Building Livable Communities with Transit
Rail~Volution, Washington 2011

City of Hamilton Rapid Transit
Revitalizing, Reconnecting and Regenerating through LRT

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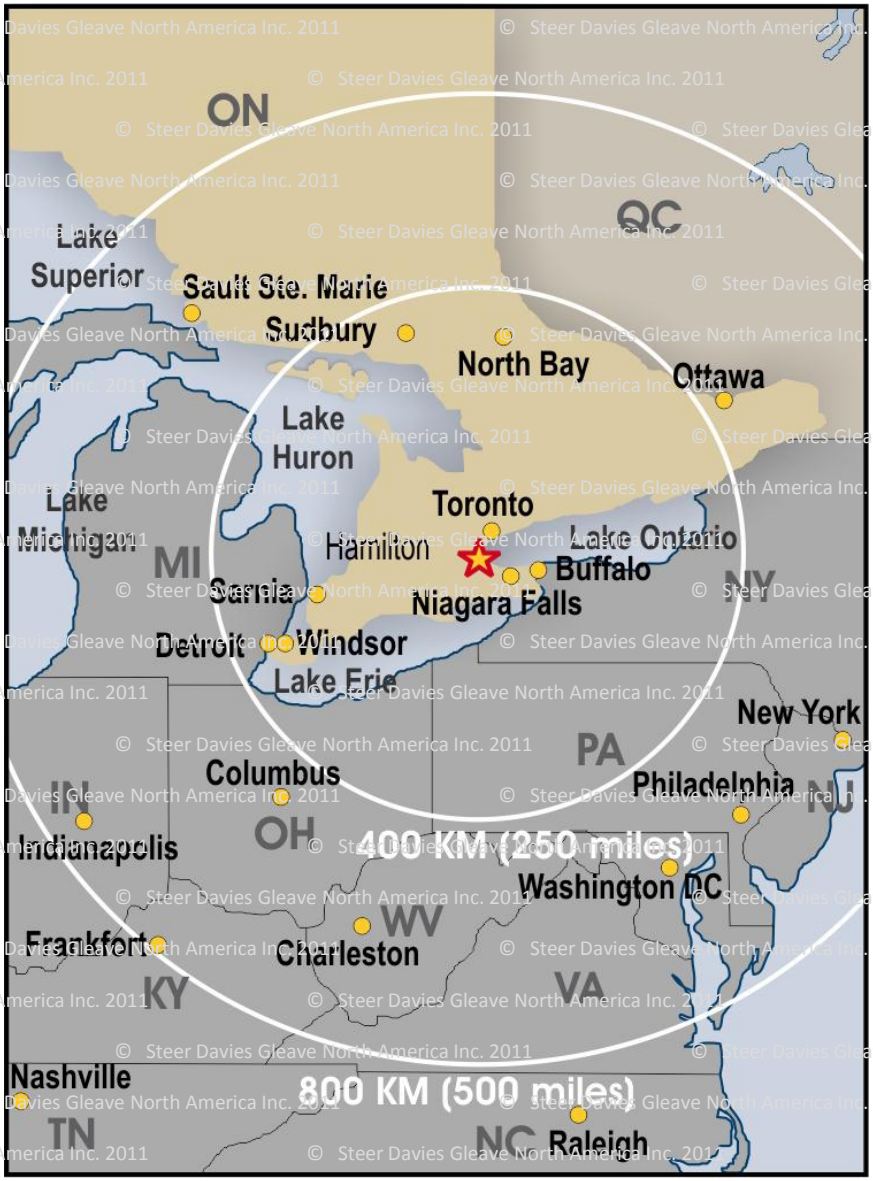
Introduction and Overview

Hamilton, Ontario

Key Facts:

- 4th largest City in Ontario, 9th in Canada
- 68 kms from Toronto; 71kms from U.S. border
- Current Population: 510,000
- Steel Town – in transition
- 8.5% unemployment
- 25% working age population no certificate, diploma or degree
- 20% population poverty



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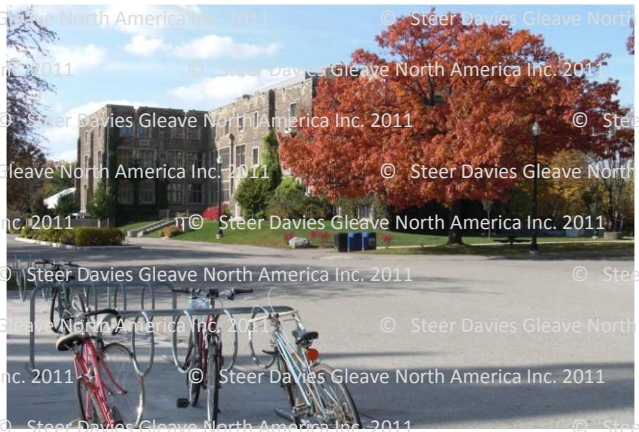
The Faces of Hamilton



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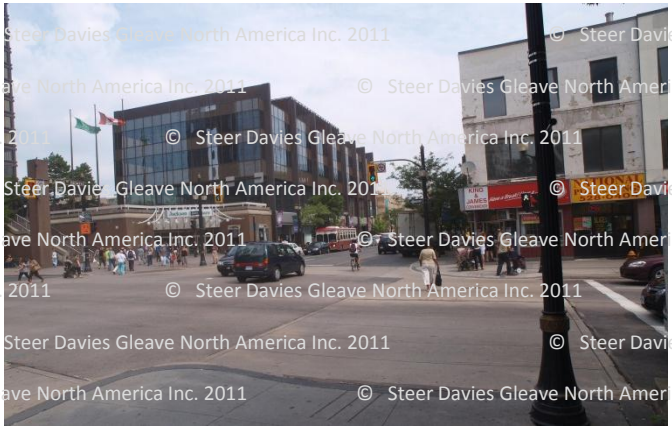
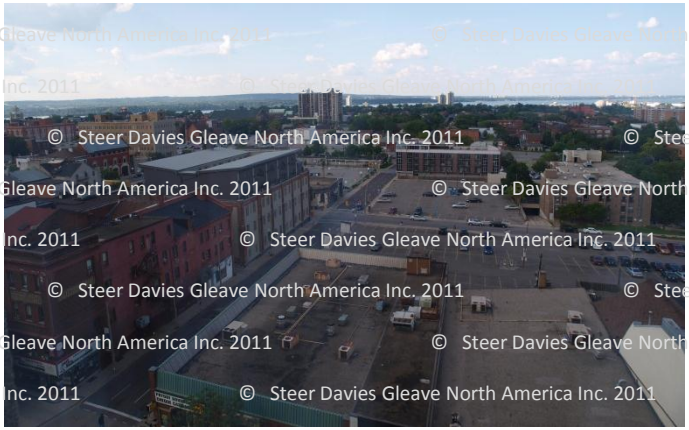
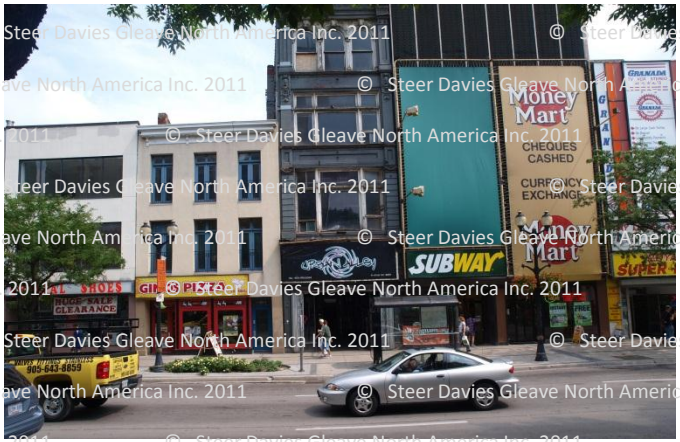
The Faces of Hamilton







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The Rapid Transit Vision

"Rapid Transit is more than just moving people from place to place. It is about providing a catalyst for the development of high quality, safe, environmentally sustainable and affordable transportation options for our citizens, connecting key destination points, stimulating economic development and revitalizing Hamilton".

