




Hamilton

INFORMATION REPORT

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	October 25, 2016
SUBJECT/REPORT NO:	Light Rail Transit (LRT) Project Update (PED16199) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Trevor Horzelenberg (905) 546-2424 Ext. 2343 Kelly Anderson (905) 546-2424 Ext. 6389
SUBMITTED BY:	Paul Johnson Director, LRT Project Coordination Planning and Economic Development Department
SIGNATURE:	

Council Direction:

Not applicable.

Information:

The Hamilton Light Rail Transit (LRT) Office is currently coordinating work with Metrolinx while engaging the broader community with respect to building an LRT in Hamilton. Staff continue to manage the consultant, Steer Davies Gleave (SDG), who is working towards the necessary and required changes to amend the original 2011 Environmental Assessment (EA) based on the revised LRT alignment. Staff are also involved with the development of the Reference Concept Design and the Project Specific Output Specifications (PSOS) required by Metrolinx for procurement. This information report provides an overview of the ongoing work that is being undertaken within the LRT Office as well as an update on the recent Public Information Centres (PICs) held in September 2016.

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Background:

During 2010 and 2011 the Hamilton Rapid Transit B-Line project was developed through Preliminary Design and Engineering, and an Environmental Assessment (EA) was prepared in accordance with the Ontario Transit Project Assessment Process (TPAP). The project comprised of an LRT route from McMaster University to Eastgate Square via Downtown Hamilton, running along Main Street West, King Street West, King Street East, Main Street East and Queenston Road. In December 2011 the Ontario Ministry of Environment approved the EA.

On May 26, 2015, the Ontario Provincial Government announced \$1B in Provincial funding for the LRT project, from McMaster University to Queenston Traffic Circle (B-Line), with a spur (A-Line) from Downtown to serve the West Harbour GO Station and possibly the Waterfront, budget permitting (Figure 1.1). A pedestrian connection to the GO Centre on Hunter Street is also included as part of the project.

The City of Hamilton and Metrolinx are co-proponents under the EA process and are working together to obtain TPAP approval of the revised McMaster to Queenston Traffic Circle alignment, the north spur, and the Operations, Maintenance and Storage Facility (OMSF). It is expected that the submission will be made in March/April 2017 to allow for the procurement process to be completed by mid-2018 with major construction to begin in 2019.

Figure 1.1: Hamilton LRT Project Overview



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Project Schedule:



Project Update:

The following sections summarize the major components of the LRT project that are currently being undertaken. Each section provides an update of a major task to be completed as part of the Transit Project Assessment Process (TPAP) amendment, Reference Concept Design (RCD) development and the Project Specific Output Specifications (PSOS) documents required to proceed to the procurement phase.

Public Information Centres (PICs):

The LRT team hosted seven public open houses across the City during the weeks of September 12 and 19 to inform the community about the latest plans and gather feedback. The open houses were part of the public consultation process as the City and Metrolinx prepare an addendum to the Environmental Project Report (EPR) for the Hamilton LRT project (B-line) that was completed in 2011.

Open house notices were sent registered mail to all property owners along the LRT corridor and regular mail to all tenants of properties along the corridor and properties within a 30-metre radius of the corridor. First Nations and agency stakeholders were also advised. Advertisements were placed for two consecutive weeks in the Hamilton Spectator, Hamilton Community News and the French publication L'Express. The notifications were regularly tweeted through the City's Twitter account (and retweeted by Metrolinx) and distributed to LRT e-newsletter recipients.

In total, 861 people attended the sessions in person and others accessed the PIC materials online through the City's LRT website. Over 20 staff from the City, Metrolinx, along with consultants, was in attendance at the PICs to answer individual questions.

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Those in attendance and those who viewed the information online were encouraged to complete comment forms and provide feedback on specific design questions.

At the time of this report, 349 responses had been received (196 written and 153 online). The deadline for comments was October 6, 2016. A preliminary summary of responses, compiled at the time of this report submission, is attached as "Appendix A" to Report PED16199.

The next steps are to fully document the comments received and identify those that can be addressed through further review and assessment. Proposed changes will be documented in the Draft Environmental Project Report Addendum, which will form the basis of the next phase of public information centres in early 2017. All comments received will become part of the public record and part of the report.

Stakeholder and Community Engagement:

Since May 2016, the LRT team has met with over 35 stakeholder and community groups including Chambers of Commerce, Business Improvement Areas (BIAs), Ward meetings, neighbourhood associations, school boards and other major organizations along the LRT route. The team has also participated in several events including Supercrawl and the Concession Streetfest and hosted lunch-and-learn sessions for City staff.

Property Outreach along the LRT Corridor:

As part of the LRT community outreach program, a team of 'Community Connectors' visited nearly 1,200 properties along the corridor in June/July 2016 and connected directly with 80 per cent of those properties. The second visit will take place in late October/November 2016 and will focus on more targeted questions to help with business support and planning leading up to construction and when LRT is in service. Visits will occur twice a year for the duration of the project.

Property Acquisition Unit (PAU):

The Real Estate Services Protocol between the City of Hamilton and Metrolinx has been fully executed by both parties and is now in full effect. That protocol sets out the procedures for identifying and acquiring property for the LRT project. Prior to the open houses in September, 43 property acquisition letters were sent to properties identified as required at this time for the project. This mail out resulted in numerous one-on-one meetings with property owners. Negotiations are currently under way.

As per the Real Estate Services Protocol, all property required for the project will be acquired by Metrolinx through the Property Acquisition Unit (PAU).

The PAU will be funded by Metrolinx. Hiring of staff is currently underway, including negotiators and other senior positions.

Proposed Operations, Maintenance, and Storage Facility (OMSF):

The LRT team has identified the location of the proposed, Operations, Maintenance and Storage Facility (OMSF), which serves several key purposes such as:

- Control and maintenance base for operations;
- System administration centre;
- Operations control centre;
- Vehicle servicing and repair;
- Daily vehicle cleaning; and,
- Overnight storage yard.

In 2011, the previous EA did not include a location for the OMSF location, however significant background work was completed for 330 Wentworth Street North which was the preferred site at that time. Following the Premier's funding announcement in 2015, Metrolinx and the City conducted a complete review of over 26 sites within one kilometre of the LRT corridor.

Identifying a viable location of an OMSF posed several challenges. Firstly, The B-Line is a very constrained corridor and it is largely built out with few vacant properties of sufficient size. Secondly, the historic industrial area is located over 1 km to the north of the LRT line and therefore the majority of land use that surrounds the corridor is residential and/or commercial. Thirdly, land assembly would be required for various sites, which would impact existing residents and business. Furthermore, contamination issues are always of concern due to the past industrial uses in many areas.

It was determined that the previous site at 330 Wentworth had numerous complications including: a significant distance from the LRT mainline (approximately 1.7km), challenges with crossing the Canadian National (CN) Railway mainline, impact to residents along a non-revenue service line and the cost of relocating the existing Public Works' facility.

The site selection process for the OMSF then identified a relatively level and rectangular shape site that consisted of approximately 10 to 15 acres within 1 km of the line. Along with the basic size and distance, the following parameters were considered for evaluation purposes:

- Spur line distance;
- Site configuration;
- Site surroundings / adjacent to sensitive land use;

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- Impact to local community;
- Land cost;
- Business loss compensation and relocation costs;
- Potential contamination;
- Site grade challenges; and,
- Opportunity for land assembly.

Based on this review process and evaluation, the preferred location for the OMSF is on lands south of Chatham Street and near Frid Street (adjacent to the current McMaster Innovation Park buildings). Metrolinx is currently in discussions with the land owners. The project team has developed a concept plan for the facility to confirm its size and functional layout, taking into account opening day service levels and long-term expansion requirements.

Display materials outlining the details of the preferred OMSF site were presented at the public meetings in September and are available online at Hamilton.ca/LRT.

