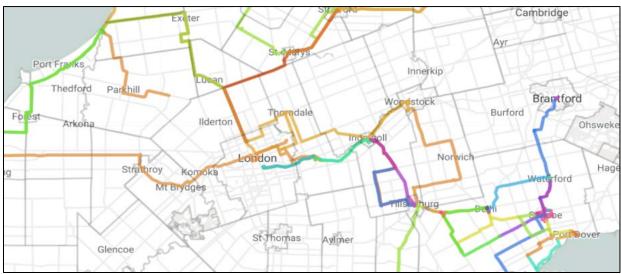


Figure 5: Inter-community routes in southwest Ontario. SCT, 2021.

At present, six inter-community routes intersect with conventional transit in London. Three of these (Huron Shores, Perth Connect and Middlesex Connect) use an LTC stop near Masonville Mall. Both Middlesex Connect routes use an LTC stop near Argyle Mall. Tillsonburg Transit uses an LTC stop at Victoria Hospital, and the Sarnia-Strathroy route has uses and LTC stop near the VIA station and at the London International Airport.

Regional Bus

With the ending of Greyhound Bus Services in May 2021 and the Provincial deregulation of the intercommunity transit sector, which began in July 2021, several operators have begun or augmented service to London, including Badder Bus Lines, Megabus, Onexbus and Rider Express.

At present, Badder stops twice daily at the Flying J truck-stop at 3700 Highbury Avenue South on its route between Windsor and Toronto. Megabus also uses this location for its Toronto service as well as a stop at Western University. Onexbus provides service to Toronto at three different locations in London including York St. and Talbot St., Victoria

Hospital and White Oaks Mall. Finally, Rider Express stops at the Petro Canada gas station at 130 Wellington Road on its route between Windsor and Toronto.

Mobility Master Plan

In November 2021, the City initiated the creation of a new Mobility Master Plan (MMP) which will outline transportation and mobility policies, plans and programs for the City for the next 25 years. The Plan will be developed with extensive public consultation and engagement. It is anticipated that key recommendations will be delivered throughout 2023, with the Plan finalized and documented in 2024. The findings and recommendations in this conceptual framework for regional transportation are not intended to presuppose the outcome of the MMP process.

2.4 Stakeholder Engagement

A key aspect in developing the conceptual framework has been stakeholder engagement. Staff conducted interviews with the following groups to gain a better understanding of how regional transportation operations function, their experiences when operating in the city, and their longer-term needs and goals to improve regional connectivity:

- City of London, Major Projects Team (10-1-2021 & 10-22-2021)
- London Transit Commission (LTC) (10-1-2021 & 10-29-2021)
- City of Tillsonburg (10-5-2021)
- City of Stratford & County of Perth (10-6-2021)
- Municipality of Strathroy-Caradoc (10-7-2021)
- South Central Ontario Region Economic Development Corporation (SCOR EDC) (10-8-2021)
- County of Middlesex (10-7-2021)
- City of St. Thomas (10-13-2021).
- Robert Q Airbus (10-18-2021)
- London Economic Development Corporation (11-11-2021)
- City of London, London Tourism (11-17-2021).

A summary of the comments received include the following:

- Inter-community transit performs different roles for different communities (e.g., daily commute vs. a health-care visit or shopping in London). Early intercommunity ridership-numbers were low (in part due to the COVID-19 Pandemic). Since September 2021 ridership numbers have increased as educational and employment facilities move to (partial) in-person classes and employment;
- There is a need to ensure two-way connectivity; inter-community routes provide
 mobility options for rural residents and vulnerable populations to access regional
 services and employment in London, but there are also opportunities for city
 residents to connect to rural employment, recreational and tourism destinations;
- The VIA station was identified as the most important inter-regional transportation hub in London. A long-term desire to operate inter-community transit to the Downtown was expressed, but there are concerns this would add significant driving-time at the expense of frequency of service. The LTC and high-frequency Rapid Transit system was seen in many cases as the most efficient way to move inter-community riders from outer hubs to the inter-regional hub in the Downtown.
- It was noted that the success of a regional transportation hub in Downtown will depend on strong pedestrian connectivity between Rapid Transit stops and VIA Rail and Metrolinx GO-Transit service offered at the rail station. Another identified major regional draw in Downtown London is Budweiser Gardens.

