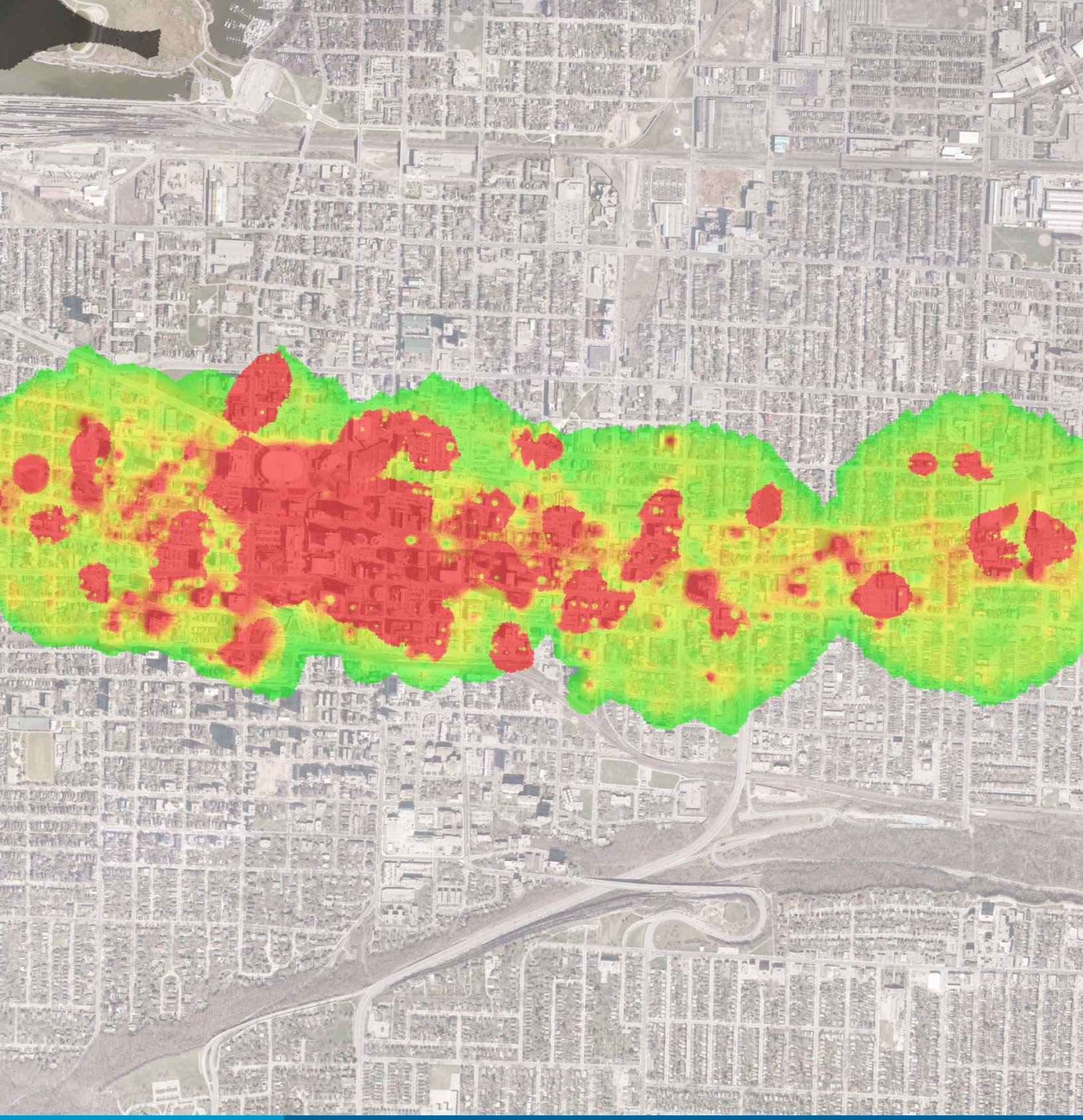

Hamilton B-Line

Value Uplift and Capture Study

June 2010

Final Report

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Executive Summary

What difference does a light rail transit (LRT) line make to a city?

Cities that have built LRT lines (such as Portland, Oregon; Dallas, Texas; and Minneapolis, Minnesota) have found that in addition to making it easier for residents and workers to get around and creating economic development opportunities, LRT lines and their stations attract investment by developers. This investment by developers may take the form of restoring heritage buildings, creating new infill buildings, or redeveloping underused sites.

New investment tends to attract further investment, making certain transit stations the focus of clusters of office employment, shops and restaurants, with associated services. This process of redevelopment leads to increased property tax assessment, so the city that invests in LRT and associated upgrades to the urban environment gets a benefit in the form of tax revenues, fees and charges and a variety of other spin-off effects.

The types of transit-oriented development vary according to the location of the stations. Stations in downtown cores may attract more office and retail development, those in older suburbs or newer suburbs may see more residential development or different forms of commercial activity. Nevertheless, the examples of Portland, Dallas, and Minneapolis – all cities that faced problems similar to those facing Hamilton before they built LRT lines – suggest that over time, LRT stations become the focus of new development and economic activity, while improving the quality of life for city residents and workers.

The City of Hamilton has plans for two LRT lines A-Line running north-south through the city's core between the waterfront and the airport, and B-Line, running east-west from Eastgate Square to McMaster University. The Canadian Urban Institute has already studied the investment opportunities available to Hamilton to regenerate its economy in a report called *Building Momentum*, presented to the city in early 2010.[1] *Building Momentum* connected the city's vision to an investment strategy that included light rail transit. This report offers a detailed study of the potential value to the city of B-Line achieved through the development of public properties and a selection of key private properties.

How is value estimated?

Each of the 16 proposed stations along the 14-kilometre route of the B-Line was assigned to one of three categories: City Core, Inner Suburb, and Outer Suburb. Case studies of Portland, Dallas, and Minneapolis provided information on the types of development likely to occur in each type of area then adjustments were made to take account of differences between the U.S. and Ontario markets.

[1] Building Momentum (2010) is available for download at http://www.canurb.org/publications.

Four stations were considered to be within the City Core, eight were in Inner Suburban neighbourhoods, and four were in the Outer Suburbs.

The process of estimating uplift involved identifying vacant or underused parcels of land within 400 metres of the line that would likely be redeveloped. The researchers studied all publicly owned land for its redevelopment potential. Private land that was vacant or underused (for example, serving as a parking lot) was also considered in the analysis.

For each parcel, the researchers determined its current assessment. They also checked zoning bylaws and the official plan, as well as any current or pending development applications, to see what kinds of uses and what size of buildings would be permitted or appropriate on each parcel.

Once they had determined what could be built on each parcel, the researchers identified buildings with a similar use and of a similar size elsewhere in the city that could be used as a comparison in terms of future development potential and likely new assessment. In all, 40 "prototypes" of typical Hamilton buildings were identified, and information on their size, built floor area, assessment, estimated improvement value, estimated land value, uses, and property value class was gathered.

The next step involved in calculating how the revenues generated that would be achieved if a building of the allowed size and use, similar to the prototype buildings found elsewhere in the city, were to be built on the vacant or underused parcel. The revenues include building permit fees, development charges, and property taxes based on the increased value of the developed property. This process was repeated for all the parcels identified as potentially available for development. The model applied projects growth assuming existing development charge exceptions are discontinued.

The analysis also included calculating an "LRT Premium," which represents the additional value of all property that is within 400 metres of an LRT line because of its increased accessibility relative to a property elsewhere in the city.

In order to ensure that the projections were realistic, the researchers took into account conditions in Hamilton, which included population and employment projections, real estate and housing markets, and other economic trends. Within this context, the researchers were able to project potential development along the B-Line for two situations: "Without LRT" (business-as-usual) and "With LRT."

How would the B-Line benefit the City of Hamilton?

The researchers identified which of the properties along the length of the B-Line that had development potential. They also held a workshop with city staff to canvas opinion on the likelihood and timing of development around the 16 stations. Each station was assigned a development potential (low to high) and a likely timeframe for development (between 5 and 15 years).

The analysis of development potential on the identified properties found that without an LRT line, 32 development projects were likely along the east-west corridor. With an LRT line, the development

potential was three times as high: 108 projects. About 60% of these developments would be residential buildings and 40% non-residential (office, retail, or hotel), given current market conditions in Hamilton.

The resulting development projections for the area over the coming 15 years are about 195,000 m^2 (2.1 million sq.ft.) of development "Without LRT" vs. about 530,000m^2 (5.7 million sq.ft.) of development "With LRT." The difference, 335,000 m^2 (3.6 million sq. ft.), is attributable to the public investment in LRT.

Approximately a third of the developments in the "With LRT" analysis were projected to occur on public lands in the B-Line corridor, including on some parcels that are not currently vacant, since the city would have considerable incentive to relocate some uses in order to make way for more intensive development of these lands.

The effects of development on taxable assessment would be considerable provided that appropriate attention is paid to encouraging high quality design and investing in the quality of public realm along the LRT corridor at the time of construction. The additional development that would occur with an LRT line (as opposed to business-as-usual) would represent $22.4 million in tax benefits and $30.2 million in development charges and building permit fees over 15 years.

To these amounts can be added an "LRT Value Premium" that represents the additional value of all properties located close to a transit line. Research has shown that properties along a transit line have lower vacancy rates, higher rents, and higher property sale prices. Together, these factors increase the property's value. The "LRT Value Premium" for this study was calculated at 4% for buildings within a block of the line, and 2% for those farther away from the line but still within a five-minute walk of a station. The additional tax benefit generated in this way has been calculated at $29 million.

The total of these amounts, $81.6 million, represents an estimate of the financial benefits of B-Line to the City of Hamilton (See Table 1).

Table 1 - Estimate of the financial benefits of the B-Line

Source of additional tax benefit for Hamilton	Amount over 15 years
Tax benefit from new development stimulated by the LRT on evaluated vacant and underused parcels	$22.4 million
Building permit fees and development charges for this new development	$30.2 million
"LRT value premium" – tax benefit resulting from higher taxable assessment caused by higher rents and property prices and lower vacancy rates in the LRT corridor	$29.0 million
Total	$81.6 million

*Note: Revenue figures do not include potential revenues from land sales of city properties.

Next steps

The construction of an east-west LRT line is a foundational infrastructure project that has the potential to stimulate private-sector investment and boost economic revitalization in Hamilton. The study concludes with recommendations for action to help the City realize this potential.

1. *Review current CIP boundaries along the corridor and re-evaluate CIP programs.*

This action would allow the City to use loan and grant programs (such as Tax Increment Equivalent Grants) within a defined area, implement a revolving urban regeneration fund and other similar tools listed below.

2. *Establish an arm's-length urban development corporation with a city-wide mandate.*

A development corporation can help the City develop municipal assets and administer the sale and leasing of sites. This will help to further expedite private-sector investment along the corridor.

3. *Consider establishing an urban development bank.*

An urban development bank can help manage the sale or redevelopment of civic assets that have proven difficult to sell, are off the market, are unlikely to achieve reasonable sales price in their current condition, or that would benefit from creative public-private development partnerships.

4. *Evaluate the potential for a regeneration investment fund.*

The purpose of this revolving fund would be to balance increases in tax revenues with supplementary investment to maintain momentum during redevelopment.

5. *Carry out an expanded value uplift and capture study for the A-Line and other complementary public-sector investments that will support the B-Line initiative.*

Building Momentum did not contain parcel-by-parcel analysis of sites along the A-Line corridor; this analysis would provide a full picture of the benefits of two intersecting rapid transit lines for the City, as well as the contribution of other foundation infrastructure investments by the City.

6. *Consider applying a Tax Increment Financing framework to help finance the municipal portion of the capital costs of LRT where necessary for both lines, and for other foundational projects.*

Tax increment financing (TIF) uses the increase in property tax revenues generated through redevelopment to pay for the infrastructure costs associated with redevelopment. Increments of taxes resulting from higher property assessments are reserved to finance the infrastructure improvement. Although this financing mechanism is new in Canada, it has the potential to maintain momentum in redevelopment along the transit line.

Preface

In 2009-2010 the Canadian Urban Institute (CUI) worked with its partners at Infrastructure Ontario and the City of Hamilton to produce a report titled *Building Momentum: Made in Hamilton Infrastructure Solutions.* The purpose of the report was to assemble, in a single document, a long-term integrated investment strategy to reinvigorate private investment in the City. During an extensive stakeholder engagement process that took place throughout 2009, 25 foundational projects and six guiding principles for public investment were identified. Of those projects, the creation of a light rail transit (LRT) line had strong support in the community and offered excellent potential for economic regeneration in the centre of the city. *Building Momentum* included an A-Line Value Uplift Analysis– that is, an analysis of the additional investment and development that could be expected to occur along the route, and its potential value to the city.

This study is a continuation of the Building Momentum work and focuses on determining the potential of the east-west (B-Line) LRT to accelerate development along the corridor and advance the city's investment strategy.

I. Applying the Value Planning Framework to the Hamilton B-Line

(a) Introduction: From BRT-Lite to LRT

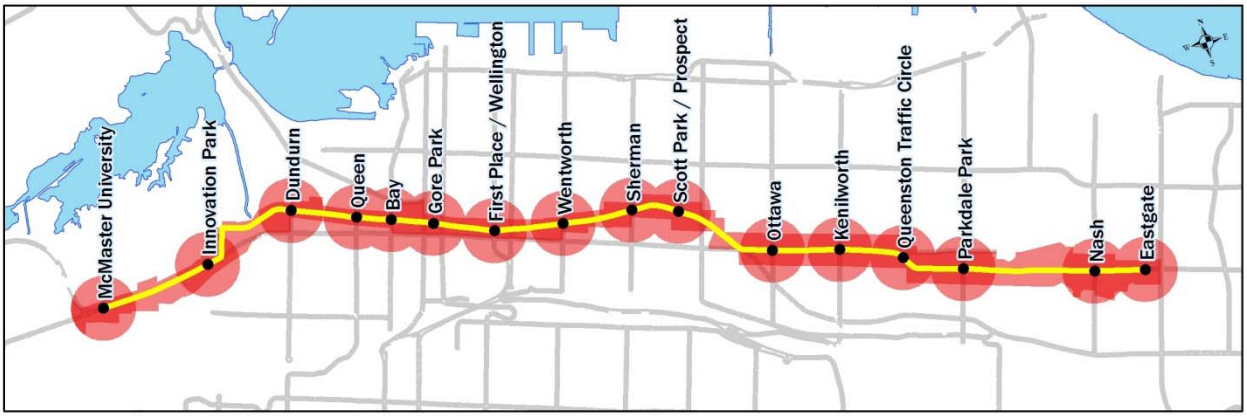
The City of Hamilton retained the CUI to prepare a value uplift and capture analysis of the B-Line Light Rail Transit (LRT) corridor to help provide an economic rationale for investing in light rail. This study, which initially focused on the development potential of public lands along the corridor, was then expanded to examine private parcels where development could likely occur.

Since the 1980s the City of Hamilton has operated Bus Rapid Transit "Lite" (BRT-Lite) service along its primary cross-city route from University Plaza in the west to Eastgate Square in the east. The corridor passes through different types of urban form, including recent suburban development (primarily in the east end), established inner suburbs, and the downtown core of the city. The BRT-Lite service on the B-Line is among the most well-used transit routes in the City of Hamilton and, because of the many neighbourhoods it traverses, as well as its proximity to existing GO rail service, the downtown, and the university, it is currently considered one of the prime candidate-routes for LRT investment in the Greater Toronto and Hamilton Area (GTHA). See Figure 1 for a map of the corridor and study area.

Metrolinx, the Ministry of Transportation's transit planning agency, is among a growing group of agencies and organizations that have identified Hamilton as a potential market for higher-order transit (either BRT or LRT). In February 2010, Metrolinx released a Rapid Transit Benefits Case

Analysis (BCA) presenting three construction scenarios (Full LRT, Phased LRT, and Full BRT). The BCA examined a range of impacts on the community including financial, economic development, environmental and social.

Figure 1- Context Map Showing Study Area for this LRT Value Uplift Study



Building on the Metrolinx report, this study provides a fine-grained analysis of the value uplift potential of the B-Line corridor, offers insights into how quality of place and transit work together to drive economic development, and suggests approaches to capture that potential increase in value. Our method uses a development projection process that has involved continuous feedback from municipal staff through meetings and a workshop, best practice case studies, locally based development examples, and a set of "corridor control totals" which, together, ensure that projections are realistic in that they advance the vision of the City within the capacities of the property market to respond.

(b) Study Goals and Objectives

The goals and objectives of this study are to:

- provide the City of Hamilton with an economic rationale to pursue the B-Line LRT initiative based on a tested approach to conducting development projections;
- demonstrate the potential revenue streams for the city associated with that development projection;
- show, through the use of analogues, how public realm and transportation infrastructure can, together, have a positive impact on development and municipal ROI;
- assemble a set of best-practice case studies ("analogues") to demonstrate the impacts of LRT on land economics and economic development;
- identify public lands that could play a substantial long-term role in promoting higher-density development, improved infrastructure efficiencies, economic growth and revenue-generating capacity along the B-Line corridor; and,
- identify key parcels of private land (vacant or underused) that would likely contribute to the long-term return on public investment.

(c) Building Momentum: Made in Hamilton Infrastructure Solutions

Throughout 2009, the City of Hamilton, Infrastructure Ontario and the CUI partnered to conduct the first phases of the value planning process. The findings of that process were released publicly in February, 2010, in a CUI report titled *Building Momentum: Made in Hamilton Infrastructure Solutions*. The *Momentum* study proposes an integrated public investment strategy for the City of Hamilton, and highlighted LRT projects on the A and B lines as "foundational projects" –projects that when combined with other projects have the ability to drive substantial private-sector investment.

With regard to the B-Line LRT initiative, this study picks up where *Momentum* left off: how much private investment is likely along the B-Line, and what types of private investment are likely to be triggered? The City has identified a preferred alignment and development priority for the A-Line (James/Upper James Streets) and B-Lines (along Main Street, King Street, and Queenston Road).[2] The uplift and financing strategy contained in this report focus exclusively on the B-Line alignment.

(d) The Role of Value Planning in the Planning and Investment Process

Value Planning is a way to estimate and evaluate the potential returns on public-sector investments.CUI has found that transit and other infrastructure investments need to be structured to take into account a range of market factors that drive quality of place, boost economic development, and attract creative talent.

The CUI uses Value Planning to help municipalities build their tax base through strategic investment decisions led by both the public and private sectors. Value planning helps align public investment dollars with improvements in community design to increase the return on that investment. Our perspective is that public investments should drive private investments to build the tax base rather than adding to a city's tax burden.

The CUI uses a five-step approach:

- **Vision:** CUI works with communities to identify or refine a vision for the future that can be used to identify critical public sector investment opportunities.
- **Public Investment Strategy:** CUI identifies key foundational public investments (such as LRT) that are aligned with the community vision.
- **Engagement / Development Scheme:** CUI works with landowners to determine the configuration of foundational public investments that would have the largest impact on private investment in a community. (This is the stage at which the place-making capacity of a public investment is maximized to leverage private-sector investments.)

[2] A workshop with a multidisciplinary group of municipal staff was held to evaluate the development projection approach. The development community was not engaged during the course of this study, as the final alignment decision for the LRT was not yet finalized.

- **Uplift:** CUI applies its comprehensive value uplift model to determine the impact of the development scheme on the tax base, and seeks to calculate other sources of revenue the city could expect to receive as a result of private investment.
- **Financing Strategy:** Based on the results of the uplift modeling, the CUI works with the municipality to identify how the projected revenue can be harnessed to fund or better leverage public infrastructure investments.

While the *Building Momentum: Made in Hamilton Infrastructure Solutions* Report (2010) focused on the first three stages of this process, the last two are the focus of this present study in regard to the B-Line LRT corridor.

(e) Structure of this Report

This report is structured to provide insights into each of the study goals and objectives as well as the following primary research questions. First, we provide insight into the impacts of LRT investments on development in other communities from around North America. Second, we summarize our development projection approach. This section includes an explanation of the corridor control totals used to calibrate the projections. Third, we present a corridor-level analysis that offers a summary of the development projection findings (including "without LRT" and "with LRT" scenarios).This analysis is followed by a station-by-station description of the findings. The report concludes with a summary of potential revenues generated as a result of an LRT investment on the B-Line, and an investment recapture plan.

II. LRT As A Catalyst For Private Investment

(a) LRT as a Driver of Value Uplift

It has long been understood that LRT lines increase the demand for land near the line and foster development as a result of increased accessibility between places of employment, homes, shopping, recreation and inter-regional transportation networks. Higher-order transit has the potential to enhance the value of land and lead to economic development along the transit corridor.

The literature shows that land values (reflected in property taxes, office and retail rents, and housing prices) generally increase within an "influence area" around each transit station. The definitions of influence area differ from study to study, but it is accepted that properties with visibility from the transit line, as well as those within a reasonable walking distance (typically considered to be a 5-minute walk, or about 400 metres from stations), experience the greatest increase land value.[3] The

[3] The five-minute walk (400-metre) "influence area" is the standard radius of influence used by many municipalities as well as organizations such as the Canadian Urban Institute and Reconnecting America for fixed rail rapid transit projects.

Urban Land Institute has found that premiums are especially high for commercial land compared with residential land, and that "conservative estimates indicate a stabilized 10-20% value premium to real estate located with easy access to the station."[4]

Estimates of the degree to which LRT affects land value and development vary greatly between studies. Most studies examining the impact of higher-order transit on land development tend to be anecdotal and no consistent framework has emerged to report these impacts. In short, there is no single benchmark against which to evaluate the Hamilton B-Line.

Despite the lack of a common framework, the literature suggests a number of key factors that affect value and return on public expenditures. These factors include:

- **Type of Transit System:** Heavy rail or light rail will generally bring about greater premiums, because these systems guarantee service over the long term relative to Bus Rapid Transit systems, which can be re-routed or cancelled with limited asset loss (to the transportation authority). Additionally, consumers place greater value on rail investments, as they perceive it to provide a higher quality and more frequent service, which can also lead to higher premiums.

- **Local Economic Conditions:** Cities with healthy economies and vibrant downtown cores offer more development opportunities than cities with stagnant economies. At the same time, cities with many vacant properties on or near the corridor can experience substantial increases in taxable assessment, as those parcels become developed over time.

- **Visionary Governance:** Transit development can only reach its full potential if other important conditions are in place to support and encourage private-sector investment and attract the desired land uses. Local governments play a significant role in promoting transit-and pedestrian-supportive development through comprehensive planning policies, zoning provisions, reduced parking requirements (and maximum parking standards), protection for future high-density employment sites, design guidelines, and policies that encourage a mix of uses that support the transit investment. Risk-embracing leadership, coupled with good information and analysis, plays a large part in creating a successful system.

- **Integration of Transport and a Mix of Land Uses:** The most successful examples of transit-related development have occurred where transit design and land use and urban design have been integrated. Mixed-use projects are the most desirable forms of investment in Transit-Oriented Development and have also attracted private-sector investment in transit station locations. Transit does not necessarily create new growth, as much as it redistributes growth in a more compact and sustainable pattern.

What this means is that the development of LRT alone will not provide a uniform return on investment nor a consistent development response along the corridor. This is evident in the substantial variation of experiences and economic benefits generated by transit investment, both across cities and within cities.

[4] The Urban Land Institute (2001) *Light-Rail Transit – Phoenix, Arizona: Economic Development along the Planned Light Rail Line.*

The summary table below draws together findings from four U.S. cities for which information is available on the economic impacts of LRT. Given that there is no single framework for undertaking such studies, results are not consistently presented. Results were reported either in U.S. dollar values or in percentage terms. The study areas vary, and the researchers examined different land uses and tenure options. This information is useful, however, in that it shows a clear connection between investment in LRT and property values in several North American cities.

Table 2 - Summary Table - North American Transit Investment Impacts

City	Impacts on Land Use and Property Valuations
Dallas	▪ Property values were 25% greater in the DART corridor between 1994 and 1998 than in other areas of the city. An update of this study in 2002 found that the LRT continued to exert a positive influence on property values, with the median values of residential properties being 12.6% greater near the DART rail stations and 13.2% greater for office buildings.[5] ▪ Hack (2002) found property values near the LRT were at least 25% higher than in other areas of the city.[6]
Portland	▪ A 10.6% premium in the value of residential property was found for homes within 500m of the LRT.[7]
Santa Clara	▪ A $0.81/m^2 ($8.73/ sq.ft.) sales premium was found for commercial properties located within a quarter-mile of the LRT, while a $0.45/m^2 ($4.87. sq.ft.) premium was found for commercial properties located a quarter- to a half-mile from the LRT. The analysis suggested that premiums can extend up to three-quarters of a mile from a station before they disappear.[8]
San Diego	▪ A city wide study found a $25.27/m^2 ($272/sq.ft.) premium for every 100m closer a dwelling was to an LRT station. This study found limited impact on commercial property.[9]

[5] Bernard L. Weinstein and Terry L. Clower (2005) *The Estimated Value of New Investment Adjacent to DART LRT Stations: 1999-2005.* University of North Texas, Denton.
[6] Hack, J. (2002) *The Role of Transit Investment in Urban Regeneration and Spatial Development: a Review of Research and Current Practice.* CIP Annual conference (Canada)
[7] Primary Source: Parsons Brinkerhoff (2001) *The Effect of Rail Transit on Property Values: A Summary of Studies.* Study prepared for NEORailII, Cleveland, Ohio
Secondary Source: Al-Mosaind, Musaad A., Kenneth J. Dueker, and James G. Strathman (1993) *Light Rail Transit Stations and Property Values: A Hedonic Price Approach.* Portland, OR: Center for Urban Studies. Preprint, Transportation Research Board, 72nd Annual Meeting.
[8] Primary Source: ATIS REAL Weatheralls, University College London and Symonds Group (2002) *Land Value and Public Transport, Stage 1 – Summary of Findings.* Study prepared for the Office of the Deputy Prime Minister *(England)* and RICS Policy Unit.
Secondary Source: Weinberger, R (2001) *Light Rail Proximity: Benefit or Detriment?: The Case of Santa Clara County California.* Presented at Transportation Research Board 80th Annual Meeting, Washington, D.C. January 7-11.
[9] Primary Source: Parsons Brinkerhoff (2001) *The Effect of Rail Transit on Property Values: A Summary of Studies.* Study prepared for NEORailII, Cleveland, Ohio.
Secondary Source: Landis, John, Robert Cervero, Subhrajit Guhathukurta, David Loutzenheiser, and Ming Zhang (1995) *Rail Transit Investments, Real Estate Values, and Land Use Change: A Comparative Analysis of Five California Rail Transit systems.* Monograph 48, Institute of Urban and Regional Studies, University of California at Berkeley.

(b) LRT as a Driver of Intensification

LRT is often considered to be a fundamental element in the successful redevelopment of North American downtowns. The LRT is often perceived as being capable of bringing people back to the city core to live, work, and socialize. When this happens, private investment often follows public investment, often taking the form of the adaptation and repurposing of heritage buildings and new infill development for mixed use, commercial or residential purposes.

In a suburban environment, LRT can have even more dramatic impacts, with private investors being attracted to mixed-uses nodes along the LRT corridors. The most successful of these new mixed-use developments have been those that have created a critical mass of activity that brings different types of people and jobs to the station area at different times of day. These land uses and increased levels of activity have successfully stimulated private investment and strengthened urban regions, in addition to the downtown core.