Traffic and Transportation Modeling for the LRT Project:

In order to understand the impacts of construction on the A-Line and B-Line corridors and roadways, a series of traffic models were developed to simulate traffic flows in the current traffic network. Traffic model inputs were taken from the EMME Model (higher level based on Transportation Tomorrow Study 2011) and fed into the lower traffic models of VISSUM and VISSIM. The VISSUM model is focused on primarily on areas between Cootes Drive and Centennial Parkway while the VISSIM model focuses on the traffic impacts in the immediate corridor.

Based on Land Use Data there will be significant increases in population and employment in Hamilton between the base year 2011 and the forecast year 2031. The previous report, PED16171, to Council already identified that with these growth numbers, traffic volumes and delays would increase within the traffic network with or without the introduction of LRT to the King Street and Main Street corridors. There are a number of intersections that have decreased levels of service between 2011 and 2031. These intersections are primarily along Main, King, Barton, Cannon, James, Burlington and Ottawa Streets.

With the introduction of the LRT, there is a change of traffic patterns in the network. Due to traffic capacity reduction on King Street, some westbound traffic has diverted onto parallel routes such as Aberdeen Avenue, Wilson Street, Cannon Street and Barton Street. In terms of north/ south traffic, the number of traffic movements onto and across the LRT alignment is limited. As a result north/south traffic on these routes is reduced and is funnelled to signalized intersections where these traffic movements are permitted.

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Consequently, there are intersections along the LRT alignment that may have an improved level of service where traffic volumes are reduced and conflicted turns are removed. This is offset by the intersections where delays are increased due to the limited opportunity to cross the LRT alignment.

Ongoing discussions are underway to develop strategies to improve the network operation and mitigate the impacts on traffic operation while still maintaining an appropriate level of priority for the LRT. The following mitigations will need to be applied to intersections within the network: traffic signal operations, signal timing allocation, staging changes, dedicated turn phases, signal cycle times, intersection layout, turning lane reallocation, addition of turning lanes, addition of a dedicated slip lane and turn movement bans.

With all the mitigation measures in place there will still be a reduced Level of Service (LOS) within the network and delays to motorist and general traffic will increase. It is expected that as traffic volumes and delays increase that motorists may use “peak hour spreading” to adjust their travel trips and times to spread the peak traffic hour into more of a peak traffic period.

The LRT team is also reviewing the traffic comments received from the open houses to determine how the public input will influence the proposed traffic network patterns and mitigation measures.

The traffic engineering work is not yet complete and a number of traffic signal timing and roadway improvement options are still under review. However, it is clear that the desired travel path for current westbound traffic on King Street is to access the 403 to the west. As a result, diverted traffic from King Street will likely use Cannon Street, Hunter Street, York Boulevard and Queen/Dundurn north-south routes to gain access to the Hwy 403 ramps on King Street.

Transit Ridership Forecasts:

As part of the traffic and transportation modeling work outlined above, preliminary transit ridership forecasts were also undertaken. Transit ridership forecasts are used to predict the number of passengers that will use the LRT and HSR transit system. As with traffic modeling, the results of ridership forecasts are used to help inform how the system should be designed and planned. Forecasts are generated based on technical inputs such as: the design of the system (route, stops, signals, etc.), existing transit ridership, origins and destinations, growth projections, and more.

Preliminary Ridership forecasts have been generated for both 2031 and 2041 in the AM peak hour (morning rush hour).

Two scenarios were contemplated: a medium frequency scenario (a train every 6 minutes) and a high frequency scenario (a train every 4 minutes). The tables below show the results of these two scenarios.

B-Line AM Peak Hour Ridership Forecast (Boardings)

	2031 B-Line 6 minutes	2041 B-Line 6 minutes	2031 B-Line 4 minutes	2041 B-Line 4 minutes
B-Line Eastbound	800	925	1,125	1,300
B-Line Westbound	2,625	3,725	3,050	4,300
Total AM Peak Hour Boardings	3,425	4,650	4,175	5,600

B-Line Annual Ridership Forecast (Boardings)

	2031 B-Line 6 minutes	2041 B-Line 6 minutes	2031 B-Line 4 minutes	2041 B-Line 4 minutes
B-Line Eastbound	2.9 M	3.3 M	4.0 M	4.7M
B-Line Westbound	9.5 M	13.5 M	11.1 M	15.6 M
Total Annual Boardings	12.4M	16.8M	15.1M	20.3M

The above results, although very preliminary, show that the high frequency scenario (a train every 4 minutes) results in higher passenger numbers. This is to be expected as a result of the added service. The benefits of this increased LRT service will need to be balanced against the potential impacts to intersection / traffic operations, the level of signal priority that can be attributed to the LRT, as well as increased project costs due to additional vehicles and OMSF storage capacity required. Further studies will be undertaken to optimize LRT service levels, ridership, and local traffic impacts. These ridership forecasts are still being validated by staff with respect to the entire modeling process, but it was felt that these preliminary numbers could be shared at this time.

Modeling work for the A-line is still underway, and ridership information will be provided once complete.

Transportation, Traffic and Emergency Responders Working Group:

The Transportation, Traffic, Emergency Responders Working Group is tasked with reviewing all the required documents and procedures which will be included in the PSOS (Project Specific Output Specifications). This working group has met a number of times to discuss the following items:

1. **Hamilton Fire/Hamilton Police/Emergency Medical Services** – A meeting was held on September 6, 2016 to familiarize their staff with the project, preliminary engineering drawings, the transit way corridor, the various cross sections and other technical elements. Several issues were discussed including response times, the use of the transit way for First Responder Vehicles, the type of fire response equipment currently used and any anticipated changes, construction staging and requirements for access during construction, etc. Regular meetings will occur to review the most current alignment drawings.
2. **Development of Parking and Loading Strategies** – The LRT team recognizes the need to address the loss of current on-street parking and loading in the B-Line corridor especially from Dundurn east to the Queenston Terminus. In the second Community Connectors visit in late October/November 2016 we will be requesting business owners provide us with information on current loading and delivery practises, the time of day, type of delivery vehicle, frequency, etc. With this information we can prepare specific strategies as required to ameliorate the impacts as much as possible. We also intend to meet with the key stakeholders and respective BIAs as well in the near future.

We are investigating opportunities for parking and loading, the use and realignment and improvement of rear alley access where possible, the construction of parking bays on the street adjacent to properties required for the LRT construction, etc. The designation of loading and parking areas on the immediate side streets is also under consideration. There is no set approach to resolving all the issues but we are committed to using all appropriate tools available to address these matters.

3. **Development of a Construction Phasing Strategy** – It is critical to ensure that construction staging is planned to reduce the inconvenience to the business community, the residents and the travelling public. Discussions on this are continuing with various stakeholders.
4. **Development of a Dynamic, Robust and Fluid Communications Strategy** – The development of a communications strategy during construction is imperative for the Contractor, the First Responders, local businesses and residents as well as the general travelling public. Work on this item is ongoing.
5. Development of a Dynamic HSR Transit re-routing and service plan to grow and support LRT ridership, mode sharing and land use changes throughout the City during and post LRT construction.
6. Development of a Traffic Management and Detour Plan during construction.

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7. Development of a revised Truck Route Plan (during and post construction) which provides access to businesses, the Hamilton Port, and the adjacent Highway Network.

The group recognizes the need to provide access for all the users including pedestrians, bicycles, transit, underground services and utilities, the general travelling public, etc. Throughout all this work, we will need to ensure AODA requirements are met.

Streetscaping:

To support the overall LRT project vision of stimulating economic development and revitalizing Hamilton, work has been underway to identify the urban realm streetscaping improvements for the LRT corridor. This work includes the design of a high-order pedestrian connection on Hughson Street that will connect the LRT stop at King and James to the Hunter Street GO Station.

Early opportunities for the LRT corridor streetscape plan have been identified and were shared at the open houses held in September. Early opportunities include:

- Providing a 2+ metre pedestrian through zone where possible along the length of the corridor;
- Clustering street trees where space permits and implementing integrated plantings in more constrained portions of the corridor;
- Designing for pedestrian-oriented intersections and crossings;
- Utilizing properties left vacant as a result of acquisition as interim public spaces until redevelopment occurs;
- Creating green lobbies on side streets leading to the LRT corridor; and,
- Ensuring context sensitive design that will celebrate and support existing character areas.

