



OUR CONNECTIVITY

TRANSPORTATION MASTER PLAN



ACKNOWLEDGEMENTS

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ATS
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What is Our Connectivity?

Our Connectivity is Beaumont's first Transportation Master Plan, which maps out how we will plan, build, operate and sustain its transportation system into the future. This plan facilitates the continued development of a transportation system where residents and visitors, as well as goods and services, move effectively within the community and around the region. The plan incorporates a variety of best practices in transportation planning to guide the transportation system's growth.

The purpose of Our Connectivity is to provide direction for the development and maintenance of the transportation system that supports local development, services, and land use, and that ensures appropriate connections to the broader Edmonton Metropolitan Region. Our Connectivity builds upon and strengthens the goals, objectives, and policies of the Municipal Development Plan, Our Complete Community. It also serves to direct the overall transportation planning and roadway engineering practices to manage future growth as our population grows to over 40,000 residents by 2044. Over the next 25 years, the community vision of this plan will be built to achieve a resilient, safe, inclusive, and effective transportation network.

At the core of this plan is a transportation system that provides users with choice. Our Connectivity builds on the Municipal Development Plan by focusing on developing a network that offers safe, comfortable, and convenient options for residents of all ages and abilities to walk, cycle, take transit, or drive as they go about their daily activities. This multi-modal transportation system is a necessary component of the complete community Beaumont strives to become—one that offers an easily accessible mix of services, employment areas, community amenities, housing options, and recreation opportunities.



Alignment with Other Plans and Initiatives

Our Connectivity is a non-statutory directional plan that both informs and supports the implementation of statutory municipal plans, regional plans, and provincial Acts, regulations, and guidelines. On its own, Our Connectivity is municipal policy, approved by Council, which sets forth governing direction for the growth and development of the transportation system.

Alignment with Regional Plans

Our Connectivity aligns with the Edmonton Metropolitan Region Board's 2011 Integrated Regional Transportation Master Plan. Elements from each of the four guiding policy themes in the Integrated Regional Transportation Master Plan are woven into Our Connectivity. These themes include:

- Integrating transportation system planning with land use planning;
- Providing transportation choices within the transportation system;
- Minimizing the transportation system's degradation of the environment; and
- Collaborating across and between jurisdictions.

In addition, Our Connectivity shares the regionally significant roads, regional road classifications, and regional networks for goods movement, transit, and active transportation that are identified in the Integrated Regional Transportation Master Plan. Our Connectivity will also shape the update of the Edmonton Metropolitan Region Board's Integrated Regional Transportation Master Plan.

Consistency with Provincial Legislation and Policies

The Municipal Government Act enables municipalities to prepare and maintain policies that guide their own development and growth. Under the authority of this Act, Our Connectivity sets forth the general transportation policies that will guide the development of the City's transportation systems and networks. Our Connectivity has also been prepared to be consistent and in compliance with all relevant provincial Acts, regulations, plans, and policies, including but not limited to the City Transportation Act.

PLANNING FRAMEWORK HIERARCHY

PROVINCIAL ACTS AND REGULATIONS

- > Municipal Government Act
- > City Transportation Act
- > Traffic Safety Act



REGIONAL PLANS AND POLICIES

- > North Saskatchewan Regional Plan
- > Edmonton Metropolitan Region Growth Plan
- > Capital Region Board Integrated Regional Transportation Master Plan



STATUTORY MUNICIPAL PLANS AND BYLAWS

- > Our Complete Community: Municipal Development Plan
- > Our Zoning Blueprint: Land Use Bylaw
- > Area Structure Plans
- > Area Redevelopment Plans



DIRECTIONAL PLANS

- > Strategic Plan
- > Our Places and Play: Recreation, Parks and Facilities Master Plan
- > **Our Connectivity: Transportation Master Plan**
- > Environmental Master Plan
- > Utility Master Plan

Figure 1. Planning Framework Hierarchy



Alignment with Municipal Initiatives

Our Connectivity is intrinsically linked with Our Beaumont: Municipal Strategic Plan (2017-2021). The Strategic Plan provides the foundational direction for our municipality’s work, to guide City staff and Council in their everyday operations, and to prioritize budget and resource allocations. Our Connectivity aligns with the Strategic Plan; it provides a more detailed set of transportation policies built upon the Strategic Plan’s focus on livability, which is described within the plan as “supporting and promoting an accessible community that is safe, has diverse housing and transportation options, and provides a variety of public spaces.”

As a directional plan, Our Connectivity establishes the policy directions that will guide strategic and tactical decisions related to the transportation systems. Our Connectivity also serves to communicate these directions to groups that collaborate with or support the City. These groups include local and regional government agencies, utilities, and service providers, non-government organizations, developers, landowners, residents, local businesses, and other authorities such as school boards, health authorities, adjacent municipalities, and the Edmonton Metropolitan Region Board.

Our Connectivity builds on the Municipal Development Plan, Our Complete Community. The Municipal Development Plan guides decision making and future growth with regards to all functions of the municipality. It provides specific direction for the transportation system in Section 6.0: Effective Movement of People and Goods. The goals, objectives, and policies of Section 6.0 provide the basis for the vision and goals of Our Connectivity, covered in Section 2.3 of this document. Our Complete Community and Our Connectivity were developed in tandem to ensure that planning for land use and transportation systems are seamlessly integrated. Collectively, Our Connectivity and Our Complete Community, along with the City’s other directional plans, serve as a road map for the coordinated implementation of the vision for Our Beaumont. Our Connectivity will influence and guide the subsequent development of Area Structure Plans, Area Redevelopment Plans, and conceptual and functional planning for roadway and transportation projects, as demonstrated in Figure 2.

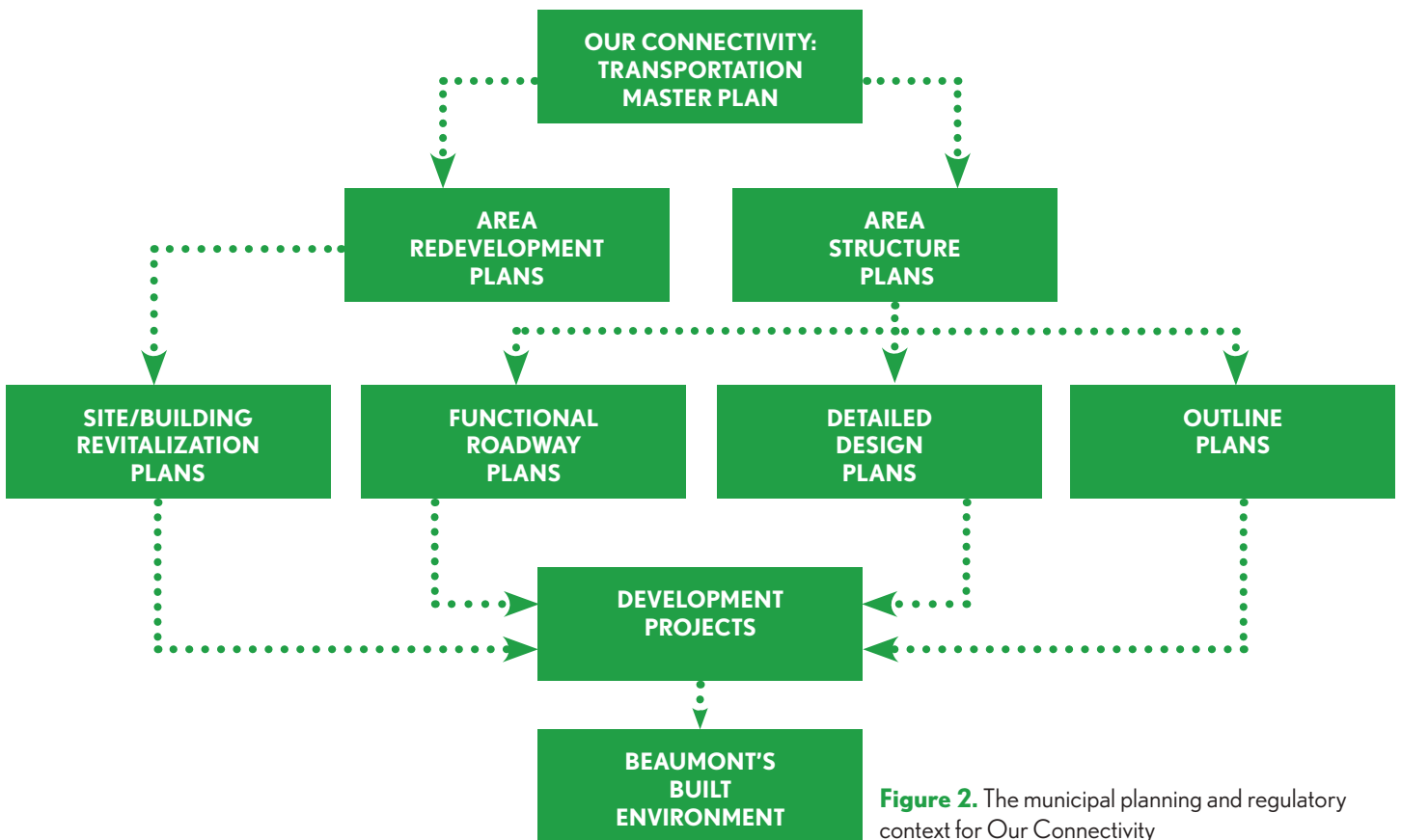


Figure 2. The municipal planning and regulatory context for Our Connectivity



How was Our Connectivity Prepared?

A comprehensive public engagement process was initiated in early 2016 to collaboratively develop a new Municipal Development Plan and Transportation Master Plan. The engagement process included perspectives from residents, stakeholders, administration, and elected officials at key points in the development, review, and approval of Our Connectivity.

Plan Development Objectives

- Develop a vision and policy goals that align with and support existing policy documents
- Reflect the need for more transportation choices based on stakeholder input
- Define major policy projects and infrastructure investments
- Recommend short, medium, and long-term transportation infrastructure expansion

Public Engagement Timeline



Figure 3. Engagement Timeline

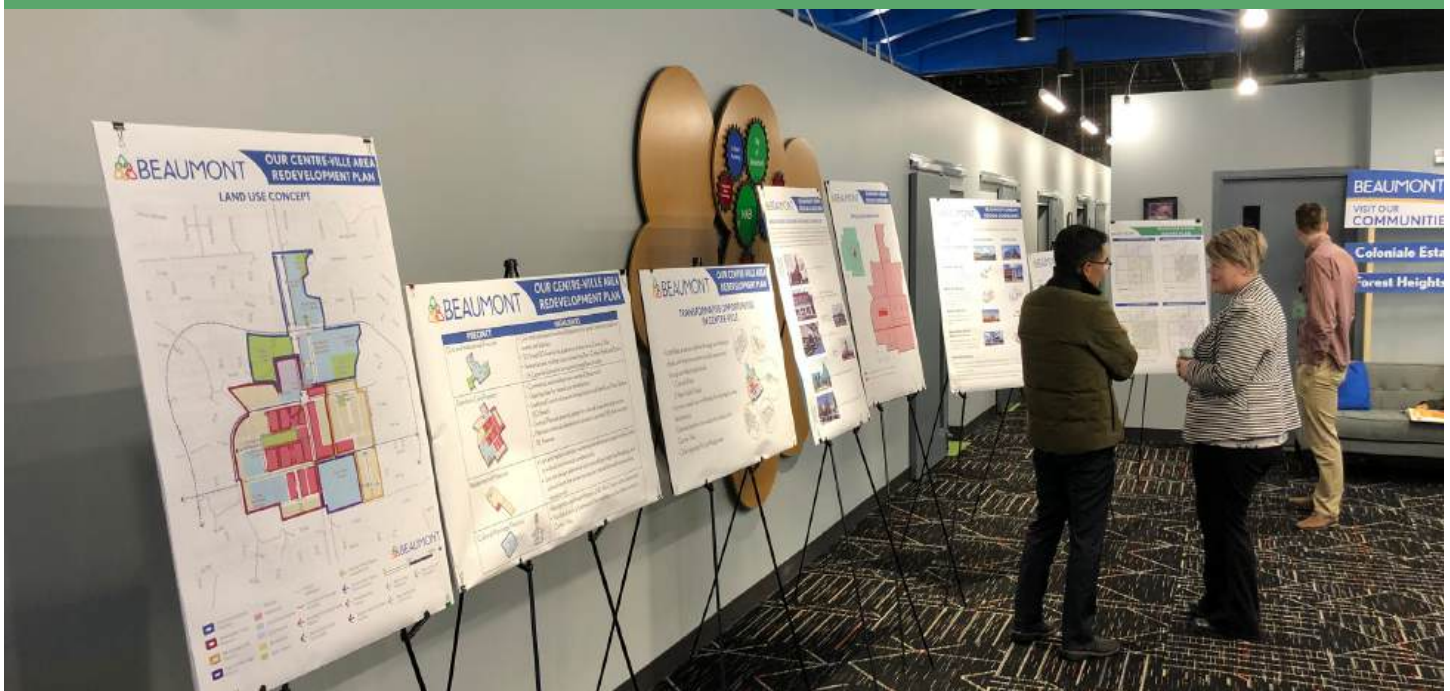


A number of public and stakeholder workshops and engagement events were hosted to refine the objectives into priority areas and gather public input to create the vision for Our Connectivity. The focus of engagement was first to learn about the current transportation context, and later to define what conditions Beaumont wanted to achieve within an integrated transportation system over the next 15 years. The general engagement timeline for this project is presented in Figure 3. The engagement activities below occurred to help form the vision of Our Connectivity and the supporting policies. The majority of the community engagement for Our

Connectivity occurred over a two-year period from 2016 to 2017. From 2018 onwards, municipal staff continued to develop this master plan based on the policy direction provided in the Strategic Plan and Municipal Development Plan as well as the stakeholder input collected. The engagement process was fundamental in creating the vision and setting the policy goals presented in Section 2.4, which form the basis for this master plan.

Our Engagement Activities

- Assessment of the current state of transportation within the City and the region, including strengths, weaknesses, opportunities, and threats;
- Development of policy themes, guiding principles, and a preliminary transportation system vision with internal stakeholders;
- Review, validation, and refinement of the policy themes, guiding principles, and preliminary vision with external stakeholders;
- Establishment of high level transportation concepts for roads, transit, active transportation, safety, and regional connectivity;
- Development of goal statements that support the theme areas of Our Complete Community;
- Review and prioritization of transportation options and concepts with stakeholders and landowners; and
- Presentation of the components of Our Connectivity to stakeholders and the public for review, comment, and feedback.



Interpretation

To understand the goals, objectives, and policies in the Transportation Master Plan, also referred to as “Our Connectivity”, “the Plan” or “this Plan”, it should be read in its entirety. All relevant text, tables, and schedules are intended to be applied together in the context of each individual situation.

Policies are written using specific terminology within Our Connectivity to ensure that they have clear intentions and appropriate actions, and they are to be interpreted as follows:

- The word “shall” or “must” is considered mandatory where it is used in a policy. Where quantities or numerical standards are contained within mandatory policies, such quantities or standards may be varied as long as the intent of the policy is still achieved and the variation is necessary to address unique circumstances that would render compliance impractical or impossible.
- The word “should” in a policy means that the policy is strongly encouraged, but can be varied where unique or unforeseen circumstances provide for courses of action that would satisfy the general intent of the policy.
- Where “may” is used in a policy, it means there is a choice in applying the policy and denotes discretionary compliance or the ability to vary the requirements as presented.

Certain terms in Our Connectivity have defined terms and/or variations in usage. The reader is advised that;

- Words used in the present tense include the other tenses and derivative forms.
- Words used in the singular include the plural, and words using the masculine gender include the feminine gender and vice versa.
- Words not defined herein may be given their definition in the Municipal Government Act. Other words shall be given their usual and customary meaning.
- Words have the same meaning whether they are capitalized or not.

The locations of boundaries and symbols are approximate. They are not intended to define the exact locations except where they coincide with major roads, transmission lines, the LeBlanc Canal, and other clearly recognizable physical features. Future roads and public transit systems are shown in approximate locations only. Where a land use coincides with a property line, the property line will generally be interpreted as the boundary of the land use designation.

While a great deal of research and consultation was undertaken in the development of this plan, it is acknowledged that the plan may need to be amended from time to time.



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Strategic Framework

Design Approach

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Beaumont's Context

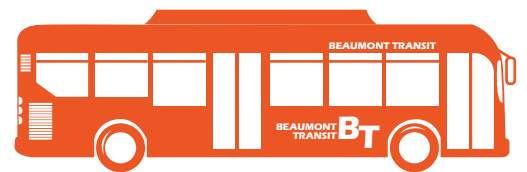
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Design Approach

Our Connectivity's design approach uses many of the ideas associated with "Complete Streets" to develop a transportation network that is safe, attractive, and accessible for all users in all seasons. The broad purpose of Complete Streets is to encourage roadway design to include more transportation mode choices within the system. Using this design approach, decisions regarding the transportation system consider the needs of each mode in the context of the surrounding land uses, operational and maintenance requirements, as well as the priority of each roadway in the transportation network.

Our Connectivity's design approach systematically considers the type of infrastructure that is most appropriate to accommodate drivers, pedestrians, cyclists, and transit on a particular roadway. While each street, pathway, or route in the network may not accommodate or prioritize every mode, the overall network will support safe, convenient and comfortable travel regardless of mode. Building streets in this way creates a stronger, more efficient transportation system because it provides users with choice and ensures that all available transportation options are safe and reliable. The design approach of Our Connectivity implements the policies of Our Complete Community in the design and revitalization of transportation corridors.



