



# Investing in Calgary's Green Line LRT

Fall 2015

CITY OF CALGARY  
**RECEIVED**  
 IN ENGINEERING TRADITIONS ROOM  
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pedestrian scale  
lighting over sidewalk

vegetative screens and  
fences to buffer pedestrian

landscaped esplanade.



## The Green Line

In 1981, Calgary's first LRT line was opened, revolutionizing transportation in our city. The system has since expanded to become the backbone of the regional transit network with 58 route-kilometres of track and 45 stations. Today, on the average weekday, over 320,000 passengers are carried on the existing LRT network, making it the most successful LRT system in North America.

The Green Line is the next LRT line to be built in Calgary.

In 2014 Calgary City Council committed \$520 million to this project to start initial implementation of the Green Line. On July 24, 2015 the Government of Canada made a historic funding commitment to the Green Line of up to \$1.53 billion, contingent on matching provincial and municipal funds. The City of Calgary hopes to use this opportunity to partner with all levels of government and advance construction.



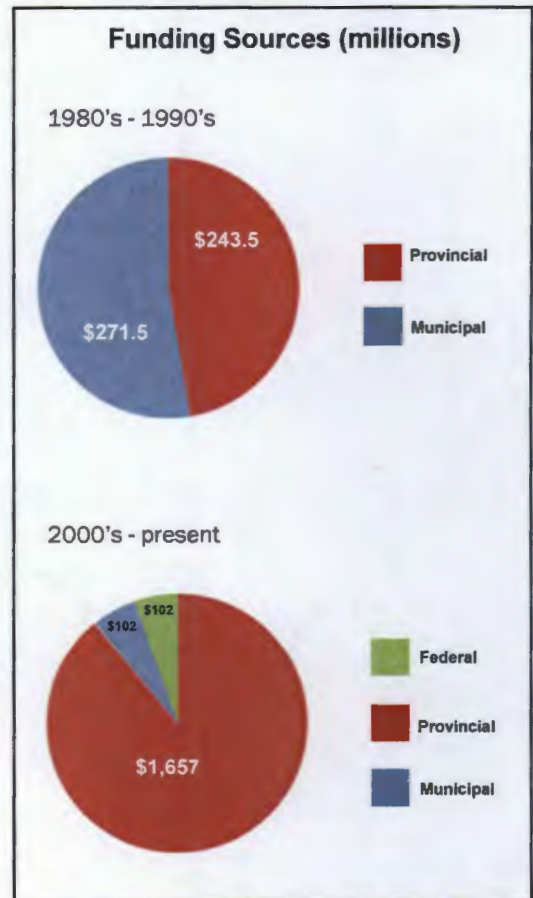
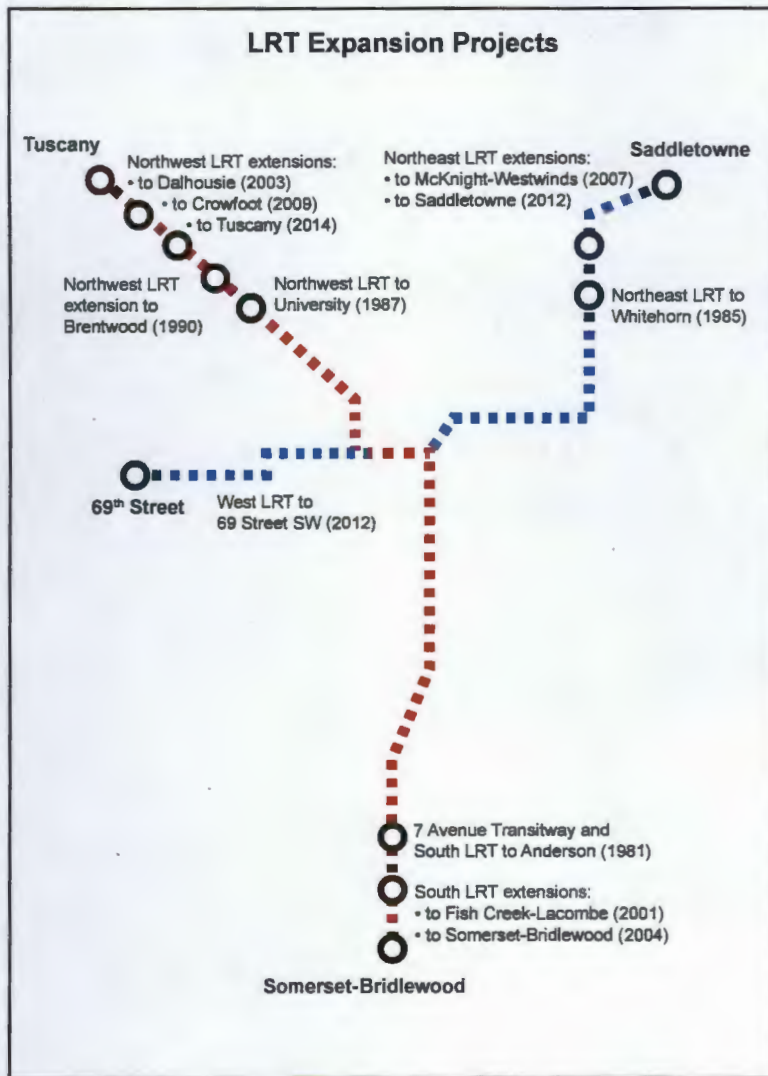
Green Line ———  
Existing LRT - - -

