



# Transportation Master Plan

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**2023**

This report is a condensed version of the 2023 Lethbridge Transportation Master Plan Detailed Technical Report.



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Compiled by Stantec and Argyle on behalf of the City of Lethbridge.

# Acknowledgement

*We would like to acknowledge all participants that contributed to this plan and thank them for their time and perspectives during the process.*

*The City of Lethbridge acknowledges that we are gathered on the lands of the Blackfoot people of the Canadian Plains and pays respect to the Blackfoot people past, present, and future while recognizing and respecting their cultural heritage, beliefs, and relationship to the land. The City of Lethbridge is also home to the Métis Nation of Alberta, Region III.*

# 1. Introduction

## The Lethbridge Transportation Master Plan

The 2023 Transportation Master Plan (TMP) is a document that looks at how transportation systems work across the City of Lethbridge (the City). The goal of the TMP is to improve the current transportation network and make sure it meets the needs of people now and in the future. This means creating safe systems for getting around and getting people where they need to go, whether by walking, biking, driving, or other means. The Plan considers new technologies and ideas for improving transportation and listens to the opinions of the public to support their mobility needs. The Plan sets priorities for what needs to be done, suggests policies and actions to make them happen, and gives an idea of how much it may cost.

The TMP is guided by a vision statement approved by City Council with nine strategic goals supporting the vision. Twelve lenses are used to provide different perspectives to create policies for a number of areas.

## Vision Statement

The Civic Works Standing Policy Committee created a Vision Statement for the Lethbridge TMP, which City Council approved on April 20, 2021:

*Connect Lethbridge with a well-balanced, integrated and maintained transportation network that serves all residents, businesses, and visitors safely, efficiently, and equitably while focusing on sustainable multi-modal solutions that are adaptable to the future needs of the City and is embraced by the community.*

## TMP Goals

The following nine strategic goals were developed to support this TMP Vision Statement:

- Strengthen connectivity between a variety of places, services, and modes.
- Recognize and meet the diverse mobility/accessibility needs of all residents, businesses and visitors.
- Strive for zero transportation-related deaths and serious injuries.
- Affirm the City's commitment to public transit and active modes of transportation.
- Respond to the current and future needs of Lethbridge and the region.
- Design transportation systems that are adaptable and resilient to future climate realities.
- Design transportation infrastructure that contributes to a healthy environment and ecosystem function.
- Leverage technologies and innovations to increase transportation efficiency, improve value and enhance services.
- Ensure future transportation investments are financially sustainable.

For more details please see the TMP Detailed Technical Report.

## Project Lenses

The TMP is based on 12 themes or lenses. Lenses look at the mobility network from different angles and include a wider set of values when deciding how to design and make future improvements. These lenses guide the development of future policies and strategies for transportation.

### TMP Lenses

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## TMP Recommendations

The TMP recommends:

- Connected land uses so that daily resources and necessities can be easily reached from anywhere in the city
- A third arterial crossing of the Oldman River along the Chinook Trail alignment may be required after 2039, to be reviewed every 10 years with TMP updates
- An expanded heavy truck network along select corridors
- Road infrastructure improvements and new community internal streets
- Expanding the pathway network, particularly in the river valley including a new river crossing for active modes
- Improved cycling and pedestrian crossings at intersections
- More protected cycling infrastructure in existing and new areas
- Using Universal Design standards for new or redeveloped infrastructure

Funding for projects and programs identified in the 2023 Transportation Master Plan will be requested with future Capital Improvement Programs and Operating Budgets. Existing Capital Improvement Programs and Operating Budgets already cover several projects and programs identified in the Transportation Master Plan.

## Guiding Documents

The City has developed many land use, natural area, and transportation plans and studies over the past 10 years. These documents provide valuable background information that has helped form the 2023 TMP. The key guiding documents are plans that continue to be implemented and work in parallel with the TMP to create a more sustainable, equitable, and complete transportation network.