- At present, most regional transit providers rely on stops near the urban periphery that provide opportunities to transfer into the LTC hub and spoke network. The LTC has been hospitable in allowing regional carriers to use on-street LTC-stops and signage. However, there is a desire to use outer transit terminals to improve connectivity, but these are typically unavailable to inter-community transit as terminals are operating at overcapacity. Another complicating factor is that these terminals are owned and maintained by property-owners and not by the LTC. Currently, each regional transit service has its own marketing and route branding. There is a desire for better coordination between with LTC, including promoting regional routes to LTC riders, regional system mapping, shared marketing, etc.
- SCT is developing an electronic 'app' for online payment and on-demand transportation is in development that is scheduled for release by the end of 2021.

These comments from regional providers underscore that efficient and seamless integration between inter-regional transit and Rapid Transit corridors and local LTC routes that service employment and residential areas is crucial.

3.0 Preliminary Findings and Recommendations

Based on a review of the regional context, planning framework, area transportation network and stakeholder engagement, preliminary findings and recommendations are presented below to improve intercommunity transportation and integrate different modes of travel to facilitate easier transfers. Findings and recommendations have been categorized into two themes: mobility hubs and system-wide opportunities.

3.1 Mobility Hubs

The core elements of a mobility hub include a major transit station and surrounding areas with concentrated residential and employment density. These areas serve a critical function in the regional transportation system as the origin, destination, or transfer point for a significant portion of transit trips and are locations of connectivity where different modes of transportation such as transit, active transportation, ride hailing, carshare and private vehicles are linked together. The goals of mobility hubs are generally defined as:

- 1. Create seamless, safe, and accessible connections between different modes of transportation in one convenient location.
- 2. Promote the use of public transit, active transportation (cycling and walking) and increase the ability of residents to travel without a car.
- 3. Use the momentum in transit-oriented development by establishing a mobility hub in a location where people already live and work.

In London, mobility hubs reflect the Primary Major Transit Station Areas (PMTSA's) identified in The London Plan as approved by the Province in May 2021. These areas align with the Downtown, Transit Village, and Rapid Transit Corridor Place Types in the London Plan and are intended to accommodate increased residential and employment growth with highly urban, mixed-use, transit-supportive forms of development.

Inter-Modal Hubs in London

Within a PMTSA, a key aspect is inter-modal connectivity and high-frequency transit services. As set out in the London Plan, the primary hub for international, interprovincial, and inter-municipal connections by rail and bus is directed to a central location within the Downtown PMTSA. Secondary hubs within Transit Village PMTSA's also perform an important inter-community transit role in the regional context. The roles of the primary and secondary hubs in the city are as follows:

- Downtown functions as the primary inter-regional hub and includes the rapid transit hub (Downtown Loop) and the train station having rail connections to Windsor/Sarnia, Kitchener and the GTA.
- Secondary hubs function as hubs for large areas of the city where local transit routes converge, and where there are current high levels of transit service. These

hubs also serve as major connection points for intra-regional routes from areas surrounding London.

• The routes connecting the primary and secondary hubs provide the highest transit frequency and ridership in the city.

Based on the foregoing, the following map identifies the conceptual locations for primary and secondary regional transportation hubs in London.