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0
5
10
Kilometres
N
Waterdown Commercial Centre
403
L
QEW
Waterfront
McMaster University
B
later phase
Hunter St. Station
Centre Mall
Eastgate Square
Gateway
RHVP
T
Meadowlands
Linc
Lime Ridge Mall
A
S
Ancaster Business Park
Airport
Hamilton Rapid Transit System
A-Line
B-Line
Full B-L-A-S-T network

Existing B-Line Service

- BRT Lite
- 10 min headway
- Within 800m:
  - 17% Population
  - 20% employment
- 80% of Hamilton transit routes connect to B-Line

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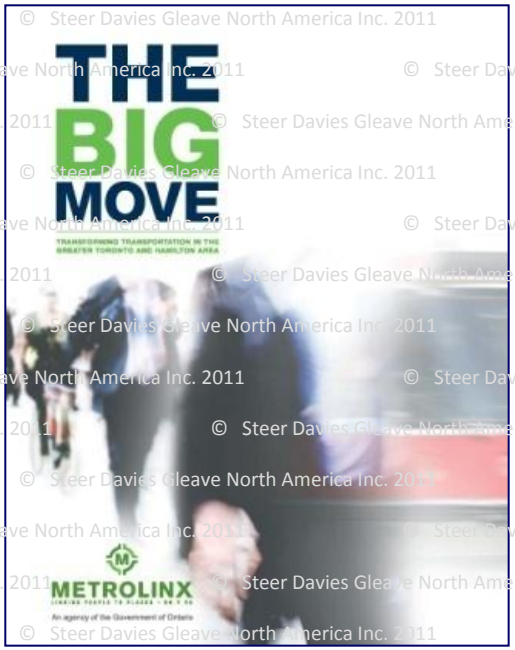
Background

- Hamilton studying Rapid Transit on B-Line
- Metrolinx Regional Review & prioritisation of transit projects
- Benefit case assessment of projects
  - "Multiple Account Evaluation" approach
    - Transportation
    - Financial
    - Environment
    - Economic development
    - Socio-community
- Hamilton B-Line in initial project review list (Top 15)
- B-Line BCA examined BRT & LRT options
- B-Line LRT option selected for further study
- Metrolinx / City of Hamilton contribution agreement
- Planning, Design and Engineering (PDE), and Making the Case



Urban Style LRT- the key components

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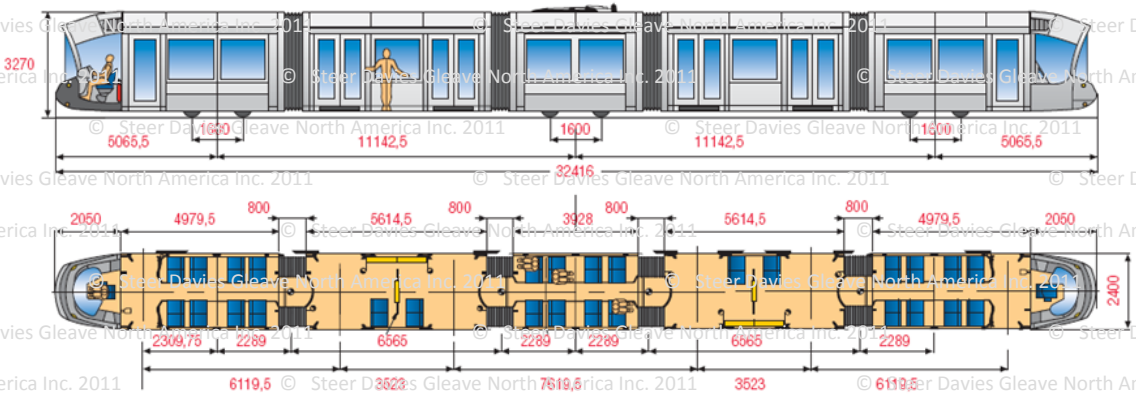
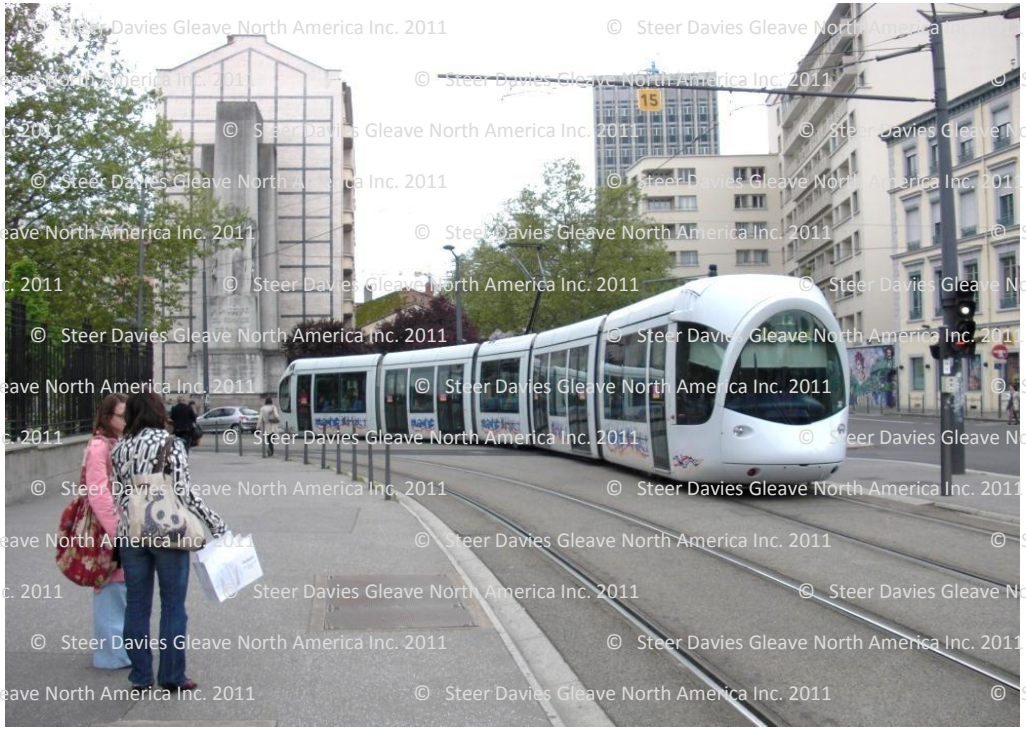
Marseille

