Green Line LRT Long Term Vision: 160 Avenue N to Seton

PROPOSED URGENT BUSINESS

McKenzie Towne - station concept

"GREEN LINE LRT LONG TERM VISION: 160 AVENUE N TO SETON" EXECUTIVE SUMMARY

Over one million new residents will be welcomed to Calgary and over 500,000 new jobs will be created by 2076. Providing fast, frequent and reliable transit for Calgarians as the city grows, is essential to keep Calgarians moving. The Green Line LRT is Calgary's next light rail transit (LRT) line, and one of The City's top infrastructure priorities.

The *"Green Line LRT Long Term Vision: 160 Avenue N to Seton SE"* provides a guide for future investments that demonstrates The City's commitment to providing Calgarians with more ways to move around the City and more choices of where they live, work and play.

The long term vision document for the Green Line will provide greater detail on:

- The need for the Green Line
- The benefits of the Green Line for Calgary and its citizens now and into the future
- The four-layered approach of planning the Green Line
- A description of the community context and character areas through which Green Line connects
- How the Green Line integrates with the current transportation network
- The alignment and station locations
- Opportunities for future development and investment
- A strategy for realizing the full vision of the Green Line

"Once the corridor is built out, the Green Line will serve an estimated 240,000 trips per day, connect 10 transit oriented development stations, and provide an affordable service for all Calgarians."

PROPOSED URGENT BUSINESS

Calgary

Green Line LRT

Long term vision: 160 Avenue N to Seton

JUNE 2017

PROPOSED URGENT BUSINESS

Green Line Vision

A transit service that improves mobility choices for Calgarians, connecting people and places, and enhancing the quality of life in the city.

PROPOSED URGENT BUSINESS

FOREWORD

"In order to ensure that Calgary realizes its full potential as a global city, it is crucial to invest in infrastructure that will not only meet the needs of Calgarians today, but will continue to serve future generations. Green Line LRT is a key investment in the future of Calgary."

- Fabiola MacIntyre, Green Line Manager

On behalf of The City of Calgary Administration I am pleased to present the *Green Line LRT Long Term Vision: 160 Avenue N to Seton*. This document is a result of collaboration across City departments, extensive public engagement and could not become a reality without the support of City Council.

ImagineCalgary, the long range plan for sustainability, outlined a vision of the future of our city, which balanced a vibrant culture and robust economy with a healthy environment. A significant part of that vision centred around a high quality public transit system. The Green Line LRT forms one of the key components of Calgary Transit's future.

The Green Line LRT has been designed to be both a transit system and a platform for development and City Shaping; a system that not only provides efficient service and connections to destinations throughout the city, but creates areas where people can live affordably with access to amenities, services and sustainable mobility options. The long term vision of the program will allow us to invest intentionally now and into the future to ensure that Calgarians have more choices in where they live, work and play and how they move around the city.

Through our public engagement process over the last two years, we have met with thousands of Calgarians who live or travel along the future Green Line LRT route. They have shared their hopes, aspirations and concerns about the program with us, and have inspired a series of stories that are mentioned throughout this report. The stories are meant to illustrate what life could be like in Calgary in the future, once the full Green Line vision is realized.

We are proud of the vision created and are excited to see it through to the next chapter of the Green Line LRT.

Fabiola MacIntyre
Green Line Manager

PROPOSED URGENT BUSINESS

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PROPOSED URGENT BUSINESS

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PROPOSED URGENT BUSINESS

GLOSSARY OF TERMS

Accessibility
The ability to reach a destination by all modes, including walking, wheelchairs, cycling, transit vehicles (buses, light rail transit), private vehicles and commercial vehicles including trucks.

Built out Green Line
New population and jobs forecast for the year 2076 in place at all Green Line Stations.

Character Areas
A classification of municipal areas based on a combination of urban form, landscape, biodiversity, geodiversity and economic diversity.

Charrette
An intense, collaborative community design event that productively engages diverse community stakeholders and urban design experts, typically completed in a week or less.

City Shaping
Investing in people, places, programs and reliable multi-modal transportation, that will enhance the way our citizens live, work, play and move.

Complete Streets
Adopted by Calgary City Council in 2014, the Complete Streets design guide creates a new selection of multi-modal streets that emphasize walking, cycling and transit, incorporate elements of green infrastructure and function in the context of surrounding land uses.

Direct jobs
Jobs which are required to construct the project (construction/on-site jobs)

District energy
District energy systems produce steam, hot water or chilled water at a large central plant. The steam, hot water or chilled water is then piped underground to individual buildings for space heating, domestic hot water heating and air conditioning. As a result, individual buildings served by a district energy system do not need their own boilers, furnaces, or air conditioners.

Four-layered approach
The four layer planning approach is the strategy for delivering the Green Line long term vision. This approach illustrates the complexity and interdependence of transit infrastructure (Layer 1), connections to stations (Layer 2), land use planning (Layer 3), and city shaping (Layer 4), all contributing to more accessible, complete and vibrant communities.

Fully constructed Green Line
In accordance with RouteAhead the full 46 km of Green Line LRT, from 160 Ave N to Seton is assumed to be built over 30 years (~2043).

Green Line Urban Integration (GLUI)
A set of guiding principles and a framework for design development that also helps communicate how the Green Line LRT will fit within communities.

Indirect jobs
Supporting jobs which supply goods and services to the construction industries (suppliers and manufacturers)

Induced jobs
Consumer related jobs (e.g. food and entertainment providers) created as a result of increased household income from the direct and indirect jobs.

Mobility
The ability to move from place to place by a variety of travel modes including walking, cycling, transit and automobile.

Neighbourhood hubs
A gathering centre of a community to foster greater local activities and connections between residents, businesses and organizations.

Primary Transit Network
The network of fast, frequency and reliable transit service, that operates every 10 minutes or better, 15 hours per day, seven days per week.

Station access priorities
Identifies the modes of transportation for each station that will increase transit ridership at the station the most, based on how favourable the station area is for walking, cycling or transit. Station access is a priority for the automobile at all park and ride sites.

Transit hubs
A major transit station, typically serving many transit routes, that enables the efficient transfer of people between major intersecting transit services.

Transit Oriented Development (TOD)
Redesigning neighbourhoods around transit stations so that a wide range of uses is within a short walk of the station; the area's streets, businesses and public places attract people and activity; and where owning a car is an option, not a necessity.

Urban Corridor
Designated areas of high job and population growth, identified in the Calgary Municipal Development Plan, they are multi-modal streets located in strategic areas and linked city-wide by the Primary Transit Network.

Abbreviations

ASP: Area Structure Plan
BRT: Bus Rapid Transit
CTP: Calgary Transportation Plan
GLUI: Green Line Urban Integration
LRT: Light Rail Transit
LRV: Light Rail Vehicle
MDP: Municipal Development Plan
MSF: Maintenance and Storage Facility
PTN: Primary Transit Network

Report limitations
The Green Line LRT Long Term Vision: 160 Avenue N to Seton is intended to guide design and future investments towards achieving the vision over time. The vision may be amended as design advances, as community context changes over time, and can be informed by further public engagement, or as directed by Council.

Renderings shown throughout the report are for illustrative purposes to provide the context of the Green Line station areas, future potential development, and to contrast the station areas today and the conceptual fully constructed or built out scenarios.

PROPOSED URGENT BUSINESS

HOW TO USE THIS DOCUMENT

The "*Green Line LRT: Long term vision: 160 Avenue N to Seton*" document is a holistic guide for future investments towards transforming communities along the Green Line LRT corridor considering people, places, and programs and connected by reliable transit.

This document like other City of Calgary visionary documents provides specific goals and directions for the transformation of the Green Line corridor. Aligned with The City's long term vision to support growth and to develop sustainable communities, a focused plan is required. The *"Green Line LRT: Long term vision: 160 Avenue N to Seton"* is the plan based on measurable and evidence based targets. Realizing the vision for the Green Line LRT will take decades, partnerships, and strategic investments. This document will guide Calgary over the course of the implementation until the infrastructure is fully constructed and the development is built out, providing the following outcomes:

- Certainty of a fast, frequent, and reliable transit by setting the alignment and stations;
- Identification of the missing links to connect the stations to the neighbouring community and complemented by multi-modal options for the corridor;
- Concepts and development targets for the most viable station sites for Transit Oriented Development over the next 30 years; and
- Identification of targets and opportunities for coordinating investments for the people who will live, work, play and move along the corridor.

Forming the holistic long term vision are a series of focused documents, *"Laying the tracks for delivering the Green Line LRT"*. Each document below represents an individual layer in the four layer program approach, they are intended to be read alongside each other forming a compendium of documents.

Long Term Vision (160 Avenue N - Seton)
A holistic guide for future investments towards transforming communities along the Green Line LRT corridor focused on reliable transit, people, places and programs.

Led by: **All departments**
Layers 1-4

Layers 1-3

Green Line Urban Integration (GLUI) Vol. 1
A set of principles to guide the implementation of the Green Line LRT transit infrastructure from 160 Avenue N to Seton to fit into, enhance and transform the communities it connects.

Led by: **Transportation, Planning & Development**

Layer 1

Green Line LRT Operations Plan

Operations Plan
An operations plan for a fast, frequent, and reliable Green Line LRT from 160 Avenue N to Seton considering the communities it connects to.

Led by: **Transportation**

Layers 1&2

Stage 1 - Opening Day
Details of the first construction project for the Green Line LRT from 16 Avenue N in the community of Crescent Heights to 126 Avenue SE in the community of Shepard.

Led by: **Transportation**

Layer 2

Green Line LRT Connections to Stations

Connections to stations
An analysis of missing links for all modes connecting to the Green Line LRT stations from 160 Avenue N to Seton with the goal of increased ridership.

Led by: **Transportation**

Layer 3

Framework for a Transit Oriented Development Implementation Strategy
An overview of the objectives, initiatives and key partners that are required for effective implementation of Transit Oriented Development in specific station areas from 160 Avenue N - Seton

Led by: **Planning & Development**

Layer 4

Framework for a City Shaping Implementation Strategy
A set of principles, goals and strategies to guide the next steps towards City Shaping implementation along the entire Green Line LRT corridor from 160 Avenue N to Seton.

Led by: **Community Services**

Figure A: "Laying the tracks for delivering the Green Line LRT"

PROPOSED URGENT BUSINESS

Introduction

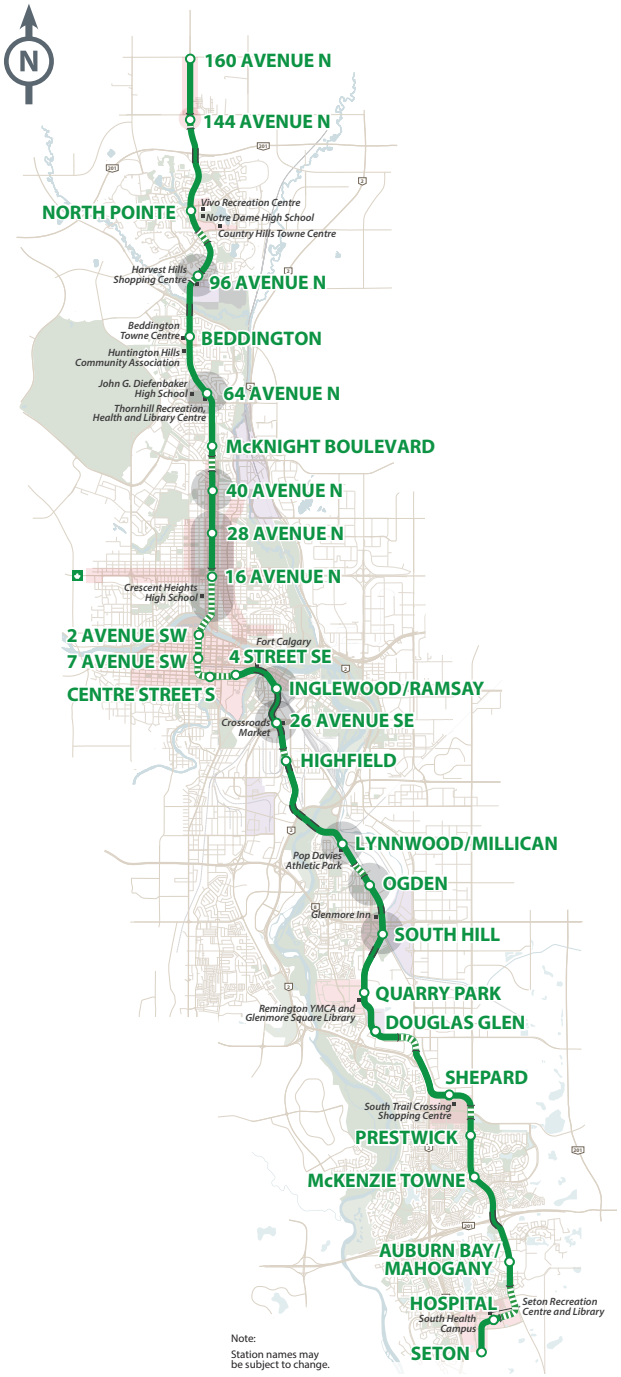
PROPOSED URGENT BUSINESS

INTRODUCTION

"Once the corridor is built out, the Green Line will serve an estimated 240,000 trips per day, connect 10 transit oriented development stations, and provide an affordable service for all Calgarians."

Over one million new residents will be welcomed to Calgary and over 500,000 new jobs will be created by 2076. Providing transit for Calgarians today and into the future as the city grows, is essential to keep Calgarians moving. The Green Line LRT is Calgary's next light rail transit (LRT) line, and one of The City's top infrastructure priorities.

The Green Line is firmly embedded in Calgary's plan for the future. The Calgary Transportation Plan (2009) and RouteAhead (2013) include the Green Line as a priority LRT line to be built in Calgary. However, shaping our city to welcome growth along the Green Line LRT requires a plan. The "Green Line LRT Long Term Vision: 160 Avenue N to Seton SE" provides a guide for future investments to demonstrate our readiness for delivery and our commitment to a common vision. This long term vision has intentionally considered transit oriented development (TOD) and City Shaping, adjusting the transit line and station locations to maximize their potential for ridership and accessibility. Calgarians in all walks of life for generations to come will benefit by connecting people to programs, spaces and places they care about.



PROPOSED URGENT BUSINESS

Background

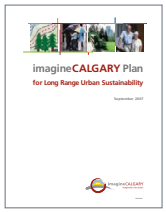
PROPOSED URGENT BUSINESS

ALIGNMENT WITH CITY POLICIES

"Mobility is the lifeblood of a city." - RouteAhead

Since 1909, Calgary Transit has been efficiently connecting people and places by providing mobility and accessibility.

Delivery of the Green Line LRT program is a key part of realizing the Council approved, land use and transportation plans for the Calgary region. The primary planning and policy documents that guide the delivery of Calgary Transit service in general, and the Green Line LRT program in particular, are imagineCALGARY, the Municipal Development Plan (MDP), Calgary Transportation Plan (CTP) and RouteAhead.

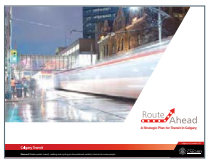


In 2005, imagineCALGARY engaged over 18,000 Calgarians to help create a 100-year vision for Calgary, ***imagineCALGARY Plan for Long Range Urban Sustainability***.

In 2007, City Council directed creation of a land use and transportation plan to align with ***imagineCALGARY***. The process was called ***Plan It Calgary***, to accommodate another 1.3 million people in Calgary over the next 60 years.

Plan It Calgary designed for 30 and 60 years into the future, leading to the creation of the ***Municipal Development Plan (MDP)*** and the ***Calgary Transportation Plan (CTP)*** in 2009.

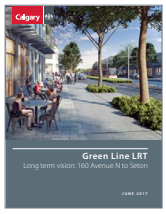
One of the most important initiatives of the ***MDP*** and ***CTP*** is the emphasis on fast, frequent, accessible and well connected transit service along select corridors where the highest population and job densities occur, referred to as the ***Primary Transit Network (PTN)*** and is further defined as transit service at least every 10 minutes, 15 hours per day, all week long. **All BRT routes and LRT lines, including the Green Line LRT, are part of the PTN.**



In 2013, ***RouteAhead***, a long term plan to guide Calgary Transit operations and investments over the next 30 years, was approved by Council. ***RouteAhead*** highlights that transit is a valued service that contributes to the well-being of our citizens and our community.

Route Ahead focuses on three key areas - ***Customer Experience, Network Planning and Financing Transit,*** establishing a clear vision for public transportation in Calgary that will assist decision-makers regarding capital and operating budgets, fares and service hours.

Route Ahead 2040 Vision: You can access transit stops and stations easily, whether by foot, bike or, in some locations, by car. The system is accessible to all customers. The Primary Transit Network is fast, frequent and reliable. You are able to show up at a stop/station on the Primary Transit Network 15 hours a day, seven days a week and not need a schedule.



A holistic guide for future investment, the ***Green Line LRT Long Term Vision: 160 Avenue N to Seton*** provides a plan for implementation meeting the objectives of the vision documents before it.

PROPOSED URGENT BUSINESS

ASSESSING THE NEEDS OF CALGARY

Calgary will continue to grow, attracting new citizens, visitors, business and talent to the city. There are two major contributors to increased demand on the city's transit network: population growth and changes in the way people choose to move around the city.

Needs of Calgarians and the city were assessed and based on the expectations of Calgarians and communities, the service and transformation that is required to support the city's growth, and trends and forecasting of future generations and technologies.

In order to meet the needs of a growing and changing population, it is crucial to invest in infrastructure to support future generations of Calgarians. Investments should focus on projects that support sustainable growth and contribute to vibrant, safe, and healthy communities. The decisions made today will shape the future economic, social, environmental and cultural well-being of Calgarians.

PROPOSED URGENT BUSINESS

ASSESSING THE NEEDS OF CALGARY

Shepard station concept

The Green Line is an investment in a more sustainable future for Calgary. It will provide future generations with high quality transit service and will enable people to live and work close to transit, help manage urban sprawl, connecting Calgarians across the city and improve the overall livability and quality of life for citizens. As well as addressing the need for attractive transit options, the Green Line also needs to ensure that the future service:

SUPPORTS FUTURE GROWTH

Growing populations

Today, the southeast is the fastest growing area of the city, with the residential population expected to double in the next 25 years. North Calgary is well-established and a densely populated area, and will continue to grow with over 50,000 new residents anticipated over the next 20 years.

YEAR	POPULATION		GROWTH SINCE 2016	
	NORTH	SOUTHEAST	NORTH	SOUTHEAST
2016	170,000	135,000		
2026	195,000	200,000	15%	48%
2036	225,000	240,000	32%	78%
2046	255,000	275,000	50%	104%
2076	345,000	365,000	103%	170%

Figure 1: Population growth in the north and southeast from 2016 to 2076

PROPOSED URGENT BUSINESS

ASSESSING THE NEEDS OF CALGARY

Centre Street S station concept

Expected job increases

The number of jobs along the Green Line route are expected to increase over the long term. There is expected to be over 115,000 new jobs created in north and southeast Calgary over the next 25 - 30 years, creating destinations for thousands of Calgarians. Providing transit to employment hubs located outside the downtown will be key to reducing congestion and pressure on the downtown core, and will provide opportunities for economic diversification by creating affordable and accessible places to do business.

YEAR	JOBS		GROWTH SINCE 2016	
	NORTH	SOUTHEAST	NORTH	SOUTHEAST
2016	40,000	110,000		
2026	55,000	130,000	38%	18%
2036	65,000	150,000	63%	36%
2046	95,000	170,000	138%	55%
2076	110,000	210,000	175%	91%

Figure 2: Job growth in the north and southeast from 2016 to 2076

Enabling Transit Oriented Development

As of 2009 the MDP targets 50% of the future residential growth to TOD and corridor areas. More compact and efficient use of land in combination with mixed land uses will help to create complete communities and reduce urban sprawl.

The efficient use of valuable station area land reduces the need to develop more land area on the periphery of the city.

Higher density development attracts new residents and employees that support facilities and businesses in established communities and ensures community health.

Creating a more resilient city

High efficiency, high capacity transit is important to the resiliency of the city. LRT trains can respond to planned events such as the Stampede Parade, Flames' games, major concerts as well as unplanned events like severe weather events.

PROPOSED URGENT BUSINESS

ASSESSING THE NEEDS OF CALGARIANS

Jane used to take the Route 302 from Douglas Glen to downtown, where she transferred to the Red Line to take the LRT to the U of C. The 302 was often delayed by at-grade freight rail crossings or congestion on Deerfoot Trail and since her classes didn't correspond with the peak period service, her waiting time for the Route 302 could be up to half an hour. Now she can take the frequent and reliable service on the Green Line to 16 Avenue N station and connect to the North Crosstown BRT, which travels to U of C.

THE NEED FOR ATTRACTIVE TRANSIT OPTIONS

The growth of the city demands a reliable transit system that keeps pace and offers alternative mode choices. Users expect the transit network to operate on a reliable schedule and provide fast and frequent service connecting Calgarians to destinations they care about. **For transit to be an attractive first choice for getting around the city, the Green Line should focus on:**

Ride time

Provide rapid transit service to Calgarians when compared to the automobile. Currently, it takes over an hour to travel to downtown from Seton by transit, while a similar trip can take as little as 25 minutes by car.

Reliability and frequency

Maintaining a reliable and predictable schedule is key to transit users when choosing this mode. Currently, buses travelling on 52 Street SE, Ogden Road SE and Deerfoot are often delayed due to high volume of vehicles commuting on this route. In the near future, the existing Bus Rapid Transit (BRT) routes will no longer be able to maintain reliable service due to a combinations of factors such as traffic congestion and limited network connectivity.

Affordable

Approximately 13,000 households are within 10 minutes of a planned station today. Currently, car ownership according to CAA is approx. $9,500 a year. There is a need to provide an alternative for Calgarians who can't afford or choose not to drive.

Connections

Calgarians want a choice in how they travel to the destinations that are important to them in a way that's affordable and efficient.

Residents of the surrounding region also commute into Calgary every day. Currently, 45% of workers from Airdrie commute to Calgary daily for work (City of Airdrie Transit Master Plan, June 2016, pg.34). Existing communities most likely to access the Green Line include Airdrie, Crossfield, Chestermere, Strathmore, Okotoks and High River.

Calgary Transit currently sees approximately 10% of the ridership at the terminal LRT stations coming from regional commuters. There is a need to provide additional transportation options for these regional commuters in order to manage demand on the road network as the region grows.

PROPOSED URGENT BUSINESS

ASSESSING THE NEED FOR CALGARY

Erica is a five year old girl who lives with her parents and sister Heather in Renfrew. Her dad spends two hours each morning taking Erica to school, Heather to pre-school and Mom to volunteering at Festival Hall in Inglewood. He then heads to his job at Foothills Industrial. With Green Line, Mom can easily take Heather to her pre-school downtown, before using the service to get to Inglewood. Dad can walk Erica to school before taking the Green Line to South Hill to get to work. For Erica and Heather, the Green Line is a part of their daily life and will be their mode of choice for years to come.

RESPONDS TO MOBILITY TRENDS

Mobility trends in Calgary are changing, showing a shift towards increased transit ridership with periodic fluctuations as a result of changes in the economy. As the population grows and development occurs around stations, more people will chose to live more transit oriented lifestyles.

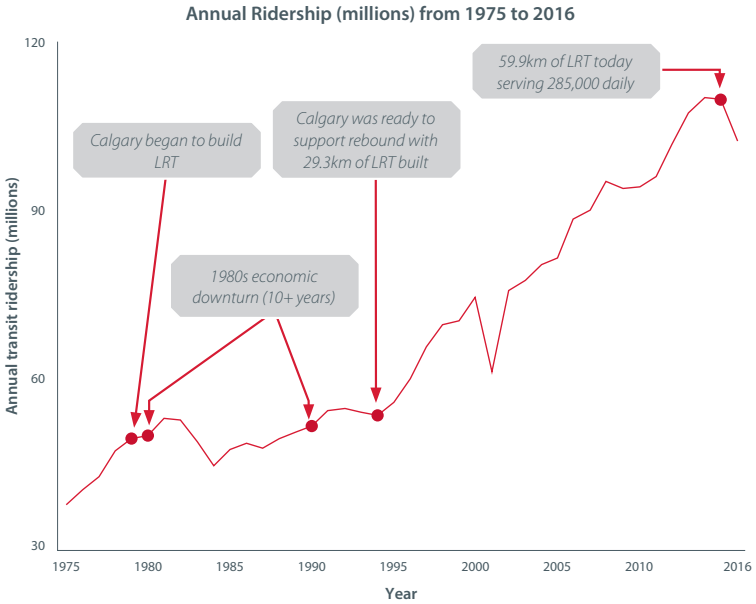


Figure 3: Changes in annual transit ridership from 1975 to 2016

PROPOSED URGENT BUSINESS

ASSESSING THE NEED FOR CALGARY

Ken is a senior executive working in the oil industry in downtown Calgary. Now that the Green Line extends to 144 Avenue N, Ken has many options to access the train. When he bikes, he is only a five minute bike ride to the train due to the great new pathways constructed to connect to the station. When he walks, he grabs coffee and the daily paper before boarding the train and uses his commute to catch up on email and keep in touch with his family and friends, allowing more free time at home.

SUPPORTS A GROWING ECONOMY

There is a need to invest in transit infrastructure that will play a role in attracting talent to Calgary and contribute to diversification. Good transit service is a factor necessary to attract industries and companies to Calgary as it makes employment centres more accessible to employees.

DEMONSTRATES ENVIRONMENTAL RESPONSIBILITY

There is a need for investment in transit service that draws on diverse energy sources and reduces carbon emissions. Continued reliance on personal vehicles will increase greenhouse gas emissions. In order to meet environmental targets there is a need to invest in making transit a convenient alternative to the car that contributes to a lower carbon footprint.

PROMOTES SOCIAL EQUITY AND CULTURAL VIBRANCY

In order to grow as an inclusive and livable city, there is a need for infrastructure that supports high quality transit service and other mobility options for all ages and socio-economic groups. There is also a need to ensure accessibility for Calgarians to Calgary's cultural assets like the National Music Centre and Calgary Stampede (both within walking distance of future Green Line stations).

4 Street SE station concept

PROPOSED URGENT BUSINESS

"Investments in transit are amongst the best investments any city can make—they are investments in the environment, reducing congestion, and improving social mobility. Ultimately, they are investments in improving everyone's quality of life."

Mayor Nenshi - RouteAhead

Low floor LRVs will integrate into communities

CREATION OF THE GREEN LINE

The first LRT line in Calgary opened in 1981, and has rapidly expanded over the past 35 years to become the backbone of the regional transit network. Today, Calgary's LRT system is the most successful in North America, transporting over 285,000 passengers on the average weekday, consisting of 59.9 kilometres of track and 45 stations.

Through strong partnerships with the Provincial and Federal governments, Calgary has extended the Red and Blue lines to accommodate Calgary's growth. These lines now reach towards the edges of Calgary, providing transportation options to riders throughout Calgary as well as the greater Calgary region.

Centre Street North has evolved into the busiest bus rapid transit (BRT) corridor in the city. Ten bus routes transport 35,000 Calgarians travel up and down this corridor every day. In the near future demand along this corridor will exceed the capacity of the current BRT system during the morning and evening rush hours, discussions of the need for another LRT line to connect north Calgary with downtown began.

The need for an LRT line in southeast Calgary had been under consideration since the mid-1980s, when it became apparent more transportation options were needed in these rapidly expanding communities. The already established ridership north of the Bow River, combined with the rapidly expanding population and job growth in the southeast, offered an opportunity to efficiently serve both areas with one new line - and so the Green Line vision was born.

The City moved forward initially with a proposal to build the portions of the Green Line as a bus-only transitway, which could later be converted to an LRT system. While it would not provide the capacity and reliability of an LRT route, this option would bring improved service to communities along one portion of the line, without the significant initial capital investment required for LRT. The bus transitway infrastructure would be converted at an additional cost to LRT, and extend to the far southeast and north when sufficient funding was available. With support from the Province's GreenTRIP Fund, The City moved forward with planning of the Green Line Transitway in 2013-2015.

In July 2015, the Government of Canada announced that up to $1.53 billion from the Public Transit Infrastructure Fund would be awarded to the Green Line light rail transit (LRT), contingent on The City's application. This, combined with The City's commitment of $1.56 billion over 30 years and with a matching contribution from the Government of Alberta, would make the Green Line the single largest public infrastructure investment in Alberta's history.

PROPOSED URGENT BUSINESS

ADDRESSING THE NEEDS WITH GREEN LINE

The eventual long term vision for the Green Line LRT, from 160 Ave N to Seton will see 64,000 fewer weekday auto trips, and will serve over 220,000 weekday transit riders at build out.

GREEN LINE WILL SUPPORT FUTURE GROWTH

Investing in Green Line LRT service, in combination with strategic upgrades to Deerfoot Trail, will ensure coordinated, complementary travel choices are in place to meet the growing needs of the city on opening day and when the Green Line is fully constructed.

Figure 4 shows the population growth for communities served by local bus service to a Green Line station. Figure 5 shows the population growth within a 10 minute walk to a Green Line station.

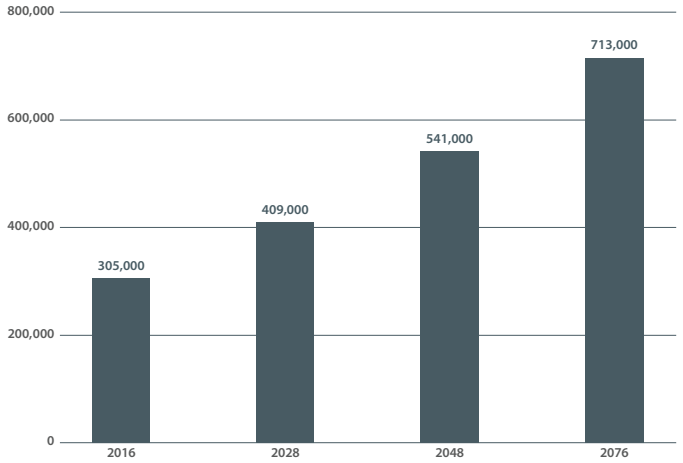


Figure 4: Population growth from 2016 to 2076 for communities within the local transit service area

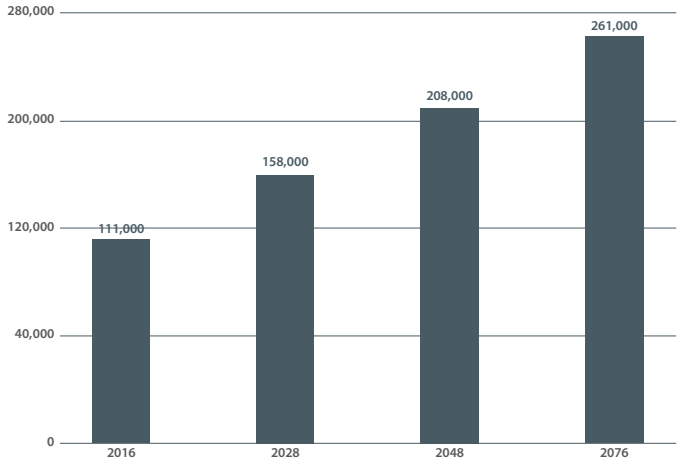


Figure 5: Population growth from 2016 to 2076 for communities within 10 minute walk of a Green Line station

PROPOSED URGENT BUSINESS

ADDRESSING THE NEEDS WITH GREEN LINE

Construction of the Green Line LRT is expected to create over 22,000 direct jobs, assuming it is built over the next 30 years.

GREEN LINE WILL CREATE JOBS

Over the course of construction, the Green Line is estimated to create over 111,000 new jobs including direct construction jobs, supporting jobs (engineering, planning, administration, etc), and induced jobs.

GREEN LINE WILL SERVE FUTURE JOBS

With over 115,000 jobs along the corridor expected over the next 25-30 years, Green Line will connect people from their homes to their jobs, and the rest of the city.