Figure 4 & 5. 20 metre road right of way **without** Complete Streets vision applied (above) and **with** Complete Streets vision (below). For illustrative purposes only.



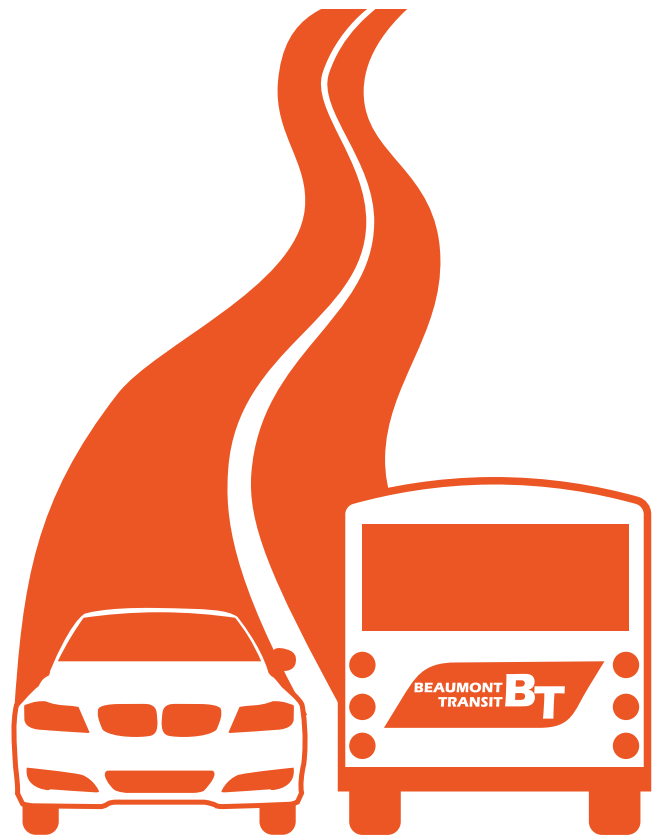
Our Connectivity's design approach promotes a more equitable transportation system through a focus on accessibility, rather than on mobility.

Our Connectivity's design approach also promotes a more equitable transportation system through a focus on accessibility, rather than on mobility. Accessibility describes people's ability to access desired goods, services and activities via the transportation system, whereas mobility focuses more specifically on how far and how fast people can travel. A community can offer high accessibility with low mobility, and vice versa.

Over the past century in North America, transportation planning has focused on increasing mobility through efforts to ease traffic congestion, reduce conflict between modes, and shorten vehicle trip times. This approach is linked to the development of communities with widely separated land uses that are difficult to navigate without a car, and that require significant roadway space and infrastructure budgets.

Using accessibility as the central tenet of transportation planning aligns more closely with the underlying reason for transportation systems: not to travel a great distance quickly, but so that people, goods, and services can reach their destinations. Because of the focus on people, this approach helps support safety and connectivity for all users, regardless of their age or ability and the mode they are using. Notably, because transit and active transportation are more affordable and accessible than vehicle ownership, these modes are more accessible for youth, seniors, people with disabilities, and people on low income. A focus on accessibility often results in greater attention to designing, building and maintaining facilities for these modes. In turn, this increases equity within the transportation system and offers a more effective balance between active transportation, transit, and private vehicles.

Of course, there are different benefits and limitations for each mode. Our Connectivity provides a framework that ensures that all modes are balanced within the system based on the existing transportation and land use context, as opposed to requiring all modes on every street. Transportation systems are always evolving and will continue to change into the future. Our Connectivity will guide this shift in approach over the coming decades to achieve a more equitable, accessible and efficient system.



The design approach of **Our Connectivity** implements the policies of **Our Complete Community** in the **design and revitalization** of transportation corridors.

Two additional considerations inform Our Connectivity's design approach.

- The "8-80" principle considers that if a transportation system is safe and comfortable for an 8-year-old and an 80-year-old, it will be broadly accessible. There are additional considerations for those with limited mobility or cognitive challenges that fall under this principle.
- The "pedestrian prioritized" principle considers that if a transportation system offers safe infrastructure for pedestrians, the most vulnerable road users, it will generally be safe for all road users. Cycling is also acknowledged to be a more vulnerable mode, in comparison to transit and vehicle movement.

Our Connectivity's design approach will be implemented in both existing and undeveloped areas. Existing roads will need to, when opportunities for renewal arise, be evaluated and potentially modified in order to meet the objective of developing a transportation system that safety and effectively accommodates all modes. Expansions of the transportation network can more easily accommodate facilities for multiple modes, as the required design features can be included at the planning and design phase.



A network that supports **all modes** can enhance the **local economy** through creating an **attractive and vibrant public realm**.

For the network to safely and appropriately accommodate all users, different modes will be prioritized on different streets. For example, a street in an urban shopping area would emphasize facilities for active transportation, while one in an industrial area would prioritize heavy vehicle traffic and goods movement. Figures 4 and 5 display two ways of allocating road right of way within a 20 m cross section maximum application of what a street that equally provides for all modes could look like. These figures are not intended to dictate right of way allocations. As context, this cross section has a similar width to existing arterial roadways in the community. The actual application of this design approach in Beaumont may not allocate the right of way exactly as shown in Figure 5.

A complete transportation network offers a variety of community benefits. By supporting walking and cycling as transportation options and creating active lifestyle opportunities for residents, it can help improve community health, reduce greenhouse gas emissions, and mitigate our contribution to climate change. A network that supports all modes can enhance the local economy through creating an attractive and vibrant public realm while supporting the efficient movement of goods and services. It also supports the development of an inclusive community by ensuring that regardless of age, ability, income, or the mode of choice, users are able to complete trips and access amenities in a safe and comfortable way.



Beaumont's Context

Beaumont is located within the Edmonton Metropolitan region, directly south of Edmonton and approximately 5 kilometres east of the Queen Elizabeth II Highway, the Edmonton International Airport and the Nisku Business Industrial Park. Over the past 30 years, the population has increased approximately 5% annually, and it remains among the fastest-growing municipalities in the country. Two trends can be identified from the 2019 Municipal Census.

- 28.8% of residents were under the age of 19. On top of this, the 2016 Federal Census indicated that the median age was 32.3 years (compared to the Canadian average of 41.2 years).
- The proportion of those aged 60 years or older has grown from 8.42% of the population in 2014 to 11.58% of the population in 2019.

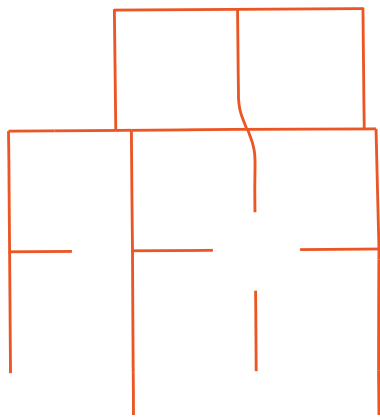
These population trends indicate that Beaumont is a community of choice for young families, as well as senior citizens. These demographics underscore the importance of developing a transportation system that offers users a wide range of attractive choices, particularly as youth and seniors are less likely to drive and more likely to benefit from access to active transportation and transit. The City currently provides a range of transportation infrastructure, including multi-use trails, pedestrian crossings, and a commuter transit service. As this section will discuss, there are opportunities to build on these offerings to improve connectivity, convenience, and comfort for all modes. Our Connectivity provides a framework for transportation solutions that address the community's unique needs and opportunities as existing areas of the City are revitalized and new areas are built out.



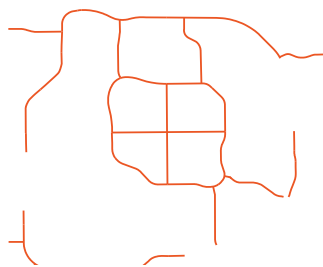
Roadway Network

Roadways are the foundation of the transportation network, as they are the main facilities used by the three major transportation modes considered in this plan: personal and commercial vehicles, active transportation, and transit. Roads are designed based on their function in the network, the surrounding land use context, and their anticipated traffic volumes. The roadway classification hierarchy provides a framework for understanding the role of each roadway type and is a tool for shaping the planning, design, construction, and operation of the transportation system. Our Connectivity's roadway classification hierarchy is identified in the Municipal Development Plan and consists of the following four types, presented in Map 1.

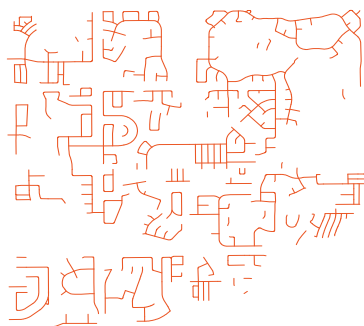
By setting out a vision and supporting objectives and policies for the transportation system, this plan will guide how the roadway classification system is applied to the development and redevelopment of streets so that a balanced, multi-modal network can be achieved.



Arterial roads are designed for higher speeds and volumes of traffic, and are intended to deliver traffic into and out of the municipality at the highest possible level of service. Transit that provides both local and regional service may be present along these roadways. Active transportation is typically accommodated through separated infrastructure, such as multi-use trails that run parallel to the arterial road. Because arterials are used by both vehicular and non-vehicular traffic, access must be balanced to ensure safety for all modes while maintaining efficiency. Crossing locations are identified along these roads to support active transportation connections to all areas of the community.



Collector roads are intended to deliver traffic from local roads to arterial roads and are designed for moderate speeds and volumes. Transit that provides local service may appear along these roadways. Different forms of active transportation can be accommodated in a variety of ways, such as separated infrastructure or, in the case of cycling, on the roadway itself (if the traffic volume and speed is low). They typically offer frequent access points and crossing locations.



Local roads have the lowest speeds and volumes and are intended to provide direct access to properties. Transit is not typically envisioned along these roadways. Safety for active transportation users is a high priority for these roads.

**VIEW MAP 1:
ROADWAY NETWORK**



Vehicle Movement

Personal and commercial vehicles are served by the roadway network. This infrastructure provides year-round access to facilitate the movement of people, goods, and services. Because the City covers a relatively small area, trips between any origin and destination within the municipality's boundaries can typically be completed in 15 minutes or less by car, even at peak travel times in the morning and afternoon.

Roadways extending into developing neighbourhoods are typically planned through Area Structure Plans, constructed at the land subdivision phase, and enforced through development agreements. Roadways may be developed or improved by the municipality or a private developer to provide strong overall system connectivity and improved functionality.

General access requirements from private lots to the public roadway network are identified in high-level plans and refined during the development process.

The provision of parking is regulated by the Land Use Bylaw. Decisions regarding access management and parking depend on road classification and land use context. For example, in Centre-Ville, 50 Street has been designed to promote walkability and slow traffic by encouraging on-street parking and limiting private property access within a relatively dense grid of intersections and pedestrian crossing points. Conversely, arterial roadways or highways on the periphery of the municipality do not generally accommodate on-street parking, and have larger distances between intersections and access points to move large amounts of traffic more quickly.

To support the movement of vehicles, roadways are subject to seasonal maintenance and routine repair. In addition, the City regularly undertakes renewal projects that focus on rebuilding deteriorating road infrastructure to meet current standards. The approach to infrastructure renewal and additional infrastructure capital projects is context dependent and is influenced by infrastructure status, available budget, and nearby utility services. Traffic calming techniques create safer streets in residential areas by managing vehicle speed and volume. These include, but are not limited to, textured crosswalks and curb extensions as depicted above in Figures 6 and 7.

The transportation network effectively supports the movement of private and commercial vehicles. Residents have the choice to drive and can generally reach any destination within a reasonable amount of time during any season of the year. Moving forward, the transportation network should support a similar level of service and connectivity for all modes, while continuing to support driving as a transportation choice.



Figure 6. Curb Extension on 56A Street (above)

Figure 7. 3D crosswalk on Rue Eaglemont (below)



Active Transportation

An extensive active transportation network connects residents to destinations and provides recreational opportunities for healthy active lifestyles. The network includes over 30 kilometres of multi-use trails and major designated crosswalks available to both pedestrians and cyclists. Sidewalks are also present throughout much of the urban area of the community, providing a city-wide level of connectivity for pedestrians. Walking from one end of the City to the other can take up to an hour; however, many trips from residential neighbourhoods to schools, commercial areas, or Centre-Ville can be completed in under half an hour. Bicycle trips, on low-stress residential streets and multi-use trails, can be completed in approximately 20 minutes.

Strategic planning direction for sidewalk and multi-use trail infrastructure is provided in Area Structure Plans and the Our Places and Play: Recreation, Parks and Facilities Master Plan. Area Redevelopment Plans can also provide policy direction for active transportation network improvements. These plans and policies may indicate the general network of active transportation facilities that is then refined through subsequent stages of the planning process, including subdivision, design, and construction.

Active transportation infrastructure is generally maintained and repaired by the municipality based on the requirements of the City's standards. Renewal and additional infrastructure capital projects ensure that the active transportation environment in established areas is revitalized through enhancing pedestrian accessibility and providing more pedestrian-friendly curb design. The approach to seasonal maintenance of the active transportation network depends on facility type, and is guided by municipal bylaws and service standards. The current active transportation network includes sidewalks, multi-use trails and, for cyclists, the roadway network itself.

There are opportunities to leverage and expand the overall network to balance all modes and provide users with transportation choices. This could include expanding current infrastructure and adding a range of additional facility types, such as shared streets, cycle tracks, or separated bike lanes, which can be tailored

to different land use contexts to improve user safety and comfort. A supportive environment for active transportation may be further developed through regulatory reviews of cycling bylaws; new and upgraded trails, sidewalks and crosswalks; and the development of regional trail connections.



Transit

A commuter transit system, Beaumont Transit, began service in September 2017 to connect Beaumont to the Edmonton Transit Service. It currently provides service between Ken Nichol Regional Recreation Centre and Century Park LRT Station during peak morning and afternoon commuting times, with a stop at Ellerslie Road and 50 Street. This transit stop is envisioned to connect with the planned transit centre in the southeast corner of the intersection. The current transit route is presented below in Figure 8.

Fares for Beaumont Transit can be bought on a per-trip basis or as a monthly pass. Currently, users must then pay for any additional required Edmonton Transit Service fare when they connect to Edmonton's transit system. Post-secondary students have access to Edmonton Transit Service through the Universal Pass system, which they pay for each semester as part of their mandatory non-instructional fees. The post-secondary institutions that are members of the U-Pass system are all located on Edmonton's LRT system and have a connection to Beaumont Transit. At present, there is no transit service that:

- Connects locations locally within Beaumont;
- Connects Beaumont directly to other regional locations, like the Nisku Industrial Area or the Edmonton International Airport; or
- Connects Beaumont to Edmonton Transit Service at non-peak hours.

Currently, because of its service hours and fare structure, Beaumont Transit best serves students travelling to post-secondary institutions and those working downtown at peak hours. The system also supports trips for residents who work in south Edmonton or along the LRT network and commute during typical peak periods. The system does not fully support other kinds of trips, such as daytime errands, commutes outside of peak periods, or commutes outside of Edmonton. It also does not facilitate local trips, as there is only one stop in Beaumont. There are agencies that provide services similar to transit within Beaumont. For example, school boards provide bus service for eligible students to primary and secondary school, and seniors' centres provide shuttle

services for specific trips like medical appointments. However, the extent of these services is currently restricted to specific users and purposes. Other potential transit routes are presented within the Edmonton Metropolitan Region Board's current Integrated Regional Transportation Master Plan. In February and March of 2020, both the City of Edmonton and the City of Beaumont voted to support the Regional Transit Services Commission, which will develop a single transit provider to serve participating communities throughout the region.

Further collaboration on sub-regional transit connections between the City of Beaumont, the City of Edmonton, and other municipalities in the region may be necessary moving forward, and may alter current transit connectivity. Local routes will also become more feasible when the Southeast Valley Line, currently under construction, opens and provides an LRT connection point closer to Beaumont.

Existing transit service is limited. People travelling to and from Edmonton at peak times have access to transit as a transportation option. However, those travelling to other destinations within and outside of Beaumont, or at other times, cannot opt to use transit. Over time, the availability and versatility of transit must continue to increase so that it becomes a realistic transportation choice for more residents.



Figure 8. Current Transit Connectivity



Summary of Context

Beaumont is a fast-growing municipality within a changing region that will continue to evolve as its urban area and transportation system expands. The current transportation system provides a high level of service to vehicles and has the potential to offer a similarly complete network for active transportation and transit. Balancing the needs and priorities of active transportation and vehicle infrastructure as well as transit service will take time, but will result in a more equitable and efficient transportation system for all users. Using the vision of Our Connectivity to build and rebuild the transportation system will foster a more resilient, inclusive, and effective transportation system for our community. As the City grows, it will also need to adapt to the changing nature of transportation systems so that the vision of Our Connectivity can still be achieved. The following section investigates relevant trends to prepare the transportation system for their potential impacts.



Trends in the Transportation System

The transportation network is anticipated to evolve in the future due to changes in technology, mode choice, and land use context. Although there is no way to fully anticipate how the transportation system may change, the discussion in this section highlights the potential trends of electrification, automation, and Mobility as a Service and their implications for transportation policy direction.

Alternative fuel sources for private automobiles, buses, and even bicycles (e-bikes) are becoming increasingly prevalent and financially viable for municipalities and consumers. These vehicles produce reduced or displaced emissions compared with traditional fossil fuel-powered vehicles. Many of the potential impacts of a shift to electric vehicles may not fundamentally alter

the design and operation of the transportation system. This could include the development of publicly accessible charging facilities or the electrification of municipal buses and maintenance equipment. However, the City must remain alert to the potential for new regulatory, operational, or municipal servicing challenges as electric vehicles become more common.