Overall, although LRT investments are not the sole cause of urban rejuvenation and new development around North America, they have been one driver in the process. Coupling LRT with other foundational investments within a community can demonstrate change in the local economy to investors from outside the community, and improve the quality of life while lowering the cost of living for those inside the community.

III. LRT and Office Employment in Hamilton

There is a relationship between LRT investment and office development. We have projected new office space in the City of Hamilton's B-Line corridor both "With LRT" and "Without LRT." Our market analysis was based on available studies that have not examined the potential impact of a clustering of key foundational projects in repositioning Hamilton's role in the regional economy. The current employment statistics for Hamilton do not adequately reflect the conditions experienced by the downtown office employment sector, in part because Statistics Canada does not collect and report data in a way that allows for the type of benchmarking that will be presented in this section.

(a) Background and Context

Past office development in the City of Hamilton has been linked to the steel industry, regional finance, government, and those who provide financial and professional services to those industries. Steady but non-spectacular growth in the downtown office market has occurred over the last 40 years (data is not available for periods before that). However, Hamilton's office market has also been characterized by highly volatile vacancy rates. Four events occurred since 1980 that have created higher than acceptable vacancy rates in the City:

- the 1983 completion of 120 King Street;
- the 1990 move of Stelco offices to the plant site;
- the 1990 completion of the Commerce Place Phase 2 Project;
- the 2002 completion of the Federal Building.

After each of these events, however, the excess office space created was eventually absorbed and growth occurred steadily at a pace of between 2% and 3% per year. In other words, by separating the discussion about growth in occupancy from that of vacancy, we can see that Hamilton has been experiencing slow growth in its office sector for some time.

To accelerate the growth in occupancy, and to reduce the vacancy rate, the City of Hamilton has also implemented a number of programs through its Downtown Renewal branch of Planning & Economic Development, including initiatives such as commercial property improvement grants and the innovative office tenancy assistance program (OTAP).

(b) LRT and the Office Market

The transformation of the built form in Hamilton resulting from the creation of an LRT, and the likely introduction of two-way, all-day GO Transit rail service between Hamilton and Oshawa will change the image of Hamilton and demonstrate the value of locating in Hamilton's downtown to the market outside the city.

The following principles have been gleaned from the past performance of Hamilton's office sector and that of the larger region:

- If little or nothing changes in the way of new construction or significant moves by major companies into or out of Hamilton, the office sector in the central part of the city can reasonably be expected to grow by 2% to 3% a year.
- The development industry has changed from a risk-taking entrepreneurial industry to a more managed institutional business, which relies heavily on prior commitments from tenants before undertaking any significant new construction.
- For the last 10 years, the office growth rates in Burlington, Oakville, Mississauga, and Toronto have been higher than the office growth rate in Hamilton.

(c) Current Office Employment Conditions

Unless the private-sector growth pattern is disrupted by a transformative event, the current vacancy rate of 15% (as reported in the December 2009 *City of Hamilton Office Study*) will likely diminish relatively slowly despite the low cost of space for two reasons: the age and quality of existing buildings; and the slow, natural growth of existing tenants. Vacancy rates may take at least five years to reach a normative level of 7.5%. In other words, assuming LRT service begins operating in five years, vacancy is forecast to have dropped to an acceptably level.

Regional demand for office space has been strong, but not in Hamilton's downtown. Burlington, for example, grew from 167,225 m^2 (1.8 million sq.ft.) of office space in 1990 to over 372,000 m^2 (4 million sq.ft.) by 2010, while Hamilton has seen no new real growth in occupied space. Burlington's

growth has been in the form of low-density office campuses, largely oriented to the Queen Elizabeth Way. Research by Real Estate Search Corporation for this study suggests that the only way for downtown Hamilton to compete against this kind of affordable suburban development is to build amenities, such as LRT and other key foundational projects, and offer an urban form that will attract new office tenants.

Revitalizing the core so that it is perceived to be a better environment in which to do business and so that it will attract creative talent by offering a high quality of life at relatively low cost of living is how Hamilton can compete with suburban office markets. The construction of the B-Line, especially if coupled with other foundational projects (such as all day two-way transit service, A-Line LRT investment, public realm improvements, etc) to generate additional growth momentum in Hamilton, will likely result in current office vacancy being taken up faster than currently projected in the corridor control totals portion of this study.

(d) LRT and Positioning Hamilton's Office Market

Positioning Hamilton within the Greater Golden Horseshoe market is important, and getting the message out about its competitive advantage to potential investors will require foundational public investments in infrastructure, such as an LRT. But Hamilton already has a number of features that it could use to differentiate itself from its office-park-dominated neighbouring municipalities.

Hamilton scores well on three of the main drivers that support office development: clustering of services, economic factors (competitive lease rates, operating costs, taxes, time to deliver construction, construction costs), and amenities (access to services, good-quality housing, recreational opportunities, etc.). The LRT will contribute to these drivers by enhancing mobility and making amenities more accessible through the redesign of the streetscape to accommodate LRT in the downtown. Until such time as LRT is constructed, however, programs like OTAP will play an important role in attracting tenants to Hamilton.

(e) Likely Impact on the Office Market

The projections used in this value uplift study assume that a normalized vacancy rate of 7.5% will be achieved through conventional growth between now and the completion of the line. Once the line is constructed, it is reasonable to assume that approximately 23,225 m^2 (250,000 sq.ft.), or 5% of the market could be built to accommodate new demand stimulated by investment in the LRT and new street-level amenities in the downtown. This demand would likely be further stimulated by investments in other foundational projects and additional north-south transit connections.

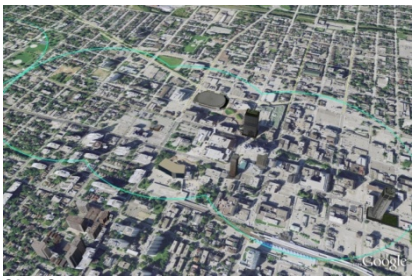
If the office growth rate increases, as much as 46,451m^2 (500,000 sq.ft.) of office space could be added in each time period (5 years, 10 years and 15 years), much more than the amount projected in the conservative numbers used in this study.

IV. Analogues: Case Studies of Comparable Communities

(a) A Typology of Station Areas

Each station area along the corridor will respond differently to an LRT investment. The CUI has therefore organized its analysis of likely development responses (form and intensity) by classifying the 16 new LRT station locations into three "typologies" based on location:

- City Core: these stations are within or near the central business district, where the built form consists of highly urban and dense grid street patterns, heritage buildings, historic main streets and a variety of uses.
- Inner Suburb: these stations are located in Hamilton's established neighbourhoods, many of which are served by transit and exhibit pre-war style urban development patterns that were impacted by the original streetcar.
- Outer Suburb: these stations are in primarily auto-dominated areas in which the built form consists of strip plazas, shopping malls, and postwar housing.


City Core


Inner Suburb


Outer Suburb

To underpin and guide the Hamilton development projections, we selected analogues from three similar communities –*communities that had previously faced conditions similar to those currently existing in Hamilton* and where property value uplift was achieved through the creation of LRT. The analogues were sorted to fit each of the station typologies.

The examples offered through each of the analogue case studies were used to inform the development projections established as the basis of the uplift evaluation. These analogues also serve as examples for decision makers, planners, and the Hamilton community of what is achievable through well-planned transit investment.

(b) Relating Analogues to Hamilton

The analogues selected for this study represent each of the three station types listed above. Moreover, they have been drawn from cities with an industrial heritage similar to Hamilton's that faced conditions similar to those currently existing in Hamilton and that had similar goals for LRT investment (i.e., revitalization of downtown, employment growth, sustainable urban form, etc.).

These analogues were also drawn from cities with comparative populations, population density, built form, scale, and structure to that of Hamilton. These analogues provide context for understanding the likely development responses that would occur in Hamilton around specific stations as a result of investment in light rail facilities. It is important to note that while examining analogue cities, the entire corridor was examined for similarities with Hamilton's proposed system, however, only stations that most resembled specific stations in Hamilton were subject to further analysis. Although both Canadian and U.S cities were examined in the analysis, the station-specific analogues presented in this report are drawn from three U.S cities:

- Portland, Oregon (the MAX LRT);
- Dallas, Texas (DART);
- Minneapolis, Minnesota (the Hiawatha Line).

For each of these station specific analogues, we have prepared the following analysis:

- **Overview of Transit System:** Describes the LRT system and the types of property uplift it has created around the specific stations for these analogue cities.
- **Station Specific Analogue – Hamilton Context:** Explains how this analogue can be applied to the Hamilton context.
- **Station Features – Before LRT:** Describes the physical characteristics and land uses before the development of LRT.
- **Station Features – After LRT:** Describes the physical characteristics and land uses after the development of LRT.
- **Development Highlights:** Provides a list of the developments that have occurred within 400 metres of the analogue stations. This analysis allows for greater understanding of the development response likely to be induced by LRT investment, including the mix of land uses, the size of developments the level of investment and the sequence of development.
- **Characteristics of New Development:** Analyses the development response around the station-specific analogue.

Overall, the analogues provide context for forecasting the likely development response (built form, building types, and mix of land uses) from LRT investment in Hamilton. While in some cases the analogue cities may have experienced overall economic performance stronger than Hamilton in the recent past, the scale and intensity of development around the station-specific analogues is considered by CUI to be achievable in Hamilton. The analogues also provide best-practice examples and demonstrate how public investments in LRT can contribute to economic growth, a stronger and more diverse economy, revitalization of downtown cores, and the creation of more efficient and sustainable urban development.

Analogue 1a: Pioneer Court House, Portland, Oregon

Overview: The MAX - LRT

Portland provides an excellent example of downtown regeneration around LRT stations. The MAX has demonstrated that light rail linked with land use planning can have a dramatic impact on shaping regional growth. Since opening in 1982, over $1.3 billion worth of development (or over 929,000m^2 or 10 million sq.ft.) has been completed or is under construction, immediately adjacent to the MAX

line. Additionally, plans have been announced for another $440 million worth of additional improvements along the MAX line.[10] The initial MAX line was 15 miles, with an additional 18 miles completed in 1998. Regional council has recently approved another 21 miles of track to be constructed.

Prior to construction on the MAX, every station area along the corridor had been rezoned to help stimulate related development around the stations. New higher density zoning was established around outer suburban stations. Additionally, in an attempt to stimulate private sector development, developable land was consolidated under single ownerships, multiple public and private partnerships were pursued and station locations were located in places with the greatest development potential.

Station Typology: City Core

Pioneer Court House Square Station provides a best-practice example of downtown revitalization through the coordinated development of an LRT system and a large public square. This analogue is most relevant to Gore Park Station, due to the proposal to redevelop John and Rebecca Street Park(currently city-owned surface parking lot bound by John St. N, Hughson St. N, Rebecca St, and Wilson St) into a new civic space for downtown Hamilton.

Station Features - Before LRT

- Between 1951- 84, the site of Pioneer Court House Square was a two-storey parking garage. Before 1951, the site contained the Portland Hotel (see photograph, right).
- The precinct contained a mix of retailing and office activity, with minimal residential development.
- The 400-metre area surrounding the station contained many historic buildings that were in a state of decline.
- The area is developed on a gridded street network.

Portland Hotel, demolished in 1951 to make way for a car park

Station Features - After LRT

- Pioneer Court House Square was completed in 1984. This large city park has become the 'heart' of downtown Portland and hosts a diverse range of civic events (see photograph, right).

[10] Arrington. G. B. 1996. *Beyond the Field of Dreams: Light Rail Growth Management in Downtown Portland.* Trimet Portland

- The heritage buildings in the precinct have undergone substantial revitalization and adaptation to meet increasing retail, office and residential needs into the downtown.
- New infill development has been constructed, which complements the size and scale of existing heritage buildings and contains a mix of land uses.

Pioneer Court House Square during free public concert

Development Highlights

Pioneer Courthouse Square was completed in 1984.It was an $8 million public project that delivered a public square over an entire city block, including a 6,300 m^2 (68,000 sq.ft.), plaza and retail facilities.

Pioneer Place was a $180 million project completed in 1988.The project delivered an office and retail complex extending over three city blocks 90,000 m^2 (970,000 sq.ft.).

American Bank Building (formerly known as the Northwestern Bank Building) was a $3.75 million project, involving the rehabilitation of a heritage building to provide 15,200 m^2 (164,000 sq.ft.) of office space. The development was completed in 1986.

Pacific First Federal was a $22 million project that involved the renovation of a heritage building and new additions. It provided 29,500 m^2 (317,000 sq.ft.) of office space and opened in 1980.

Centennial Block was renovated in both 1985 and 1994, at a cost of $4 million and $2 million, respectively. It includes 1,100 m^2 (12,000 sq.ft.) of retail and 3,000 m^2 (32,000 sq.ft.) of office space.

Directors Furniture Building was a $5.6 million renovation that includes 8,400 m^2 (90,000 sq.ft.) of office and retail space.

Caplan's Sporting Goods was a $0.5 million renovation completed in 1986, which provides 2,100 m^2 (23,000 sq.ft.) of retail space.

Nordstrom was an $8 million project to remodel a department store and create a residential addition in 1989.

Zell Bros. Jewelers was a $1 million renovation undertaken in 1986.It provided 1,400 m^2 (14,760 sq.ft.) of retail space.

Characteristics of New Developments

The Pioneer Courthouse Square Station has been the focus of significant public investment ($8 million), and it is widely considered that the redevelopment of this precinct marked the beginning of a more vibrant downtown in Portland. The coordinated growth of the Square and the addition of the MAX and a public bus service are seen as the cornerstones to the success of this project.

Private investment quickly followed the public investment around Pioneer Courthouse Square; all within five years of the LRT's opening. This private investment largely involved renovating, upgrading, and repurposing heritage buildings, in addition to new modern infill development to accommodate the growing mix of uses in the core.

New development respected the form, scale and character of the city's heritage buildings. Development also included ground-level retail space. This development has contributed to vibrant streets and the creation of a pedestrian-oriented environment in downtown Portland.

Analogue 1b: 3rd Avenue, Portland, Oregon

Station Typology: City Core

3rd Avenue Station in downtown Portland provides a best-practice example of the revitalization of an aging and historic downtown core. This station-specific analogue demonstrates how public investment in LRT can stimulate private office and commercial development in the city core.

3rd Avenue Station, Transit Mall, Portland.

The 3rd Avenue Station is representative of Queen Station, Bay Station, Gore Park and First Place in Hamilton.

Station Features - Before LRT

The 3rd Avenue station precinct was part of Portland's historic downtown core and was in a state of decline. The 400-metre area surrounding the station contained large amounts of surface parking, deteriorating heritage buildings, vacant lots, and few pedestrians used the area.

Station Features –After LRT

The 3rd Avenue Station precinct successfully attracted development following the introduction of the LRT. Surface car parking lots were reduced through decreased parking ratios and more attractive streets were created through public streetscape improvements and landscaping. In downtown, the closer the office building is to the MAX, the less parking they are allowed (typically .8 spaces per 1000 square feet).[11]The restoration of several heritage buildings also improved the overall image and amenity of the area. This public and private investment brought many people back to the downtown to live, work, and shop, further contributing to the vibrancy of the downtown core.

Development Highlights

The Dayton Building experienced a $3.3 million rehabilitation, completed in 1983.This provided an additional 3,000 m^2 (31,800 sq.ft.) of office space.

The Morton Cole & Weber Building underwent a $2.2 million rehabilitation in 1984.It provided 1,900 m^2 (20,500 sq.ft.) of office space.

The Paulson Capital Building was a $6.3 million office building constructed in 1984 that provided 5,600 m^2 (60,000 sq.ft.) of office space.

The Bank of America Center was constructed for $42 million; it provided an additional 32,500 m^2 (350,000 sq.ft.) of office space.

The Thomas Mann Building involved a $2.2 million renovation and addition in 1981.It provides 1,700 m^2 (18,000 sq.ft.) of retail, office and residential space.

The Willamette Block underwent an $81 million renovation in 1983 that included the addition of four floors of new office space 2,200 m^2 (24,000 sq.ft.) and retail space 750 m^2 (8,000 sq.ft.).

Yamhill Marketplace underwent a $7 million renovation in 1982, adding 7,200 m^2 (77, 000 sq.ft.) of retail floor area.

Pioneer Place Mall was opened in 1990 and provided 7,200 m^2 (77, 000 sq.ft.) of retail space.

Pioneer Place, Portland.

[11] Arrington. G. B. 1996. *Beyond the Field of Dreams: Light Rail Growth Management in Downtown Portland.* Trimet Portland

Characteristics of New Developments

Overall, the 3rd Avenue Station precinct has been very successful in attracting office development. Following the introduction of LRT, office space increased within many of its heritage buildings and several new office towers were built, ranging in size from 1,850 m^2 (20,000 sq.ft.) to 32,500 m^2 (350,000 sq.ft.) Along with office development, the LRT attracted new retail and commercial buildings. The combined office and retail development and the focus on downtown amenity improvements also sparked private residential condo development, further strengthening the mix of uses in this precinct.

Analogue 2: Minneapolis, Minnesota

Station Typology: Inner Suburb

Minnesota's first light-rail transit line, the Hiawatha Line, opened in 2004. The 12-mile line runs from downtown Minneapolis to Minneapolis-St. Paul International Airport and the Mall of America in Bloomington. The development response preceded the completion of LRT, with many new residential units constructed along the corridor (see Table 3). Real estate sales prices in the corridor (outside downtown) rose 83% between 2000 and 2004 versus 6.1% in Minneapolis as a whole.[12] The success of the Hiawatha line has increased public interest and support for rail projects in the region.

Table 3 - New Housing Development by Segment Near LRT Stations (2000-2009)

Station Area	Open	In Construction	Proposed	Total Units
Downtown Minneapolis	5,000	1,000	4,500	10,500
Neighbourhoods	1,450	0	2,250	3,700
Bloomington (Mall)	260	0	840	1,100
Total Corridor	**6,710**	**1,000**	**6,750**	**14,460**

Downtown East Station (Elliot Park), Minneapolis

The Downtown East station is a catalyst station for development and serves as a gateway to downtown Minneapolis. Elliot Park is a neighbourhood contained within the 400-metre radius of the Downtown East Station. It has been selected as an analogue, as it provides a best-practice example of the revitalization of a pre-war, inner suburban area, following the introduction of LRT.[13]

The urban fabric surrounding Downtown East Station in Minneapolis closely represents that of the proposed Wentworth, Sherman, Scott Park, Ottawa Street, Kenilworth, and Parkdale Park Stations in Hamilton, as these neighbourhoods exhibit pre-war patterns that are undergoing a period of economic redevelopment and rezoning to support an LRT system.

[12] Metropolitan Council (2009) Hiawatha Light-Rail Transit Fact Sheet , accessed at: http://www.metrocouncil.org/about/facts/HiawathaLRTFacts.pdf

[13] Elliot Park Neighborhood Master Plan (2002), accessed at: http://www.ci.minneapolis.mn.us/cped/elliot/1_view.pdf

Station Features - Before LRT

- Prior to the development of the LRT, the area contained several deteriorating mid- to high-density rental buildings, several obsolete commercial buildings, surface car parking, and vacant lots.
- Prior to construction of light rail, the Hiawatha corridor had been stagnant for some time, dominated by vacant or underutilized industrial land.
- The streets were laid out in a grid system. The development pattern of Elliot Park suggests that the neighbourhood grew with Minneapolis's historic streetcar network, therefore many features of transit-oriented design already existed in this community.

Station Features - After LRT

- The completed development has transformed the area into an inviting inner urban village offering affordable housing options for downtown employees, as it is highly accessible through public transit.
- The introduction of LRT spurred private investment in the revitalization and re-adaptation of heritage buildings. Infill development in the form of affordable and market rate residential has become a popular feature in Elliot Park.
- Improved transit has led to significant reduction in vacant and surface parking lots. Several parking lots were converted into underground structures.
- Office and institutional uses are clustered closest to the LRT stations; the residential neighbourhoods along primary transit corridors contain rental apartments, condos, and commercial uses.

Development Highlights

- A mid-rise mixed-use and mixed-income development added 180 rental housing units and 0.557418 m^2 (6,000 sq.ft.) of commercial space to an underutilized site.
- A mid-rise of 180 affordable and market-rate rental housing units was added, including studios and one-, two-, three-, and four-bedroom apartments and townhomes.
- Underground parking allows for a common landscaped greenway in the area (the parking includes 250 spaces for residents and 100 spaces reserved for a community centre).

Characteristics of New Developments

Overall, the typical development induced as a result of the LRT system has been mid-rise residential mixed-use and mixed-income developments, many with retail at grade to encourage pedestrian activity along the primary corridors. The objective was to reduce the number of vacant, underutilized and surface car parking lots with infill development that maintains the existing character of the neighbourhood, while ensuring accessibility and connectivity to transit.

As with many stations along the Hiawatha Line, Elliot Park has been identified as a transit-oriented development (TOD) project supported by the local municipality. Before the completion of the LRT system, Elliot Park was subject to a new master planning process, allowing for updated land use and zoning controls to support transit. This type of development reflects many of the principles of transit-oriented development in the way it offers a compact, vibrant community where residents are less dependent on the automobile and enjoy an improved quality of life.

Typical new development in Elliot Park

Analogue 3: Mockingbird Station, Dallas, Texas

Station Typology: Outer Suburb

The DART

Construction on the DART light rail system in Dallas, Texas began in the mid-1990s, and has had a transformative impact on Dallas and many of its surrounding suburbs. Since the introduction of the LRT, downtown Dallas has reported the return of high-tech companies and the revitalization of derelict heritage buildings for office and residential development.[14] It has also resulted in the emergence of many new transit-oriented developments along the length of line that have successfully evolved into compact, mixed-use urban settlements.

The LRT has had significant economic impacts and had an important role in stimulating the local economy. Investment along the line is in excess of $3.3 billion and land located in the corridor has appreciated at a greater rate than land elsewhere in the city.[15]

Mockingbird Station, Dallas

Mockingbird Station is a good example of a vibrant, compact node, with a high density and mix of land uses. The analogue presents a mid-rise and pedestrian-oriented built form, similar to that encouraged by Hamilton planning policy along the King and Main Street corridors.

[14] Dallas Morning News, 7/30/1999. *Upbeat in Downtown*
[15] Bernard L. Weinstein and Terry L. Clower (2005) *The Estimated Value of New Investment Adjacent to DART LRT Stations: 1999-2005.* University of North Texas, Denton.

This analogue also illustrates how an industrial and commercial district with a relatively depressed economy can be revitalized into a modern place to live and work. It is important to note that this redevelopment departed significantly from what existed in Dallas at the time, and provided a new mixed-use development model for the region to follow.

Mockingbird Station before and after Development of LRT

This analogue is most relevant to the outer suburban LRT stations, such as Queenston Traffic Circle, Nash, and Eastgate, where land parcels are larger and capable of accommodating substantial mixed-use developments around the LRT stations.

Station Features before LRT

- Low scale built form at 3 or 4 storeys.
- Many of the buildings around the station were derelict and abandoned.
- Many large surface car parks.
- Land was largely used for commercial, warehousing and manufacturing purposes.
- Automobile-oriented urban form.

Station Features after LRT

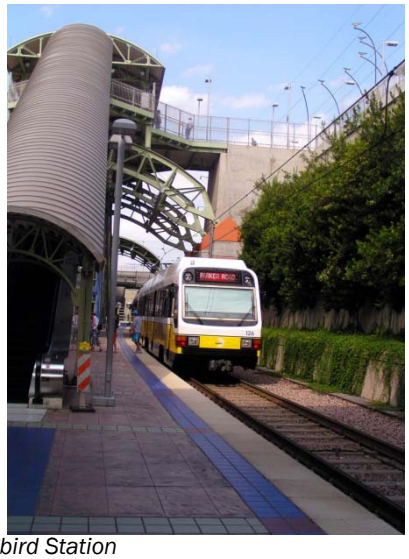
- Several buildings in the area were demolished, including the former Doctor Pepper warehouse building, a derelict hotel and the former Southwestern Bell warehouse.
- Two large mixed-use developments were accommodated in the station precinct.These developments included two mid-rise residentialbuildingswith retail at grade, a hotel and two small office towers.
- A large four-storey apartment building was developed on Mockingbird Lane.
- Student housing expanded near the LRT Station to support nearby Southern Methodist University.

Development Highlights

Mockingbird Station residential and retail development and Angelika Film Center and Café was a $110-million, mixed-use project started in 1999.The site now accommodates (see illustration, right):

- 14,000 m^2 (153,000 sq.ft.) of office space;
- 17,650 m^2 (190,000 sq.ft.) of retail shops (approx 90 shops, restaurants, Virgin Entertainment, and movie theatres);

- 211 luxury apartments;
- 1,580 parking spaces;
- A pedestrian bridge that connects the complex to the DART Station.



Development Highlights for Mockingbird Station

Source of Photos: Urban Metamorphosis, From Car-Oriented Suburbia to Transit-Supportive Urban Centres, Robert Cervero, University of California, Berkeley, accessed (16.03.10) at http://www5.mississauga.ca/corpsvcs/communic/html/movingforward/robert_cervero.pdf

The Residences at Hotel Palomar is a large mixed-use development that includes the 185-room Hotel Palomar, a 10-storey residential tower and 2,320 m² (25,000 sq.ft.) of retail space with low-rise loft-style condos above. Construction began in 2004 and the project was valued at $80 million.

Characteristics of New Developments

Mockingbird Station has emerged as a vibrant transit-oriented development. It has a strong economic base with a mix of residential, office, hotel, and retail uses. The area can be characterized by a mid-rise built form, with buildings generally about 4 to 8 storeys high. Buildings have a pedestrian scale, and its towers have been developed as podiums, set back from the street frontages. Buildings also have active street frontages to create a strong pedestrian environment.