### Key Guiding Documents

- Municipal Development Plan (2021) – Activity Nodes & Approved Area Structure Plans
- Transportation Safety Plan (2020) – Actions and Resources for a safer transportation system
- Mobility/Accessibility Master Plan (2020) – Long-term visionary plan to create a universally accessible city that is designed for all people regardless of ability
- Cycling Master Plan (2017) – Build-out of cycling network, short- and long-term projects
- Transit Master Plan (2017) – Recommends transit actions focusing on frequent, local, community, and on-demand transit levels

### Other Guiding Documents

Other guiding documents used during the creation of the TMP include:

- Urban Forestry Management Plan (2021)
- Cycling Corridor Functional Planning Study (2019) – Functional planning and cost estimates for the priority corridors to be undertaken
- River Valley Parks Master Plan (2017)
- Intermunicipal Development Plan (2016) – Transportation-related Policies
- South Saskatchewan Regional Plan (2014-2024)
- Functional Planning Studies (2013-2021) – Various functional planning studies to inform the upgrading plans for high-priority corridors
- Transportation Master Plan (2012) – Previous TMP
- Public Realm and Transportation Study (2012)
- Bikeways and Pathways Master Plan (2007) – 10-year strategic plan for building out the city's bikeway and pathway system
- Parks Master Plan (2007)



## 2. Engagement

To ensure that the new TMP caters to the needs of Lethbridge residents, the City conducted a variety of engagement activities. More than 2,000 participants took part over a span of two years. Feedback was collected through workshops, meetings, online sessions, surveys, and pop-up events. A wide range of stakeholders were involved, such as representatives from City departments, Indigenous communities, accessibility groups, motor vehicle stakeholders, active transportation groups, and the general public. Additionally, input was gathered from City Council and its committees.

### Priority Areas from Engagement

Overall, the following priority areas were identified through the engagement process:

- **Accessibility** – A desire for a transportation network that serves everyone, including people of all ages, incomes, and abilities.
- **Communication** – A desire for accessible technology for transportation systems, and accessible communication materials for diverse needs.
- **Safety** – A desire for safer streets for all people leveraging existing efforts and strategies identified in the Transportation Safety Plan. Improve safety issues related to racism and discrimination, especially against Indigenous women and youth, and impose more cultural sensitivity training for public servants.
- **Active Transportation Modes** – A desire for more bike infrastructure, with an emphasis on separated bike lanes, and pedestrian-oriented infrastructure with a focus on accessibility and safety measures.
- **Transit** – A desire for a broader bus schedule (increased frequency and increased stops), and increased accessibility to transit (through routes, timing, and stops) for people with mobility issues, elderly people, and children.
- **Reconciliation** – A desire to see active reconciliation and decolonizing efforts in the TMP, such as acknowledging the Traditional Blackfoot Territory in the naming of transportation-related infrastructure.
- **Pedestrian Infrastructure** – Concern with missing sidewalk links, especially in the industrial area of the city, leading to unsafe crossings.
- **Winter City** – A desire to see improved efforts to make Lethbridge more accessible during the winter, including more de-icing of sidewalks and roads.
- **Connectivity & Integration with land use** – A desire for connections between activity centers of the city that currently have missing links, for all modes.
- **Equity** – A desire for innovative, connected, safe, and reliable transportation options, especially for students. As well as a concern about financial barriers to all modes of transportation.
- **Environment** – The desire to prioritize green energy and to lean on local businesses and innovations.
- **Technology** – The desire for more technology options regarding transit and safety features throughout the city.

### Engagement Feedback Integration

Throughout each phase of engagement, a summary What We Heard Report (WWHR) was created. The reports outline discussion points as well as categorized and consolidated input received from stakeholders, Indigenous community partners, and the public. Where applicable, technical analysis and TMP content were expanded to ensure that key issues and themes were incorporated into the document. The WWHR also informed the policies and actions put forward while ensuring that the established goals, objectives, and lenses were incorporated and/or in alignment.



## 3. Modelling

To plan for future transportation needs, the City developed a detailed travel demand model. This model estimates how much travel will occur in the future based on projected future land use and planned infrastructure improvements.

The model looked at the years 2029, 2039 and 2069. Additional scenarios were undertaken to look at the effects of different land use and infrastructure timing. These scenarios include:

- Scenario 1: 10% reduction in automobile trips
- Scenario 2: Narrowing of Mayor Magrath Drive from 6 to 4 lanes
- Scenario 3: No employment in the west Lethbridge employment centre
- Scenario 4: No Canamex bypass
- Scenario 5: 20% of residential growth through central infill

To understand more about the model results, visit sections 4 and 5 of the TMP Detailed Technical Report.