NOTE: Alignment, and station locations/  
names subject to confirmation.  
Map not to scale.



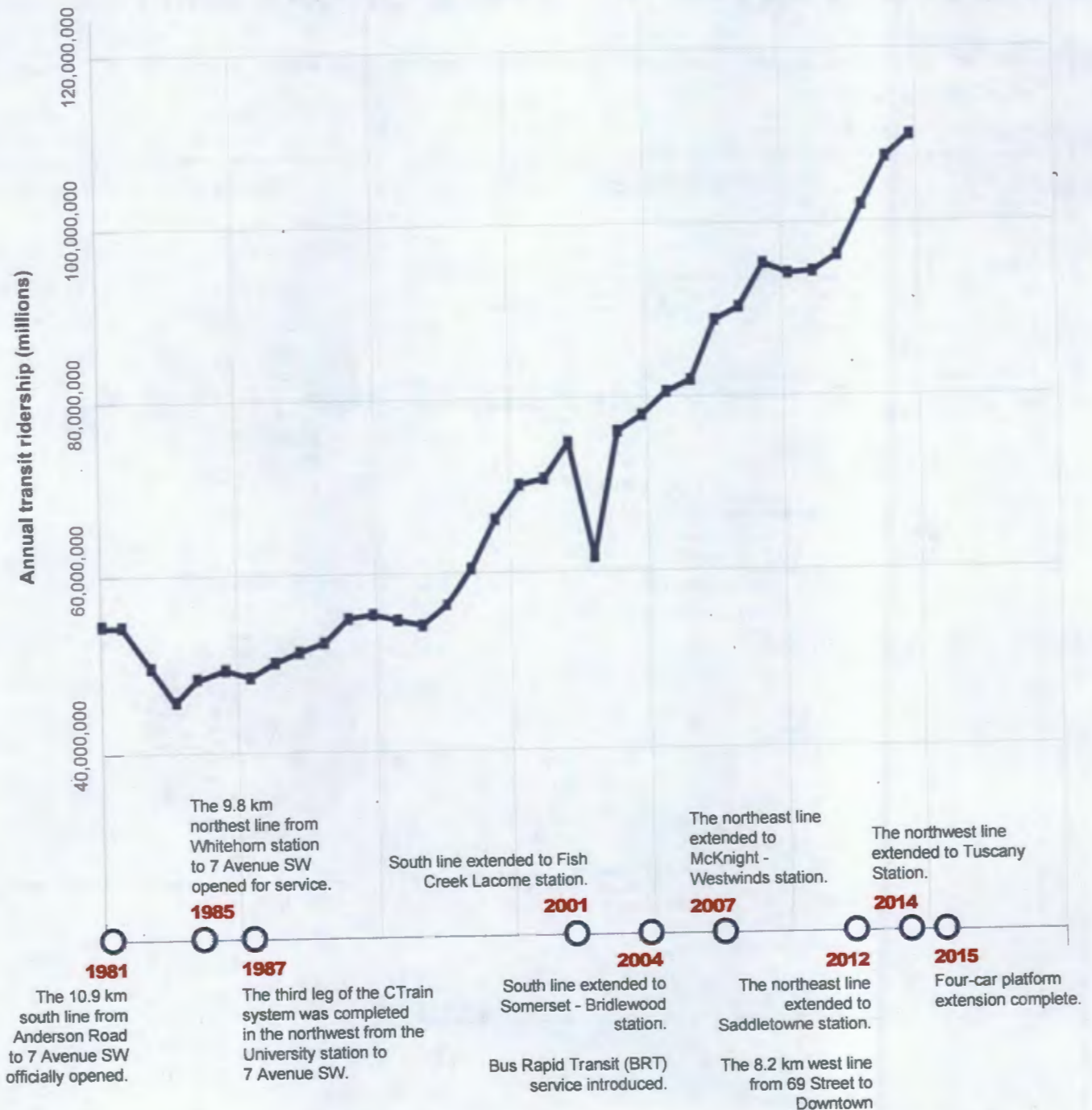
## ➤ Historical LRT Development, Growth and Funding