V. Development Projections

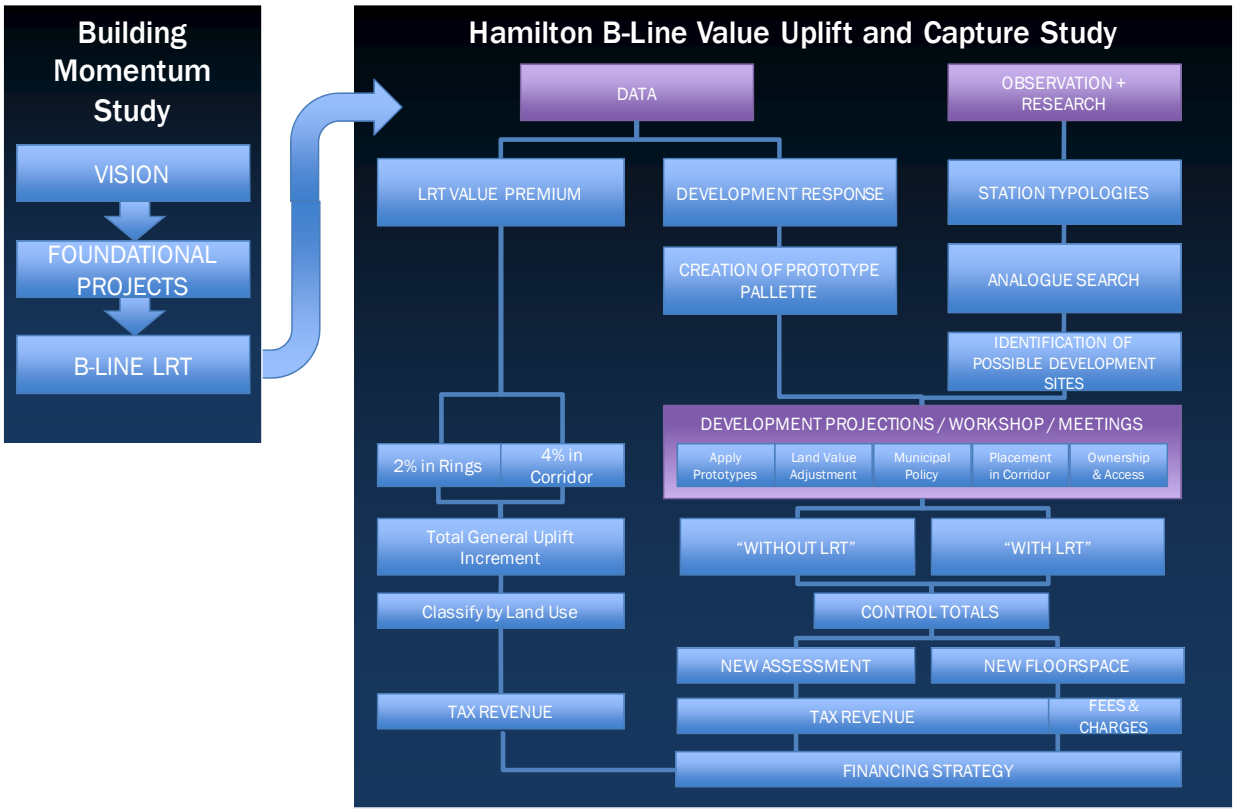
A key component in this study of potential value uplift along the B-Line transit corridor was the creation of site-specific development projections. Two projections were required: (1) "Without LRT" (i.e., the status quo) and (2) "With LRT" –development anticipated in response to the LRT investment.

It was important to recognize and quantify the development that will likely occur along this historic commercial and residential corridor *without* the LRT investment. This estimate provides the baseline from which the "uplift" induced by the LRT investment can be calculated.

To be confident in these projections, we needed to prepare “corridor control totals.” The purposes of establishing control totals was to place the development projections for the corridor in the context of market capacities for the City, so that the projections do not run ahead of what is economically feasible from a market perspective.

The process we used to develop our projections is diagrammed on the following page.

Figure 2 - Uplift & Capture Study Approach



To identify the potential development response to an LRT line, the CUI worked closely with the City of Hamilton to collect data, identify development sites, and apply the model appropriately within the Hamilton context.

Figure 2 illustrates the approach we used to produce and calibrate the development projections and ultimately calculate potential revenue capture streams. This section describes the process used to generate development projections “without LRT” and “with LRT” and how we calibrated those projections relative to current market conditions using the corridor control totals. The development projections are presented in chapters VI. Findings: Study Area Level Analysis, and VII. Findings:

Station Level. Appendix A: Projection Modeling provides our detailed methodology showing how we prepared the development projections.

(a) Data Collection

Land economic studies require accurate, spatially referenced property information. The CUI worked closely with municipal staff to extract key pieces of data to be used as direct inputs to the value uplift model. The primary types of data used to prepare this report include:

- Assessment (parcel fabric, roll totals, ownership): Assessment data serves as the foundation for the uplift model. Each property/unit was referenced within the model using the unique Municipal Property Assessment Corporation (MPAC) roll number associated with each assessment record.
- Official Plan & Current Land Use: CUI staff worked with municipal planners to ensure that development projections are of an appropriate scale for each community.
- Zoning: Where the City has new draft zoning in place, the draft zoning was used to inform the model. Where possible, conformity to zoning requirements was addressed.
- Building Floor Area: Floor area was used to calibrate the development projections against control totals. Where floor area data was not available, CUI staff estimated the floor area of buildings using roof-plate/floor-plate sizes and the number of floors.
- Development Applications: knowing where applications have already been filed or approved helped ensure the accuracy of the development projections.
- For-Sale List Prices: CUI used list prices to ensure the assignment of the correct prototype and provide insights into market trends (see “Palette of Hamilton Based Development Prototypes” below for definitions).
- Orthophotography: High-resolution photography of the corridor and its surroundings was used in conjunction with Google’s Street View platform and Microsoft Photosynth to provide a qualitative perspective on the development projection process.

CUI also prepared additional custom datasets for the projection model, through a workshop and ongoing meetings with municipal staff. These custom datasets include:

- Maximum Height: Height data was used in the assignment of the correct prototype to each parcel.
- Access to Site (for public properties): Based on feedback from the City, this dataset was used to determine which public parcels should be considered “available for development” in the projection, and those which should not be evaluated.

(b) Profiling Station Areas (Assignment of Stations to Typology)

Before evaluating properties along the corridor to assess which would serve as suitable development sites, we assigned each station along the B-Line corridor to a category in the three-part typology. The assignment (City Core, Inner Suburb, or Outer Suburb) was based on a combination of ground observation and spatial analysis. Site visits and a tour conducted by City staff served as the main

tools to develop the station profiles. Four stations were classified as “City Core,” eight stations as “Inner Suburb,” and four stations as “Outer Suburb.” See Table 4.

Table 4 - Station Typology Assignments: B-Line

Station	City Core	Inner Suburb	Outer Suburb
McMaster		X	
Innovation Park		X	
Dundurn		X	
Queen	X		
Bay	X		
Gore	X		
First Place	X		
Wentworth		X	
Sherman		X	
Scott Park		X	
Ottawa		X	
Kenilworth		X	
Queenston			X
Parkdale			X
Nash			X
Eastgate Sq.			x
Total	4	8	4

The next step was to relate the station to the relevant analogues. Each analogue provides an example of how a similar community or station area has developed as a result of similar conditions – in this case an LRT investment. Each analogue helps to inform the development projection model. Because every station has unique characteristics, the analogues are used only to inform the development projection process. Some stations, such as Scott Park, have unique development characteristics that affect both the type of development projections made, as well as the timeframe for development.

(c) Palette of Hamilton-Based Development Prototypes

The third step was to identify building forms (“prototypes”) within Hamilton that could be used as building blocks for the development projection, Prototypes are buildings or properties within the community that provide a suitable example of a given type of built form. For this study approximately 40 properties and building combinations were sampled. For each prototype, we gathered data about its size, built floor area, assessment, estimated improvement value, estimated land value, internal land use mix, and property value class.

The palette of prototypes for Hamilton consists of single-detached homes, small mixed use “main street” developments, mid-rise residential projects, a range of office types, entertainment facilities, and hotels. Sample prototypes are provided in Table 5 below. See Appendix B for a complete list of prototypes.

Table 5 - Example Prototypes

Prototype 28 66 Bay Street South	Prototype 9 1 Hunter Street	Prototype 6 211 King Street East
		
Description: 8 Floor "Core Lofts" building, recommended in workshop session with staff. Assessment: $20,827,500 Lot size: 2710m^2 Building size: 12,568m^2	Description: New 4 floor office building adjacent to GO Hunter Street Terminal. Assessment: $2,761,970 Lot size: 1855m^2 Building size: 2,783m^2	Description: Residential mixed use, corner lot, main street setting. Assessment: $671,500 Lot size: 245m^2 Building size: 915m^2

At the workshop held in February with City staff, a working list of prototypes was circulated. Participants were invited to provide additional ideas and input. (See Appendix C: Workshop Summary). Following the workshop, a number of prototypes were added to the palette, including entertainment properties and grocery stores. Some excellent development examples, based on staff input such as Core Lofts, were also added to the residential prototypes list.

Prototypes, like analogues, are examples of the type of developments that *might* occur. The advantage of using the prototype approach is that prototypes are drawn from within the community and reflect local market conditions. They also capture parking and other servicing requirements within their respective property boundaries. A prototype is "placed" onto a property in the development model that can physically accommodate it. Ultimately, actual development will differ from what is projected, although the *scale* and *type* of development is expected to be similar – therefore, the assessed values would be comparable.

A concern raised at the workshop was how to determine a value for prototypes when they were placed in different areas of the city relative to their original location. This problem arises from the fact that land values vary across the city (construction costs, however, are largely independent of location within the city).Using geospatial analysis, the CUI evaluated all vacant parcels around the corridor to determine an approximate "district land value." This district land value has been used to adjust the land-value portion of the assessment where prototypes were assigned (as part of the development projection) to situations with a very different land cost. Prototypes that were assigned to parcels with the same land value as that of their original location were not adjusted. Table 6 and Figure 3 summarize these land value classifications.

The land value districts (three of which were used in the adjustment process) distinguish between the "primary corridor" (lands within a one block of the LRT line) and the "station area" (the 400-metre radius around each station).

- Land Value District 1 is the value of land that is not close to the LRT line.
- Land Value District 2 represents lands within all station areas and the corridor for all stations except those at Queen, Bay and Gore.
- Land Value District 3 recognizes the (higher) value for lands within the station areas of Queen, Bay and Gore (but not in the corridor).
- Land Value District 4 recognizes the even higher value of lands within the one-block corridor of Queen, Bay and Gore stations.
- Land Value District 5 represents lands that do not fit into the preceding categories.

Figure 3 - Generalized Land Value Districts

Blue = Class 1; Tan = Class 2; Orange = Class 3; Red = Class 4

Table 6 - Evaluation of Land Value Differences: Findings

Land Value District	District Description (Query)	Land Value Range (Based on Natural Breaks)	Average Land Value ($/m2)
1	Outside Corridor AND Outside Station Areas	$1.60 to $93.31	$48
2	Inside all station areas EXCEPT Queen, Bay and Gore	$93.32 to 180.36	$141
3	Inside Station Areas at QUEEN, BAY and GORE but NOT in the Corridor	$180.37 to 282.72	$222
4	Inside the Corridor at QUEEN, BAY and GORE	282.73 to 452.33	$334
5	EXCLUDE - SPECIAL CASES (Incl. out of date assessment data, demolitions, etc.)	$452.34 to 755.11	$582

(d) Preparing Development Projections and Control Totals

In order to develop realistic development projections, the CUI evaluated population and employment trends, historical changes in taxable assessment, and building permit issuances and associated values. This subsection provides a summary of the background information used to inform the development projections.

What follows is a discussion of how the control totals were developed followed by a discussion of the calibration of the development projection (both "Without LRT" and "With LRT") to respect these control totals. In developing the control totals, we moved from the general to the specific.

Population and Employment Growth Trend

Based on Statistics Canada Community Profiles, the City of Hamilton population grew at a rate of approximately 0.7% from 1991 through 2006. According to the Growth Related Integrated Development Studies Report (GRIDS), population growth is projected at approximately 1% per annum, from 2011 through 2031. The same report projects household and employment growth at 1.4% and 1.5%, respectively.

Taxable Assessment Growth Trend

For the past 12 years, the rate of growth in taxable assessment in the City of Hamilton has ranged from 0.8% to 1.7%, with the average rate being 1.2%.

To frame our development projection to 2025, we have assumed that the future rate of growth in taxable assessment will mirror the average growth rate of the past 12 years (1.2%) if the LRT is not constructed and marginally higher (1.3%) if the LRT is constructed. The rationale for projecting a marginal increase in the growth rate with LRT is the transformative power of higher-order transit and the increased attractiveness of the urban region to employers and job seekers.

Using these growth rates, our projection for the B-Line Corridor produces an increase in taxable assessment of $312 million for the B-Line Corridor if the LRT is not constructed and $599 million if the LRT is constructed (see Table 7). This projection is based on a modest share allocation to the B-Line corridor (4.0% "Without LRT" and 7.0%"With LRT"). The properties in the B-Line corridor currently represent just over 9.5% of all taxable assessment in the City. Although it cannot be expected that this share, built up over the history of the City, could be maintained into the future, we have assumed that investment in an LRT line will prevent further erosion of the corridor's share.

The projection of taxable assessment provides the first approach to outlining an aggregate corridor development "control total" for the B-Line Corridor.

Table 7 - B-Line Development Projection and Control Totals

B-Line Development Projection and Control Totals	Notes	Without LRT Development Projection	With LRT Development Projection	Increase Due To LRT
Panel 1 Control Total (based on taxable assessment)				
Taxable Assessment ($2010); City-wide		$37,193,407,100	$37,193,407,100	
Projected Annual Growth Rate	1	1.20%	1.30%	
Taxable Assessment Projected at 2025; City wide	2	$45,004,022,591	$45,747,890,733	
Projected Increase in Taxable Assessment - City wide		$7,810,615,491	$8,554,483,633	
Corridor Share of Projected Increase in Taxable Assessment (%)	3	4.0%	7.0%	
Corridor Share of Projected Increase in Taxable Assessment ($)		$312,424,620	$598,813,854	$286,389,235
Equivalent Building Program over 15 years (sq.m.)	4	387,003	745,033	358,031
Equivalent Building Program over 15 years (sq.ft.)	4	4,165,662	8,019,470	3,853,809
Panel 2: Control Total (based on building permit values)				
Annual City Building Permit Values (Res + Com) (2010 $$)	5	$567,958,065	$567,958,065	
Projected Annual Growth Rate	1	1.20%	1.30%	
Annual City Building Permit Values (Res + Com) (in 2025)		$687,229,259	$698,588,420	
Accumulated Building Permit Values (Res + Com) 2010 - 2025		$9,413,904,930	$9,499,098,640	
Corridor Allocation (% Share)	6	4.0%	7.0%	
Corridor Allocation		$376,556,197	$664,936,905	$288,380,708
Equivalent Building Program over 15 years (sq.m.)	4	468,504	827,302	358,798
Equivalent Building Program over 15 years (sq.ft.)	4	5,042,938	8,905,007	3,862,069
Panel 3: Development Projection				
Development Projection by Type (sq. ft.)				
- Residential	7	1,471,447	4,153,959	
- Office	7	218,936	797,868	
- Retail	7	188,873	589,910	
- Hotel	7	175,108	175,108	
		2,054,364	5,716,845	3,662,481
Development Projection by Type (sq. m.)				
- Residential	7	136,702	385,915	
- Office	7	20,340	74,124	
- Retail	7	17,547	54,804	
- Hotel	7	16,268	16,268	
		190,857	531,112	340,256
Development Projection by Type (2010 $)				
- Residential	8	$104,561,024	$310,176,119	
- Office	8	$15,557,592	$59,576,804	
- Retail	8	$13,421,315	$44,048,580	
- Hotel	8	$12,443,174	$13,075,314	
		$145,983,106	$426,876,816	$280,893,710

Note1: Projected growth rate "Without LRT" mirrors average over past 12 years.
Projected growth rate "With LRT" assumes a marginally more competitive urban region
Note 2: Assumes constant (2010) dollars
Note 3: Corridor share of City-wide increase in assessment - share is projected to be greater "With LRT"
Note 4: Based on typical unit assessment values (improvements only) ($ / sq. ft.)
Note 5: 2008 commercial + residential building permit values, adjusted to 2010
Note 6: Corridor share of the building permit value of all new construction, City-wide. Share is projected to be greater "With LRT".
Note 7: Based on station-by-station, parcel-by-parcel assessment of development opportunities
Projection "With LRT" indicates a significant development response to the LRT investment.
Note 8: Based on typical unit assessment value (improvement portion only) ($ / sq. ft.)

The projected increase in taxable assessment attributed to the LRT is $286 million, an amount that has been converted to an equivalent building program of 362,000 m² (3.9 million sq.ft.), based on typical unit assessment values for the corridor (see Panel 1 of Table 7).

To verify this development control total, we examined building permit values. For the five years of the past decade for which we have consolidated building permit data (2004 through 2008), there was strong growth in the volume of building permits issued in the City of Hamilton (even when discounting "institutional" uses, which witnessed an unusually large volume of permits in 2007 and 2008).

Residential and commercial building permit values for the City in 2008 totaled $555 million. Over the 15-year projection period of this study (2011 to 2025) this would amount to approximately $9.5 billion in building permits issued in the City (see the middle panel of Table 7, and Table 8). Based on the same corridor share assumptions of 4.0% and 7.0% ("Without LRT" and "With LRT," respectively), this would amount to a building program in the corridor of approximately 465,000m^2 and 827,000 m^2 (5.0 million and 8.9 million sq.ft.), respectively, over the projection period along the B-Line corridor.

This projection based on building permit values provides the second approach to outlining an aggregate corridor development "control total" for the B-Line Corridor (see Panel 2 of Table 7).

The increase in development attributed to the LRT is projected at 353,000 m^2 (3.8 million sq.ft.).

Table 8 - Building Permit Values ($) Year Over Year (%)

Building Permit Values										
	2004		2005		2006		2007		2008	
Residential	380,297,684	63.9%	375,133,564	58.5%	407,331,942	59.7%	395,335,459	49.3%	415,430,563	50.8%
Commercial	75,335,634	12.7%	79,082,418	12.3%	108,702,496	15.9%	126,391,840	15.8%	139,215,985	17.0%
Industrial	60,982,261	10.2%	72,466,405	11.3%	72,266,757	10.6%	63,337,586	7.9%	53,002,526	6.5%
Institutional	74,466,736	12.5%	106,656,106	16.6%	85,829,122	12.6%	210,207,720	26.2%	202,548,954	24.7%
Miscellaneous	4,084,400	0.7%	7,541,108	1.2%	8,417,498	1.2%	6,466,743	0.8%	8,264,422	1.0%
	595,166,715	100.0%	640,879,601	100.0%	682,547,815	100.0%	801,719,348	100.0%	818,462,422	100.0%
			Year Over Year	7.7%		6.5%		17.5%		2.1%
Adjustment to Zero Institutional										
	2004		2005		2006		2007		2008	
Residential	**380,297,684**	**73.0%**	**375,133,564**	**70.2%**	**407,331,942**	**68.3%**	**395,335,459**	**66.8%**	**415,430,563**	**67.4%**
Commercial	75,335,634	14.5%	79,082,418	14.8%	108,702,496	18.2%	126,391,840	21.4%	139,215,985	22.6%
Industrial	60,982,261	11.7%	72,466,405	13.6%	72,266,757	12.1%	63,337,586	10.7%	53,002,526	8.6%
Institutional	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Miscellaneous	4,084,400	0.8%	7,541,108	1.4%	8,417,498	1.4%	6,446,743	1.1%	8,264,422	1.3%
	520,699,979	100.0%	534,223,495	100.0%	596,718,693	100.0%	591,511,628	100.0%	615,913,496	100.0%
			Year Over Year	2.6%		11.7%		-9.0%		4.1%

Source: City of Hamilton (adjustment to remove Institutional, prepared by CUI)

Based on these projections of taxable assessment and building permits, a global development program of approximately $600 million and 836,000m^2 (9 million sq.ft.) over the 15-year projection period was adopted as the upper limit development "control total" for the B-Line corridor – "With LRT." The corresponding values for "Without LRT" are $376 million and 464,515m^2 (5.0 million sq.ft.).

The next section examines market capacities for specific components (residential, office, retail, and hotel development).

Multi Residential

In terms of overall transit-related development, the residential market represents the greatest source of potential, for several reasons. First, housing construction has historically accounted for the largest share of new capital investment in the City as measured in terms of value of building permits. Second, there is a growing market for housing within established non-suburban neighbourhoods, particularly in compact, mixed-use communities with access to public transit. Third, the planning policies of both the City and the province place a high priority on supporting "smart growth" principles that encourage residential intensification and mixed-use developments at strategic locations such as around rapid transit stations.

A recent U.S. survey of home buyer preferences completed by the Brookings Institution indicates that one-third of the respondents have a strong preference for "New Urbanist" housing options, and up to one-half may be attracted to these options once they see them. The study further notes that half to two-thirds of the demand for housing in the next generation may be for higher density forms, nearly a complete reversal of trends seen in the 1970s. Moreover, real estate tracking services advise investors to focus on centrally located, mixed-use opportunities with access to transit to realize the best returns.[16]

According to a 2004 survey by the U.S.-based National Association of Realtors, among people planning to buy a home in the next three years, 87% place a high importance on a shorter commute as their top priority. Six in ten prospective homebuyers would choose a neighbourhood that offered a shorter commute, sidewalks, and amenities like shops, restaurants, libraries, schools, and public transportation within walking distance rather than a neighbourhood in a sprawling community with larger lots, limited options for walking, and a longer commute.[17]

"Empty Nester" baby-boom parents are seeing their children move onto college and pursue independent living. This trend could significantly reduce the need for the residential space that made the suburbs attractive to parents of young children, and enable "empty nesters" to move back into cities, to be closer to cultural facilities, civic amenities, and services that they desire.[18] It is not just the aging baby boomers who are attracted back to the city centre; young, childless professionals also represent a prime market for the urban lifestyle.

According to the projections of the City of Hamilton and the Government of Ontario, the annual increase in households in the city will be approximately 2,670 per year between now and 2031.[19] Of these, the Province requires that 40% or approximately 1,200 units per year be accommodated within existing urban areas between 2015 and 2031.The City's Residential Intensification Study

[16] Arthur C. Nelson, "Toward a New Metropolis: The Opportunity to Rebuild America," The Brookings Institution Metropolitan Policy Program, Dec. 2004.
[17] National Association of Realtors, "2004 American Community Survey," 2004.
[18] B. Hemily, "Trends Affecting Public Transit's Effectiveness: A Review and Proposed Actions," American Public Transportation Association, 2004.
[19] Places to Grow: Growth Plan for the Greater Golden Horseshoe. Ontario Growth Secretariat, Ministry of Energy and Infrastructure, 2006.

identifies a potential for over 44,000 units (to 2031) of which 80% are apartment units (29,308) and 12,303 are semi detached / townhouses.

Of this, it is assumed that rental will comprise 900 units, or about 30% of the rate of rental production in the City from 1991 through 2005. It is further assumed that the B-Line corridor will be attractive for rental construction and that current low vacancy rates indicate a healthy market for rental units. The rental units are likely to appear in two building forms: as part of mixed-use developments and as stand-alone apartment buildings.

It is further assumed that another 900 units would be developed as townhouses and the remaining 2,700 units as condominium apartments.

In total, these 4,500 housing units represent a building program of approximately 371,600m^2 (4.0 million sq.ft.) of new construction, which is in alignment with the development projection for "With LRT" (see the bottom panel of Table 7).

Office

Current office space along the B-Line corridor is located in approximately two dozen medium to large purpose built (buildings with specific design requirements that meet the need of a specific tenant, e.g. a council chamber, auditorium, etc.) office buildings in the downtown core.

The focus of the City's current office strategy is to absorb the significant inventory of existing and vacant office space will be eliminated in the downtown — approximately77,000m^2 (828,500 sq.ft.), as measured in late 2008.The problem of vacant office space has plagued the downtown for the past 30 years. It is assumed that approximately half of this space will eliminated during the projection period through demolitions or conversions of older office buildings to other uses.[20]

We therefore assumed that it will be necessary to absorb just over half of the remaining space to move the vacancy rate down to approximately 5% to achieve more balanced market conditions and provide the trigger for new office development. This level of absorption would require the creation of approximately 650 new office jobs in the downtown (based on an average occupancy of 215 sq.ft. or 20m^2 of rentable space per employee).

According to the most recent study of employment, office job growth is projected at 350 office jobs per year to 2031.[21] Assuming three-quarters of the office jobs projected to 2025 locate in the B-Line corridor (principally in the downtown core), this represents about 4,000 office jobs. Once the number of new office jobs required to absorb available space in the core is discounted (650 jobs) this leaves 3,350 office jobs, equivalent to a requirement of approximately 67,000 m^2 (720,000 sq.ft.) of office space.

[20] Hamilton Commercial Strategy Study. City of Hamilton, 2006.
[21] Comprehensive Employment Study. Hemson, November 2006

This requirement is in alignment with our projection of office space "With LRT" (see the bottom panel of Table 7). Further, our development projection assumes that new office space will be developed along the B-Line towards the end of the projection period, after the existing excess space has been occupied.

Retail

According to the most recent comprehensive review of retail space, approximately 604,000 m^2 (6.5 million sq.ft.) of additional retail space will be required by 2031.[22]

A reasonable allocation of the projected city-wide increase in residential units is 4,500 units to be located in the B-Line corridor. This amount represents 11% of the growth in total households (and housing units) projected city-wide to 2031. Assuming that retail space requirements expand in rough proportion to the growth in households, the demand for new retail space to service the new households in the B-Line corridor could be up to 66,425 m^2 (715,000 sq.ft.).This estimate may be high, given the existing concentration of commercial services in the corridor, but it provides support for the 55,000 m^2 (589,000 sq.ft.) of new retail space in the "With LRT" development projection (see the bottom panel of Table 7).

Hotels

We have no data on hotel room demand and supply trends, although several applications for the construction of new hotels have been presented to the city over the past few years. The development projection prepared for this study includes 16,000 m^2 (175,000 sq.ft.) of new hotel space in both the "With LRT" and "Without LRT" projections. This number represents a very small portion of the overall development projection.

In terms of the overall global control totals established earlier, and the review of component market capacities, we have concluded that the development projections prepared for this study provide a reasonable basis for the value uplift calculations.

(e) Calibrating Projections Against Market Control Totals

The bottom panel of Table 7 illustrates the aggregate development projection for the B-Line corridor (all stations), by development type, built up from a station-by-station, parcel-by-parcel assessment of development opportunities. Two projections are indicated: "With LRT" and "Without LRT."

We examined all vacant and underused parcels along the length of the B-Line corridor to identify candidates for development or redevelopment. We modelled the potential development of selected

[22] *Hamilton Commercial Strategy Study,* City of Hamilton, 2006.

candidate sites by selecting a prototype appropriate to the size of the site and its zoning from a catalogue of prototypes.

The projections “With LRT” and “Without LRT” were then aggregated and adjusted (i.e. calibrated) to conform to the control totals as described above.

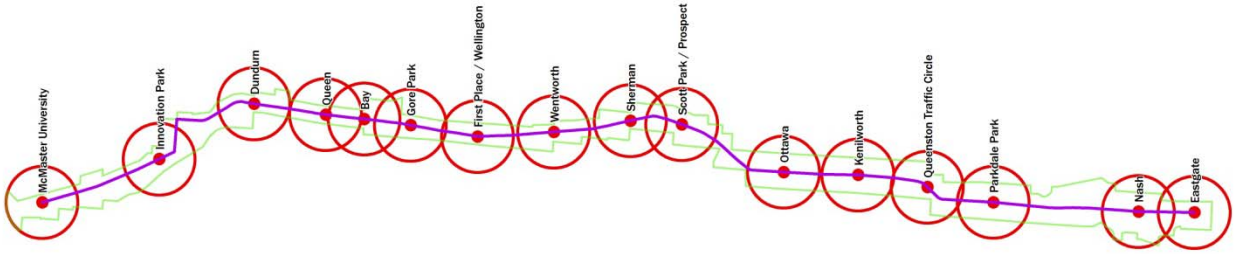
The resulting development projections for “With LRT” and “Without LRT” are 530,000m^2 (5.7 million sq.ft.) vs. 195,000 m^2 (2.1 million sq.ft.), respectively. The difference, 345,000 m^2 (3.7 million sq.ft.) is attributable to the investment in LRT.

The development projections conform to the global control totals and the component totals established above.