A more significant shift in the transportation system may arise from vehicle automation. Removing the need for a driver from an on-road vehicle creates new transportation planning opportunities and challenges. For example, the opportunity for former drivers to complete other activities during their car commutes may extend the period of time a person is willing to commute for. There may also be a potential increase in unoccupied



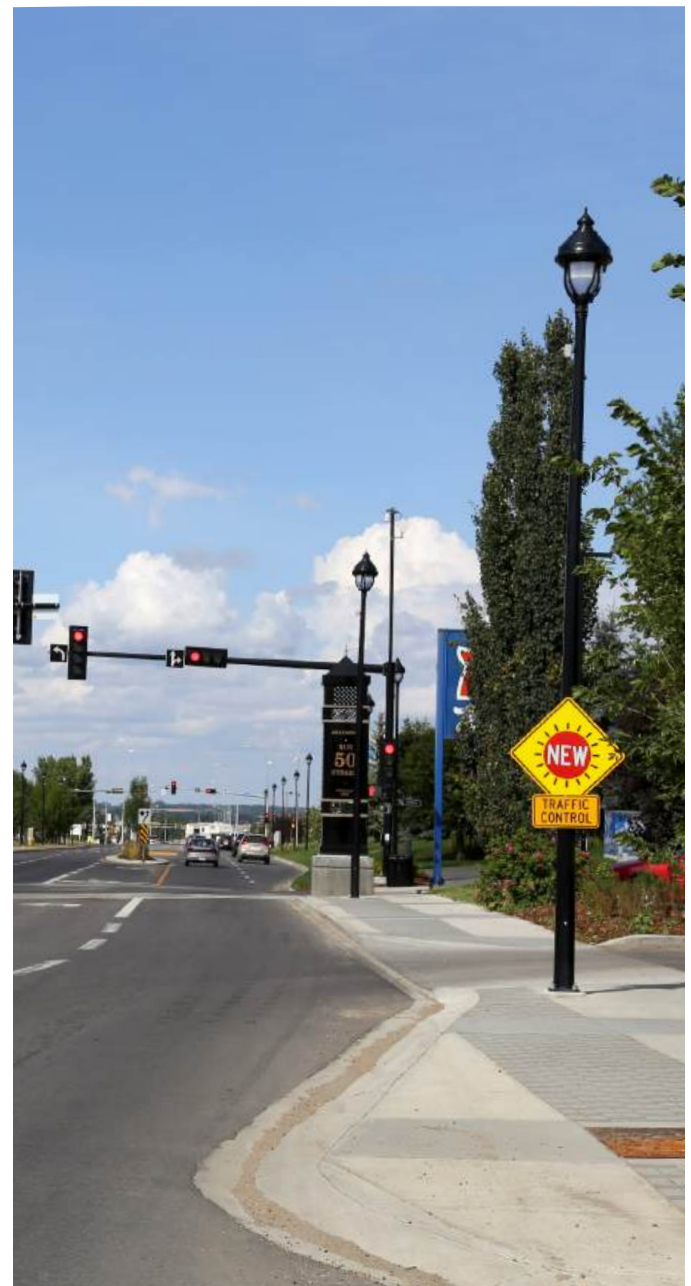
vehicles on the roads due to “dead-headed” trips, where a person may send their vehicle to be autonomously parked at a location that does not require payment after they have reached their destination. This may have major impacts on land use, congestion, and energy consumption patterns.

However, automation may also open up transportation opportunities for non-drivers, allow more centralized adjustment of traffic patterns for equitable and efficient outcomes, or centrally regulate goods movement in the community via the integration of technology. As the full implications of autonomous vehicles are not yet known, Beaumont should remain actively involved in the regulatory environment at all levels of government to determine how best to integrate this technology into our transportation system. Beaumont has embraced this change and demonstrated its openness to innovation by supporting an autonomous vehicle pilot project along 50 Street over the spring, summer, and fall of 2019. This project marked the first time the autonomous vehicle ELA (Electric Autonomous) has been integrated with on-street vehicle traffic in Western Canada.

Mobility as a Service is a consumer-centered model that is playing a growing role in the design and operation of transportation systems around the world. It focuses on providing users with access to all modes of transportation on demand, rather than on ownership of a particular mode. Through a smartphone app individuals can view options (including mode, cost, and time based on current conditions) for a complete trip from origin to destination, and book and pay for all parts of the trip simply by selecting it. The app presents different modes seamlessly integrated into one trip to maximize the efficiency of the overall journey. Mobility as a Service has the potential to shift individual users from relying on only one form of transportation to taking multi-modal trips that prioritize efficiency and cost. Many individual changes may, over time, result in system-wide shifts in mode share that reduce structural issues like congestion. The City will need to continue to evaluate its role in ensuring this technology, and associated mobility, is accessible and affordable to all residents.

To build a livable and complete community, we must develop a transportation system that is efficient and provides all users with equitable access to transportation choices. Our Connectivity recognizes the importance of

ensuring transportation planning policies are proactive in their approach to global trends. There is significant potential for electrification and automation to change the way our vehicles function, and for Mobility as a Service to alter the way our transportation system is accessed. Moving forward it will be important to analyze and plan in a manner that acknowledges the current transportation patterns, but also continues to embrace innovation.



Our Connectivity Vision and Goals

Through the community engagement process, a vision was established for Our Connectivity. The vision is an aspirational statement that describes Beaumont's ideal future transportation system, and was developed with input from the Technical Working Group, elected officials, stakeholders, and residents. It is consistent with Our Complete Community's goal statement with respect to transportation, as well as with the design approach described in Section 2.1 of this plan. It is inclusive and acknowledges the importance of transportation infrastructure both locally and regionally.

The vision and goals of Our Connectivity balance the needs of all modes within the transportation network, fostering inclusive environments where all modes are realistic options for all users. In turn, it enables residents and visitors to make fully informed transportation choices. This approach anticipates future trends in transportation planning and ensures the City can continue to offer an effective transportation system as it grows.

Our community is supported by a resilient transportation system that provides safe and inclusive options for active living and effectively connects residents, goods, and services both locally and regionally.



Goals

1

Strengthen Beaumont's transportation network so it supports all modes in a safe, efficient, and convenient manner and offers viable transportation choices.

2

Increase the mode share of active transportation and transit.

3

Support the safe and efficient movement of goods and services while minimizing any negative impacts of commercial traffic.

4

Collaborate with partner organizations, provincial agencies, and municipalities to develop a regionally cohesive transportation system in alignment with the goals set out by the Edmonton Metropolitan Region Board.

3.0

Vehicle Movement

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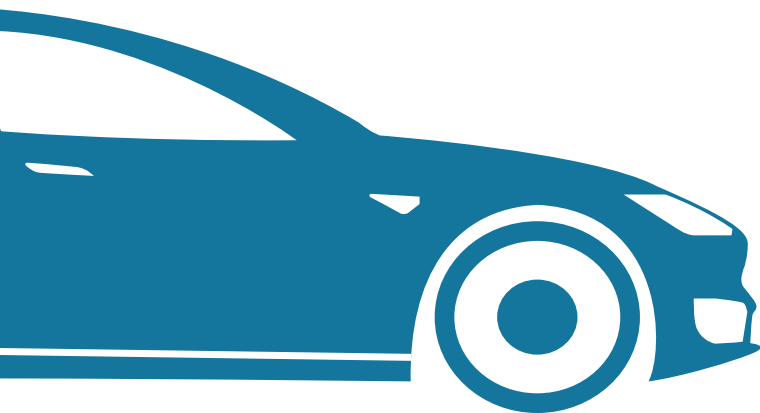
Introduction

It is necessary to **ensure** that the **roadway network supports safety and efficiency** for drivers while also offering **convenient, viable, and safe transportation choices for all users.**

At the core of transportation planning are people who need to get around their city and region. Currently, the roadway network effectively facilitates the movement of private and commercial vehicles. Drivers and passengers experience a high level of convenience and comfort for local and regional trips. However, many seniors, youth, people on low income, or people who experience a disability do not have the same level of access to all areas of the community as people who are able to drive and have access to a vehicle.

To align with the objective to foster an inclusive community, it is crucial to balance the requirements for private vehicle trips with the requirements for trips by other modes. In considering the movement of vehicles in and around the City, it is necessary to ensure that the roadway network supports safety and efficiency for drivers while also offering convenient, viable, and safe transportation choices for all users.

When the transportation system provides users with reliable options, they experience greater freedom and the system as a whole is more efficient and resilient. To achieve the vision and objectives of this plan, create a complete network, and shift transportation choices to a greater range of modes, it is vital to take a bold and progressive approach in managing the movement of vehicles in a multi-modal context.



Key Considerations

Developing a complete network requires a focus on multi-modality. This includes both the built form of streets and the regulations that impact their use, such as speed limits and parking. The following section considers the role of roadway planning, design, management, and redevelopment in shaping an evolving transportation system that facilitates the movement of vehicles alongside other modes.

Roadway Classification

Roads are designed in consideration of their function in the network, the surrounding land use context, and anticipated traffic volumes. The roadway classification hierarchy, presented in Map 1, provides a framework for identifying these different roadway types that collectively build towards the vision of *Our Connectivity*. It includes all major existing and proposed roads in the City and is a tool for shaping the planning, design, construction, and operation of the transportation system. It is based on the standard street designs as described in **Table 1-Street Classification System**. In order to guide the development and redevelopment of streets according to *Our Connectivity's* vision, the roadway classification system must outline standards that are consistent with a balanced, multi-modal network.

These street classifications include anticipated traffic volumes. While the goal of the transportation system is not always to eliminate or reduce congestion, when actual traffic volumes exceed the anticipated measures, congestion management strategies need to be implemented. Approaches like widening the total road right of way available for cars may temporarily ensure that roads are less congested. However, an alternative strategy is to redistribute vehicle trips to other modes by providing infrastructure and service for these modes. This mitigates congestion in a way that better aligns with the vision and goals of *Our Connectivity*.

Speed Limits

Speed limits impact how streets are used; they influence the flow of vehicle traffic, the comfort level of cyclists and pedestrians, and the distances between transit stops. The limits shown are the “posted speed,” or the maximum vehicle speed that the municipality mandates along these roadways. “Design speeds” are the maximum safe vehicle speed for the roadway design itself, independent of weather conditions, other road users, or adjacent land uses. “Target speeds” are the speeds vehicles end up travelling based on the driver’s behaviour, which is shaped by the roadway’s makeup and surrounding environment.

To fulfill the vision of this plan, the City needs to design for and set speed limits in a manner that supports a safe, multi-modal and inclusive transportation network. Additionally, it is vital to design and redesign roadways that incorporate features that reduce the number and mitigate the impact of potential collisions. Notably, the risk of injuries or fatalities for collisions involving vehicles hitting pedestrians or cyclists increases dramatically at vehicle speeds above 40 to 50 km/h. Reinforcing safe target speeds for vehicles through roadway design and designated speed limits will foster safer streets for all users.

**VIEW MAP 1:
ROADWAY NETWORK**

Table 1. Street Classification System

Street Classification	Typical Number of Travel Lanes	Traffic Volumes (Vehicles per day)	Target Speeds (KM/H)
Local road	2	<1,000	<30-40
Collector road	2	<7,000	30-40
Arterial road	2-4	<30,000	40-70
Highway	2-4	<50,000	70-100



Parking supply is greater than the overall demand.

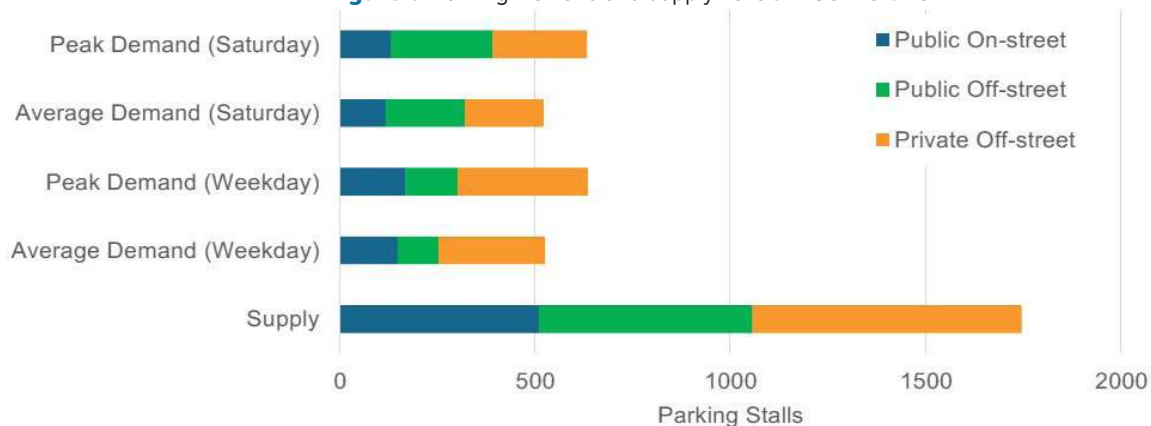
Parking

The amount and location of parking is mandated through the Land Use Bylaw. Currently, there is ample on- and off-street parking available throughout the City. However, the utilization rates of parking areas vary widely based on land uses and time of day. This may create the perception that more parking is needed to support driving as a transportation option. The City of Beaumont should manage parking in a way that aligns with Our Connectivity and promotes more efficient use of existing parking.

On-street parking is a public resource that should be managed in a manner that provides the greatest benefits for the overall transportation system. In support of this goal, space dedicated to off-street parking should be used as extensively as possible for that purpose. This can be supported through simple interventions such as signage to indicate the location and availability of nearby off-street parking. Supporting active transportation and transit can also reduce the total amount of parking required, as users may choose not to use a car to make a trip if there are other options that are safe, convenient, and comfortable. Requiring less parking for development or removing the requirement altogether can reduce the cost of development and instill greater affordability in the market.

A parking analysis of the Centre-Ville area has indicated that parking supply is several times greater than the overall demand for all three major forms of parking provision, as displayed in Figure 10. This imbalance indicates that significant areas of public and publicly accessible space are under-utilized. Repurposing some spaces that are currently dedicated to parking as parks, patios, bus stops, or thoroughfares for active modes in areas of the community where these types of facilities are suitable will provide greater utility for the public. The existing oversupply of parking indicates that this can be done while ensuring that parking continues to be provided in a manner that supports private automobile travel as a transportation choice.

Figure 9. Parking Demand and Supply Levels in Centre-Ville



Traffic Calming is an important way to decrease the potential and severity of conflicts between modes.

Access Management

A major component of the transportation system is access management. Access locations, such as driveways, major roadway intersections, and parking lot entrances, are crucial to the function of the overall network, however they often create conflict points between users and modes of transportation. Managing access through appropriate design and controls is vital to reduce the potential for conflict and ensure that vehicles, pedestrians, and cyclists are able to travel throughout the city and access destinations safely.

Traffic Calming

Traffic calming is an important way to decrease the potential and severity of conflicts between modes. Traffic calming techniques align the target speed of vehicles with conditions that are safe for multiple modes sharing the roadway. Streets that incorporate traffic calming techniques can be designed and developed in new neighbourhoods or retrofitted in existing neighbourhoods to create an environment that is comfortable for all users.

Traffic calming measures have been implemented in Beaumont where there have been concerns about speeding, conflict between modes, and traffic levels exceeding the intended roadway classification. The City of Beaumont is working to ensure that traffic calming approaches reflect the need for a safe, efficient, and convenient transportation system. Through adopting Our Connectivity, the City of Beaumont can ensure that the traffic calming measures that are implemented align with the broad strategic direction envisioned for the transportation system.

Transportation Impact Assessments

Transportation Impact Assessments offer another opportunity for the City to develop and redevelop its transportation network in a manner that supports the vision of Our Connectivity. The City and developers use Transportation Impact Assessments to determine future infrastructure requirements for new neighbourhoods, subdivisions, and developments. These analyses need to reflect a multi-modal network approach where the focus is on all modes of transportation, not just automobiles. One component of achieving this is through using new analytical methods. This ensures that the continuing development of the transportation network is consistent with the direction of Our Connectivity.



Goods and Service Movement

As the commercial and industrial sectors within the City and the wider region grow and expand, the overall number of vehicles directly associated with goods movement will also continue to grow. It will be important to manage any negative effects associated with goods movement, such as impacts on infrastructure and the circulation of other modes. In order to support economic growth in a manner that still achieves the vision of Our Connectivity, a balanced approach to supporting and managing the movement of goods is required.

Designating certain roads to accommodate truck traffic associated with goods and service movement supports the efficient and safe movement of goods and services. This can be facilitated through creating bylaws that identify truck routes within the City. Roadways that are designated in this way can be prioritized to be better designed to accommodate this type of transportation. Areas that prioritize active transportation and transit, such as Centre-Ville, may limit commercial truck movement to protect the pedestrian character of these areas. In developing a network of Truck Routes, it is crucial to facilitate safety and efficiency in a manner that mitigates impacts on the multi-modal transportation network.