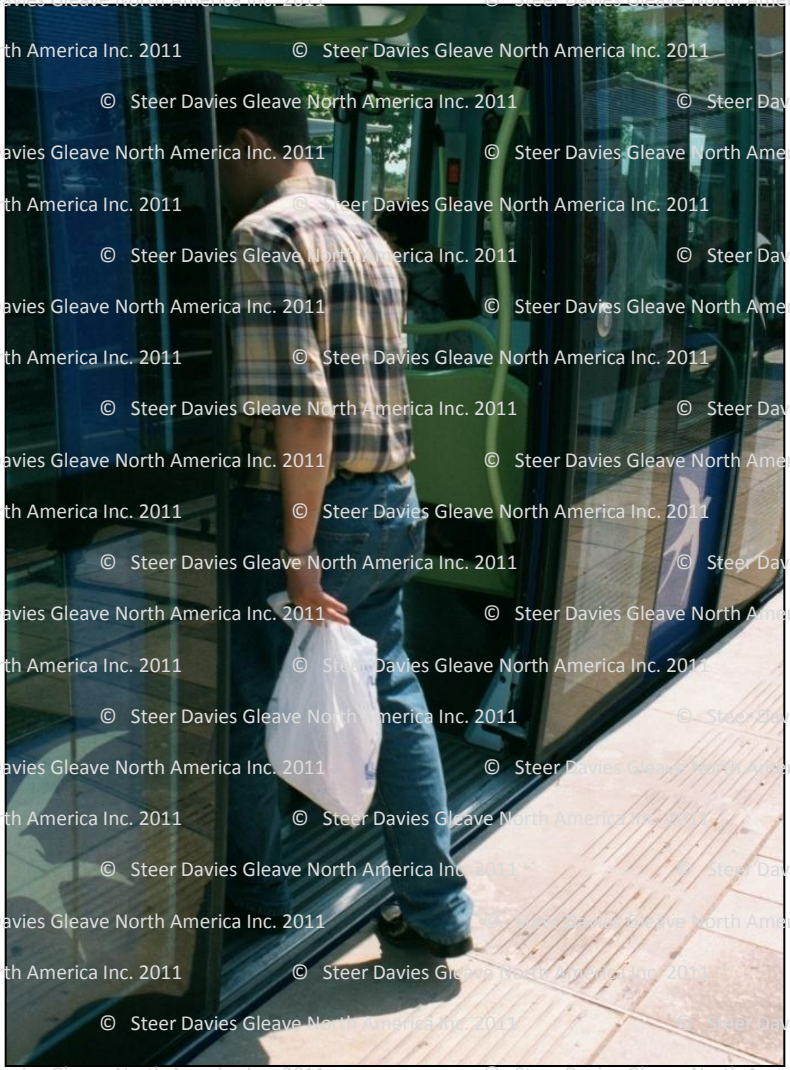
Modern “Urban style” LRT

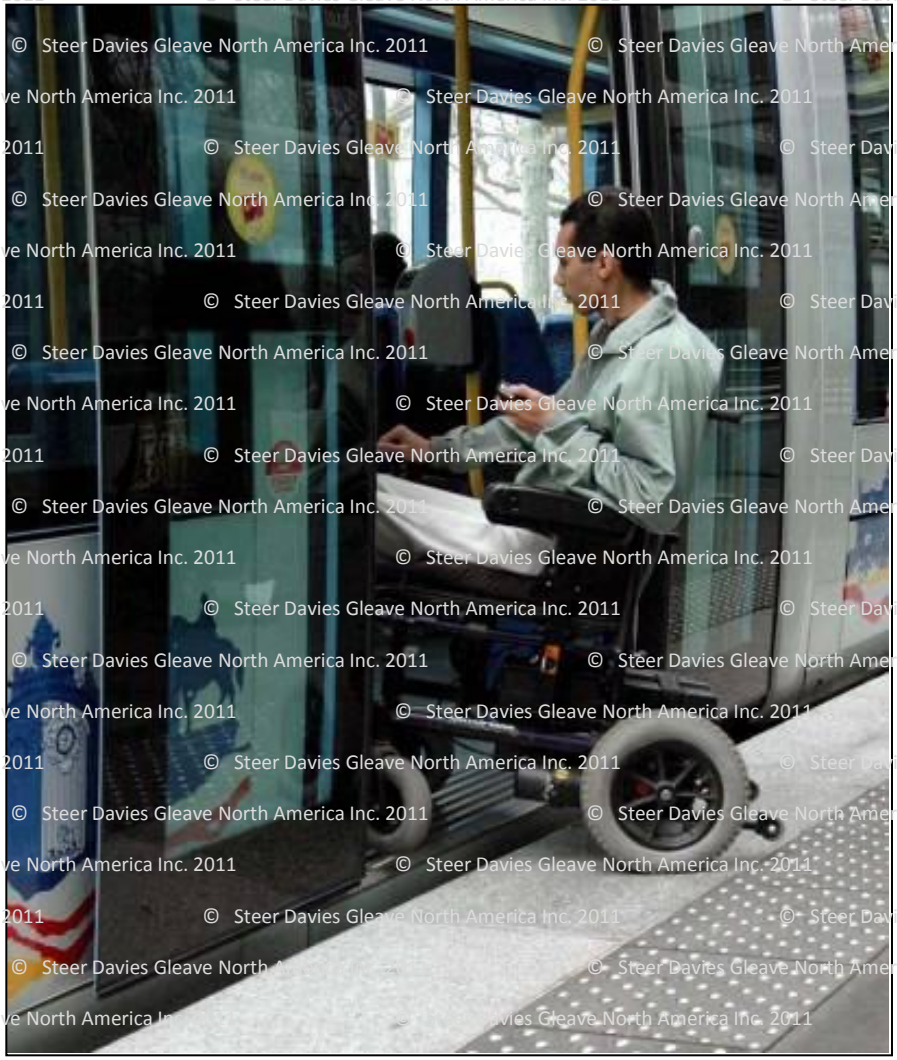


- 30m Vehicles
- 200 passengers
- Low floor level boarding



Level - Low Floor Boarding





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Urban Style LRT

- LRT segregated from traffic
- Stops part of sidewalk
- Integrated into urban fabric

Lyon

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LRT & Transit Oriented Development

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Montpellier

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Strasbourg

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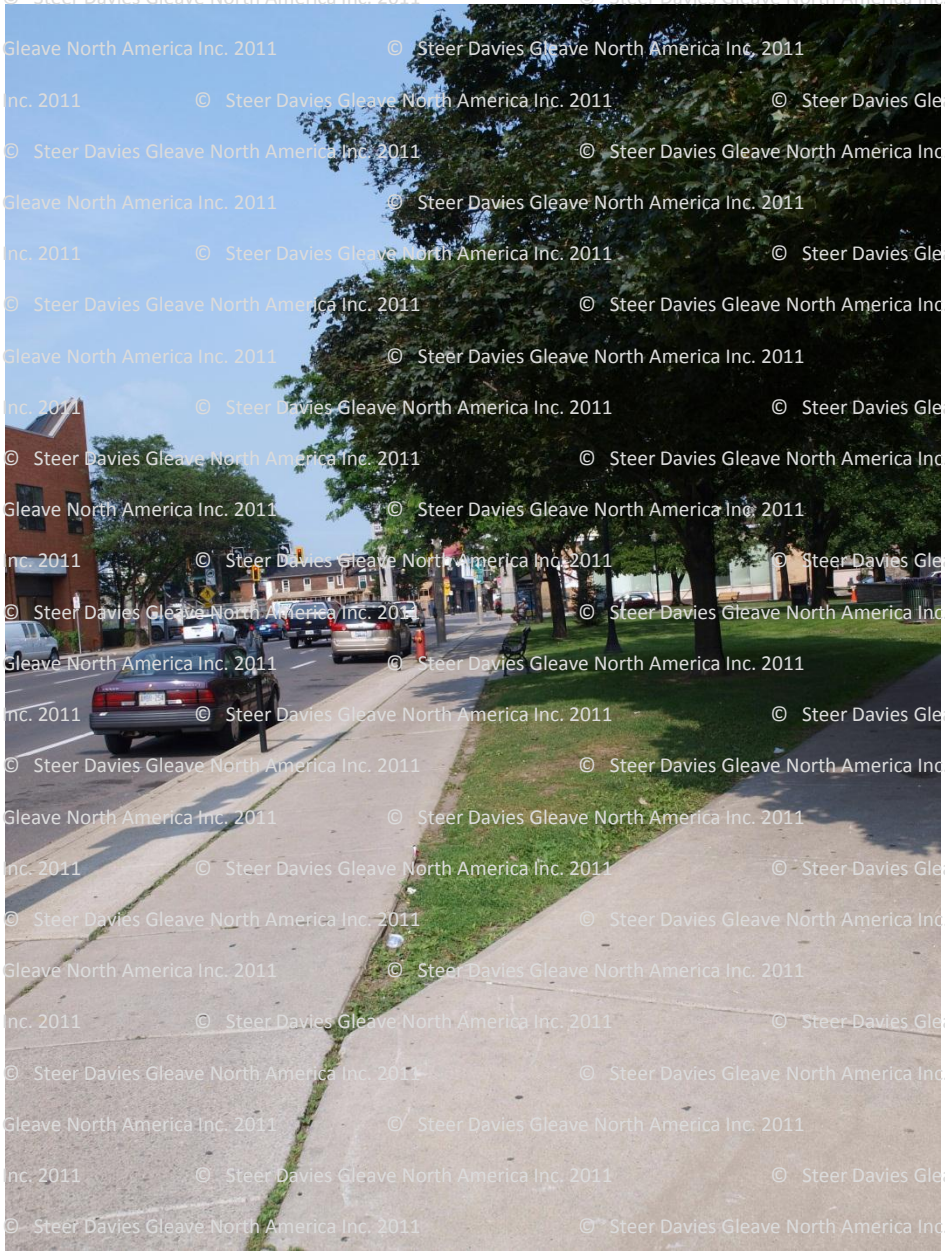

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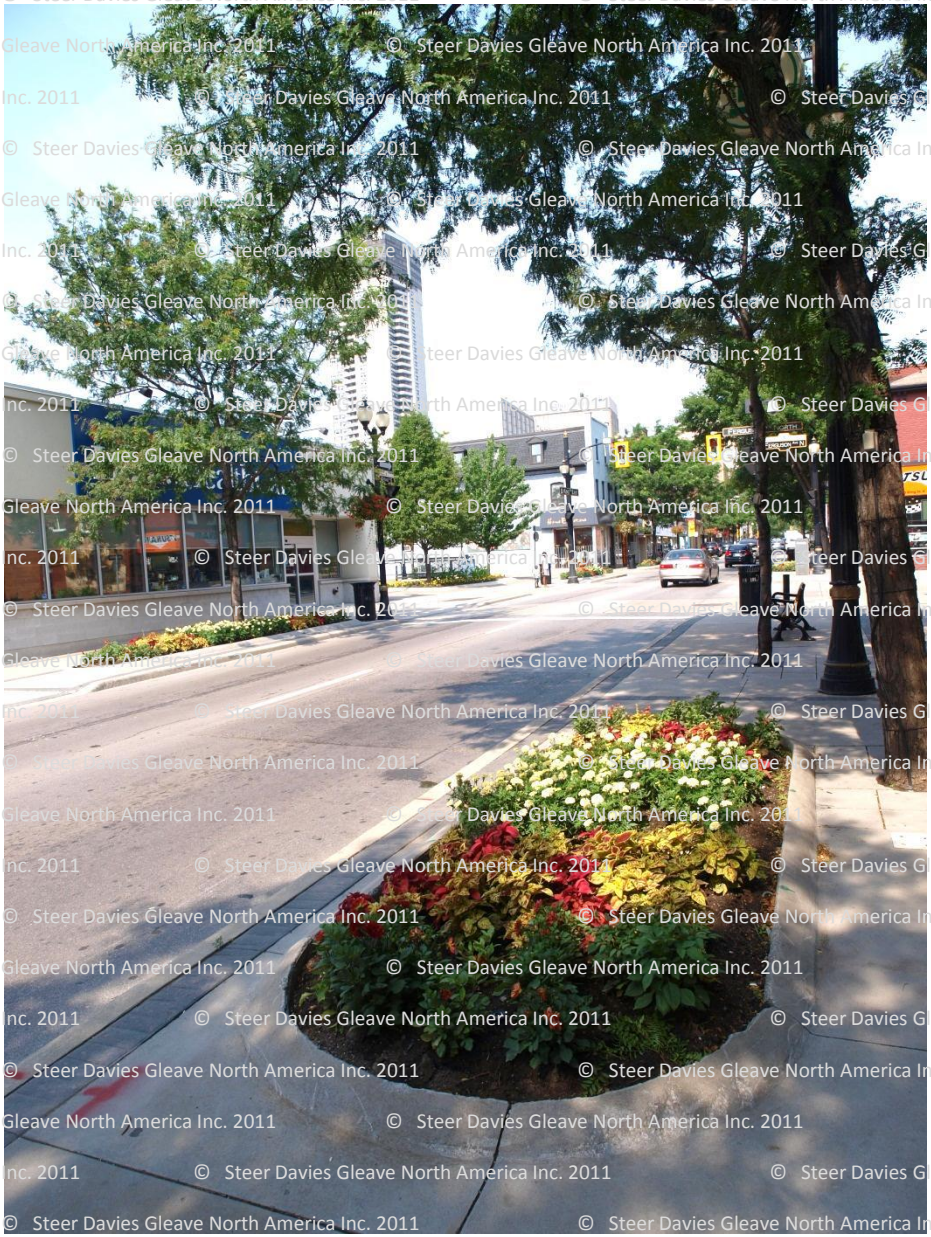