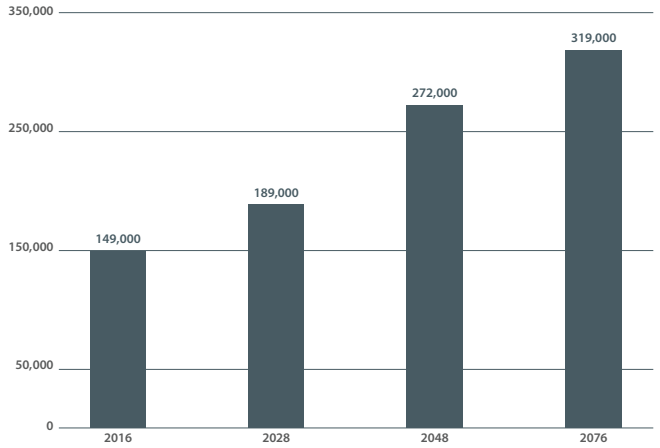


Figure 6: Job growth from 2016 to 2076 for communities within the local transit service area

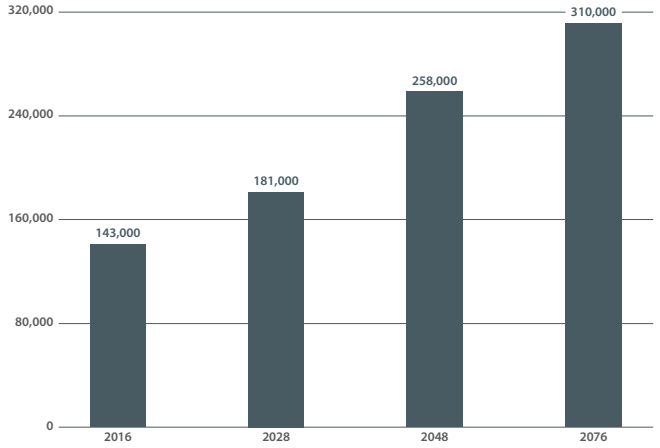
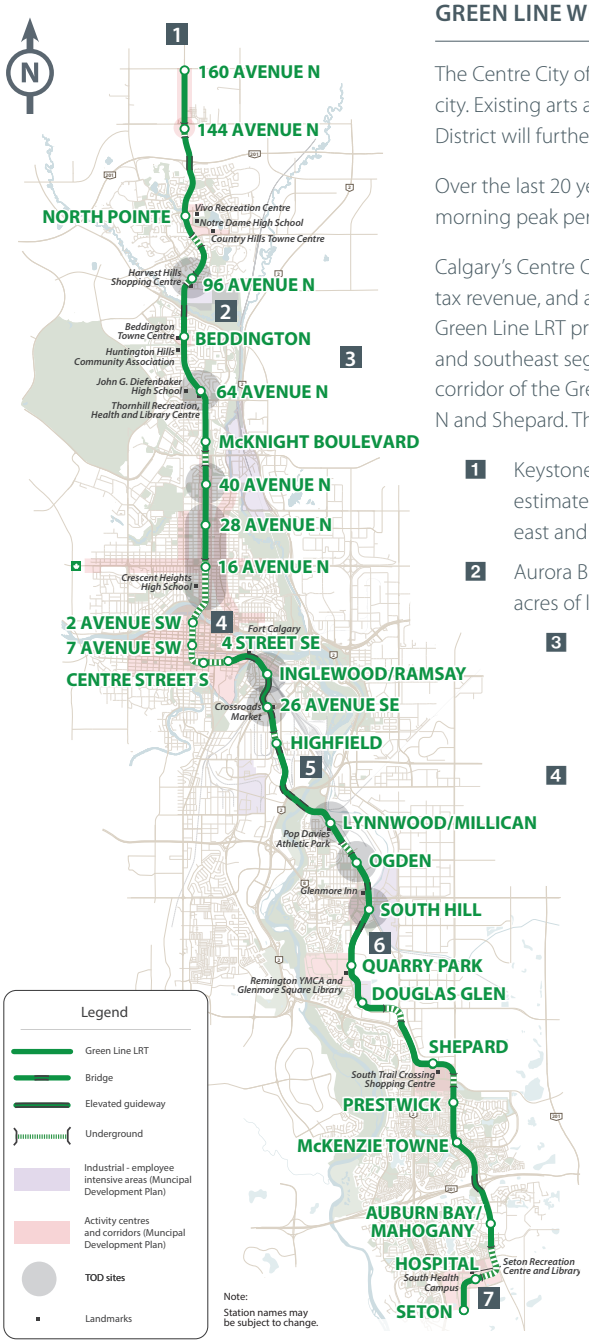


Figure 7: Job growth from 2016 to 2076 for communities within 10 minute walk of a Green Line station

PROPOSED URGENT BUSINESS

ADDRESSING CALGARY'S NEEDS WITH GREEN LINE LRT



GREEN LINE WILL CONNECT TO JOBS

The Centre City of Calgary contains the highest density of people and jobs in the city. Existing arts and cultural centres and the future Culture and Entertainment District will further strengthen the importance of serving Centre City.

Over the last 20 years, the percent of transit trips into downtown, during the morning peak period has increased from 33% to 49%.

Calgary's Centre City generates more than 35% of the city's total non-residential tax revenue, and as a result, has been called the 'economic engine' of Calgary. Green Line LRT provides improved transit service connections, between north and southeast segments of Calgary, to this critical area of the city. Along the corridor of the Green Line there are many employment areas such as 16 Avenue N and Shepard. The following are a few of the employment area highlights:

1. Keystone Hills Area with an approved Area Structure Plan will have an estimated 12,000 jobs when built out in the communities immediately east and west of Green Line LRT.
2. Aurora Business Park, a planned business park with 183 developable acres of land, is located 4 km west of Calgary International Airport.
3. The newly expanded international airport has 23,000 employees today, and is expected to increase to 35,000 by 2076 and will be connected to the Green Line by a future airport line.
4. The Centre City including downtown Calgary sees the highest employment density in the city. Centre City is home to 156,500 jobs today and is expected to grow to 200,000 jobs by 2076. Much of the success and high LRT ridership (285,000 trips per week day on the current Red and Blue LRT lines) is attributable to the high concentration of jobs in Centre City.
5. Within 10 minutes walk of Highfield station, there will be over 7,100 industrial jobs once the Green Line is fully constructed making Highfield Station the highest employment area on the Green Line corridor, outside of downtown.
6. Quarry Park is now home to major corporate head offices such as Imperial Oil. The surrounding area currently employs over 7,600 people, and will see a total of 16,000 jobs by 2076.
7. South Health Campus with 2,800 employees today, is expected to grow to 5,100 employees by 2076.

Green Line LRT Long Term Vision: 160 Avenue N to Seton

PROPOSED URGENT BUSINESS

PROPOSED URGENT BUSINESS

ADDRESSING CALGARY'S NEEDS WITH GREEN LINE LRT

GREEN LINE WILL ENABLE TRANSIT ORIENTED DEVELOPMENT

The City of Calgary has made significant investments and long range policy commitments to optimize the use of public transportation infrastructure by encouraging development that supports transit use.

Transit Oriented Development (TOD) focuses on future growth and development close to transit stations. The result is the provision of affordable and active lifestyles that support the use of transit in the community.

The long term vision for the Green Line includes 10 TOD sites along the corridor. Community planning and investment in all 10 TOD sites will be ongoing. Sites were selected based on geospatial data, market analysis, long term development plans, and stakeholder input (community, developers, and subject matter experts).

Figure 8 summarizes the potential retail, office and residential development.

Note:

Figure 8 shows eight of the ten identified TOD station areas along the Green Line corridor.

- Development potential for "16 Avenue Station" was completed as a corridor analysis between 9 Avenue N and 28 Avenue N, including the 28 Avenue N station area.
- 96 Avenue N is identified as a potential TOD station area, however additional analysis is required in coordination with the Aurora Business Park concept plans.

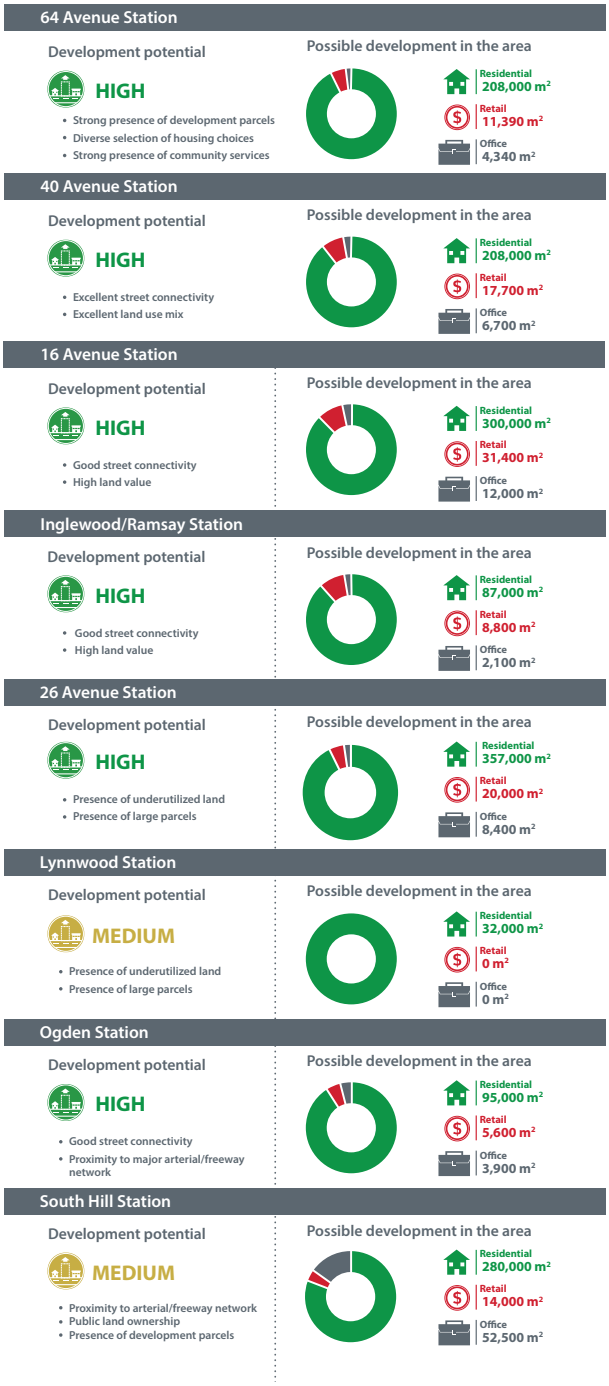


Figure 8: Potential future development at identified Transit Oriented Development station sites

PROPOSED URGENT BUSINESS

ADDRESSING CALGARY'S NEEDS WITH GREEN LINE LRT

Mable is no longer able to continue driving because of her eyesight. Over the last fifty years she's relied on her car to get groceries, play at her bridge club twice a week and visit family and friends. Since moving to the new senior's housing at the 64 Avenue Green Line station she walks to the new library and grocery store five minutes away and with her annual senior's transit pass, uses the Green Line as well as the rest of the transit network to visit friends around the city.

The table below summarizes the developable area and forecasted population and increased office area at TOD Priority Sites.

TOD PRIORITY SITE	DEVELOPABLE AREA [1] (HA)	POPULATION [2]	OFFICE AREA INCREASE [3] (MILLION SQ-FT)
96 Ave N	69	7,000	3.3 - 4.6
64 Ave N	18	6,600	
40 Ave N	26	6,100	
16 Ave N (9 Ave N to 28 Ave N)	12	25,200	
Inglewood/ Ramsay, 26 Ave SE	40	17,500	0.5 - 2.1
Lynnwood/ Millican, Ogden	97	12,600	
South Hill	32	9,700	

(1) Developable area: underutilized/vacant/underdeveloped land within 600m of station.

(2) Population forecast within station area transportation zone in 2048.

(3) New office development along Green Line corridor, 2015 to 2045 (Market Study).

GREEN LINE WILL CREATE A MORE RESILIENT CITY

In tandem with the road network, the Green Line will enable The City to respond, manage and recover from major planned or unplanned events. Major annual events like Stampede, sporting events and city-wide festivals will rely on infrastructure like the Green Line to move people efficiently.

Green Line will also be key to helping congestion on Deerfoot Trail and will be an essential piece of the Provincial Transportation Strategy to offset demand in peak periods.

The long term vision also includes a four kilometer Centre City tunnel which will further mitigate road congestion in the downtown and is specifically designed with portals to withstand major flood events.

Scotiabank Saddledome, host to numerous events annually

PROPOSED URGENT BUSINESS

ADDRESSING CALGARY'S NEEDS WITH GREEN LINE LRT

Northbound and Southbound travel times will be consistent (currently, it takes longer to travel northbound during the evening peak)

Peak hour capacity in the north will more than double from 3,200 to 8,300 passengers per direction per hour when the Green Line corridor is built out.

Peak period frequency in the southeast will double from every 10 minutes to every 5 minutes.

Off-peak frequency in the southeast will improve from every 30 minutes to every 10 minutes.

Commuter travel times for the Green Line in the southeast will decrease 20-25 minutes during peak hours (compared to current day BRT service)

GREEN LINE WILL BE AN ATTRACTIVE TRANSIT OPTION

For transit to be an attractive, viable option, speed and reliability are two key factors. For existing service in north Calgary, the Green Line will increase capacity, addressing demand in peak hours. For southeast Calgary, regular frequency of trains and reducing travel time are both important priorities.

Ride time

The ride times for the Green Line will be as follows:

- **70-80 minutes:** Full line from 160 Avenue N to Seton
- **30-35 minutes:** North portion from 160 Avenue N to 7 Avenue SW
- **40-45 minutes:** South portion from Seton to 7 Ave SW

Reliable and frequent

For the thousands of Calgarians that will use the Green Line on a daily basis, they will be able to consistently travel to where they want to go and arrive on time, knowing that the Green Line will arrive every 10 minutes, 15 hours a day, 7 days a week.

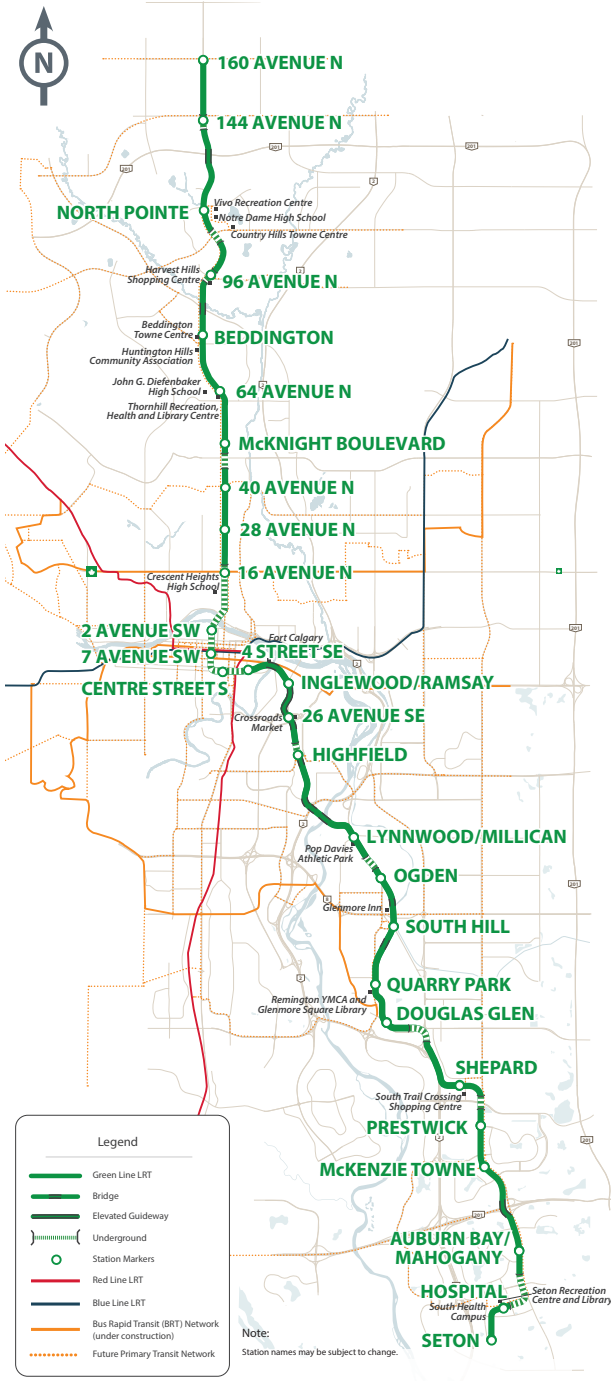
Affordable

By utilizing the Green Line, households are estimated to save $4,000 per year on transportation costs. Savings are expected to result in approximately $1,000 in additional annual spending for these households. It is common for households that move to established LRT station areas to downsize car ownership.

Amin and Anna have recently received their Canadian citizenship and are looking for a place to call home in Calgary. After hearing about the Green Line from an information session, they bought a home in Riverbend within a 10 minute walk to South Hill Station. Their lifestyle has now changed as they walk to the station to connect to destinations such as the Bow Valley College. With the money they save from not owning a vehicle, they can go for the occasional dinner at their favourite restaurant near the 16 Avenue N Station.

PROPOSED URGENT BUSINESS

ADDRESSING CALGARY'S NEEDS WITH GREEN LINE LRT



Connections

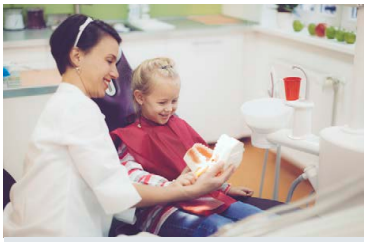
The Green Line is an important piece of Calgary's Primary Transit Network, adding 46km and 28 stations to the existing 59.9 kms and 45 stations Calgary enjoys today. This will enable Calgarians to make fast, frequent and reliable transit connections to a number of destinations throughout the city. Green Line LRT and bus service will connect at transit hubs along the Green Line. Transit hubs will allow customers to connect to local and surrounding area transit service, Primary Transit Network and regional transit connections, conveniently and comfortably.

In total, the Green Line will serve over 27 neighbouring communities and provide access to many destinations along the corridor including:

- 44 parks
- 41 schools
- 28 seniors' housing complexes
- 16 cultural facilities including National Music Centre, Stampede Park, Chinatown, Glenbow Museum, BMO Convention Centre, Saddledome
- 23 recreation facilities (e.g. pools, soccer & baseball fields, arenas)
- 8 Alberta Health Services facilities
- 13 police and fire protection stations
- 18 community associations
- 6 post secondary institutions
- 10 Provincial and federal services (ex. registries)
- 6 libraries, including new downtown central library
- 103 City of Calgary Community Services
- 2,830 affordable housing units nearby

PROPOSED URGENT BUSINESS

ADDRESSING THE NEEDS OF CALGARIANS WITH GREEN LINE LRT



Elena is a new Canadian who works as a nurse at the South Health Campus in Seton. She doesn't have a vehicle and often works nights. She wanted her home to be near an LRT station so she could commute to and from work easily and efficiently. She has decided to live in Auburn Bay, only one stop away from the Hospital Station on the Green Line. She is now able to live and work near a number of amenities like restaurants, shops, the library and a recreation centre, all within a 10 minute walk of a Green Line station.

GREEN LINE RESPONDS TO MOBILITY TRENDS

The Green Line LRT will address shifts in mobility trends by providing a service that allows people to easily access safe and reliable transit. Stations will be positioned strategically within communities along the route, with consideration for pedestrian, cycling, and vehicle connections. The Green Line will complement the range of mobility options available today, including car share programs and other emerging trends.

The Red and Blue LRT lines provide a strong foundation for moving many people by transit. With the addition of the Green Line LRT and Crosstown BRT lines, Calgarians will have more choices for fast, frequent and reliable transit service in the city.

STIMULATING THE ECONOMY

There are a number of economic benefits of the Green Line such as productivity gains for those who save time by choosing transit as well as potential increases in property tax revenue. Companies now have the option to move to locations that meet their business needs. Options along the Green Line include the Centre City, Quarry Park, South Hill, Aurora Business Park which is in close proximity to Calgary International Airport, South Health Campus, Shepard Industrial and Greenview Industrial. Attracting companies whether they are relocating, starting up or new to the City, now have the choice and flexibility of multiple locations along the Green Line.

The following are the near and long term benefits of the Green Line:

Increased Gross Domestic Product (GDP) - As a result of Green Line LRT, approximately $21 billion in additional real gross domestic product can be created within the Calgary economic region between 2017 and 2046.

Increased property values - Assessed property values along the full Green Line LRT corridor are forecasted to increase by approximately $3.2 billion by 2046. This represents approximately $1.1 billion in present value terms.

Increased income tax revenue - $940 million in additional Provincial income tax (between 2016 and 2046)

GREEN LINE WILL IMPROVE THE QUALITY OF LIFE OF CALGARIANS

Construction of the Green Line and 28 LRT stations, will improve access for all Calgarians to over 100 community services within a ten minute walk of Green Line stations. Nearby services include schools, health services, libraries, recreation centres, seniors housing, playgrounds and parks. Primary Transit Network and regular bus service connections to the Green Line will further improve access to the city-wide destinations that people need to reach every day.

Green Line LRT Long Term Vision: 160 Avenue N to Seton

Hospital station concept

For people too young or old, who cannot afford, or choose not to drive an automobile, Green Line LRT provides an attractive, affordable and convenient transportation choice. Today the Green Line corridor serves over 13,000 low income people within a ten minute walk of the planned stations. Similarly, affordable housing for 8,500 people are located near Green Line planned stations. In addition to improving access that is affordable, the mobility challenged will benefit from a fully accessible Green Line LRT service.

Existing and expanded cultural and entertainment destinations within a ten minute walk of Green Line stations include Chinatown, the Eau Claire Market, the new Central Library, the Calgary Tower, Olympic Plaza, Victoria Park, Stampede Park, the Saddledome and historic and walkable communities such as Crescent Heights, Inglewood and Ramsay.

Fast, frequent, reliable and accessible Green Line LRT connections to essential community services and cultural and entertainment destinations will directly and indirectly improve the quality of life for all people in Calgary

ENVIRONMENTAL BENEFITS

The Green Line LRT presents opportunities to achieve greater energy efficiency. The Green Line will:

- Directly reduce greenhouse gas (GHG) emissions by 67,000 tonnes of carbon dioxide equivalent annually amounting to 14,200 fewer vehicles on the road.
- 22 million litres of gasoline and diesel fuel consumed annually would be displaced by renewable electricity (or lower carbon energy) used to power Green Line.
- A two per cent reduction of smog-forming tailpipe emissions is projected.
- Land use densification in transit nodes and corridors will be facilitated by Green Line LRT development resulting in further long-term environmental benefits.
- In terms of city-wide daily travel, the construction of the full Green Line LRT, from 160 Ave N to Seton, coupled with land development assumptions to 2076 is estimated to shift daily trips from auto to transit by 2%.
- Potential for integrated district energy/combined heat and power systems at Green Line stations with higher population and employment densities.

Green Line LRT Long Term Vision: 160 Avenue N to Seton

PROPOSED URGENT BUSINESS

PROPOSED URGENT BUSINESS

Program approach

PROPOSED URGENT BUSINESS

Underground station concept

GREEN LINE PROGRAM APPROACH

The Green Line LRT program has evolved from its earlier iterations to fit into the context of the city. The north segment was initially planned to run along the Nose Creek alignment and the southeast segment was envisioned to be built initially as a bus based transitway that would later be converted to an LRT. Today, the long term vision is to deliver a continuous LRT route from 160 Avenue N to Seton integrating into 27 neighbouring communities. The evolution of conceptual designs, through to functional planning studies and finally to the establishment of the alignment and stations has been determined through a holistic methodology referred to as the *four layered approach*.

The four layered approach involved collaboration and engagement across all City departments, external partners, industry and extensive public engagement, and helped inform the alignment and station placement. The highlights of the program's engagement is in the following Engagement Summary section.

Consideration was also given to how the LRT infrastructure would integrate within the communities along the line, referred to as Green Line Urban Integration. A common vision was developed to tie the full 46 km line together, with the ability to take on a slightly different look and feel based on the unique character of each area. A summary of the Character Areas was developed (page 42) to capture the essence of the corridor variances.

The details of the program approach outlined on the following pages form the strategy that helps the Green Line deliver an integrated and attractive service that is both responsive to the communities along the line and to the Calgarians that use it.

PROPOSED URGENT BUSINESS

Lynnwood/Millican and Ogden Charrette

"It will improve access for all Calgarians.

Green Line will significantly improve my lifestyle, I work in the Highfield area and it would connect me right to work."

Beltline resident

ENGAGEMENT SUMMARY

Engagement for Green Line builds on the work completed for the North Central LRT Corridor Study in 2013/2014, and the Green Line Southeast Stations, Alignment and TOD report in 2015.

The overall engagement program has involved community and business leaders, property owners, stakeholder groups, and the public including transit customers. City staff and members of Council were also engaged to ensure coordination, a shared understanding and an integrated approach to planning for transit.

Engagement in the southeast primarily focused on refining the route alignment and station locations in four locations (Inglewood/Ramsay, Ogden, Lynnwood/Millican, and Quarry Park). These areas were under review from the original Southeast Functional study, and were thought to have the potential for better integration and connectivity into communities than was shown in the earlier plans. Engagement for the north and Centre City portions of the line focused on setting station locations and refining how the route alignment could fit along the north corridor and determining how to connect the north and southeast through the downtown.

Engagement in all areas also focused on identifying connections to and from the future stations, and community integration of the Green Line into each community. Transit Oriented Development (TOD) plans were also developed through multi-day design workshops, or "charrettes" for areas in both the north and southeast that showed high potential for redevelopment.

Design charrette days	Meetings with stakeholders	Participants	Open houses	Workshops	Events
23	30	over 10,000	32	20	119

PROPOSED URGENT BUSINESS

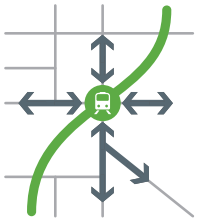
A FOUR LAYERED APPROACH

The Green Line is about planning for Calgary's future growth, with the goal of providing more choices to citizens in the way they move, live, work and play. This will be achieved through a layered approach that will integrate core transit infrastructure, connections to stations, Transit Oriented Development (TOD) supportive infrastructure, and City Shaping connections to services and local and regional destinations. Collaboration with City departments, external partners, industry and all levels of government will be essential to ensuring all four layers are successfully implemented.

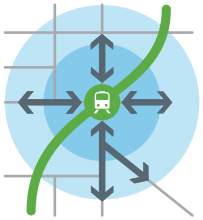
"The design of the transportation system has a significant impact on the urban form of the city. It contributes to the shape of our communities and employment centres, and it determines how we move within and among these places. It supports the economy by facilitating the timely movement of goods, services and people within the city and to regional or international destinations. It can either enhance or degrade the environment depending on how well it is integrated with its surroundings and the degree to which we depend on fossil fuels to reach our destinations. The decisions made today about where and what to build will affect Calgarians for 100 years or more – just as decisions made in the past affect us today."

The Calgary Transportation Plan (2009)

1 Transit infrastructure



2 Connections to stations



3 Transit Oriented Development

4 City-shaping

PROPOSED URGENT BUSINESS

A FOUR LAYERED APPROACH: TRANSIT INFRASTRUCTURE

1 Transit infrastructure

LAYER 1: TRANSIT INFRASTRUCTURE

Layer 1 will consist of everything the City of Calgary will build to operate low-floor light rail in the Green Line corridor. This includes trackways, overhead contact system/electrification, power, structures of a variety of types, all components necessary to operate trains safely adjacent to or crossing other modes, stations and passenger facilities such as Park and Ride, off-street bus transfer stops, bicycle parking at the station etc.

In contrast to existing LRT in Calgary, the Green Line will use modern low-floor light rail vehicle (LRV) technology that better integrates into the community, and incorporates curb level and less obtrusive station and platform infrastructure.

North Pointe station concept

Alignment and stations

In addition to meeting the key operating objectives of Ride Time, Ridership, Reliability and TOD, the Green Line alignment and station locations have been planned and designed with optimizing ridership and with community characteristics in mind.

The Green Line alignment considered existing and future community services and economic benefit, TOD potential, key project risks and environment sensitivities.

PROPOSED URGENT BUSINESS

A FOUR LAYERED APPROACH: TRANSIT INFRASTRUCTURE

SUPPORTING INFRASTRUCTURE

Existing Blue Line - Saddletowne bus terminal

Existing Red Line - Southland Park and Ride

Calgary Transit staff maintaining a Light Rail Vehicle

Bus terminals

On or off street bus terminals are strategically located and designated transit spaces that support customer transfers, bus operations and customer amenities. Dependent on the transit service, bus terminals range in size and style but always have customer amenities such as shelters and benches. Bus terminals are designed to provide seamless connections between transit services and efficient bus operations.

Park and Ride

Park and Ride is an important service that provides an attractive means to access LRT when coming with a vehicle. Green Line Park and Ride lots are located beyond 5 km of the downtown and will serve 15% of the estimated transit trips in these areas with approximately 5000 to 6000 parking stalls.

Park and Rides will align with The City's Transit Oriented Development (TOD) Guidelines to ensure that land use can transition over time to attract future development. Future ridership and activity within a TOD area can be maximized by redeveloping surface Park and Ride lots.

Maintenance and storage facilities (MSF)

Critical to keeping the trains, clean, stored and in good working order is the requirement of a maintenance and storage facility. The Green Line LRT is estimated to operate 150 to 175 low floor vehicles and requires both a primary MSF and a satellite facility to ensure cost efficient operations with reduced travel distances for the start and end of service.

Numerous sites were investigated and the final locations serving the Green Line LRT are just north of 126 Avenue SE and on the Aurora Business Park lands, east of Harvest Hills Boulevard on 96 Avenue N.

The primary facility located at the south end of the line near the Shepard station will be on approximately 70 acres of land. Locating the MSF near the end of the line lessens the time needed to launch service at the start of the day where peak demand is for customers travelling to the downtown. The primary facility is also able to accommodate testing of new low floor vehicles as well as host a separate Operations Control Centre. Similarly the satellite facility located on approximately 20 acres of land at the north end of the Green Line LRT, near the 96 Avenue N station allows for service to start more efficiently for those who commute from the north into the downtown.

PROPOSED URGENT BUSINESS

A FOUR LAYERED APPROACH: TRANSIT INFRASTRUCTURE

High floor LRT: Current Red Line and Blue Line

- Platform height: 0.9m (~ 3 feet)

Low floor LRT: Future Green Line

- Platform height: 0.3m (~ 1 foot)
- More flexible vehicles

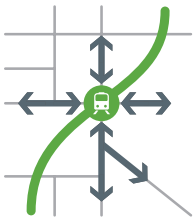
Low floor light rail vehicles

The Green Line LRT is envisioned to be operated using a modern urban low floor light rail vehicle (LRV). This vehicle technology is different from the existing Calgary C-Train technology in several ways. With access to and from the vehicle being at regular street curb heights, Green Line stations will have a smaller footprint, compared to the current high floor platform configuration of the Red and Blue lines. The low height of station platforms means that stations can be more compact with no need for long access ramps at either end of the station.

The ability to navigate the low floor LRV's around tight turns and relatively steep grades makes the low floor LRV an attractive option. The low floor LRT technology has been the standard in Europe for decades and is now becoming the technology of choice for new LRT systems cross Canada and the United States.

PROPOSED URGENT BUSINESS

A FOUR LAYERED APPROACH: CONNECTIONS TO STATIONS



2 Connections to stations

LAYER 2: CONNECTIONS TO STATIONS

Layer two of Green Line focuses on infrastructure connecting riders to stations. This includes pedestrian, cycling, bus and automobile connections to the Green Line to ensure stations are accessible to riders. Enabling citizens to safely and conveniently access stations will be crucial to building Green Line ridership.

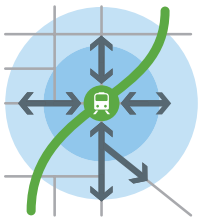
Ensuring Calgarians can safely and conveniently access stations as well as to increase potential riders by improving access to stations is the goal of this layer.

Connections to stations analysis

- Essential components of Layer 2 covered by Green Line funding include areas within a 10 minute walk to stations where there is missing or unsafe infrastructure that inhibits pedestrian access.
- Other components like bicycle pathways, walkways and road works will be addressed through other programs and initiatives.
- Consideration was also included for the parallel pathway along the corridor from 160 Avenue N to Seton to ensure mobility connections are provided to the station and connected to the communities adjacent to the Green Line.

PROPOSED URGENT BUSINESS

A FOUR LAYERED APPROACH: TRANSIT ORIENTED DEVELOPMENT



3 Transit Oriented Development (TOD)

Transit Oriented Development

Communities where residents can live, work, play and learn in a mixed-use environment that is in close proximity to rapid public transit and where the private automobile is an option, not a necessity.

LAYER 3: TRANSIT ORIENTED DEVELOPMENT (TOD)

Transit Oriented Development (TOD) refers to a form of development that is typically characterized by multi-storey buildings, designed to encourage walking, cycling and transit use. A core element of a TOD is a major transit station that is within walking distance of a large number of residents and businesses and is therefore a convenient and attractive mobility choice. The streets in a TOD are designed to contain residences, shops and services and allow for easy pedestrian connections to the various destinations. TOD plays a key role in developing complete communities that help achieve the City's vision for the future as outlined in the Municipal Development Plan (MDP) and the Calgary Transportation Plan (CTP).

The Green Line will be constructed within a variety of communities including some of Calgary's oldest and newest, established and developing. Planning for the right type of development for each area will ensure long term success.

Regardless of the community, TOD strives to increase people's mobility options and reduce the need to design our communities for high automobile use. Transit oriented development supports economic transit operations by increasing ridership.

EQUITABLE AND SUSTAINABLE TOD

TOD offers numerous social, environmental and economic benefits for people and communities. Benefits include reduced costs of living, better access to jobs and local economic growth in communities, to healthier lifestyles and important reductions in greenhouse gas emissions through reduced automobile use. Equitable and sustainable TOD fosters healthy and prosperous communities, in which diverse groups of people have greater mobility and lifestyle choices and access to employment, recreation and education opportunities.

PROPOSED URGENT BUSINESS

40 Avenue N station concept

TRANSIT ORIENTED DEVELOPMENT (TOD) MARKET STUDY/READINESS

A market study was conducted to provide information towards identifying the station areas with the highest potential for Transit Oriented Development and the most viable scales and types of development. The study focused on the 30-year time period (2015 – 2045) for the successful completion of TOD development around the stations and the potential for multifamily developments. It identified current market value conditions based on the average age and condition of the building stock. It looked at market demand and the viable absorption of mixed-use and multifamily residential buildings.