These opportunities will be further developed and applied to four types of streetscapes that have been identified along the LRT corridor.

The four types are:

1. **Typical Urban Streetscape** (Typical streetscaping treatments for retail and mixed-use urban areas);
2. **Enhanced Urban Streetscape** (Enhanced streetscaping treatments for retail and mixed-use urban areas, typically at stops or special character areas);
3. **Typical Greenscape** (Typical naturalized treatments for residential areas.); and,
4. **Enhanced Greenscape** (Enhanced naturalized treatments for residential areas. Typically at stops or special character areas).

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Residents were provided an opportunity to comment on design elements of the streetscape that were important to them through a comment sheet, as discussed previously. Comments were also received from stakeholder groups such as the International Village BIA and Kirkendall Neighbourhood Association with regards to streetscaping elements they would like to see in their area.

Early concepts for the high-order pedestrian connection on Hughson Street connecting LRT and GO transit were also shared. Hughson Street, James Street and MacNab Street were all evaluated as potential corridors for the pedestrian connection.

The selection and evaluation of Hughson Street was guided by the following criteria:

- Short walking distance from the LRT corridor to the GO Station;
- Opportunity for wide pedestrian through zones;
- Ability to implement weather protection;
- Safe pedestrian crossings;
- Intuitive Wayfinding;
- Minimal traffic impacts;
- Available space for plantings and furnishings; and,
- Potential for future development.

The streetscape concept for Hughson Street has been designed to establish a high quality civic corridor that prioritizes pedestrians and supports a safe, convenient and comfortable connection. Design elements include:

- Enhanced hardscape paving with a continuous mountable curb;
- Enhanced plantings and trees in grates with soil cells;
- Reduction to one-way vehicular traffic and some restricted vehicular access;
- Distinctive hardscape paving at intersections;
- Creation of a pedestrian plaza at Prince's square; and,
- Maintained on-street parking/loading in some locations.

Next steps include ongoing stakeholder consultation, refining the Hughson Street pedestrian connection design, and beginning design on streetscape plans for key areas such as stops and special character areas.

In parallel with the streetscaping project is the Design Excellence process. Design Excellence will focus on the principles and requirements for the design of LRT stops and other LRT infrastructure along the Metrolinx-owned portion of the LRT corridor. City and Metrolinx staff will be working collaboratively on both the Streetscaping and Design Excellence processes to ensure a cohesive and seamless design for the corridor.

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Environmental Studies:

As part of the addendum process the previously completed environmental studies are being updated to reflect proposed design changes and additional project details. Below is a progress summary for each of the studies currently being updated by Steer Davies Gleave and their sub-consultant team.

- **Cultural Heritage:** Completed background research and a field study which will be analyzed to identify any impacts on cultural heritage resources;
- **Natural Heritage:** Completed background research and a field study which will be analyzed to identify any impacts on aquatic and terrestrial resources;
- **Contamination:** Completed background research and a field study which will be analyzed to identify activities that have the potential to result in environmental impacts, as well as spills, waste disposal sites, polychlorinated biphenyls (PCBs) storage, and water well inventories within the project area;
- **Air Quality:** Study is currently underway and involves an examination of air quality monitoring data and how traffic patterns will be altered;
- **Hydrogeology:** Completed research of the physiology, geology, hydrogeology and geotechnical background, as well as a field study, which will be analyzed to provide a description of the conceptual model of groundwater conditions; and,
- **Noise and Vibration:** Noise monitoring activities are, and have been, taking place along the corridor. The results of these field studies and background research will be analyzed to identify any noise and vibration impacts that would require mitigation. Background research is being undertaken to identify any vibration impacts.

Aforementioned background research and field studies took place between July and September 2016. This work has been done to ensure that data in the previously approved Environmental Project Report remains valid. If additional impacts are identified through the update to these studies, mitigation measures will be evaluated and presented in the EPR addendum. Findings and reports will be presented at the open houses in early 2017.

Subsurface Infrastructure:

The LRT team is working closely with the Technical Advisor (AECOM) to facilitate and guide the design elements required for the project.

Subsurface Utility Engineering (SUE) investigations are currently underway. The purpose of a SUE investigation is to accurately identify the location of all existing subsurface infrastructure as compared to the records (as-built).

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With this information, a 3-D model will be created to determine the impacts of moving the infrastructure, impacts of keeping the infrastructure in its existing location, opportunities for improvements/ upgrades to infrastructure, an updated life cycle comparison between the current infrastructure impacted by the LRT construction and the expected life cycle of the track base/rail bed. Investigations are scheduled to be completed in spring 2017.

A Utilities Working Group was established to facilitate the development of PSOS documents. This working group has met a number of times since June 2016. In addition, the LRT team have been meeting with each of the various utility stakeholders such as Bell, Union Gas, Rogers, Cogeco, AT&T (Allstream) and Horizon Utilities.

The Technical Advisor has developed a portion of the preliminary relocation drawings showing existing and proposed location of the municipal infrastructure. The relocation plans are currently being reviewed.

In order to ensure the City is prepared for the future growth and intensification, Hamilton Water staff are reviewing the needs for oversizing and/or upgrading the municipal infrastructure along the LRT corridor. This information will be reviewed in early 2017.

Development Opportunities:

To undertake a real estate investment impact analysis N. Barry Lyon Consultants Limited (NBLC) was retained to assess the real estate market response as a result of the LRT investment in Hamilton. A presentation outlining their analysis is attached as "Appendix B" to Report PED16199.

- Appendix "A" - Preliminary Summary of LRT Public Information Centre Feedback
- Appendix "B" - N. Barry Lyon Consultants Limited (NBLC) – Hamilton LRT A+B Line: Real Estate Impact Analysis

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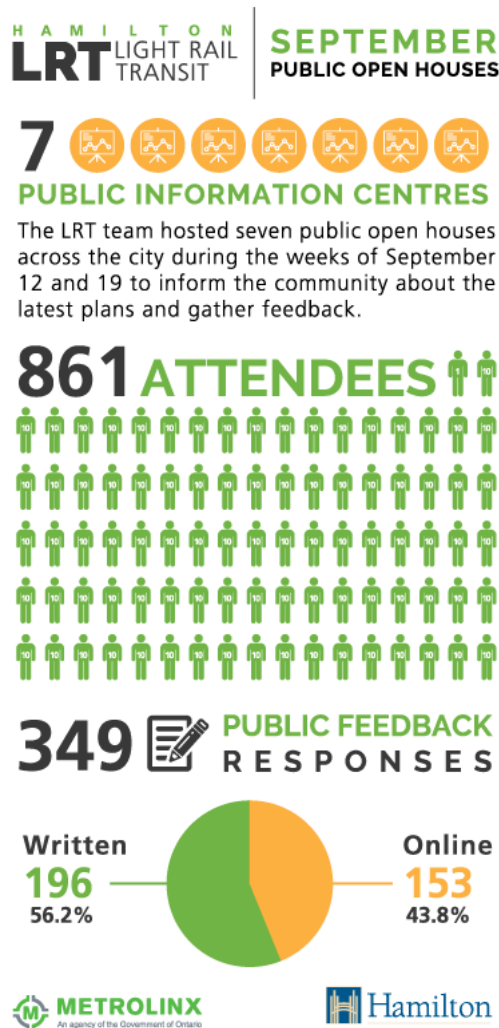


Preliminary Summary of Public Information Centre Feedback

The following is a preliminary summary of responses compiled at the time of this report submission. The next steps in this process are to fully document the comments received and identify those that can be addressed through further review and assessment.

Proposed changes will be documented in the Draft Environmental Project Report Addendum, which will form the basis of the next phase of public information centres in early 2017. All comments received will become part of the public record and part of the report. The deadline for comments was October 6, 2016.

Figure 1.1 September 2016 LRT Open Houses Infographic



Question 1 – Add a Stop

Respondents were asked where they would like to add one stop to the proposed network. Approximately two-thirds of respondents answered this question.