Intelligent Transportation Systems

Intelligent Transportation Systems is a form of transportation system management that analyzes traffic conditions and adapts traffic controls to alleviate congestion and provide for a more efficient overall transportation system. Increased analysis of the transportation system results in more informed decision making with regards to the roadway network. Using Intelligent Transportation Systems can create a more flexible, adaptive, and resilient transportation network. Using this approach means that infrastructure would not have to be overbuilt to handle influxes of traffic that are experienced at peak traffic periods. Rather, traffic signals and route-planning apps could adapt to current conditions to provide overall transportation system efficiency. Additionally, continuing to monitor the impact of autonomous and electric vehicles on the transportation system means that private automobile traffic can be supported in a manner which best harmonizes with the evolving nature of this form of transportation.

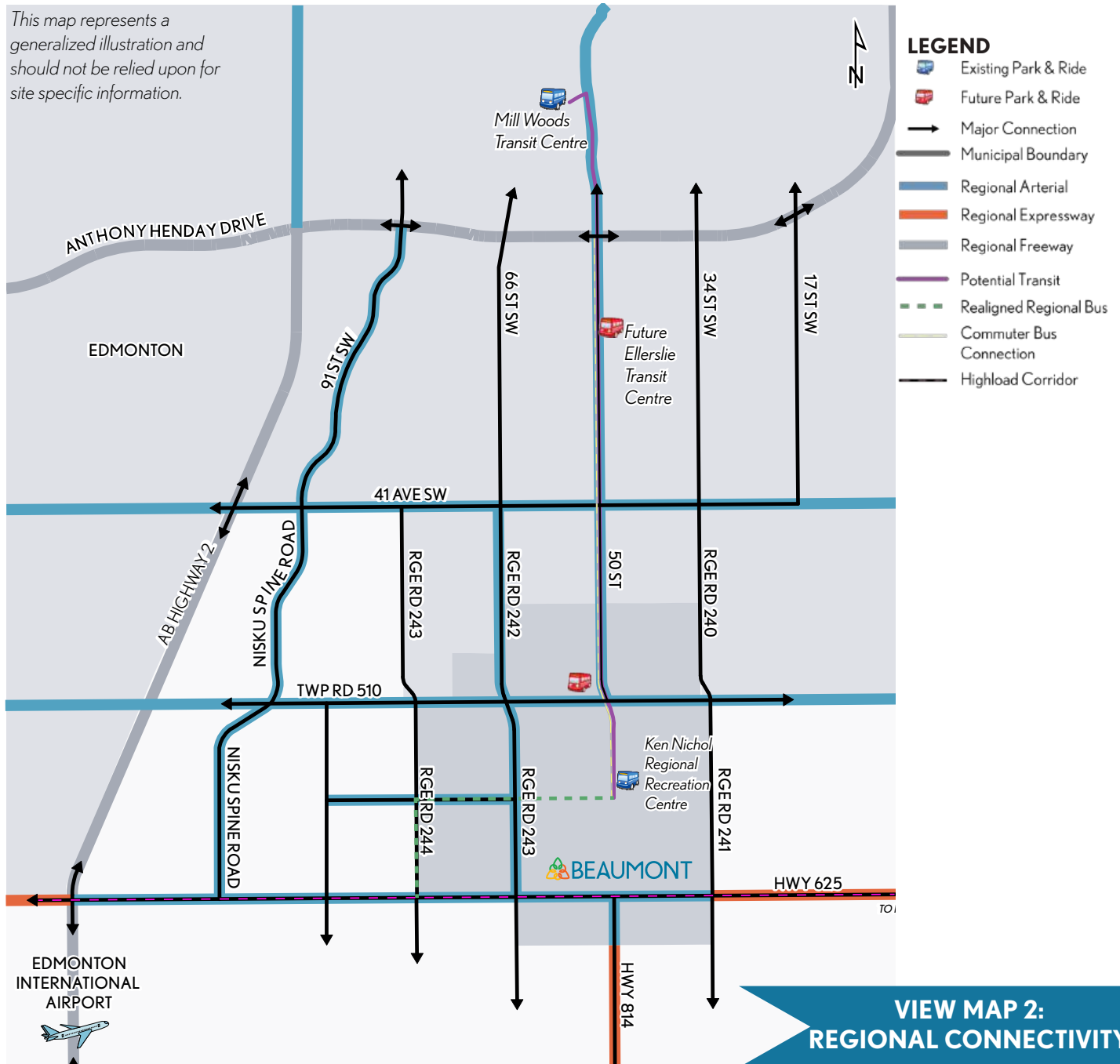


Regional Connections

The major arterial corridors and the provincial highways form the basis of the regional roadway network for the City and our neighbours. These connections are highlighted in Map 2 Regional Connectivity. In addition, the regional movement of private and commercial vehicles is shaped by the Edmonton Metropolitan Region Growth Plan and Integrated Regional Transportation Master Plan. In light of this, and the role of highways in the regional network, the City endeavors to work

collaboratively with its municipal neighbours, provincial agencies, and partner organizations to develop and maintain a regionally cohesive transportation system that facilitates higher speed vehicle travel to regional destinations and aligns with the goals of higher order plans. Of key importance in this discussion is Highway 625, which is designated as a High-Load Corridor by the Province of Alberta.

Figure 10. Map 2 Regional Connectivity (refer to page 70 for full size map)



VIEW MAP 2: REGIONAL CONNECTIVITY



Summary

All components of the transportation system must align with the vision of Our Connectivity in order to achieve the goals of this plan. Managing the movement of private vehicles and mitigating the impacts of commercial traffic is a vital part of offering safe, efficient, and convenient transportation choices.

In addition, planning, designing, and redeveloping the transportation network to facilitate the movement of vehicles alongside other modes is a step in increasing the mode share of active transportation and transit. Finally, it is crucial that roadways align with a regional network that offers vehicles safe and efficient connections to surrounding destinations.

The following objectives and policies are designed to ensure that roadways are planned and managed to facilitate the movement of vehicles in a manner that supports the vision and goals of this plan.

Managing the movement of private vehicles and mitigating the impacts of commercial traffic is a vital part of offering safe, efficient, and convenient transportation choices



Objectives

1

Develop and maintain a roadway network that supports safe and efficient travel for private and commercial vehicles in a multi-modal context.

2

Use a range of approaches to monitor, analyze, and manage the roadway network to align with the needs of evolving transportation systems and promote the effective use of land and municipal resources.

3

Coordinate the planning and management of the regional roadway system with neighbouring municipalities, Alberta Transportation, and the Edmonton Metropolitan Region Board.

Policies

- 3.1** The roadway network shall be developed and maintained using Our Connectivity’s design approach in a manner that reflects the land use and overall transportation system context.
- 3.2** Area Structure Plans, Area Redevelopment Plans, and Neighbourhood Area Structure Plans shall provide land use direction and transportation policies that align with this plan.
- 3.3** The regional roadway network:
- a.** Shall be developed in accordance with the Intermunicipal Planning Framework;
 - b.** Shall be developed to ensure the functionality of current High-Load Corridors; and
 - c.** Should be developed to limit roadway width by ensuring redundancies in the network that allow drivers to choose alternate routes and traffic to be distributed within and around Beaumont.
- 3.4** Traffic and congestion management techniques that encourage the redistribution of private vehicle trips to other modes or times of day should be considered prior to adding vehicle lanes to an existing roadway.
- 3.5** Access management shall consider roadway classification, adjacent land uses, and safety implications for all modes.
- 3.6** The Development Authority may relax current parking requirements through the use of innovative approaches. These include, but are not limited to:
- a.** Providing cash-in-lieu of displaced parking;
 - b.** Reducing parking requirements where suitable;
 - c.** Identifying parking allocation maximums where suitable; and
 - d.** Allowing for shared off-street parking in parking areas that service multiple uses.
- 3.7** On-street and off-street parking should be managed in a way that maximizes benefits for the overall transportation system. This may include, but is not limited to
- a.** Repurposing current on-street parking to new uses;
 - b.** Placing wayfinding signage in higher-demand areas to help drivers locate parking; and
 - c.** Supporting efforts to effectively utilize existing off-street parking.
- 3.8** Speed limits and roadway design should consider the land use context and the overall transportation network in alignment with Our Connectivity.
- 3.9** The safety of the roadway network shall be improved by eliminating conditions that may increase the risk of conflicts, serious injuries, and fatal crashes by:
- a.** Employing traffic calming techniques to encourage the safe use of all modes within the transportation network;
 - b.** Investing in intersection improvements, traffic control measures, roadway upgrades, and active transportation infrastructure upgrades in alignment with the goals and policies of Our Connectivity; and
 - c.** Designing roadways in alignment with their target speeds and anticipating reasonably possible collisions.



Policies

- 3.10 Transportation Impact Assessments:
- Shall be required to support all Area Structure Plans;
 - May be required to be resubmitted or updated to support subdivision applications;
 - Should be completed for all development applications where the development may present further impacts to the safety and efficiency of the transportation networks beyond what is indicated within a Transportation Impact Assessment completed for a subdivision application;
 - Should consider context sensitive vehicle movement assumptions, mode share allocations, and reduced trip generation rates;
 - Should promote the inclusion of improved walking and cycling facilities, especially for redevelopments within the Centre-Ville; and
 - May use a variety of indicators depending on the context of the development, and modes to be served.
- 3.11 The importance of goods movement within and around Beaumont shall be considered in the review and approval of all commercial, industrial, and institutional developments to ensure reliable access and connectivity as well as loading zones and/or delivery areas.
- 3.12 Impacts of goods and services movement shall be mitigated by providing quality alternatives for through traffic to 50 Street and 50 Avenue that meet operating requirements.
- 3.13 Intelligent Transportation Systems technology should be investigated and implemented to actively monitor traffic patterns and adapt traffic controls to varying conditions.
- 3.14 The impacts of evolving vehicle technology should continue to be monitored to ensure that Beaumont continues to foster an innovative spirit with regards to changes in the transportation system, including, but not limited to;
- Autonomous vehicles; and
 - Electric vehicles.
- 3.15 Improvements to roads of regional significance (as identified in **Map 2: Regional Connectivity**) shall be coordinated and planned collaboratively with neighbouring municipalities and Alberta Transportation to strengthen existing and future regional connections. This includes, but is not limited to, updating the Highway 625 Functional Plan
- 3.16 The transportation system shall be planned and operated in alignment with the Edmonton Metropolitan Region Growth Plan and Integrated Regional Transportation Master Plan.



4.0

Active Transportation

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Introduction

Active transportation offers a variety of individual and community benefits, including better health, greater transportation choices, and environmental and economic benefits.

Active transportation is using one's own power to get from one place to another. It includes, but is not limited to, common activities like walking, cycling, jogging, or using a wheelchair. Active transportation is primarily used for shorter trips, up to 1.5 km for walking and 6 km for biking. These trips can typically be completed in 15-20 minutes. Active transportation offers a variety of individual and community benefits, including better health, greater transportation choices, and environmental and economic benefits. Active transportation is also an affordable option entailing few, if any, direct costs for users. Experience from other jurisdictions has shown that as municipalities grow and densify, the proportion of active transportation trips also grows.

It is recognized that walking is the most fundamental means of transportation. Walking (including the use of assistive devices such as wheelchairs and walkers) is a part of every trip, including the beginning and end of all vehicle trips. It serves all ages and abilities, and is inclusive, affordable, social, and sustainable. Cycling is another component of active transportation, as it is very energy efficient, relatively inexpensive, and effective for short to moderate distances. Walking and cycling are the main components of the discussion below; however, other forms of active transportation lead to similar benefits as walking and cycling and should therefore be considered when planning active transportation facilities.



Key Considerations

Perhaps the most significant way to promote active transportation is to provide comprehensive networks of safe, appealing active transportation facilities. This will be supported in Beaumont by the “pedestrian-prioritized” design consideration, which acknowledges that pedestrians are the most vulnerable road users and prioritizes their needs in decision-making regarding transportation facility maintenance, expansion, and renewal. Cycling will be designed for in a similar way, recognizing that cyclists, while not generally as vulnerable as pedestrians, experience vulnerability in comparison to transit and vehicle movement. Supporting factors such as planning for mixed land uses, designing for all users, providing well-designed intersections and end of trip facilities, implementing supporting policies, and collaborating with regional partners can reinforce these networks. This section reviews each of these considerations in turn.

Complete Networks

To support walking and cycling as modes of choice, active transportation infrastructure must provide safe, comfortable, and convenient access to community amenities, commercial areas, and transit service. This type of network, where all trips in the community can be made on foot or by bike regardless of their origin and destination, can be described as a “door-to-door” network. Safety and comfort within the network can be supported by providing infrastructure such as consistent lighting, or by locating trails and sidewalks in busy, visible areas to promote safety through the presence of others (a concept known as “natural surveillance”).

There is currently a strong foundation for a door-to-door active transportation network. To achieve the goals of the active transportation network, missing connections and required improvements will need to be identified, prioritized and addressed. The following table describes common active transportation infrastructure types, along with their features and the potential design standards to be applied. They are defined as either multi-use or single-use. Multi-use means that more than one mode is supported, while single-use facilities support only one form of active transportation.



Table 2. Overall Active Transportation Infrastructure Classification

	Facility Type	Modes Supported	Characteristics
Multi-Use	Shared Streets	Vehicles, Cyclists, and/or Pedestrians	<ul style="list-style-type: none"> Traffic volumes are low because the street is not intended for through traffic but primarily to provide local access for residents. The built form and road design encourages a slower travel speed through a narrower street width, as well as any traffic calming measures that may be in place.
	Roadway Network	Vehicles, Cyclists	<ul style="list-style-type: none"> Local roads, with lower traffic volume and speed, are comfortable environments for most cyclists. Collector and arterial roadways may be comfortable for more experienced cyclists where separated cycling facilities are not present.
	Multi-Use Trails	Cyclists, Pedestrians	<ul style="list-style-type: none"> Ideal minimum width of 3.0 m Comfortably accommodate pedestrians, cyclists, and other forms of active transportation at once. Present in open spaces and park areas and along roadways that have higher speeds and traffic volumes. Hierarchy and seasonal maintenance standards defined in <i>Open Space and Trails Master Plan</i>.
Single-use	Separated Cycling Facilities	Cyclists	<ul style="list-style-type: none"> Cycling routes with physical separation from other modes can take two forms: <ul style="list-style-type: none"> * Bike lanes are used along busy streets that have higher speed limits (>40km/hr) and traffic volumes (>5000 vehicles per day) * Cycle tracks are used along busy pedestrian corridors Physical separation may take the form of elevation difference, bollards, planters, or concrete barriers.
	Sidewalks	Pedestrians	<ul style="list-style-type: none"> Typically provided along both sides of a roadway May also be present along a cycle track 1.5 m or more in width

Map 3 shows the proposed Pedestrian Connectivity Network. It includes many of the facility types described in the table above, and is intended to accommodate both recreational and destination-based trips. The major elements of the network are described below:

- Sidewalks are for the exclusive use of pedestrians and child cyclists, unless otherwise permitted via signage, and are intended to be provided along both sides of most streets in the City.
- Multi-use trails are shared with cyclists and provide additional route choices, links between unconnected roadways, and access to many destinations. The map indicates where these facilities are planned to extend into future development areas.
- Intersections link pedestrian routes across arterial roads and are components of a safe, comfortable and well connected network.

VIEW MAP 3: ACTIVE TRANSPORTATION - PEDESTRIAN



Map 4 shows the proposed Cycling Connectivity Network. It presents a high-level, long-term concept for the cycling network, and has the potential to include any of the facility types described in the table above. The network is intended to appeal to a range of cyclists for a variety of trip purposes, both recreational and utilitarian. The major elements of the network are described below:

- Multi-use trails are shared with pedestrians and provide off-road routes, connections between roadways, and access to many destinations.
- Local routes are roadways shared with a low volume and speed of vehicle traffic, and offer a variety of route choices for all or part of most cycling trips. In most cases, they are not intended to offer enhanced or dedicated cycling infrastructure, although such infrastructure may be considered in Centre-Ville. Both local routes and multi-use trails are generally comfortable for cyclists of all ages and abilities, especially where appropriate traffic calming measures are in place.
- Collector routes provide faster and more direct access to destinations. At present, these routes are shared roads without dedicated cycling infrastructure and are therefore most appropriate for confident cyclists. Additional review will be required to determine what, if any, dedicated infrastructure may be appropriate along these routes. In developing areas of the City, this review may occur during neighbourhood planning.
- Intersections link cycling routes across arterial roads. They require consideration for their role in providing safe access across higher speed and/or volume roadways to integrate all sections of the cycling network.

Development Patterns

Land use planning decisions define the location and density of land uses, including housing, shopping, schools, parks, and more. Because these decisions also influence the roads, sidewalks, crosswalks, and multi-use trails that connect land uses, they play a major role in the development of a complete active transportation network. If land uses are dense and mixed, then a wider

variety of destinations will be located close together when compared with a more separated, lower-density land-use pattern. Over these shorter distances, active transportation trips can become more attractive options. Promoting higher-density and mixed use development at the policy and planning stages can help create the type of environment that is easily served with convenient active transportation connections. Co-locating market and non-market affordable housing initiatives with strong active transportation infrastructure better meets the needs of those residents. Additionally, attention at the planning and development stages to transportation considerations, such as providing grid-like street patterns, short blocks, and strategic trail connections, can help support active transportation by providing safe and direct route choices. Our Complete Community sets out a variety of policies supporting mixed land uses, and the Our Centre-Ville: Area Redevelopment Plan provides additional direction for the urban core. Our Connectivity is intended to be consistent with these policies and provide further guidance regarding transportation infrastructure.