The study also identified key populations and land use targets for the individual segments of the Green Line. These factored in existing growth rates along with the goal of refocusing redevelopment around the stations. The study identified that each new TOD should have a large enough population to support (at a minimum) a full complement of the businesses that are typically found in a neighbourhood-scale shopping district. This will help ensure that the TOD functions as a highly walkable mixed-use neighbourhood. A population of about 7,500 to 10,000 is required to support a 150,000 square foot to 200,000 square foot neighbourhood scale shopping district. Such a district provides a full range of retail and service businesses such as a supermarket, drug store, cafe, restaurants, specialty food stores and banks.

"Much of this development would occur in communities along the Green Line north corridor even if the new transit line is not constructed. However, the new line will help focus new multifamily development in the north near new station locations."

North market study forecasts

- 45,000 new multifamily units over the next 30 years.
- About 19,500 of these new units will be located near the Green Line.

Southeast market study forecasts

- Calgary's southeast can expect 41,000 new multifamily units over the next 30 years.
- About 20,000 of these new units will be located near the Green Line.

To support TOD each station is recommended to have a minimum of:

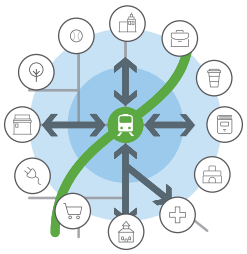
- 4,000 units to support a walkable mixed use neighbourhood.
- These units will primarily be 4-6 story wood-frame construction but can include some concrete units.

"Calgary's South can expect a growth of 9 million square feet of office space over the next 30 years.

Most of this space will be accommodated by existing office locations (Quarry Park, Seton, and Shepard Regional Centre). Therefore, it is recommended that only one new office node, supporting one million square feet, should be developed. A strong candidate for this is South Hill."

PROPOSED URGENT BUSINESS

A FOUR LAYERED APPROACH: CITY SHAPING



4 City Shaping

LAYER 4: CITY-SHAPING

City Shaping is leveraging Calgary's investment in transit infrastructure to strengthen and support the social needs of communities along the Green Line. It is indicative of The City's effort to create a series of well-planned, connected, accessible, affordable and vibrant communities, starting from Green Line LRT construction and evolving into the future. City Shaping is about investing in people, places and programs that are near high quality transit service, making it easy and convenient for Calgarians to access them.

People

The focus of City Shaping is on people and communities and their connection to the Green Line. Founded on public engagement and existing City policy, City Shaping will focus on the experience and quality of life improvements as a result of the Green Line. Individual and community well-being is paramount and the people served by the Green Line will remain a key priority of the planning, design, development and investment decisions ahead.

Places

City Shaping puts a priority on citizen experience through enhanced public spaces by activating the Green Line through the development of urban villages, and walkable centres. An integrated mix of living, working and recreation, these hubs of activity will include housing that allows residents to access parks and recreation facilities, schools, health centres, libraries, multi-purpose plazas, commercial opportunities and protective services - all vital for developing vibrant, affordable and resilient communities.

Programs

City Shaping will optimize the opportunity for City programs and services along the Green Line. Opportunities to provide programming such as free afterschool programs, environmental education, fitness programs and safety education programs, encourages healthy and active lifestyles, supports inclusion, diversity and accommodates the needs of an aging population.

Reliable Multi-Modal Transportation

Opportunities for people, places and programs will be linked by the 46 km and 28 stations of the Green Line as well as providing new opportunities to use other modes of transportation beyond the car. The Green Line will also connect to the larger transit network providing access to many of the City's major attractions.

PROPOSED URGENT BUSINESS

A FOUR LAYERED APPROACH: CITY SHAPING

*96% of Calgarians agree that The City should invest more or the same amount in affordable housing for low-income families**

**2016 Citizen Satisfaction Survey*

National Music Centre - 5 minute walk from the Green Line 4 Street SE station

OUTCOMES FOR CALGARIANS

Physically active, mentally and physically strong, and live in neighbourhoods with healthy natural environments.

- Enhance access to a full range of health, parks and recreation services, infrastructure and facilities in communities along the Green Line.
- Protect and strengthen the biodiversity, urban forest and natural areas along the Green Line.
- Promote increased physical activity along the Green Line through enhanced connections encouraging active modes of transportation.

Connected to significant cultural destinations and to local spaces that foster cultural activities and connection to Calgary's heritage and to each other.

- Ensure the community spaces near Green Line stations are designed to strengthen sense of place and encourage social gathering, and cultural and recreational activities including festivals and events.
- Conserve and integrate Calgary's built, natural and indigenous heritage is into the design of transit stations and community spaces along the Green Line.
- Create new opportunities to experience arts and culture outside the core while enhancing connectivity to significant cultural centers and districts along the Green Line.

Access to housing, transit and social and community services.

- Reduce physical and economic barriers to enhance access to community programs, services and facilities that accommodate all generations.
- Protect, support and improve housing affordability in communities along the Green Line.

Feel prepared and protected.

- Maintain or improve the Council approved emergency response times in communities along the Green Line.
- Promote and maintain safe and healthy behaviours that support effective emergency responses, and provide education on prevention and protection from dangers and vulnerabilities in communities along the Green Line.
- Ensure that residents along the Green Line feel safe in their neighbourhood.

PROPOSED URGENT BUSINESS

Historic Inglewood Main Street

COMMUNITY CHARACTER ALONG THE LINE

The Green Line will have a distinct character at various points along the route, with the goal of striking a balance between efficient ride times and addressing the specific needs of each area. Understanding and defining the character of each area is important. Design elements, from track infrastructure and station design to streetscape and public art can be adjusted to preserve and strengthen the character of each individual community. There are 5 types of Character Areas along the Green Line corridor:

Suburban - This character area can primarily be found in the far north and southeast segments of line, from Auburn Bay/Mahogany to Prestwick in the southeast and from just north of Beddington to North Pointe. These communities are typically residential with some mixed use areas with single family homes, apartments and town houses. The Green Line in these areas will be focused on providing much needed transit capacity and efficient and reliable ride times for commuters.

Suburban/Industrial - This character area is exclusive to the southeast, where there is a 14 km segment between the Highfield industrial area and Shepard (the site of the future maintenance facility). There is also a mix of residential development in these areas, combined with commercial/industrial uses such as a business park. These areas are adjacent to heavy rail lines, and will therefore have a protected right-of-way for the Green Line, allowing the train to travel at higher speeds, and provide service to a number of activity centres at South Hill, Quarry Park and Shepard.

Established Neighbourhood - As the Green Line reaches the established communities along the northern segment of the line, it will provide connections to businesses and amenities that are primarily currently accessed by car. These neighbourhoods are planned similar to the block grid pattern found in the Centre City, however they are primarily residential use with some mixed use areas with medium density.

Urban Corridor - The Green Line will improve access and supplement an already existing network of pathways, bikeways and roads in this character area. In communities such as Inglewood/Ramsay, Crescent Heights and Tuxedo (16 Avenue and 28 Avenue N stations), the transit service will aim to complement and improve established communities by planting the seed for redevelopment, while respecting the character and history of the area. These areas are characterized by a compact built environment with rich mixed use that encourages people to walk and cycle.

Centre City - This area benefits from excellent public transit connections with short walkable blocks laid out in a grid pattern. They consist of high-rise residential buildings mixed with office buildings. The Green Line will intersect with the Red and Blue LRT lines in the Centre City, providing further connections to other areas of the city. The Centre City is the major activity centre in Calgary, and the primary destination for many transit customers. It will also provide residents of the Centre City with unprecedented access to other areas of the city, including the South Health Campus, and a number of community services.

PROPOSED URGENT BUSINESS

Green Line LRT Long Term Vision: 160 Avenue N to Seton

CHARACTER AREAS ON THE GREEN LINE

Urban Corridor A

Suburban B

Established Neighbourhood C

Urban Corridor D

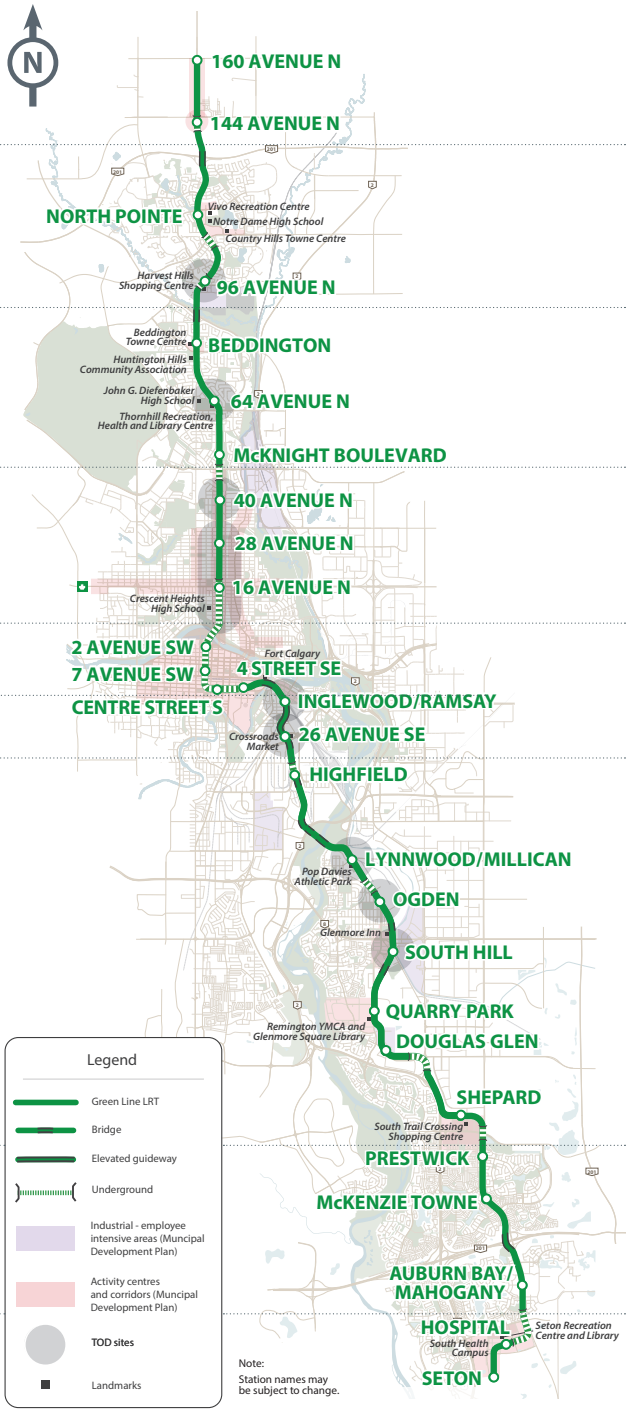
Centre City E

Urban Corridor F

Suburban/Industrial G H

Suburban I

Urban Corridor J



PROPOSED URGENT BUSINESS

CHARACTER AREAS ON THE GREEN LINE

North

- **A** 160 Avenue N and 144 Avenue N stations are in an Urban Corridor area north of Stoney Trail. This developing area is part of the Keystone Hills Area Structure Plan, and is characterized by a high level of residential and employment intensification. The communities will contain mixed use development and walkable/bikeable amenities. Street patterns will be grid-like and buildings will front onto the Green Line alignment.
- **B** North Pointe and 96 Avenue N stations are in a Suburban area bounded by Stoney Trail at the north edge and Beddington Trail at the southeast edge. The Northern Hills communities have been planned with recreation centres, trails and amenities. Buildings back onto the transit corridor and there is limited access into adjacent communities.
- **C** The communities between Beddington Trail and McKnight Boulevard are considered Established Neighbourhoods, and include the stations at Beddington Boulevard, 64 Avenue N and McKnight Boulevard. Green Line will travel through the mature neighbourhoods of Beddington Heights, Huntington Hills and Thorncliffe. Characteristics of the communities include low density commercial centres, wide boulevards with trees, service roads, and street-oriented houses and yards. There is high potential for intensification in these areas.
- **D** The area from McKnight Boulevard and the Bow River is also classified as an Urban Corridor. Three stations and planned TOD sites are located here; 40 Avenue N, 28 Avenue N and 16 Avenue N. The Green Line will be running on Centre Street as it passes through historic neighbourhoods with small blocks in Highland Park and Tuxedo Park, and then under Crescent Heights. Development on Centre Street is primarily older commercial, but has high potential for intensification.

Centre City

- **E** The Centre City character area is located southeast of the Bow River and west of the Elbow River containing the communities of Eau Claire, Chinatown, downtown, Beltline and Victoria Park. Four stations are located here including 2 Avenue SW, 7 Avenue SW, Centre Street S and 4 Street SE. Centre City is a high density, mixed use area comprised of high-rise commercial and residential buildings with streetwall frontages and major redevelopment planned around the 2 Avenue and 4 Street stations. This area is a major pedestrian and entertainment area and connects with the existing Blue and Red LRT Lines.

Southeast

- **F** The third Urban Corridor on the alignment is located between the Elbow River and Blackfoot Trail. This includes the historic areas of Inglewood, Ramsay, Highfield, Alyth/Bonnybrook. The area is comprised of traditional historic neighbourhoods and industrial areas that are in transition to mixed use, maker, and light industrial space.
- **G** The longest segment of the line is classified as Suburban/Industrial between Blackfoot Trail and 130 Avenue SE. Seven stations are located here that include Highfield, Lynnwood/Millican, Ogden, South Hill, Quarry Park, Douglas Glen and Shepard.
- **H** The traditional industrial areas of Highfield, Ogden and Shepard have larger land parcels that are home to many established businesses. Some areas are experiencing redevelopment. The area has strong potential for major redevelopment at key locations including several undeveloped areas.
- **I** A second Suburban area is located between 130 Avenue SE and Auburn Bay Avenue SE, with three stations; Prestwick, McKenzie Towne and Auburn Bay/Mahogany. The Green Line would run on the side of the road, rather than in the centre in these areas. The communities are self-contained and oriented away from the LRT corridor, with back fences facing the future LRT.
- **J** The final segment on the alignment is a fourth Urban Corridor. The Hospital and Seton stations are located here. The area includes a major medical centre employer in a master planned community with mixed use development.

Green Line LRT Long Term Vision: 160 Avenue N to Seton

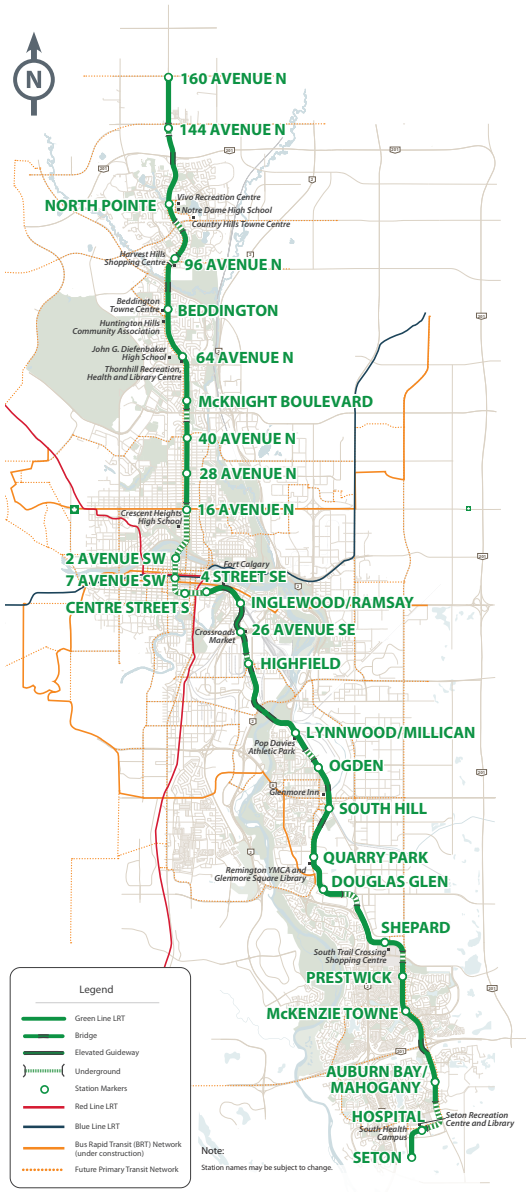
PROPOSED URGENT BUSINESS

PROPOSED URGENT BUSINESS

Program description

PROPOSED URGENT BUSINESS

ALIGNMENT AND STATION OVERVIEW



At 46 kilometers long, the Green Line LRT offers unprecedented opportunities to shape future growth in Calgary by influencing development along the route. Once fully constructed, the Green Line LRT will offer fast, frequent and reliable transit, connecting communities in the north and southeast with the downtown core, and provide connections to key city facilities and services.

As part of an integrated and human focused approach to the Green Line, all infrastructure has been designed to integrate closely with Calgary's unique communities and with future development in mind whilst meeting all safety and operational standards set by The City of Calgary, the Province of Alberta and other governing regulatory bodies.

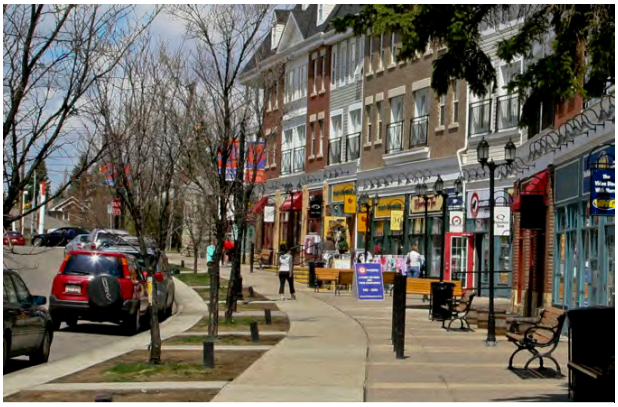
Once fully constructed the Green Line LRT will include:

- 46 Km of track
- 28 Stations
- 11 Bridges
  - Stoney Trail North
  - Elbow River
  - Highfield Blvd (under review)
  - Deerfoot Trail
  - 78 Avenue SE
  - Stoney Trail South
  - Nose Creek
  - Blackfoot Trail
  - 46 Avenue SE (under review)
  - Bow River
  - 90 Avenue SE
- 1 Km of elevated track between Inglewood/Ramsay and 26 Avenue SE stations
- 10 Park and Ride Facilities (5000 to 6000 stalls in total)
  - North Pointe
  - Beddington
  - Douglas Glen
  - Prestwick
  - Auburn Bay / Mahogany
  - 96 Avenue N
  - Lynnwood/Millican
  - Shepard
  - McKenzie Towne
  - Seton
- 9 tunnels
  - 144 Avenue N (under review)
  - 96 Avenue N
  - CN/Highfield
  - Barlow Trail / 114 Avenue SE
  - Seton Blvd SE / Market Street SE
  - Country Hills Blvd
  - McKnight Blvd
  - Ogden Road
  - 130 Avenue SE
- 4 km Centre City tunnel from 19 Avenue N to 4 Street SE
- 2 light rail vehicle (LRV) Maintenance and Storage Facilities (MSF)
  - Main Facility at Shepard (north of 126 Avenue SE)
  - Satellite Facility at Aurora (south of 96 Avenue N)
- 150 to 175 Low floor light rail vehicles

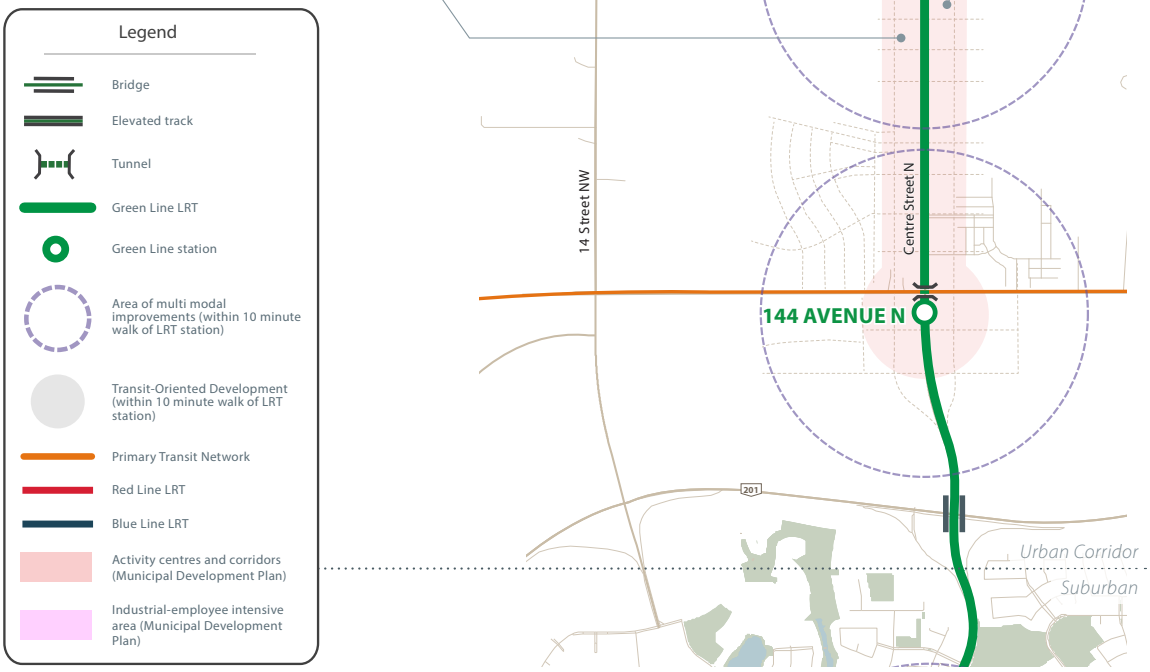
PROPOSED URGENT BUSINESS

160 AVE N TO 144 AVE N: URBAN CORRIDOR

Keystone Hills Area Structure Plan (ASP) - 2015



An example of a mixed use street in a neighbourhood activity centre



PROPOSED URGENT BUSINESS

160 AVE N TO 144 AVE N: URBAN CORRIDOR

Conrad, his wife, and their two sons have moved to the new community of Keystone Hills. They love the area because it is affordable and full of amenities, and also has great access to the city. They have a home-based business but enjoy commuting into the city for client meetings without worrying about parking and traffic. His youngest son will be starting Grade 10 at the new high school near 144 Avenue N, and his eldest son is in his second year of Engineering at the U of C and will be using the Green Line to commute to school every day. With both kids free to move around the city without relying on a car, Conrad and his wife can enjoy the finer things in life, including more quality time together.

This 2 km section of the line at the northern extent of the Green Line will serve the future area of Keystone Hills including the community of Livingston. Currently in the early stages of planning and development, this area is projected to see a full build out over the next 30 years.

Transit Connections

Transit service in the new communities surrounding 144 Avenue N and 160 Avenue N station will be designed to be direct and efficient due to the grid-like street network. Future transit service will connect to many destinations identified in the Keystone Hills Area Structure Plan and with future primary transit service on 160 Avenue N and 144 Avenue N, transit users can access various parts of the city with fast, frequent and reliable service.

Active modes connections

Station access will primarily be by transit and walking however the communities within this area have also been planned with the principles of good cycling in mind. The Area Structure Plans for these developments reflect complete street standards of The City. The main street and suburban area of the development each have a high standard for mobility of all modes.

Transit Oriented Development

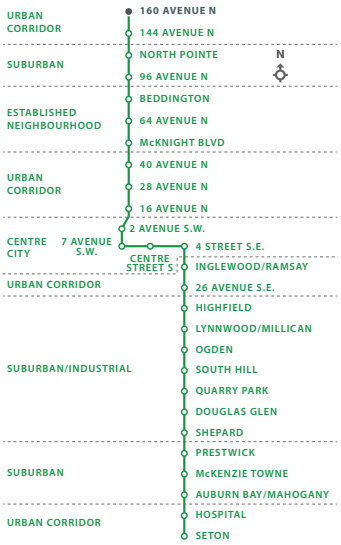
As part of the Keystone Hills Area Structure Plan this area will be characterized by a high level of residential and employment intensification. Once built out the resulting communities will be walkable and sustainable. The Green Line LRT will be an important link between the local communities, major activity centres and communities to the south.

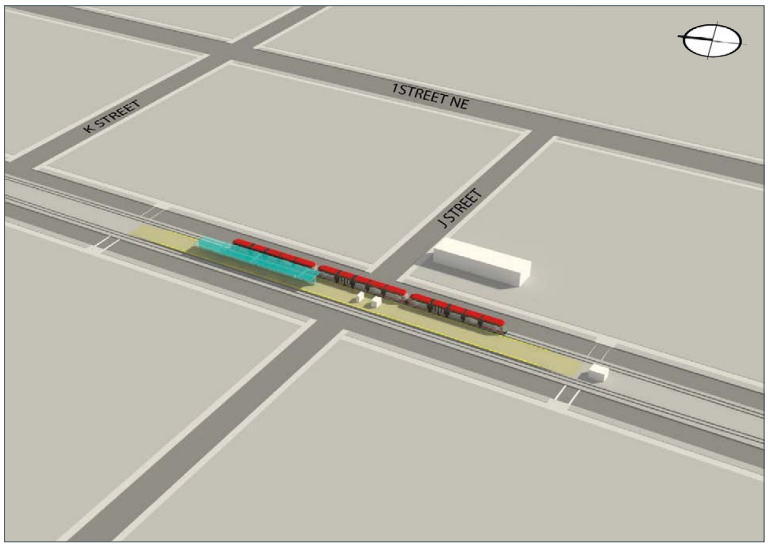
City Shaping

Planning for growth also offers the opportunity for new civic services and amenities to be thoughtfully planned and coordinated for these future communities. Services such as a community centre, fire station and recreational opportunities will be integrated, offering spaces for culture and social activities and interaction.

PROPOSED URGENT BUSINESS

160 AVENUE N STATION





INITIAL STATE (2015)		FULLY CONSTRUCTED	
Population	0	Population	10,350
Jobs	0	Jobs	1,950
		LRT riders	N/A *(Note: Station assumed to be built beyond 2043)*

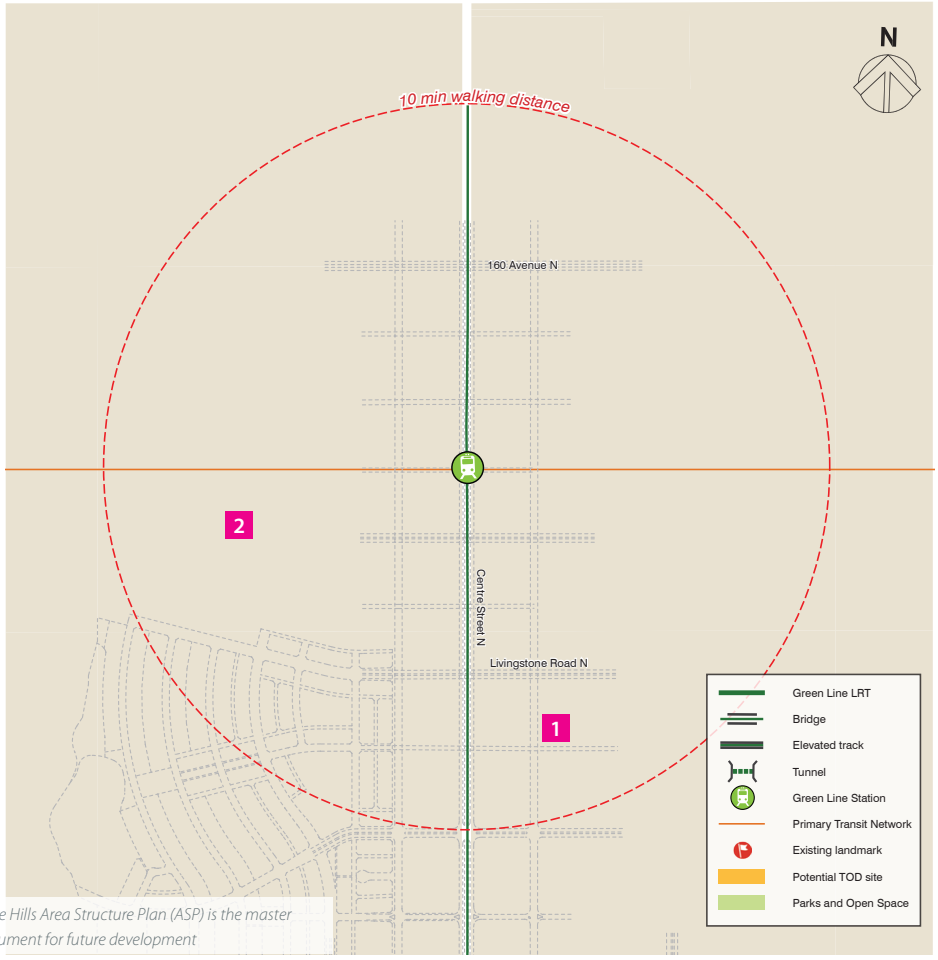
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional Connections	Yes
Park and Ride	No
Distance from Downtown/Centre City	16 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

160 AVENUE N STATION



Note: Keystone Hills Area Structure Plan (ASP) is the master planning document for future development

EXISTING HIGHLIGHTS 1 TOD 1 City Shaping 1 Transit

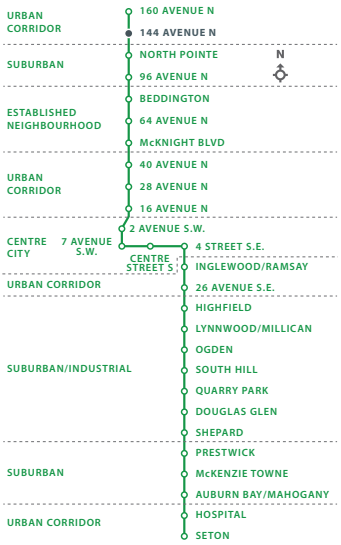
- Keystone Hills ASP – 2015

FUTURE OPPORTUNITIES

- Connection to large industrial employment lands
- Potential to develop diverse housing mix
- Planned Major Activity Centre and Urban Corridor
- Pedestrian and bicycle circulation planned
- 1 Planned Fire Station
- 2 Planned Joint Use Site
- Affordable housing for 2,100 people
- Planned recreation facility, library, 3 high school sites, community centre, fire station
- Major Transit Hub with at least 8 routes and 30 buses/peak hour

PROPOSED URGENT BUSINESS

144 AVENUE N STATION



INITIAL STATE (2015)		FULLY CONSTRUCTED	
Population	0	Population	10,350
Jobs	0	Jobs	1,950
		LRT riders	8,750

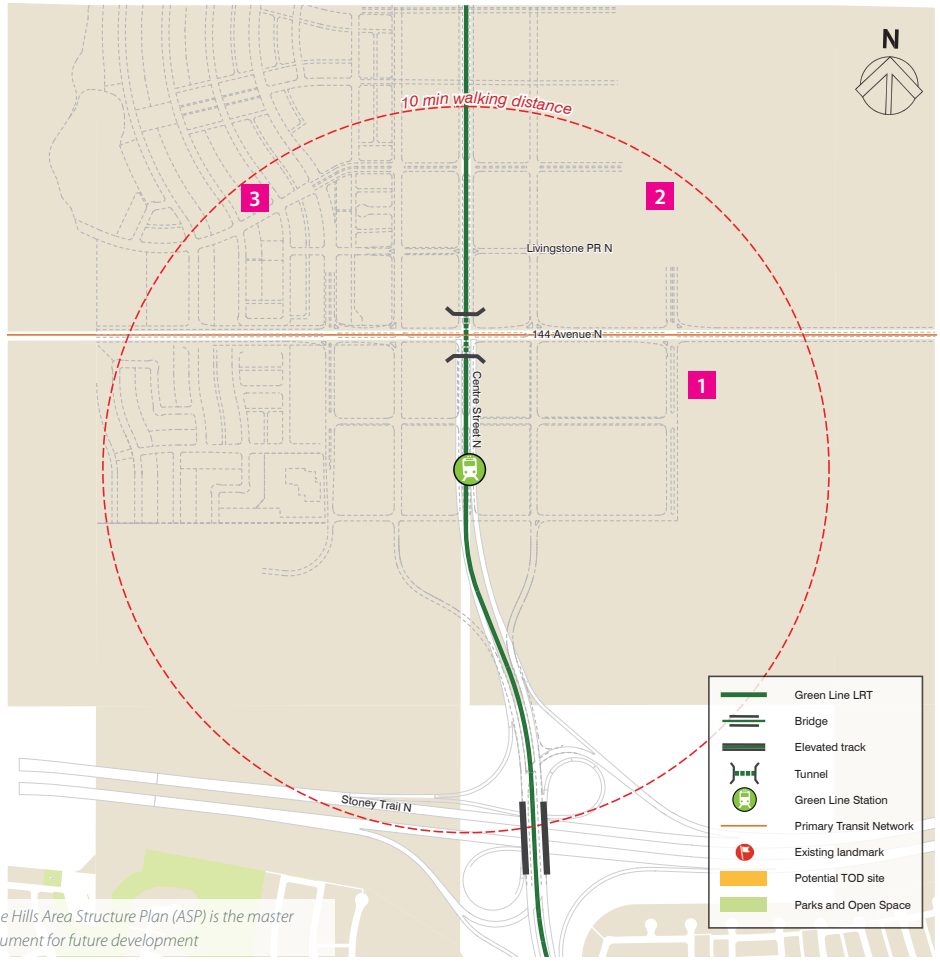
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	Yes
Park and Ride	No
Distance from Downtown/Centre City	15 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

144 AVENUE N STATION



Note: Keystone Hills Area Structure Plan (ASP) is the master planning document for future development

EXISTING HIGHLIGHTS 1 TOD 1 City Shaping 1 Transit

- Keystone Hills ASP – 2015

FUTURE OPPORTUNITIES

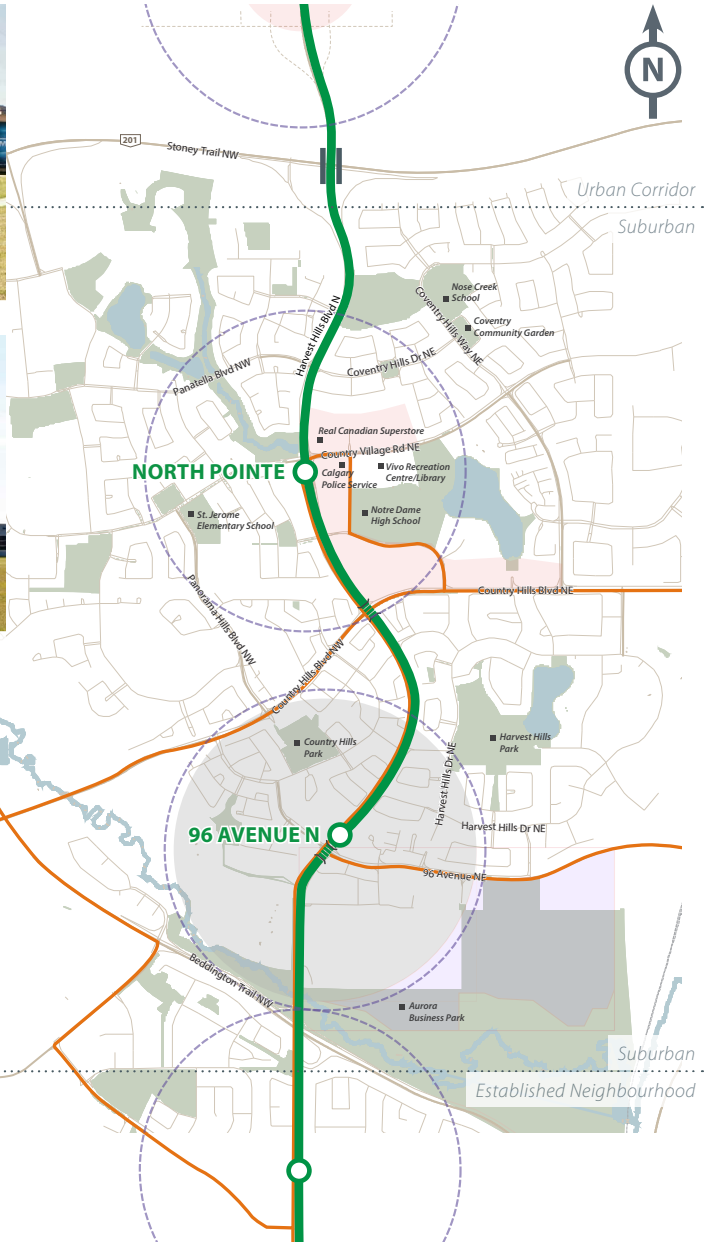
- Connection to large industrial employment lands
- Potential to develop diverse housing mix
- Planned Major Activity Centre and Urban Corridor
- Pedestrian and bicycle circulation planned
- 1 Planned High School site
- 2 Planned Joint Use site and community centre
- 3 Planned community centre
- Potential affordable housing for 4500 people
- Major transit hub with over 8 routes and over 30 buses per hour

PROPOSED URGENT BUSINESS

NORTH POINTE TO 96 AVE N: SUBURBAN

Empire Theatre - North Pointe

Notre Dame High School - North Pointe



Legend

- Bridge
- Elevated track
- Tunnel
- Green Line LRT
- Green Line station
- Area of multi modal improvements (within 10 minute walk of LRT station)
- Transit-Oriented Development (within 10 minute walk of LRT station)
- Primary Transit Network
- Red Line LRT
- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

NORTH POINTE TO 96 AVE N: SUBURBAN

Kelly is a Real Estate Manager who specializes in industrial distribution centres. Previously Kelly had difficulty attracting this industry to Calgary as transit options to industrial areas were limited. With the Green Line LRT, stations in industrial areas such Aurora near the 96 Avenue N station as well as Highfield and Lynnwood, are easily accessible. The workforce can now connect and access industrial employment areas, conveniently by transit. Employers are also able to choose from a large pool of applicants due to increased connectivity and access from the City's primary transit network.