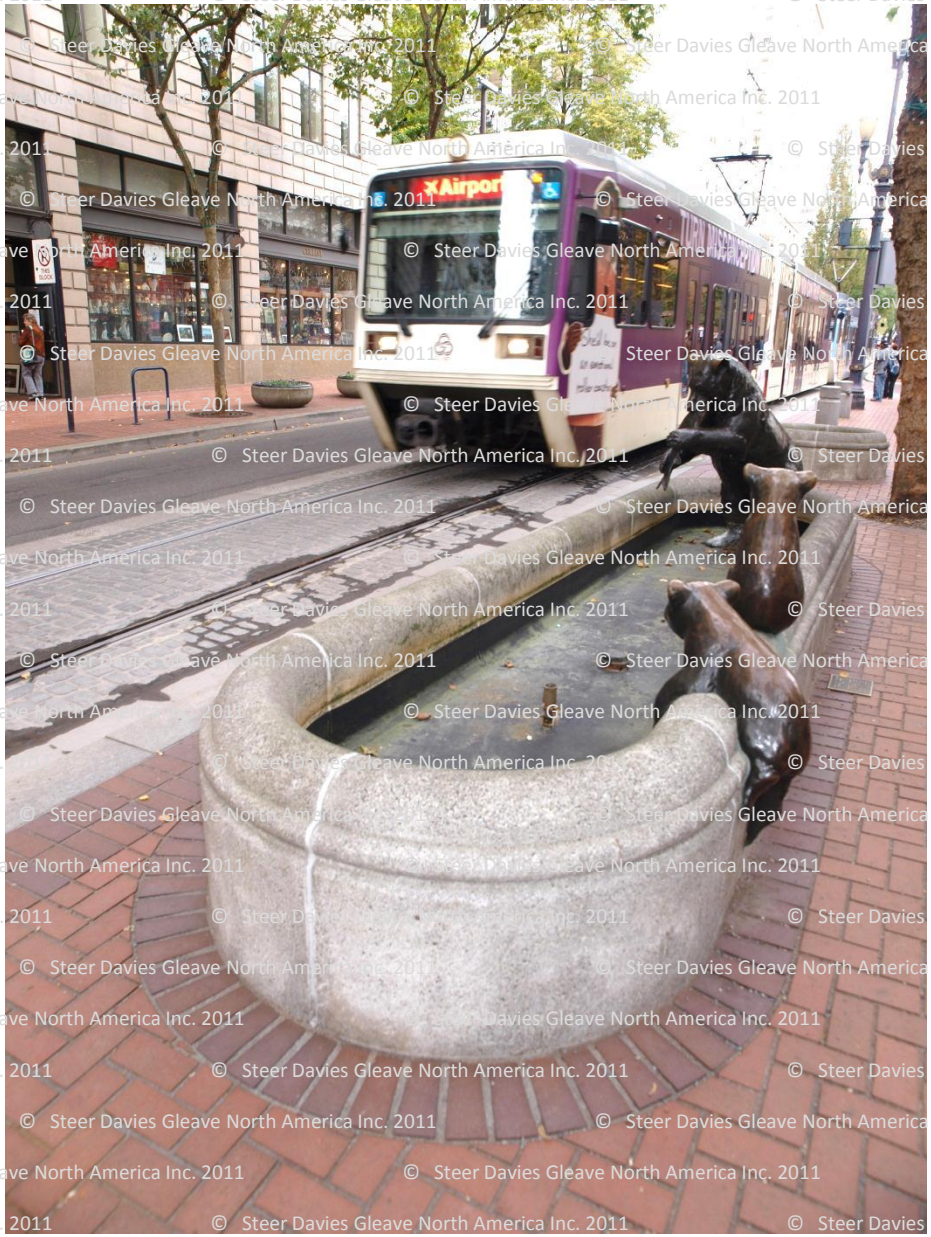

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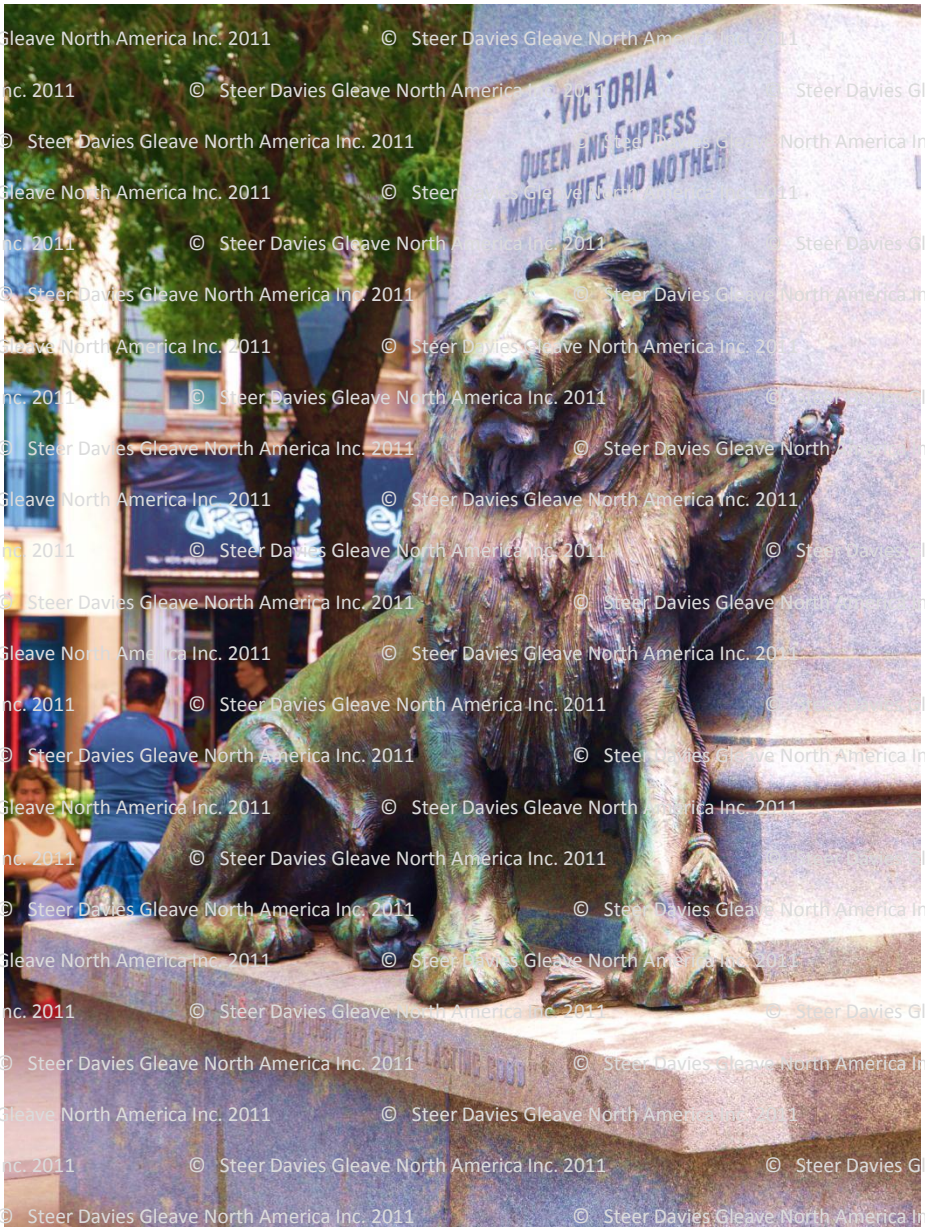

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Project Overview - Preferred B-Line LRT Option Alignment

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B-Line LRT Operations

Parameter	
Opening Year	Assumed Mid 2018
Route Length	13.7 km
Number of stops	18
Headway	4 minutes
Travel time (end-to-end)	31 minutes
LRT Vehicles for service	19
LRT Vehicles	22
Capacity per LRT Vehicle	200
System Passenger Carrying Capacity (phpd)	3,000 (maximum) 1,950 (planned)
Average stop spacing	760m

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Planning Design & Engineering: Scope of Work

"Taking the project to a state of maximum implementation readiness"

B-Line

Completed:

- Developing the B-Line route – design workbooks
- Ridership forecasting
- Traffic modelling
- Initial Costs – capital and operating
- BLAST System Operations Plan
- Stakeholder Engagement / Public Consultation
- Benefits Case Tracker

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Planning Design & Engineering: Scope of Work

B-Line

Almost complete:

- Functional planning analysis – light rail vehicles, light rail stops and other system components
- 30% design outputs – scheme design
- B-Line Operating plan
- System Design Guide
- Implementation Plan
- More detailed costs
- Environmental Project Report

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PDE: Engineering & Design

Our Approach

- Network-wide approach
  - Demand-led
  - Putting the Passenger First
  - An Integrated Transit Solution
  - Wider corridor designs for traffic/buses
- Transit as a "City Shaping Tool"
  - Linear Urban Development, featuring LRT
- Best Practice Design Principles
  - Design Work Books

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Best Practice Design Principles

- Competitive journey times (100% segregated)
- Journey time reliability
- Maximising ridership
- Affordable capital and operating cost
- Create opportunities to enhance urban realm and add TOD
- Minimise adverse impacts on:
  - environment
  - frontage property owners & occupiers including servicing
  - Property take
  - other traffic

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Hamilton Rapid Transit Preliminary Design and Feasibility Study

B-LINE

DESIGN WORKBOOK 1
Version 1.0

METROLINX
An agency of the Government of Ontario

RAPIDTransit
moving HAMILTON forward

Hamilton
Public Works

Project Development: Engagement

- Council
- SMT
- Rapid Transit Team
- Technical Team
- Corporate Working Team
- Rapid Transit Citizen Advisory Committee (RTCAC)
- Public & extensive number of Stakeholders including:
  - BIA's
  - Chamber of Commerce

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B-Line Approach

- Centre running with two way traffic lanes
  - McMaster to 403
  - Queenston Traffic Circle to Eastgate Square
  - No vehicular movements across except at signalled intersections
  - Private accesses right in, right out

Lyon

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Queenston Road East

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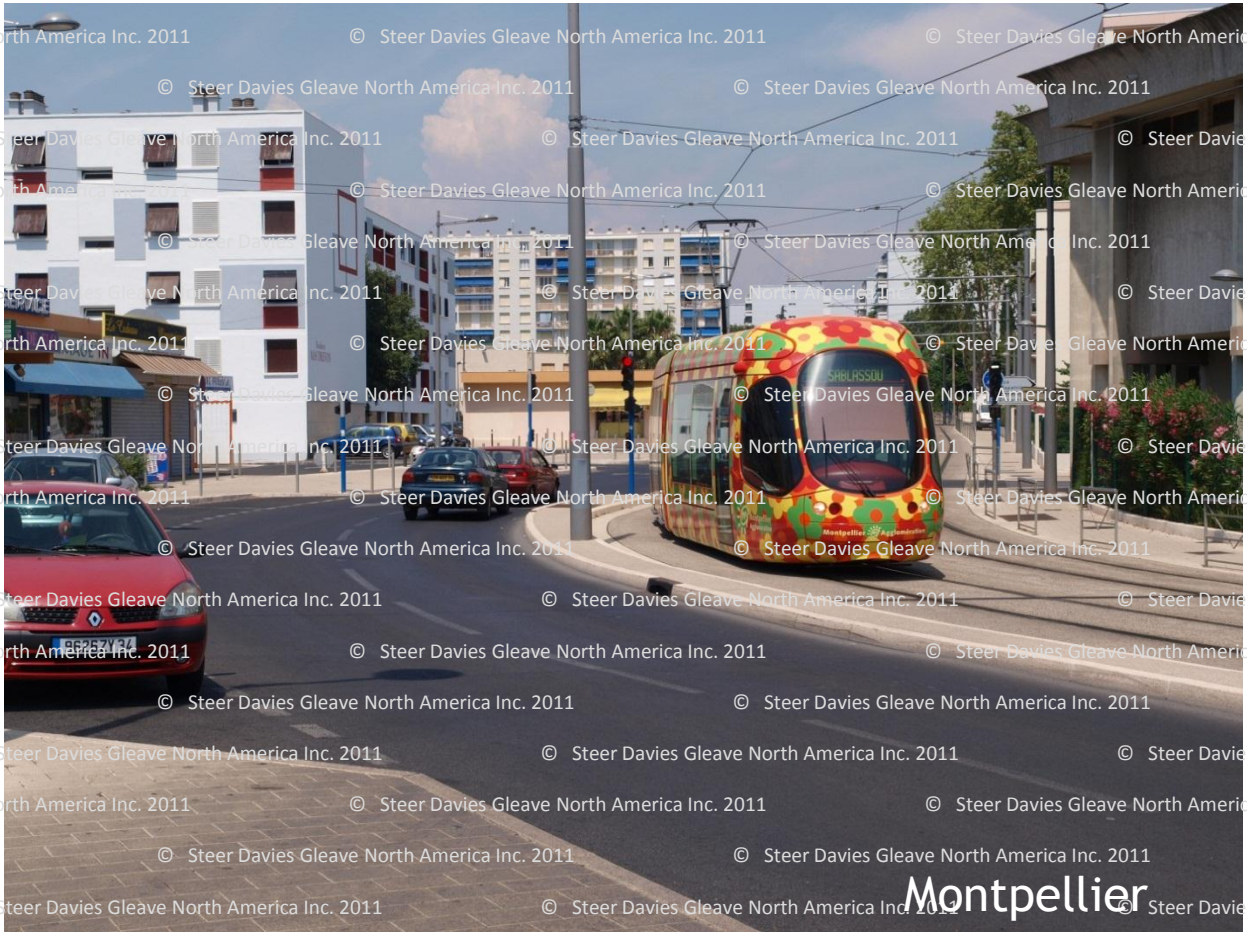
Side running LRT with 2 one way traffic lanes

- 403 to Downtown
- Wellington to Queenston Traffic Circle
- Fits within existing 4 lane roads
- Allows parking, deliveries etc in nearside lane
- Left turns at signalised intersections only
- Allows access to property on traffic side
- Private accesses on LRT side forward in, forward out



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King Street West

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B-Line - Traffic Circulation

- Through westbound traffic diverted away from B-Line
- No designated alternative routes for traffic displaced from B-Line route (particularly between Queenston Traffic Circle and Downtown)
- King Street East at International Village limited to frontage access traffic only (shared running)

Transit Network Changes - Principles

- Grow total ridership
  -LRT and bus
- An Integrated Transit Solution- network wide
- Provide links to jobs, homes, leisure and key services

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Transit Network Changes - Principles

- Through services from beyond ends of corridors retained, at reduced frequency linking with stopping transit services rather than B-Line Express
- Through bus transit services in the B-Line corridor retained but at lower frequency, to retain some flexibility for people of reduced mobility (in terms of stop spacing and need for transfer)
- Some increases in the frequency of transit routes acting as feeders to LRT

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Integrated Planning

TOD Guidelines 2010

- Support and facilitate future transit use by providing guidance on how OP policies can be implemented
- Encourage development that facilitates easier access to transit
- Approved by Council in August 2010
- Additional guidance for Nodes and Corridor Planning