VI. Findings: Study Area Level Analysis

This section provides a summary of the development projection findings at the study area level. In total 16 stations were evaluated along the 14-kilometre LRT route from McMaster University to Eastgate Square. Findings in this section refer to the entire study area, consisting of all parcels within the 16 station influence areas (400-metre radii) and a 1-block deep “corridor” along the entire length of the line (see Figure 4).

Figure 4 - Illustrated Study Area



Red = 400 metres, 5-minute walk, from stations
Green = 1 block deep “corridor”
Purple = LRT alignment

(a) Workshop Findings

At a workshop held with city staff in February 2010, participants were asked to provide their insights with regard to the development potential (on a scale where 1=low potential and 4=high potential) and likely development timeframes(5, 10, 15, or more than 15 years) at each station along the length of the LRT line.

Of the 16 stations on the corridor there was consensus among participants that three (Dundurn, Queen, and Bay) would likely experience substantial new development within five years. Seven other

stations were seen as developable in the next six to ten years, and the remainder were thought likely to develop 11 to 15 years from now (see Table 9).

Development potential was considered to be very high at four stations (Queen, Bay, Scott Park, and Queenston Traffic Circle). At the opposite extreme, station areas at Parkdale, Sherman, Wentworth, and First Place were seen to have the lowest development potential.

Station areas where substantial land is currently taken up by surface parking were considered to have high development potential, with the exception of Scott Park, the station adjacent to Ivor Wynne Stadium, a publicly owned property that will likely be redeveloped once a new stadium is built for the Pan American Games.[23] The workshop process was used to help identify which lots would have the greatest development potential at a number of potential station points along the B-Line. It should be noted, however, that further examination of the City's parking lots should be carried out before they are considered for redevelopment as some may provide important community uses (loading/unloading spaces for adjacent businesses, etc.).[24]

The timing and strength of development response collected from workshop participants helped inform the development projections.

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[23] Based on consultation with the City, the Ivor Wynne site was projected for redevelopment in the uplift model.
[24] Moreover, some parking lots have been paved on brownfield sites which may hinder the development potential of the property. Good examples exist in Ontario whereby cities have strategically remediated brownfield sites for economic development purposes – Oshawa is a good example of this. For more details see the policy audit by Miller & Myrans in "A Review of Local Economic and Employment Development Policy Approaches in OECD Countries," Ogranisation for Economic Cooperation and Development, 2008. http://www.oecd.org/dataoecd/46/59/42751285.pdf.

Table 9 - Workshop Observations and Feedback: Timeframe and Development Potential

Workshop Observations & Feedback	Timeframe[1]	Potential[2]
Workshop Observations & Feedback	SCORE	SCORE
McMaster	10	2
Innovation Park	7	3
Dundurn	5	3
Queen	5	4
Bay	5	4
Gore	7	3
First Place	13	1
Wentworth	13	1
Sherman	13	1
Scott Park	8	4
Ottawa	8	3
Kenilworth	12	2
Queenston	8	4
Parkdale	13	1
Nash	12	3
Eastgate	10	3
NOTES		
Values are based on workshop breakout group findings and were used to inform the development		
projection. Values may differ from projection actuals.		
Note 1 - Timeframe: Refers to the number of years before development is well underway		
Note 2 - Potential: The percieved development potential around station locations. 1= low, 4=high.		

(b) Built Floor Space

Panels 1 through 3 in Table 10 indicate the total new floor space projections for 5, 10, and 15 years after the opening of the LRT. Each column represents new floor space built within each 5-year period. By the end of year 15, the "Without LRT" projection calls for as much as 185,806.08m^2 (2 million sq.ft.). Of new floor space within the study area (see Panel 4) while the "With LRT" projection suggests a 64% increase to 345,000m^2 (3.7 million sq.ft.) over the baseline projection.

In both projections, the majority of new floor space over a 15-year timeframe is projected to be multi-residential (approximately 60% residential and 40% non-residential). Over 15 years, as much as 54,000m^2 (580,000 sq.ft.) of non-residential floor space is projected to be built "Without LRT." The calculations for "With LRT" are for three times that level of development, or 149,000m^2 (1.6 million sq.ft.).

The most noticeable difference between the two projections is the rate of acceleration of new floor space construction in the "With LRT" projection. The "Without LRT" projection assumes that floor space will continue to be constructed at a relatively constant rate each year, while floor space construction in the "with LRT" projection accelerates substantially between year five and year 15.

The development projections for "Without LRT" are shown in Figure 5 and for "With LRT" in Figure 6.

Table 10 - Corridor Analysis Summary

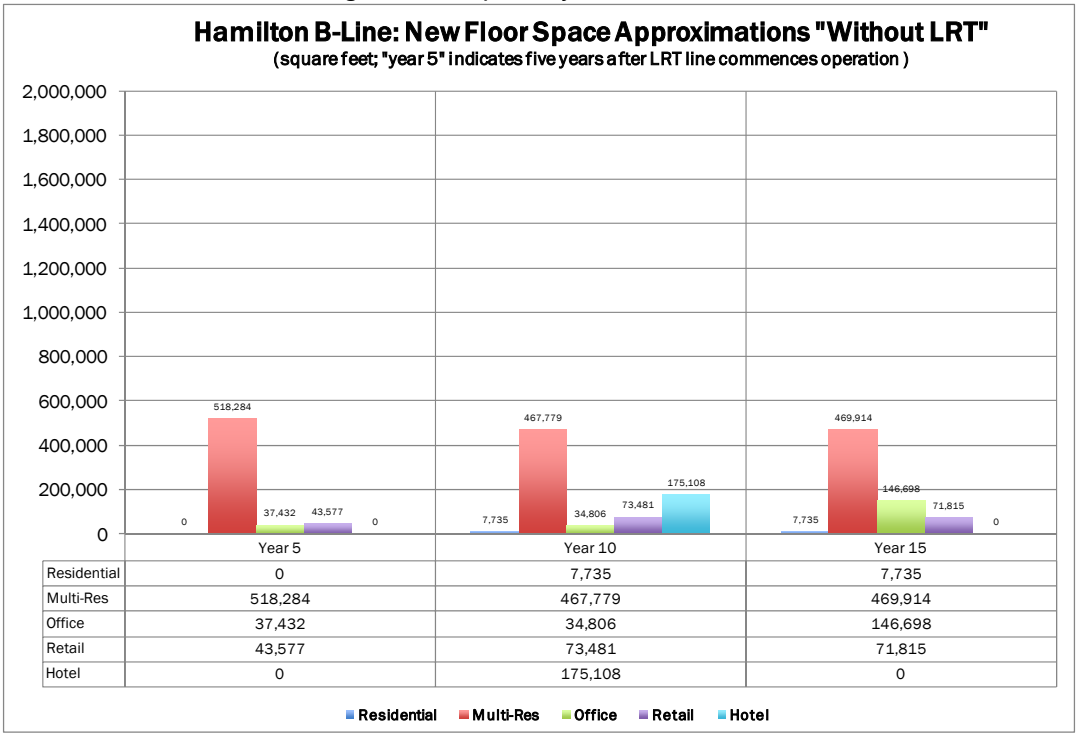
CORRIDOR ANAYLSIS SUMMARY	Without LRT	With LRT	Increase
Panel 1: Built Floor Space By Year 5	Square Metres	Square Metres	Square Metres
Residential	0	1,019	1,019
Multi-Residential	48,150	75,076	26,926
Office	3,478	9,939	6,461
Retail	4,048	20,884	16,836
Hotel	0	0	0
TOTAL	**55,676**	**106,918**	**51,242**
Panel 2: Built Floor Space Years 6-10	Square Metres	Square Metres	Square Metres
Residential	719	2,630	1,911
Multi-Residential	43,458	133,425	89,967
Office	3,234	22,074	18,840
Retail	6,827	14,866	8,039
Hotel	16,268	16,268	0
TOTAL	**70,506**	**189,263**	**118,757**
Panel 3: Built Floor Space Year 11-15	Square Metres	Square Metres	Square Metres
Residential	719	1,544	825
Multi-Residential	43,656	172,221	128,565
Office	13,629	42,111	28,482
Retail	6,672	19,094	12,422
Hotel	0	0	0
TOTAL	**64,676**	**234,970**	**170,294**
Panel 4: Built Floor Space Grand Total	TOTAL	TOTAL	TOTAL
Total (Square Metres)	**190,858**	**531,151**	**340,293**
Total (Square Feet)	**2,054,364**	**5,716,846**	**3,662,481**
Panel 5: Number of Projected Development Projects (By Year 15)	Count	Count	Count
McMaster	0	1	1
Innovation Park	1	4	3
Dundurn	1	6	5
Queen	7	11	4
Bay	3	4	1
Gore	10	21	11
First Place	1	8	7
Wentworth	1	8	7
Sherman	0	5	5
Scott Park	5	15	10
Ottawa	2	3	1
Kenilworth	3	7	4
Queenston	1	4	3
Parkdale	0	4	4
Nash	1	3	2
Eastgate	0	4	4
TOTAL	**36**	**108**	**72**
Panel 6: New Taxable Assessment	%	%	%
Average for Public Lands	**25.12%**	**30.45%**	**5.33%**
Average for Private Lands	**74.88%**	**69.55%**	

NOTES

Note 1 - Public lands have been evaluated in the "Without LRT" model to provide balance although it is likely that the city may not make public lands avaliable for development in the "Without LRT" scenareo. The result of this is that the new taxable assessment increase difference may be conservative.

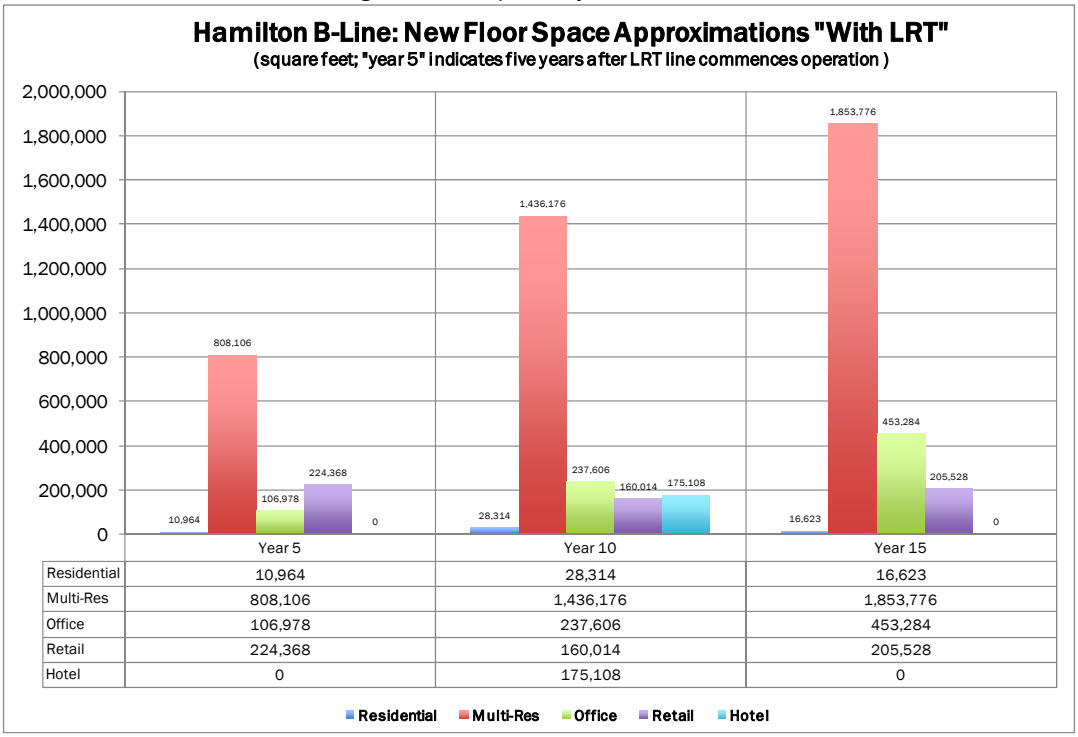
Note 2 - The number of projects does not represent project size. These figures may differ from the previous table in terms of development potential because this study has only examined the vacant/underutilized sites while the workshop participants considered all land (public and private, including private developed).

Figure 5 - Floor Space Projections Without LRT



	Year 5	Year 10	Year 15
Residential	0	7,735	7,735
Multi-Res	518,284	467,779	469,914
Office	37,432	34,806	146,698
Retail	43,577	73,481	71,815
Hotel	0	175,108	0

Figure 6 - Floor Space Projections With LRT



	Year 5	Year 10	Year 15
Residential	10,964	28,314	16,623
Multi-Res	808,106	1,436,176	1,853,776
Office	106,978	237,606	453,284
Retail	224,368	160,014	205,528
Hotel	0	175,108	0

(c) Projected Assessment Impacts

The two figures below highlight the difference in property tax assessment impacts across the study area “With LRT” (primarily showing in green) and “Without LRT.” Figure 7 shows the total uplift “Without LRT” while Figure 8 illustrates the “With LRT” findings. Results are presented in new assessment dollars per square metre. There are two noticeable differences between these maps: one relates to the total number of development projects projected in each scenario, the other relates to general impact on assessment that LRT has within the one block “primary corridor” (showing in yellow and orange in Figure 8 and the 5-minute walk radii surrounding station points (primarily showing in green. Graphics are provided in an enlarged form in Appendix D: Heat Maps.

Figure 7 - Distribution of New Taxable Assessment "Without LRT" Per Square Metre

Figure 8 - Distribution of New Taxable Assessment “With LRT” Per Square Metre

(d) Total Number of Projected Projects

In total 36 development projects are projected “Without LRT,” while three times as many projects (108) are projected with LRT on 92 vacant and underutilized properties along the B-Line route.

While the total number of projected projects does not necessarily reflect the distribution of new assessment growth, project counts do provide valuable information about station area development potential. Panel 5 in Table 10 illustrates that Gore and Scott Park station areas would see the largest increase in construction starts if the city invests in LRT. This projected development, if realized, would play a substantial role in downtown regeneration and could contribute to the overall renewal of Hamilton’s economy by strengthening the city’s economic centre. Based on the model, these two stations together would see an additional 21 development projects relative to the business-as-usual case. In regard to Scott Park, feedback from the workshop indicated that the LRT would be a strong

driver for redevelopment at the Ivor Wynne Stadium site, although some redevelopment would occur regardless.

In both projections McMaster station had the fewest development opportunities (only one was identified in the "With LRT" projection). While LRT will serve the university community with effective transit service and connect the university to the Innovation Park and the downtown, the limited availability of developable sites, combined with an established student population which has not dramatically boosted development response in the past, leaves little reason to project substantial new development at this station as a result of an LRT investment.

It should also be noted that because of the short distance between Queen, Gore, and Bay stations, the unique influence area is substantially smaller than most along the corridor (due to overlap in the 400-metre radii). This situation accounts for the small number of projected projects identified exclusively within the Bay station area, despite the many available development sites. Bay Station and Gore station, south of King Street are considered prime locations for future office development in the downtown, as demand for new office space grows.

(e) New Taxable Assessment From Public Lands

Lastly the share of new taxable assessment generated from public lands relative to private lands was calculated (see Panel 6 in Table 10). "With LRT," approximately 30% of new taxable assessment is expected to be generated from lands that are currently publicly owned, whereas "Without LRT," public lands could generate as much as 25% of the new taxable assessment.

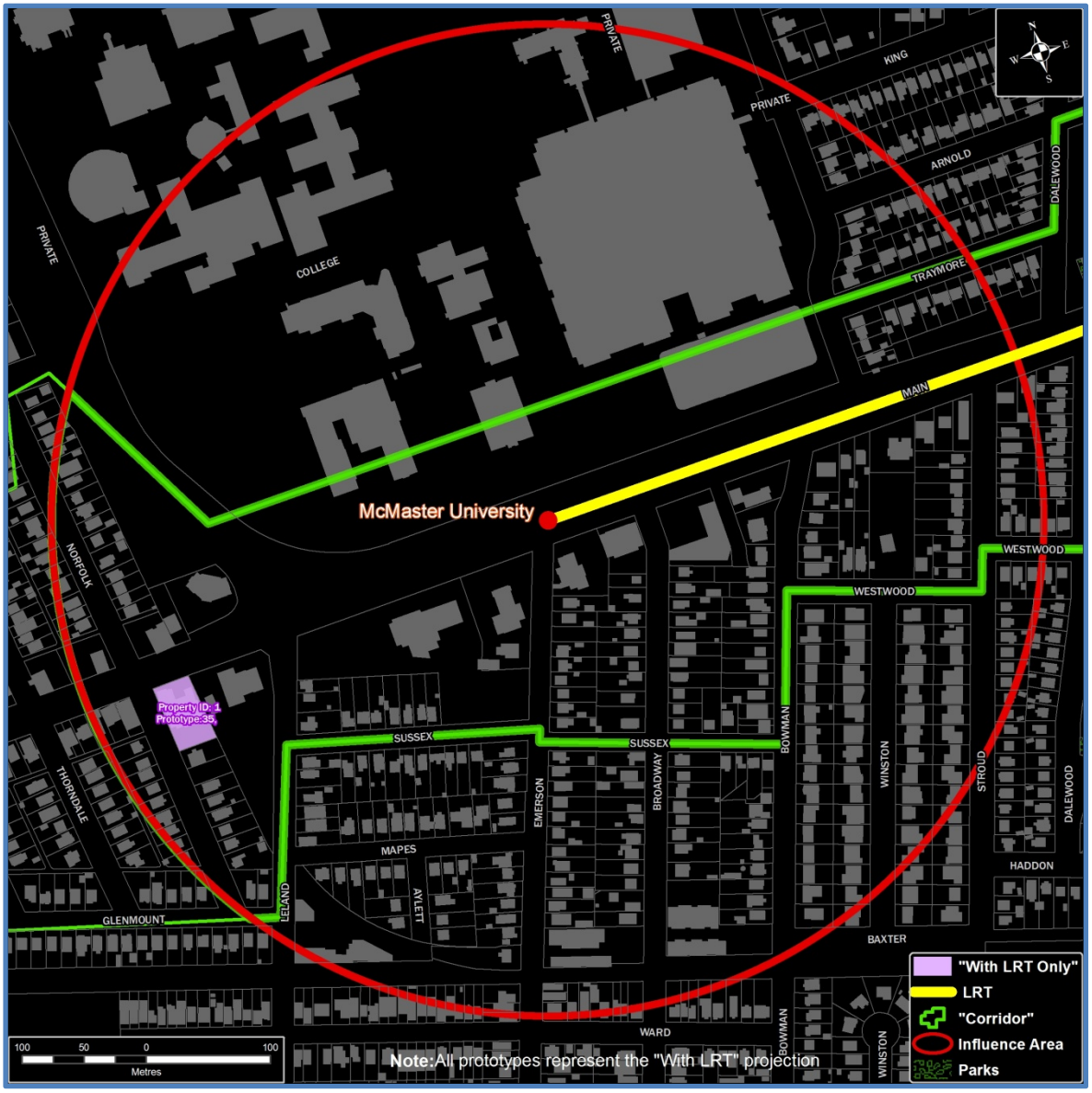
In both projections, the public lands that could potentially be developed are restricted to those that are currently vacant, or that appear to be generally unused, as well as public properties that have exceptional development potential, even though they currently have another use that would need to be relocated. The inventory of public properties along the corridor was reviewed with staff to determine which properties would probably remain in public ownership and use through the projection period.

While the projection model "Without LRT" incorporates public lands in the inventory of potential development sites, the city's incentive to use the lands for development would be lower. "With LRT," public lands hold particular promise to stimulate development, because most parcels along the corridor are currently vacant or are in prime locations.

VII. Findings: Station Level

The following pages summarize the development projections on a station-by station basis. For each station, a synopsis of the development projection is provided (total new development, residential and non-residential "With" and "Without LRT." Tax revenues are presented by the total tax revenue collected in the year specified, and do not represent accumulations of revenue over the period, nor do they include the LRT Premium.

#1 McMASTER UNIVERSITY

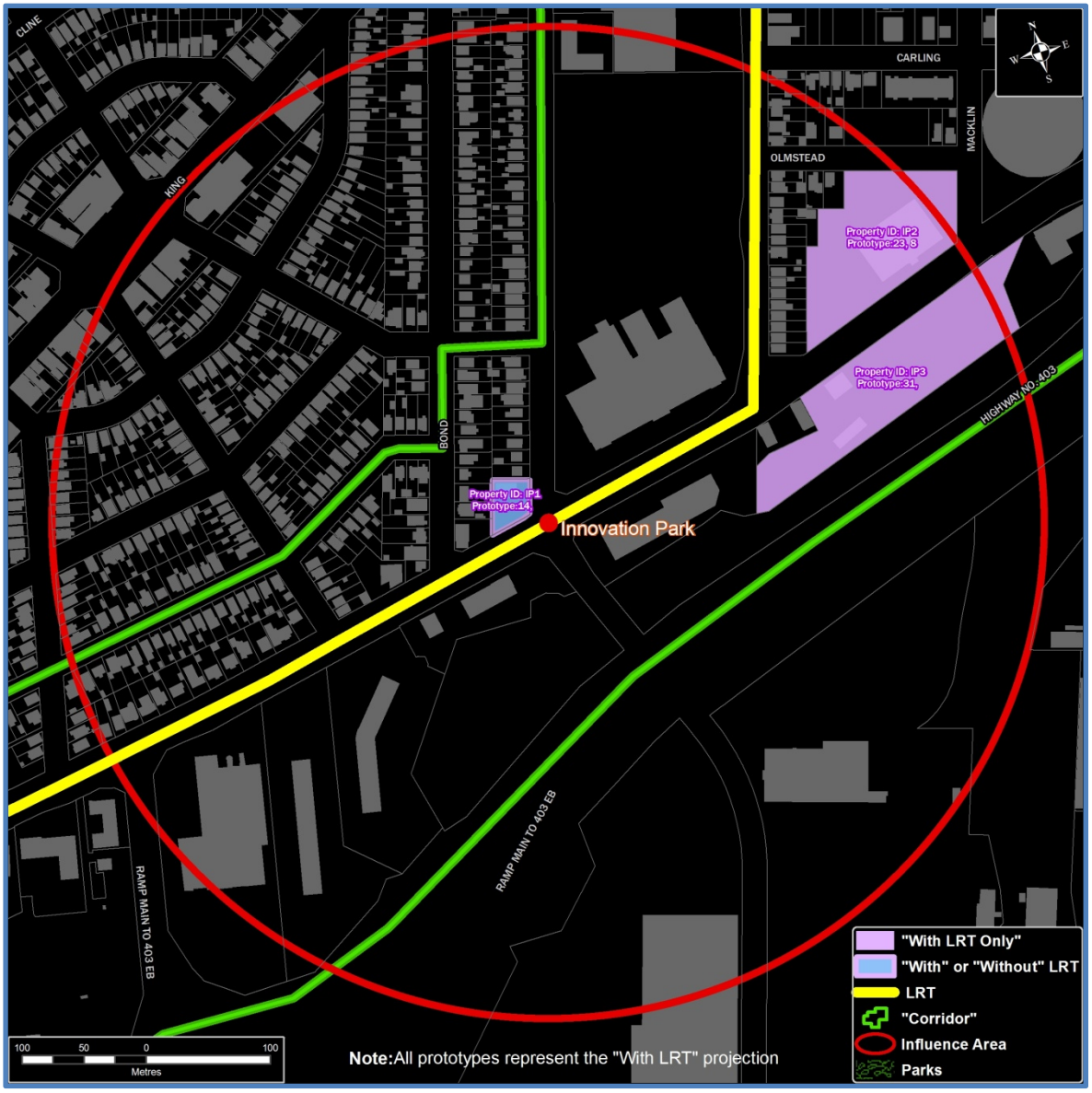


McMaster: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	0	5,208	5,208
Total New Floor Space By Yr 5	0	0	0
Total New Floor Space By Yr 10	0	0	0
Total New Floor Space By Yr 15	0	5,208	5,208

2 INNOVATION PARK

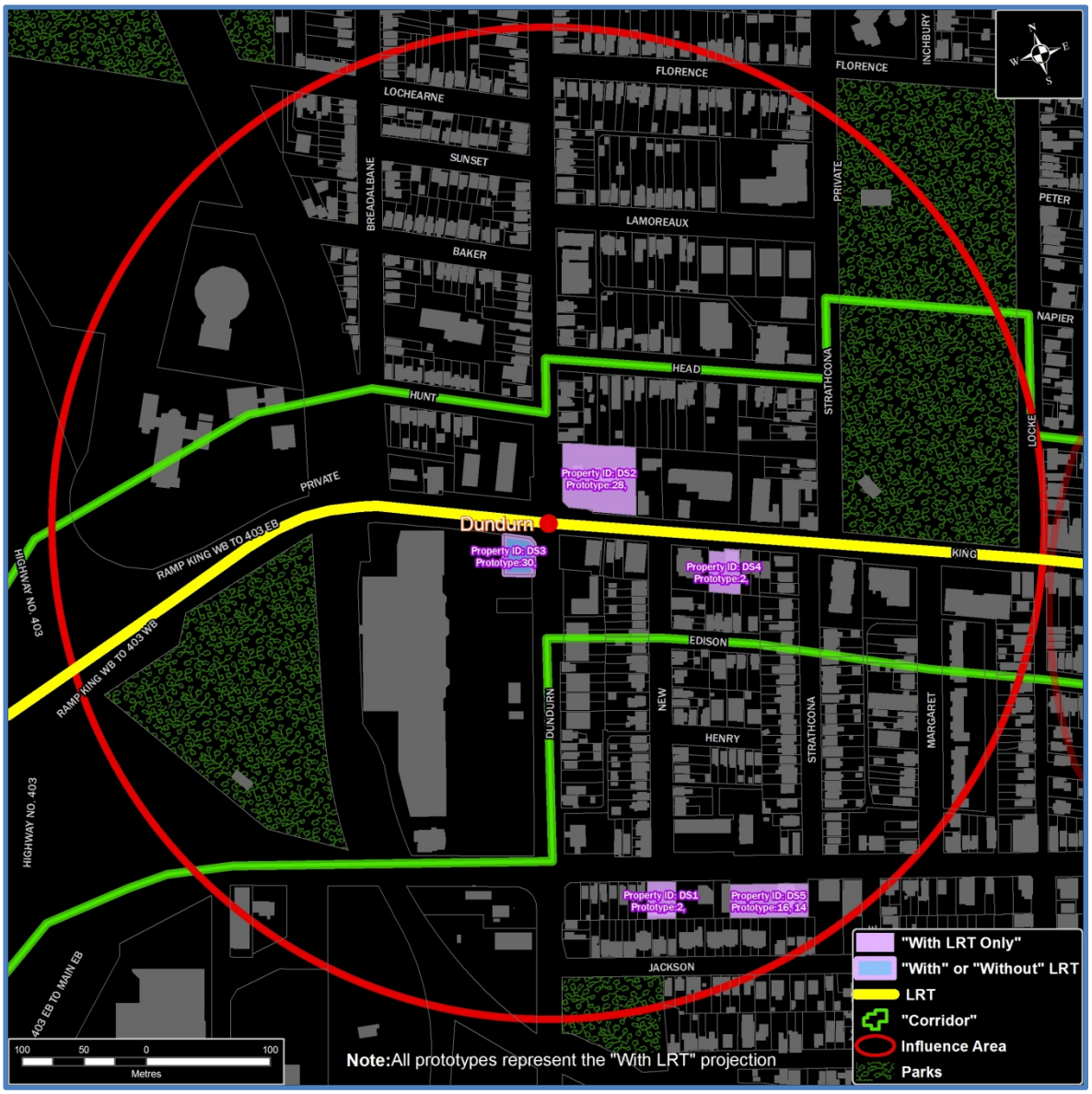


Innovation Park: Projection Synopsis DIRECT DEVELOPMENT IMPACT

Note: For this station planned development on the innovation park grounds have not been included.