As the line transitions from Harvest Hills Boulevard N to Centre Street N traversing Beddington Trail and the popular Nose Creek Pathway, the Green Line LRT interfaces with a significant Employee Intensive hub known as the future Aurora Business Park. Serving the Community Activity Centre of North Pointe and the neighbourhoods of Country Hills, Harvest Hills, Panorama Hills, and Coventry Hills, the dedicated LRT system will provide users with a quick, reliable transit option to connect them with numerous destinations along the line as well as the greater city.

Transit Connections

North Pointe and 96 Avenue N are identified as transit hubs where transit customers can connect with local routes, future Primary Transit Network and regional services. The transit network will connect the communities within this character area to major employment areas such as Aurora business park, Calgary International Airport, city services and local and regional retail destinations. Future PTN on Country Hills Boulevard and 96 Avenue N will create strong east west connections.

Active modes connections

The older communities around the stations of North Pointe and 96 Avenue N were originally built to best accommodate car movement and many streets were built with sidewalks on only one side creating a barrier to walking and cycling users. The Green Line will leverage the regional pathways system and established routes to improve the connections around and through the neighboring communities. The parallel pathway through this area travels largely in the Green Line right-of-way connecting each station together, enabling connections and circulation to station.

Transit Oriented Development

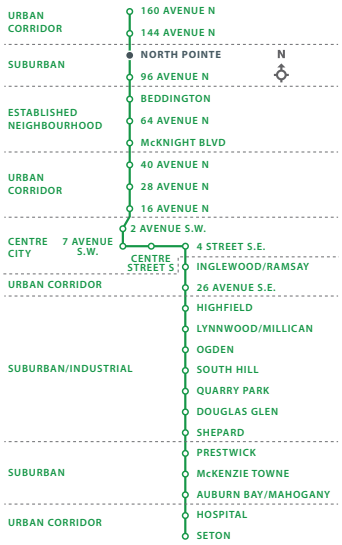
The early TOD planning for these communities considered the future extension of the LRT and protected for the necessary right-of-way along Harvest Hills Boulevard North. Suburban communities are typically characterized by having a commuter workforce. The Green Line will service the surrounding population base and enable enhanced north-south mobility for the commuter population.

City Shaping

In coordination with active modes connections, City Shaping along the suburban corridor can be enhanced with connections to indoor and outdoor recreation amenities and to The City's Nose Creek Pathway system. Green Line will link students to the high school, library, playfields and community amenities all within walking distance of the station areas.

PROPOSED URGENT BUSINESS

NORTH POINTE STATION



INITIAL STATE (2015)	
Population	3,050
Jobs	2,250

FULLY CONSTRUCTED	
Population	3,050
Jobs	3,250
LRT riders	7,100

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	Yes
Park and Ride	Yes - existing
Distance from Downtown/Centre City	12 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

NORTH POINTE STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

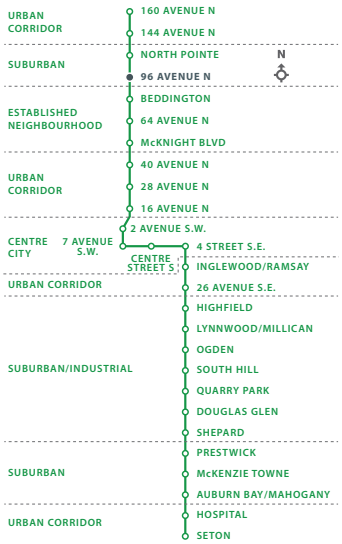
- 1 Community activity centre with roughly 2200 jobs, with access to established retail, located within walking distance to schools, and joint use community centre
- Adjacent to high density mixed use housing
- Calgary North Phase 2 Community Plan – 2009
- 2 Vivo Recreation Centre - 77,000 yearly visits
- 3 Access to playfields - 200+ bookable per year
- 4 Multi-services Centre (Police, Fire, EMS, Bylaw Officers)
- 5 Country Hills Library - 465,000 yearly visits
- Connection to Route 301 BRT and transit service from surrounding communities, Regional Transit Connection - Airdrie Ice, Park and Ride

FUTURE OPPORTUNITIES

- Integrated open space plaza
- Redevelopment potential of big box retail area
- Affordable housing for 900 people
- Increased access to civic services
- Major Transit Hub with at least 8 routes and 30 buses/peak hour

PROPOSED URGENT BUSINESS

96 AVENUE N STATION



INITIAL STATE (2015)	
Population	8,100
Jobs	1,550

FULLY CONSTRUCTED	
Population	7,800
Jobs	6,100
LRT riders	14,650

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	Yes
Park and Ride	Yes
Distance from Downtown/Centre City	10 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

96 AVENUE N STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

- 1 Aurora Business Park ASP – 2008
- 2 Retail nearby
- Light industrial employment
- 410 affordable housing units
- Access to health and senior services
- Access to youth and ESL programs
- Connection to Routes 300 BRT, 301 BRT and transit service from adjacent communities
- Transit connection to Airport

FUTURE OPPORTUNITIES

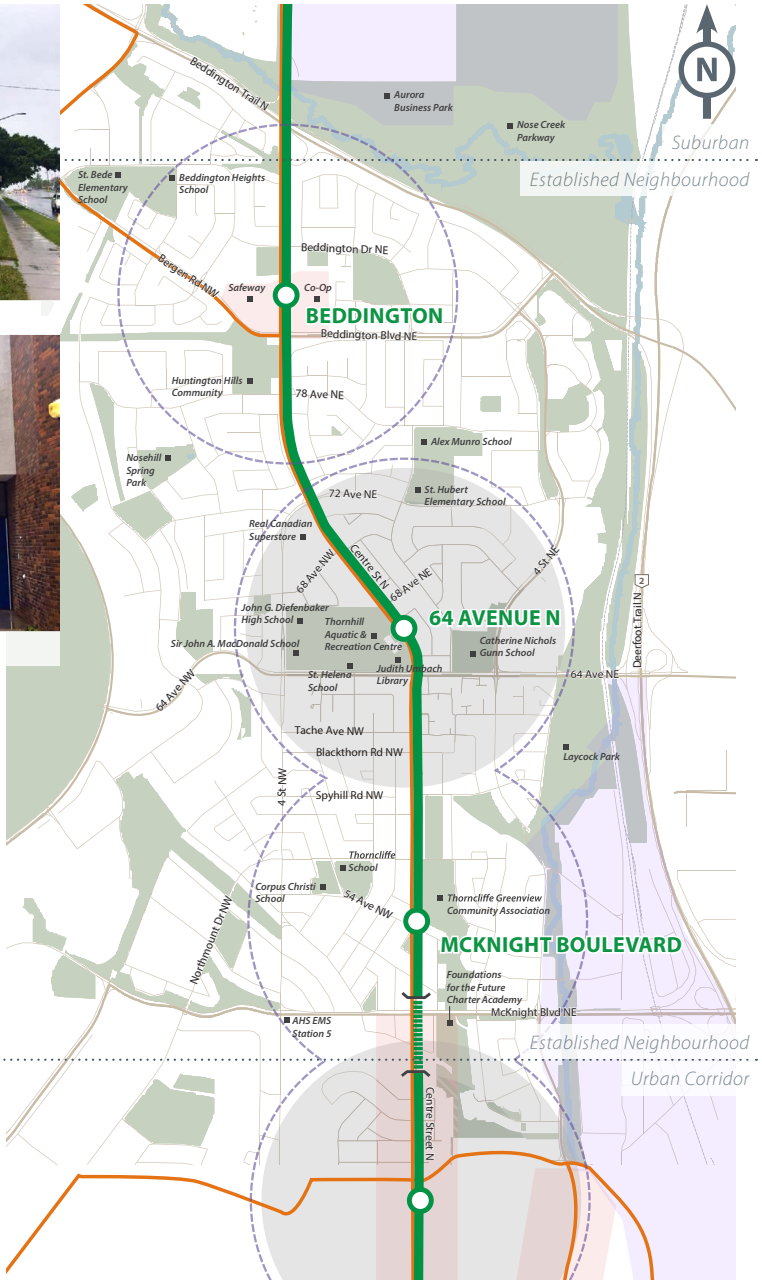
- Planned update of Aurora Business District Area
- Integrated open space plaza
- 3 Improved access to the West Nose Creek and Confluence Park
- Improved access to playfields in Aurora Business Park, Country Hills Park and Harvest Hills Park
- Transit Hub with 4-8 routes with 20-30 buses/peak hour
- Rail connection to Airport

PROPOSED URGENT BUSINESS

BEDDINGTON TR TO MCKNIGHT BLVD: ESTABLISHED NEIGHBOURHOOD

Huntington Hills Community Association

John G. Diefenbaker High School - Thornhill



Legend

- Bridge
- Elevated track
- Tunnel
- Green Line LRT
- Green Line station
- Area of multi modal improvements (within 10 minute walk of LRT station)
- Transit-Oriented Development (within 10 minute walk of LRT station)
- Primary Transit Network
- Red Line LRT
- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

BEDDINGTON TR TO MCKNIGHT BLVD: ESTABLISHED NEIGHBOURHOOD

Carolyn and Sylvia are sisters who share two halves of a duplex in Beddington. They love the mature neighbourhood, the proximity to their grandkids and the independence they have by living close to the Green Line and the nearby grocery store. Every Tuesday and Thursday morning, they can take the Green Line one stop to the Thornhill Recreation Centre to do their water aerobics fitness class, and sometimes, they even treat themselves to a coffee and a donut afterwards.

This segment geographically represents single family homes and multi-family dwellings serving the communities of Highland Park, Thorncliffe/Greenview, Huntington Hills, and the Community Activity Centre of Beddington Heights.

Transit Connections

Transit service in this area will be characterized by strong local routes connecting communities to Beddington station, the primary transit hub in this character area. Other routes will connect at 64 Avenue N station, a future TOD destination for city services. McKnight Blvd station will also have a local Centre Street transit route that will connect users outside the station area walk shed.

Active modes connections

The three stations in this area all serve communities which have missing sidewalks and cycling infrastructure. In each case the stations will serve valuable neighbourhood hubs, and as the connections to the stations improve so will cycling and walking access to nearby retail such as the local Safeway and Co-op, library and community centre. The parallel pathway through this area connects through the community on both the east and west side of Centre Street. The route will use both existing connections and future planned connections. Riders of the Green Line LRT will have access to resources without the need for a car in many cases.

Transit Oriented Development

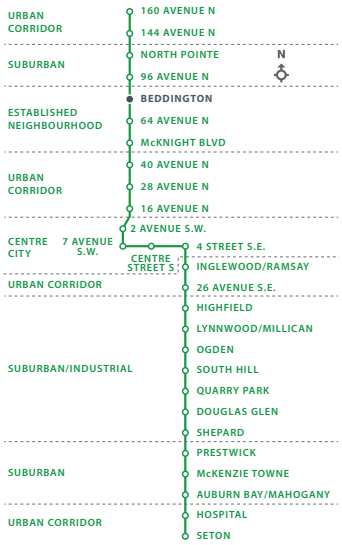
Established neighbourhoods in this area will experience TOD by revitalizing older developments and offering a sustainable mobility option in a once automobile dominated single-family residential area. Organic smaller scale densification is expected to gradually increase the residential population without losing the established feel of the area.

City Shaping

City Shaping within established neighborhoods offers redevelopment potential of several of The City's aging community infrastructure. Collaboration of these sites between the public and private sector and citizens, brings a community based approach to the civic sites emphasizing what is valued by citizens. Redevelopment creates opportunities for co-location of facilities and services and partnerships, to enhance affordability and vibrancy within established neighborhoods.

PROPOSED URGENT BUSINESS

BEDDINGTON STATION



INITIAL STATE (2015)	
Population	12,000
Jobs	1,700

FULLY CONSTRUCTED	
Population	14,400
Jobs	2,850
LRT riders	5,800

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	Yes
Distance from Downtown/Centre City	9 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

BEDDINGTON STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

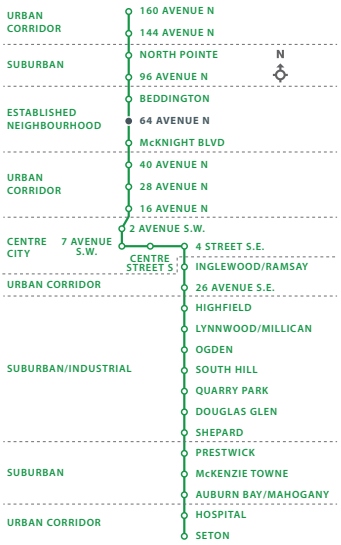
- 1 Adjacent to Beddington Towne Centre (mix of uses)
- 2 Close proximity to Nose Creek Regional Pathways and open spaces
- Diverse selection of housing choices
- 3 Access to playfields - 300+ bookable hours per year
- 4 Community arts centre
- 5 Medical services centre
- 56 Affordable Housing Units
- Connection to Routes 3, 300 BRT, 301 BRT and transit service from surrounding communities
- Regional Transit Connection - Airdrie Ice

FUTURE OPPORTUNITIES

- Integrated open space plaza with surrounding institutional, commercial, and recreational facilities mixed use facilities currently in the area
- Redevelopment of older housing stock
- Potential for additional employment opportunities within large commercial/office area
- Planned park upgrades
- Affordable housing for 2700 people
- Major Transit Hub with at least 8 routes and 30 buses/peak hour, Park and Ride

PROPOSED URGENT BUSINESS

64 AVENUE N STATION



INITIAL STATE (2015)	
Population	3,350
Jobs	1,700

FULLY CONSTRUCTED	
Population	3,600
Jobs	1,850
LRT riders	3,600

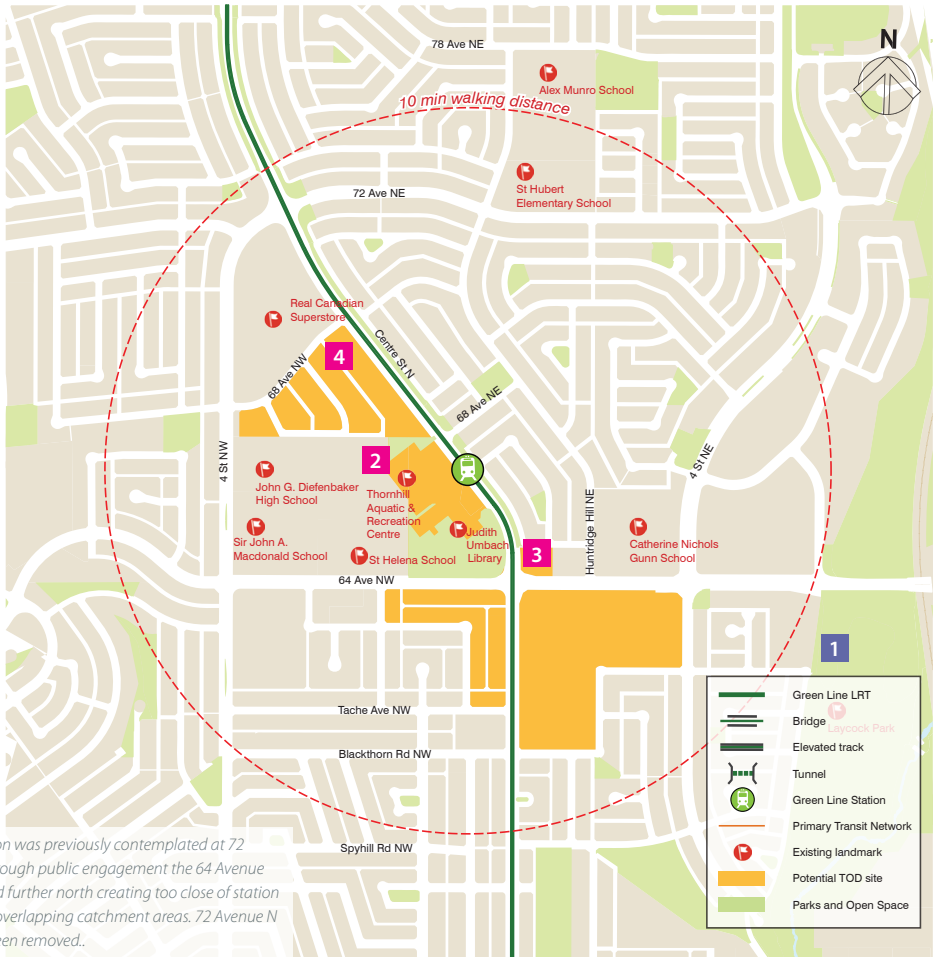
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	No
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	7 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

64 AVENUE N STATION



NOTE: A station was previously contemplated at 72 Avenue N. Through public engagement the 64 Avenue station moved further north creating too close of station spacing and overlapping catchment areas. 72 Avenue N station has been removed..

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

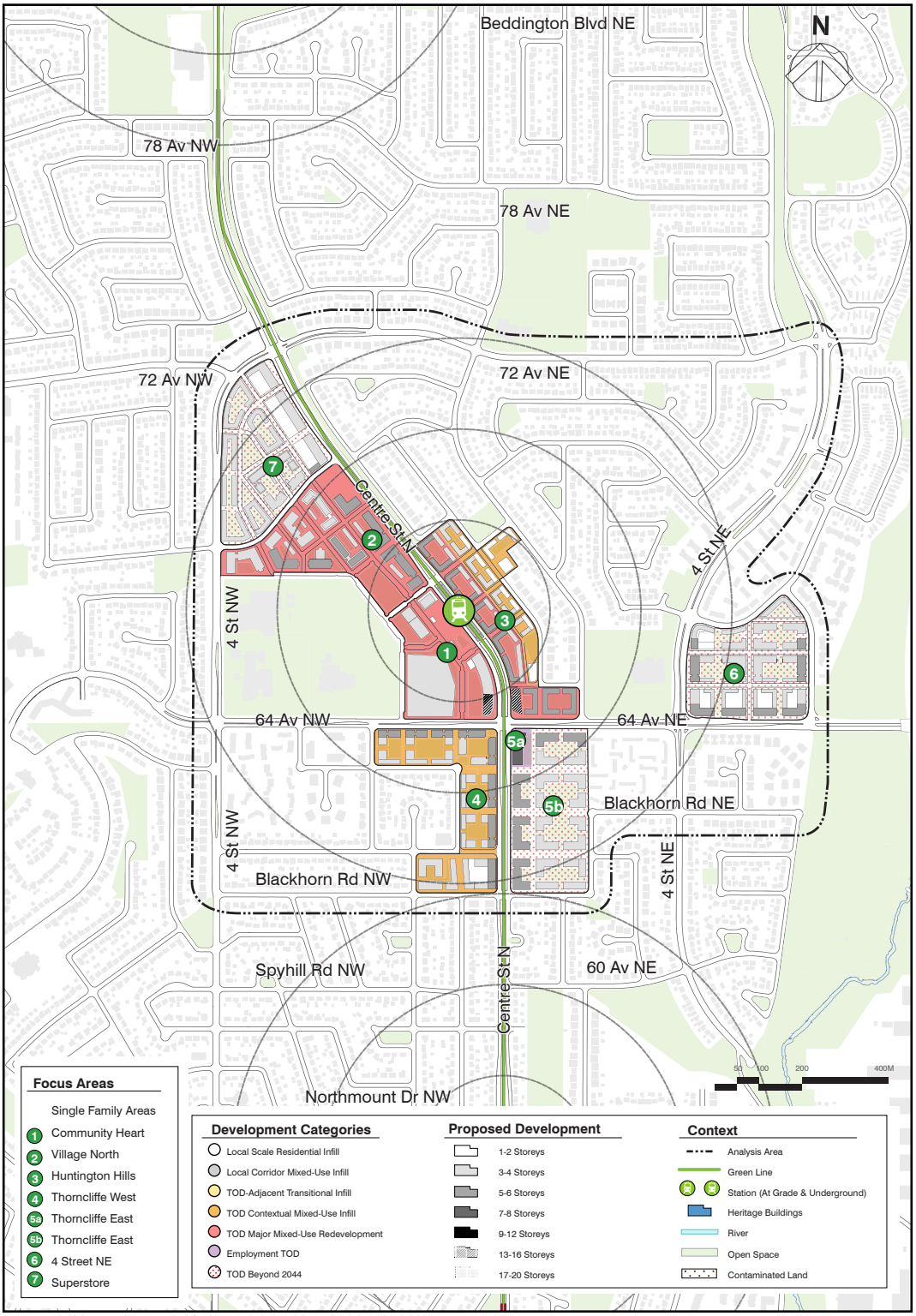
- 1 Close proximity to the Nose Creek Regional Pathway and Laycock Park
- Commercial and retail services nearby
- Diverse selection of housing choices
- 2 Thornhill Aquatic and Recreation Centre - 226,344 visits yearly
- 3 Judith Umbach Library, Alberta Health Services and Huntington Hills Skate Park nearby
- 4 Fire Station #18
- 350 Affordable Housing Units
- Connection to Route 3, BRTs 300, 301 and transit service from surrounding communities

FUTURE OPPORTUNITIES

- Redevelopment of city owned land envisioned
- Presence of vacant/underdeveloped lands suitable for redevelopment
- Identified as a high potential TOD site
- Master planning for Thornhill Multi-Use Centre
- Planned neighbourhood hub
- Affordable housing for 300 people
- Transit Hub with 4-8 routes with 20-30 buses/peak hour

PROPOSED URGENT BUSINESS

64 AVENUE N CHARRETTE STUDY AREA



PROPOSED URGENT BUSINESS

64 AVENUE N CHARRETTE STUDY AREA

At the core of this study area lies the Thornhill Civic Centre which includes the Thornhill Aquatic and Recreation Centre, the Judith Umbach Library, park space, a daycare facility and an Alberta Health Services clinic. The existing transit stops serve as important crossover points in the network.

The key element of the development concept was built on the desire of the community for the development of a new "heart" around the Green Line station and Civic Centre. This was fully aligned with the long-range plans for the expansion and upgrading of the civic facilities. Working together, the stakeholders developed the concept of a vibrant, mixed-use transit village to be built around a new urban transit plaza.

- The plaza was designed to serve as both a public event space as well as a transfer zone for transit customers. In its proposed form it could host markets, concerts and community events.
- A defined public space or "living room" for the community. This concept proposes a new urban block street pattern around the plaza lined with new civic and mixed-use buildings.
- Revitalized recreation and aquatic centre, library and the other facilities could be built as urban, street-fronting buildings with mixed-use ground floors rather than as stand-alone structures. It further proposed that buildings should contain residential units on the upper floors if possible. The integration of a District Energy facility to service the new developments was also recommended.
- A high-rise residential tower at the intersection of 64 Avenue N and Centre Street was proposed. On the east side of Centre Street, adjacent to the plaza and station, the concept suggests new 4 to 6-storey residential development.
- The mid-term plan foresees redevelopment in the form of 4 to 6-storey affordable housing based on a new, urban block pattern. This area would connect to the long-term prospect of redevelopment of the supermarket site. Here too, the large surface parking lot format would evolve into an urban grid street network with street fronting buildings.
- Introduce an urban street pattern in place of the large, surface parking areas and suburban developments on site today.
- Enhanced pedestrian and bicycle connectivity throughout the area, across Centre Street and improve intersections. The primary cycling route was envisioned to follow 4 Street NW. Although some on-street parking would be provided, the majority of parking was proposed to either be underground or in structures. This further enhances the urban setting and pedestrian focus. It also provides for convenient, visible parking opportunities for visitors.

PROPOSED URGENT BUSINESS

64 AVENUE N: WHAT COULD IT LOOK LIKE?

The proposed location of the future 64 Avenue N Station looking north along Centre Street N.

View of the future 64 Avenue N Station with the centre running train within the Centre Street N right-of-way and a transit plaza with bus loop.

PROPOSED URGENT BUSINESS

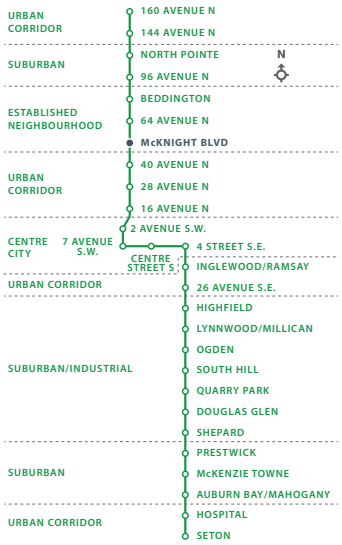
64 AVENUE N: WHAT COULD IT LOOK LIKE?

View of the future 64 Avenue N Station with development of the public library and a new recreational centre to the west of the plaza.

View of the future 64 Avenue N Station with further development including mixed use residential uses on either side of Centre Street and a district energy plant to the northwest of the transit plaza.

PROPOSED URGENT BUSINESS

McKNIGHT BLVD STATION



INITIAL STATE (2015)	
Population	7,400
Jobs	1,200

FULLY CONSTRUCTED	
Population	8,200
Jobs	1,750
LRT riders	1,900

TRANSIT BENEFITS

Transit hub	No
Primary Transit Network Connection	No
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	6 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

McKNIGHT BLVD STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

- 1 Established commercial/retail services
- Urban corridor as identified in MDP
- Adjacent to City owned parks and green spaces
- 2 Thorncliffe Greenview Community Centre and Arenas nearby
- Greenspace and bookable playfields nearby
- 3 schools nearby
- Connection to Route 3, BRTs 300 and 301

FUTURE OPPORTUNITIES

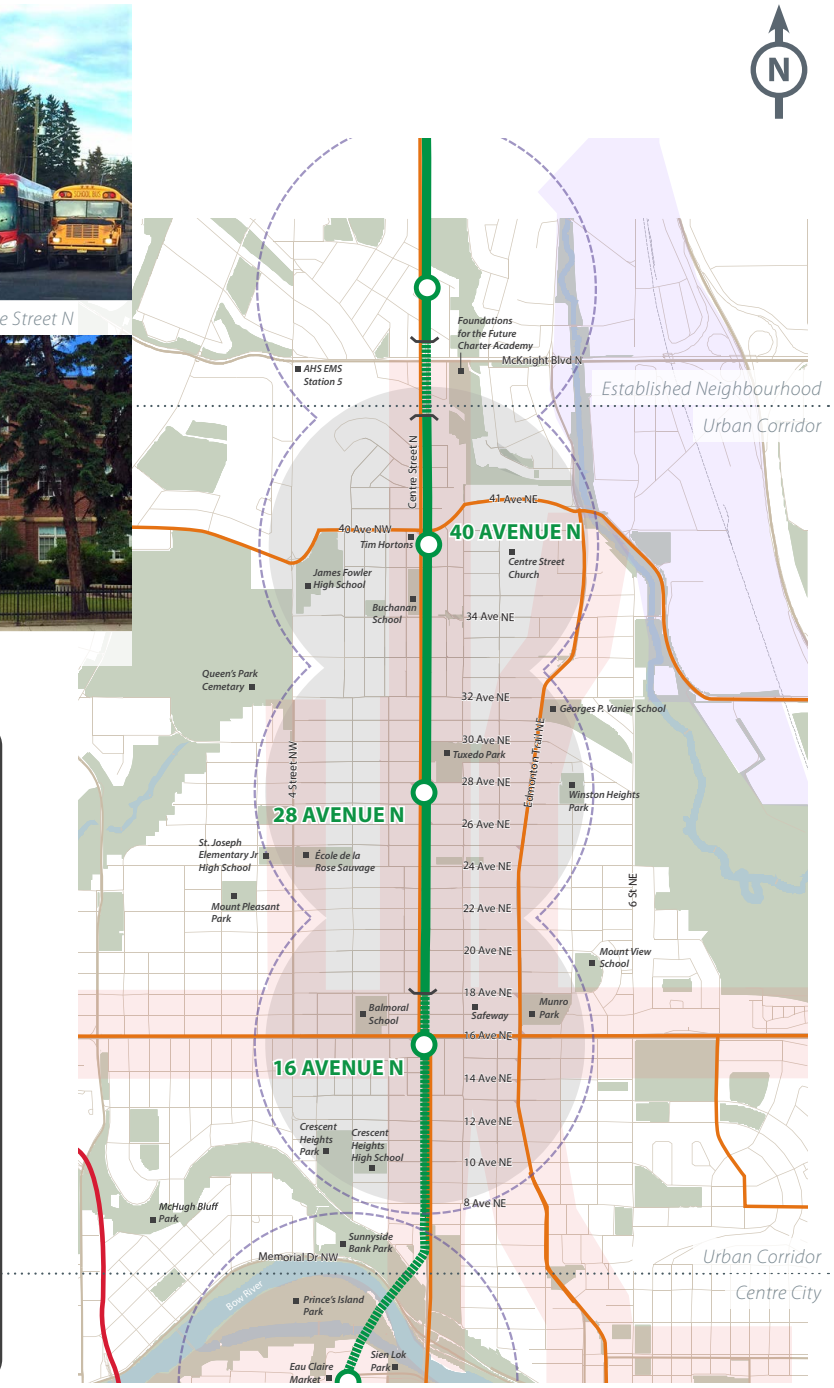
- Integrated open space plaza
- Enhance pathway connections
- Affordable housing for 1,650 people
- Transit connection with up to 4 routes and up to 20 buses/peak hour

PROPOSED URGENT BUSINESS

40 AVE N TO 16 AVE N: URBAN CORRIDOR

Tim Hortons at 40 Avenue N and Centre Street N

Crescent Heights High School



Legend

- Bridge
- Elevated track
- Tunnel
- Green Line LRT
- Green Line station
- Area of multi modal improvements (within 10 minute walk of LRT station)
- Transit-Oriented Development (within 10 minute walk of LRT station)
- Primary Transit Network
- Red Line LRT
- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

40 AVE N TO 16 AVE N: URBAN CORRIDOR

Angie is in the advance placement program at Crescent Heights High School and is planning to one day become a physiotherapist. She is working hard to get into university in a year, and has started assisting with the 3-5 year old climbing class at Vivo in the early afternoons, during her last period spare. Thanks to the Green Line, earning extra college credit has never been easier - Angie can hop on a train when she finishes class and make it to Vivo for the tots climbing class at 3pm, and can even make it back home in time for dinner.