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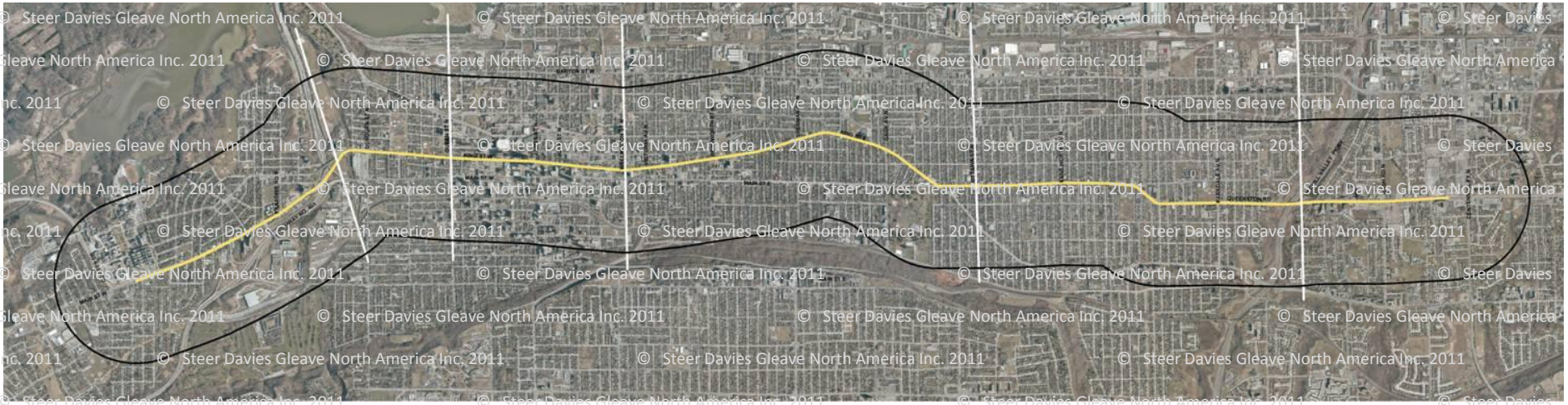
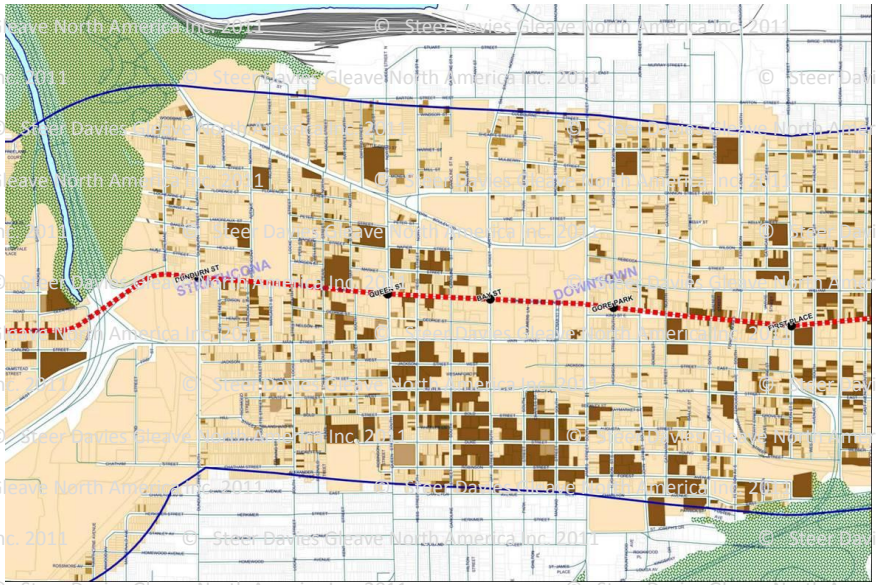
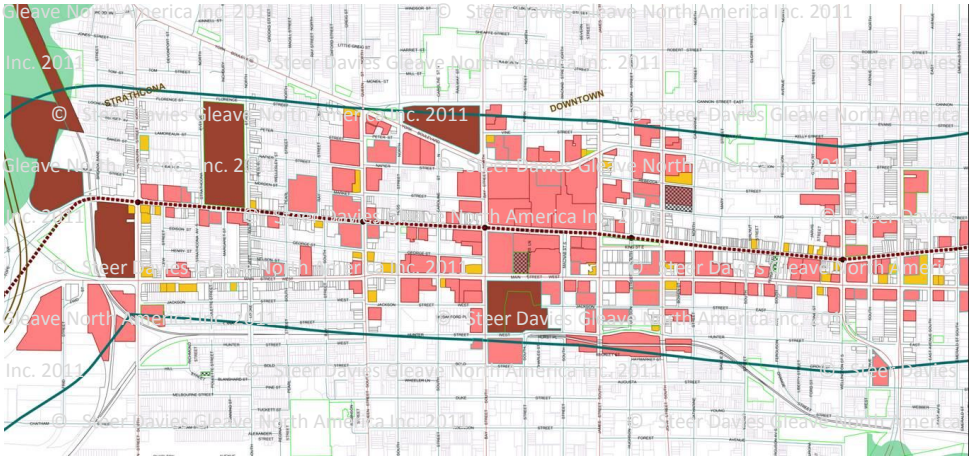
B-Line Corridor Land Use Plan







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B Line Nodes and Corridor Land Use Planning Study

Identification of corridor vision, goals, development principles

↓

Corridor-wide Land Use Strategies/Options

↓

Develop and Evaluate Plans for Transit Station Areas

↓

Develop Urban Design Guidelines for Station Areas

↓

Develop Implementation Strategy

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Design Charrette

Imagine 10 years from now…the rapid transit line has been complete for a couple of years and you are a developer that has just purchased several properties at this LRT stop.

Working as a team with your architect develop a conceptual design for a multi-storey mixed use building for the site(s) that will:

- Maximize the positive effect on the neighbourhood, especially increasing the local population;
- minimize any negative effects on adjacent properties and the neighbourhood; and
- enhance the characteristics of the local neighbourhood that make it unique.

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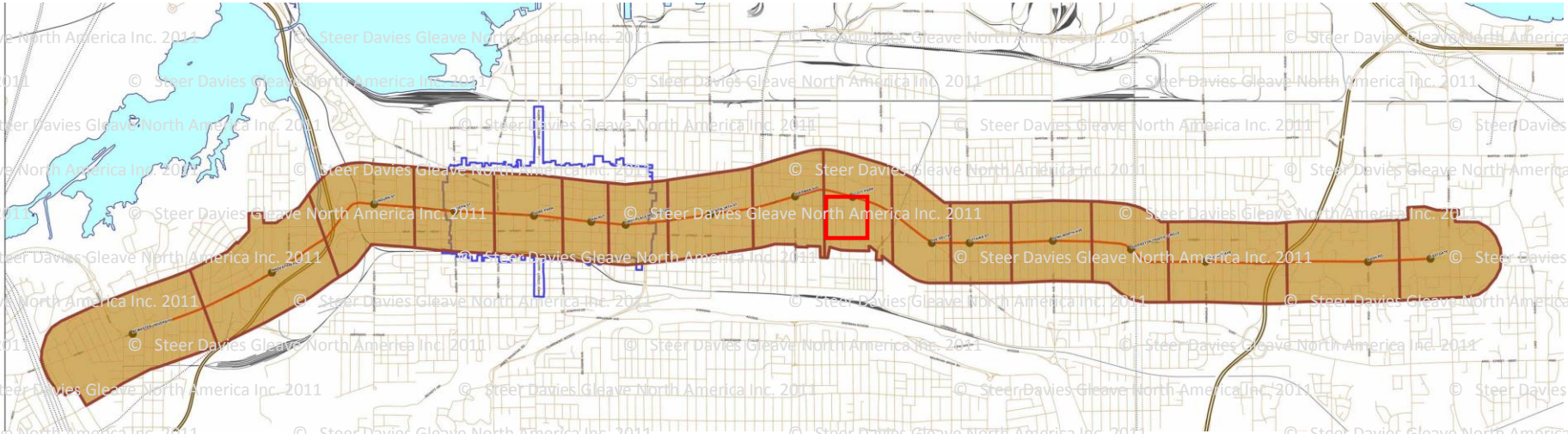
Engagement: Design Charrette - King and Wentworth



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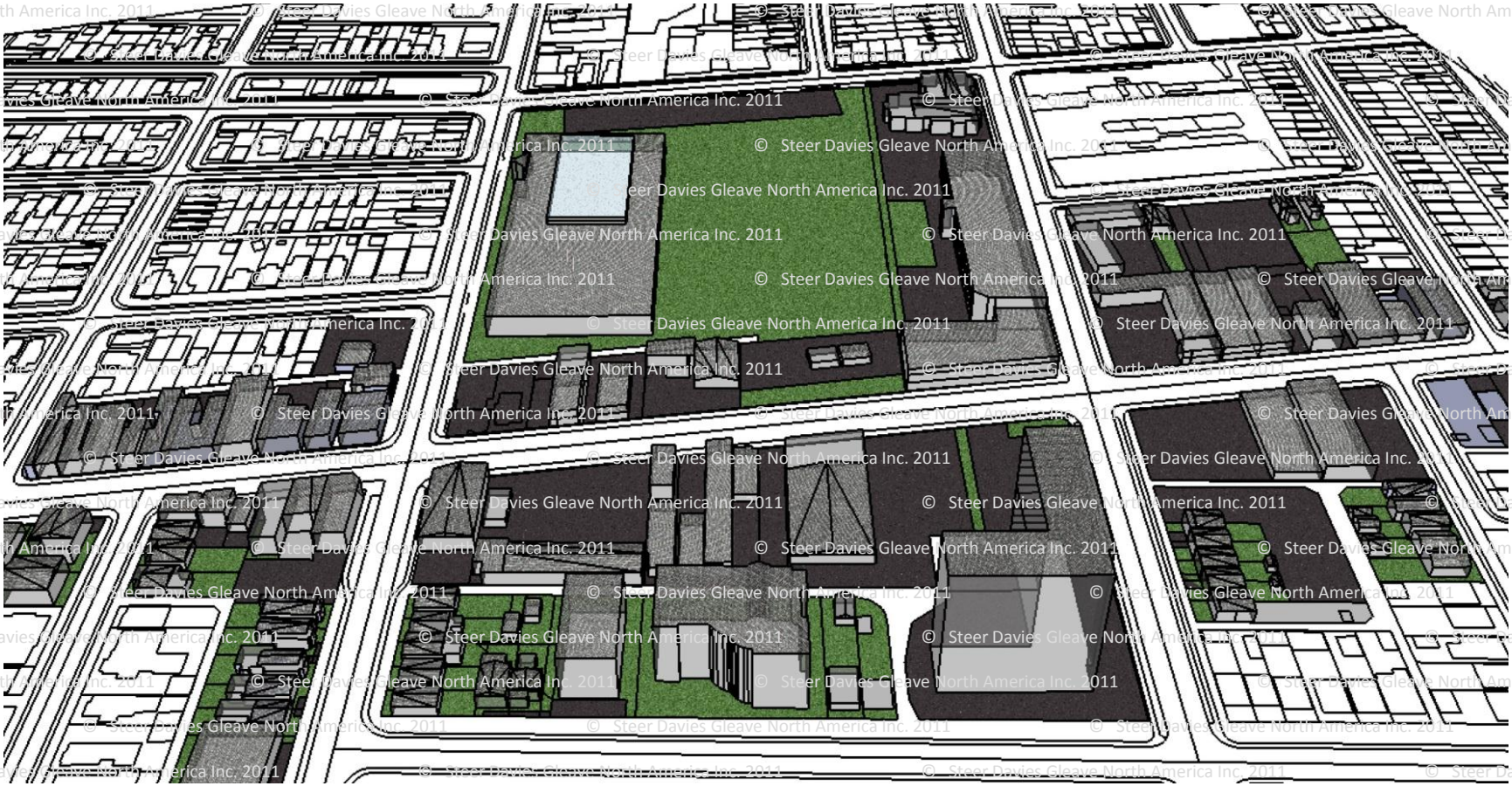
Engagement: Design Charrette – King and Wentworth