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	4,470	27,971	23,501
Total New Floor Space By Yr 5	0	4,470	4,470
Total New Floor Space By Yr 10	0	27,971	27,971
Total New Floor Space By Yr 15	4,470	27,971	23,501

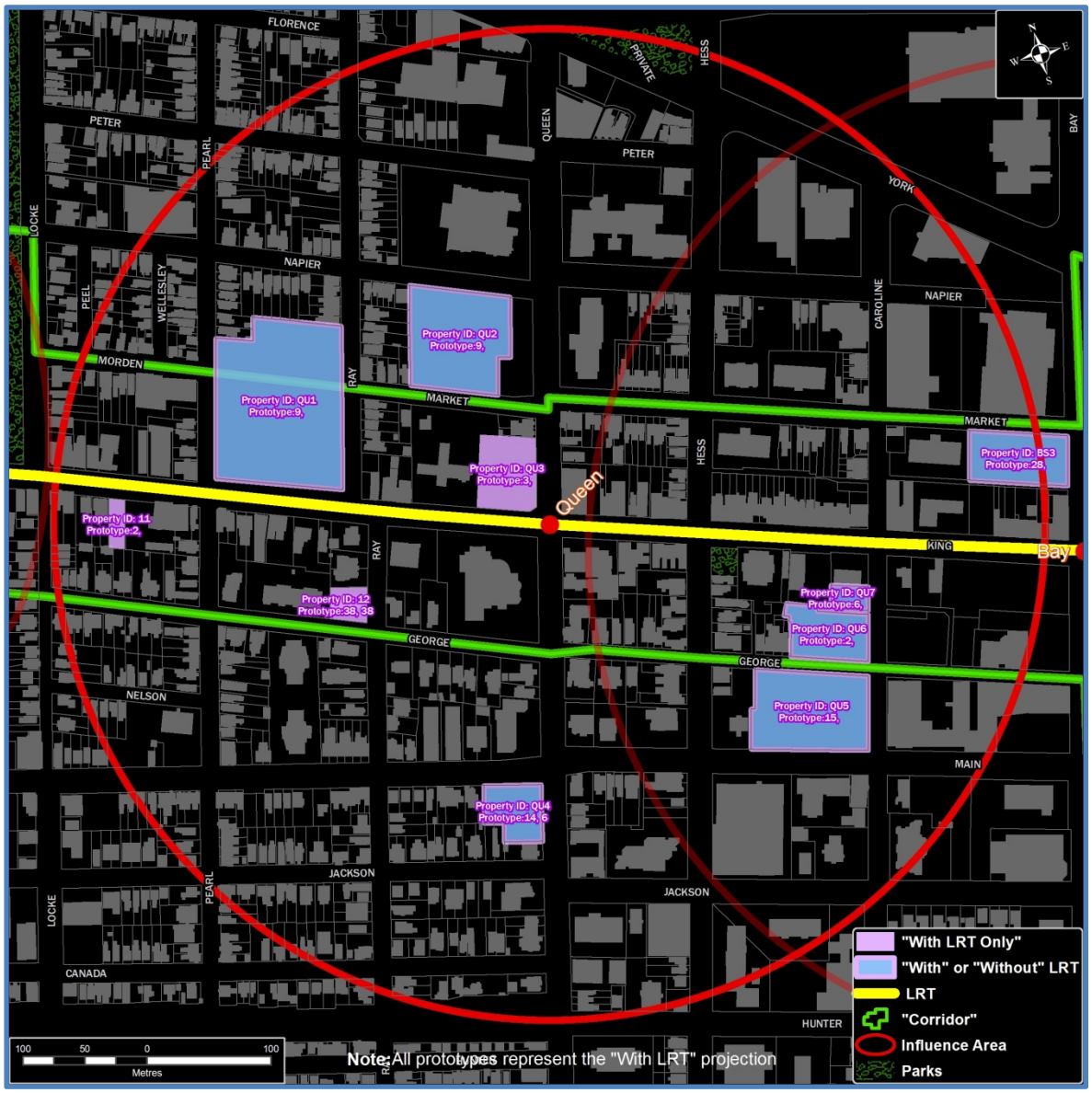
3 DUNDURN



Dundurn: Projection Synopsis DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	758	21,200	20,442
Total New Floor Space By Yr 5	758	758	0
Total New Floor Space By Yr 10	758	2,043	1,285
Total New Floor Space By Yr 15	758	21,200	20,442

4 QUEEN



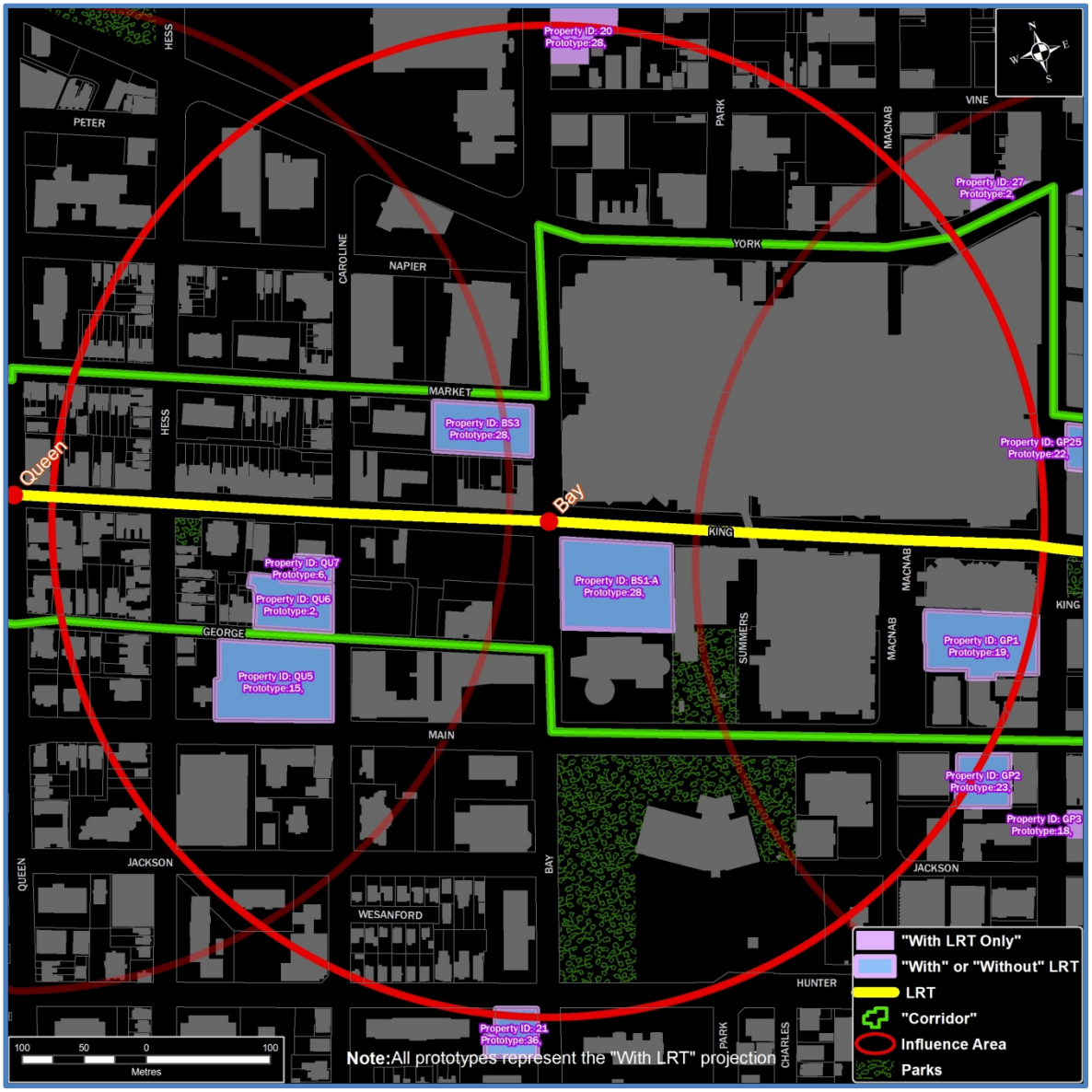
Queen: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	37,417	51,812	14,395
Total New Floor Space By Yr 5	915	12,311	11,396
Total New Floor Space By Yr 10	8,101	26,676	18,575
Total New Floor Space By Yr 15	37,417	51,812	14,395

*Excludes current development application filed for property on SE corner

5 BAY

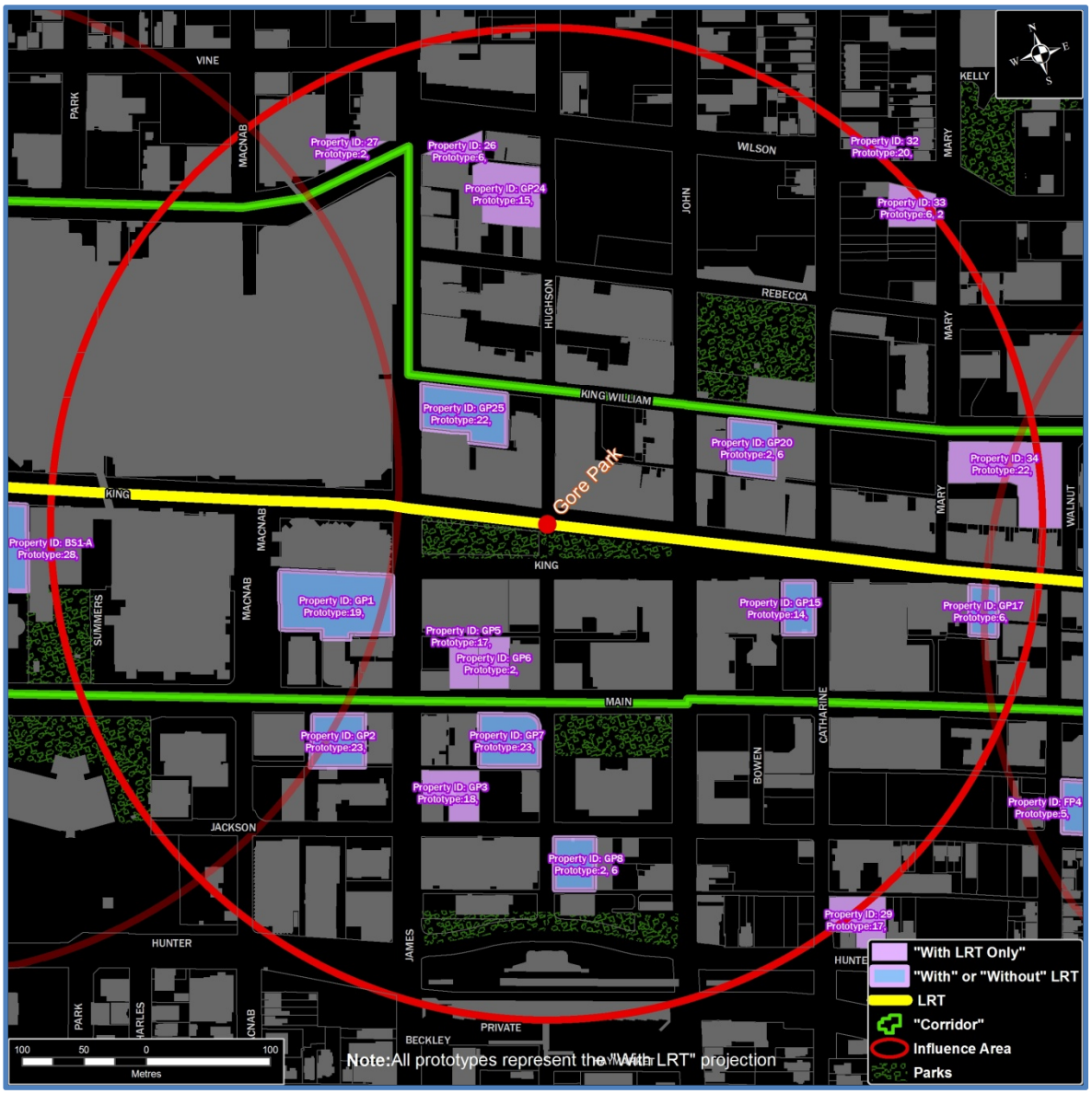


Bay: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	25,923	38,491	12,568
Total New Floor Space By Yr 5	0	13,355	13,355
Total New Floor Space By Yr 10	25,923	13,355	-12,568
Total New Floor Space By Yr 15	25,923	38,491	12,568

6 GORE

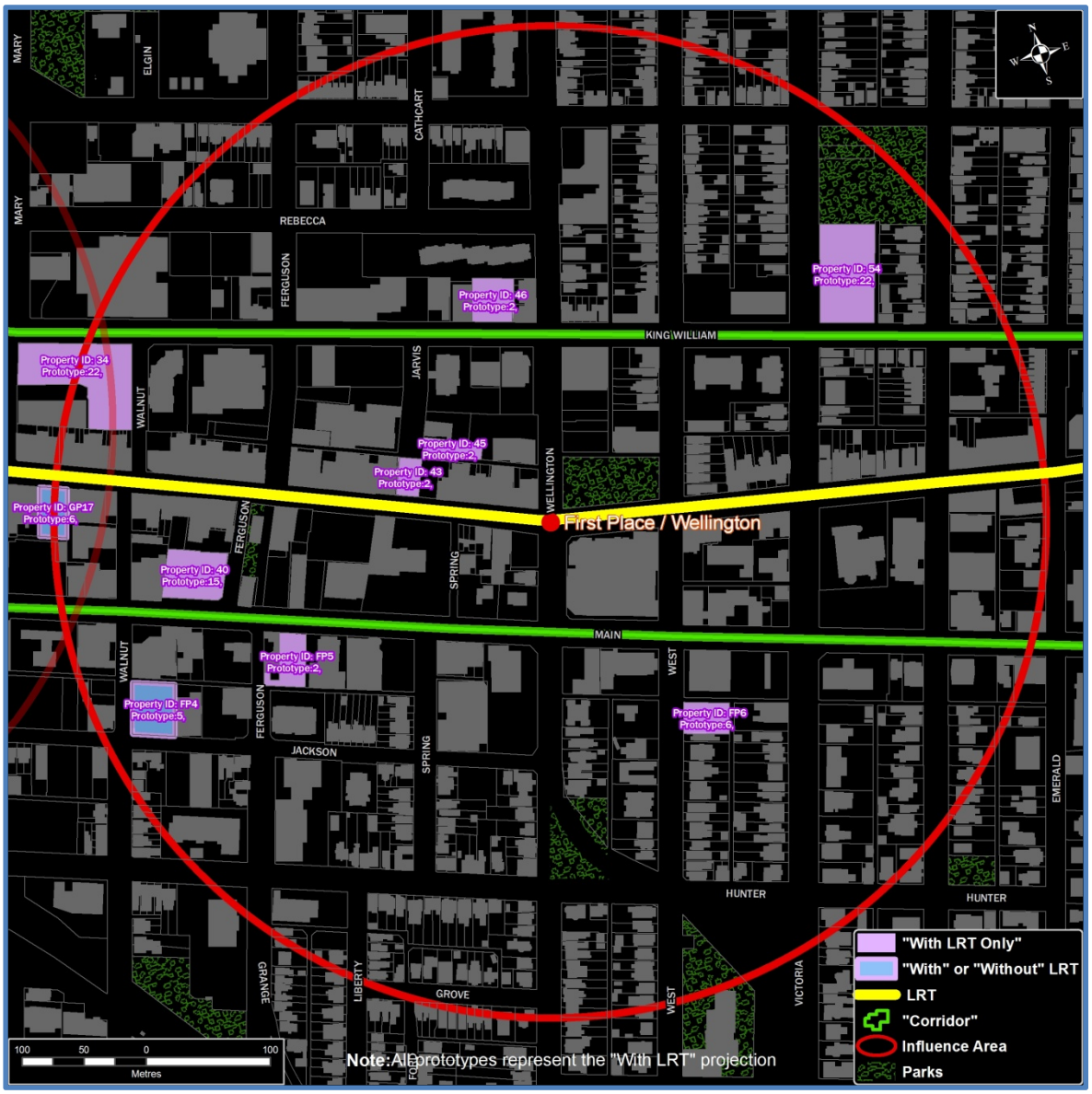


Gore: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	45,144	111,452	66,308
Total New Floor Space By Yr 5	3,698	25,278	21,581
Total New Floor Space By Yr 10	38,474	82,677	44,203
Total New Floor Space By Yr 15	45,144	111,452	66,308

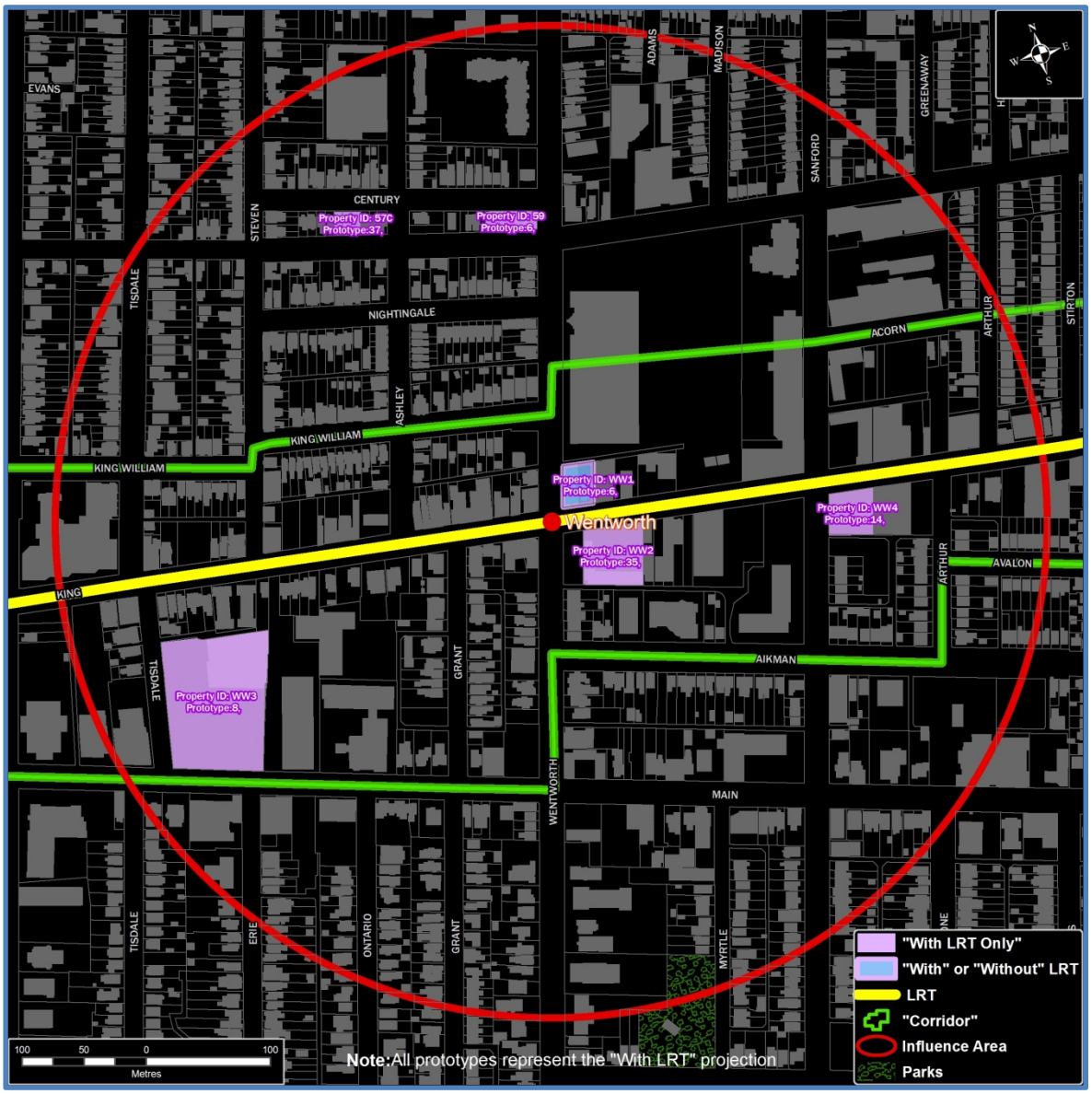
7 FIRST PLACE (WELLINGTON)



First Place: Projection Synopsi DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	2,620	37,661	35,041
Total New Floor Space By Yr 5	0	17,381	17,381
Total New Floor Space By Yr 10	2,620	36,376	33,756
Total New Floor Space By Yr 15	2,620	37,661	35,041

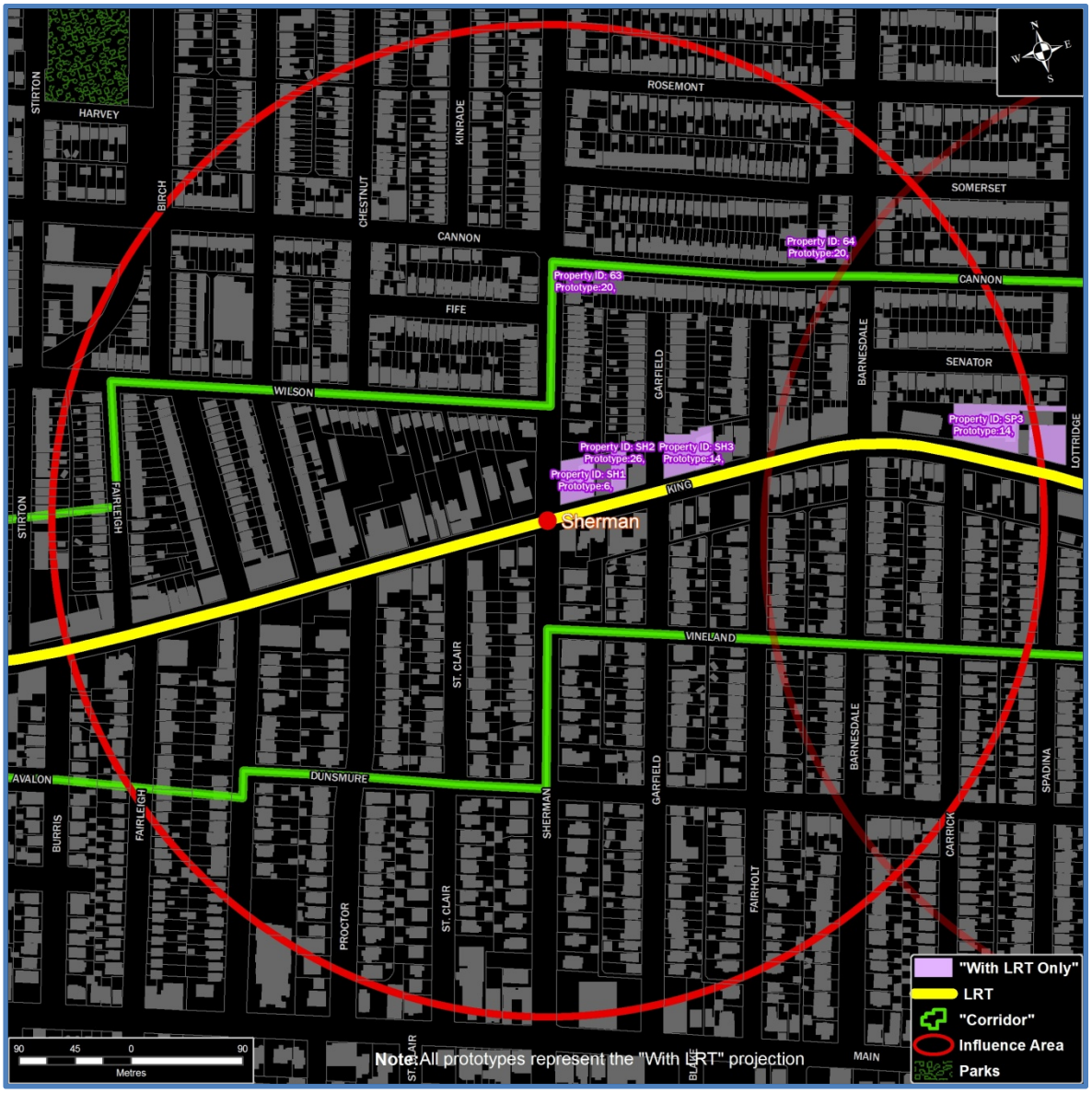
8 WENTWORTH



Wentworth: Projection Synopsi DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	915	32,548	31,633
Total New Floor Space By Yr 5	0	915	915
Total New Floor Space By Yr 10	0	22,762	22,762
Total New Floor Space By Yr 15	915	32,548	31,633

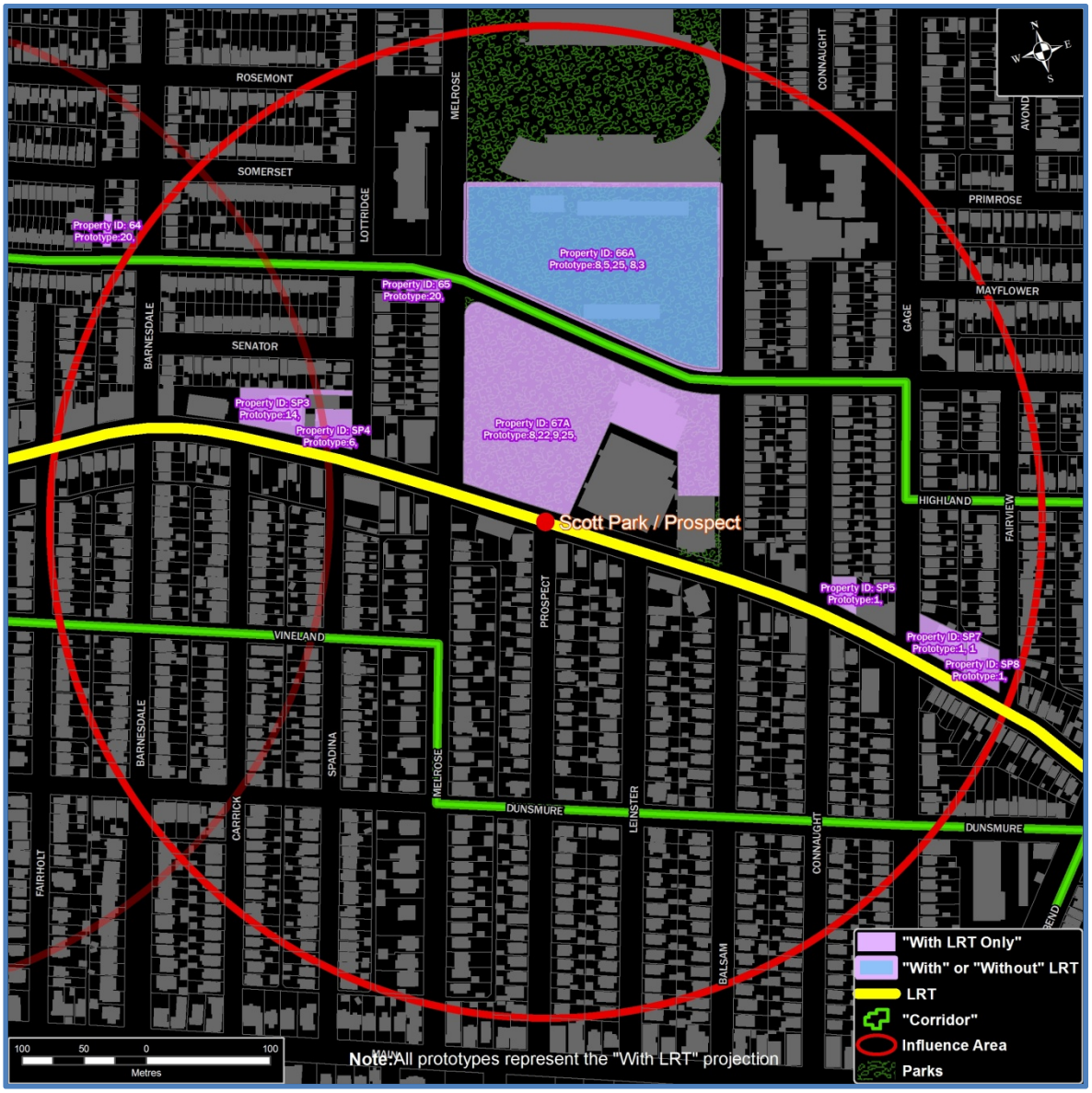
9 SHERMAN



Sherman: Projection Synopsis DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	0	6,874	6,874
Total New Floor Space By Yr 5	0	100	100
Total New Floor Space By Yr 10	0	1,115	1,115
Total New Floor Space By Yr 15	0	6,874	6,874