Of those that responded, more than one-third selected locations to serve Gage Park (Delta, Gage Avenue, Gage Park).

Other popular stop locations included Bay Street, and Locke Street although the number of responses preferring those locations were no more than 10. Implied extensions to the LRT, noted by requests to University Plaza in Dundas or Eastgate Square, were reflected in some responses. An additional stop between McMaster and Longwood was also requested by a few respondents.

Principal reasons given for added stops include:

- Gage park area - activities at the park;
- Bay Street – local access to residences and businesses;
- Locke Street - local access to residences and businesses; and,
- McMaster to Longwood: wide stop spacing.

No additional A-Line stations were requested.

Question 2 – Move a Stop

Respondents were asked where they would like to move a stop from one location to another. Approximately one-third of respondents answered this question.

Generally, many respondents used this question to re-iterate their desire for an additional stop location. The Gage Park/Delta area and Eastgate Square were popular responses. Many respondents suggesting a relocation of a stop to Gage Park area suggested moving the Scott Park stop further east.

On the A-Line, there were few responses, but those were consistent and evenly divided between moving the Ferrie stop to West Harbour GO Station (Note: A station is already proposed at the south entrance to the West Harbour GO Station) and moving the Waterfront station from north of Guise further into the Waterfront development area.

Question 3 – Add a Pedestrian Crossing

Respondents were asked where they would like to add pedestrian crossing. Approximately one-third of respondents answered this question.

A large percentage indicated locations that are now or are proposed at signalized intersections, and some at locations proposed as pedestrian crossing signals. It is apparent that many of these responses were completed separate from a view of the technical information, and therefore represent where a pedestrian crossing is desired, whether new or not. These represented about one-half of the requests for pedestrian crossings.

Approximately 20 respondents requested additional pedestrian crossings at new locations. Most popular among these were Pearl Street (5) and Bowman Street (3). A number of responses suggested general locations including “wherever seniors live” and simply “more’.

The most popular reasons given for any location was the site of important facilities such as schools, senior’s centres, shopping and such, as well as concern for pedestrian crossing spacing in some cases. Note that pedestrian crossings at signalized intersections have an average spacing of about 380 metres and this is reduced to about 260 metres when the proposed pedestrian crossing signals are considered.

Question 4 – McMaster Terminus Options

Respondents were presented with two options for the McMaster terminus – one in the centre of Main Street West and one moved to the north side of the street integrated into the McMaster property. About three-quarters of respondents addressed this question.

Of those responding, a little more than half preferred the north side option, while about one-third preferred the centre-line alignment. About 10 per cent stated no preference.

For those preferring the side option, the primary reasons given were rider convenience and perceived safety improvements. For those preferring the centre-line option, the primary reason was that it was simpler and less complicated at the Emerson Street intersection.

Question 5 - Main Street West Bike Lanes

Respondents were asked if they favour the inclusion of bike lanes on Main Street West, as noted in the design. More than 80 per cent of respondents answered this question (highest response of any question).

Of those responding, more than two-thirds indicated their support for bike lanes, while about 20 per cent were opposed. The principal reason given for both opposition and support was safety. Those opposed felt that bikes on Main West are a safety issue, while those supporting feel that the lanes are required to ensure safety of cyclists.

Several respondents accompanied this response with the note that the City needs more bike lanes everywhere.

Question 6 – Paradise/Longwood Configuration Option

Respondents were presented with two options for the Paradise Road / Longwood area – one maintaining the left turn to Main Street eastbound at Paradise (with an additional LRT crossing) and the other including a U-turn at Longwood the centre of Main Street West and one moved to the north side of the street integrated into the McMaster property. About three-quarters of respondents addressed this question.

Of those responding, close to two-thirds preferred the left-turn at Paradise, while about one-quarter preferred the Longwood U-turn. Reasons given for preferring the left-turn included more direct travel and concern over the safety of the U-turn. Among those preferring the U-turn, most cited the need to minimize LRT delay.

Question 7 – Streetscaping

This question asked respondents to rate the importance of several aspects of the streetscaping elements. At least three quarters of respondents answered some portion of this question. Streetscape elements included:

- The use of plantings and street trees;
- Pedestrian furnishings;
- SoBi bike stations;
- Pedestrian scale lighting;
- Signage and wayfinding;
- Enhanced sidewalk and crosswalk materials;
- Urban Braille; and,
- Prioritizing wider sidewalks at LRT stops.

Respondents were scored on a 5-point scale from “not at all important” (1) to “Very Important” (5). The results are shown in the following table.

Streetscape Factor	Average Score (neutral = 3.0)
Pedestrian furnishings	4.5
The use of plantings and street trees	4.3
Pedestrian scale lighting	4.3
Signage and wayfinding	4.3
Prioritizing wider sidewalks at LRT stops	4.1
SoBi bike stations	3.9
Enhanced sidewalk and crosswalk materials	3.9
Urban Braille	3.7

Respondents were also asked to list the three most important elements out of the eight factors. This assessment is still underway.

Respondents were also asked to list key geographic areas to focus streetscape improvements. About half of the people rating the factors answered this question. Most popular answers included:

- Core, or downtown;
- Stops, major intersections;
- All areas;
- Areas east of downtown to the Delta; and,
- Numerous single locations were also noted.

Question 8 – Other Comments, Questions, Concerns

Respondents were also given the opportunity for open-ended responses (including opposition to the project). The review and assessment of these comments is still underway. However, each comment has been reviewed to assess the general nature of the comment, and whether or not support for, or opposition to the LRT is stated. Approximately one-half of the respondents state no preference in these comments, but list specific concerns, ask questions and such. Unless a comment specifically mentions support or opposition, it was categorized as “not stated”.

Among the remainder, there is a fairly even split between those in support (64) and those opposed (57).

Among those opposed to the LRT, preliminary assessment reveals common responses including:

- General opposition;
- Waste of money;
- Concern over City’s capacity to deliver project;
- Traffic concerns;
- Lack of need; and,
- Outdated technology.

Among those supporting the LRT, preliminary assessment reveals common responses including:

- City building benefits;
- Environmental benefits;
- Future expansion possibilities;
- Value to various travel markets; and,
- General support.

Local Bus Service

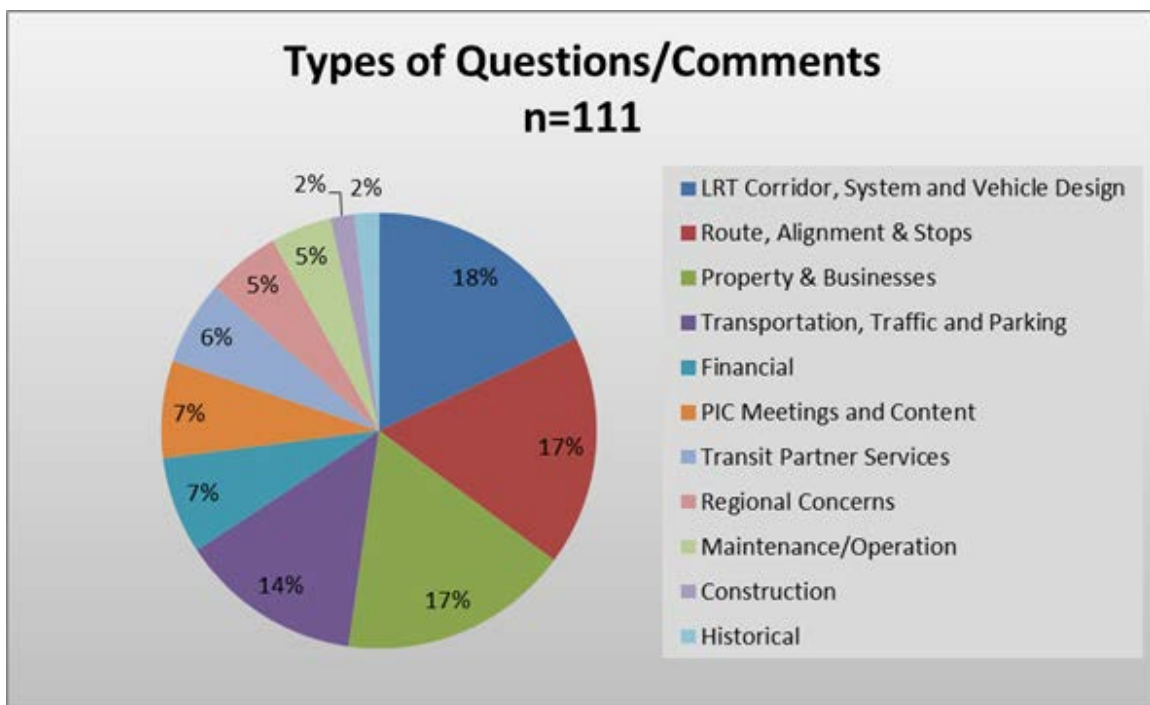
A common question that arose during the PICs was regarding local bus service and how it would be accommodated. Staff identified that local HSR service would run on parallel corridors to provide appropriate coverage for all residents as per the HSR’s service standards. However, there is a desire among many residents to improve the existing transit network as well as connectivity with services to neighbouring communities.