The Province of Alberta's contribution over the last 30 years has been instrumental to the success of Calgary's LRT system.



Calgarians have responded to LRT improvement and ridership has increased significantly as the system has grown.

Annual transit ridership and expansion of the LRT system



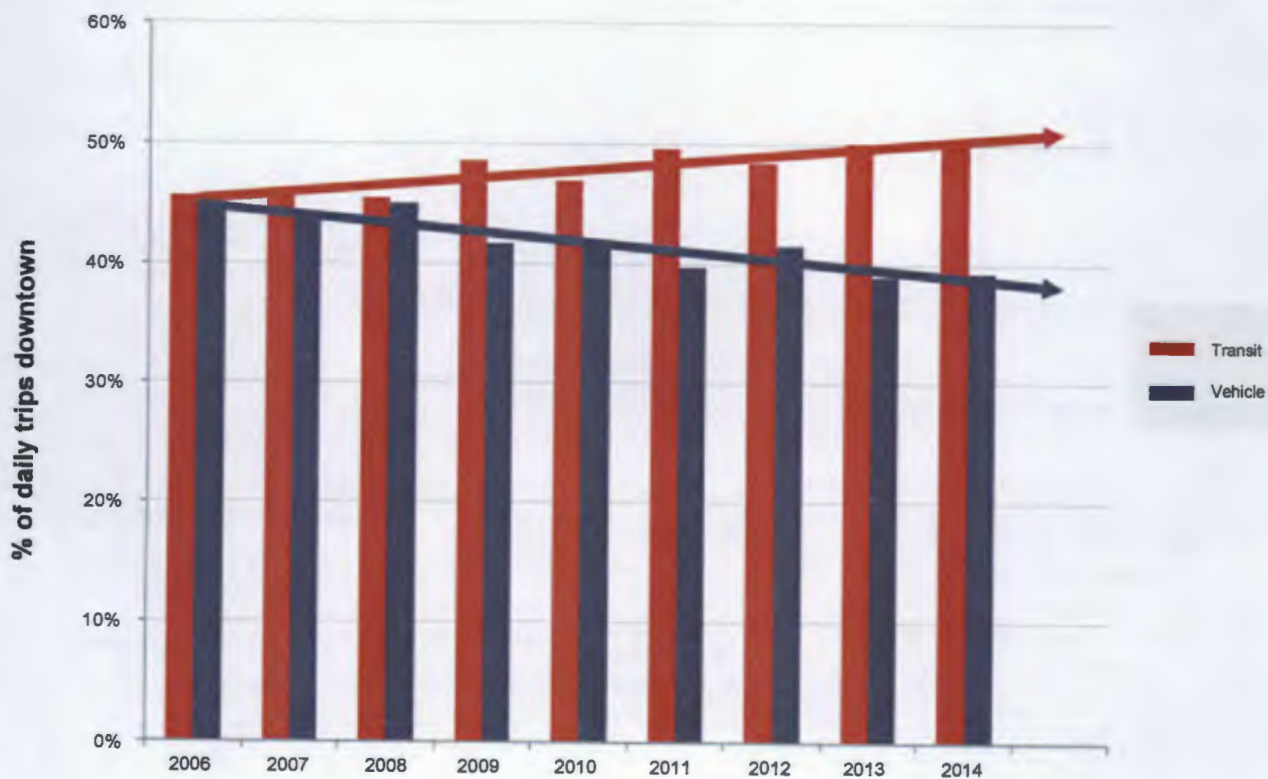


## Return on Investing in Calgary's LRT

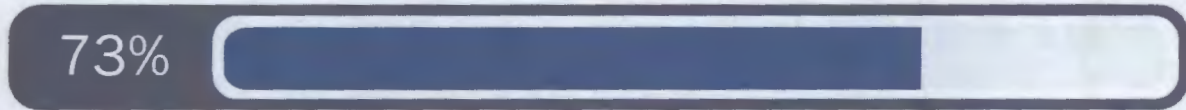
### Transit supports Calgary's economic engine

More than 50% of Calgarians use transit to get to the downtown for work. Transit helps Calgarians move efficiently to and from the central business district – Calgary's economic engine. The current system has enabled downtown growth and urban densification, and several transit oriented development projects along the LRT line.

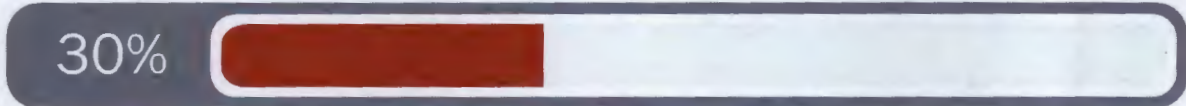
How Calgarians are getting downtown during the AM peak: Transit vs. Vehicles



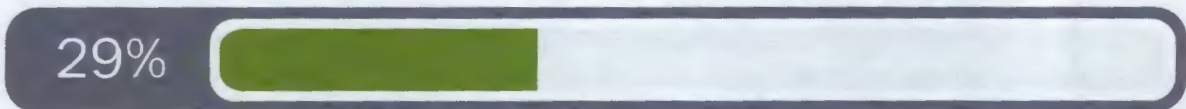
## Calgary: the economic driver that contributes to the success and growth of Alberta



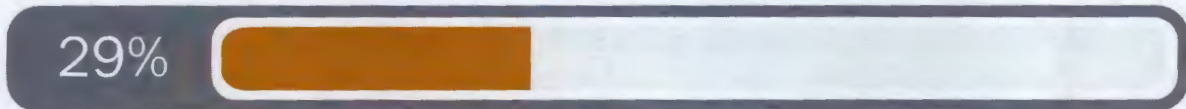
Calgary has the highest labour participation rate in Canada.



Calgary has the second highest in labour force growth in Alberta.



Calgary has the highest total population growth over the past 10 years among Canadian CMAs\*



Calgary has the second highest total employment growth over the past 10 years among Canadian CMAs\*

\*Census Metropolitan Area

Source: *Economy at a glance: Calgary's advantages*, Calgary Economic Development, March 2015

## Continued investment in transit will benefit Calgarians and Albertans

### Increased investment in transit



#### An Economic Advantage

- Result in less traffic and congestion
- Increased efficiency in goods and service movement



#### Better Lives for Calgarians

- Travel to work efficiently and economically
- Air will be cleaner - reduce carbon pollution
- Options for low income seniors and families