Planning for All Users

The vision of Our Connectivity includes developing a network that offers inclusive transportation options, and so a major component of its design approach is to consider the needs of all ages and abilities. Using “8-80” and “pedestrian prioritized” perspectives in the planning of active transportation facilities and continuing to provide effective seasonal maintenance can build on the City’s existing transportation assets. During the development of Our Connectivity, roads near schools were identified as requiring additional infrastructure and/or operating restrictions to enhance safety for children and youth using active transportation. Safe and accessible active transportation facilities should also be provided near existing and future seniors-oriented housing, particularly in Centre-Ville. Our Connectivity’s policy direction will respond to this need, and will also support actions to address other identified gaps and promote the development of a complete active transportation network for all users as we grow.

**VIEW MAP 4: ACTIVE
TRANSPORTATION - BIKING**



Intersections

Intersections, both marked and unmarked, support the overall connectivity of active transportation routes and pathways. Many intersections have low speeds, widths and traffic volumes, and are comfortable to navigate on foot or by bike. However, other intersections, particularly at arterials, have higher volumes of traffic moving at higher speeds. Crossing at these locations can feel riskier and more difficult for users. As a result, enhancing intersections may be undertaken to increase comfort and convenience for those who are walking and cycling. Enhancements can include using methods to slow traffic, increasing the crossing time provided for active transportation, or making users more visible at these locations.

Crossings of 50 Street and 50 Avenue, the major arterials within the developed area, may require particular attention to ensure active transportation connectivity for pedestrians and cyclists. Examples of these crossing locations are illustrated in Figure 11. Future crossing points of Highways 625 and 814, Range Road 243, and Township Road 510 should also be contemplated in the same manner as the City expands.

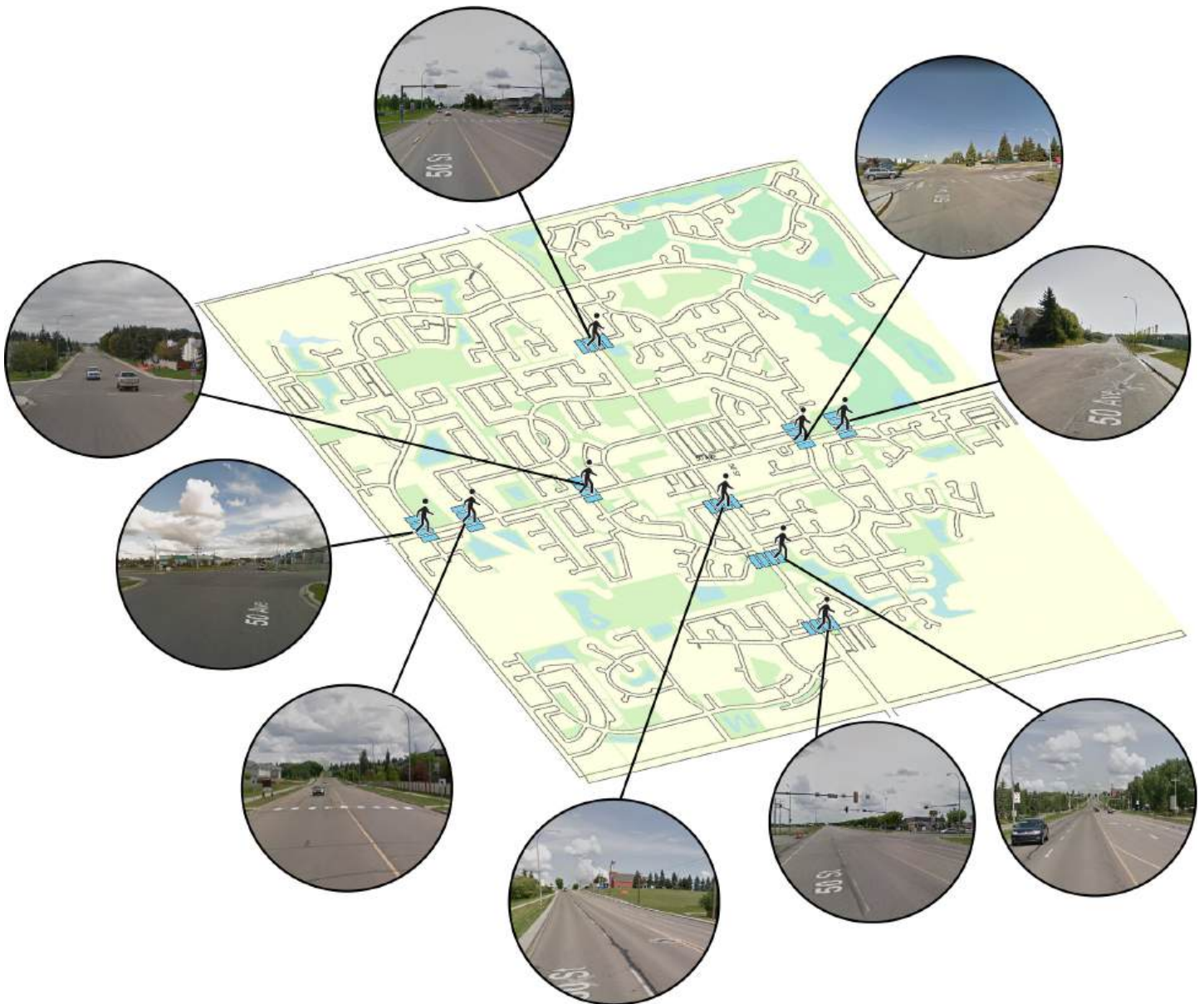


Figure 11. Examples of Active Transportation Crossings over Arterial Roads



Making active transportation a realistic transportation choice requires a strong policy framework and investment in infrastructure.

Supportive Infrastructure

Just as transit routes need bus stops and roadways need signage, active transportation routes need well-designed supportive infrastructure to improve their convenience, safety and comfort. For instance, benches and picnic tables can provide spots to rest, waste receptacles can discourage littering, wayfinding signage can provide information on routes and distances to destinations, and landscaping features can provide shade from the sun and cover from inclement weather. Secure and convenient bike parking facilities support and encourage cycling and should be integrated into all new commercial, institutional and multi-unit residential developments. Effective bike parking generally has the following characteristics:

- Located where it is visible and secure;
- Supports the bike frame in two places, not only the bike wheel; and
- Located near public doors of buildings.
 - For commercial buildings/complexes, located such that it serves all buildings/main entrances, including intermediate points for long buildings; and
 - For large multi-floor residential buildings, located indoors on the main building level.

Changing facilities are a much more resource-intensive facility type, and are not currently available at most workplaces and commercial areas. However, finding opportunities to partner with existing facilities like recreation centres and schools may allow this feature to be more available for residents and visitors.

Legislative and Policy Environment

Active transportation can be supported by legislation that increases the convenience and flexibility of these modes. For instance, the City's Traffic Safety Bylaw (834-14) and the provincial Rules of the Road Regulation (AR 304/2002) do not require cyclists to dismount and walk across crosswalks linking sections of multi-use trail, allowing for continuous travel along trail routes. For safety reasons, the Traffic Safety Bylaw allows bicycles to be ridden on sidewalks only by children whose bicycles have a wheel base of less than 50 cm or when permitted by signage; however, within this legislative environment, there may be opportunities for the City to designate shared pedestrian and low-speed cycling areas as warranted by the surrounding land use context, particularly in Centre-Ville.

Regional Connections

The Intermunicipal Planning Framework Agreement between the City, Leduc County and the City of Edmonton identifies high-level regional trail connections that are intended to form part of a coherent open space and active transportation network. Primary corridors in this framework include 50 Street, Township Road 510, and Highway 625, while secondary corridors include Range Roads 241 and 243. This may, in the future, be supplemented by a sub-regional Open Space and Active Transportation Plan to refine the corridor concepts and plan for implementation.



Summary

The active transportation system elements discussed have a role to play in supporting the vision of Our Connectivity and meeting its goals. A convenient, accessible and safe active transportation network will support choice in transportation modes and increase the share of trips taken using active transportation. We can also contribute to, and benefit from, regional collaboration on active transportation to develop well connected links beyond the City's borders. The objectives and policies below provide direction for the City's initiatives regarding active transportation, so that they contribute to achieving the vision and goals of this plan.

**A convenient,
accessible and safe active
transportation network will support
choice in transportation modes
and increase the share of trips
taken using active transportation.**



Objectives

1

Provide safe, convenient, and reliable active transportation infrastructure that is accessible to all ages and abilities.

2

Develop a complete active transportation network throughout Beaumont that reflects the surrounding land use context.

3

Coordinate the planning and management of active transportation connections with regional partners.

Policies

- 4.1** The following facilities shall be considered part of the active transportation system:
- a. Sidewalks;
 - b. Multi-use trails;
 - c. Shared streets;
 - d. Separated cycling facilities (bike lanes and cycle tracks);
 - e. Local and collector roadways;
 - f. Crosswalks; and
 - g. Intersections.
- 4.2** The following supportive infrastructure shall be considered part of the active transportation system:
- a. Benches;
 - b. Picnic tables;
 - c. Waste receptacles;
 - d. Wayfinding signage;
 - e. Bike racks/storage;
 - f. Changing stations;
 - g. Trees/landscaping; and
 - h. Any other facilities that support the use of the active transportation system.
- 4.3** The active transportation network shall be developed and maintained using Our Connectivity’s design approach, including the “pedestrian prioritized” and “8-80” considerations, in a manner that reflects the land use and overall transportation system context.
- 4.4** Active transportation facilities shall be identified in Area Structure Plans and implemented through the subdivision process and the application of City standards to achieve a well-connected network serving all community destinations in the urban areas of Beaumont.
- 4.5** The City shall ensure that active transportation facilities provide strong connectivity between typical origins and destinations by:
- a. Filling existing gaps, removing barriers, and ensuring optimal trail width in the sidewalk and multi-use trail system;
 - b. Building out a “door-to-door” cycling and pedestrian grid made up of various facility types;
 - c. Aligning with the network of current and planned arterial and collector roadways; and
 - d. Integrating end of trip facilities where appropriate.
- 4.6** The City shall enhance intersections and crosswalks where warranted by the land use and traffic context, to provide comfortable crossings for active transportation users. Enhancements may include, but are not limited to:
- a. Increasing the visibility of intersections through the use of flashing amber beacons or pavement treatments such as brick or paint;
 - b. Providing clear signage to indicate that cyclists need not dismount in crossings linking multi-use trails;
 - c. Raising the grade of intersections to slow down vehicle traffic; and
 - d. Improving traffic signals by removing “call button” requirements, installing on-demand sensors, ensuring sufficient crossing time for all ages and abilities, and including active transportation crossing phases as volume demand warrants.



Policies

- 4.7** Active transportation facilities should be comprehensively integrated into the land use planning and development process for new or redeveloping sites to support multiple route choices for active transportation through various methods, including (but not limited to):
- a. Prioritizing denser mixed use development;
 - b. Co-locating affordable housing initiatives with areas of high active transportation connectivity;
 - c. Requiring safe, direct pedestrian connections from sidewalks and parking lots to public and commercial building entrances;
 - d. Planning for shorter, interconnected blocks and midblock crossings;
 - e. Connecting new active transportation infrastructure with existing infrastructure; and
 - f. Improving current active transportation infrastructure.
- 4.8** Enhanced walking and cycling connectivity should be provided within Centre-Ville to promote active transportation mode choices.
- 4.9** Active transportation facilities and supportive infrastructure shall be planned and built in a manner that maximizes safety and access for users of all ages and abilities, with consideration for nearby land uses and mode priorities within the network.
- 4.10** Supportive active transportation infrastructure shall be planned for and built through collaboration across City departments to ensure the network provides appropriate infrastructure, with consideration for resource allocation and operating requirements.
- 4.11** Seasonal maintenance should be provided in a timely matter to ensure that the active transportation system is accessible during all seasons.
- 4.12** Regional trail connections shall be established to link contiguous land uses and development in a manner that supports and promotes active transportation.



5.0

Transit

Introduction

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Key Considerations

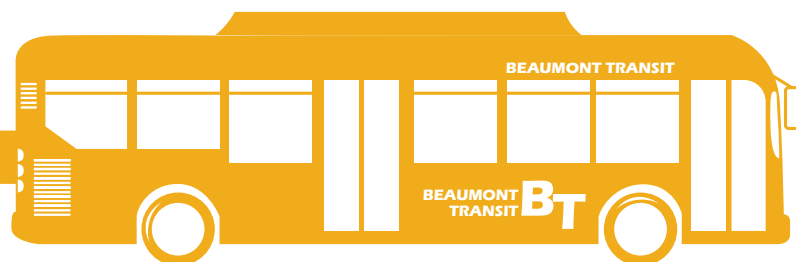
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Objectives

p62

Policies

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BEAUMONT TRANSIT

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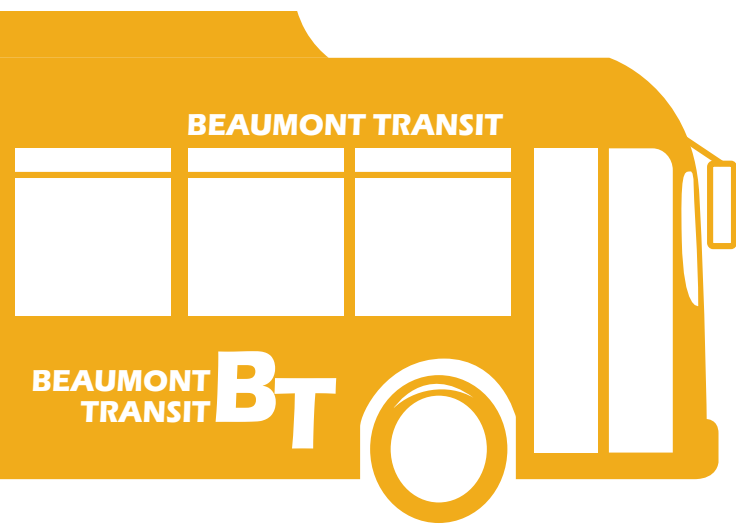
BEAUMONT TRANSIT BY

Introduction

Growth in transit will occur as both the municipality and its transit service grows. Therefore, Our Connectivity should set the stage for increased transit service.

Transit generally refers to a system of vehicles that have the capacity to transport groups of people along fixed routes on predetermined schedules. The size, length, and configuration of the transit vehicle can vary dependent on the form of transit and the transit route's context.

Transit was implemented in Beaumont in 2017 as a commuter service to the City of Edmonton. Experience from other jurisdictions in the Edmonton Metropolitan Region has shown that a correlation in the proportional growth in transit use will occur as both the municipality and its transit service grows. Therefore, Our Connectivity should set the stage for increased transit service. Transit can be a more affordable option, for both individual users and municipalities, when compared with the purchase, maintenance, and infrastructure costs associated with private vehicle ownership. As transit may be particularly sought after by youth and seniors, the City should plan an accessible system with consideration of the 8-80 principle and the City's demographics. Additionally, the transit system needs to be a part of a multi-modal transportation system to ensure that the start and end of each journey is supported by a strong active transportation network.



Key Considerations

As the City grows, its transit service can grow by leveraging existing plans and infrastructure. Transit has the opportunity to grow as quickly as the City does. Planning for this expansion in transit will require considering regional and local connections, while also taking into account considerations like land use context and demographics.

Development Patterns

The connection between land use and transportation planning is especially clear in relation to transit. What is evident from Figure 12 is that the number of people moved per hour by private motor vehicles is less than the number of people moved per hour by any form of transit. In other words, transit moves more people more quickly, especially in dense areas with mixed uses where there are more trips being completed. Generally, providing strong transit service in areas with chronic congestion can limit congestion and improve connectivity for all modes of transportation due to its ability to move more people per hour. Congestion management techniques such as transit-priority lanes can further improve the efficacy of the transportation system by ensuring efficient transit service and thereby increasing its appeal.

Because transit operates most effectively in denser areas, and generally cannot operate well in low-density contexts, it must be considered from the earliest stages of land-use planning. Transit accessibility, particularly at peak times of day, is a priority for major community destinations such as schools, recreation centers, medical offices, shopping areas, and employment areas, as well

as for medium- and higher-density housing. Planning for these developments within a walkable 5-10 minute distance to transit (400-800m) helps land-use patterns support transit as a convenient and accessible transportation option. In particular, planning affordable housing investment in locations that offer transit connections to key destinations provides tremendous value for both residents and the City.

Thoughtfully integrating land use and transportation planning processes results in a more efficient design for the community and the transportation system. If a strong transit system is available, development may require less parking or roadway capacity. In turn, the land area that would have been required for these facilities, as well as the funds required for their construction and maintenance, can be allocated for other uses.



Figure 12. Capacity (people per hour) of a roadway lane used by different modes



Residents of the Edmonton region who live below the poverty line are twice as likely to use transit.

Demographics

Post-secondary students and commuting employees are often the first to adopt transit, because commuter transit allows them to complete the trips they make for school or work in an efficient and direct manner. Both of these populations would receive enhanced accessibility if regional transit was offered throughout the day. Young people, seniors, and those who experience disabilities are also among the early adopters of transit because of their limited access to private automobiles. Seniors who are retired may make more local trips over the course of the day. Young people may commute to and from school via transit or use it to access activities on evenings and weekends. Those who experience disabilities may also wish to use transit in a variety of ways to meet their day-to-day needs, and will benefit from accessible transit with minimal barriers to use. Overall, these groups may not be well served by the current structure of Beaumont Transit because of lack of local transit.