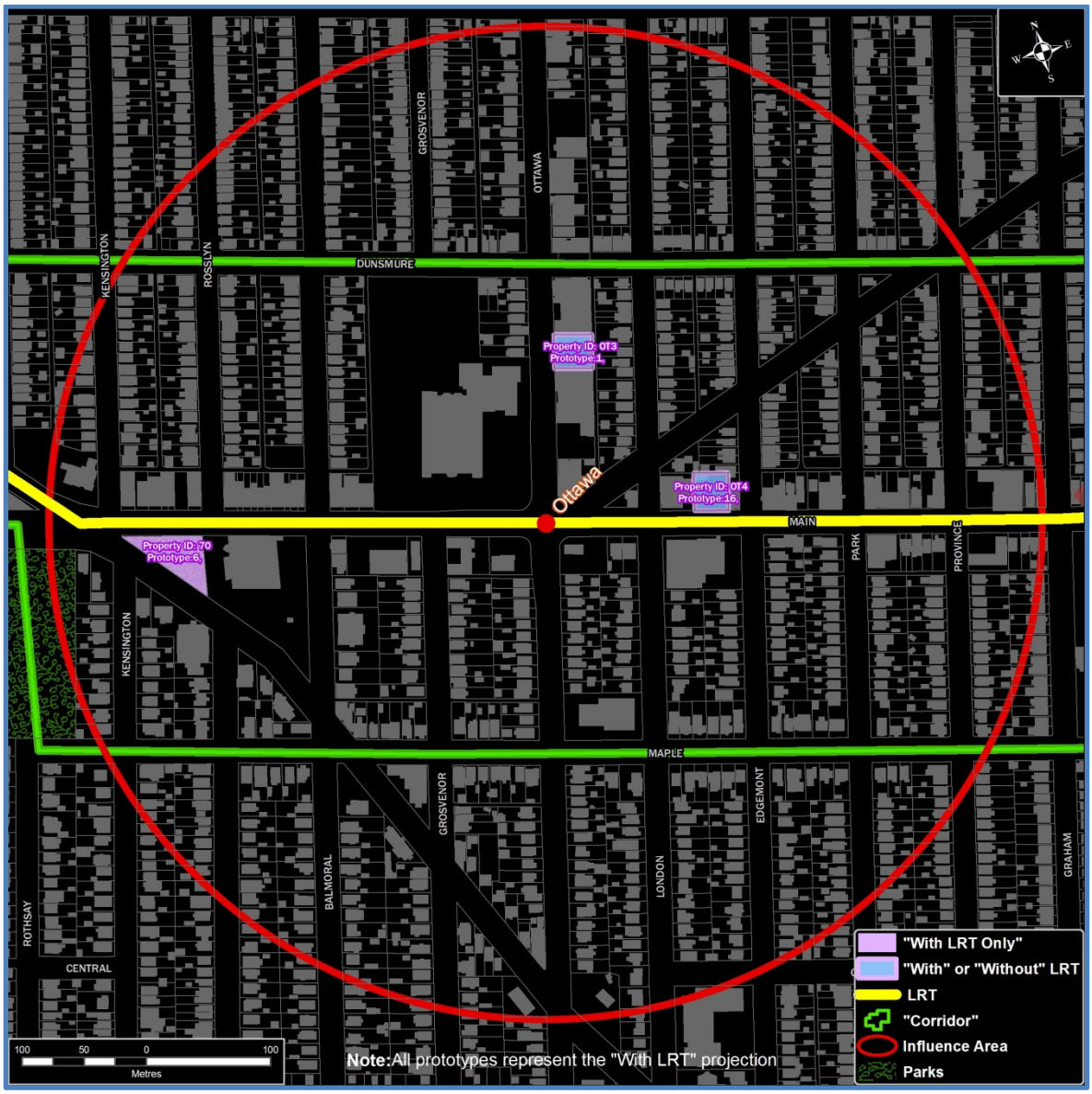
10 SCOTT PARK (PROSPECT)



Scott Park: Projection Synopsis: DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	53,140	94,089	40,949
Total New Floor Space By Yr 5	0	11,503	11,503
Total New Floor Space By Yr 10	6,460	51,495	45,035
Total New Floor Space By Yr 15	53,140	94,089	40,949

11 OTTAWA



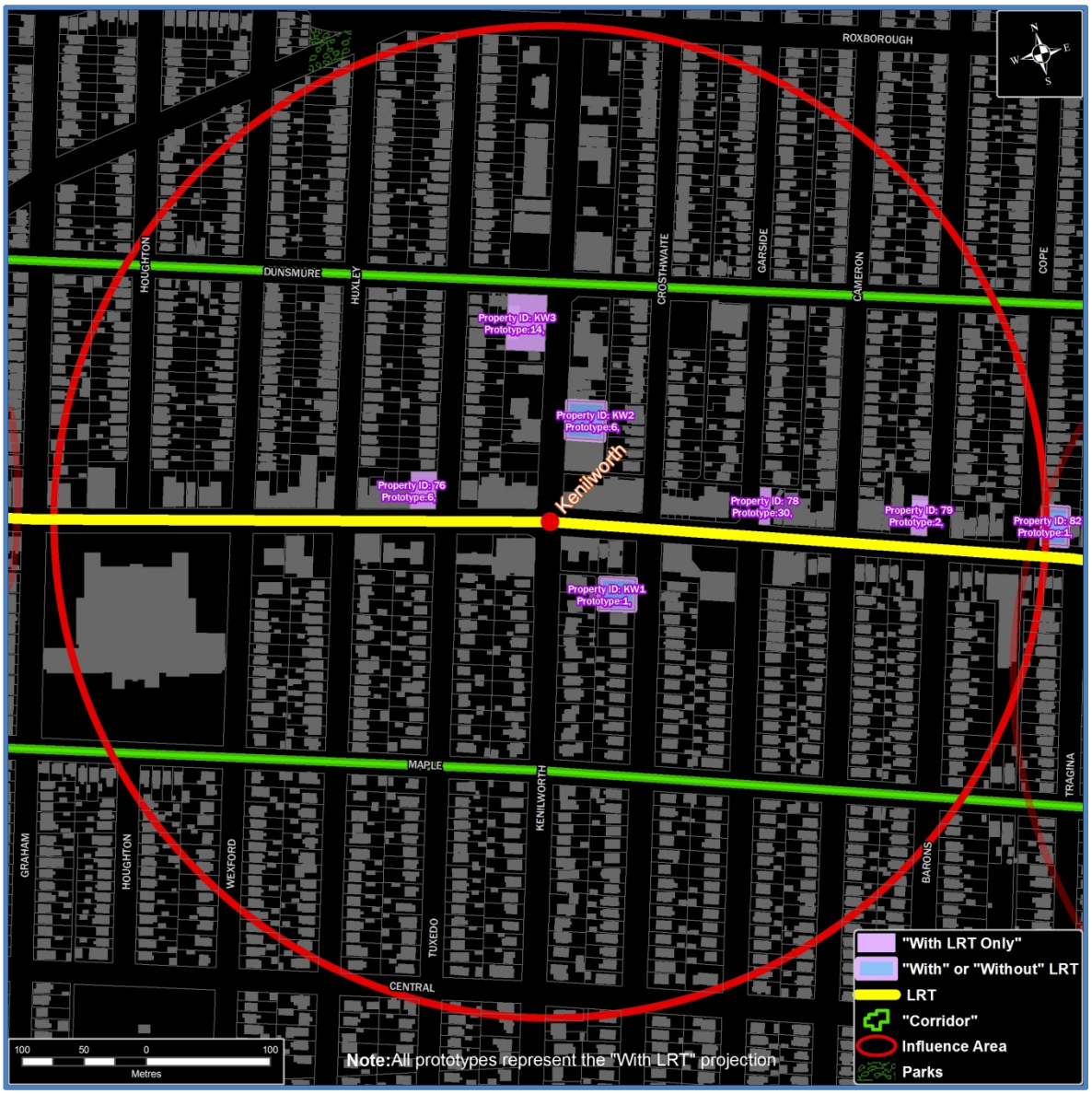
Ottawa: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	1,413	2,328	915
Total New Floor Space By Yr 5	1,413	1,494	81
Total New Floor Space By Yr 10	1,413	1,494	81
Total New Floor Space By Yr 15	1,413	2,328	915

*Note: Properties on the South Side of Main Street at Ottawa were left out of the development projection due to suggestions at the workshop that the south-side properties would make an ideal site for a “Signature LRT Station.”

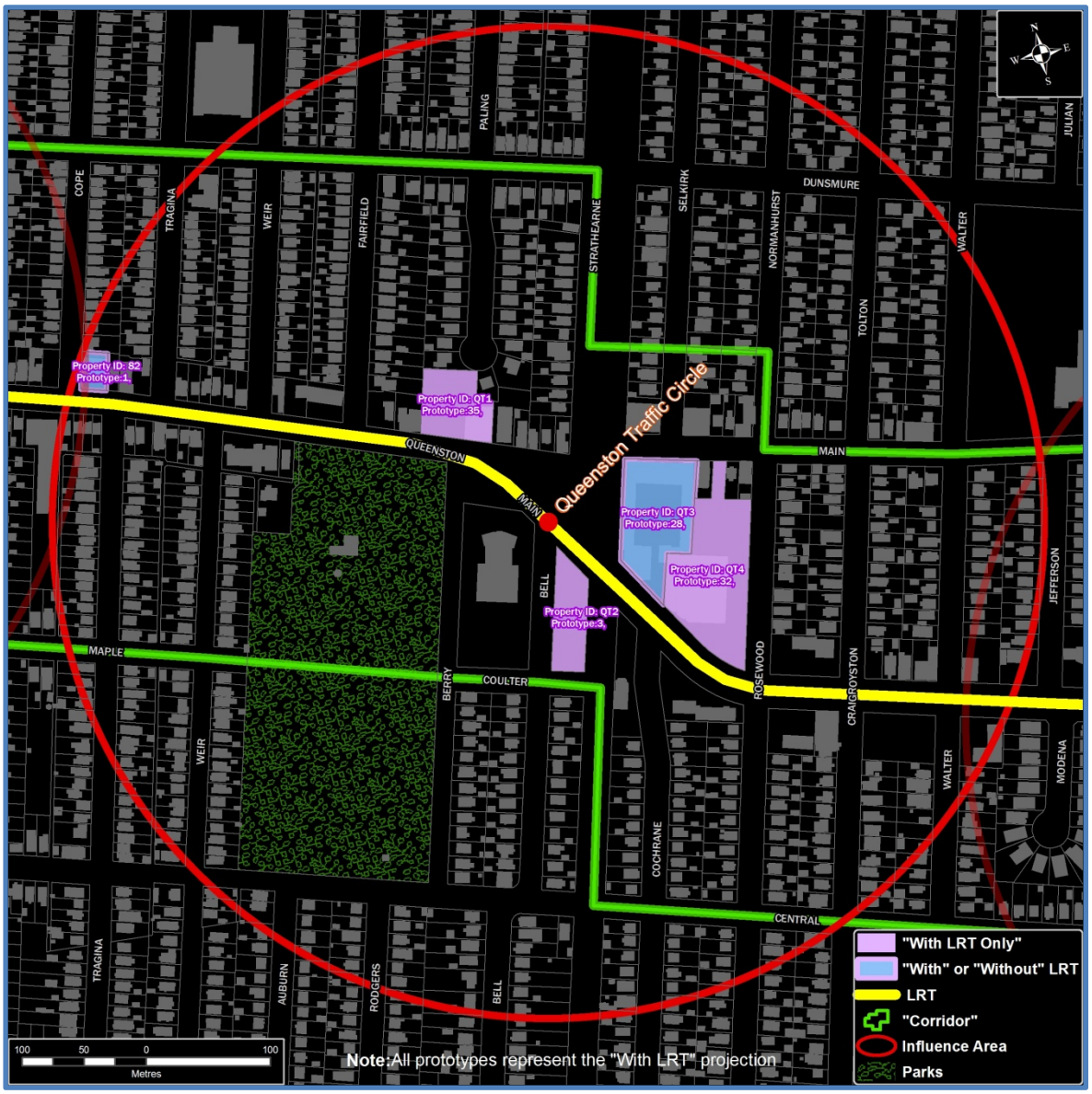
12 KENILWORTH



Kenilworth: Projection Synopsi: DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	2,073	9,501	7,428
Total New Floor Space By Yr 5	579	579	0
Total New Floor Space By Yr 10	579	2,252	1,673
Total New Floor Space By Yr 15	2,073	9,501	7,428

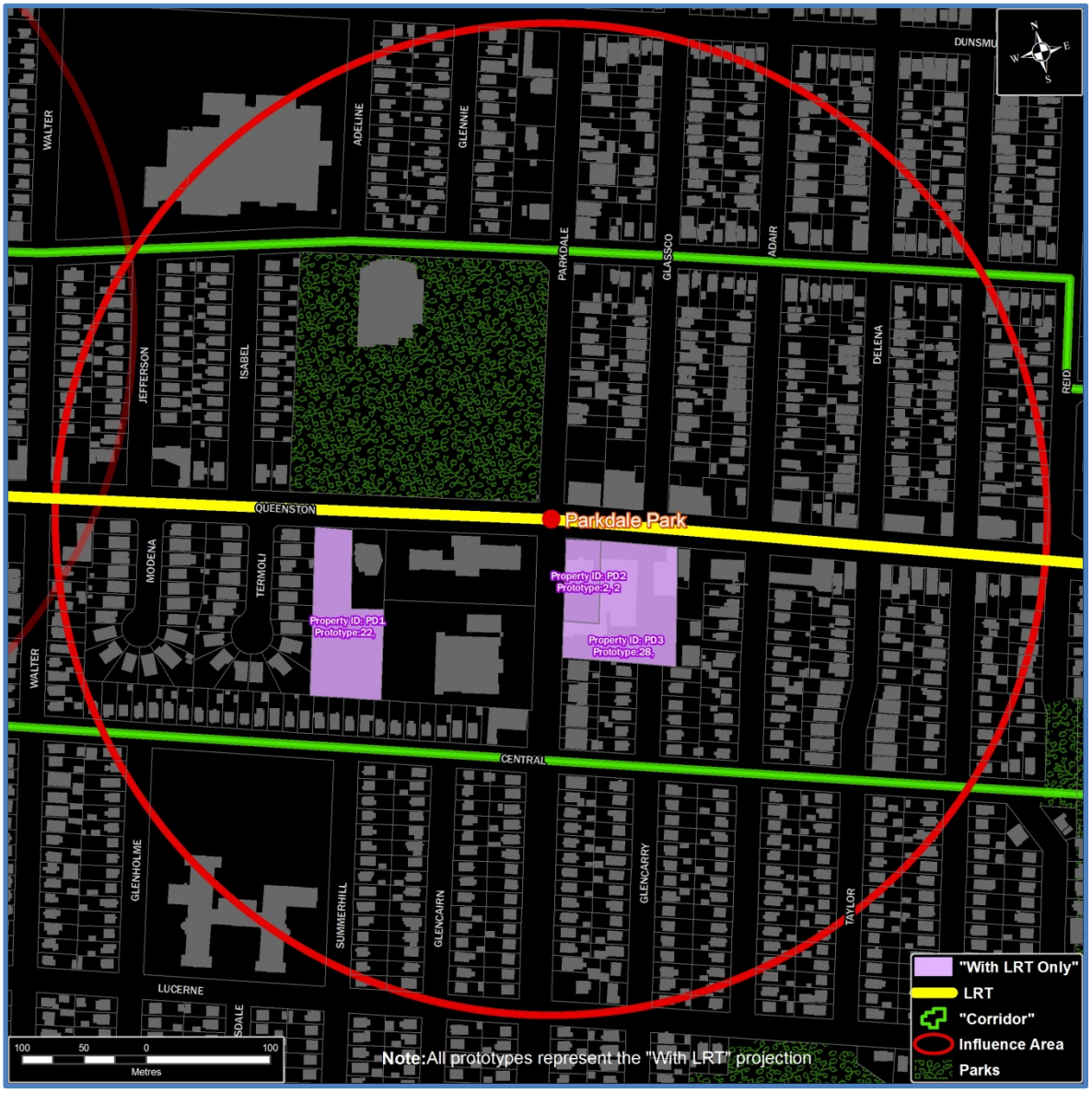
13 TRAFFIC CIRCLE (QUEENSTON)



Traffic Circle: Projection Synopsi DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	14,202	23,250	9,048
Total New Floor Space By Yr 5	1,634	5,208	3,575
Total New Floor Space By Yr 10	1,634	9,048	7,415
Total New Floor Space By Yr 15	14,202	23,250	9,048

14 PARKDALE

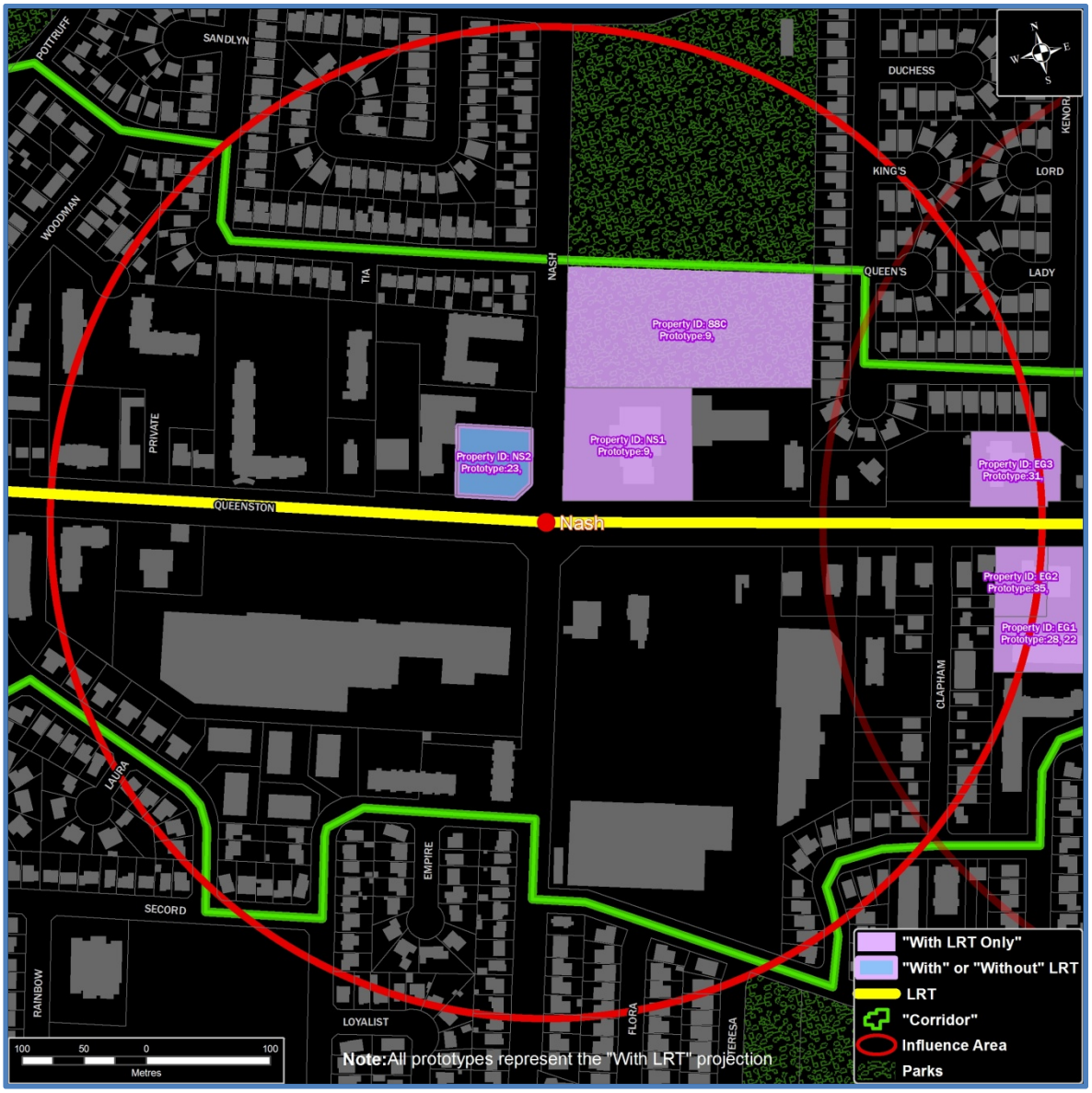


Parkdale: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	0	28,664	28,664
Total New Floor Space By Yr 5	0	13,526	13,526
Total New Floor Space By Yr 10	0	16,096	16,096
Total New Floor Space By Yr 15	0	28,664	28,664

15 NASH

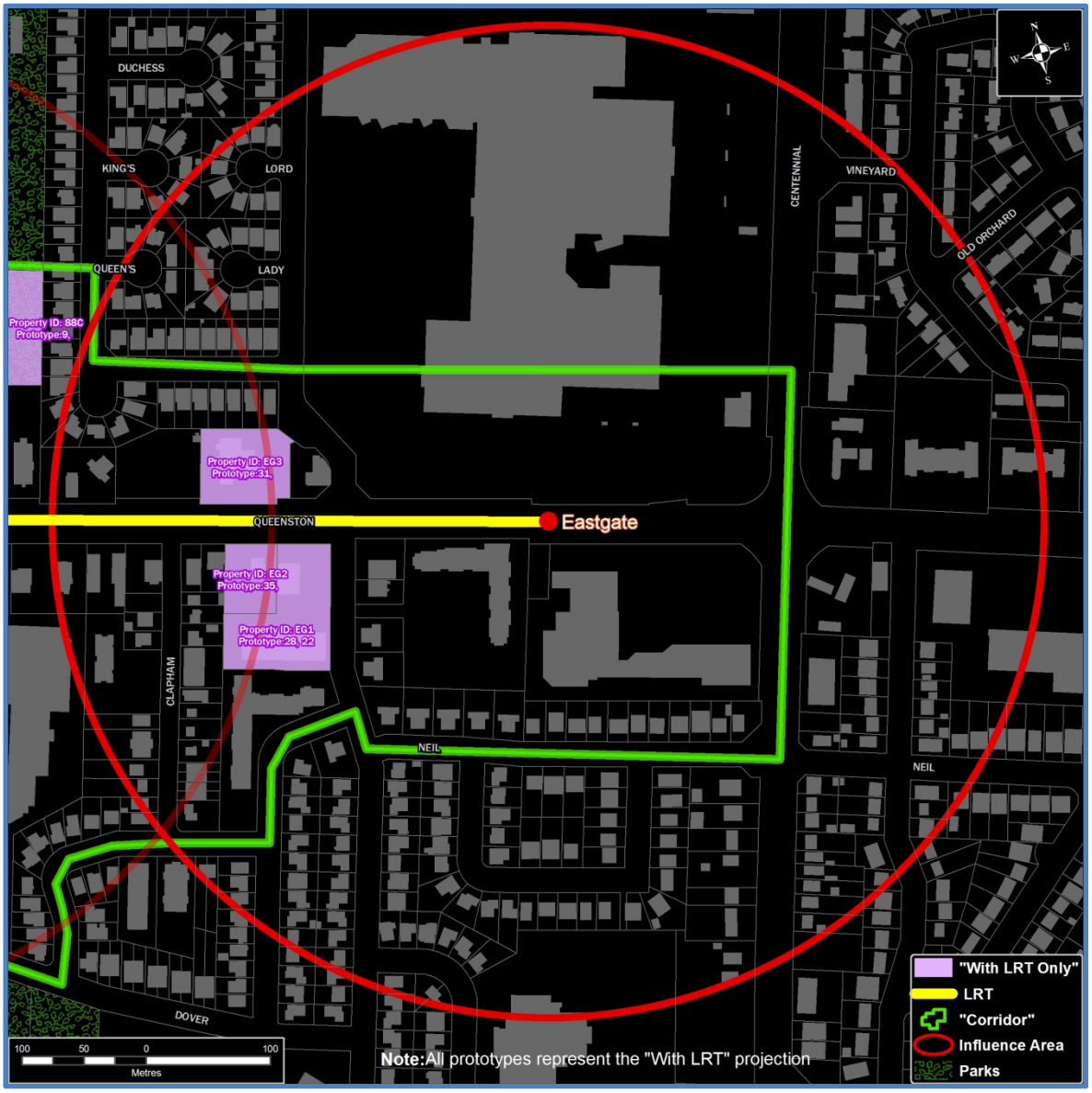


Nash: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	2,783	17,154	14,372
Total New Floor Space By Yr 5	0	0	0
Total New Floor Space By Yr 10	0	2,783	2,783
Total New Floor Space By Yr 15	2,783	17,154	14,372

16 EASTGATE SQUARE



Eastgate: Projection Synopsis

DIRECT DEVELOPMENT IMPACT

Floorspace / Type	Without LRT	With LRT	Difference
Total New Floor Space (sqm)	0	31,302	31,302
Total New Floor Space By Yr 5	0	0	0
Total New Floor Space By Yr 10	0	0	0
Total New Floor Space By Yr 15	0	31,302	31,302

VIII. Calculating Property Value Uplift

Property value uplift is a normal market response to major public investment. The property value increase generated by transportation infrastructure arises from improvements in accessibility (such as greater corridor capacity, increased frequency of access, more dependable transit schedules, or a reduction in congestion).