#### Stronger Alberta Economy

- Increased productivity
- Increased taxes to fund public services
- Increased contribution to Alberta

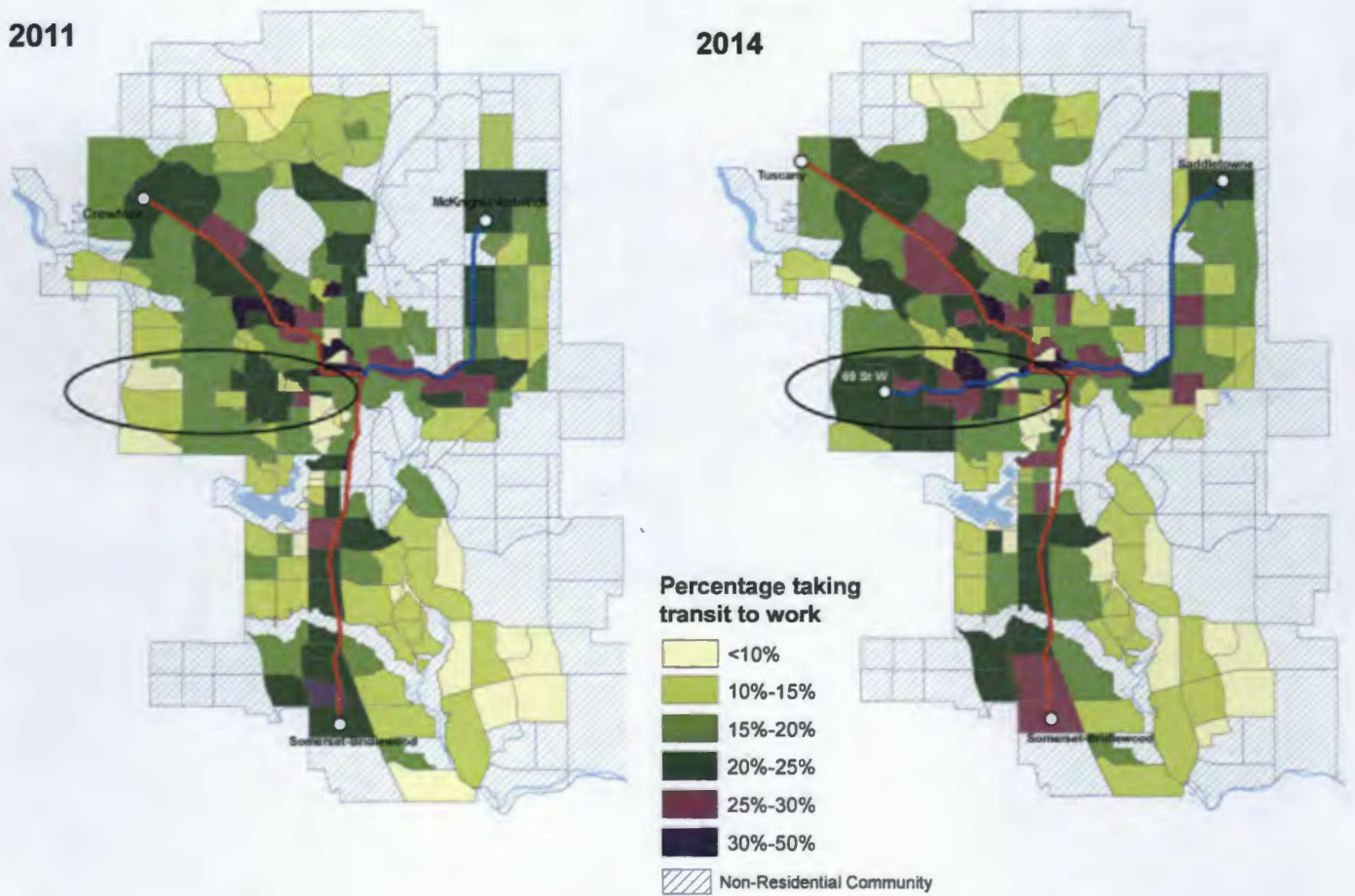


## West LRT

In December 2012, West LRT, Calgary's largest ever infrastructure project was opened for service. The project was a catalyst to improve transit, pedestrian facilities, cycling infrastructure, traffic flow and enhance development opportunities across west Calgary. West LRT included 6 new CTrain stations, over 8 km of double track and 1,192 park and ride stalls. West LRT was 95% funded by the Government of Alberta through the Municipal Sustainability Initiative and GreenTRIP.