## 4. Current Transportation Network

The current transportation system in Lethbridge was analyzed to find areas where infrastructure is lacking or in need of improvement. The technical team studied how different networks, like regional pathways and amenities, are interconnected. It also looked at how people’s travel choices, such as deciding to bike to work, are influenced by these networks. Each component of these systems contributes to creating complete streets, which are designed to ensure safe mobility, access, and connections for all modes of transportation.

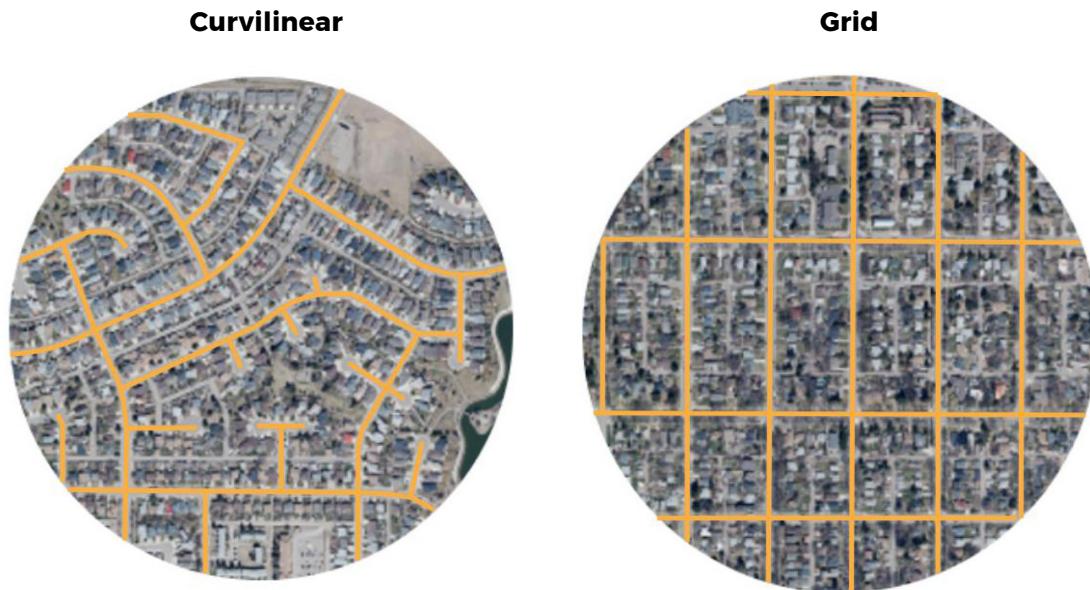
Considerations for the current road networks, dangerous goods transportation, pedestrians, bikeways, crossings, and transit are discussed in the following section, along with safety, accessibility, and Smart Mobility considerations.

### Road Networks

The City has approximately 600 kilometers of roads, which are categorized into four types: Arterial, Collector, Local, and Other (provincial and county). These roads vary in their design and function. Definitions for each type of road can be found in the Glossary.

Neighbourhoods in Lethbridge that were developed before the 1970s tend to follow a traditional grid pattern. They have narrower roads, more intersections, and consistent access to rear lanes. Suburban neighborhoods developed between the 1970s and early 2000s often have curvilinear street patterns with wider roads and fewer intersections.

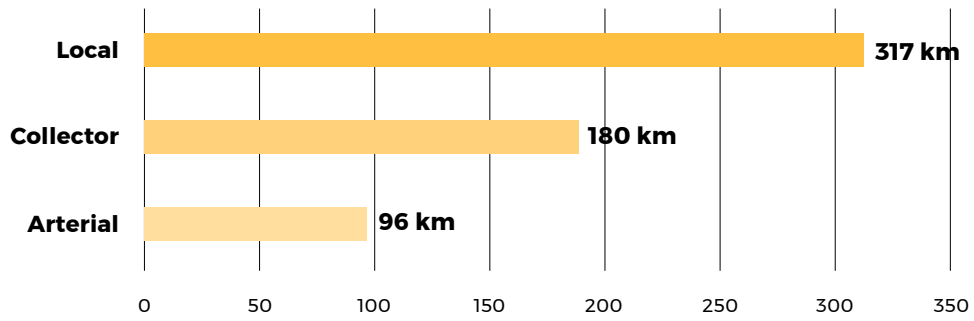
#### Lethbridge Roadway Development Patterns



A higher intersection density in an area generally means that it is more walkable. This is because the blocks are smaller, and there are more options for people to connect to the places they want to go. In contrast, areas with lower intersection density may require longer walks or drives to reach desired destinations.