Located north of the Centre City the Green Line LRT will enhance an already bustling area of the city by further improving transit service and providing an alternative travel option to the already existing network of pathways, bikeways, and roads. Serving the established communities of Crescent Heights, Tuxedo Park, Mount Pleasant, Renfrew, and Winston Heights/Mountview. Many of the proposed station locations serve local shops and amenities, recreation facilities, schools, libraries, and religious institutions.

Transit Connections

Community transit use in this character area is high due to the grid street network which optimizes service coverage, provides direct connections and reduces travel time. Major east-west transit connections will supplement Green Line stations at 40 Avenue N and 16 Avenue N. 40 Avenue N is a future PTN and 16 Avenue N will have a new BRT service in 2018. These connections will connect transit users to major destinations outside of the Centre City such as the Northwest Hub and Northeast Industrial.

Active modes connections

The stations in this area all serve communities which depend heavily on walking and cycling. The grid network allows people to easily access stations and local destinations with greater trip flexibility. The station at 40 Avenue N has a large industrial area to the southeast which will require additional cycling and walking infrastructure to support the increased active modes activity generated by the TOD near the station. The pathway through this area is located on parallel streets to the east and west of the Green Line LRT, providing a traffic calmed pathway for pedestrians and cyclists to access retail on Centre Street or a Green Line station.

Transit Oriented Development

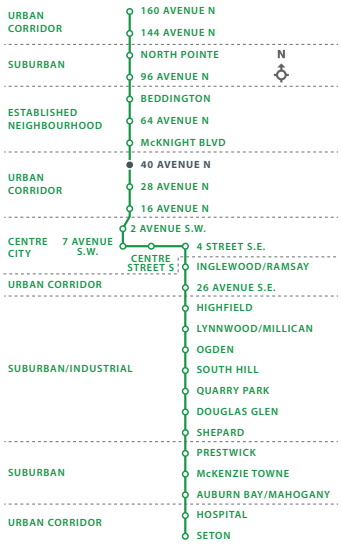
Transit Oriented Development will occur around the stations and extend along Centre Street. These communities offer a number of community services, retail, and dining establishments. The current housing stock varies from single family housing, duplexes, townhouses, to condo buildings, which provide choices for residents. Within this area, redevelopment has already started due to it close proximity to downtown and is expected to continue as the Green Line is built out. Four-six storey residential infills are expected to slowly repopulate the area along Centre Street.

City Shaping

The linear urban corridor offers great connections to high use parks, open spaces and variety of school sites. Parks, schools and programs provide City Shaping opportunities to enhance services within the area, and to link them with the high potential, high density TOD redevelopment. A new affordable housing development within a 5 minute walk to the future 16 Avenue N station is an initial example of the link between affordable access to housing, transit and community services, improving quality of life for people living along the Green Line LRT.

PROPOSED URGENT BUSINESS

40 AVENUE N STATION



INITIAL STATE (2015)	
Population	4,600
Jobs	3,200

FULLY CONSTRUCTED	
Population	7,400
Jobs	4,050
LRT riders	4,100

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	4.5 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

40 AVENUE N STATION

EXISTING HIGHLIGHTS 1 TOD 1 City Shaping 1 Transit

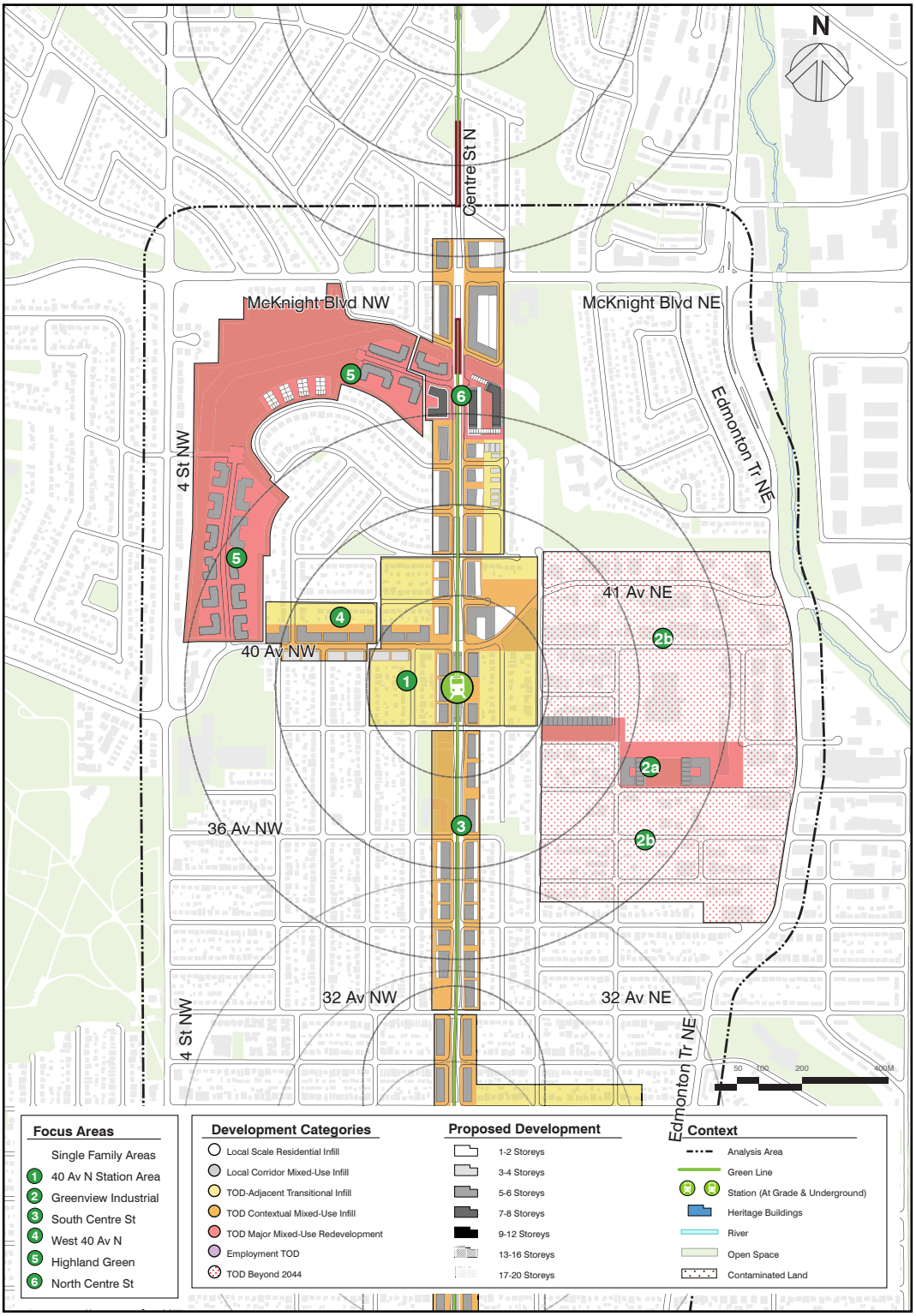
- Connections to Nose Creek Regional Pathway and Confederation Park
- Good street connectivity
- Mix of retail, commercial, single family residential and light industrial nearby
- 1 James Fowler High School
- 2 Access to Queens Park Cemetery & Confederation Park
- 20 Affordable Housing Units
- Highland Park Community Association and Seniors' Care Facility nearby
- Connection to Routes 3, 300 BRT, 301 BRT and major crosstown route
- Regional Transit Connection - Airdrie Ice

FUTURE OPPORTUNITIES

- 3 Planned redevelopment of Highland Park Golf Course
- Identified as a high potential TOD site
- Affordable Housing for 1,500 people
- Creative Art Industry in the Greenview Industrial Area envisioned
- Transit Hub with 4-8 routes with 20-30 buses/peak hour

PROPOSED URGENT BUSINESS

40 AVENUE N CHARRETTE STUDY AREA



PROPOSED URGENT BUSINESS

40 AVENUE N CHARRETTE STUDY AREA

This study area focused on three main themes: the redevelopment of a large, cohesive former golf course into a TOD community; the redevelopment of Centre Street as a new main street; and the transformation of an established industrial area towards a contemporary mix of residential and light industrial uses served by the LRT.

The concept developed for the station area includes:

- The long-term goal for knowledge worker employment growth and the creation of an Innovation District in the present-day Greenview Industrial Park.
- An urban transit plaza that extends east to west along 40 Avenue N would link Centre Street and the station to a sloped park space that connects to the Innovation District.
- The proposed development of TOD villages that create nodes at the southeastern and eastern ends of the former golf course.
- A large, cohesive park space was proposed to link these two nodes and create a recreation area for the community.
- Buildings with heights of 5 to 6 storeys and retail uses on their ground floors were proposed adjacent to the station on Centre Street.
- Residential and mixed-use buildings of 6 storeys in height were recommended between 32 Avenue N and McKnight Boulevard.
- The concept also envisions buildings of 4 to 6 storeys along 40 Avenue N between Centre Street and 3 Street NW.
- The concept provides for higher buildings in the two TOD villages at the former golf course.
- The southeastern TOD node of the golf course was envisioned to consist of 6 to 12 storey buildings in a clustered arrangement.
- 3-storey townhouses could be integrated into the eastern slope of the site and connect to the existing residential neighbourhood.
- The northeastern TOD node would include 8 storey buildings with retail uses at grade on the western side of Centre Street and 16 storey mixed use development (retail and residential) to the east of Centre Street.
- A series of green avenues that act as connections within the community and transitions between existing and proposed development. Proposals were made to also re-purpose portions of residential streets to create new pocket parks that would support traffic calming measures.
- The most fundamental change to the street network is the introduction of the Green Line onto Centre Street and the subsequent reduction of automobile lanes from two lanes each way to one. To align with this capacity reduction, the concept supports the proposal to change the Municipal Development Plan street classification for Centre Street up to McKnight Boulevard from Urban Boulevard to Neighborhood Boulevard. The concept also provides angled parking.
- On sides streets in the vicinity of the station to support the retail activity of the main street. A focus was placed on enhanced pedestrian and bicycle connections and safer intersections throughout the community and in particular across Centre Street. This was aligned with a series of neighbourhood greenways that connect the open spaces and prioritize people and bicycles.

PROPOSED URGENT BUSINESS

40 AVENUE N: WHAT COULD IT LOOK LIKE?

The proposed location of the future 40 Avenue N Station looking north along Centre Street N.

View of the future 40 Avenue N Station with the centre running train and single travel lane in each direction.

PROPOSED URGENT BUSINESS

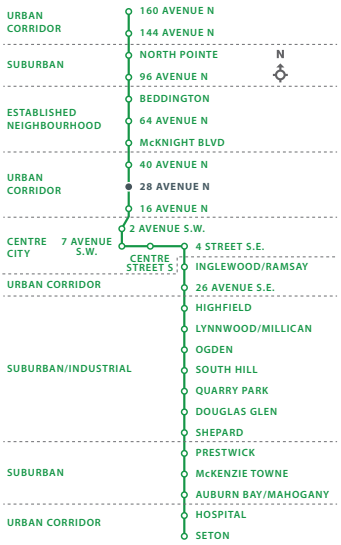
40 AVENUE N: WHAT COULD IT LOOK LIKE?

View of the future 40 Avenue N Station with mixed-use residential and commercial development along the east side of Centre Street.

View of the future 40 Avenue Station with the further build-out of mixed use developments along Centre Street.

PROPOSED URGENT BUSINESS

28 AVENUE N STATION



INITIAL STATE (2015)		FULLY CONSTRUCTED	
Population	5,350	Population	9,950
Jobs	1,050	Jobs	2,500
		LRT riders	2,550

TRANSIT BENEFITS

Transit hub	No
Primary Transit Network Connection	No
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	3.5 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

28 AVENUE N STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

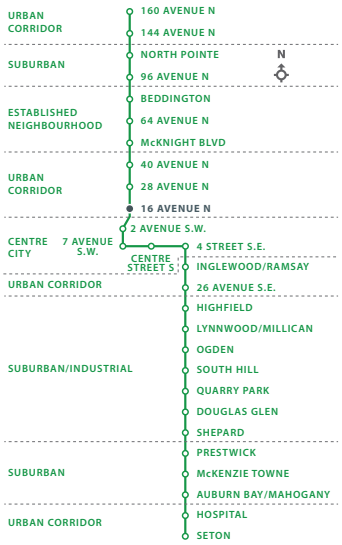
- Presence of commercial corridor
- Urban corridor as identified in MDP
- Part of Main Streets redevelopment program
- 1 Heritage Site - Tuxedo Park School and Park Space
- 2 North Mount Pleasant Art Centre - 24,500 visits yearly
- 3 Tuxedo Park and Winston Heights Community Associations nearby
- 100 affordable housing units
- 4 school sites nearby
- Connection to Route 3

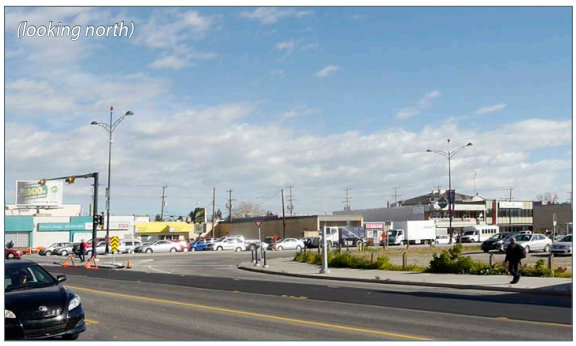
FUTURE OPPORTUNITIES

- Planned neighbourhood corridor
- Identified as a high potential TOD site
- Affordable Housing for 1,650 people
- Recreation centre, community facility, park upgrades envisioned
- Re-purpose Heritage school building
- Transit connection with up to 4 routes and up to 20 buses/peak hour

PROPOSED URGENT BUSINESS

16 AVENUE N STATION





INITIAL STATE (2015)	
Population	6,250
Jobs	3,250

FULLY CONSTRUCTED	
Population	13,400
Jobs	5,050
LRT riders	5,750

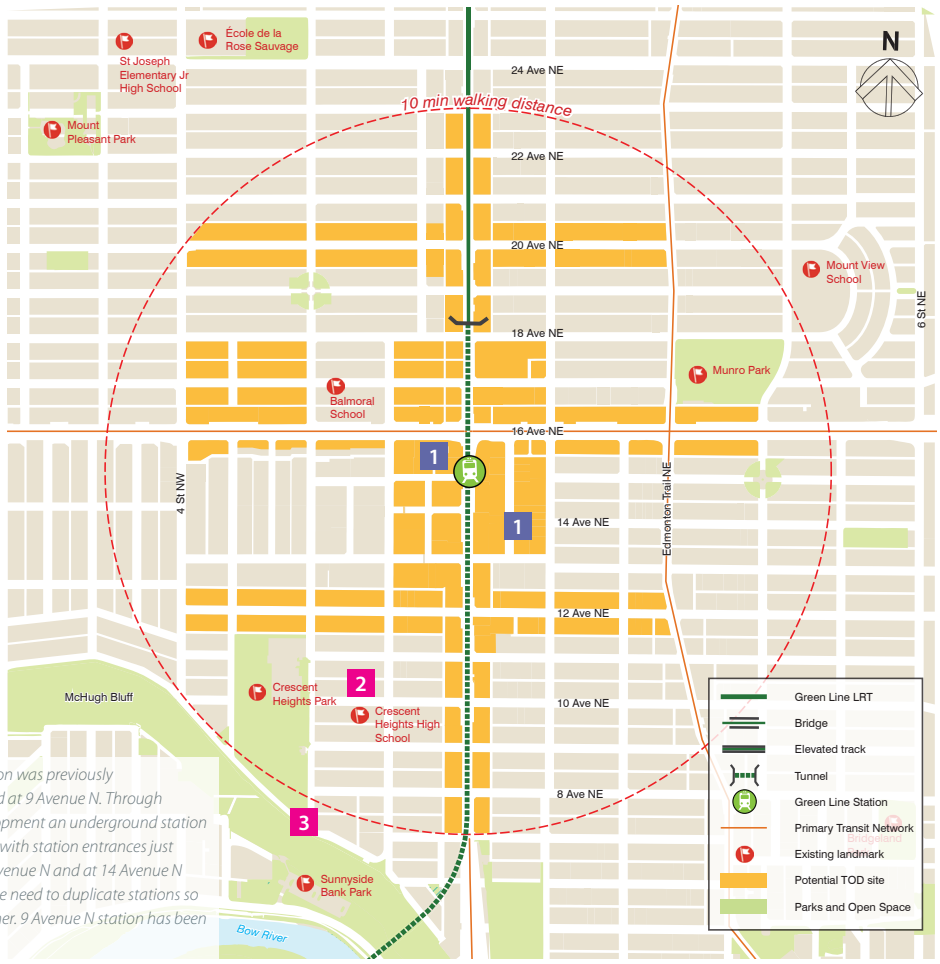
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	2 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

16 AVENUE N STATION



NOTE: A station was previously contemplated at 9 Avenue N. Through design development an underground station at 16 Avenue with station entrances just north of 16 Avenue N and at 14 Avenue N eliminated the need to duplicate stations so closely together. 9 Avenue N station has been removed.

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

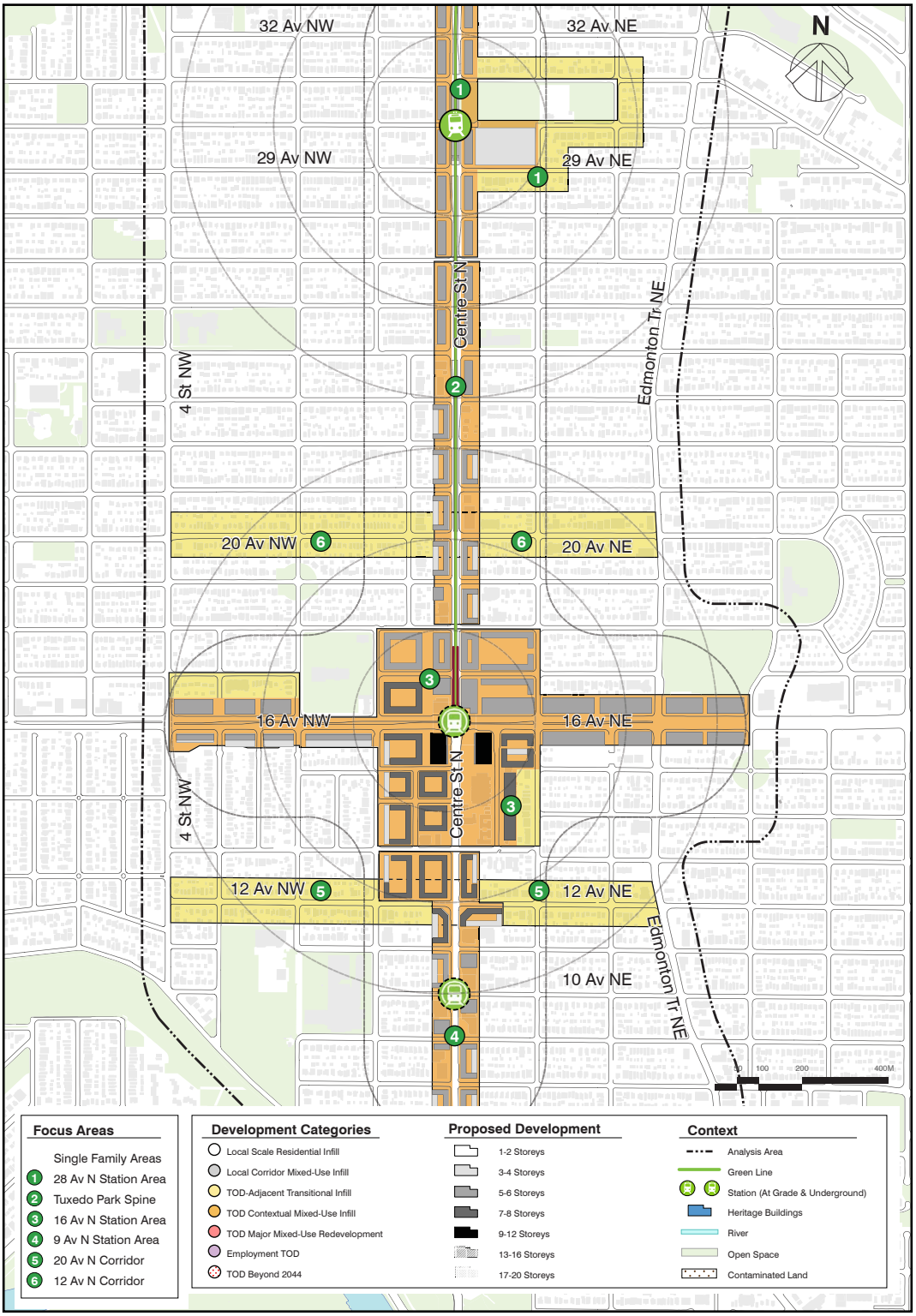
- 1 Retail nearby
- Urban corridor as identified in MDP
- Part of Main Streets redevelopment program
- Large Parcels of City of land at the corner of 16th Avenue and Centre Street
- 2 Crescent Heights High School
- 80 affordable housing units
- Variety of community services and programs including Seniors' housing
- 3 school sites nearby
- Connection to Routes 3, BRT 300 and 301 and crosstown route, Regional Transit Connection - Airdrie Ice

FUTURE OPPORTUNITIES

- Identified as a high potential, high density TOD site within Stage 1 construction
- Integrated open space plaza
- 3 Access to Crescent Road lookout and McHugh Bluff
- Planned sport field and park upgrades, Renfrew Recreational Facility redevelopment
- Affordable housing for 2,400 people
- Transit Hub with 4-8 routes with 20-30 buses/peak hour, connection to North Crosstown BRT

PROPOSED URGENT BUSINESS

16 AVE N AND 28 AVE N CHARRETTE STUDY AREAS



PROPOSED URGENT BUSINESS

16 AVE N AND 28 AVE N CHARRETTE STUDY AREAS

The concept for Transit Oriented Development around the stations at 16 Avenue N and 28 Avenue N was based on linear redevelopment along the Centre Street and 16 Avenue N main streets. The community participants envisioned both Centre Street and 16 Avenue N as complete, tree-lined streets with an urban boulevard character. There was great emphasis placed on the need for appropriate building transitions from higher structures along the main streets to the adjoining existing residential streets. The fact that Green Line would be underground from downtown until just north of 16 Avenue N was seen as an opportunity to better unite communities on either side of Centre Street and 16 Avenue N. The need to properly integrate the tunnel portal into an attractive public realm was highlighted by participants.

The future vision for the 16 Avenue N station in Crescent Heights included:

- A station plaza, a new library, and mixed residential and office development. Building heights from 8 to 16 storeys were supported for the parcels immediately adjacent to the 16 Avenue N station and the key intersection of the two main streets.
- 6 storey buildings were proposed on Centre Street between the stations and for the blocks to the east and west on 16 Avenue N. Redevelopment with townhouses of 2 to 4 storeys was further proposed along 12 Avenue N.
- The vision for the comprehensive redevelopment around the 28 Avenue N Station and Tuxedo Park included a station plaza and recreation and community facilities adjacent to the Community Association green space.
- Buildings next to the station were proposed at 4-6 storeys in height and containing retail and residential uses. 2-4 storey townhouses and stacked townhouses were proposed fronting onto Tuxedo Park.
- The concept proposes changing the Municipal Development Plan street classification north of 16 Avenue from Urban Boulevard to Neighbourhood Boulevard, with a corresponding reduction in anticipated vehicle volumes, and a reduction in travel lanes from 2 to 1 (each way).
- The concept also emphasizes the need for pedestrian and bicycle connections across Centre Street and throughout the community. It further highlights improvements to the public realm on Centre Street to make walking safe and pleasant, to foster local small business activity; and angled parking on side streets in the half-block adjacent to Centre Street.
- The open space proposals of the TOD Concept Plan include enhancements to Tuxedo Park and an open space and plaza above the tunnel portal.
- The concept also proposes the reclaiming of portions of residential side streets to create new neighbourhood pocket parks in conjunction with traffic calming measures.
- A series of neighbourhood greenways that serve as connections to Centre Street was also proposed.

PROPOSED URGENT BUSINESS

28 AVENUE N: WHAT COULD IT LOOK LIKE?

The proposed location of the future 28 Avenue N Station looking west across Centre Street N.

View of the future 28 Avenue N Station with the centre running train along Centre Street N.

PROPOSED URGENT BUSINESS

28 AVENUE N: WHAT COULD IT LOOK LIKE?

View of the future 28 Avenue N Station with the development of a transit plaza and amenity space.

View of the future 28 Avenue N Station with mixed-use residential and commercial development along the west side of Centre Street.

PROPOSED URGENT BUSINESS

16 AVENUE N: WHAT COULD IT LOOK LIKE?

The proposed location of the future underground 16 Avenue N Station looking north-east from Centre Street N towards 16 Avenue N.

View of the future station entrance. Note: Additional entrances will be located at 14 Avenue N and north of 16 Avenue N.

PROPOSED URGENT BUSINESS

16 AVENUE N: WHAT COULD IT LOOK LIKE?

View of the future station entrance with some mixed use development in the southeast corner of Centre Street and 16 Avenue N.

View of the future 16 Avenue N station entrance with further build-out of mixed use developments.

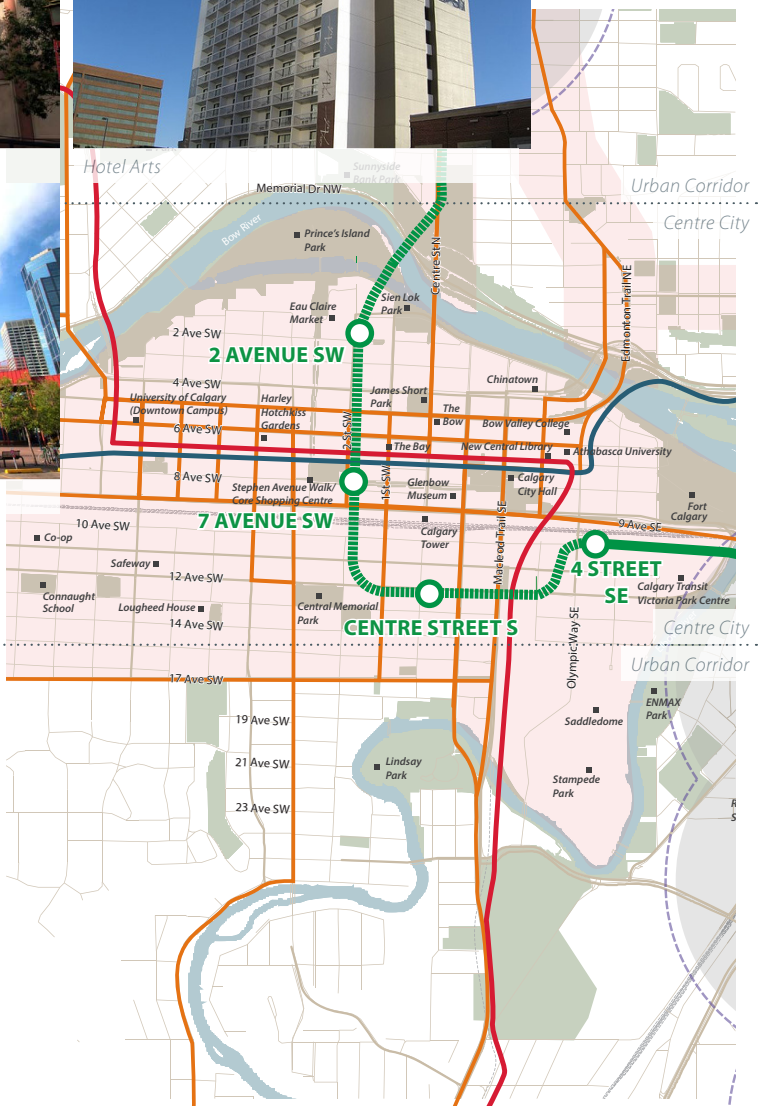
PROPOSED URGENT BUSINESS

2 AVE SW TO 4 ST SE: CENTRE CITY

Chinese Cultural Centre

Hotel Arts

Eau Claire Market



Legend

- Bridge
- Elevated track
- Tunnel
- Green Line LRT
- Green Line station
- Area of multi modal improvements (within 10 minute walk of LRT station)
- Transit-Oriented Development (within 10 minute walk of LRT station)
- Primary Transit Network
- Red Line LRT
- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

2 AVE SW TO 4 ST SE: CENTRE CITY

Evan is a librarian at the Central Library downtown. Previously paying for parking downtown because it took over an hour to arrive by transit from McKenzie Towne, Evan now has a viable option using the Green Line LRT because the service is frequent, fast, reliable and direct. His budget has also improved due to the savings from parking fees and gas for his car. With the extra money and easy access to Green Line, he can now enjoy events in the evenings and on weekends in East Village District, at the National Music Centre and the occasional Flames game at the Saddledome.

The heart of our City, our economic engine and the cultural and entertainment district, this area is bounded by the Bow River on the north, and Elbow River on the east. The Centre City encompasses the communities of Chinatown, Eau Claire, Downtown Commercial Core and Beltline.

Transit Connections

The Green Line LRT with a convenient transfer to the Blue and Red Line at 7 Avenue SW station will give customers a fast, reliable and direct service to destinations throughout the city. The BRT network will also connect with Green Line to provide connections across the city. Bus service will also connect at strategic locations along Green Line in the Centre City to ensure seamless transfer connections between transit services and adjacent destinations.

Active modes connections

This area serves thousands of Calgarians who live in the area or arrive daily from the Red and Blue lines, other transit corridors and regional cycling connections. The Centre City maintains a cycle track network serving both east-west and north-southeast which the Green Line will leverage to increase access to stations and destinations. The active modes infrastructure in the Centre City will serve to increase the availability of these community resources to all Green Line users.

Transit Oriented Development

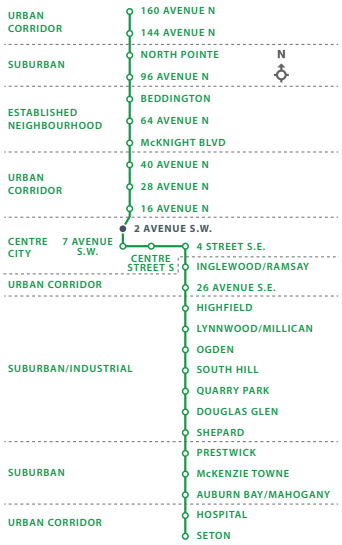
Comprised of some of Calgary's most iconic communities, the four stations serving this area will be surrounded by high density residential buildings, office towers and mixed use that make the Centre City a natural TOD that continues to expand and diversify. Street level commercial uses will continue to populate the streetscape as foot traffic increases with new LRT connections. 2 Avenue SW station will be part of an existing cultural district which includes China Town, Eau Claire, and Prince's Island Park all within a short distance of the station. The 7 Avenue SW station will be located near Stephen Avenue, which links the pedestrian only street of retail and entertainment uses with great connection to the Blue and Red LRT lines. Redevelopment is proposed surrounding the areas of Centre SE and 4 Street SE with the proposed Victoria Park Master plan.