## Calgarians respond positively to improved rapid transit options

Adding West LRT resulted in a large jumps in transit use for those communities in close proximity to the LRT line. In some cases upwards of 30% of residents now take transit to work (City-wide average is 18%). We expect to see similar results in the Southeast and North Central parts of the City with the completion of the Green Line LRT.





## ➤ A plan to enhance mobility and be fiscally and environmentally responsible

We have a plan and we're ready

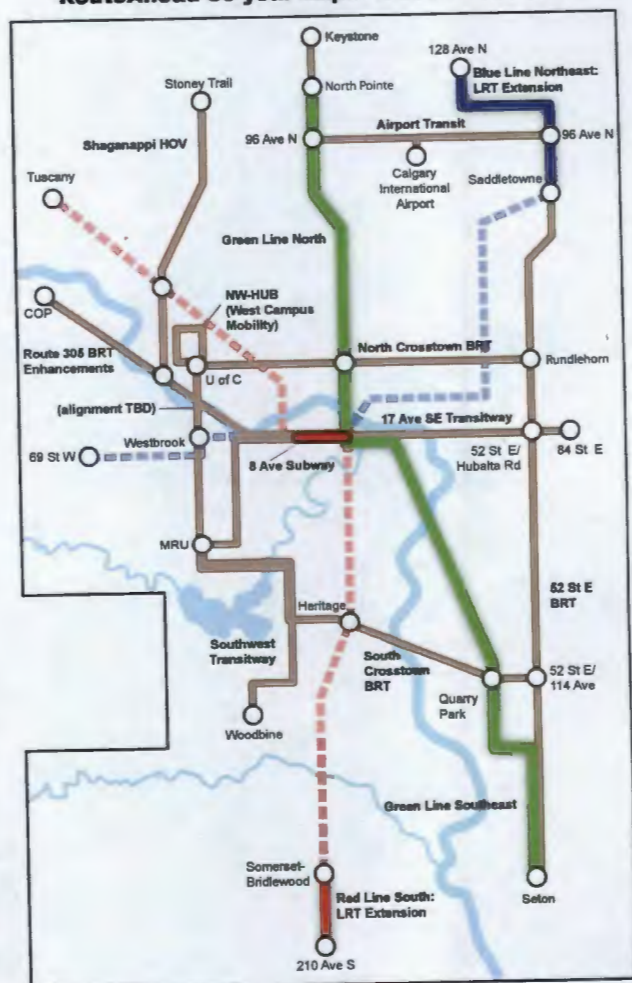
The *Calgary Transportation Plan* is a 60-year vision which responds to growing transportation concerns by providing a balanced approach to improving mobility for all modes of travel.

*RouteAhead* is The City's 30-year, \$13 billion strategic plan for transit and includes new customer service oriented rapid transit projects.

*Investing in Mobility*, The City's 10 year capital plan, showcases the major projects and annual programs around infrastructure to meet Calgarians' transportation needs as they work, shop, and play.

The next major LRT expansion is the Green Line.