There are several sources of value uplift related to the B-Line LRT investment. The first relates to an LRT "value premium" that accrues to all properties along the corridor benefitting from the LRT. This benefit represents an increase in taxable assessment for all properties within the influence area of stations. A second source of value uplift is the increase in taxable assessment related to new development projects provoked by the LRT investment that would not otherwise have occurred (that is, the LRT "development response"). The third, and related, stream arises from the various fees and charges collected as a result of the development activity. Each of these is discussed below.

(a) LRT Property Value Premium

An "LRT Premium" recognizes the tendency for vacancy rates to decline, rents to increase, and property sale prices to escalate along an LRT corridor as a result of the benefits provided by enhanced transit service.

This premium is highest for properties immediately adjacent to the LRT line where access to the LRT service and the visibility of the property to LRT riders is highest. The value of visibility is of particular significance to commercial and residential rental properties. Based on the findings of previous studies, an LRT premium of 4% was applied to all properties within a one-block depth of the LRT alignment. A 2% premium was applied to all properties located beyond the first block but within a 400-metre radius of each station. Properties within the 400-metre distance enjoy enhanced accessibility, but not direct visibility from the LRT line.

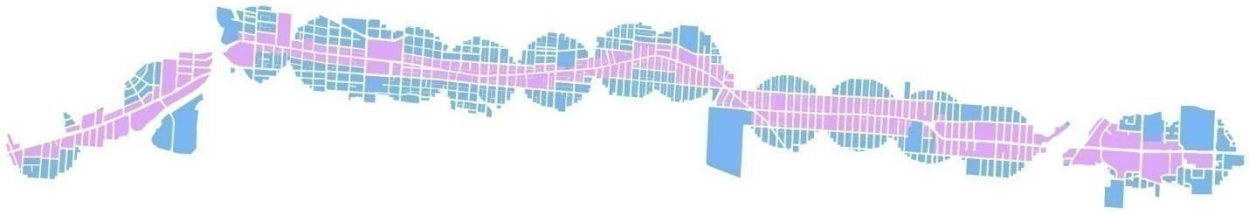
In its February 2010 Rapid Transit Benefits Case Analysis (BCA) for the B-Line, Metrolinx used a range of different premiums (termed "property value uplift factors" in the BCA) that could be applied, based on an extensive literature review. Ranges for developed properties spread between 2% and 4% while vacant lands had a much wider range of between 8% and 14%.[25]

The 8% to 14% range is the generalized premium used by Metrolinx in the BCA to account for development that would likely occur on vacant parcels. The Value Planning approach used during this study addresses vacant and underused properties on a parcel-by-parcel basis as part of the LRT "development response" (discussed next). Accordingly, we have adopted the 2% to 4% range as the

[25] Metrolinx, "King Main Benefits Case," Draft, February, 2010.

general property uplift for developed properties along the corridor, but dealt with the property value uplift on vacant and underused properties as individual cases in our development projection.

Figure 9 - LRT Premium Assignments



Blue = 2% LRT Premium; Purple = 4% LRT Premium

Figure 9 displays Hamilton's parcel fabric along the B-Line study area. Parcels appearing in purple have had a 4% premium applied to them because of their location within one block of the LRT line (the "primary corridor"). Along this primary corridor, access to transit is greatest and properties receive additional visibility from transit vehicles. Parcels shown in blue have had a 2% premium applied to their assessed values.

Table 11 provides an estimate of the increase in taxable assessment created by the 4% and 2% premiums and an estimate of the increase in annual taxes that would be collected from the benefiting properties (based on 2010 tax rates).[26] The impact of this "premium" would be realized within five years of the commencement of the LRT operation – with the impact phased in based on the scheduling of property re-assessment.

Table 11 - LRT Property Value Premium

LRT Premium Category	Increase in Taxable Assessment of Benefitting Properties	Annual Increase in Tax Revenue from benefitting properties
1-block depth (4%)	$70,367,103	$ 1,816,085
400 M ring (2%)	$36,660,424	$815,922
Corridor Total	$107,027,527	$ 2,632,007

The increase in taxable assessment resulting from the premium generated by the LRT investment has been estimated at **$107 Million**. Of this, approximately 60% is attributed to properties located within a one-block depth. The tax benefit of this increased assessment accumulated over the projection horizon has been calculated at **$29.0 Million** (assuming the impact commences in year five).

The increase in assessment along the corridor arising from this premium has the effect of reducing the City-wide property tax rate on non-benefitting properties to meet municipal budget obligations.

[26] The estimate of increase in tax revenues was calculated on the basis of generalized zoning classifications and the applicable 2010 tax rates.

This uplift "premium" increases the property taxes paid by property owners benefiting from the value premium, and reduces the taxes for all other taxpayers. Overall, the increase in assessment created by the premium generates a "tax benefit" to the municipality, representing a "recapture" of a portion of the cost of the LRT investment.

(b) LRT Development Response – Tax Benefit

The second stream of value uplift represents the "development response" to the LRT investment. To calculate this response, we conducted a detailed review on a parcel-by-parcel basis of all properties along the B-Line corridor (both the 1-block depth and the 400-metreradii) to identify vacant and underused properties. A development response was modelled for two scenarios – "Without LRT" and "With LRT." The development projection was adjusted to respect control totals that represent previous development trends, planning policy directions, and projections of market capacity. The difference in the increase in taxable assessment and tax benefit arising from the development response attributed to the LRT (i.e. "Without LRT" vs. "With LRT") is summarized in the three Tables below.

Table 12 illustrates the development projection (the increase attributable to the LRT) on the basis of three 5-year periods within the 15-year study horizon.

Table 12 - Development Response By Time Interval

Timing of Development	Increase in Taxable Assessment of Benefitting Properties	Annual Tax Revenue from benefitting properties
At Year 5	$83,105,047 With LRT minus $39,957,112 Without LRT = $43,147,935 difference	$1,195,071 With LRT $587,694 Without LRT =$607,976 (at year 5)
At Year 10	$109,895,082 With LRT minus $65,505,001 Without LRT = $ 44,390,081 difference	$3,075,161 With LRT $1,700,203 Without LRT =$1,374,958 (at year 10)
At Year 15	$233,876,714 With LRT minus $40,518,154 Without =$193,358,560 difference	$6,617,518 With LRT $2,367,025 Without LRT =$4,255,493 (at year 15)

The development projection accelerates through the 15-year horizon as the market opportunities mature and increasing numbers of developers are attracted to these opportunities.

Over the 15-year horizon, the total increase in taxable assessment due to the LRT investment is estimated at **$281 million** (i.e. the difference between "Without LRT" and "With LRT"). The additional tax benefit generated by this increase in taxable assessment, accumulated over the 15-year horizon, is estimated at **$22.4 million** (shown on the upper portion of Figure 10).

Figure 10 illustrates the accumulation, over time, of tax benefits from the LRT premium and the LRT development response. It represents the *delta*, or net tax revenue, of the "with" and "without LRT" projections.

Figure 10 - Tax Accumulation (Delta of "With" and "Without LRT" plus LRT Premium)

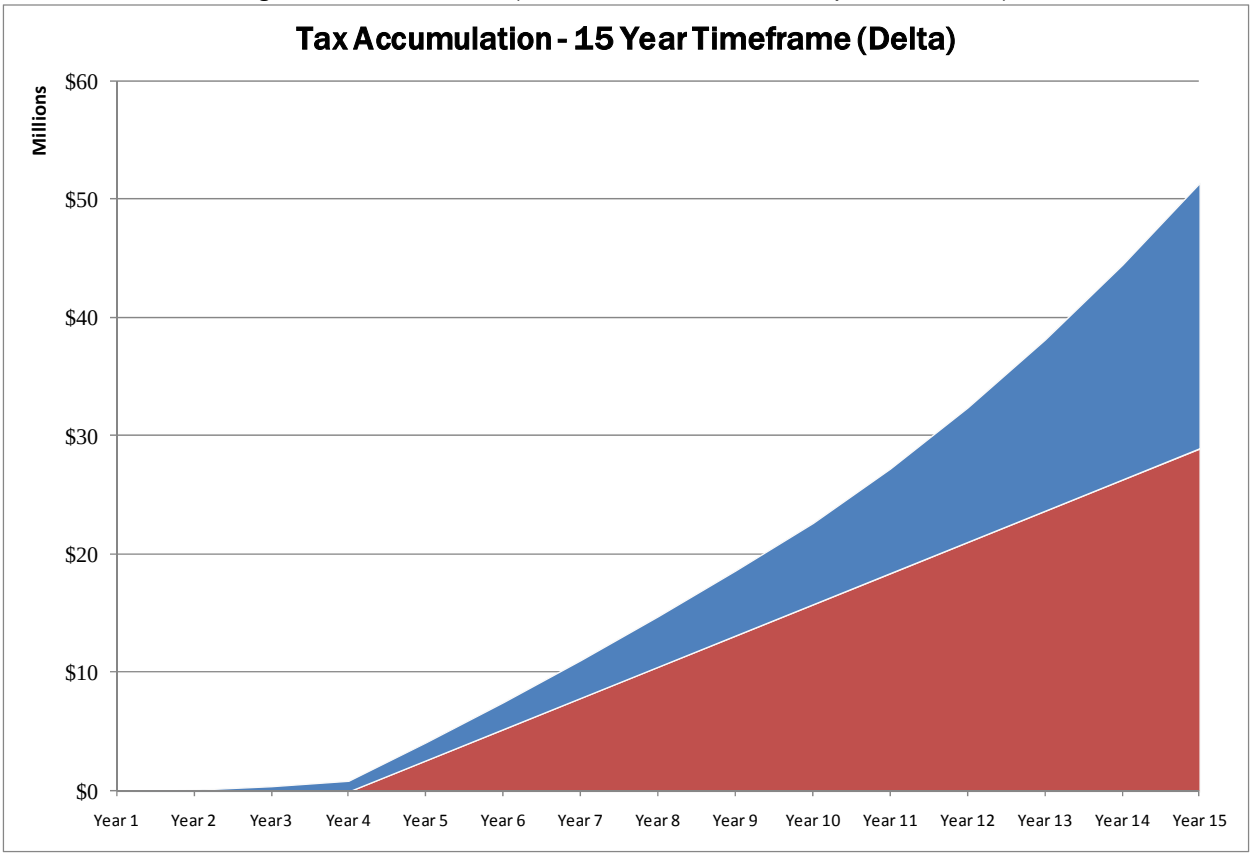


Table 13 provides a summary of the increase in taxable assessment and tax benefit (accumulated over the 15-year horizon) by location in the corridor (1 block range vs. beyond 1 block but inside the 400-metre radii).Approximately 71% of the uplift resulting from the projected development response occurs within the 1-block range.

Table 13 - Development Response By Location

Location of Development	Increase in Taxable Assessment of Benefitting Properties	Increase in Tax Benefit (15 years)
1-block range	$201 million	$16.0 million
400-metre radius	$80 million	$6.4 million

Table 13 summarizes the increase in taxable assessment and tax benefits by ownership type (public vs. private lands). Approximately two-thirds of the uplift resulting from the projected development response occurs on private lands. The projected development of public parcels was determined through discussions with the City and relate, in large part, to the redevelopment of lands at Ivor

Wynne Stadium (Scott Park Station) and the southernmost portion of Sam Manson Park (Nash Station). For the purposes of this study, we have assumed that, with the redevelopment of the stadium site, the existing city park could be moved further into the existing residential neighbourhood adjacent to Beachwood Avenue, thereby freeing up prime land in the LRT corridor for new development. The southernmost portion of Sam Manson Park provides an ideal greenfield location for a joint venture capable of demonstrating the intensification potential of this outer suburban area.

Table 14 - LRT Development By Ownership Type

Ownership Type	Increase in Taxable Assessment of Benefitting Properties	Increase in Tax Benefit (15 years)
Public	$92 million	$7.5 million
Private	$189 million	$ 14.9 million

Although the initial focus of this study was to examine the potential for value uplift on City-owned lands, early in the study process, the scope was expanded to examine development potential of private lands along the corridor.[27] The project team concluded, through discussion with City staff, that because public land development would not occur in isolation of a private development response that key private parcels should be examined.

(c) Development Response – Fees and Charges

The third stream of revenues, arising directly from the projected development response, results from the fees and charges levied by the municipality on new construction. Two main elements were calculated: building permit fees and development charges. The results are summarized in Table 15.

Table 15 - LRT Development Response - Fees and Charges

Location of Development	Building Permit Fees	Development Charges
Entire Study Area	$6,279,827 With LRT minus $2,079,096 Without LRT =$4,200,731 difference	$42,794,249 With LRT minus $16,791,037 Without LRT =$26,003,212 difference

The fees and charges arising from development related to the LRT investment (i.e. the difference between "Without LRT" vs. "With LRT") is calculated at **$30.2 million** over the 15-year projection period. The model projects development assuming the existing development charge exemption programs are lifted as a result of the infrastructure investment in LRT.[28]

[27] Although the study scope was expanded to examine private lands, it was judged premature to engage with the owners of private lands to determine their development vision or intentions.
[28] The total value of projected development charges (DC) in areas that are currently except from DCs in the "with LRT" model is approximately $17.4 million. If DC exceptions were to remain in effect the total for fees generated in the "with LRT" projection would decrease by this amount.

IV. Financial Investment Strategies & Value Capture Recommendations

The construction of the B-Line LRT corridor has been identified as a "foundational project" of strategic significance to Hamilton as it continues to experience a transition in its local economy and employment base.[29] This section of the report examines how new revenue streams might be captured, redeployed, or otherwise leveraged, to produce a maximum return to the municipality. Returns can be measured as both financial benefits and as tangible steps towards achieving the community vision.

The value of the tax benefit and fees and charges created by B-Line LRT investment, as presented in the previous section of this report, is summarized in Table 16.

Table 16 - Total Revenue Summary

Uplift Source	15 Year Total for B-Line Corridor
LRT Value Premium– Tax Benefit[30]	$29.0million
LRT Development Projection-Tax Benefit	$ 22.4million
LRT Development Program-Fees and Charges	$30.2million
15- Year Total	**$81.6million**

This section also provides recommended actions for the City of Hamilton to consider as it proceeds with both the B-Line study and studies of other foundational projects. Each of the mechanisms recommended below has been used in other jurisdictions to encourage positive development, help ensure a return on public investment, and promote desirable forms of development.

(a) Generate Additional Uplift

What…

The City should consider implementing programs to help generate additional uplift on the B-Line corridor and remove roadblocks for development on lands within the study area. A number of tools could encourage development and further uplift in the corridor over the long term, including new loan programs and tax increment equivalent grants (TIEGs). Additional options include the creation of a *regeneration investment fund*, or an *urban development bank.*

[29] A foundational project is valuable in its own right; stimulates productivity and economic competitiveness; offers a clear return on investment, builds on the tax base; provides a platform for other projects (it is not a "one-off" or isolated asset); meets municipal priorities and provincial priorities (Growth Plan); and contributes to quality of place and quality of life. Canadian Urban Institute, "Building Momentum: Made in Hamilton Infrastructure Solutions" January, 2010.

[30] The taxes generated from the additional taxable assessment created in response to the LRT investment is herein described as a "tax benefit" in recognition that, in effect, this is the amount of taxes not needed to be collected from non-benefiting properties to meet the City's budget requirement. The impact of this benefit is to reduce the city-wide tax rate that needs to be charged.

For example, to catalyze development, City-owned lands on the corridor that have development potential could be transferred to an *urban development corporation* to expedite the development process.

Why…

Further growth in the assessment base will reduce the tax burden on existing residents and businesses in Hamilton. These programs will help ensure that any capital investment made in LRT on behalf of the municipality will generate the maximum return on that investment.

How…

1. Adjust CIP programs to enable TIEGs/TIFs if desired

Section 28 of the Ontario *Planning Act* sets out the process whereby a municipality can prepare a Community Improvement Plan (CIP) for an area in which development is needed. Once such an area is designated, the municipality can use financial incentives such as Tax Increment Equivalent Grants (TIEGS) to stimulate development. The CIP designation is a necessary step to access certain provincially legislated financial tools.

The act defines areas eligible for designation as "an area, the community improvement of which is desirable because of age, dilapidation, overcrowding, faulty arrangement, unsuitability of buildings or for any other environmental, social or community economic development reason."

In such areas, returns on transit investment are maximized if transit-oriented development policies are in place and flexibility is allowed to encourage private investment.

The CIP can include any changes to land-use and zoning regulations to encourage the development of projects outlined in planning studies. Fiscal incentives in the form of tax credits, grants, or loans can be applied to the addition or improvement of infrastructure; the repair, rehabilitation or construction of facilities; or investment in properties to meet goals stated in the district plan. The City of Hamilton makes use of CIP legislation in many communities and has a range of incentive and grant programs in place today.

One of these CIP areas is in the city's downtown. This CIP should remain in place, but some incentive and grant programs should be re-evaluated in light of an investment in LRT – the development charge exception program in particular. Once LRT becomes operational it may also be advisable to review the need for the OTAP program. It is further recommended that where areas of the B-Line corridor do not fall within CIPs, an additional CIP be established to provide for the use of TIEGs, TIFs, or other CIP programs.

2. Establish an Arm's-length Urban Development Corporation with a City-wide Mandate.
An Urban Development Corporation can coordinate the many organizations involved in complex development projects to achieve a cohesive development vision. The Urban Development Corporation performs development functions –connecting capital and land to people, ideas, and commercially viable projects that align with an approved plan or strategy.

Some development corporations can monetize tax credits or allow credits to be converted to loans to provide start-up capital for projects, such as heritage restoration projects. An appropriate level of tax credits is determined to close the gap between the market rents the property should generate and the cost of redeveloping a heritage property relative to the cost of new construction.

Development corporations can also organize the development of proposals and investments in a specified district and administer the sale and leasing of sites.

Specifically an urban development corporation can:

- ensure the lands are developed consistently with provincial policies and the City's development plans;
- put government development requirements for the site into a convenient format and help investors assemble their development proposals to meet those requirements;
- guide projects and business investments on the site through the process of government approvals and regulations;
- administer incentive programs for projects on the site on behalf of the city and the province;
- establish and manage a development bank or revolving fund based on a percentage of land sale revenues from the district;
- receive funding based on performance with operating and capital revenues derived from a share of land transactions and investment revenues;
- facilitate the operation of a regeneration investment fund or urban development bank;
- act as a developer or leaser of lands.

A development corporation, that could take on responsibility for developing publicly owned parcels and promoting development that will support the LRT along the B-Line corridor, would serve as a vehicle for coordinated development of civic properties or complex projects involving private properties requiring strong municipal involvement.

It is therefore recommended that the City of Hamilton establish an arm's-length urban development corporation with a city-wide mandate that can generate capital for high-risk projects on low-risk sites. To focus efforts on priority districts or projects, Hamilton City Council could define a strategic direction for the development corporation on a series of fixed terms (such as every five years). This approach would allow Council to direct the corporation to focus its attention on specific geographic areas (such as the West Harbour, Downtown Core or the B-Line corridor), or on lands that face unique challenges (such as brownfields).

Urban development corporations are usually composed of an independent board of directors made up of individuals with a vested interest in the local economy and knowledge of the market. City Council can provide strategic direction, but the corporation would be able to invest in projects of its choosing, free of political influence. The importance of an effective urban development corporation is highlighted in the *Building Momentum* study.

3. Consider Establishing an Urban Development Bank

Urban development banks and agencies are organizations that manage loans, credit, and bridge financing of capital projects as part of an urban regeneration project. They organize and connect people, capital, and place. Urban development banks were pioneered in places like St. Paul, Minnesota, and Winnipeg, Manitoba, to provide seed capital for the development or redevelopment of key urban sites. This concept has been successful in other centres and helped stimulate innovation in local urban development practices.

The urban development bank is typically assigned civic assets that have proven difficult to sell, are off the market, are unlikely to achieve reasonable sales price in their current condition, or that would benefit from creative public-private development partnerships.

Generally, lands are improved and marketed to targeted investors with a package of incentives, often combined with a specific local development strategy. The bank is paid on a set percentage of the enhanced value of the land or asset upon sale and reinvests that money in the redevelopment of the site and the marketing of the land.

An urban development bank can normally approve funding for qualified development projects. The bank uses its asset base and banked revenues to offer mortgage or bridge financing, loan guarantees, subordinated debt, or equity participation to small or medium-sized real estate developments.

The urban development bank or its parent development agency usually facilitates partnering with traditional lenders such as banks and credit unions. In practice, the urban development bank acts as a lender of last resort to bridge the gap between bank financing and final project costs. Interest and repayments from urban bank-assisted projects, interest earned on the capital pool, and the net proceeds from the sale of properties in the district are used to replenish loan funds.

An asset agreement is usually the basis for the transfer of underperforming assets or surplus lands to the urban development bank. The agreement specifies the goals and authority of the agency and the terms under which it holds the assets. The objective is to ensure that properties are appropriately developed so that they are returned to the tax roll within the expectations of the area development plans.

In addition to its role in the development of city properties, the bank can play other roles:

- provide loans, lease land, sell property and act as “lender of last resort”;
- administer financial incentives;
- make equity investments;
- manage and monetize tax credits.

An urban development bank is most effective when attached to a (parent) urban development corporation that works with investors and developers to find customized solutions to meet their specific needs, such as identifying development opportunities, securing financing, or meeting development regulations. Development corporations can help potential investors or development deal with government and navigate various government policies, procedures, and committees.

The City of Hamilton should investigate establishing an urban development bank in conjunction with an urban development corporation. Property grants and tax credits should be managed with the following conditions and restrictions:

- The incentives offered should be scaled to close the gap between market rents and costs. It is critical to assess both the costs of maintaining property and the actual rents or sale prices generated. If incentives are too modest, they will generate little response. If they are too generous, they will create free riders who will use the incentives to subsidize construction that would have happened anyway, distorting the operation of the market.
- Incentives from the city should be given only to improve property and never to subsidize a business. The city gets its return from the increase in the value of property and it should invest (through tax incentives) only in improvements to land and buildings that have the potential to generate a stronger assessment base. Otherwise, the incentives will represent a cost to the city, not a benefit. Businesses come and go but appropriate improvements to foundations, roofs, elevators, and insulation last – building the long-term value of the asset and assessment base.
- The recapture of incentives should always be considered separately from the sale price of land when the city or other governments dispose of public lands (possibly returning all or a portion of the incentives to the regeneration program).
- The incentives should be calculated to close the gap between market rents and the costs of carrying, restoring, and maintaining a property. For example, if the market is generating $14 sq. ft. rent, but the cost of restoring and maintaining the property requires $24 sq.ft. (amortized), then the incentives should be set at 50%.
- Incentives should be adjusted annually to reflect changes in market rents and sales. As each new building is built or each existing building fills with tenants, the rents will rise to reflect the stronger market. A judicious stepping-down of the percentage of investment eligible for grants or tax relief should occur as the gap between costs and market rent closes.
- Incentives should be performance-based, not regulatory. If an approved eligible investment is made in a building within the designated district, the incentive (tax relief or grant under the formula) should be automatically rewarded. Grants and tax relief should be given as a specific percentage of the actual cost of the improvement made to the building.

- Approvals for incentives should be front-end-loaded. The applicant for an incentive should submit two or three quotes for eligible work prior to construction. The city or approving agency should authorize the work and give the proponent approval before the start of construction. Approval should be for the submitted costs only and the city incentive should be capped at that amount. Cost overruns are the responsibility of the project proponent. This approach avoids bureaucratic entanglement and fights over costs and builds momentum for regeneration.
- Incentives should be administered within the context of a plan, and should be related to the plan's objectives and evaluated against predetermined measurements that include the enhanced value of property throughout the district and not just in the directly benefitting properties.
- All incentives should be subject to sunset clauses on a four- to five-year horizon. Beginning a year before the sunset date, the progress achieved by the incentives should be evaluated and, if necessary, adjusted and renewed to reflect new policy outcomes and changed conditions in the district.

4. Evaluate the Potential for a Regeneration Investment Fund

Cities can implement a substitute to a tax incentive program approach through a regeneration investment fund. The first step is to define the benefiting area – possibly the same area designated for the CIP. The next step is to establish a base line by calculating the current taxation levels based on current property assessments. Using this baseline, the city can calculate the impact of each development project and infrastructure investment within the designated area.

The city can also monitor the uplift in property assessment at each reassessment using market value based on rolling averages of property sales. From the new property assessments, the net increase in property tax revenue can be calculated.

The city can establish a revolving fund or an account that designates an appropriate percentage of new tax revenues from the district in which the improvements have been made, based on a formula that balances the city's need for revenue growth with sufficient investment to realize priority projects (such as the "foundational projects" identified in the *Building Momentum* report).[31] This fund can be replenished each year through a year-end budget transaction by City Council that transfers tax revenues based on the agreed formula into the "regeneration investment fund." This fund makes grants or loans money with interest to support incentives to promote desirable projects.

[31] Canadian Urban Institute, "Building Momentum: Made in Hamilton Infrastructure Solutions," January, 2010.

(b) Invest in Other Foundational Projects to Foster a Critical Mass of Development

What…

The 15-year development projections conducted for this study suggest that between a general increase in assessment (the "LRT Premium") and the creation of taxable assessment through the development program, more than $500 million in new taxable assessment will be generated in the study area. These projections are based on estimates of future market conditions in Hamilton and have been calibrated against corridor control totals. Those control totals assume little change in the regional dynamics of the employment and residential real estate markets and are based primarily on current growth projections for Hamilton.

The City of Hamilton should work with other levels of government and the private sector to study and invest in complementary foundational projects to further generate assessment in private land and demonstrate that Hamilton is a community that offers a low cost of living, an entrepreneurial environment for small and medium-sized businesses, and a high quality of life.

Why…

Investing in other foundational projects and building a critical mass of concentrated development momentum, particularly in the city core, could lead to a substantial change in the real estate markets of the region, in which Hamilton attracts a greater share of total regional development. Additional investments in other key foundational projects (including the A-Line LRT, public space renewal, the Pan Am Stadium, two-way all-day GO service, Liuna station area GO service, and other foundational projects listed in the 2010 *Building Momentum* study) would boost the potential for Hamilton to affect the dynamics of the larger regional real-estate market, enabling it to attract a greater share of the GTAH's development potential.

How…

5. Carry out an expanded value uplift and capture study for the A-Line and other complementary public-sector investments that will support the B-Line initiative.

Building Momentum indicated that the majority of foundational projects and investment opportunities are clustered in the downtown core. The value uplift potential for these projects was evaluated at a conceptual level only; no site-by-site capture and uplift analysis for all parcels in Historic Core, the Lister-to-Liuna district, the Railyards district, or the Harbourfront was conducted.

These districts contain the most substantial cluster of "destinations" in the city. When connected by the A-Line to the B-Line, the development potential of both will likely expand. It is recommended that the City of Hamilton conduct a comprehensive study of the impact of all key downtown foundational projects.

6. Consider Applying a Tax Increment Financing Framework to Help Finance the Municipal Portion of the Capital Costs of LRT Where Necessary for Both Lines, and for Other Foundational Projects

Tax increment financing (TIF) is a financing mechanism that uses the increase in property tax revenues generated through redevelopment to pay for the infrastructure costs associated with redevelopment. Higher taxes resulting from higher property assessments are reserved to finance the infrastructure improvement. The use of TIF is a relatively new concept in Canada, and is currently being used only in Manitoba and Ontario. Ontario recently passed legislation authorizing a limited version of TIF and pilot projects are just now being considered for TIF funding.