As evident from Figures 13 & 14, residents of the Edmonton region who live below the poverty line are twice as likely to use transit as those who do not. Because transit is disproportionately relied on by those who experience poverty, it is vital to ensure that they are able to maintain access. A means-based test to access transit at a rate that is discounted from regular fare price would ensure that access to transit is maintained and that the transportation system overall can become more inclusive. The distribution and needs of this population within the community should also be considered when designing transit routes and infrastructure. The planning of the transit system should have special consideration for the demographics discussed, as the service expands in a manner that allows transit to become an attractive mode choice for all residents. Regularly surveying current, past, and potential transit riders would support the operation and future growth of the transit system.

**EDMONTON REGION
MODES OF TRANSPORTATION
PEOPLE ABOVE POVERTY LINE**

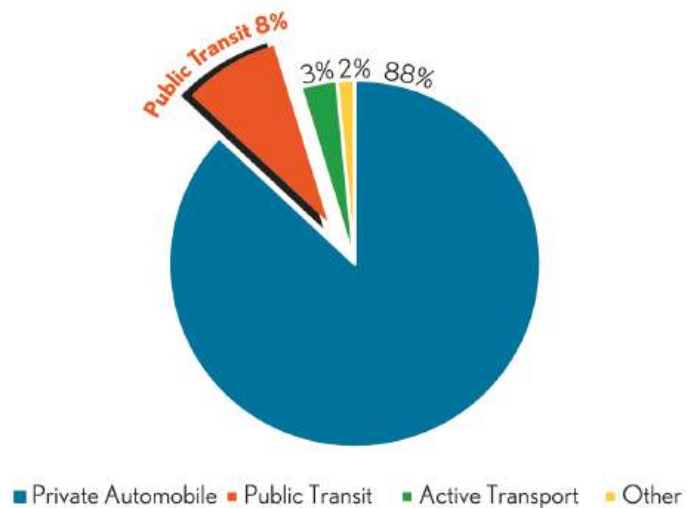
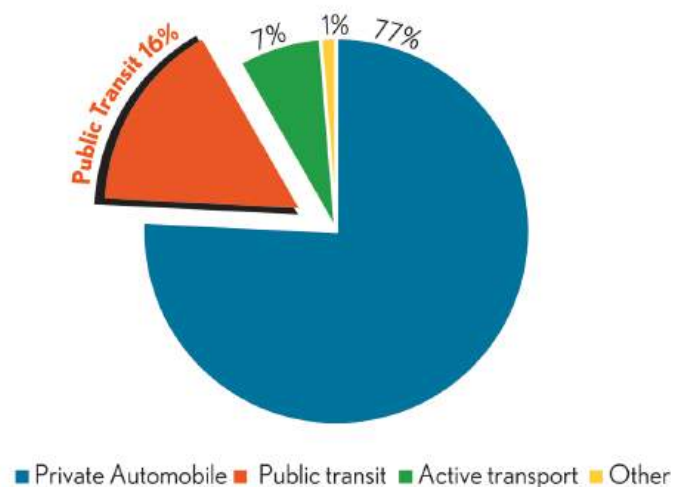


Figure 13 & 14. Edmonton Region chosen modes of transportation for people above the poverty line (above) and for people below the poverty line (below)

**EDMONTON REGION
MODES OF TRANSPORTATION
PEOPLE BELOW POVERTY LINE**

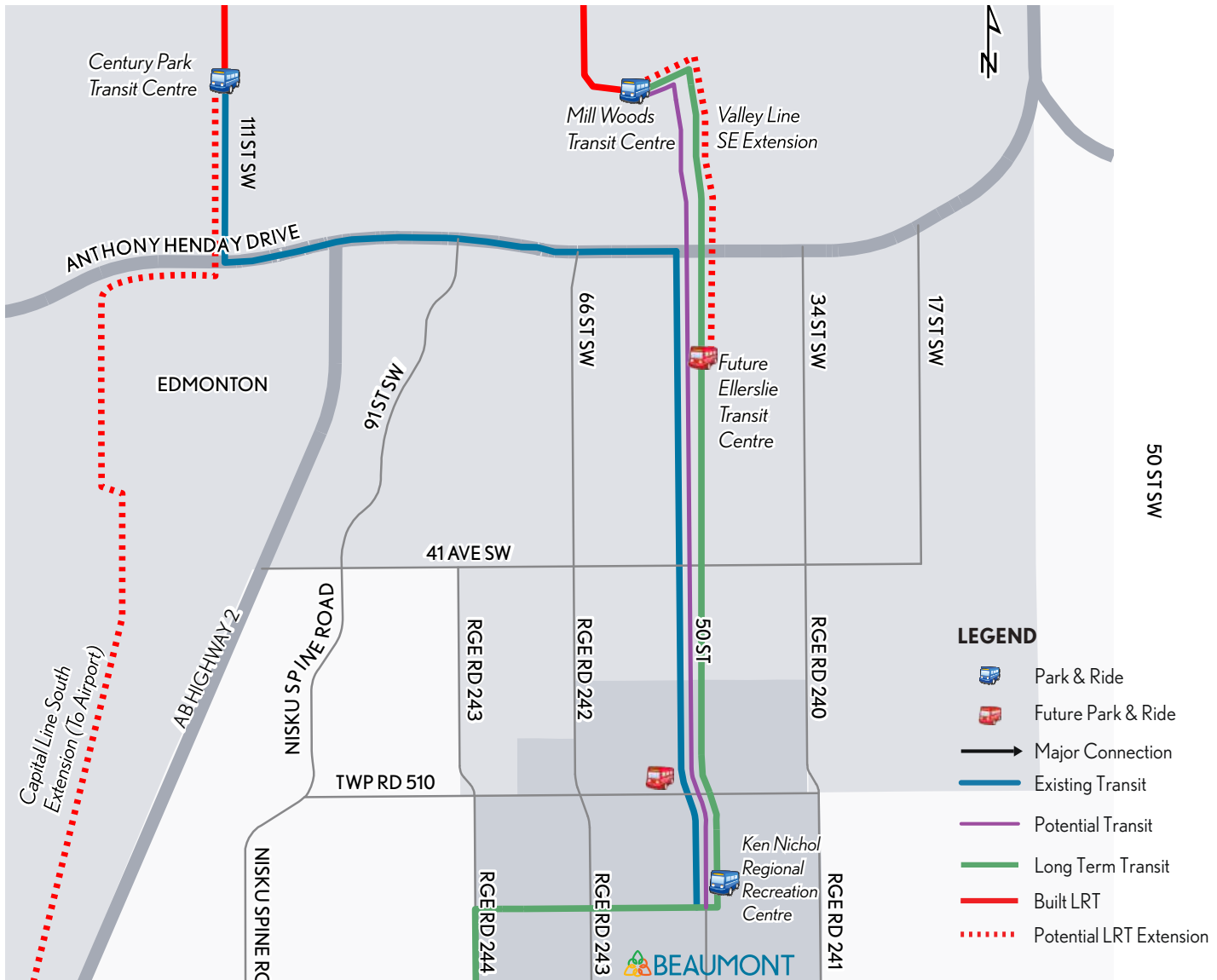


Local Transit Connections

In the near future, the transfer location for Beaumont Transit will shift from Century Park LRT Station to the newly opened Mill Woods Town Centre LRT Station reducing the travel time for this route by 10-15 minutes during peak hours. This change could allow additional bus stops to be provided along the existing route for walk-up trips, while still allowing the route to be completed during the current time frame. After the LRT is extended to the future Ellerslie Transit Centre, even more stops could be added, likely within the Centre-Ville area. This improves coverage with little to no additional operating cost, which could lead to increased ridership and improved cost recovery. In addition to the extension of commuter service, regional experience indicates that ridership will grow such that local service can be added in the short term. Local service becomes increasingly

important as the City continues to expand and trips within the City cover longer distances. As Centre-Ville develops, it will drive transit use through higher density housing, aging in place facilities, diverse land uses, high quality streetscaping, and pedestrian infrastructure. Additionally, as the City expands, many children and youth may need to travel longer distances to school, and local transit could allow them to do so. Local routes will need to connect to the existing regional route with a timed transfer. The local transit service would use collector and arterial roads to connect to community destinations (schools, libraries, recreation centers, shopping, and employment).

Figure 15. Map 5 Transit (refer to page 73 for full size map)



Park and Ride

Providing a Park and Ride option gives better access for potential commuter transit users by providing a location where they can access a strong transit connection by car, bike or foot. Currently, transit users may park at the Ken Nichol Regional Recreation Centre and then ride transit. As ridership grows, the Park and Ride location will fill to capacity and a new Park and Ride centre will be needed (conceptual location depicted in the Figure 16 - Current and Future Park & Ride). Comprehensively planned new Park and Ride facilities should:

- Be located in a manner that shortens trips to common destinations served by transit;
- Be located near the main arterial to be used by the transit route, to shorten the overall transit route;
- Be located to easily connect with both the active transportation and private vehicle transportation network, to foster multi-modality in the transportation system;
- Share parking with a compatible use whose peak hours are in evenings or on weekends, when transit users would not park there; and
- Accommodate a transit centre where local routes connect with a regional route, to facilitate door-to-door transit journeys.

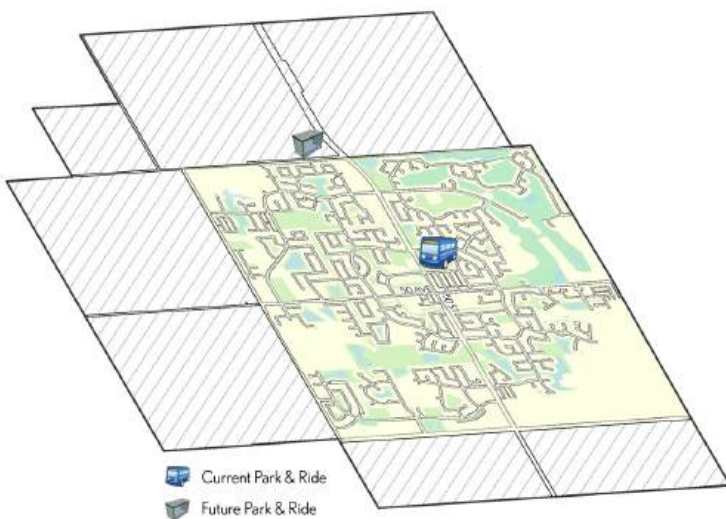


Figure 16. Current and Future Park & Ride

Regional Transit Connections

The transit stop located at Ellerslie Road and 50 Street in Edmonton is envisioned to connect with the planned transit centre in the southeast corner of the intersection. Additionally, the 2016 Edmonton Metropolitan Region Growth Plan recommends additional regional transit service from Beaumont to Nisku and the Edmonton International Airport (Map 5). These changes present an opportunity to contribute to the provision of regional transit through stronger connections to southeast Edmonton and the extension of service through Beaumont to both Nisku and the Edmonton International Airport. This route extension and service to the airport may produce increased ridership, as the end destination has many transit supporting characteristics that are similar to many central business districts or downtowns, such as:

- A large trip generator for both employment and commercial services;
- Expensive parking;
- A Bus stop location at the end destination that is closer than available parking facilities.

In addition, it is acknowledged that this service could connect to services via Edmonton, Leduc, and Leduc County. During the development of this plan, municipalities in the Edmonton Region have investigated the concept of a Regional Transit Services Commission. The City of Beaumont has been involved with this process, as described in Section 2.2 of this plan. Regional transit service routes will be determined collaboratively by participating municipalities as part of the Regional Transit Services Commission. There is potential for transit-related congestion management techniques to be used on a regional scale. Corridors that connect regional destinations, such as 50 Street or Highway 625, can be designed to accommodate Transit Priority Lanes, which dedicate space to transit vehicles only and allow them to bypass congestion in mixed traffic. This can make transit a more efficient option for those commuting to regional destinations.

VIEW MAP 5: TRANSIT



Summary

Supporting the continued growth of transit by integrating the considerations presented above will result in a planning process that supports the vision and goals of Our Connectivity. Making land use decisions that align with the development of transit corridors; contemplating the needs of specific demographics; and planning for long-term transit expansion via local service, Park and Ride, and regional transit connections will promote transit as a mode of choice. These overarching considerations integrate well with transportation systems that are becoming increasingly multi-modal and a design approach that seeks to provide complete integrated networks for all modes. The objectives and policies provide more specific direction to support the development of transit in Beaumont.

Making **land use** decisions which align with the development of **transit corridors**; contemplating the needs of specific demographics; and planning for **long term** transit expansion via **local** service, **Park and Ride**, as well as **regional** transit connections will **promote transit** as a mode of choice.



Objectives

1

Plan transit facilities and routes that are effectively integrated with active transportation facilities as well as supportive land uses.

2

Harmonize local and regional transit and increase service provision as Beaumont grows.

3

Coordinate the planning and management of transit services with regional partners.

Policies

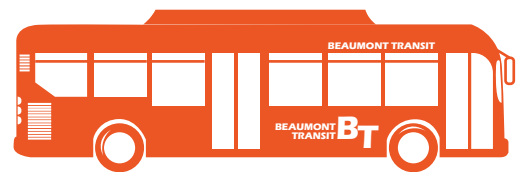
- 5.1 Transit service should be expanded as Beaumont grows by increasing hours of service, frequency, and coverage within identified service targets.
- 5.2 Transit planning shall be required in all new Area Structure Plans, including identifying roads available for buses and potential bus stop locations.
- 5.3 The land use planning process shall prioritize higher density mixed use development, affordable housing, community destinations, and employment centers to be located within a walkable 5-10 minute distance (400-800 m) of current or future transit corridors.
- 5.4 Transit priority measures should be implemented at locations where congestion chronically and consistently impacts transit travel times during peak periods.
- 5.5 Transit service shall be accessible for all, taking into special consideration those with mobility or cognitive challenges, and those in financial need.
- 5.6 When appropriate, the City should provide a frequent local transit service that:
 - a. Connects to community destinations such as grocery stores, other shopping opportunities, employment areas (light industrial and business), schools, and recreational amenities;
 - b. Offers timely connections between the local service and the regional service; and
 - c. Is supported by higher density and mixed use development.
- 5.7 Park and Ride lots should be:
 - a. Located adjacent to complementary land uses;
 - b. Situated in a location that facilitates efficient regional transit service;
 - c. Designed with sufficient, integrated, covered and/or secure bicycle parking;
 - d. Designed with Crime Prevention Through Environmental Design principles in mind, including lighting and natural surveillance; and
 - e. Connected safely and conveniently to the active transportation network.
- 5.8 The City shall work with regional partners to create a seamless regional transit system from a passenger perspective by:
 - a. Connecting regional destinations to Beaumont (including LRT stations and the airport);
 - b. Coordinating transit service schedules;
 - c. Harmonizing Park and Ride supply; and
 - d. Exploring the desirability and feasibility of implementing transit priority lanes along regional corridors.
- 5.9 The City shall complete annual transit surveys to support decision-making regarding transit operations and network expansions.
- 5.10 The City should investigate and, when opportune, integrate autonomous and/or electric vehicles within its fleets.



6.0

Implementing Our Connectivity

Implementation Plan
p66



BEAUMONT
50 AVENUE

BEAUMONT
RUE 50 STREET



Implementation Plan

To efficiently carry out the vision of Our Connectivity, it is fundamental to develop a comprehensive implementation plan that establishes appropriate roles and responsibilities. The implementation plan is to be developed following the adoption of Our Connectivity as general policy direction. The structure of the implementation plan is set out below, organized under three theme areas:

Developing the Policy and Regulatory Framework

By adopting this Transportation Master Plan, the City is expanding policy direction regarding the development, operation, and renewal of the transportation system. It is essential to update and broaden related policies and regulations as required to ensure that the municipality's undertakings align with this plan's intent.

Building Complete Networks

The actual results of Our Connectivity will be most tangible to residents and visitors through the built environment. Through implementing the actions below, the transportation network will evolve into one that provides mode choices for residents.

Monitoring and Maintaining the System

To ensure the relevance and resilience of Our Connectivity, it will be essential to evaluate the plan's impact and the transportation system's evolution over the coming years as the impacts of Our Connectivity are realized. Using various approaches to evaluation, as listed below, will allow the City to more broadly understand the impacts of this plan and how to update it to promote the vision of Our Connectivity for the transportation system.

Within each of these theme areas are actions that the City will undertake in order to fully implement Our Connectivity. They are not meant to be carried out in order; instead, they will be scheduled within the comprehensive implementation plan, recognizing that actions will be influenced by municipal opportunities and budgetary constraints as they arise. Within this plan, the following horizons are assigned to each implementation item to provide an outline for the comprehensive implementation plan:

Ongoing

(actions that impact current and ongoing planning, development, and redevelopment);

Short-Term

(potential projects/planning initiatives that may be completed over the next 0-3 years);

Medium-Term

(potential projects/planning initiatives that may be completed over the next 3-5 years); and

Long-Term

(potential projects/planning initiatives that may be completed over the next 5-10+ years).