**RouteAhead 30-year Rapid Transit Network**



**Legend**

- Terminus/Connection
- Existing Red Line LRT
- Existing Blue Line LRT
- Proposed Green Line LRT
- Proposed Red Line LRT
- Proposed Blue Line LRT
- Proposed Transitway/BRT/Other Technology



# Investing in Calgary's Green Line LRT (Fall 2015) Calgary's GreenTRIP Projects

The Government of Alberta funded the following projects under the first round of submissions:

- West LRT
- 60 new Light Rail Vehicles
- Southeast Transitway Pre-design and Transit-Oriented Development Planning

In September 2015, the Government of Alberta approved funding for:

- North Crosstown BRT
- South Crosstown BRT
- 17 Avenue SE Transitway
- Southwest Transitway
- LRT Traction Power: Four-Car Train Upgrades

GreenTRIP has been an integral part of advancing our 30-year strategic plan and helping make Calgary Transit the first choice for getting around Calgary.

## GreenTRIP Rapid Transit Corridors



### Powered by the Wind

Calgary Transit's LRT system is the only one in North America that uses wind-generated electricity to power the CTrain system.

This saves 56,000 tonnes of carbon dioxide emissions per year.

## The Green Line – Calgary's next LRT line

Connecting People to:



Starting Green Line LRT construction now makes sense. With over 35,000 daily riders on buses in the Centre Street corridor north of downtown today, a new line will be well used. A new transit facility will improve transportation for all Calgarians and Albertans using the adjacent North/South Trade Corridor.

## Green Line Benefits

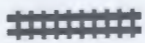
- The Green Line will improve the affordability of living in Calgary. It will offer a new low cost mobility alternative in Southeast and North Calgary. It will also offer opportunities for development of affordable housing near stations.
- The project will mitigate traffic congestion and associated emissions, enabling goods movement on critical transportation corridors.
- The Green Line construction project alone will create 23,000 jobs.<sup>[1]</sup>  
<sup>1</sup>2010 Alberta Economic Multipliers for transportation engineering construction, updated Dec. 2014 (Alberta Treasury Board and Finance)
- The Green Line will satisfy growing travel demand in the Calgary region. Ridership upon opening is estimated to be 90,000 - 140,000 daily riders, supporting the over 118,000 new residents and jobs expected in the catchment area by 2025.
- Deerfoot Trail, the major north-south goods movement route through Calgary, and part of the North/South Trade Corridor, runs parallel to the Green Line, and will benefit from the relief offered by high-capacity public transit, particularly in peak periods.



### Transportation Network

- Deerfoot Trail (North/South Trade Corridor)
- Green Line (Proposed)

## Green Line Facts



Over **40 km** from North Pointe to Seton



2 stations, 5 km in future extensions to the community of **Keystone**



Future rail connection to the **Calgary International Airport at 96 Avenue N**



The line will be completely separate from the existing system, offering us the opportunity to use modern low-floor trains with ground level platforms with **improved accessibility.**



A station at 7 Avenue S in downtown will offer customer connections between **all three LRT lines.**



Jobs in downtown Calgary:  
**2014: 165,000**  
**2043: 195,000**



Population in Green Line LRT feeder bus and walk catchment area:  
**2014: 290,000**  
**2043: 465,000**



## Project Scope

The full build-out between North Pointe and Seton is estimated at \$4 billion to \$5 billion. This project cost estimate includes the following scope:

### Land

- Acquisition of land, including along Centre Street
- Integration with adjacent landowners and communities to enable transit-oriented development

### Infrastructure

- Train storage and maintenance facility
- Tracks, power, communications and signaling systems
- Stations, bus terminals and Park and Ride lots
- Bridges and structures

Contingency for the method of construction within the downtown

### Vehicles

- New low-floor light rail vehicles

## An Investment in the Green Line

The Federal Government has committed up to \$1.53 billion in matching funding for the Green Line LRT and Calgary City Council has set aside \$520 million over the next 10 years to leverage future provincial funds for the Green Line.