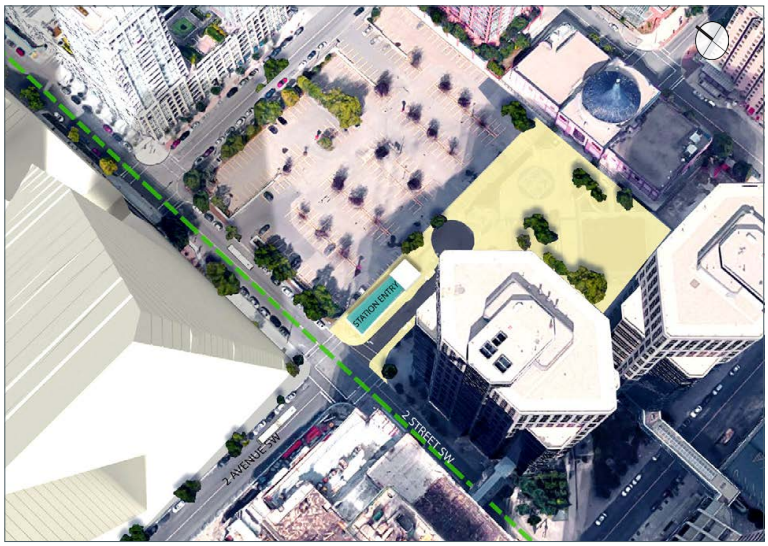
City Shaping

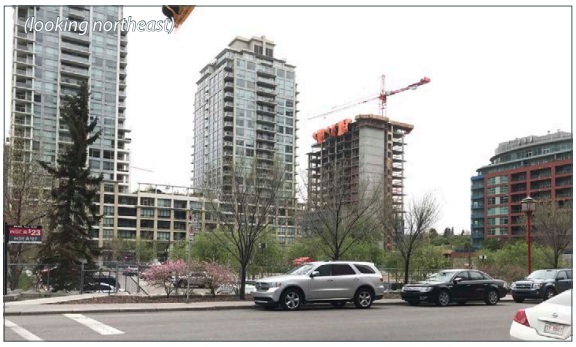
The City continues to invest in connectivity to the city's Culture and Entertainment District, host to the largest number of festivals, markets, and events annually. Examples include the new Central Library, the National Music Centre, upgrades to Olympic plaza, Arts Commons, the BMO Centre and the East Village District. Providing opportunities to attract, grow and develop culture capacity, tourism and businesses will further diversify the local Calgary economy.

PROPOSED URGENT BUSINESS

2 AVENUE SW STATION







INITIAL STATE (2015)		FULLY CONSTRUCTED	
Population	5,550	Population	11,600
Jobs	82,250	Jobs	103,250
		LRT riders	10,250

TRANSIT BENEFITS

Transit hub	No
Primary Transit Network Connection	No
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	0 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

2 AVENUE SW STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

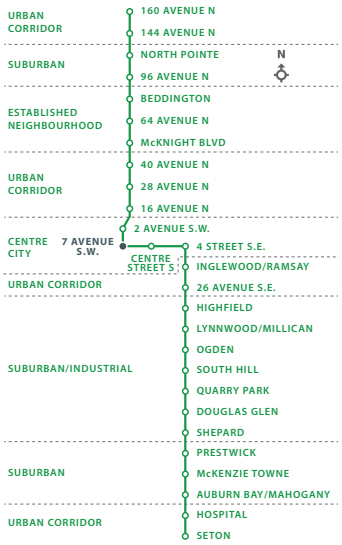
- 1 Eau Claire Market and Chinatown
- 2 Waterfront Condos
- Active planning application for redevelopment of Eau Claire Market
- Centre City Plan – 2007
- Walking distance to existing Red and Blue line
- 603 affordable housing units
- 3 Eau Claire YMCA, children's wading pool/spray park
- 4 Eau Claire and Prince's Island Park - host to many festivals and events
- Connection to Bow River Pathway Network

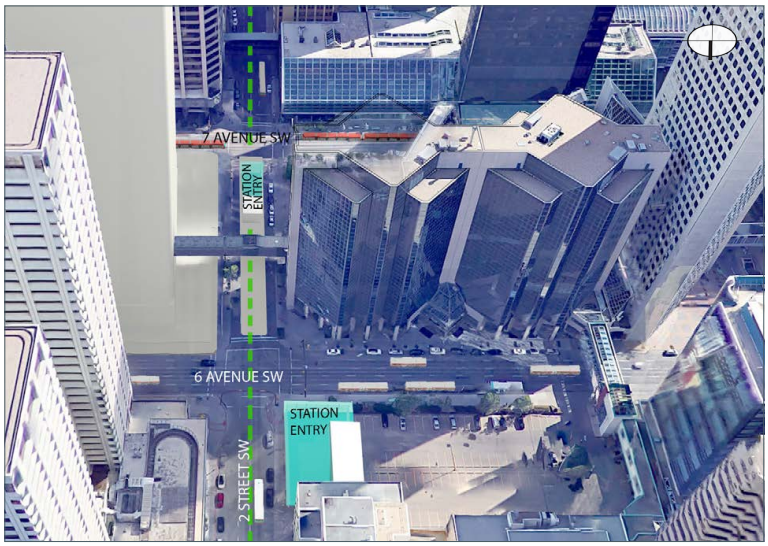
FUTURE OPPORTUNITIES

- Residential, retail and office redevelopment of Eau Claire and Riverfront
- Station integration with Eau Claire redevelopment
- Potential mixed-use redevelopment of Fire Station #1
- Affordable housing for 600 people
- Transit connection with up to 4 routes and up to 20 buses/peak hour

PROPOSED URGENT BUSINESS

7 AVENUE SW STATION





INITIAL STATE (2015)	
Population	5,050
Jobs	108,050

FULLY CONSTRUCTED	
Population	10,450
Jobs	133,550
LRT riders	49,500

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	Yes
Park and Ride	No
Distance from Downtown/Centre City	0 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

7 AVENUE SW STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

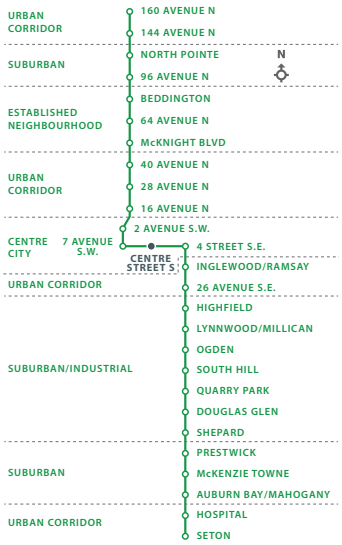
- 1 Located adjacent to Stephen Avenue Walk, Calgary's historic pedestrian mall
- 2 Walking distance to the Core Shopping Centre
- Centre City Plan – 2007
- Highest density office/retail and largest employment centre in Calgary
- 3 Central Library - over 1 million visits yearly
- 470 Affordable Housing Units
- Devonion Gardens, Telus Convention Centre, Glenbow Museum, Calgary's Performing Arts Centre, Arts Commons, Olympic Plaza and other cultural amenities nearby
- Connection to Routes 3, BRT Routes 300, 301, 302, 305 and transit service from surrounding communities
- Connection to Red Line and Blue Line with access to 6 post-secondary institutions across the city
- Regional Transit Connection - Airdrie Ice

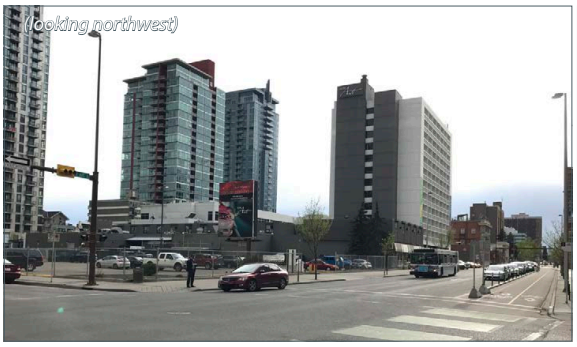
FUTURE OPPORTUNITIES

- Growth within this area support TOD policies surrounding areas
- 4 New Central Library
- Affordable housing for 900 people
- Upgrades to Olympic Plaza, Central Memorial Park, Sien Lok Park, Eau Claire, James Short Park and Planned Cultural and Entertainment District
- Major Transit Hub with at least 8 routes and 30 buses/peak hour
- Connection to 17 Avenue SE BRT, Southwest BRT and future 8 Avenue SW Subway

PROPOSED URGENT BUSINESS

CENTRE STREET S STATION





INITIAL STATE (2015)	
Population	15,050
Jobs	42,600

FULLY CONSTRUCTED	
Population	30,550
Jobs	56,600
LRT riders	3,600

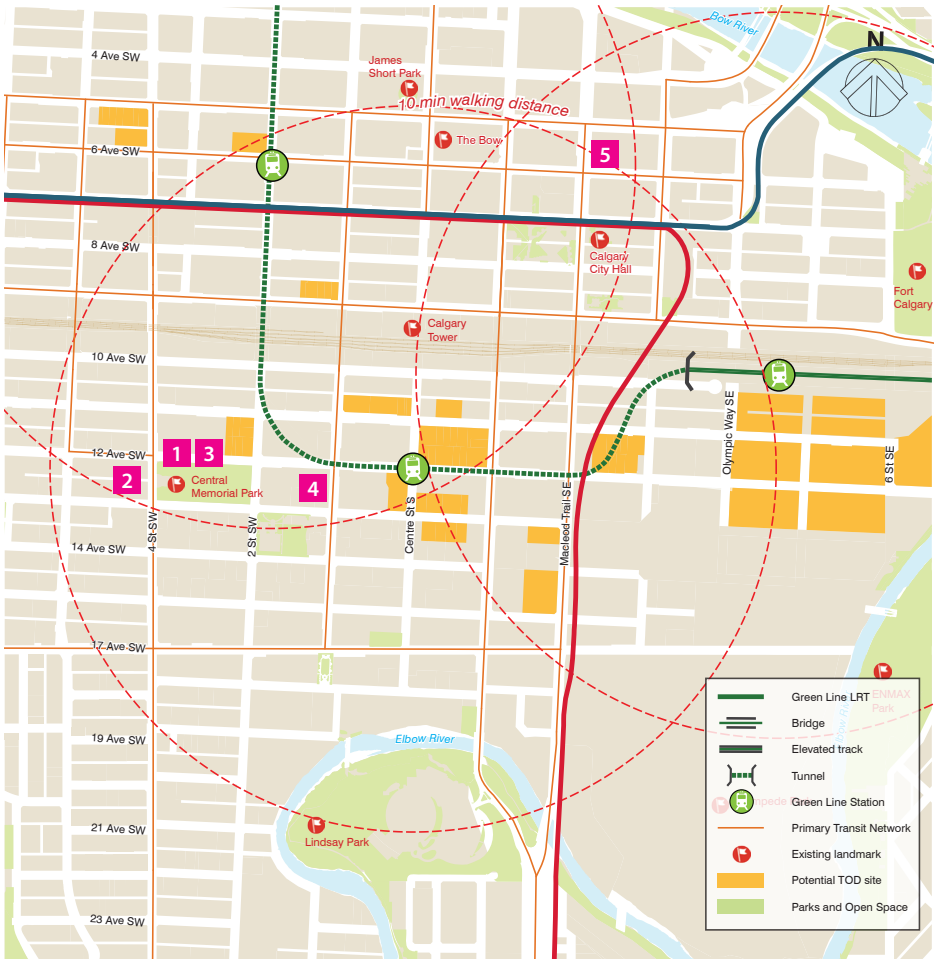
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	0 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

CENTRE STREET S STATION



EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

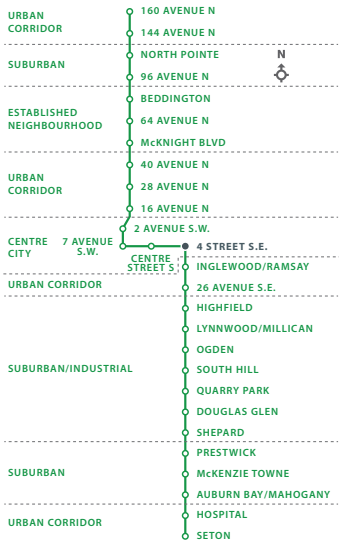
- Mix of high density residential, retail and commercial uses
- Beltline Area Redevelopment Plan – 2006
- Centre City Plan - 2007
- 1 Historic Public Art and sculptures at Central Memorial Park, WW1 and Boer War Memorial
- 2 Sheldon Chumir Health Centre
- 3 Memorial Park Library - over 100,000 visits yearly
- 4 Beltline Aquatic and Fitness Centre - 49,000 visits yearly
- 5 Access to Bow Valley College
- 550 Affordable Housing Units

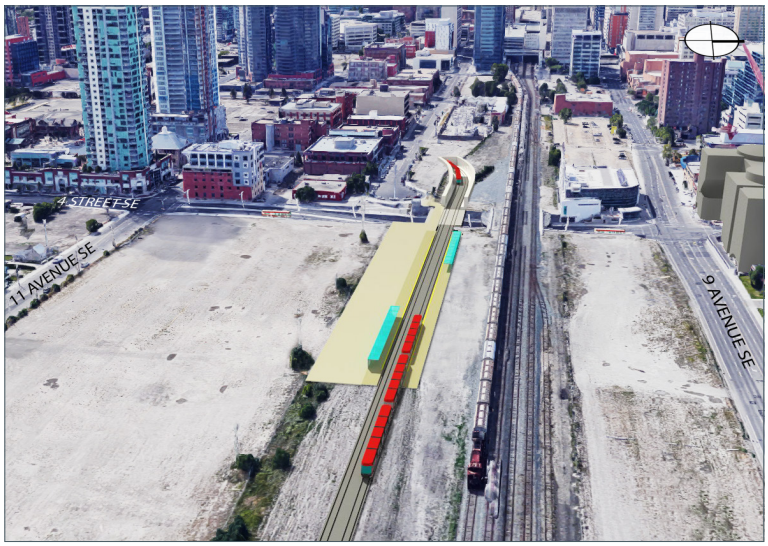
FUTURE OPPORTUNITIES

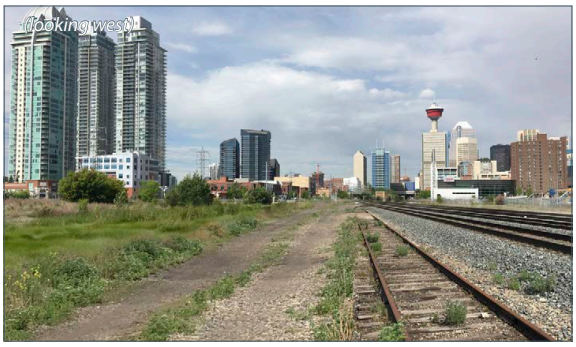
- Urban park/plaza envisioned
- Upgrades to Central Memorial Park
- Improves access to Downtown and Beltline community programs and services
- Affordable housing for 4,500 people
- Transit Hub with 4-8 routes with 20-30 buses/peak hour

PROPOSED URGENT BUSINESS

4 STREET SE STATION







INITIAL STATE (2015)	
Population	3,250
Jobs	5,350

FULLY CONSTRUCTED	
Population	13,350
Jobs	9,300
LRT riders	3,900

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	Yes
Park and Ride	No
Distance from Downtown/Centre City	0 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

4 STREET SE STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

- East Village and Beltline communities nearby
- Diverse selection of housing choices
- East Village Redevelopment Plan – 2010
- Centre City Plan - 2007, Victoria Park Master Plan underway
- 1 Access to Fort Calgary - 51,000 visits yearly
- 170 affordable housing units
- National Music Centre, New Central Library, Stampede Park and Saddledome nearby
- Connection to Riverwalk, St. Patrick's Island, Bow River Pathway, the Confluence of Bow and Elbow Rivers and Repsol Sport Centre

FUTURE OPPORTUNITIES

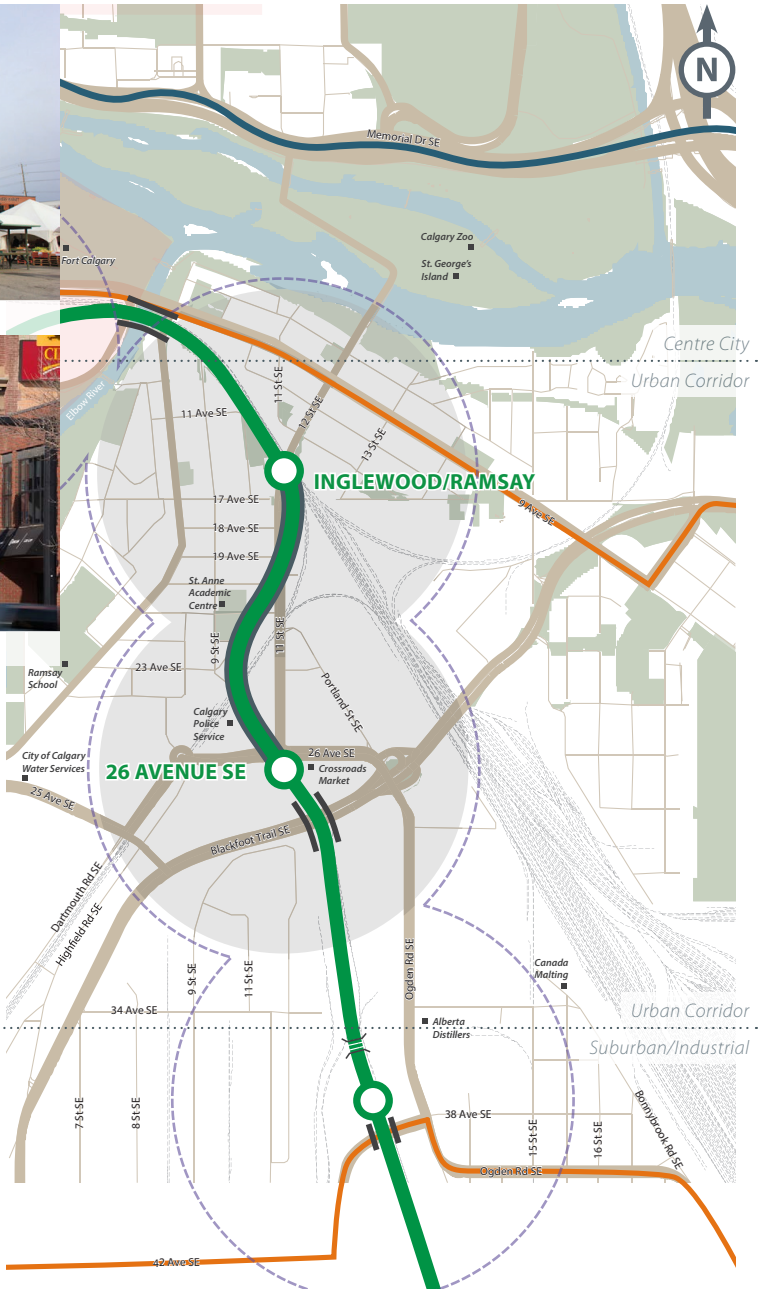
- Rivers District Master Plan redevelopment
- Victoria Park Transit Centre redevelopment potential
- Affordable housing for 2,100 people
- New entertainment district in development together with East Village, national Music Centre and Stampede Park
- BMO Centre expansion and new event centre envisioned
- Transit Hub with 4-8 routes with 20-30 buses/peak hour
- Provincial Regional High Speed Rail connection

PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY TO 26 AVE SE: URBAN CORRIDOR

Crossroads Market

Historic Main Street in Inglewood



Legend

- Bridge
- Elevated track
- Tunnel
- Green Line LRT
- Green Line station
- Area of multi modal improvements (within 10 minute walk of LRT station)
- Transit-Oriented Development (within 10 minute walk of LRT station)
- Primary Transit Network
- Red Line LRT
- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY TO 26 AVE SE: URBAN CORRIDOR

Tyrone is a member of the support staff at Notre Dame High School. After years of struggling to make ends meet, Tyrone and his family were approved to move into the affordable housing unit in the new community near the 26 Avenue SE station. With a direct commute to Notre Dame high school at North Pointe and by getting rid of his car and using Calgary Transit's low income monthly pass, he is now able to put his kids in soccer and music lessons at the local community centre.

As the Green Line LRT leaves the Centre City it will connect and serve the established inner-city communities of Inglewood and Ramsay to the 26 Avenue SE lands where there is potential to unlock the hillside lands with incredible views of Calgary's downtown.

Transit Connections

Transit service in the area will be even faster, more frequent, reliable and direct when the Green Line LRT connects with local service and the 17 Avenue SE BRT. It will also open opportunities to connect to future regional services.

Active modes connections

The stations of Inglewood/Ramsay and 26 Avenue SE serve communities which already support high quality walking and cycling. The network allows people to easily access the two stations and local destinations including the main street on 9 Avenue SE and the Crossroads Farmers Market.

The parallel pathway through this area is routed on local streets to ensure that pedestrians and cyclists have options off of 11 Street SE until such a time as additional cycling facilities can be integrated.

Transit Oriented Development

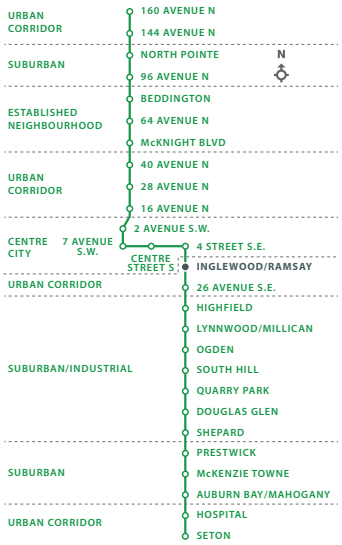
The communities in this area are comprised of traditional historic neighbourhoods and industrial areas that are in transition to mixed uses, mid-density residential communities with light industrial uses. These communities are part of some of Calgary's original neighbourhoods and feature a highly walkable grid street pattern with traditional neighbourhood commercial uses. Both stations in this area have been identified as prime TOD development areas. Once TOD is implemented at these stations, 11 Street SE will become a main street that links to both stations and strengthens the existing character of the area.

City Shaping

The urban corridor through Calgary's oldest community to one of Calgary's largest farmers markets offers opportunity to support the historic area while contributing towards the vitality and resilience of the communities along the line. Vacant land within proximity to the Inglewood/Ramsay station offers the opportunity for development of affordable housing, market housing and a fire hall site, supporting a mix of incomes. Partnership with the new YWCA site supports key services and programs within the community of Inglewood. Parcels have also been identified within this corridor for recreational opportunities, enhancing and encouraging physical activity and social gathering.

PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY STATION



INITIAL STATE (2015)	
Population	2,900
Jobs	2,450

FULLY CONSTRUCTED	
Population	9,550
Jobs	3,400
LRT riders	4,600

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	Yes
Park and Ride	No
Distance from Downtown/Centre City	2.5 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY STATION

EXISTING HIGHLIGHTS

1 TOD | 1 City Shaping | 1 Transit

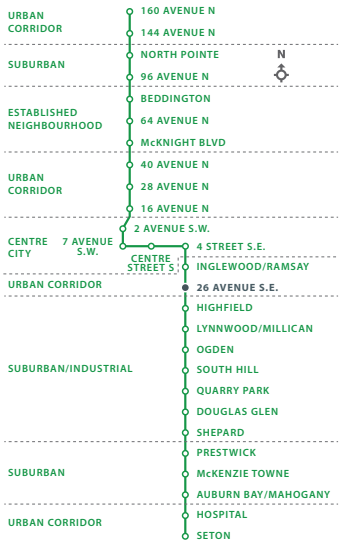
- 1 Historic 9 Avenue SE Main Street with retail, commercial, office and residential uses
- 2 Direct access to St. George's Island and Calgary Zoo (10 minute walk)
- Inglewood Bird Sanctuary, Pearce Estate Park, Bow Habitat Station nearby
- Inglewood/Ramsay ARP underway
- 3 Inglewood Aquatic Centre - 62,000 visits yearly
- 160 affordable housing units
- Inglewood Community Centre, outdoor rink and Festival Hall nearby
- Local programs and services including YWCA
- Connection to BRT Routes 302 and 305, transit service from surrounding communities

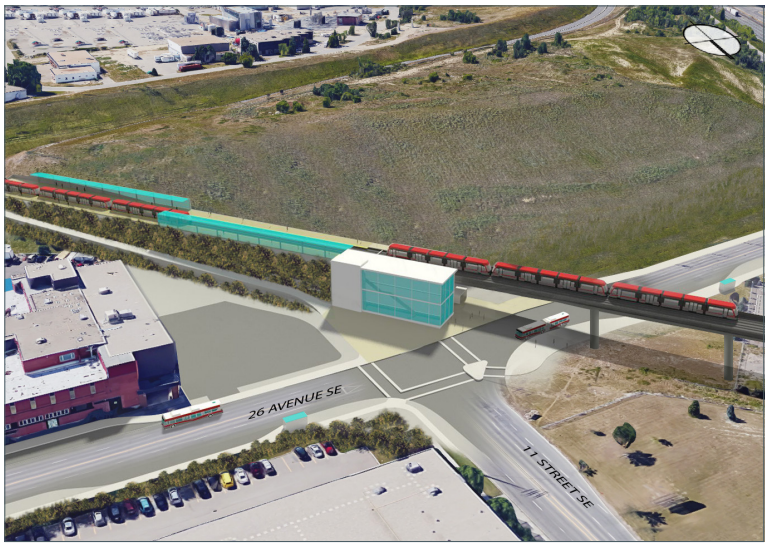
FUTURE OPPORTUNITIES

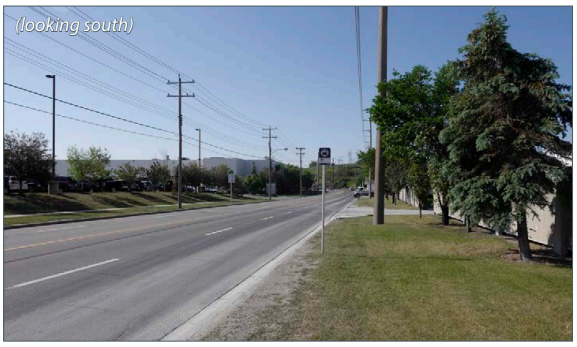
- Identified as a high potential TOD site
- Creation of a High Street along 11 Street SE
- Affordable housing for 1,500 people
- Potential new recreation facility site, Mills Park and Jack Long park upgrades
- Planned multi-use site including Fire Hall, housing and affordable housing
- Transit Hub with 4-8 routes, 20-30 buses/peak hour
- Connection to 17 Avenue Southeast BRT

PROPOSED URGENT BUSINESS

26 AVENUE SE STATION







INITIAL STATE (2015)	
Population	400
Jobs	3,100

FULLY CONSTRUCTED	
Population	8,650
Jobs	6,100
LRT riders	1,750

TRANSIT BENEFITS

Transit hub	No
Primary Transit Network Connection	No
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	3 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

26 AVENUE SE STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

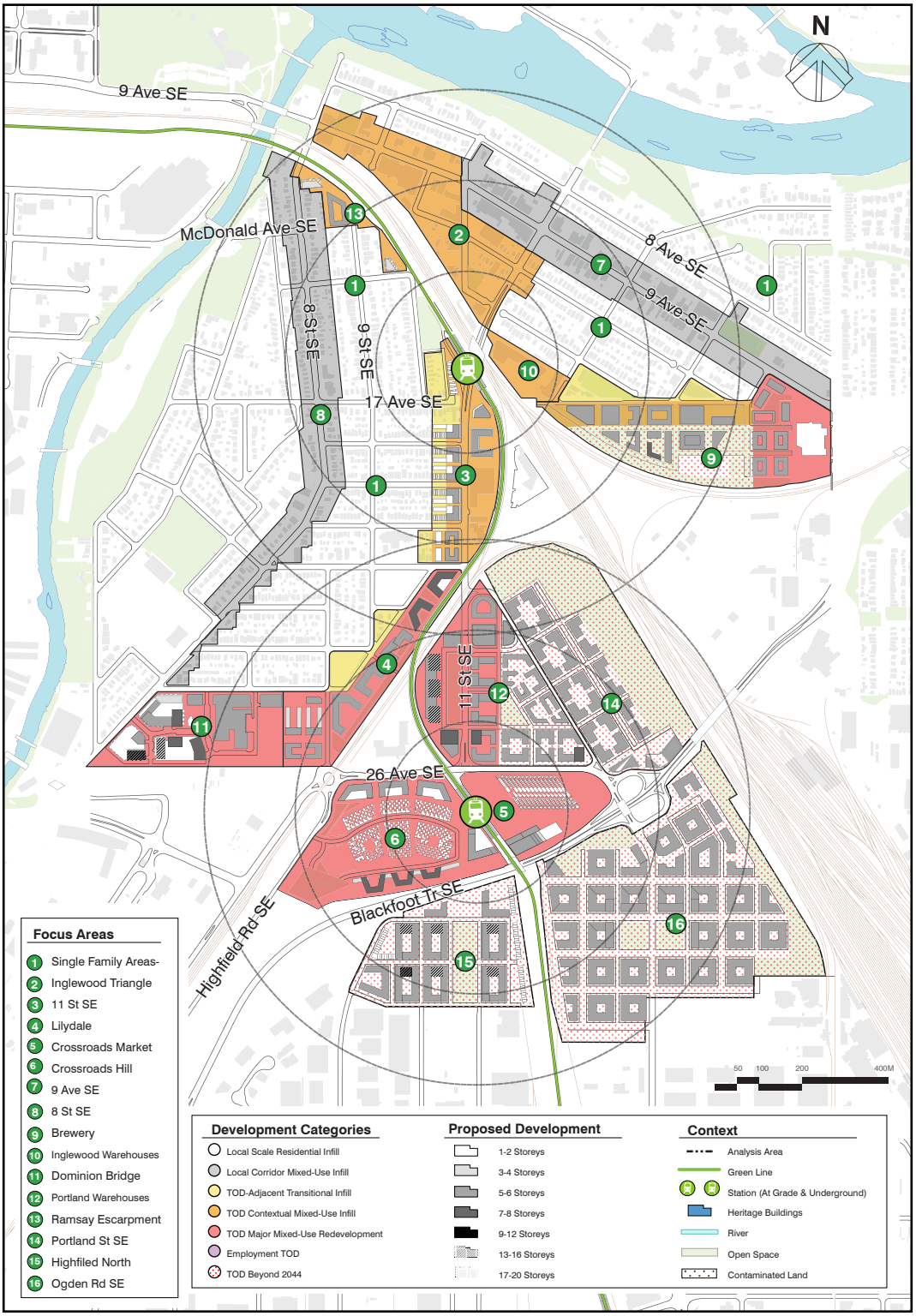
- 1 Popular farmers market nearby (Crossroads Market)
- Inglewood/Ramsay ARP underway
- Industrial Employment nearby
- The 25 Avenue SE connector to Blackfoot Trail is a key linkage for full area redevelopment
- 2 Civic services including Calgary Police Service, Animal and Bylaw Services and Water Services Centre
- 3 Loose Moose Theatre Company
- 2 schools nearby
- Connection to BRT Route 302 and transit service from surrounding communities

FUTURE OPPORTUNITIES

- 4 11 Street SE streetscape improvements
- Opportunity to leverage large city owned land that will include open space near station
- Opportunity to integrate with employment plans around heavy rail
- Potential to redevelop brownfield lands
- Enhanced pathway connections
- Affordable housing for 1,700 people
- Transit connection with up to 4 routes and up to 20 buses/peak hour

PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY/26 AVENUE SE CHARRETTE STUDY AREAS



PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY/26 AVENUE SE CHARRETTE STUDY AREAS

The concept for the Inglewood and Ramsay station area focused on combining the prospect of redeveloping 11 Street SE between the Inglewood/Ramsay station and the station at 26 Avenue SE into a new main street for Ramsay. The thoughtful identification of redevelopment opportunities in the communities is intended to add rather than disturb the community's unique and historic characters. The concept identified five scales of new development. These ranged from local scale residential infill development of 2-3 storeys in height to TOD major mixed-use redevelopment opportunities consisting of mid-rise and high-rise buildings. The former could be thoughtfully integrated into existing streets while the latter was only proposed on underutilized or vacant sites such as the former Brewery and the hill adjacent to the 26 Avenue SE station.

11 Street SE was envisioned in the concept as a new main street spanning from 9 Avenue SE to 26 Avenue SE. It would have major destinations and anchors at both its northern and southeastern ends. In the north the anchor was provided by 9 Avenue and the Inglewood/Ramsay station. In the southeast, the existing:

- Crossroads Market and new 26 Avenue Station which provided an attraction and redevelopment opportunity.
- 11 Street SE was envisioned to be redeveloped with 6-8 storey residential buildings with retail and services on the ground floor. Of key importance to the adjoining residents was an appropriate and thoughtful architectural transition between these higher buildings and the existing homes on the adjoining avenues.
- 11 Street SE was envisioned as a complete street with pedestrian amenities, trees and bicycle facilities. It would offer Ramsay a similar shopping, restaurant and residential destination as 9 Avenue in Inglewood with the benefit of two Green Line stations.
- Intersection improvements were proposed at key points to address the challenging aspect of connections in and out of the communities. Enhanced pedestrian and bicycle connections through the residential areas to the stations were also proposed.
- A major park space was proposed on the hill adjacent to the 26 Avenue SE station.

PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY: WHAT COULD IT LOOK LIKE?

11 Street SE within Ramsay looking south towards the new 26 Avenue SE Station.

Power lines removed.

PROPOSED URGENT BUSINESS

INGLEWOOD/RAMSAY: WHAT COULD IT LOOK LIKE?

Sidewalks added to two lane street cross-section.