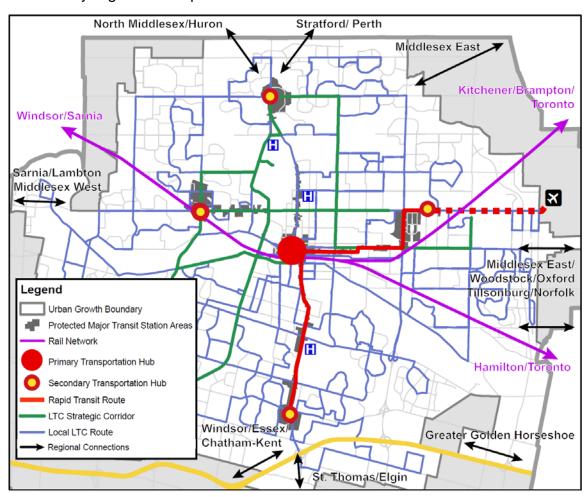


Figure 6: Primary and Secondary Regional Transportation Hubs in London

3.2 Regional Transportation Hub Principles

As identified above, a key goal of mobility hubs and their transportation infrastructure is to provide good connections between different modes in one convenient location. This goal is supported by six principles that help to address transportation needs and inform the development of a transportation hub:

- 1. Prioritize efficient and seamless modal integration
 - By prioritizing on the seamless connection of sustainable transit options in one location, transportation hubs provide choice for people to efficiently connect to services and jobs and helps to minimize the ecological footprint in line with London's climate emergency declaration. An important goal of a transportation hubs is to reduce the dependence on private automobile use and the resulting emissions.
- 2. Consider the user experience and ensure safety and comfort for all travelers
 Based on the intermodal nature of regional transportation hubs, it is crucial to
 consider services that help users to plan their trip using a variety of transportation
 modes. While the level of passenger amenity will vary at each hub, hubs should
 support elements that enhance user experience include wayfinding, a universal faresystem, comfortable transit-shelter or waiting areas, and convenience retail services.
 Further, as mobility hubs have high pedestrian activity and vehicle movement, the
 design and infrastructure of a transportation hub needs to encourage a pedestrian
 oriented design, where passenger movement is protected from surrounding vehicles.
 Safety should be considered across all abilities and ages, allowing people with
 different abilities and experience with transit-services to use the system easily.

3. Promote equity and viability across the region

As the main goal of a multi-modal hub is to increase connectivity across the region, it is essential for transportation services to be available to the largest number of users across different communities. This requires consideration of the larger transportation network. Additionally, the hub needs to be viable for individuals across socioeconomic levels, so affordability is a key equity issue.

4. Ability to accommodate for technological innovations and future growth
Transportation hubs can integrate different transportation modes and services, with
newer forms like (electric) bike sharing or autonomous vehicles emerging. As
technology in transportation continues to evolve, the sustained success of mobility
hubs will depend on the ability to adapt and expand to these changes. Therefore, the
design should be flexible to accommodate for future growth and changes in
technology and contribute to long-term viability and resiliency.

5. Create opportunities for partnerships

Partnerships between the public and private sector strengthen the integration between different transportation services. These partnerships make traveling more convenient and provide an opportunity for integration of payment services or traveller information systems. Partnerships may also occur between public sector transit providers, private mobility services and the commercial sector such as realestate. These partnerships can help create transit-oriented development and other opportunities for economic development at the hub.

6. Implement 'placemaking' to foster a sense of place
Since many trips and activities will be centered around transportation hubs, an important consideration is the design of a high-quality public realm that fosters a sense of place with a positive identity that makes visitors feel at ease. As set out in the London Plan, implementing 'placemaking' by promoting an urban design that creates safe, diverse, walkable, healthy, and connected communities, creating a sense of place and character.

3.2 Downtown Transportation Hub

Downtown London serves as the centre for inter-regional, inter-community and local transit as the location of the city's rail station and future rapid transit hub (the Downtown Loop). The existing rail station is located at York Street and Clarence Street, and the rapid transit hub (Downtown Loop) under construction is to be located one block to the north along King Street with the nearest stop west of Wellington Street.

As a near-term action, it is recommended that the train station, King/Wellington Rapid Transit stop and the pedestrian routes linking them be considered together as the Primary Transportation Hub. To enable users to efficiently transfer between rail and Rapid Transit, transit station design needs to be extended beyond platform and waiting areas to encompass the wider public realm of the area and surroundings. The pedestrian routes should be designed as pedestrian priority areas with wider sidewalks, signage, and wayfinding to inform users where they need to go, and pedestrian-oriented lighting for enhanced visibility and safety.