The projects typically financed by TIFs are:

- the construction of a public transit facility;
- the construction of municipal infrastructure or amenities to assist in the development of a previously developed area;
- environmental remediation of a previously developed area;
- the provision of public, infill, or affordable housing;
- heritage restoration or capital costs of cultural and sports facilities.

Usually the municipality determines what is eligible for TIF support (working within the framework of the provincial act). Historically, municipal governments in Canada and the United States have interpreted eligible costs to include the costs of environmental assessment studies, remediation, building demolition, retrofitting, on-site infrastructure replacement or upgrading, and in some cases, new construction. In Ontario, the property tax increment allowance is restricted to 1% of the city's total annual tax revenues.

TIFs can be used to stimulate private investment in property rehabilitation. A tax rebate (or in Ontario's language, the "TIF-based grant") is paid to the developer as an annual rebate of part or all of the property tax increase generated by the project. Typically, the term of this tax rebate is 10 years, and there is usually a sliding scale of annual rebates from 100% of the property tax increment in the early years, decreasing to 0% of the tax increment at the end of the period. The combination of a tax rebate and tax relief grants and loans provided by the municipality to the developer cannot exceed the cost of rehabilitating the subject land and buildings.

Conclusions

This study has found that the proposed B-Line LRT would stimulate an additional 350,000 m^2 (3.7 million sq.ft.) of development over a 15-year period relative to development in the area without an LRT. Of this new floor space, approximately 40% would likely be non-residential and 60% residential (mostly multi-residential buildings). This floor space would be distributed across 108 projected development projects on 92 properties in the corridor. Approximately 30% of this new development

could be leveraged from lands currently owned by the city. (Revenue figures *do not* include additional revenue from land sales).

This new development alone equates to a projected $280 million in new taxable assessment. The tax value of this development-related assessment is estimated at $22.4 million over the 15-year period. In addition, the "LRT Premium," that is, the increase in property values for *all* properties in the corridor as a result of additional accessibility and visibility, is estimated to produce an extra $29 million in tax revenue over the 15-year period "With LRT" (based on a new taxable assessment of $107 million).Finally, an estimated $30 million in revenue would be generated from building permit fees and development charges associated with development in the corridor.

This study focuses mainly on publicly owned lands, although some private lands were also evaluated – especially those that are vacant or noticeably underdeveloped. We have not considered private properties in which land assembly would be required, or for which the existing uses are not deemed to be an "underutilization" of the site.

Assessment projections for this study have been calibrated against corridor control totals to ensure that development on the corridor does not outpace market potential. These totals are based on past municipal and private-sector studies. These past studies, however, have not taken into account the potential for the City of Hamilton to reposition its economy in the regional market through key public investments designed to accelerate the pace of private investment in the city. With the right combination of foundational investments (such as those identified in *Building Momentum*) Hamilton could attract additional attention from private-sector investors outside the city. Already the proposed LRT has begun to spark interest with land developers outside Hamilton.

As a next step, this report suggests that the City of Hamilton consider conducting an expanded value capture and uplift study based on several priority foundational projects (as defined by the City) taken together. Combined, these projects are more likely to have a substantial impact on tax assessment, private investment, and long-term private interest in Hamilton's real estate market.

Appendix A: Projection Modeling

Collecting and Analyzing Property Data

	Development Parcel												
Station	Database		Ownership			Positioning							
	Parcel ID	Roll Number(s)	City (X)	Other (X)	Location / Intersection	Primary Corridor (X)	400m (X)	Property Class (Land ISO VALUE)	Parcel Size (m2)	Assessed Value ($)	For Sale ($)	LAND USE AND MUNICIPAL POLICY	
												CURRENT USE CATEGORY	CONFIRMED
												Vacant (X)	Underutilized (X)
Queen Street	11	251801010153780	X		451 KING ST W	X		4	537	$127,500	$0	X	
	12	251801010153290	X		24 RAY ST S	X		4	818	$293,500	$0		X
	13	251802012150100	X		263 KING ST W	X		4	474	$192,000	$0	X	
	14	251802013600070	X		181 JACKSON ST W		X	3	3195	$9,068,500	$0		X
	15	251802012450900	X		191 YORK BLVD		X	3	4397	$1,283,000	$0		X
	16	251802012252020	X		QUEEN ST N		X	3	686	$112,000	$0	X	
	QU1	251801010154470		X	398 KING ST W	X		4	12931	$208,232	$0	X	
	QU2	251801010505720		X	200 MARKET ST		X	3	6211	$1,529,000	$0	X	
	QU3	251801010154290		X	354 KING ST W	X		4	2783	$1,371,000	$0		X
	QU4	251801009554570		X	235 MAIN ST W		X	3	1883	$464,165	$0	X	
	QU5	251802012100490		X	166 MAIN ST W		X	3	5779	$1,134,000	$0	X	
	QU6	251802012250820		X	68 GEORGE ST	X		4	2527	$436,500	$0	X	
	QU7	251802012104000		X	12 CAROLINE ST S	X		4	566	$170,000	$0	X	

LAND USE AND MUNICIPAL POLICY						
CONFIRMED	CONFIRMED					
Development Application Filed (X)	Current Zoning	Max Heights	Existing Land Use (Municipal LUC1)	Internal Land Use Notes
	C3 (Old: Commercial H)	6	Vacant Lands:Parking/Municipal	Parking Lot
	Residential E (Old: Residential E)	4	Institutional:Emergency and Military Services	Fire Station - Relocation or incorporation into new development required
	P4 (Old: Open Space P4)	NA	Vacant Lands:Parking/Municipal	Parking Lot
	D6 (Old: Residential D6)		Residential:Apartment (7 or more units)	Residential
	D3 (Old: Mixed Use D3)		Office:General Office	Community Learning Centre and Carpark
	D3 (Old: Mixed Use D3)		Open Space:Park	Parkette
X	Institutional I2 (Old: Institutional I2)		Vacant Lands:Vacant Residential	Vacant
	Residential E-3/S-1208 (Old: Residential E-3/S-1208)		Vacant Lands:Parking/Private	Vacant
	Residential D (Old: Commercial H)		Institutional:Dormitory	Parking Lot on suggested severence
	C3 (Old: Commercial H/S-36)	6	Vacant Lands:Vacant Commercial	Former Gas Station
	D3 (Old: Mixed Use D3)		Vacant Lands:Parking/Private	Parking Lot
	D3 (Old: Mixed Use D3)		Vacant Lands:Parking/Private	Parking Lot
	D2 (Old: Commercial D2)		Vacant Lands:Parking/Private	Parking Lot

1

- ROLL NUMBERS ARE USED TO IDENTIFY KEY PROPERTY VARIABLES INCLUDING ADDRESS, AND GEOGRAPHIC LOCATION (INSIDE GIS).
- WHERE MULTIPLE ROLL NUMBERS EXIST ON A SINGLE PROPERTY ROLL TOTALS ARE AMALGAMATED INTO A SINGLE USABLE ROLL NUMBER.
- GIS IS USED TO ALLOT PARCELS BY THEIR CENTROIDS INTO THE PRIMARY CORRIDOR OR 400M / 5MINUTE WALK RADIUS
- PARCEL IDS ARE ASSIGNED TO ASSOCIATE WITH MAPS

2

- A LAND VALUE DISTRICT VALUE (“ISO” VALUE) IS ASSIGNED BASED ON THE PARCEL’S GEOGRAPHIC LOCATION.

3

- THE LAND PARCEL SIZE IS EXTRACTED (REQ’D FOR ASSIGNMENT OF PROTOTYPE)
- ASSESSED VALUE IS CALLED FORWARD FOR THE PROPERTY
- IF THE PROPERTY IS FOR SALE THE MARKET VALUE IS INCLUDED FOR REFERENCE BUT IS NOT A REQUIRED COMPONENT OF THE MODEL
- WHERE PARCEL SIZES OR OTHER DATA ARE MANUALLY CORRECTED THEY HIGHLIGHTED IN ORANGE.

4

- EACH PARCEL EXAMINED IS DETERMINED TO BE ‘VACANT’ OR ‘UNDERUTILIZED’.
- DEVELOPMENT APPLICATION DATA IS CALLED FORWARD. THIS AFFECTS THE LIKELY DEVELOPMENT TIMEFRAME OF THE LOT
- ZONING (NEW DRAFT ZONING IS USED WHERE AVALIABLE) IS EVALUATED TO DETERMINE THE DEVELOPMENT POTENTIAL OF THE LOT. THIS IS DONE IN CONJUNCTION WITH SITE VISITS, STAFF MEETINGS, ETC.
- WHERE MAXIMIUM HEIGHT RESTRICTIONS EXIST CUI WORKED WITH CITY STAFF TO INCLUDE THEM IN THE WORKSHEET
- THE CITY’S LUC1 CODES ARE BROUGHT FORWARD TO HELP IDENTIFY THE CURRENT LAND USE(S) ON THE PROPERTY
- CUI STAFF THEN ASSIGN AN INTERNAL LAND USE NOTE CONFIRMING THE CURRENT LAND USE BASED ON OBSERVATION (GROUND TRUTHING).

Assigning Development Timeframe and Prototype

DEVELOPMENT RESPONSE PROJECTION						PROTOTYPE	
Development Potential		Initiation (X)				Prototype	
All	Public Only						
Usability for Development (Preliminary)	Likely Access to Site (public only)	5yrs	10yrs	15yrs	15+yrs	Prototype ID 1	Prototype ID 2
Yes, Rezone to mixed use required	Yes			X		2	
Possible, Rezone required	Yes		X			38	38
Yes, Rezone Required	Yes					0	
No	No					0	
Unlikely, although large parking area	Limited					0	
No	No					0	
Yes, Rezone Required	NA	x				9	
Yes	NA		x			9	
Yes, Rezone Required	NA	x				3	
Yes	NA		x			14	6
Yes	NA			x		15	
Yes	NA	x				2	
Yes	NA		x			6	

				TAXABLE ASSESSMENT GROWTH		
				NEW TAXABLE ASSESSMENT		
Land Value Premium	TOTAL PROJECTED ASSESSMENT	Premium Incrament	TOTAL NEW ASSESSMENT INCL Premium	!FORMULA!	!FORMULA!	!FORMULA!
%	Summed Prototype Assessments (Corrected for ISO where req'd)			5yrs ($)	10yrs ($)	15yrs ($)
4%	$921,343	$36,854	$958,197	$0	$0	$958,197
4%	$699,099	$27,964	$727,062	$0	$727,062	$0
4%	$0	$0	$0	$0	$0	$0
2%	$0	$0	$0	$0	$0	$0
2%	$0	$0	$0	$0	$0	$0
2%	$0	$0	$0	$0	$0	$0
4%	$4,596,500	$183,860	$4,780,360	$4,572,128	$0	$0
2%	$4,596,500	$91,930	$4,688,430	$0	$3,159,430	$0
4%	$2,862,925	$114,517	$2,977,442	$1,606,442	$0	$0
2%	$2,441,000	$48,820	$2,489,820	$0	$2,025,655	$0
2%	$4,930,870	$98,617	$5,029,487	$0	$0	$3,895,487
4%	$921,343	$36,854	$958,197	$521,697	$0	$0
4%	$671,500	$26,860	$698,360	$0	$528,360	$0

Total New Taxable Assessment by year 15	
TOTAL NEW TAXABLE ASSESSMENT OVER 3 PERIODS	Station Share Percentage
$17,994,458	4.2%

5

- WHERE REZONING IS LIKELY REQUIRED TO ACCOMMODATE A PROTOTYPE OR TO ENABLE DEVELOPMENT ON A SITE WITH DEVELOPMENT POTENTIAL A NOTE IS MADE
- FOR PUBLIC PROPERTIES THE CUI WORKED WITH CITY STAFF TO DETERMINE WHICH PUBLIC PROPERTIES THERE WOULD BE LIKELY ACCESS TO FOR REDEVELOPMENT
- A TIMEFRAME FOR REDEVELOPMENT IS DETERMINED. ONLY DEVELOPMENT PROJECTED WITHIN YEARS 1-15 IS CARRIED FORWARD
- A PROTOTYPE IS ASSIGNED FOR EACH PROPERTY. UP TO TWO PROTOTOYPES CAN BE ASSIGNED

6

- THE ASSESSED VALUE OF PROTOTYPES IS CALLED FORWARD AND SUMMED IF REQUIRED
- BASED ON PLACEMENT OF THE PROTOTYPE A 2% OR 4% LRT PREMIUM IS APPLIED
- THE PREMIUM INCREMENT IS ADDED TO THE ASSESSED VALUE OF THE PROTOTYPE

7

- NEW TAXABLE ASSESSMENT IS CALCULATED BY TIMEFRAME.
- WHERE A PROTOTYPE IS ASSIGNED TO A PRIVATELY OWNED PARCEL THE DIFFERENCE OF THE CURRENT ASSESSMENT AND THE PROTOTYPE ASSESSMENT IS USED
- WHERE A PROTOTYPE IS ASSIGNED TO A PUBLIC PARCEL THE TOTAL VALUE OF THE PROTOTYPE IS USED, ASSUMING THAT ASSESSMENT HAS BECOME TAXABLE.

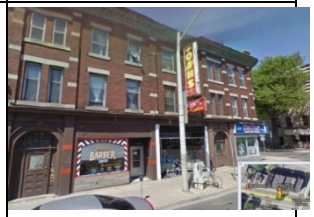
8

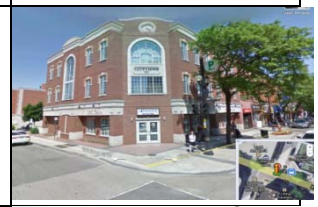
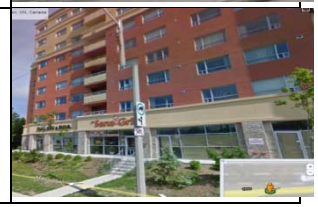
- FOR EACH STATION THE TOTAL NEW TAXABLE ASSESSMENT IS CALCULATED
- THE STATION SHARE OF NEW TAXABLE ASSESSMENT IS CALCUALTED

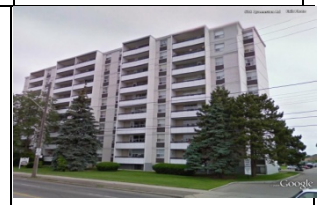
- EACH PROTOTYPE ALSO HAS, WITHIN THE PROTOTYPE RECORD, A “BUILDING PERMIT FEE” AND A “DEVELOPMENT CHARGE” ASSOCIATED WITH IT. THESE ARE USED TO CALCULATE ADDITIONAL REVENUE STREAMS FOR THE DEVELOPMENT PROGRAM.
- TAX REVENUE IS CALCULATED BASED ON THE ASSUMPTION THAT THE TOTAL ASSESSED VALUE OF THE PROPERTY CAN BE ALLOTTED TO TAX CLASSES BY PERCENT OF THE INTERNAL LAND USES OF BUILDINGS (E.G. 90% ALLOTTED TO RESIDENTIAL, 10% RETAIL).
- TAX RATES USED IN THIS STUDY WERE CONFIRMED BY CITY STAFF. THE LOWER “NEW CONSTRUCTION” RATES WERE APPLIED TO ALL NEW DEVELOPMENT IN THE MODEL.
- TWO MODELS WERE RUN: ONE “WITH LRT” AND ONE “WITHOUT LRT”. THE REPORT REFERENCES THESE MODELS OR THE “DELTA” (NET) OF THE TWO.

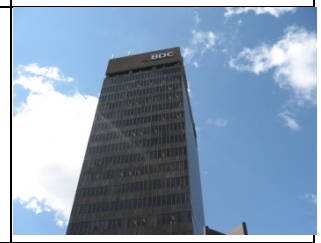
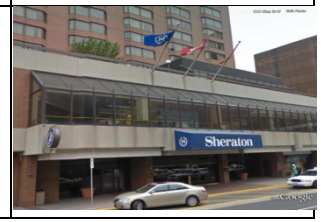
LIST OF PROTOTYPES

Definition: *A prototype is a property in the local community that can serve as an example or model of development. Prototypes are "inserted" onto potential development parcels (lots) to provide an example of prospective future scale and land use, and are used to help calculate projected future property tax revenues.*

ID #	ADDRESS	LAND USE	BUILDING AREA (m^2)	ASSESSED VALUE	ESTIMATED VALUE OF IMPROVEMENTS	NOTES	IMAGE
1	439 KING ST E	Primary: Commercial: General Retail and Personal Services, Secondary: Residential: Multiple Dwelling (6 units or less)	579	$307,501	$226,063	Mixed use, 1 floor commercial, 2 floors residential/office	
2	89 KING ST E	Primary: Commercial: General Retail and Personal Services, Secondary: Residential: Apartment	1,285	$921,343	$731,678	Mixed use, 4 floors residential/office, ground retail	
3	162 KING WILLIAM ST	Primary: Residential: Apartment (7 or more units) Secondary: Commercial: Restaurant/Tavern	3,840	$2,431,000	$2,116,380	Residential apartment, 4 floors	

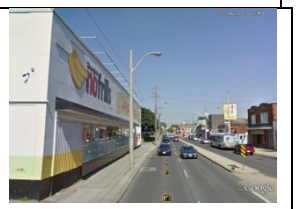
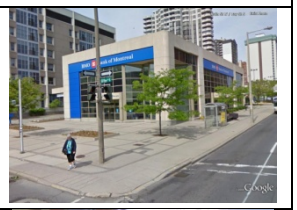
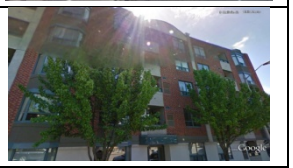
ID #	ADDRESS	LAND USE	BUILDING AREA (m^2)	ASSESSED VALUE	ESTIMATED VALUE OF IMPROVEMENTS	NOTES	IMAGE
4	44 QUEEN ST N	Primary: Residential: Apartment (7 or more units)	22,302	$11,325,000	$10,433,303	Large residential apartment tower	
5	52 CATHARINE ST N	Primary: Institutional: Residential Care Facility	2,620	$1,494,000	$1,117,930	Midrise seniors residential	
6	211 KING ST E	Primary: Residential: Apartment (7 or more units) Secondary: Commercial: General Retail and Personal Services	915	$671,500	$580,524	Residential, limited retail, 3-4 floors	
7	21 DUNDURN ST S	Primary: Residential: Semi-Detached House	439	$4,192,500	$3,436,484	Simulated Subdivision of 15 semi-detached based on roll: 251801010100790	
8	1686 MAIN ST W	Primary: Residential: Apartment (7 or more units)	20,718	$15,873,500	$15,028,160	New private, green, student residence near McMaster, LEED Certified. midrise.	

ID #	ADDRESS	LAND USE	BUILDING AREA (m^2)	ASSESSED VALUE	ESTIMATED VALUE OF IMPROVEMENTS	NOTES	IMAGE
9	195 FERGUSON AVE N	Primary: Residential: Apartment (7 or more units)	7,186	$4,596,500	$4,277,647	Large site, 14 townhomes and 1 midrise tower (7 floors) Co-op	
11	575 QUEENSTON RD	Primary: Residential: Apartment	23,594	$11,261,000	$9,288,540	Large old apartment building with very large surface parking lot.	
12	80 QUEEN ST N	Primary: Institutional: Long Term Care Facility	10,264	$11,563,500	$9,964,426	Large lot, low-rise 3 floor seniors residence with surface parking	
13	644 MAIN ST W	Primary: Office: General Office	29,010	$15,997,000	14,145,657	Very large apartment building on a large wedge-shaped lot	
14	46 KING ST E	Primary: Office: General Office Secondary: Residential: Apartment	4,470	$1,769,500	$1,458,258	Retail at grade, General office building	

ID #	ADDRESS	LAND USE	BUILDING AREA (m^2)	ASSESSED VALUE	ESTIMATED VALUE OF IMPROVEMENTS	NOTES	IMAGE
15	258 KING ST E	Primary: Residential: Apartment (7 or more units)	15,460	$4,930,870	$4,647,180	Mixed use, mostly residential	
16	33 MAIN ST E	Primary: Office: General Office	834	$875,000	$721,138	2 storey office	
17	4 HUGHSON ST S	Primary: Office: General Office	8,660	$4,754,000	$4,408,952	10 storey office building, service retail at grade	
18	25 MAIN ST W	Primary: Office: General Office Secondary: Commercial: Restaurant/Tavern	14,217	$8,923,500	$8,550,137	BDC Tower, very tall 20+ floors	
19	116 KING ST W	Primary: Commercial: Commercial Accommodations	16,268	$12,859,500	$11,623,939	Sheraton Hotel	

ID #	ADDRESS	LAND USE	BUILDING AREA (m^2)	ASSESSED VALUE	ESTIMATED VALUE OF IMPROVEMENTS	NOTES	IMAGE
20	97 WILSON ST	Primary: Residential: Detached	100	$78,500	$74,264	Very small detached house	
22	185 FERGUSON AVE N	Primary: Residential: Apartment (7 or more units)	9,328	$5,288,000	$5,138,092	Same as #9 but without townhouses. 6 floors	
23	1 HUNTER ST E	Primary: Office: General Office	2,783	$2,761,970	$2,350,612	Low-rise 4 storey office bldg, adjacent to GO train station	
24	55 BAY ST N	Primary: Office: General Office	26,566	$48,457,500	$46,812,667	Large lot commercial, retail at grade	
25	200 FOREST AVE	Primary: Residential: Apartment (7 or more units) [Co-op]	5,244	$3,300,000	$3,090,604	Co-op housing structure - 4 floors, large lot	

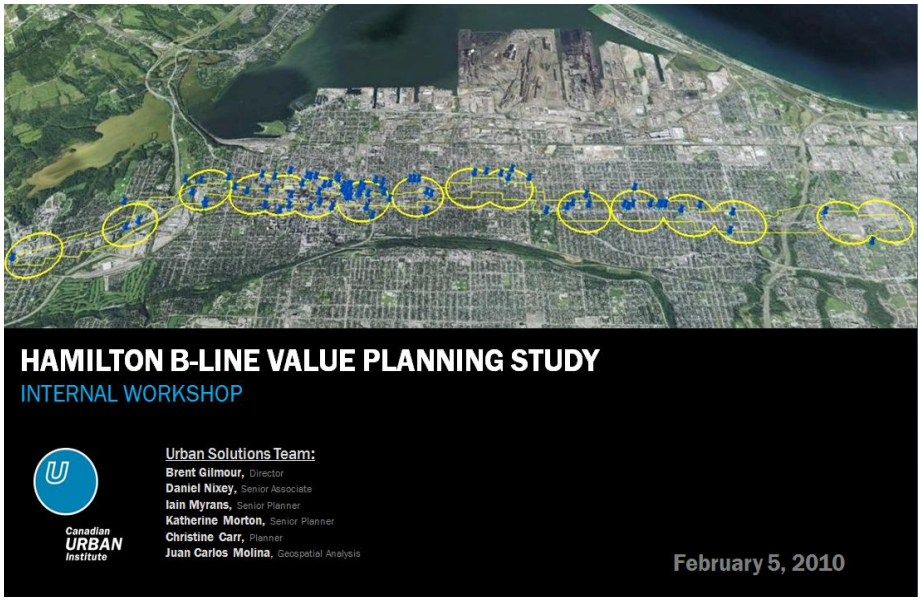
ID #	ADDRESS	LAND USE	BUILDING AREA (m^2)	ASSESSED VALUE	ESTIMATED VALUE OF IMPROVEMENTS	NOTES	IMAGE
26	75 JAMES ST S	Primary: Office: General Office	1,289	$1,120,000	$1,032,480	Large lot commercial, retail at grade, tiny commercial	
27	67 QUEEN ST S	Primary: Office: General Office[i] Secondary: Residential: Multiplex Dwelling	207	$195,500	$127,533	Converted house for office	
28	66 BAY ST S	Primary: Residential: Apartment (7 or more units)	12,568	$20,827,500	$20,226,443	CORE Lofts, adjacent to City Hall	
30	31 JOHN ST S	Primary: Commercial: Restaurant/Tavern	758	$510,500	$416,831	The London Tap House Multi Floor Entertainment	
31	1224 UPPER JAMES ST	Primary: Commercial: Hotel	7,289	$10,405,000	$9,695,909	Courtyard Marriot, Lots of surface Parking, next to graveyard.	

ID #	ADDRESS	LAND USE	BUILDING AREA (m^2)	ASSESSED VALUE	ESTIMATED VALUE OF IMPROVEMENTS	NOTES	IMAGE
32	1120 MAIN ST E	Primary: Commercial: General Retail and Personal Services	1,634	$1,402,500	$491,956	No Frills Store (Ottawa St.)	
33	50 BAY ST S	Primary: Commercial: General Office	1,517	$2,782,000	$1,940,902	BMO 2 storey bank with small plaza on small lot	
35	5OGILVIE ST101	Primary: Residential: Apartment (7 or more units)	5,208	$7,398,500	$7,312,838	Residential Condo (6 storeys) in Dundas	
36	47 JAMES ST S	Primary: Office: General Office	787	$470,000	$354,606	Heritage building (no parking) small lot	
37	18 CENTURY ST	Primary: Residential: Detached House	107	$92,500	$72,301	Single Family Detached, Narrow Lot Wentworth Area	

Appendix C: Workshop Summary

Summary of Workshop

On February 5, 2010, the Canadian Urban Institute (CUI) hosted a workshop for members of the Rapid Transit team, the City of Hamilton's Senior Management Team, and other key City Departments at the Hamilton Convention Centre. The purpose of the workshop was to present the CUI team's progress to date; provide an opportunity for city staff to observe, apply, and offer feedback on the methodology for three selected stations; help CUI expand the list of prototypes; and identify a range of possible development projections.



The session began with a brief presentation by Iain Myrans, Senior Planner, Urban Solutions, on the team's progress. Iain presented the methodology used at Queen Station to allow the participants to observe and offer feedback on the techniques used. Queen Station demonstrated:

- which public parcels CUI was studying and how we had selected appropriate private parcels (parcel inventory);
- the distinction between the primary corridor and the area within the 400-metre radius as a means of identifying development phasing;
- how we selected prototypes in Hamilton that are relevant to the market, as well as building styles and values relative to the market;
- how we selected a prototype for each parcel;
- how we calculated/projected the new taxable assessment for public and private lands.

We provided an opportunity for all participants to engage in a development projection exercise for several key stations to apply the method. This exercise provided an excellent opportunity for the participants to understand how we developed our initial development projections and to offer constructive feedback on how to improve or proceed with our method.

Key findings/recommendations from the workshop included:

- Confirmation that participants were comfortable with the method.

- CUI received several valuable insights about access to public lands, current development applications, additional prototype requirements, and the development timeframe, which led to minor revisions to our existing development projections.

Workshop Participants

- Keith Anderson
- Ted Arnold
- Teresa Bendo
- Peter De Iulio
- Mary Devorski
- Bill Farkas
- Harold Groen
- Trevor Horzelenberg
- Brenda Khes
- Paul Mallard
- Ron Marini
- Ric Martins
- Christine Newbold
- Steve Robichaud
- Jillian Stephen
- Jason Thompson
- Tony Tollis
- Mike Zegarac
- Lisa Zinkewhich

Appendix D: Heat Maps