The feedback received, suggested that numerous residents would like to maintain local transit service on the LRT corridor, in conjunction with LRT service, particularly as a means of providing highly accessible transit to all members of the community. The distances between LRT stops, though standard for rapid transit systems, have been noted as a potential barrier to individuals with mobility impairments. Furthermore, residents tend to identify that improvement of local transit across the entire City is important.

Additional Comments Received by LRT Office

The following chart (Figure 1.2) illustrates a summary of the types of questions and comments the LRT team sent to lrt@hamilton.ca September 12 to 29, 2016. This represents 52 emails with a total of 111 comments and questions.

Figure 1.2 Types of Questions/Comments



Hamilton LRT A+B Line: Real Estate Investment Impact Analysis



Hamilton

METROLINX

Conceptual only.
Produced by Dillon Consulting Limited.

Appendix "B" to Report PED16199

October 25th, 2016

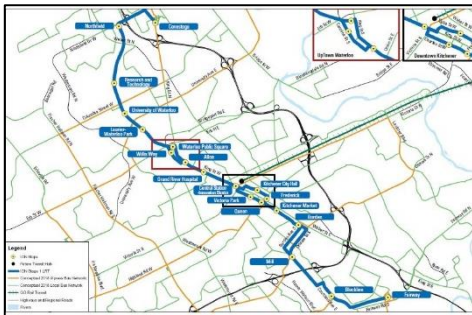
City of Hamilton

N. Barry Lyon Consultants Limited

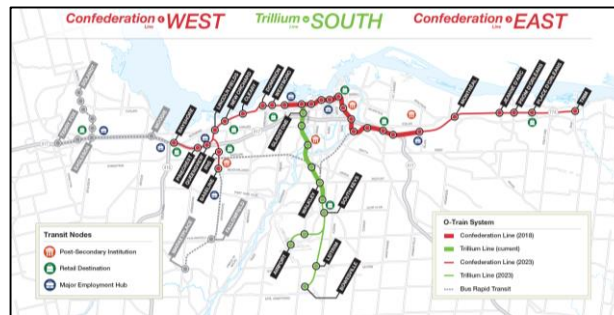


N. Barry Lyon Consultants

- NBLC is a multi-disciplinary real estate consulting firm.
- Experience evaluating the real estate market impacts associated with investments in high-order transit:



Waterloo LRT



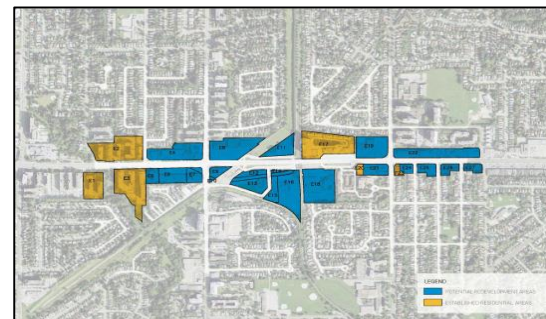
Ottawa Stage Two LRT



Finch, Sheppard, Eglinton LRT



Regional Express Rail (RER)

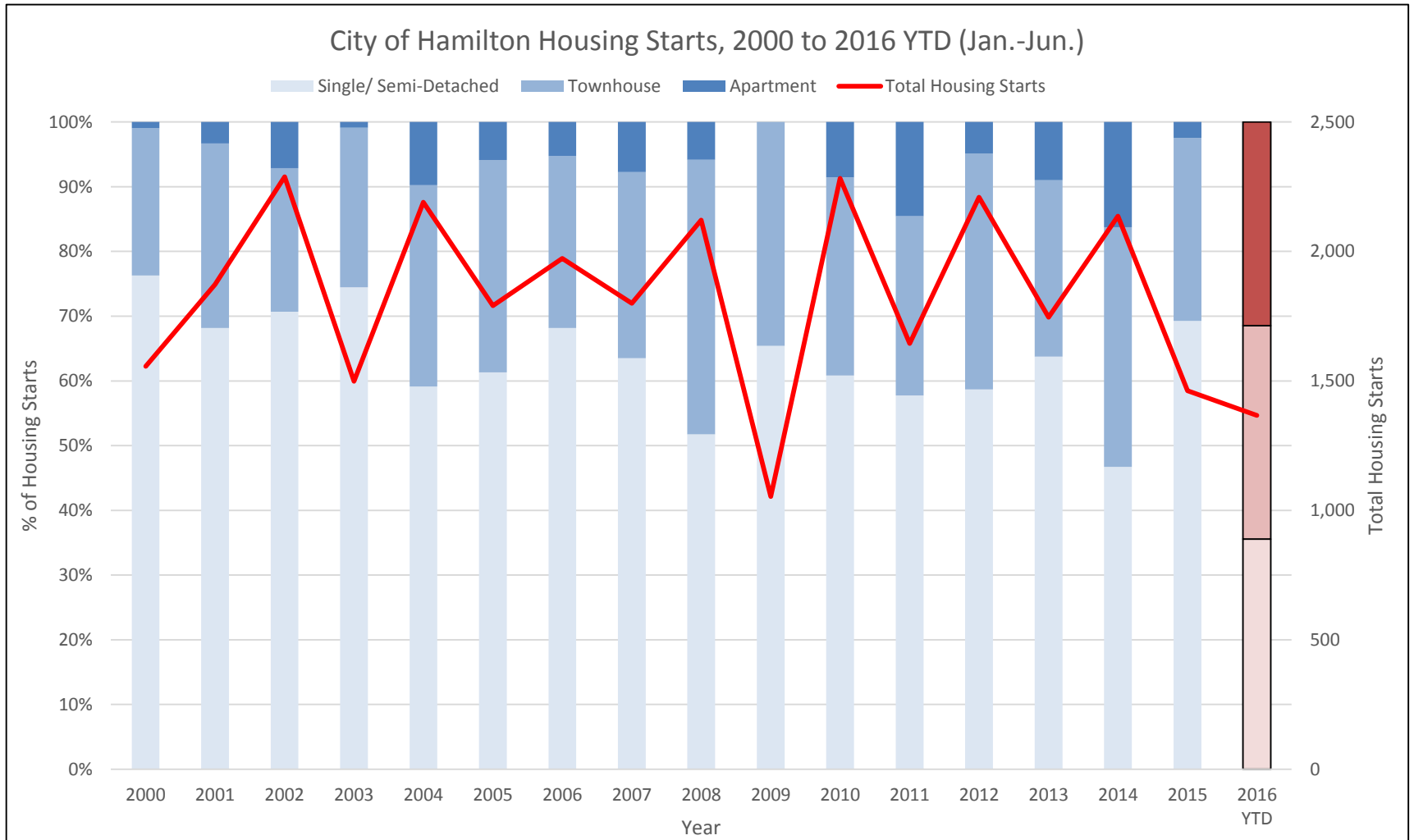


Mobility Hub Studies

Introduction

- NBLC was retained to assess the real estate market response as a result of the proposed LRT investment in Hamilton:
 - How can transit impact real estate markets?
 - How is the City and LRT corridor currently positioned to capture future growth?
 - Is the City's current and proposed planning framework supportive of transit-oriented development and also grounded in economic realities?
 - How is transit expected to impact growth and development in Hamilton?
 - What type of development and density is expected across the LRT corridor?