Prior to the pandemic, regional bus service was primarily centred on the Greyhound Bus Terminal at York Street and Talbot Street. This location provided eight regional bus bays and 14,000ft² of space including a large baggage area and a passenger terminal. With its closure and subsequent industry deregulation, it is unclear how the regional bus network will be configured in the future. Regional bus platforms in the Downtown have not been identified by stakeholders as a near-term need. However, it is noted that the regional and inter-community carriers are recent entrants into London and are still developing their frequencies and stop locations. With the construction of Rapid Transit and Downtown Loop transit hub near the rail corridor and train station with Via Rail and Metrolinx service, regional bus service providers may again direct service to the core.

Future Downtown Multi-Modal Hub

Should demand for regional bus connections to downtown re-emerge, a rail and regional bus multi-modal Downtown Transportation Hub in one location as envisioned by the London Plan would facilitate seamless travel between different modes. Using the Regional Transportation Hub principles identified above, a new inter-modal facility located between York Street and the rail corridor would allow for rail platforms, and near the Wellington Gateway to coordinate with Rapid Transit. Bus bays and platforms for regional and inter-community service would be integrated. As the major multi-modal hub in the region, it should also provide space for other modes of travel including:

- Pick up and drop-off zones to drop off passengers, taxis and shuttles;
- Secure bike parking (short- and long-term storage);
- Car parking/ carshare parking;
- Electric vehicle charging; and
- Micro-mobility including on-demand transit such as shuttles and e-scooters.

It is recognized that a new facility would require significant provincial participation, however a new regional multi-modal transportation hub located in the highest-order growth centre and incorporates seamless connections to rail, regional bus, rapid transit and active transportation would be a catalyst for transit-supportive development in the core, build ridership, and markedly improve connectivity for Southwestern Ontario.

3.3 Secondary Transportation Hubs

The following provides a brief description of each secondary transportation hub and recommendations to improve connectivity for regional and inter-community transportation.

Wellington Gateway Secondary Transit Terminal (South RT)

As part of the Wellington Gateway Rapid Transit route to be constructed between 2023 and 2026, this project is to be in the vicinity of Wellington Road and Highway 401 and will replace the existing terminal at White Oaks Mall. The project is being funded as part of the larger project and is formally known as the 'Wellington Gateway Park-and-Ride'. The project is currently in the facility requirements and site selection phase. At a minimum, the new terminal will provide opportunities for park-and-ride spaces and sufficient bus platforms to meet LTC requirements for the southern portion of the city.

It is recommended that to accommodate regional transportation routes, the Wellington Gateway Park-and-Ride project aim to include provisions to allow for:

- two platforms for regional bus carriers that use Highway 401 to conveniently connect with the rapid transit system,
- two platforms for inter-community transit routes for communities to the south, west and east to seamlessly integrate with the rapid transit system, and
- the ability to support Alternative Service Delivery Models for transit service to industrial employment areas to the south and east.

East London Link Secondary Transit Terminal (East RT)

The East London Link Rapid Transit route is to be constructed between 2022 and 2024 and will connect Downtown with Fanshawe College via King Street, Dundas Street, Highbury Avenue and Oxford Street East. A potential extension to the London International Airport has been identified. At present, this rapid transit route will use the existing terminal at Fanshawe College. However, this terminal only has four platforms and is not able to be expanded. LTC has indicated that the terminal is currently overcapacity, and some local routes have been redirected to other parts of the campus and on-street stops. Inter-community buses are also unable to use the terminal.

It is recommended that opportunities to allow for all local LTC routes to converge on one location that is seamlessly connected with rapid transit be considered as part of ongoing and future transit planning. Any future opportunities will also need to include provisions to seamlessly integrate regional transportation routes for communities to the east, and the ability to support alternative service delivery models for transit service to industrial employment areas to the south and east.