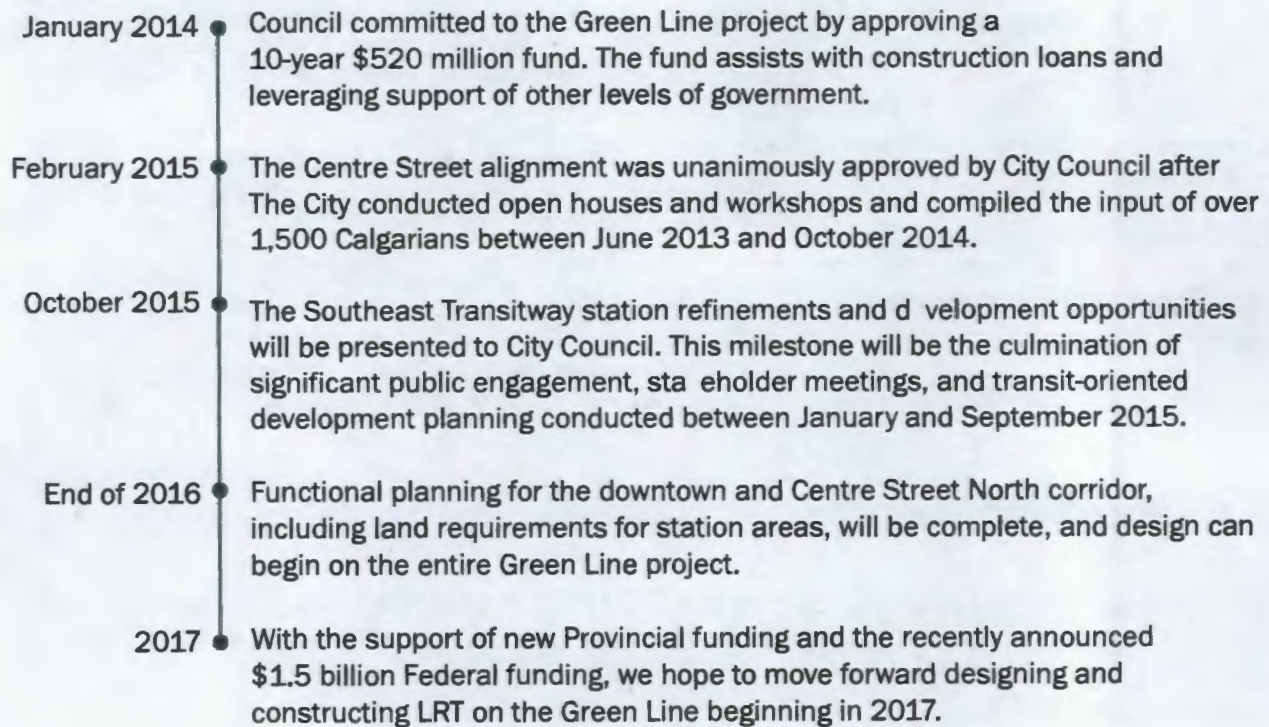
## Calgary can deliver

The City has a history of delivering big, complex projects on-time and on-budget delivery of our transportation projects. The West LRT project involved over \$1 billion worth of construction activity within established communities and along busy roadways, and it entailed significant brownfield remediation.

The City and its partners in industry delivered the West LRT through pre-design and a design-build contract between 2008 and 2012.

## Calgary is committed

City Council and civic administration have been steadfast in their efforts to work towards the Green Line vision. The City has actioned LRT through a phased approach, beginning with introduction of Bus Rapid Transit (BRT) in the corridor in 2004.

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- January 2014 ● Council committed to the Green Line project by approving a 10-year \$520 million fund. The fund assists with construction loans and leveraging support of other levels of government.
  - February 2015 ● The Centre Street alignment was unanimously approved by City Council after The City conducted open houses and workshops and compiled the input of over 1,500 Calgarians between June 2013 and October 2014.
  - October 2015 ● The Southeast Transitway station refinements and development opportunities will be presented to City Council. This milestone will be the culmination of significant public engagement, stakeholder meetings, and transit-oriented development planning conducted between January and September 2015.
  - End of 2016 ● Functional planning for the downtown and Centre Street North corridor, including land requirements for station areas, will be complete, and design can begin on the entire Green Line project.
  - 2017 ● With the support of new Provincial funding and the recently announced \$1.5 billion Federal funding, we hope to move forward designing and constructing LRT on the Green Line beginning in 2017.