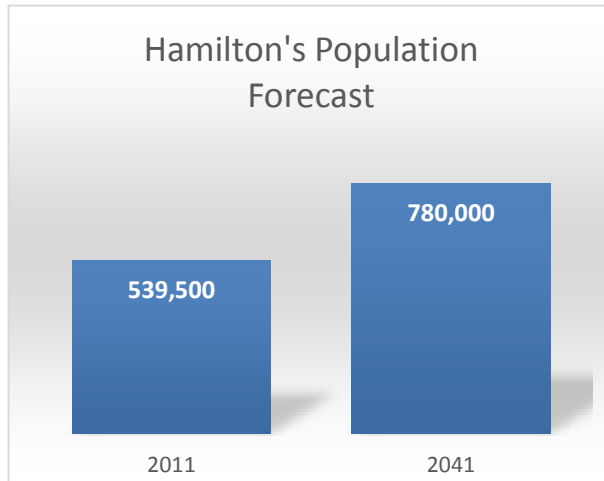
Hamilton's Real Estate Market is Trending in the Right Direction



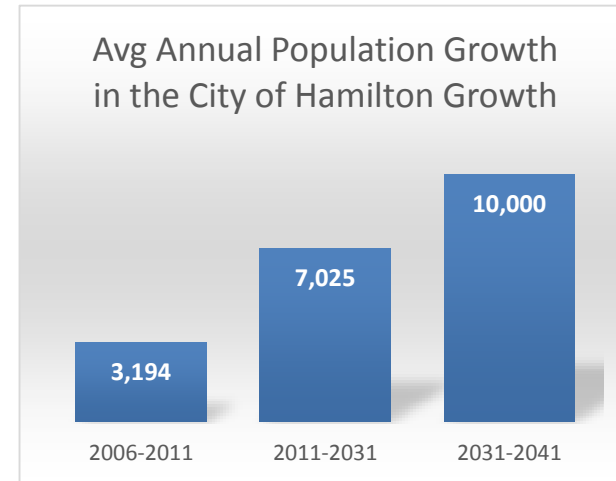
Downtown Hamilton Already Attracting High - Density Investment

- The Downtown LRT corridor currently accounts for over 60% of all apartment development in the City;
- Housing values are accelerating at a quicker rate along the LRT corridor than the rest of the City;
- Demand metrics are all strong along the LRT corridor;
- Improving market context through public and private sector investments; and
- Over 5,000 units proposed within the LRT corridor.

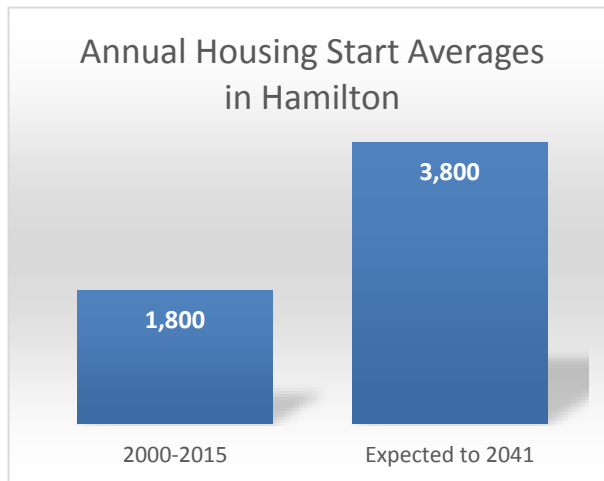
Forecasted Growth is Expected to be Strong



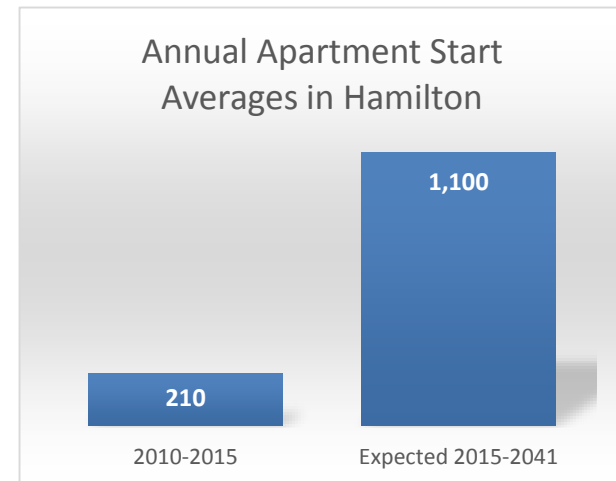
Growth of 240,000 people;
Average growth of 8,000 people per year.



Growth is expected to accelerate looking forward to 2041.



Housing starts expected to more than double on average.



Higher density expected to capture a greater share of the housing market

When Does Transit Impact Real Estate Markets?

- The broader real estate market is positive;
- Outlook for growth is strong;
- Neighbourhood market context is attractive;
- Transit is affordable, frequent and reliable;
- Transit must be valued by riders and businesses;
- Land use planning framework is supportive;
- Land / development sites are available.

How Does Transit Impact Real Estate Markets?

- Increases property values;
- Improves market demand for most land uses;
- Improves viability of new development;
- Can capture new development and other forms of investment that may have occurred elsewhere;
- Stimulates development of vacant and underutilized sites;
- Influences developer decision making; and
- Encourages concentrated forms of development and more sustainable/efficient urban environments.

Expected Real Estate Impacts of the LRT

Residential

- LRT will attract long term investment along the corridor by:
 - Improving market interest, and
 - Increasing revenue potential
- Demand forecast project an average annual demand over the next 25 years of 600 to 800 units within the corridor.
- Development in the form of apartments and townhomes suitable for a wide range of household types.
- These developments should allow for a wide range of affordable price points for singles, families and seniors.
- This new investment will support existing new neighbourhood retail and commercial services.

Expected Real Estate Impacts of the LRT

Retail and Services

- Population serving retail and services will be positively impacted by greater development activity and increased density along the LRT corridor.
 - Retail, restaurants, banks, small office and services, etc.
- This market is largely driven by population growth as well as socio-economic indicators.
- Investment will be guided by new development and investment in existing structures.
- Opportunities for artisanal/creative/start-up businesses.