Masonville Secondary Transit Terminal

The existing Masonville terminal is located at the southwest intersection of Richmond Street North and Fanshawe Park Road East. This area is designated as PMTSA, and the current terminal has six platforms and generally functions as the location where local LTC routes in the north part of the city converge. The existing terminal is owned and operated by Cadillac Fairview Corporation Limited, the owners of the adjacent Masonville Mall. This terminal is over-capacity and is not able to accommodate all local LTC routes. The three inter-community routes that terminate in the area are also unable to use the existing terminal and must stop at an on-street LTC stop on Fanshawe Park Road East.

It is recommended that as part of any future planning for higher-order transit in the area, terminal planning include provisions to accommodate regional transportation routes to allow for higher-order transit to be integrated with inter-community transit routes for communities to the west, north and east.

Wonderland/Oxford Secondary Transit Terminal

The Wonderland Road/Oxford Street West intersection is located within a designated PMTSA and serves as a focal point for transit service in the western part of the city. At present, five local and one LTC express bus converge on this area. These routes all use various on-street stops resulting in connections for riders that can be disconnected. An inter-community operator expressed interest in stopping at this location however the use of an on-street stop on a busy arterial road was not seen as desirable.

It is recommended that as part of any future planning for higher-order transit in the area, terminal planning include provisions to accommodate regional transportation routes to allow for higher-order transit to be integrated with inter-community transit routes for communities to the west.

3.4 System-Wide Opportunities

A key aspect in developing the conceptual framework has been stakeholder engagement. The dialogue not only provided valuable data and information on specific transit systems, but also resulted in the identification of opportunities to support regional transportation and mobility. Recommendations include:

- Regional-scale Mapping: It is recommended that all settlement areas, employment areas and mobility hubs in the region be mapped with transit routes and stops to create one regional map to support local intercommunity route planning and decision-making;
- Foundations for a Transportation Plan: It is recommended that a technical assessment and environmental scan be completed for Southwestern Ontario to better understand mobility patterns, key trends and issues influencing the region and its transportation network to support data-driven decisions;
- Coordinated Marketing: It is recommended that LTC continue to work with intercommunity transit partners to coordinate marketing initiatives, identify intercommunity routes on LTC maps and promoting routes to LTC riders;
- Fare Integration: SCT is developing an electronic 'app' for online payment and on-demand transportation that is scheduled for release by the end of 2021. It is recommended that fare integration for all regional and local transit services be investigated; and,
- Flexibility: To support improve access and ridership in smaller communities and industrial employment areas, it is recommended that flexible approaches in service delivery be considered including combinations of fixed-routes and ondemand services during low-demand periods (e.g., the weekend).

These five recommended improvements serve to strengthen regional connectivity in Southwestern Ontario by improving data collection methods for decision making, improving the user-experience, increasing service awareness, and allowing for flexibility to allow for innovation and alternative service delivery models.

4.0 Financial Impact and Considerations

There is no immediate financial impact associated with this report. Implementation of the recommendations in this report would require the financial support of senior levels of government. There is no funding, either currently approved or in the City's capital plan, for the measures outlined in this report. In addition to the upfront costs of establishing regional transportation hubs, it will be important to consider their ongoing operating costs and the responsibility for maintaining them.

Next Steps

As Southwestern Ontario continues to increase in population and employment, regional transportation issues and the need to get ahead of rapid growth will become increasingly important. London will play a pivotal role as the largest urban centre and primary service hub in the region and the place where highway, railway, public transit, and regional bus networks converge.

This conceptual framework has been developed in consultation with stakeholders from both across London and from surrounding municipalities. In response to the provincial draft transportation plan, the framework identifies opportunities to improve regional connectivity in London for intercommunity transportation and to integrate different travel modes to make it easier for people in Southwestern Ontario to get around.

Council endorsement of this framework allows for it to be used as a basis to discuss regional transportation opportunities with the Province, with regional municipalities, and other transportation stakeholders in order to advance provincial leadership in regional transportation and mobility in Southwestern Ontario.

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