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Engagement: Design Charrette – King and Wentworth

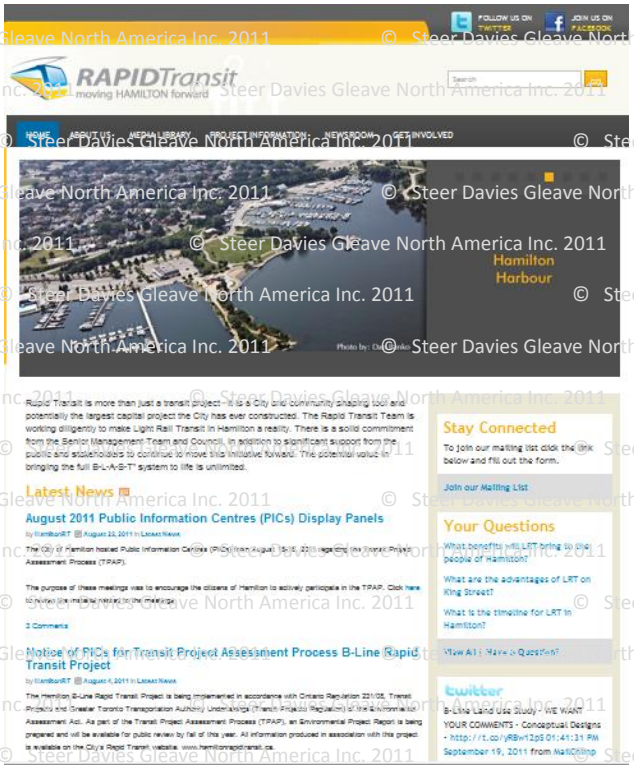
David Premi Architect

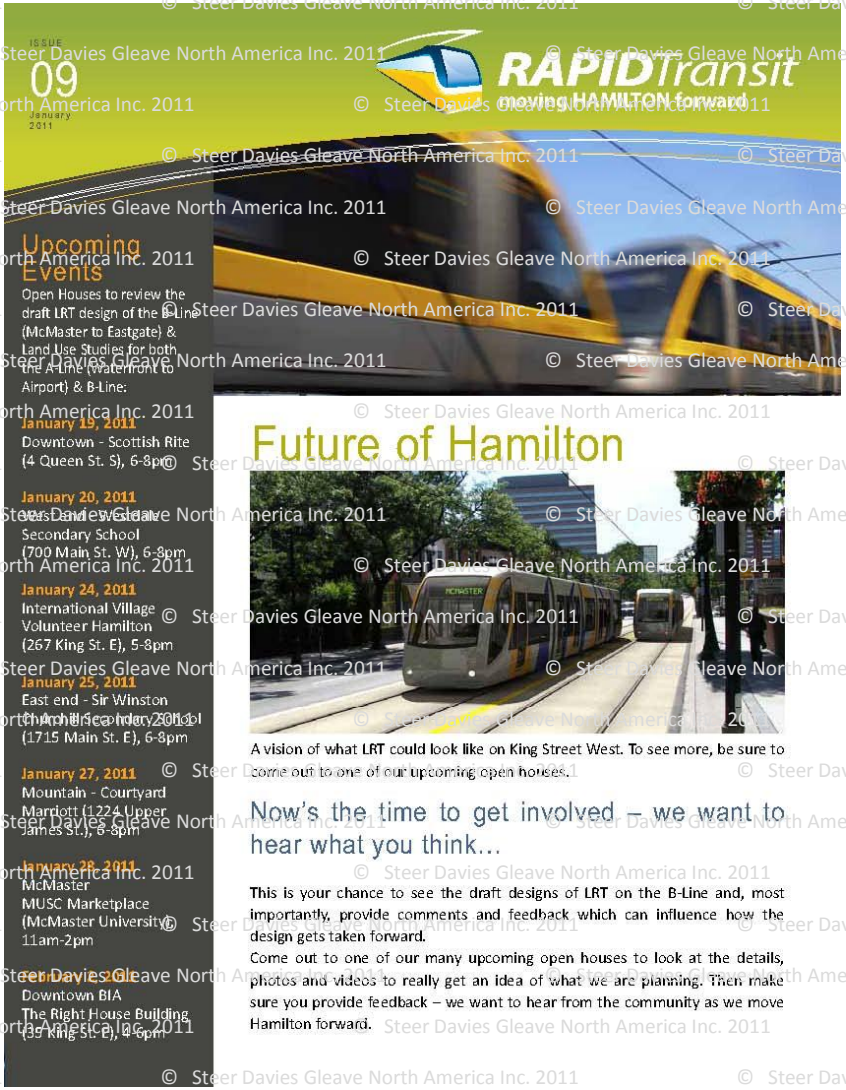
Engagement: Design Charrette - King and Wentworth

David Premi Architect

Engagement

- Engagement has been extensive
  - Newsletters
  - Website, Facebook, Twitter

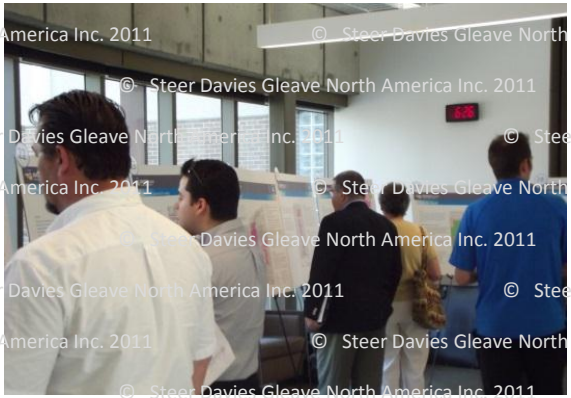


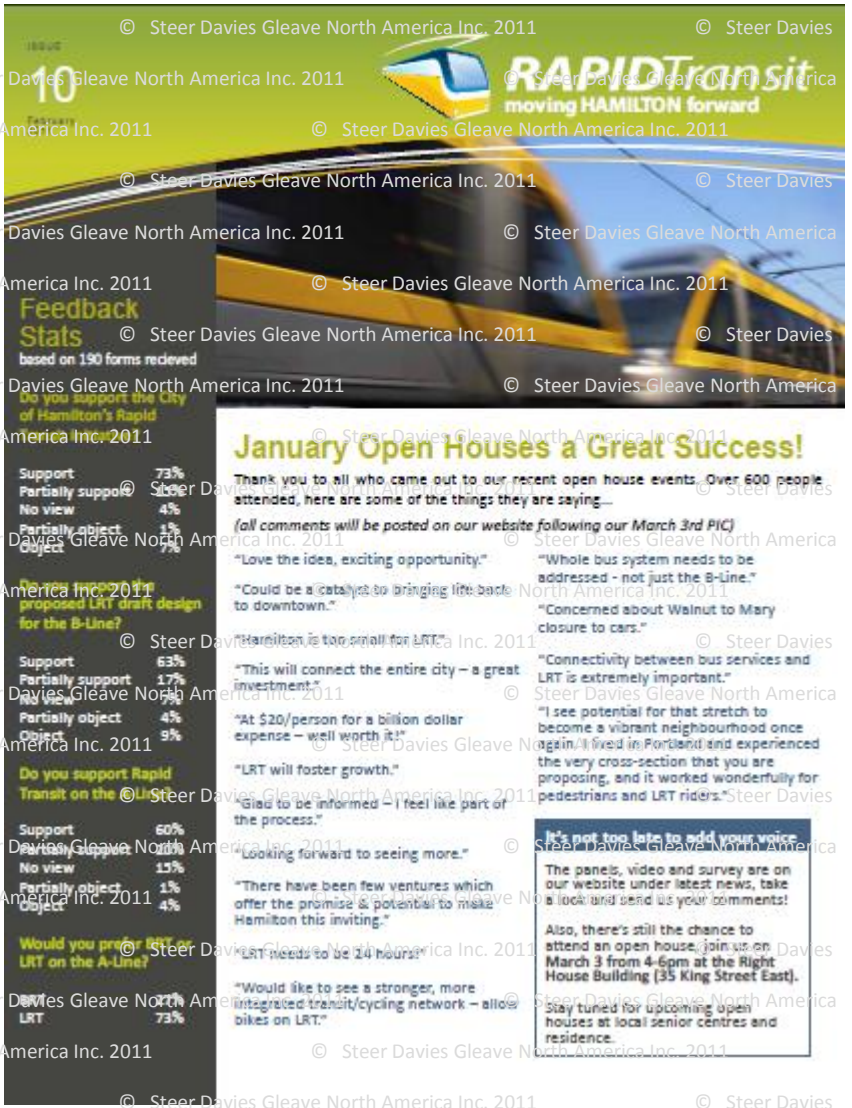


Engagement

- Open Houses – Sept 2010, Jan/Feb and August 2011
- Many meetings with stakeholders
- Community events