Expected Real Estate Impacts of the LRT

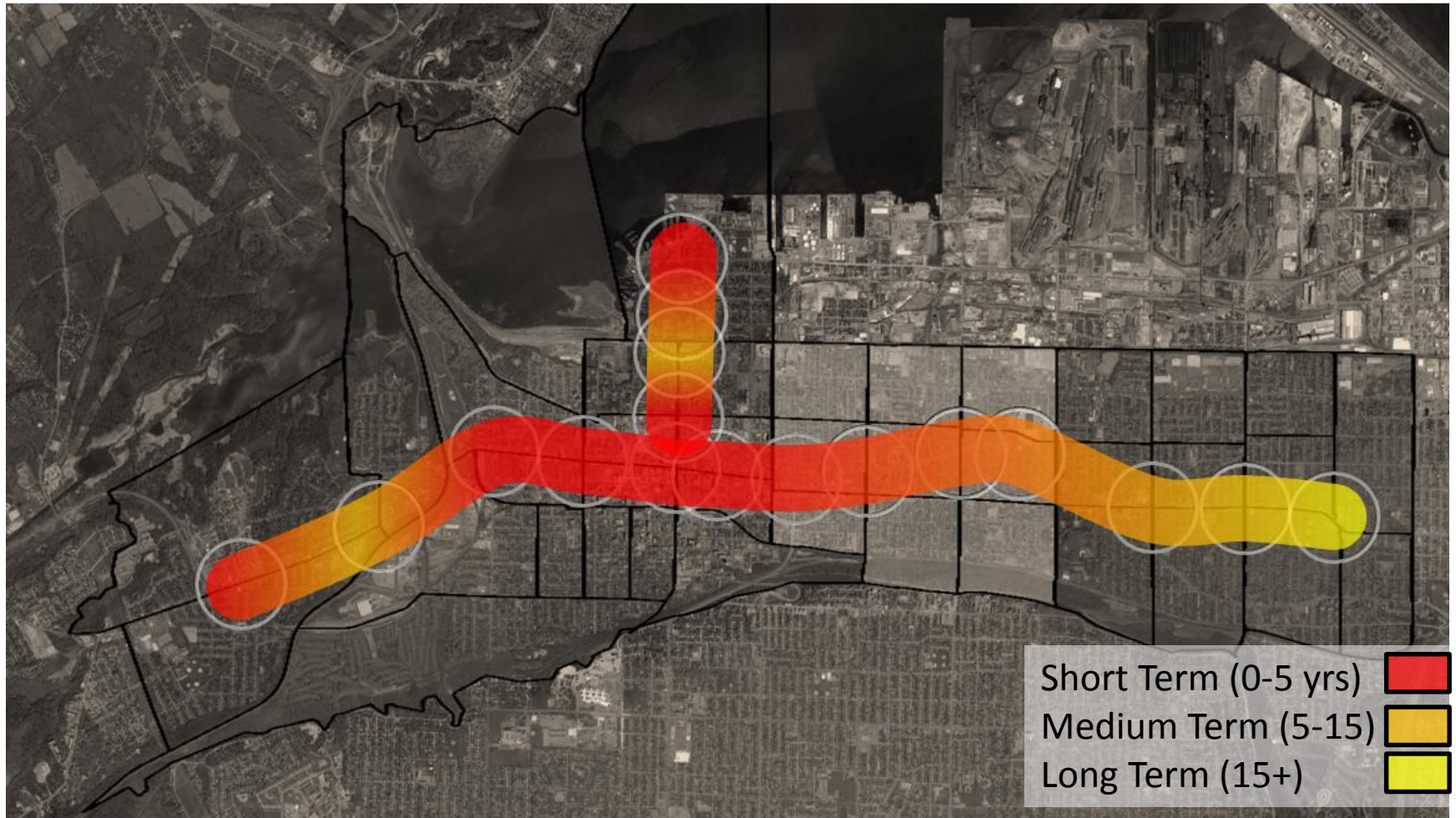


- High-density office demand is driven by:
 - Urban and well-designed locations;
 - Strong local and regional transportation options;
 - High population densities, development sites, and affordable housing;
 - Particular demographics (e.g. young and highly educated people, creative individuals); and
 - Lower land and operating costs relative to other locations in the GTHA.
- Future improvements to GO Transit (RER) as well as further investment in Hamilton transit will further improve this market and the overall market competitiveness of Hamilton within the GTHA.

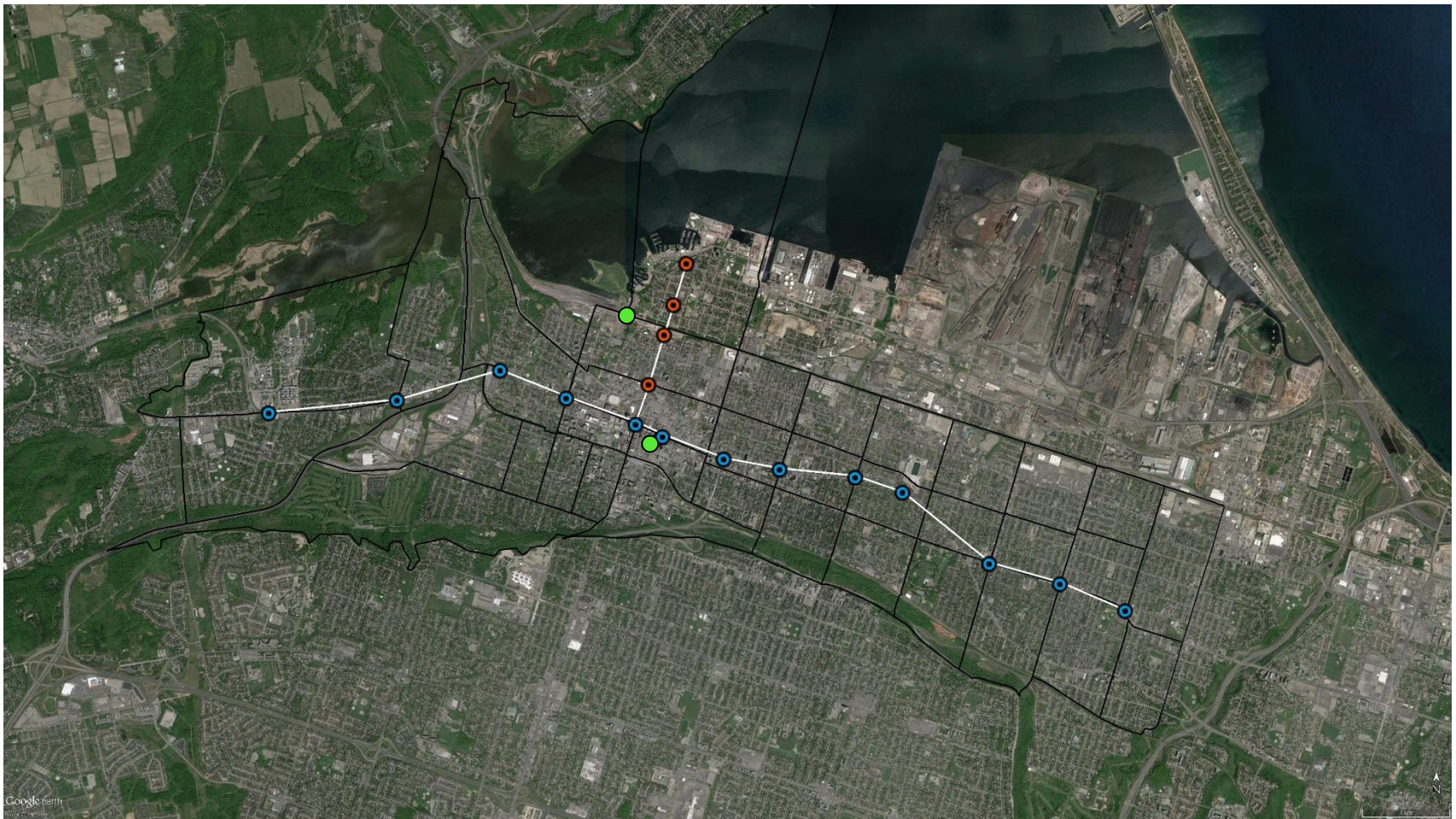
Hamilton is Well Positioned to Benefit from LRT

- The LRT in Hamilton is likely to have positive impacts on Hamilton`s residential and commercial real estate market;
- However, these impacts will not be evenly distributed across the LRT corridor due to:
 - Existing pattern of development
 - Market variations – demand will vary
 - Development economics / feasibility
 - Land use policy