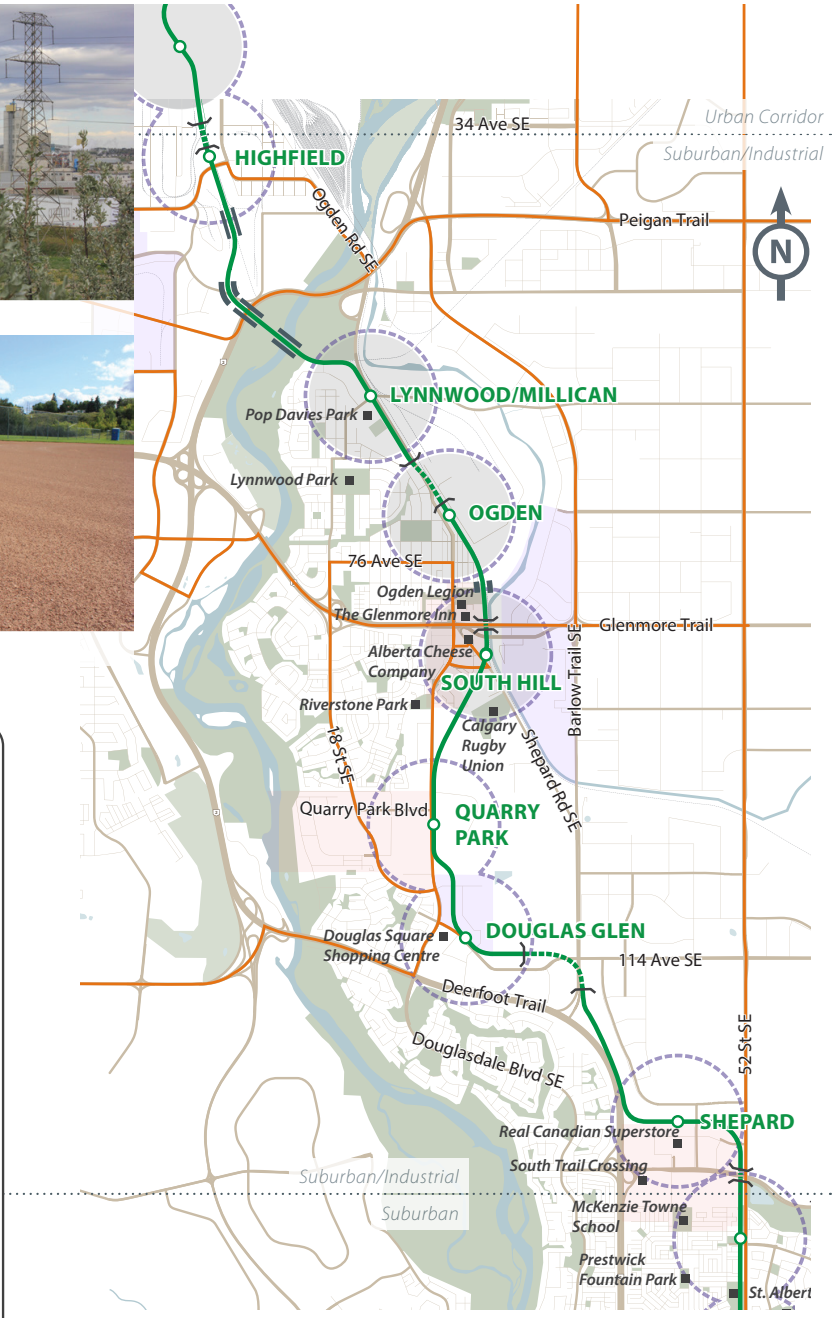
Redevelopment at 26 Avenue SE Station.

PROPOSED URGENT BUSINESS

HIGHFIELD TO SHEPARD: SUBURBAN/INDUSTRIAL

Highfield Industrial Park

Pop Davies Park - Lynnwood



Legend

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- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

HIGHFIELD TO SHEPARD: SUBURBAN/INDUSTRIAL

Sue spent the first part of her career working downtown in oil and gas, but her passion was always bikes and a great cup of coffee. Since she was little she always dreamt of owning a bike shop. Recently, Sue opened her first bike and coffee shop, in the community of Lynnwood. Understanding the importance of connecting people, Sue chose a location right off the Green Line and close to Calgary's river pathway system. People from all over the city commute to Sue's shop using the Green Line or by other modes of transportation, to rent or buy a bike or just to stop for a great cup of coffee and company.

As the Green Line LRT travels south, it will provide service to a number of activity centres as identified in the Municipal Development Plan (MDP). These include major community activity centres at South Hill, Quarry Park and Shepard. The Green Line will also provide service to the Industrial Employee Intensive hub at Douglas Glen.

Transit Connections

This character area has one of the highest opportunities to improve work transit trips due to the amount of employee intensive land uses around Highfield, South Hill, Quarry Park, Douglas Glen and Shepard Stations. These stations as well as Lynnwood/Millican are also expected to have many bus connections from surrounding employment areas to the stations. Ensuring transit is as attractive as an automobile is key for this area and introducing transit priority measures will improve service. The South Crosstown BRT (opening 2018) will supplement the Green Line by providing strong connections between Douglas Glen Station, Heritage Station on the Red Line and Westbrook Station on the Blue Line. Future PTN on streets such as Glenmore Trail and 52 Street SE will also improve connections to other major destinations in Calgary.

Active modes connections

The majority of stations in this character area are accessed by transit and the automobile. There are however many opportunities to access a station by foot or bicycle by connecting to a regional pathway network through communities and adjacent to the Bow River. The combination of addressing missing sidewalks, through areas such as Highfield, and new pathway connections through areas such as Lynnwood/Millican, will serve both existing residents and shape future development around a transit and active modes design.

Transit Oriented Development

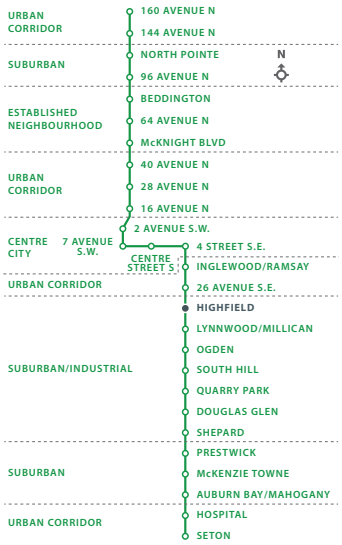
As the longest Green Line LRT segment, the industrial areas comprised of Highfield, Ogden and Shepard Industrial, is home to many established businesses including a number of areas that are undergoing redevelopment. Once developed, these station areas will help to redefine Ogden Road from a car oriented street to a vibrant urban street and also enhance connections between communities and open space networks. South Hill is also a planned TOD site with the majority of the lands owned by the city. The area also includes proposed stations such as Quarry Park which is a rapidly growing suburban employment centre and home to a variety of head offices.

City Shaping

An important element and indicator for City Shaping is to plan equitably, being intentional about how all City services are being provided and accessed through the Green Line. A key element is workforce planning in relation to jobs, especially for low income, is the ability to access industrial employment areas. The connection between the urban corridor and suburban/industrial corridor is a major piece to enable vulnerable populations to connect to, access and participate in the workforce, contributing towards their success.

PROPOSED URGENT BUSINESS

HIGHFIELD STATION



INITIAL STATE (2015)	
Population	0
Jobs	5,750

FULLY CONSTRUCTED	
Population	0
Jobs	7,100
LRT riders	1,300

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	4 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

HIGHFIELD STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

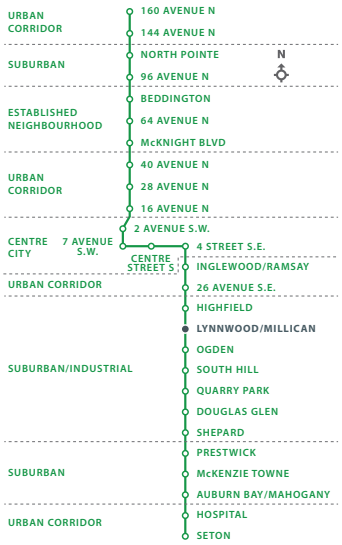
- 1 Proximity to historic rail site
- 2 Access to manufacturing industries and employment lands
- Policy planning in place to support development
- 3 Fire Headquarters and Fire Station #16
- Connection to BRT Route 302 and transit service for surrounding communities

FUTURE OPPORTUNITIES

- 4 Redevelopment potential of non-operational landfill site
- Increase development of employment within area
- Increased mobility choices for those in employment centres within this station area
- Transit Hub with 4-8 routes with 20-30 buses/peak hour

PROPOSED URGENT BUSINESS

LYNNWOOD/MILLICAN STATION



INITIAL STATE (2015)		FULLY CONSTRUCTED	
Population	4,450	Population	6,450
Jobs	500	Jobs	950
		LRT riders	1,650

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	No
Regional connections	No
Park and Ride	Yes
Distance from Downtown/Centre City	7 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

LYNNWOOD/MILLICAN STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

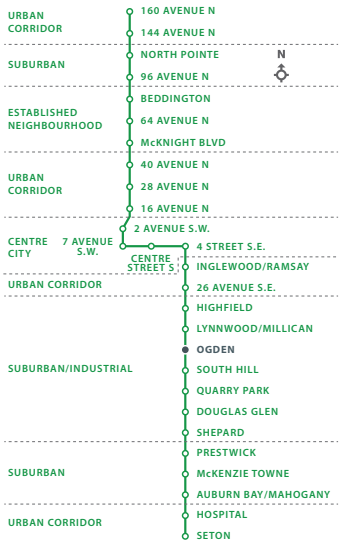
- 1 Expansive industrial employment area including CP National Headquarters with over 2,900 jobs
- 2 Millican Ogden Community Association nearby
- Millican-Ogden ARP underway
- 3 Pop Davies Park - 24,000 visits yearly, outdoor pools nearby
- 100 Affordable Housing Units
- Millican/Ogden local community programs and services nearby, for example Ogden House Senior Citizen's Club
- 2 school sites nearby
- Connection to BRT Route 302 and transit service from surrounding communities

FUTURE OPPORTUNITIES

- 4 Redevelopment of former refinery site
- Enhanced pathway connections
- Access to new employment lands
- Plaza connecting station and Pop Davies Park
- Enhanced pathways connections to Bow River Pathway system
- Affordable housing for 1,000 people
- Planned Pop Davies park upgrades
- Transit Hub with 4-8 routes with 20-30 buses/peak hour, Park and Ride

PROPOSED URGENT BUSINESS

OGDEN STATION



INITIAL STATE (2015)	
Population	3,400
Jobs	1,550

FULLY CONSTRUCTED	
Population	7,950
Jobs	2,500
LRT riders	1,750

TRANSIT BENEFITS

Transit hub	No
Primary Transit Network Connection	No
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	8 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

OGDEN STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

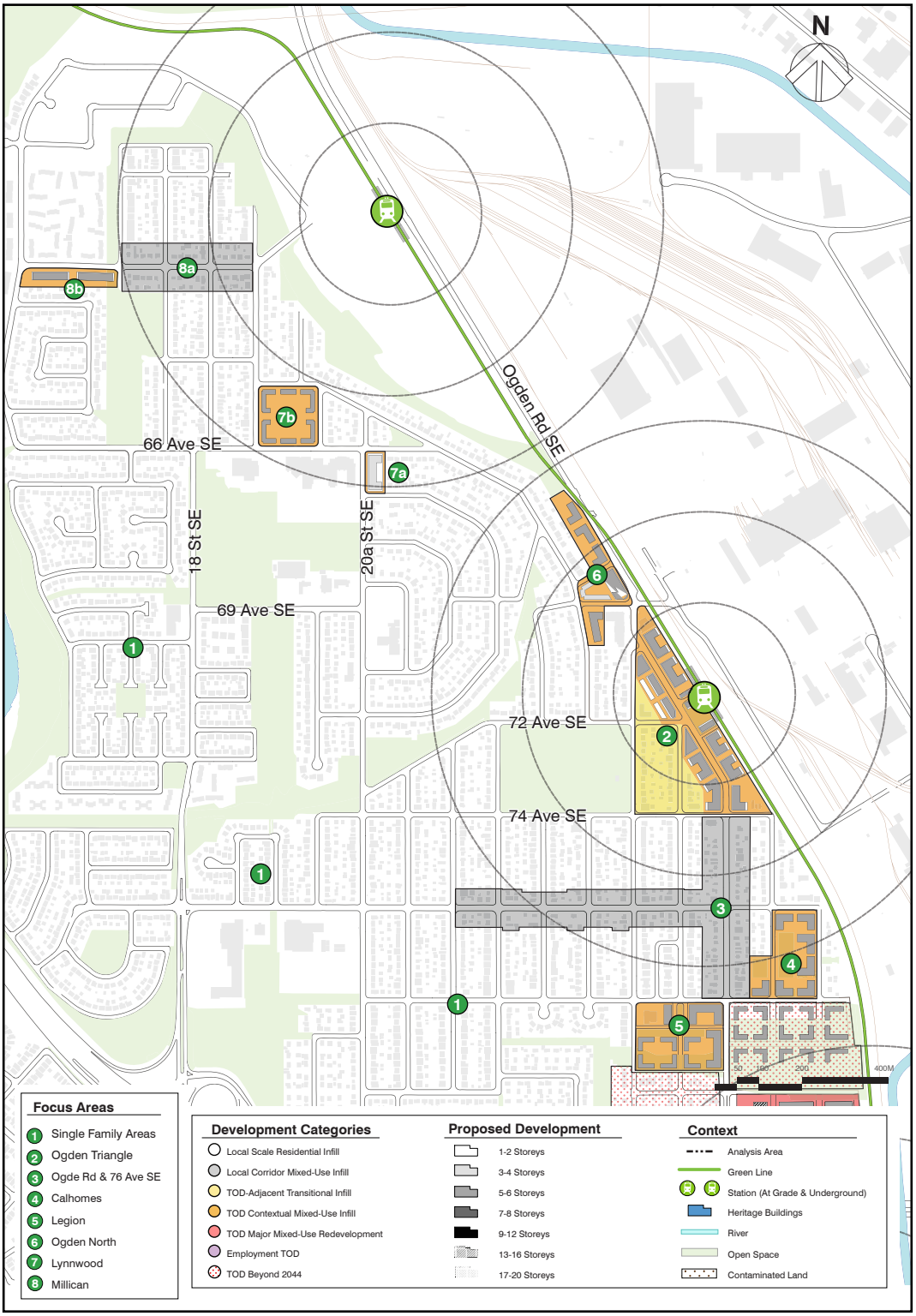
- 1 Connection to CP National Headquarters and industrial employers with a large majority in the transportation, warehousing and storage sector
- Millican-Ogden ARP underway
- Mixed use community with diverse housing choices
- 2 Ogden Lacrosse site and George Moss Park - 300 hours bookable playfields per year nearby
- 3 Home of Victory Outreach Social Housing
- "Oggy" public art
- 140 Affordable Housing Units
- Connection to BRT Route 302, major crosstown route and transit service from surrounding communities

FUTURE OPPORTUNITIES

- Identified as a high potential TOD site including redevelopment of adjacent lands
- Grid street pattern enhances multi-modal connectivity
- Integrated station plaza envisioned
- Community activity centre as identified in MDP
- Affordable housing for 1,200 people
- Planned upgrades to Fire Station #9
- Regional Recreational Facility envisioned
- Enhanced pathway connections and planned upgrades to George Moss Park
- Transit connection with up to 4 routes and up to 20 buses/peak hour

PROPOSED URGENT BUSINESS

LYNNWOOD/MILLICAN AND OGDEN CHARRETTE STUDY AREAS



PROPOSED URGENT BUSINESS

LYNNWOOD/MILLICAN AND OGDEN CHARRETTE STUDY AREAS

The residents strongly valued the small-town feel, the historic identity and the parks and green spaces of their community. With this in mind, the station area concept developed for Lynnwood/Millican and Ogden utilized four key strategies. All of the concepts' proposals were also based on an analysis that 4-6 storey, wood-frame construction was the most likely and viable form of new construction in this area. Aside from the blocks within immediate vicinity of the station, which were considered for mid-rise development, the community would remain as low-rise residential. The result of the station area concept was that 80 per cent of new growth proposed in the community was proposed on only 20 per cent of the community's lands, preserving the community character.

The first strategy was to redefine Ogden Road as a complete street. This meant that TOD related changes should be located along or near Ogden Road, as opposed to community-wide. From Pop Davies Park to Glenmore Trail the emphasis was placed on the blocks near the Ogden Station.

The key goal of this strategy was to transform Ogden Road from a "through-road" to a local street that serves businesses and residents.

- Redevelopment of Ogden Road was proposed as Community – Mid Rise use that would allow for active frontages around the station plaza.
- Redevelopment around Ogden Station, 62 Avenue SE, Sherwood School, 69 Avenue SE, as well as the redevelopment of Calhomes and the Legion Site identified as locations which could handle development and support vibrancy in the neighbourhood.
- Improvements to the pedestrian and bicycle network to support safety and accessibility of key intersections and providing connections into the broader neighbourhood.
- Create a network of park spaces and linear green areas to enhance the residential quality and create more attractive pedestrian routes.

PROPOSED URGENT BUSINESS

LYNNWOOD/MILLICAN AND OGDEN: WHAT COULD IT LOOK LIKE?

Existing cross-section on Ogden Road SE looking north.

Improved pedestrian crosswalk and cycling facilities leading to transit station/ plaza at 72 Avenue SE.

PROPOSED URGENT BUSINESS

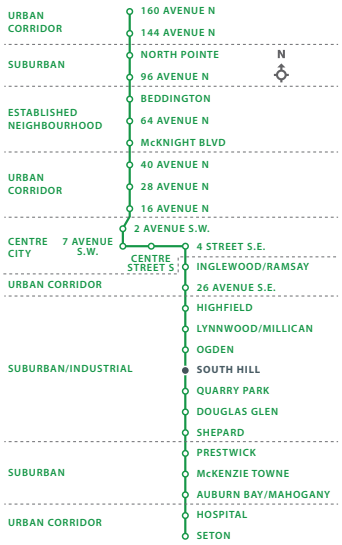
LYNNWOOD/MILLICAN AND OGDEN: WHAT COULD IT LOOK LIKE?

Community-scaled four storey mixed use development north of transit plaza.

"Complete Street" framed by new development at the heart of new Ogden Village.

PROPOSED URGENT BUSINESS

SOUTH HILL STATION



INITIAL STATE (2015)		FULLY CONSTRUCTED	
Population	500	Population	9,350
Jobs	1,300	Jobs	2,600
		LRT riders	3,550

TRANSIT BENEFITS

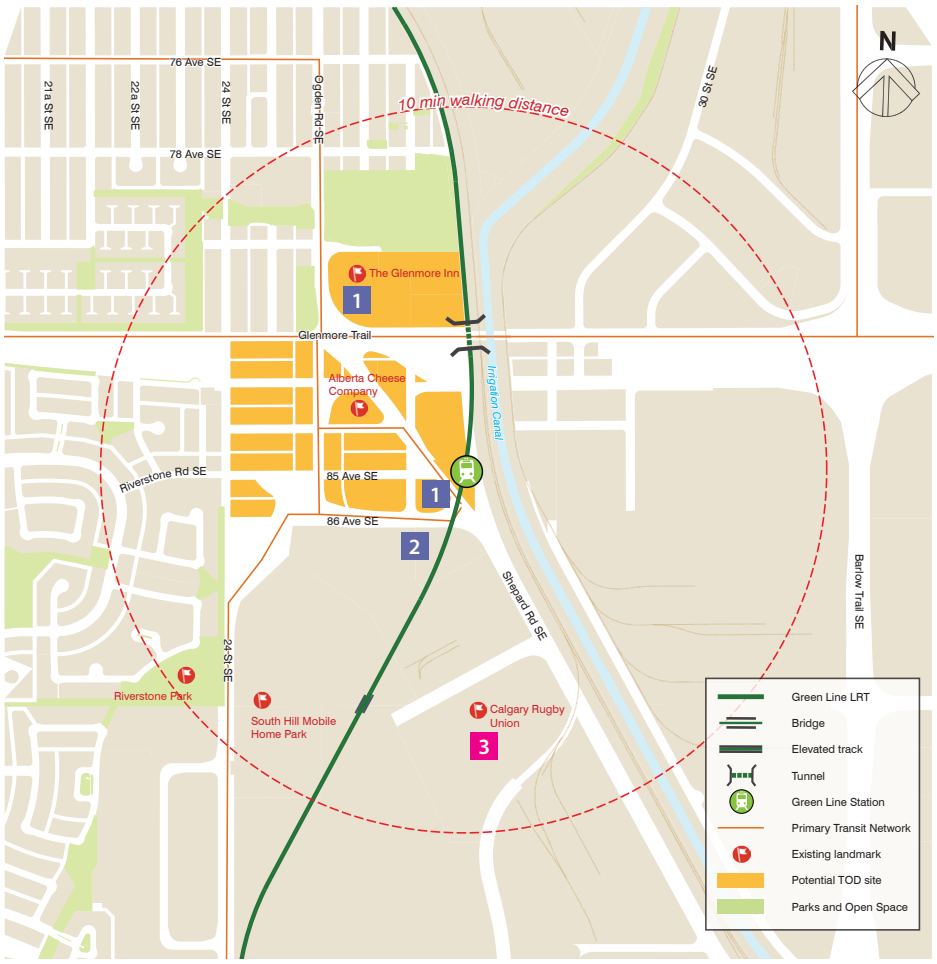
Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	Yes
Park and Ride	No*
Distance from Downtown/Centre City	9.5 km

STATION ACCESS PRIORITIES

**Opportunities for joint and/or additional public parking being pursued*

PROPOSED URGENT BUSINESS

SOUTH HILL STATION



EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

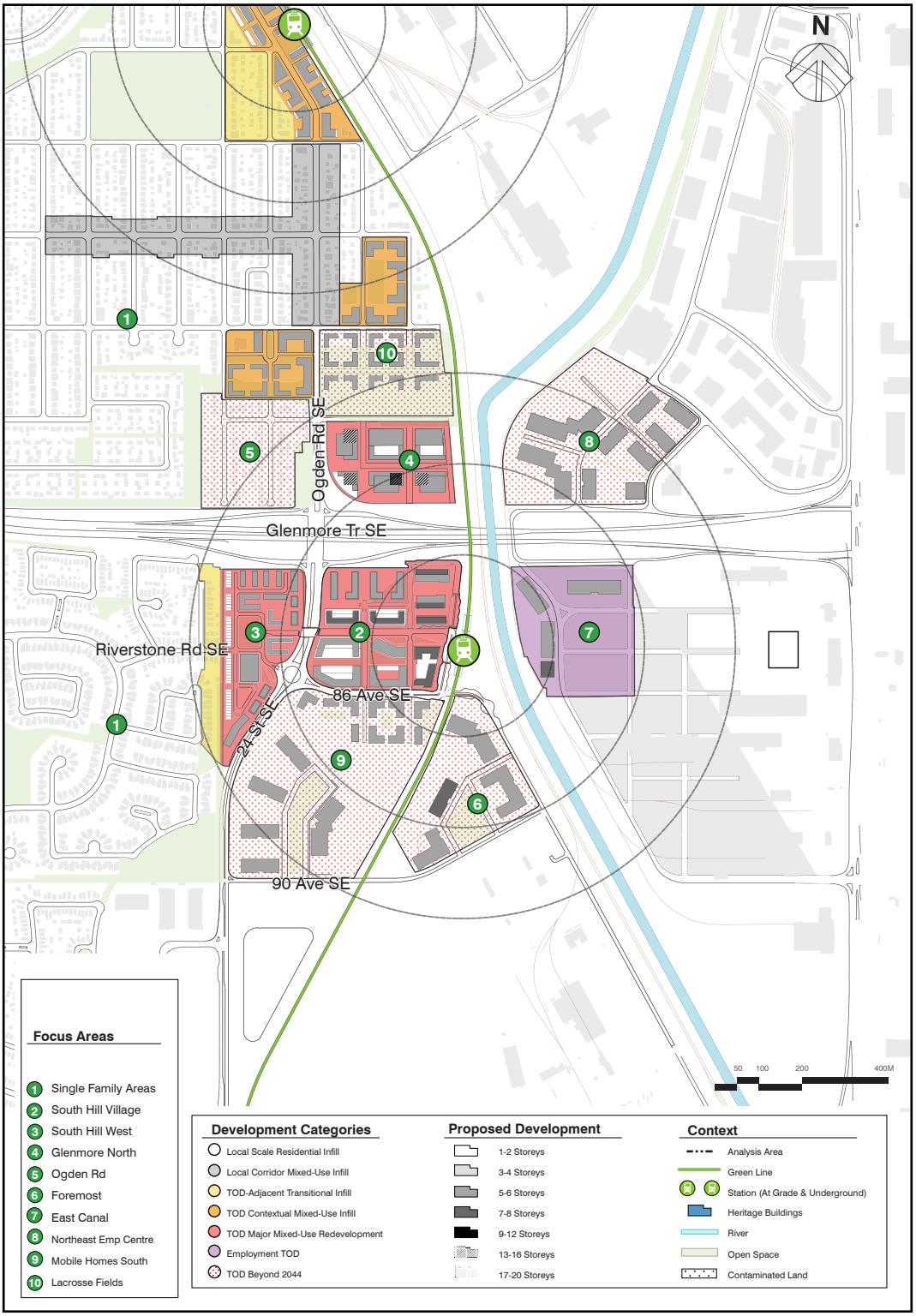
- 1 Retail, office and hotel complex nearby
- 2 Access to Shepard Industrial
- South Hill Station Area Plan underway
- Significant amount of City owned land within 10 minute walk
- 3 Calgary Rugby Union nearby
- 27 Affordable housing units
- Connection to transit service from surrounding communities

FUTURE OPPORTUNITIES

- Major redevelopment of land north of Glenmore Trail
- Medium potential for TOD redevelopment
- Integrated transit plaza and mixed use development envisioned
- Enhanced pathway connection to Carburn Park
- Planned indoor recreation facility nearby
- Affordable housing for 1,800 people
- Major Transit Hub with at least 8 routes and 30 buses/peak hour

PROPOSED URGENT BUSINESS

SOUTH HILL CHARRETTE STUDY AREAS



PROPOSED URGENT BUSINESS

SOUTH HILL CHARRETTE STUDY AREAS

The station area concept for South Hill re-imagined the site as an urban employment node, which would use the City-owned lands near the station as a catalyst to redevelop the area. Improving the connectivity within the area, to adjacent communities and to Quarry Park was also a key theme.

The concept proposed focusing initial redevelopment on City-owned lands and developing the entire site as different "quarters". As the major landowner, The City is in a good position to set the tone for the form and scale of development and to ensure that the first key developments support the vision.

- In the core TOD area, along a new main street, buildings with services and retail at grade and offices or residential above and heights of 5 to 8 storeys were proposed.
- A high-rise quarter north of Glenmore Trail that would be suited for buildings up to 22 storeys in height and a mix of retail, services and residential development.
- A residential quarter on the west side of 24 Street SE would link the TOD to the community of Riverbend and mainly consist of 3 to 4 storey residential development.
- East of the canal, the long term vision proposed the development of a new commercial and office quarter with 3 to 4 storey buildings.
- The area south of 86 Avenue SE includes the city owned mobile home park. This site would likely redevelop in the long term beyond 2044 however is currently proposed to remain.
- The plan proposed attractive and convenient pedestrian connections across the major barriers presented by 24 Street SE, Glenmore Trail and the irrigation canal to the east.
- The urban block pattern of streets proposed in the concept enhances pedestrian movements in the TOD.
- Linking South Hill to Quarry Park was also a theme of the open space concept. A large urban park and multi-use pathway system were proposed that would link the TOD to the southeast as well as to Riverbend and Ogden.

PROPOSED URGENT BUSINESS

SOUTH HILL: WHAT COULD IT LOOK LIKE?

The proposed location of the future 84A Avenue SE, looking east towards the proposed station and Shepard Road SE.

View of the future 84A Avenue SE and the future South Hill Village area with initial development.

PROPOSED URGENT BUSINESS

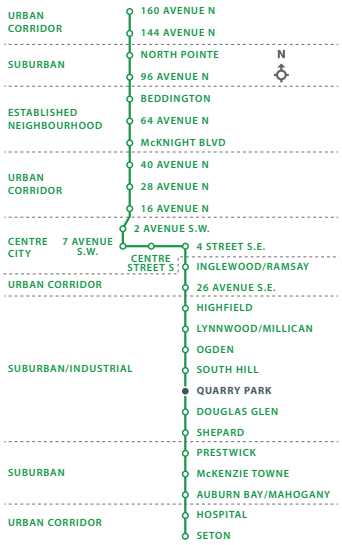
SOUTH HILL: WHAT COULD IT LOOK LIKE?

View of the future 84A Avenue SE, with further build-out of mixed-use development in the South Hill Village area.

View of the future 84A Avenue SE, and the mixed-use main street of the TOD village leading to the station.

PROPOSED URGENT BUSINESS

QUARRY PARK STATION



INITIAL STATE (2015)	
Population	1,200
Jobs	2,000

FULLY CONSTRUCTED	
Population	1,350
Jobs	4,650
LRT riders	1,200

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	Yes*
Distance from Downtown/Centre City	10 km

STATION ACCESS PRIORITIES

Opportunities for joint and/or additional public parking being pursued

PROPOSED URGENT BUSINESS

QUARRY PARK STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

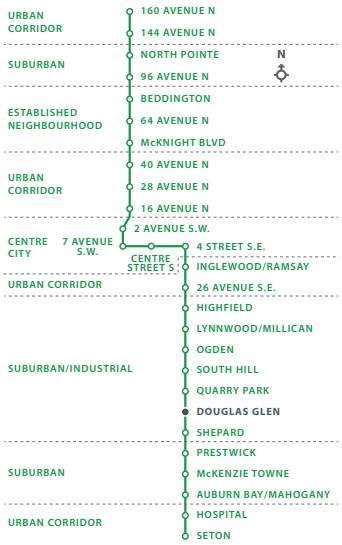
- 1 Newly established retail, commercial and offices nearby
- Major employment centre including headquarters for several multi-national companies
- Residential uses from single family to multi-residential
- Quarry Park Outline Plan & Land Use Amendment: Supporting Report (2005, 2009)
- 2 Remington YMCA - site of "The Fold" public art installation
- 3 Calgary Public Library - 250,000 visits yearly
- Extensive pathway network including connections to Bow River Pathway and Carburn Park
- Connection to Route 302 BRT and transit service from surrounding communities

FUTURE OPPORTUNITIES

- 4 Potential landfill site redevelopment
- Completion of Quarry Park Master Plan
- Affordable housing for 300 people
- Transit Hub with 4-8 routes with 20-30 buses/peak hour

PROPOSED URGENT BUSINESS

DOUGLAS GLEN STATION



INITIAL STATE (2015)	
Population	1,000
Jobs	4,200

FULLY CONSTRUCTED	
Population	950
Jobs	5,400
LRT riders	3,350

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	Yes - existing
Distance from Downtown/Centre City	10 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

DOUGLAS GLEN STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

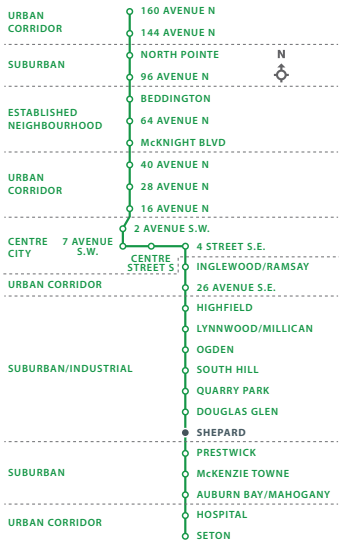
- 1 Douglas Square shopping centre nearby
- 2 Access to playfields, 200+hours per year
- Fire Station #39 nearby
- Connection to Route 302 BRT and transit service from surrounding communities
- Park and Ride

FUTURE OPPORTUNITIES

- Redevelopment opportunities at existing retail site
- City owned land adjacent to station
- Affordable housing for 180 people
- Major Transit Hub with at least 8 routes and 30 buses/peak hour
- Connection to South Crosstown BRT

PROPOSED URGENT BUSINESS

SHEPARD STATION



INITIAL STATE (2015)	
Population	550
Jobs	3,750

FULLY CONSTRUCTED	
Population	500
Jobs	9,050
LRT riders	5,000

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	Yes
Distance from Downtown/Centre City	14 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

SHEPARD STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

- 1 Commercial, retail and industrial areas including South Trail Crossing shopping centre
- Shepard Industrial Area Structure Plan (2009)
- 2 Religious institution nearby
- Connection to Route 302 BRT and transit service from surrounding communities

FUTURE OPPORTUNITIES

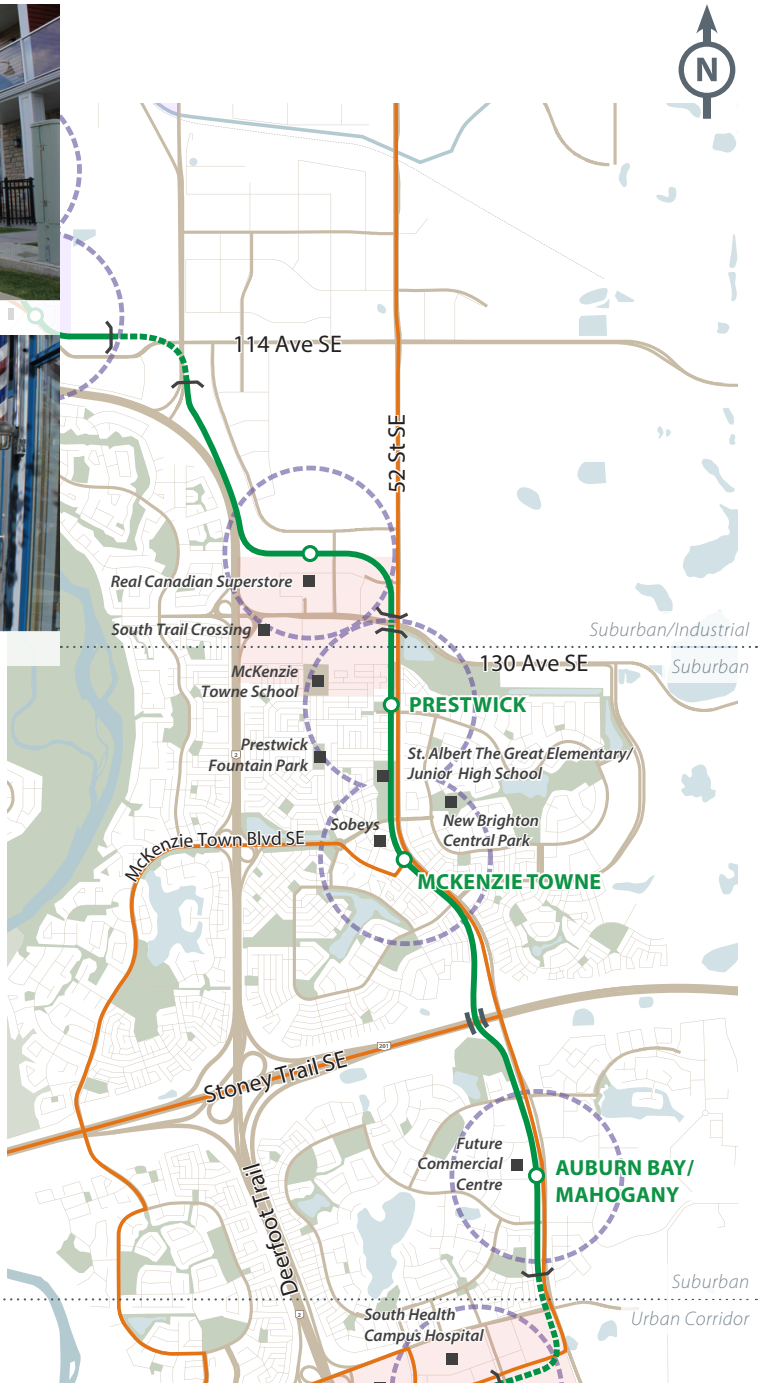
- Redevelopment of existing retail
- Affordable housing for 150 people
- Planned pedestrian and cycling improvements
- 3 Storage and maintenance facility site
- Major Transit Hub with at least 8 routes and 30 buses/peak hour

PROPOSED URGENT BUSINESS

PRESTWICK TO AUBURN BAY/MAHOGANY: SUBURBAN

Apartments at Auburn Bay/Mahogany

McKenzie Towne High Street



Legend

- Bridge
- Elevated track
- Tunnel
- Green Line LRT
- Green Line station
- Area of multi modal improvements (within 10 minute walk of LRT station)
- Transit-Oriented Development (within 10 minute walk of LRT station)
- Primary Transit Network
- Red Line LRT
- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

PRESTWICK TO AUBURN BAY/MAHOGANY: SUBURBAN

Mike is a University of Calgary student with a passion for the outdoors. Mike lives in Copperfield with his parents and uses the Green Line LRT to commute to school. Mike's dad got him a summer job at Imperial Oil in Quarry Park where they commute together riding their bikes on The City's pathway system.