- Wide-scale interest amongst public and stakeholders





Delivering the Vision

Delivering the Development

- 5 questions:
  - What are the mechanisms that could encourage development ?
  - What other initiatives or incentives could help ?
  - What is the likely impact of LRT on the potential for new investment and development activity ?
  - What strategies have the highest potential to deliver Hamilton's Vision ?
  - What is the role of LRT in encouraging people and employers to return to the downtown ?
- Three methods:
  - Case study analysis
  - Development Industry web survey
  - One-on-one Development Industry interviews

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Delivering the Development: Case Studies

- Ten Cities examined:

Canada	USA	Europe
Edmonton, AB	Portland, OR	Sheffield, UK
Toronto, ON	Minneapolis, MN	Dublin, Ireland
Waterloo, ON	Dallas, TX	
	Buffalo, NY	
	Phoenix, AZ	

- Focus on what made them successful and transferable lessons to Hamilton

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Delivering the Development: Case Studies

- Successful mechanisms:
  - Pre-implementation planning & zoning revisions
    - Good: Portland, Minneapolis, Phoenix
    - Poor: Buffalo, Sheffield
  - Land Assembly
    - Good: Portland, Dublin
  - Infrastructure Improvements, especially public realm
    - Good: Minneapolis, Toronto
  - Financial Incentives
    - Most offer them but based around economic development generally rather than encouraging investment in LRT corridors

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Delivering Development: Web Survey

- Distributed to:
  - 100 senior figures
  - Industry groups who circulated to their membership:
    - Building Industry and land development Association (BILD), including Hamilton Halton Homebuilders Association (HHHBA) – 1000
    - Commercial Real Estate Development Association (NAIOP)
    - Hamilton Chamber of Commerce – 1500
- 45 responses – most from developers

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Delivering Development: Web Survey Results

- Key Messages:
  - **88%** had heard of LRT proposals
  - **87%** think LRT is important for Hamilton and its attractiveness as a location to develop
  - 6% think LRT is not important
  - View is **LRT has modern, efficient image** that:
    - is proven to encourage development
    - Will increase property values
    - Will improve the image of Hamilton
    - Will provide accessibility to those who might want to live/work downtown
  - Low level awareness for current incentives on offer by City
  - The most important things Hamilton can do are:
    - improving the approvals process and
    - provision of public realm and other infrastructure

Delivering Development: Development Industry Interviews

- 20 firms targeted, 10 arranged, 5 conducted
- 3 developers (residential and commercial), 1 commercial real estate, 1 economic development advisory firm
- None of the developers currently active in Hamilton

Findings:

- Perceptions of City varied:
  - ***"Building up the image of the City is probably the single most important thing Hamilton can do"***
- Poor processes and understanding are barriers to Development:
  - *"if we have to fight to get what we need, to be able to do what we think is smart and appropriate development, why fight in Hamilton when you can develop in other places where they really want you"*

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Delivering Development: Development Industry Interviews

- *"there has to be a willingness, more so than there is now, for anybody walking into City Hall to figure out how staff can make their proposals work - instead of throwing up road blocks. Here's why you can't do it - let's all sit down and figure out how we can"*

- All felt LRT was hugely important for the City:
  - *"I don't think there's a developer out there who would say "Oh no we don't want LRT" there's an attraction for developers for sure"*
  - *"We couldn't care less about bus. There's a sexiness about LRT, as in Portland, and there is a usability comfort to LRT"*
  - *"LRT is very important. We like to build close to public transit.."*
- Infrastructure investment and process/mindset improvement was preferred to other City incentives:
  - *"I don't think you have to buy people to come here. I think you just need to make it easy for them to do what they want to when they get here"*

Delivering Development: Development Industry Interviews

- *"why should I invest in the city if they don't invest in themselves"*
- *"Infrastructure is very important. Community facilities, civic buildings, public places, this is where the City should be spending their money"*
- *"Infrastructure is the number one priority. Its not about financial incentives. Its about having the right infrastructure, the right amenity space, the public realm"*
- *"The conditions of the neighbourhood and the investment the City can do are important. Once you step off LRT you have to have good public place, good public spaces, good places that have good urban scale. That can start to generate development"*

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Delivering Development: Conclusions

- ***What are the mechanisms that could encourage development?***
  - Infrastructure improvements, incl. public realm
  - Incentives to developers to also improve public realm
  - Assistance with land assembly
  - Pre-implementation planning – area planning & zoning
- ***What other incentives or programs could the City use to attract development?***
  - Improved application process
  - Planning policy that supports desired development
  - Municipal staff with priority to assist TOD delivery

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Delivering Development: Conclusions

- ***What is the likely impact of LRT on the potential for development?***
  - Investment in LRT would help change image
  - Would improve accessibility
  - 87% of web respondents thought LRT would approve Hamilton's attractiveness as a location for development
- ***What strategies have the highest potential to deliver Hamilton's Vision?***
  - TOD policy & zoning in place before LRT
  - Invest in public realm in targeted locations aligned with TOD policies
  - Overhaul approvals process – to ensure efficient & predictable for the right sort of development
  - Consider creating a body/department that can purchase/assemble land to support development objectives
  - Re-focus incentives to support station area planning and economic development objectives

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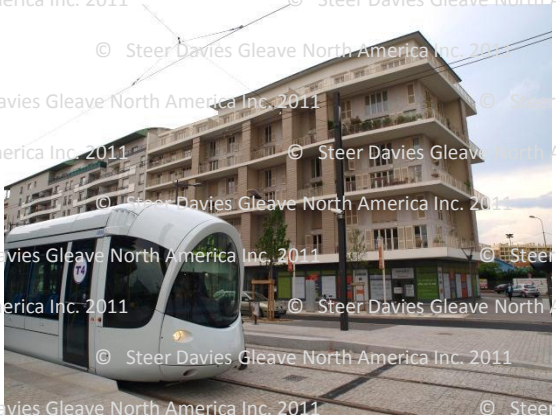
Delivering Development: Conclusions

- ***What is the role of LRT in encouraging people and employers to return to the downtown?***
  - Connectivity/accessibility
  - Development industry sees LRT as key as a high quality, long term infrastructure investment
  - LRT will improve image of downtown
  - Can act as a catalyst to attract residential and employment development



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Conclusions

Conclusions

- Comprehensive development of project has been undertaken – integrated approach- moved from regional option to 30% project design
- LRT as a City Shaper and to encourage economic activity
- Wide-scale engagement & interest
- Integrated policy and delivery approach – to maximise likelihood of development
- Development industry view: LRT can help make Hamilton more attractive
- The B-Line is well positioned to deliver the Rapid Transit Vision Statement

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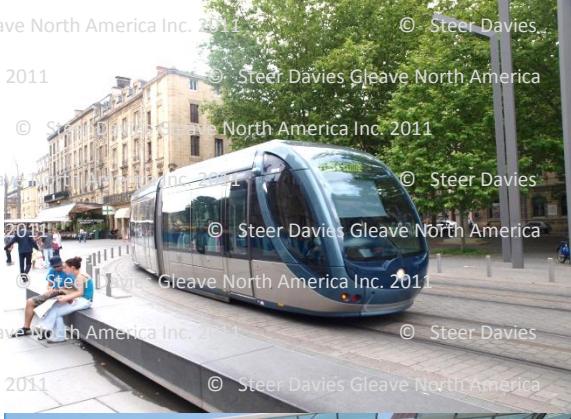
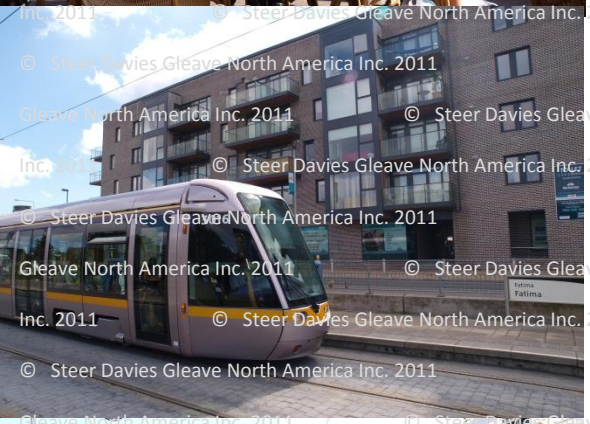

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Thank You