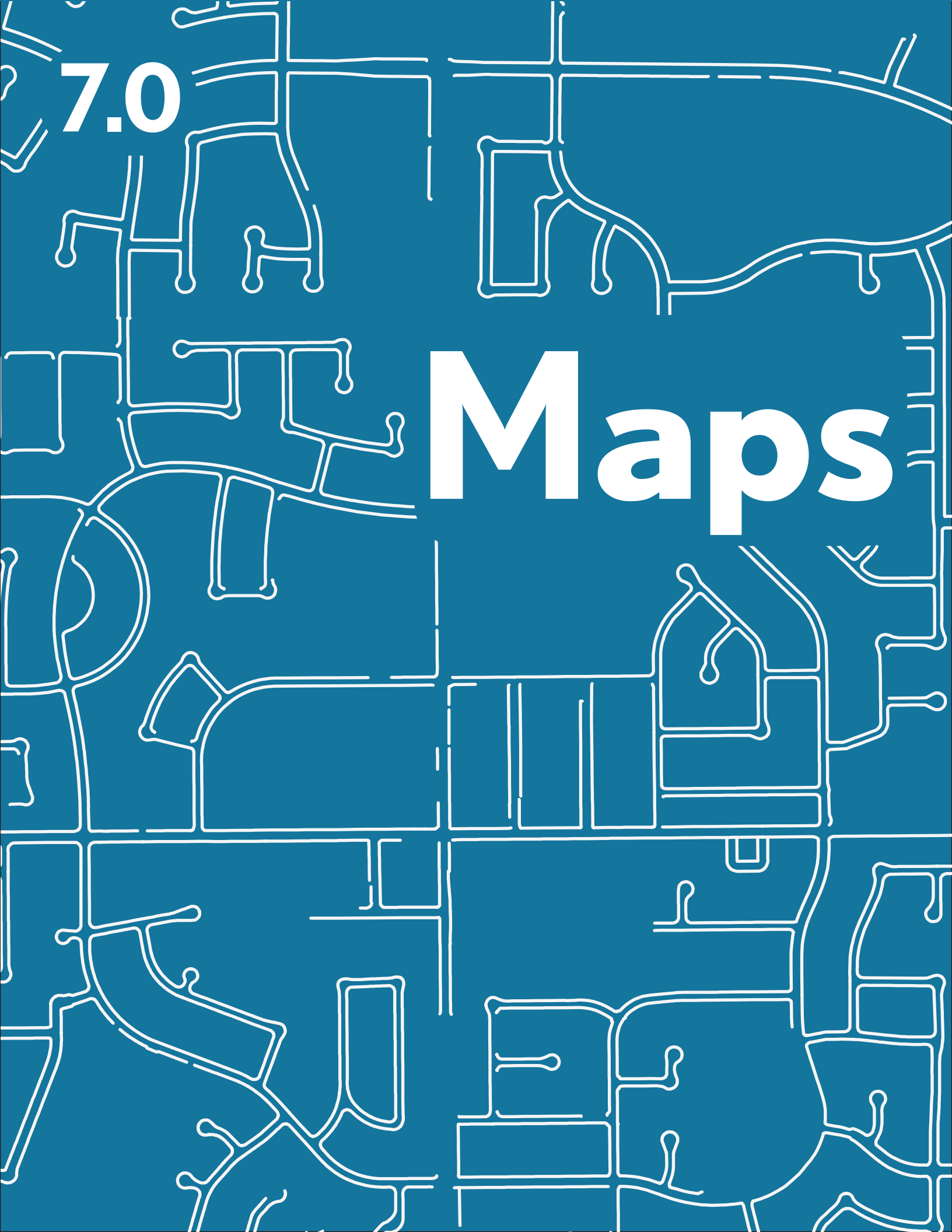
	Developing the Policy and Regulatory Framework	Building Complete Networks	Monitoring and Maintaining the System
Ongoing	Monitor trends within the transportation system as well as policy direction from regional level and ensure updates to Our Connectivity reflect changes in the transportation system.	Plan and construct future roadways and redevelop existing roadways to create a transportation network that accommodates all modes, in alignment with the vision of Our Connectivity.	Meet with adjacent municipalities and with Alberta Transportation at least once per year to determine the timing and nature of road, trail, bus route, and Park and Ride upgrades.
		Route future transit opportunities in close proximity to active transportation routes, community destinations, and higher density development.	Continue to formalize and expand an annual Traffic Count Program so that it accounts for vehicle movement, active transportations, and transit.
		Refurbish existing active transportation infrastructure as opportunities arise for renewal, and expand new active transportation infrastructure.	Continue to assess and improve the functionality of transit by collaborating with regional partners and administering transit surveys, taking into account regional connections, local service, and Park and Ride Locations. Review Our Connectivity every two years to ensure policies are effective and aligned with Edmonton Metropolitan Region Board policies and strategies, and amend it if required.
Short Term	Update municipal bylaws and policies to ensure the direction of transportation system development is consistent with Our Connectivity.	Develop an implementation plan that prioritizes “door-to-door” connectivity and appropriate sight lines at intersections to facilitate safe active transportation trips for youth to schools.	Establish a data collection program and corresponding performance criteria that evaluates the municipality’s progress towards goals set in Our Connectivity, ensuring that these measures reflect the dynamic nature of our future transportation system.
	Review the subdivision process and Terms of Reference for the Preparation and Amendment of Statutory and Non-Statutory Land Use Plans to ensure alignment with the goals and objectives of this plan. Update accordingly.		
	Review the General Design Standards to ensure alignment with the goals and objectives of this plan. Update accordingly.		
	Create and adopt the following; a. Truck Route Bylaw b. Complete Streets Design Guide c. Traffic Calming Policy		
Medium Term	Create and adopt the following; a. Access Management Guide b. Transportation Impact Assessment Guide c. Highway 625 Functional Plan	Develop a Major Road Infrastructure Investment Plan and update it accordingly.	
		Develop an implementation plan for a complete minimum bike network to provide residents of all ages and abilities with a low-stress, year-round active transportation option.	
Long Term	Create and adopt the following; a. Transportation System Bylaw	Provide and improve active transportation connections and crossings near school sites, and in other key locations, particularly along arterial roadways.	Complete a comprehensive review and update of Our Connectivity, in accordance with the requirements of Section 32 of the Highway Development and Protection Act.

Table 3. Our Connectivity Implementation Plan

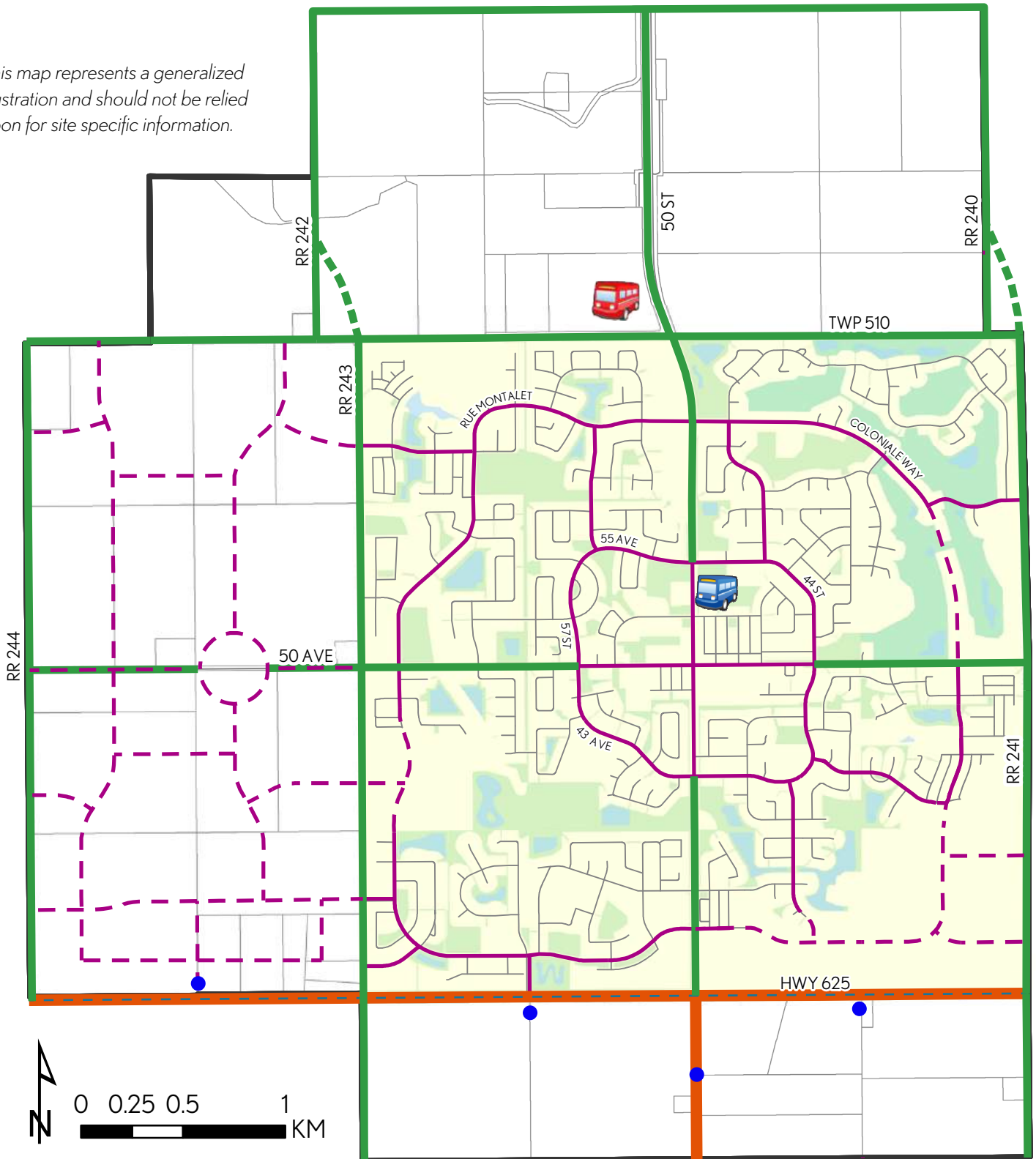


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











Maps



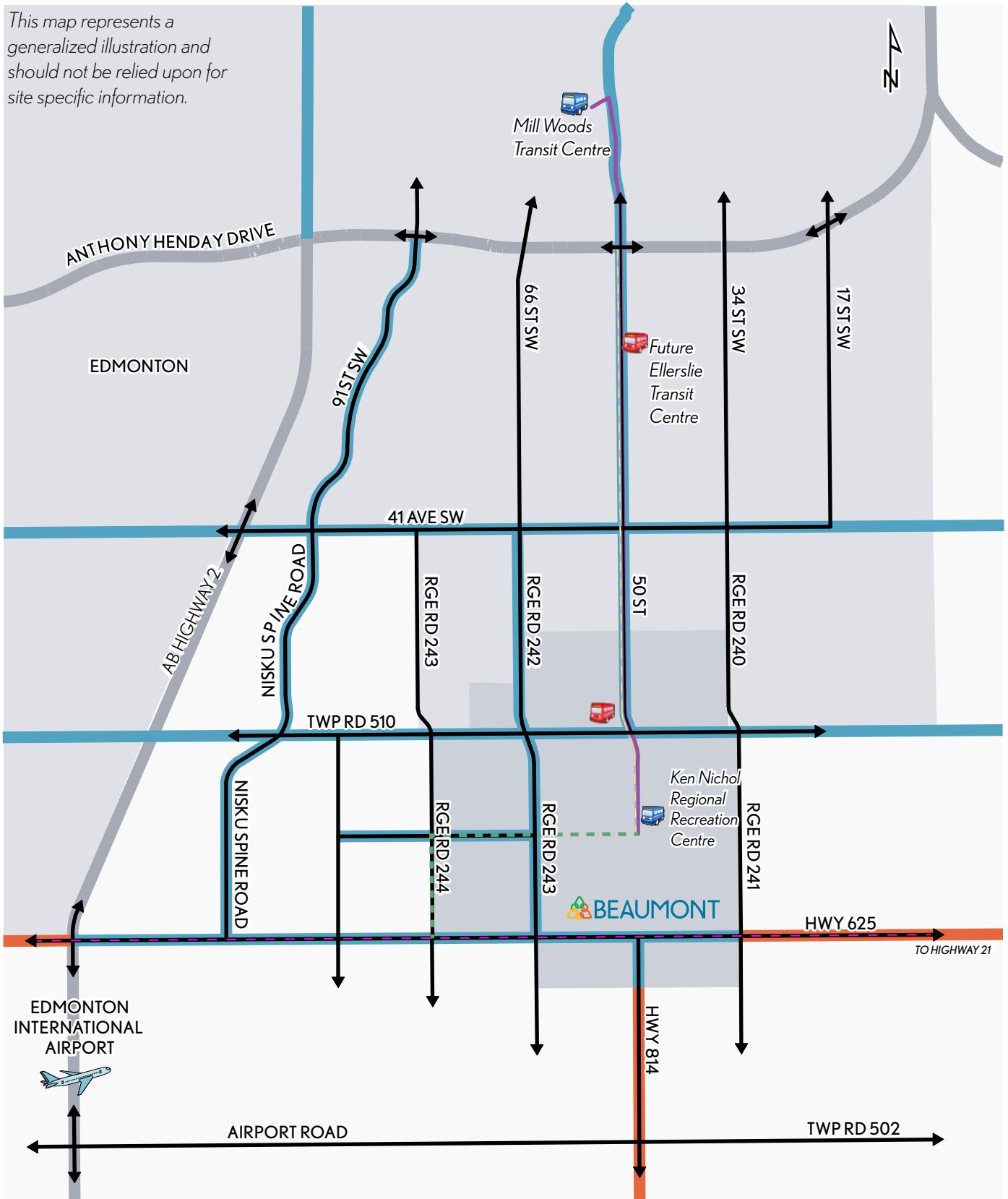
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LEGEND

- | | | | |
|--|---|---|--|
|  Highway |  Collector Road |  Storm Water Facility |  Potential Highway Access |
|  Arterial Road |  Future Collector Road |  Private Park |  Future Park & Ride |
|  Potential Arterial Realignment |  Municipal Boundary |  Park | |
|  Future Arterial Road |  Existing Park & Ride |  Highload Corridor | |

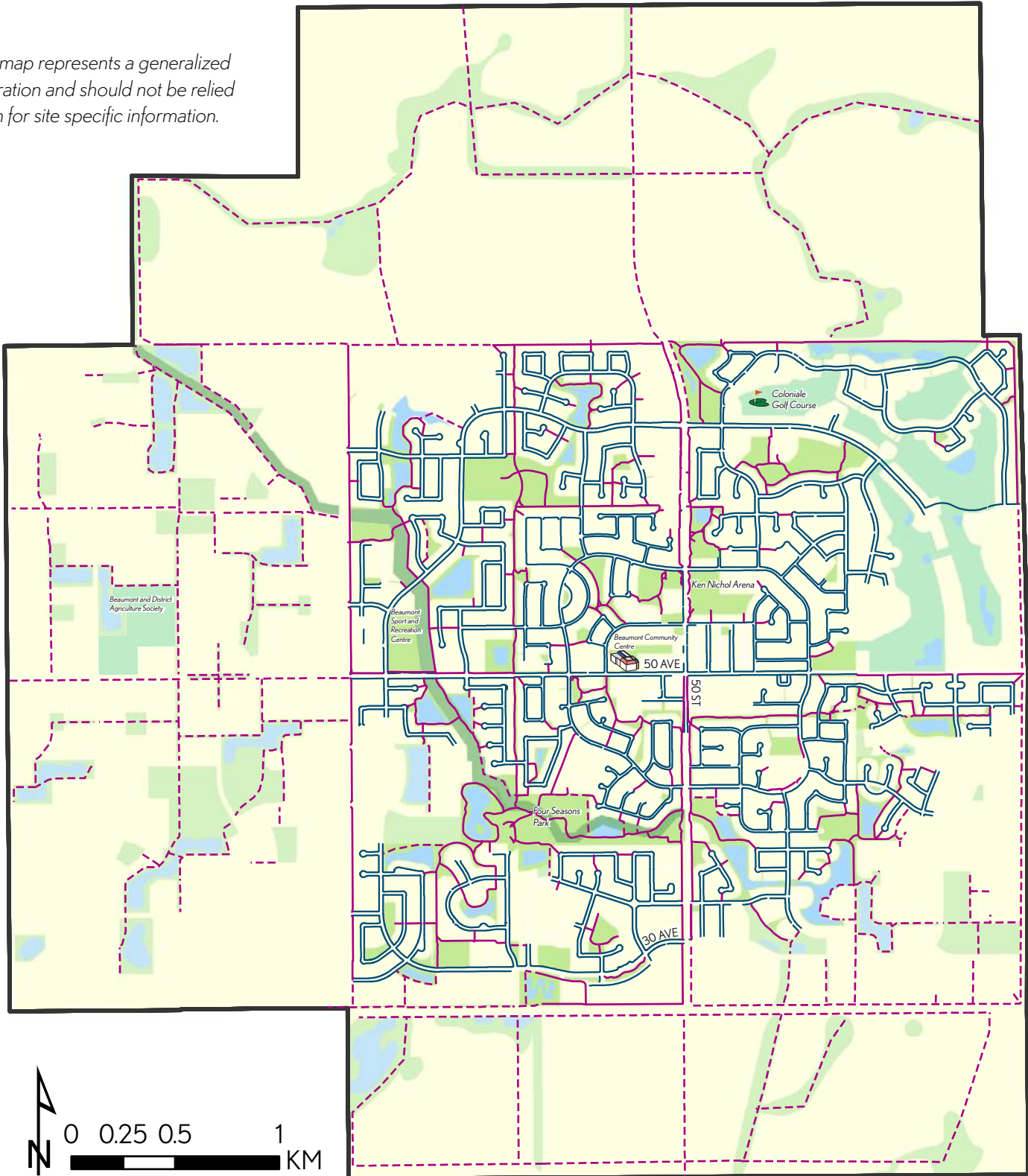
This map represents a generalized illustration and should not be relied upon for site specific information.