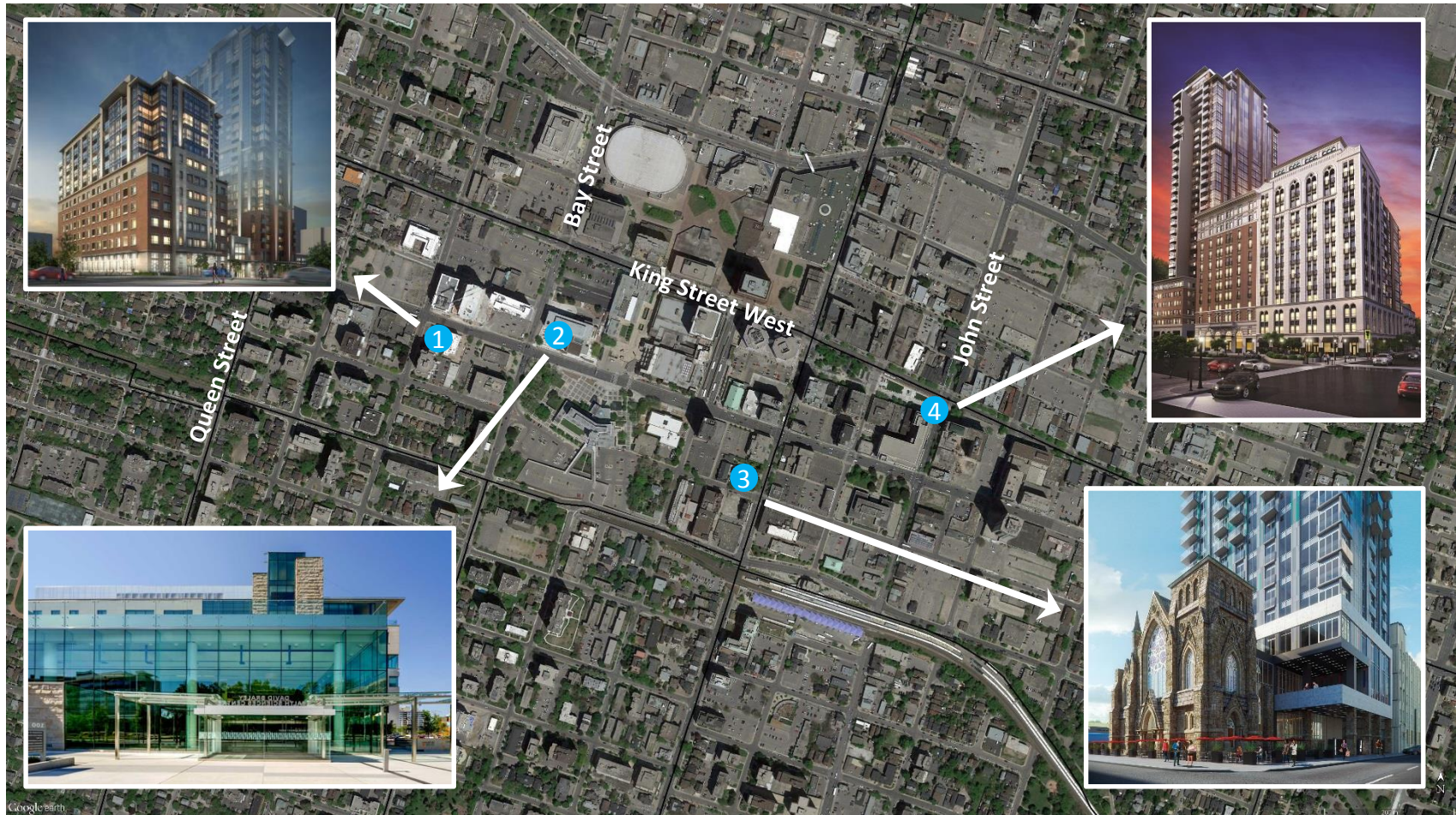
Development Feasibility Along the LRT Corridor



Likely Development Forms Across the LRT Corridor



Likely Development Forms Across the LRT Corridor



Likely Development Forms Across the LRT Corridor

71-77 Leland Street Proposal



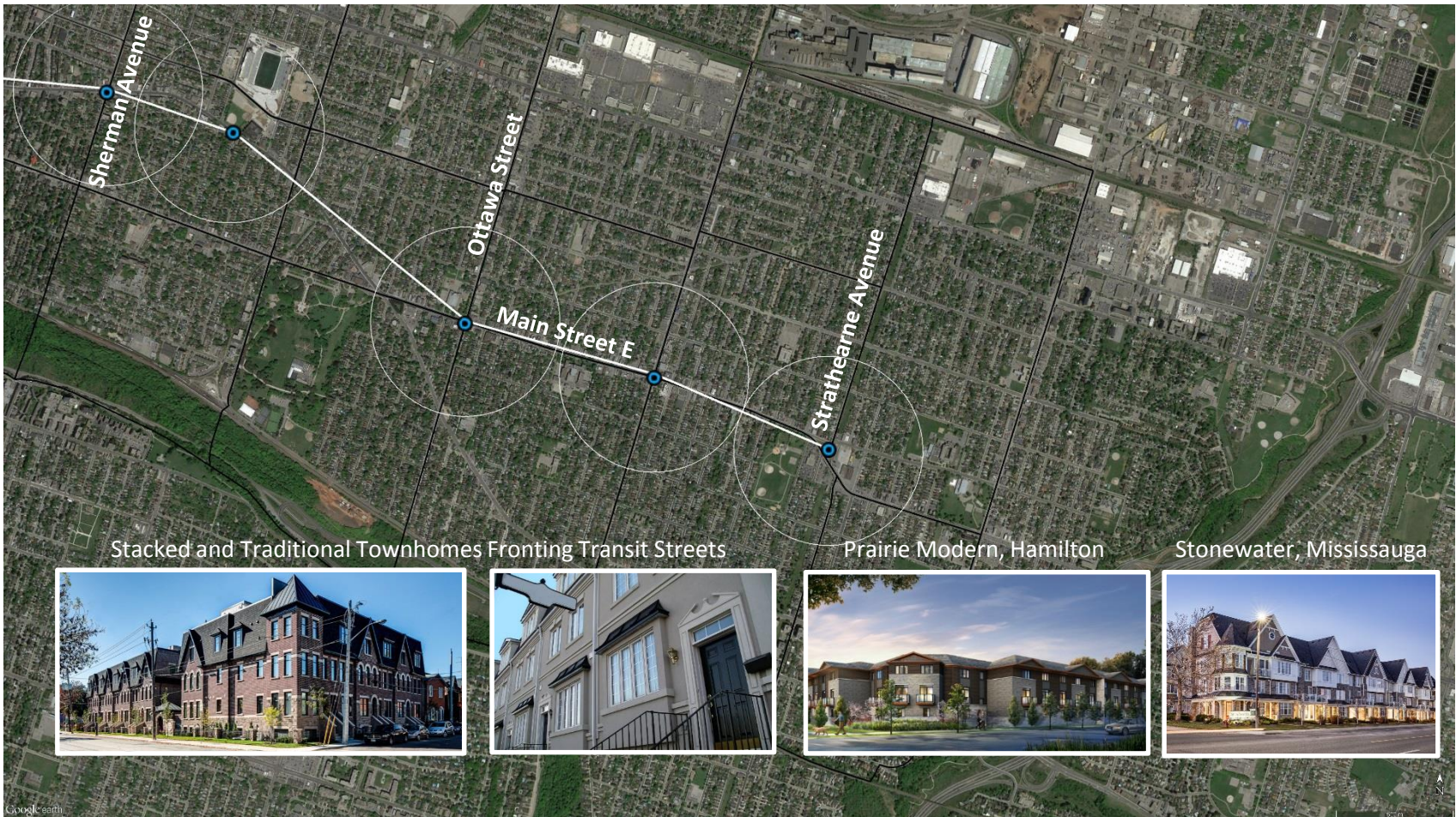
1100 Main Street West



CIC Project – 925 Main Street W



Likely Development Forms Across the LRT Corridor



Stacked and Traditional Townhomes Fronting Transit Streets

Prairie Modern, Hamilton

Stonewater, Mississauga



Likely Development Forms Across the LRT Corridor



Proactive Planning Approach

- Proactive zoning that is ‘shovel ready’ will help manage and support growth and control development outcomes.
- NBLC completed a detailed evaluation of the City’s proposed zoning by-law:
 - Development forms, permitted uses, and densities are all considered appropriate;
 - Built-form envisioned by the by-law is believed to be financially viable from a developer pro-forma perspective;
 - Permitting a mix of built-forms/densities based on market context is an appropriate response to market challenges in some neighbourhoods.

Hamilton is Positioned for Success

- Hamilton's approach to the LRT project has been exceptional:
 - Studying all facets of the investment (transit best practices, planning and urban design, zoning, market and economic considerations) simultaneously to guide decision making and implementation.
- Positioned to experience measureable benefits from the transit investment.
- Planning for growth and development allows the City to better control development outcomes and respond to development pressure.
- LRT will help manage future growth and encourage sustainable city building.