Extending past Stoney Trail SE, the Green Line LRT serves the rapidly growing communities in suburban southeast Calgary. This quadrant has seen the largest growth in the city in recent years and is anticipated to continue to grow.

Transit Connections

The three stations in this character area are transit hubs offering a number of transit options to connect Calgarians to where they want to go. Future east-west PTN service at McKenzie Towne differentiates this transit hub from the Prestwick and Auburn Bay/Mahogany Stations, where only a north-South PTN on 52 Street SE will be offered. Local routes will also connect adjacent communities to Green Line stations and other local destinations.

Active Mode Connections

The majority of stations in this character area are accessed by transit and the automobile. Improved connections are required for both pedestrians and cyclists and will involve adding sidewalks to areas where they do not exist. Leveraging existing connections in combination with a parallel pathway will provide a critical active modes spine which will support regional connections and provide access to community destinations.

Transit Oriented Development

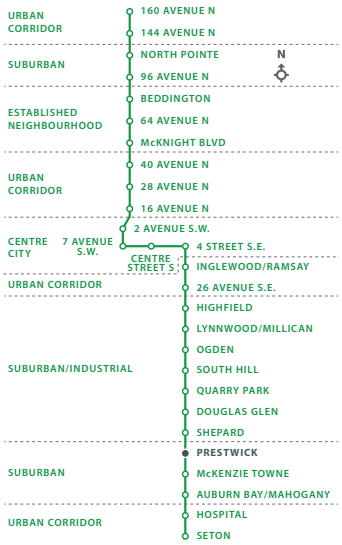
The Green Line LRT is side running as it moves in to these planned communities which will contain town centres, horizontal mixed use and internal, connected street systems. The communities have been master planned to include future LRT stations and transit hubs with walkable mixed use communities. This suburban community has contemplated TOD since conception and have demonstrated through public feedback that they are ready to embrace an LRT in their communities.

City Shaping

City Shaping along Calgary's southeast suburban corridor provides the opportunity to strengthen the sense of place for the residents of the communities along the line. The Green Line stations offer the opportunity to encourage social gathering through open space, community amenities and affordable housing near the station area.

PROPOSED URGENT BUSINESS

PRESTWICK STATION



INITIAL STATE (2015)	
Population	8,600
Jobs	1,100

FULLY CONSTRUCTED	
Population	8,600
Jobs	2,300
LRT riders	1,600

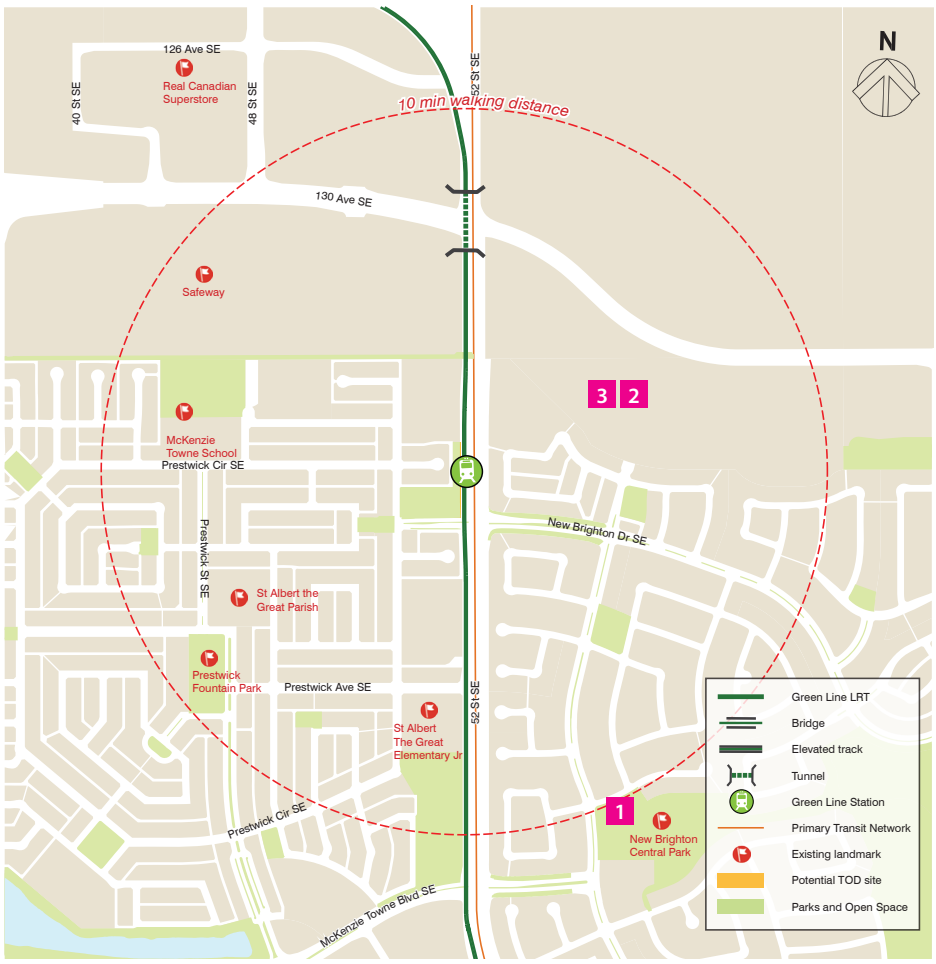
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	Yes
Distance from Downtown/Centre City	15 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

PRESTWICK STATION



EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

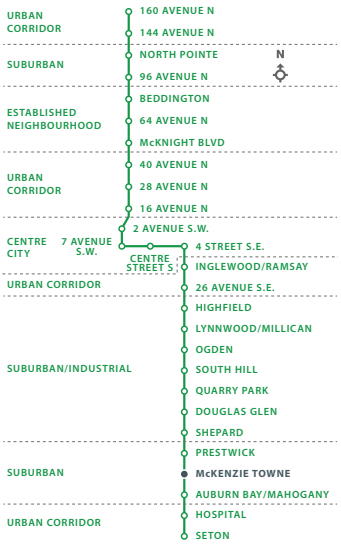
- East McKenzie Area Structure Plan (2001)
- Multi-residential buildings nearby
- Station centrally located within communities
- 1 New Brighton Community Association
- 2 Access to playfields - 300+ bookable hours yearly
- 3 New Brighton Athletic and Skate Park nearby
- Connections to open spaces, Community Centre and parks
- 2 school sites nearby
- Connection to Route 302 BRT and transit service from surrounding communities

FUTURE OPPORTUNITIES

- Integrated station plaza links the communities of Prestwick and New Brighton
- Affordable housing for 1,800 people
- Enhanced pathway connections
- Transit Hub with 4-8 routes with 20-30 buses/peak hour

PROPOSED URGENT BUSINESS

McKENZIE TOWNE STATION



INITIAL STATE (2015)	
Population	6,100
Jobs	1,150

FULLY CONSTRUCTED	
Population	5,900
Jobs	550
LRT riders	3,600

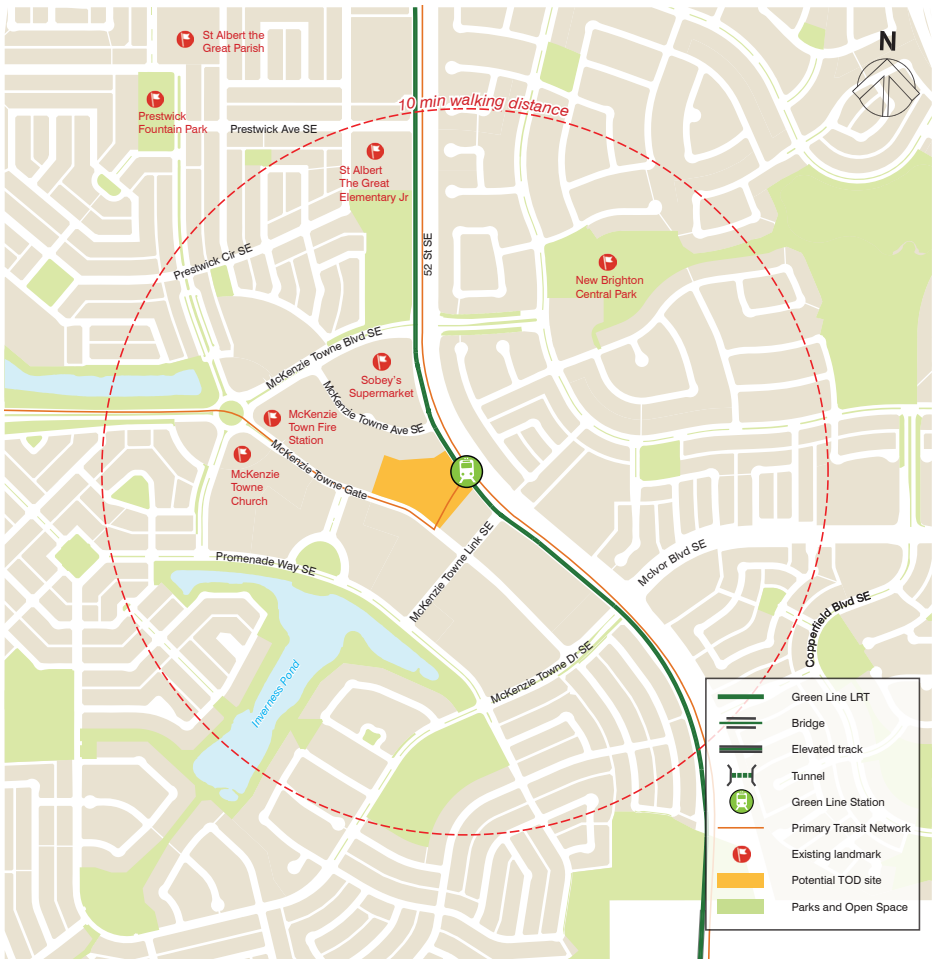
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	Yes - existing
Distance from Downtown/Centre City	16 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

McKENZIE TOWNE STATION



EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

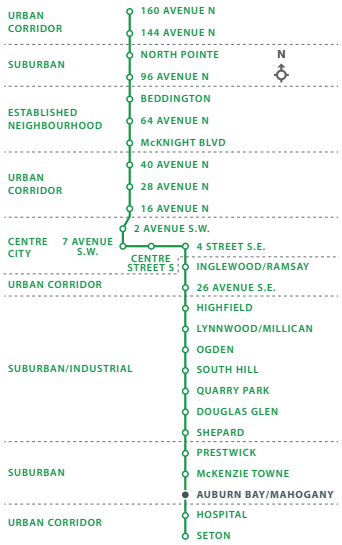
- Neighbourhood street with established retail/commercial
- Mixed housing types
- East McKenzie Area Structure Plan (2001)
- Religious institution and community centre nearby
- Health services nearby
- Connection to McKenzie Towne Skate Park as part of local parks and pathways network
- Connection to Route 302 BRT and transit service from surrounding communities
- Park and Ride

FUTURE OPPORTUNITIES

- Affordable housing for 1,200 people
- Major Transit Hub with at least 8 routes and 30 buses/peak hour

PROPOSED URGENT BUSINESS

AUBURN BAY/MAHOGANY STATION



INITIAL STATE (2015)	
Population	6,600
Jobs	0

FULLY CONSTRUCTED	
Population	15,900
Jobs	1,600
LRT riders	3,900

TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	Yes
Distance from Downtown/Centre City	19 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

AUBURN BAY/MAHOGANY STATION

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

- Retail, commercial and medium density uses adjacent to station area
- Mixed housing stock, including live/work units
- Mahogany Community Plan (2007)
- Auburn Bay Community Plan (2004)
- Wetlands and wildlife area nearby
- Auburn Bay off leash dog park nearby
- Connection to Route 302 BRT and transit service from surrounding communities

FUTURE OPPORTUNITIES

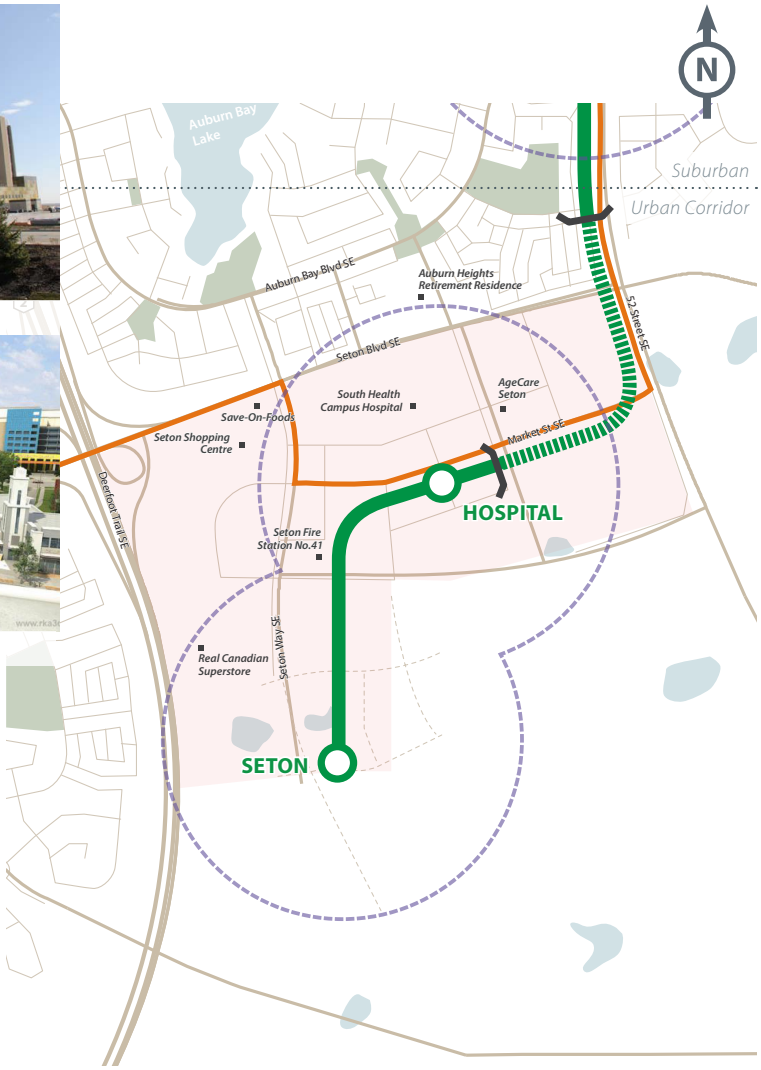
- Future Transit Oriented Development occurring in the surrounding area
- Affordable housing for 3,000 people
- Multi-purpose civic facilities envisioned
- Transit Hub with 4-8 routes with 20-30 buses/peak hour

PROPOSED URGENT BUSINESS

HOSPITAL TO SETON: URBAN CORRIDOR

South Health Campus

Seton community concept



Legend

- Bridge
- Elevated track
- Tunnel
- Green Line LRT
- Green Line station
- Area of multi modal improvements (within 10 minute walk of LRT station)
- Transit-Oriented Development (within 10 minute walk of LRT station)
- Primary Transit Network
- Red Line LRT
- Blue Line LRT
- Activity centres and corridors (Municipal Development Plan)
- Industrial-employee intensive area (Municipal Development Plan)

PROPOSED URGENT BUSINESS

HOSPITAL TO SETON: URBAN CORRIDOR

Katie and Kris are young professionals who live in the community of Seton. Katie works at the South Health Campus and Kris is a bylaw officer at the Multi Services centre. They love their new location, as their walk to work, to the recreation centre and grocery store are all within 10-15min. Katie's parents live in McKenzie Towne, just two stops, which is convenient for Sunday dinners. And, will be much more convenient in the fall, as Katie and Kris are expecting their first child. Grandma and Grandpa will only be a few stops away on the Green Line.

At the southeast end of the Green Line LRT, the line will provide a much-needed transit service to access the new South Health Campus. Transit access to and from the South Health Campus will provide consistent ridership during off-peak hours, ensuring the service is well used throughout the day. This area has seen significant population growth and is expected to continue developing quickly. The communities south of 130 Avenue SE. have been planned and built in anticipation of LRT. They have dedicated lands for the right-of-way, station areas, Park and Rides, and higher development densities.

Transit Connections

Transit service in the new communities surrounding Hospital and Seton station will be designed to be direct and efficient due to the grid-like street network. Future transit service will connect to many destinations identified in the Rangeview Area Structure Plan and with a future PTN service connection between Hospital Station and Red Line. Regional communities southeast of Calgary will also have the opportunity to connect to Green Line at Hospital Station.

Active modes connections

The community around the southeast campus hospital was planned with the principles of good cycling and walking access in mind. The Area Structure Plans for these developments reflect complete street standards of The City. Access to the Hospital Campus, High School and recreation centre are all leveraged in both the suburban and more urban areas of the developments which will have a high standard for mobility of all modes.

Transit Oriented Development

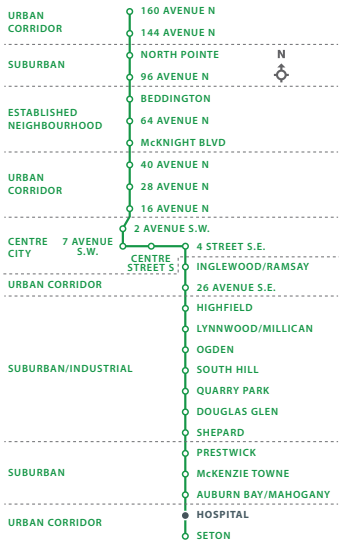
The area of Seton and South Seton are part of the Southeast Area Policy Plan and Rangeview Area Structure Plan. Currently, this area is comprised of the new South Health Campus which employs 2,800 employees today. This area also consists of a big box store development. The proposed development, just south of the existing development, is envisioned as a mixed-use, mixed density development with main streets and grid like pattern that flows into the residential areas. This new development is planned to be multi-modal and has designed TOD around the future LRT stations.

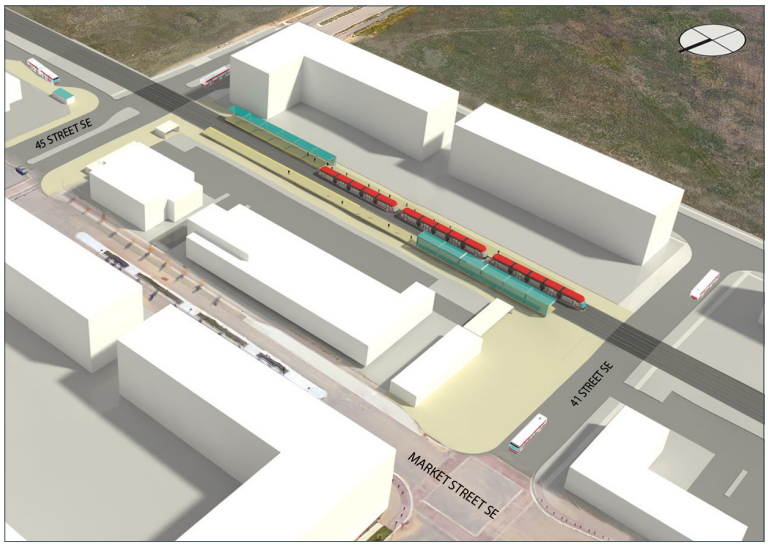
City Shaping

The urban corridor of Calgary's newest South Health Campus hospital and adjacent communities, provides the opportunity for residents along the Green Line to have affordable access to health and social services, a grocery store, library, recreation center and future high school site, all within a 10 minute walk. Identifying and building neighbourhood hubs by co-location public infrastructure will enhance and contribute to a sense of safety and resiliency for the residents of these communities.

PROPOSED URGENT BUSINESS

HOSPITAL STATION





INITIAL STATE (2015)	
Population	2,700
Jobs	500

FULLY CONSTRUCTED	
Population	7,500
Jobs	5,350
LRT riders	4,000

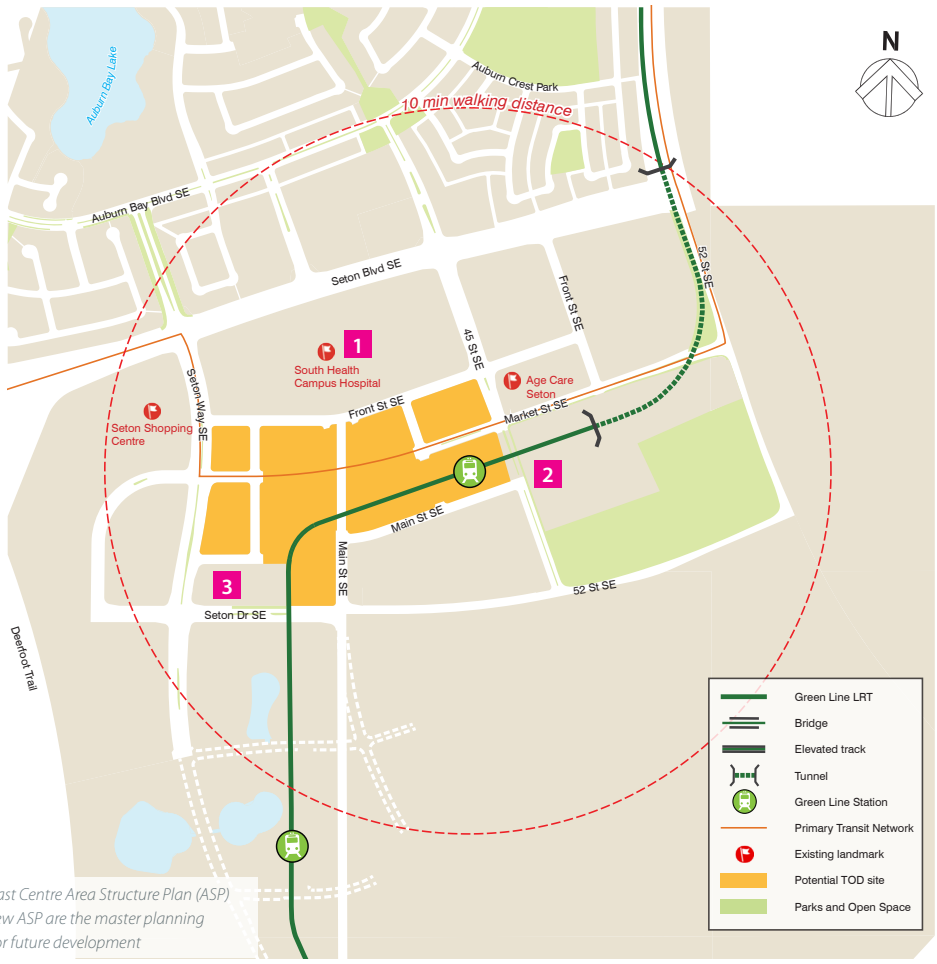
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	Yes
Regional connections	No
Park and Ride	No
Distance from Downtown/Centre City	20 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

HOSPITAL STATION



Note: Southeast Centre Area Structure Plan (ASP) and Rangeview ASP are the master planning documents for future development

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

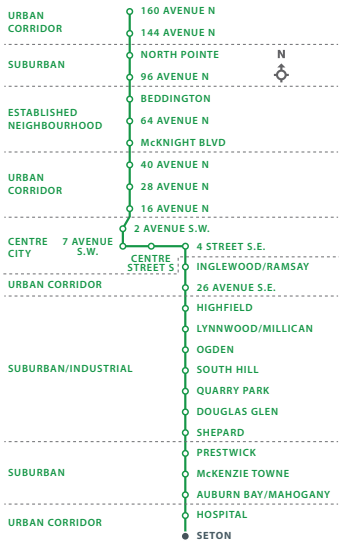
- South East Centre Area Structure Plan (2004)
- Rangeview Area Structure Plan (2014)
- Major Activity Centre as identified in MDP
- 1 South Health Campus Hospital
- 2 South Health Campus YMCA, Seton Recreation and public library facility
- 3 Fire Station #41
- Recreation space nearby
- Connection to BRT Route 302 and transit service from surrounding communities

FUTURE OPPORTUNITIES

- Transit Oriented Development along main street with new towne centre
- High density retail, commercial, office uses
- Affordable housing for 1,500 people
- High school
- Major Transit Hub with at least 8 routes and 30 buses/peak hour

PROPOSED URGENT BUSINESS

SETON STATION



INITIAL STATE (2015)	
Population	0
Jobs	50

FULLY CONSTRUCTED	
Population	9,550
Jobs	1,950
LRT riders	4,750

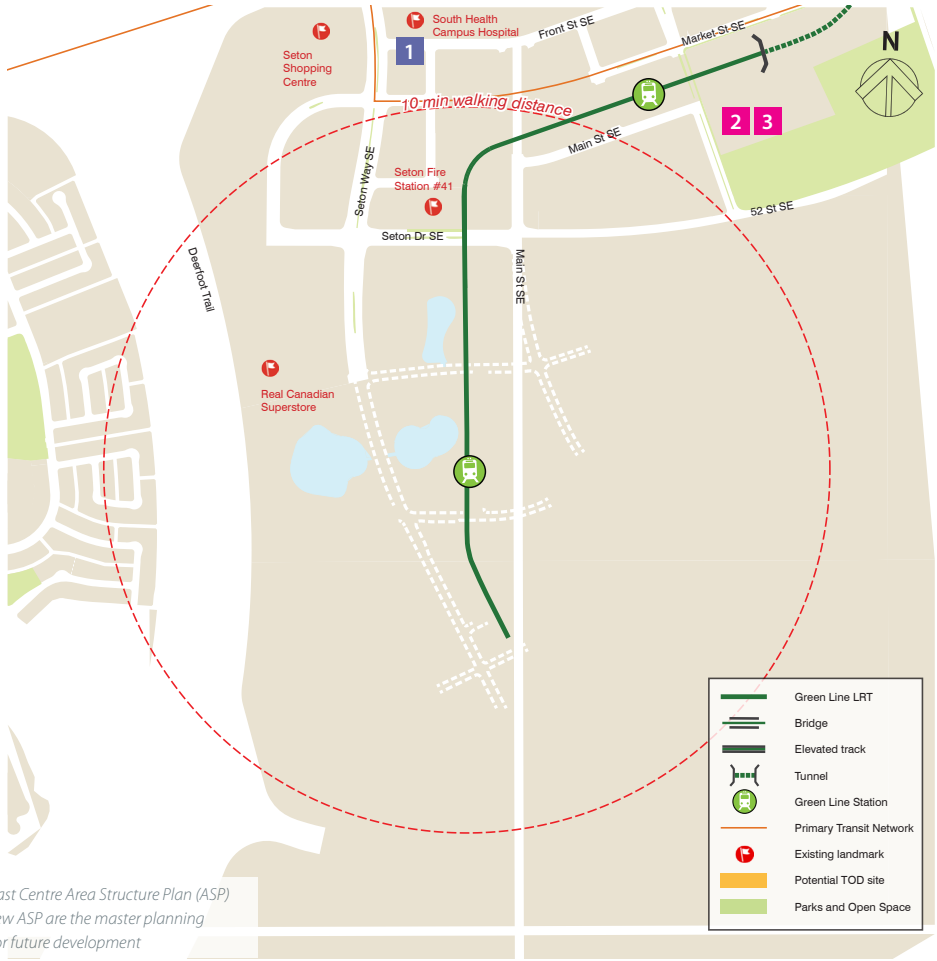
TRANSIT BENEFITS

Transit hub	Yes
Primary Transit Network Connection	No
Regional connections	Yes
Park and Ride	Yes
Distance from Downtown/Centre City	21 km

STATION ACCESS PRIORITIES

PROPOSED URGENT BUSINESS

SETON STATION



Note: Southeast Centre Area Structure Plan (ASP) and Rangeview ASP are the master planning documents for future development

EXISTING HIGHLIGHTS

1 TOD 1 City Shaping 1 Transit

- 1 Employment areas including large medical centre nearby
- Diverse mix of housing
- South East Centre Area Structure Plan (2004)
- Rangeview Area Structure Plan (2014)
- Multi-services Centre (Fire, EMS, Police, Bylaw)
- Recreation space nearby

FUTURE OPPORTUNITIES

- Retail, commercial uses
- Affordable housing for 1,800 people
- Major Transit Hub with at least 8 routes and 30 buses/peak hour

PROPOSED URGENT BUSINESS

Realizing the vision: next steps

PROPOSED URGENT BUSINESS

Prestwick station concept

COMMITMENT TO THE VISION

Delivering the full Green Line LRT long term vision will be realized over decades. As the layer 1 infrastructure is constructed, there will be opportunities for immediate investment in private development, other supporting infrastructure and adjacent civic facilities. In some areas, the Green Line will be a catalyst for a slower and more organic change. The City, our civic partners and the development industry will continue to strategically plan short, medium and long-term investments in community services, amenities and private development along the line as Calgary's population grows. This long term vision document and the associated Transit Oriented Development (TOD) and City Shaping Framework are the first step in developing the strategy to guide how the Green Line will begin to shape communities; it will establish clear actions and develop a plan to monitor success.

PROPOSED URGENT BUSINESS

REALIZING THE VISION: NEXT STEPS

CONTINUED COLLABORATION

Upon approval of the Green Line Light Rail Transit (LRT) alignment and stations, communities, land owners, developers, public and other stakeholders will have the certainty that a fast, frequent, and reliable service will be implemented from the far north to the deep southeast, as funding becomes available. Opportunities where efficiencies can be gained through coordinated efforts across City departments, civic partners or private industry can proceed. In some cases, simply having the City's commitment that rail will one day be in place at a specific location is sufficient to advance plans for investment in a given area. The vision for the Green Line LRT was developed ensuring the line has a cohesive look and feel and balances the needs of communities, city growth, and transit customers with operational requirements. Continued collaboration going forward will help meet the needs of The City, key stakeholders, industry, organizational partners and Calgarians.

NEXT STEPS

Construction of the LRT infrastructure will also require an implementation plan. The Green Line LRT will be constructed in stages as funding is available. Once the Green Line LRT long term vision is approved, design and land acquisition can proceed, construction can begin where possible, and Transit Oriented Development and City Shaping initiatives can continue with a common vision, and with the objective of serving people, places, and programs with reliable transit.

McKnight Boulevard station concept