LEGEND

-  Existing Park & Ride
-  Future Park & Ride
-  Major Connection
-  Municipal Boundary
-  Regional Arterial
-  Regional Expressway
-  Regional Freeway
-  Potential Transit
-  Realigned Regional Bus
-  Commuter Bus Connection
-  Highload Corridor

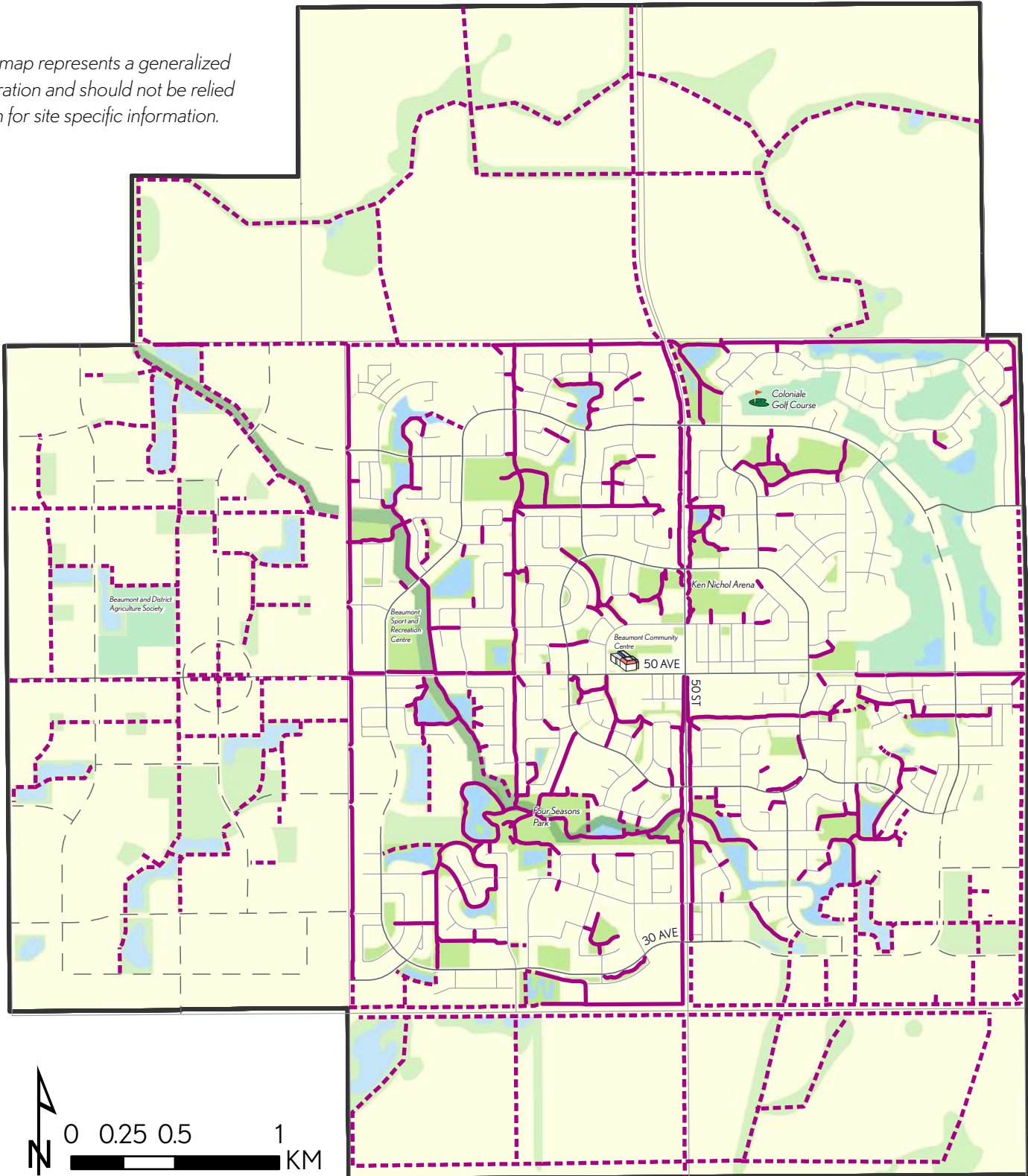
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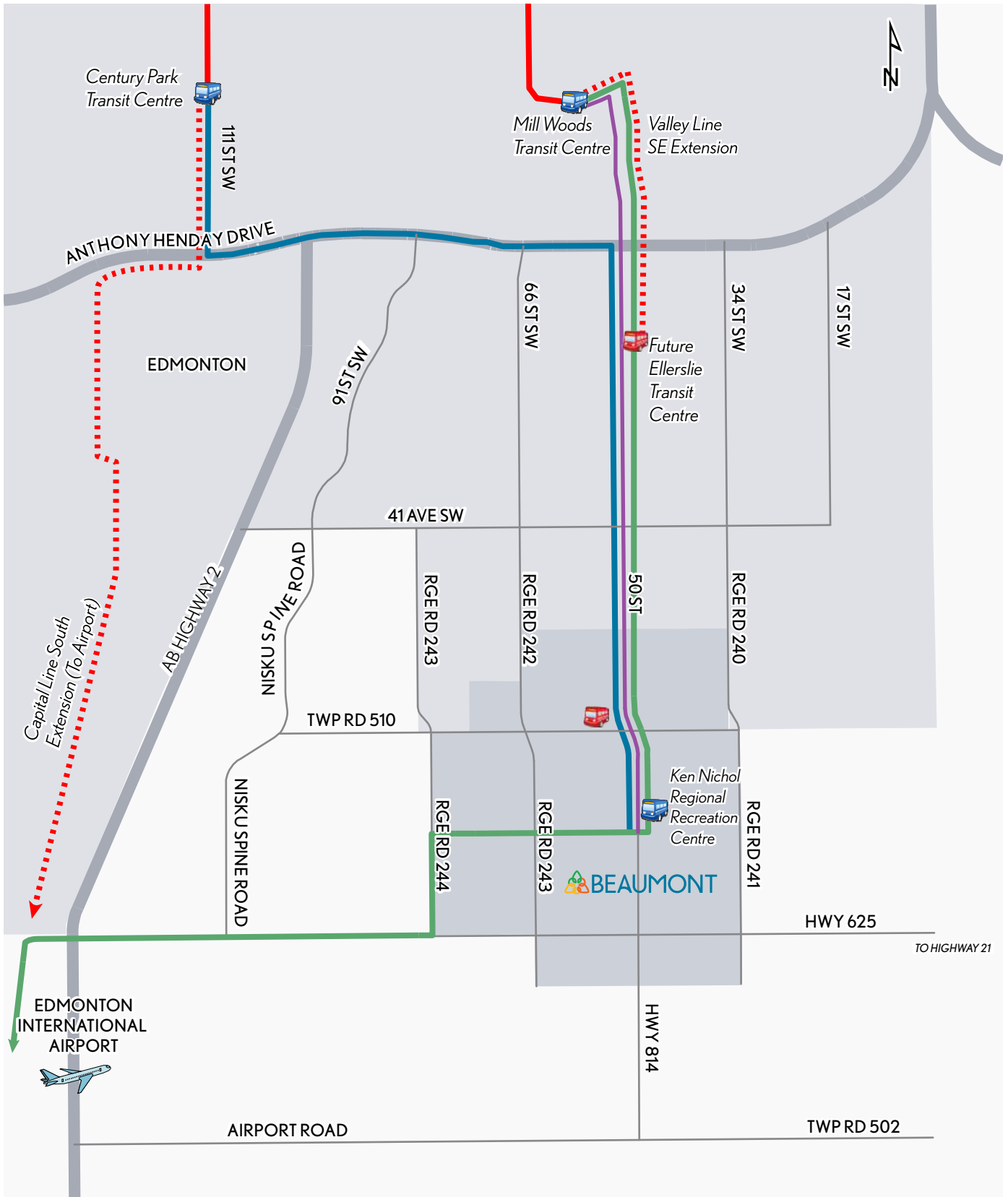
- Conceptual Multi-Use Trail
- Current Multi-Use Trail
- Existing Sidewalk
- Municipal Boundary
- Leblanc Canal
- Storm Water Facility
- Private Park
- Park
- Future Proposed Park
- Future Proposed Storm Water Facility

This map represents a generalized illustration and should not be relied upon for site specific information.










LEGEND

- | | | |
|---------------------------|----------------------|--------------------------------|
| Potential Multi-Use Trail | Local Route | Potential Park |
| Current Multi-Use Trail | Municipal Boundary | Private Park |
| Existing Collector Route | Leblanc Canal | Park |
| Future Collector Route | Storm Water Facility | Potential Storm Water Facility |



LEGEND

-  Existing Park & Ride
-  Future Park & Ride
-  Existing Transit
-  Potential Transit
-  Long Term Transit
-  Built LRT
-  Potential LRT Extension

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8.0

Appendix

Glossary

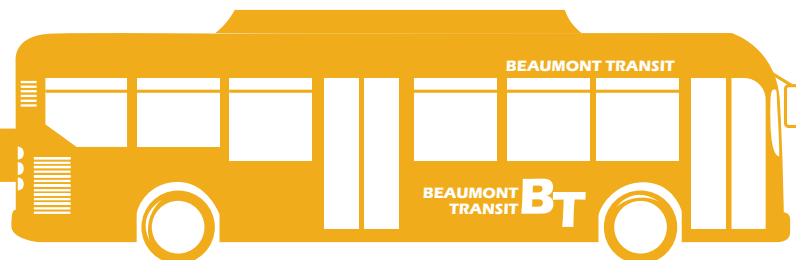
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Figures & Tables

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Glossary

#

8-80 City: A concept based on the premise that if a city is designed for an 8 year old and an 80 year old, then it will be a great city for all ages.

A

Active Transportation: A form of transportation that uses one's own power to get from one place to another, including, but not limited to, common activities like walking, cycling, jogging, or using a wheelchair.

Arterial Road: A street that typically emphasizes a high level of traffic mobility at higher speeds and volumes and a low level of property access, serving longer distance trips including those between major activity centers and regional destinations.

B

Bike Lane (Protected): A protected bike lane is physically separated from motor traffic and distinct from the sidewalk. Unlike a painted bike lane, a protected bike lane has physical barriers (such as bollards, medians, or raised curbs) restricting motor vehicles. It is marked with an image of a bicycle and a white diamond. If parking is permitted, it will appear along the left side of parked cars. If parking is prohibited, it will be along the curb.

Accessibility: a characteristic of a neighbourhood or community whereby it is easy for all residents to reach destinations and obtain desired services.

Bylaw: A law made by a local authority in accordance with the powers conferred by or delegated to it under the Municipal Government Act. Bylaws are enforceable through penalties, able to be challenged in court, and must comply with higher levels of law.



C

Centre-Ville: The central area in Beaumont as identified in the Beaumont Our Centre-Ville, which is Beaumont's Urban Centre.

Collector Road: Collector roadways place roughly equal emphasis on mobility and land access. In general, collector roadways provide a link for traffic to travel from a local road to the nearest arterial roadway. They are intended to accommodate most of the traffic movements within a neighbourhood or business area and often serve as bus routes.

Commercial Vehicle: Any type of vehicle used to transport goods or being used for the provision of commercial activity.

D

Design Speed: Design speed is a critical input for many geometric elements of the roadway. Design practitioners have experienced that for some geometric elements the relationship between the design speed and the actual operating speed of the roadway is not always consistent.

I

Intelligent Transportation Systems: A form of transportation system management that uses real-time analysis of traffic conditions to impact decision-making regarding traffic controls as a means to resolve transportation system issues.

Integrated Regional Transportation Master Plan (IRTMP): The Plan defines key elements of the Capital Region's future transportation system over a thirty-five year time frame. The IRTMP builds upon and supports the policy framework established in the Capital Region Board Growth Plan's land use and transit components. The IRTMP also lists the ten-year roadway and transit investment priorities throughout the region.

Complete Streets Principles: A design approach to transportation planning that encourages a holistic approach to roadway design and network planning that considers the needs of each mode of transportation in the context of the surrounding land uses, operational and maintenance requirements, as well as the role of each roadway in the transportation network.

Cycle Tracks: A form of separated cycling infrastructure that separates cyclists from pedestrians. There is some form of physical separation and signage that indicates separation of these two modes. Cycle tracks are typically present in high-traffic areas for pedestrians not along roadways.

Door-to-door Connectivity: A characteristic of the transportation network where individuals are able to make complete journeys via any mode from one building to another without facing barriers to mobility, missing transportation system elements, or sub-standard infrastructure.



L

Land Use Bylaw (LUB): City of Beaumont Bylaw 944-19, and amendments thereto.

Level of Service (LOS): A measure used in transportation system analysis of vehicular delay at an intersection described by a letter, ranging from A (lowest delay) to F (highest delay) based on the average number of seconds of delay. LOS D or E is commonly acceptable as a delay threshold under urban conditions.

Light Rail Transit (LRT): Rail based transit service that is characterized by use of light or moderate user volumes, using low-floor or high-floor trains along a fixed rail guideway that can be at-grade, underground, or above-ground.

M

Master Plan: A comprehensive plan outlining the eventual development of a system, network or site, and what is needed to achieve that development.

Mobility: The ability to move within the transportation system.

Municipal Government Act (MGA): Provincial legislation that outlines the powers and obligations of a municipality.

N

Non-Statutory Plan: A plan that is similar in scope to a statutory plan but approved through Council resolution, rather than by bylaw. Such plans may include Neighbourhood Structure Plans, guidelines, and policy statements.

O

Off-street Parking: Vehicle parking spaces provided in a parking lot, garage, driveway, or other hard-surfaced location on private property.

Local Road: Streets with low levels of traffic mobility and a high level of land access, serving residential, commercial, and industrial areas.

Municipal Development Plan (MDP): Statutory plan adopted by a Municipal Council, under the authority of Section 632 of the Municipal Government Act. The plan outlines the direction and scope of future development, the provision of required transportation systems and municipal services, the coordination of municipal services and programs, environmental matters and economic development.

On-street Parking: Vehicle parking spaces provided along a public street or right of way.



P

Park and Ride: A parking facility used to park a personal vehicle and transfer to public transit.

Peak Hour: The highest hourly weekday traffic volumes throughout the day. In Beaumont, peak hour occurs during the PM rush hour. Peak hour varies depending on the time of year and season but typically occurs sometime between 4 – 6 PM.

Pedestrian: An individual travelling by foot, by using mobility aids, or by wheelchair between two destinations.

R

Retrofit: The enhancement or alteration of existing infrastructure, often with the objective to improve its safety or alter its performance (i.e. add supporting infrastructure such as a sidewalk or a crosswalk).

S

Shared Street: A form of local roadway where all modes are able to safely use the space concurrently through the provision of traffic calming measures, enforcement of slow speed limits, and reduced levels of traffic (also known as Woonerfs).

Statutory Plan: A plan adopted by municipal bylaw under the authority of the Municipal Government Act. Examples of a Statutory Plan are: an Intermunicipal Development Plan, a Municipal Development Plan, an Area Structure Plan and an Area Redevelopment Plan

Pedestrian Prioritized: A design approach that recognizes that people are most vulnerable within the transportation system while walking and assures that they are appropriately considered in the transportation planning process.

Posted Speed: The legal speed limit posted on the roadway.

Public Realm: Any space around or between buildings that is publicly accessible, including park space, street space or other open space which is shared communally by the public and facilitates interaction among community members.

Roundabout: A circular intersection designed for improved traffic flow at a slower speed. Traffic circulates in a counterclockwise direction around a centre island. Vehicles entering the roundabout must yield to traffic already in the roundabout. Roundabouts can offer safety benefits compared to signalized intersections.

Street Classification System: Also referred to as Roadway Classification. A hierarchical set of definitions for roadways in Beaumont that provide direction for the development and redevelopment of the transportation system. The streets are defined mainly by vehicle-related characteristics such as expected volumes, number of travel lanes, status as a truck route, and provision for parking lanes. However, the classification system also considers adjacent land uses and facilities for pedestrians and cyclists, both along the street and crossing the street.

Streetscape: A term that describes the aesthetics and visual elements of the street including the roadway, buildings, landscaping, and street amenities.



T

Target Speed: The speed that drivers will use given the road design, as distinct from posted speeds or design speeds. Target speed is achieved by introducing roadway elements such as traffic calming measures that reduce drivers' level of comfort and prompt them to slow down and is most relevant for straight sections of roadways where drivers can naturally increase speeds. Target speed is the speed that the road authority intends for drivers with the goal to improve safety (by reducing collision severity), quality of life, and the environment for active modes of transportation.

Traffic Calming: Mainly physical design measures that alter driver behavior to slow down traffic, thereby improving conditions for non-motorized street users and safety for all users.

Transit: A shared passenger-transport service that is available for use by the general public (also known as public transportation).

V

Vulnerable Road User: A roadway user whose safety is vulnerable to vehicles traveling at higher speeds. Pedestrians and cyclists are the most vulnerable road users.

W

Walkability: A measure of how friendly an area is to walking, influenced by factors such as street connectivity, land use mix and amenities, residential density, presence of landscaping, frequency and variety of buildings, and safety.

Travel Lane: A lane on a roadway where vehicles drive, which is shared with bikes on residential local roadways.

Truck Route: A roadway intended and signposted for use by trucks, reducing noise concerns in residential areas, limiting truck presence in pedestrian-friendly areas, and reducing pavement damage on other roads.



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Table 2. Overall Active Transportation Infrastructure Classification

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