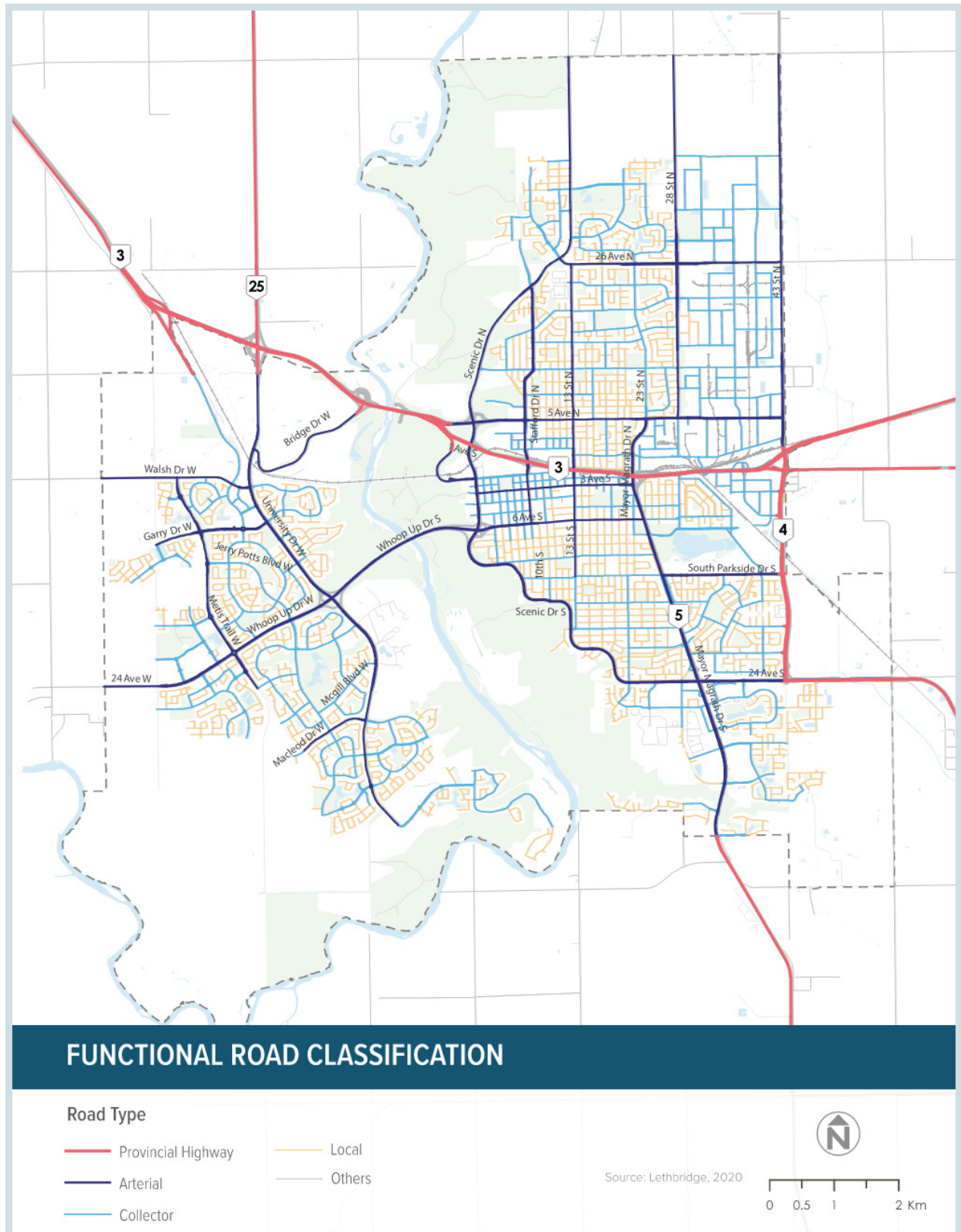
### Street Classifications

As shown below, about 50% of streets in Lethbridge are a local classification. Collectors and Arterials make up the other 50%. This distribution is typical for most urban municipalities where residential density requires more local and collector infrastructure to provide access to homes.



STREET NETWORK BREAKDOWN BY CLASSIFICATION

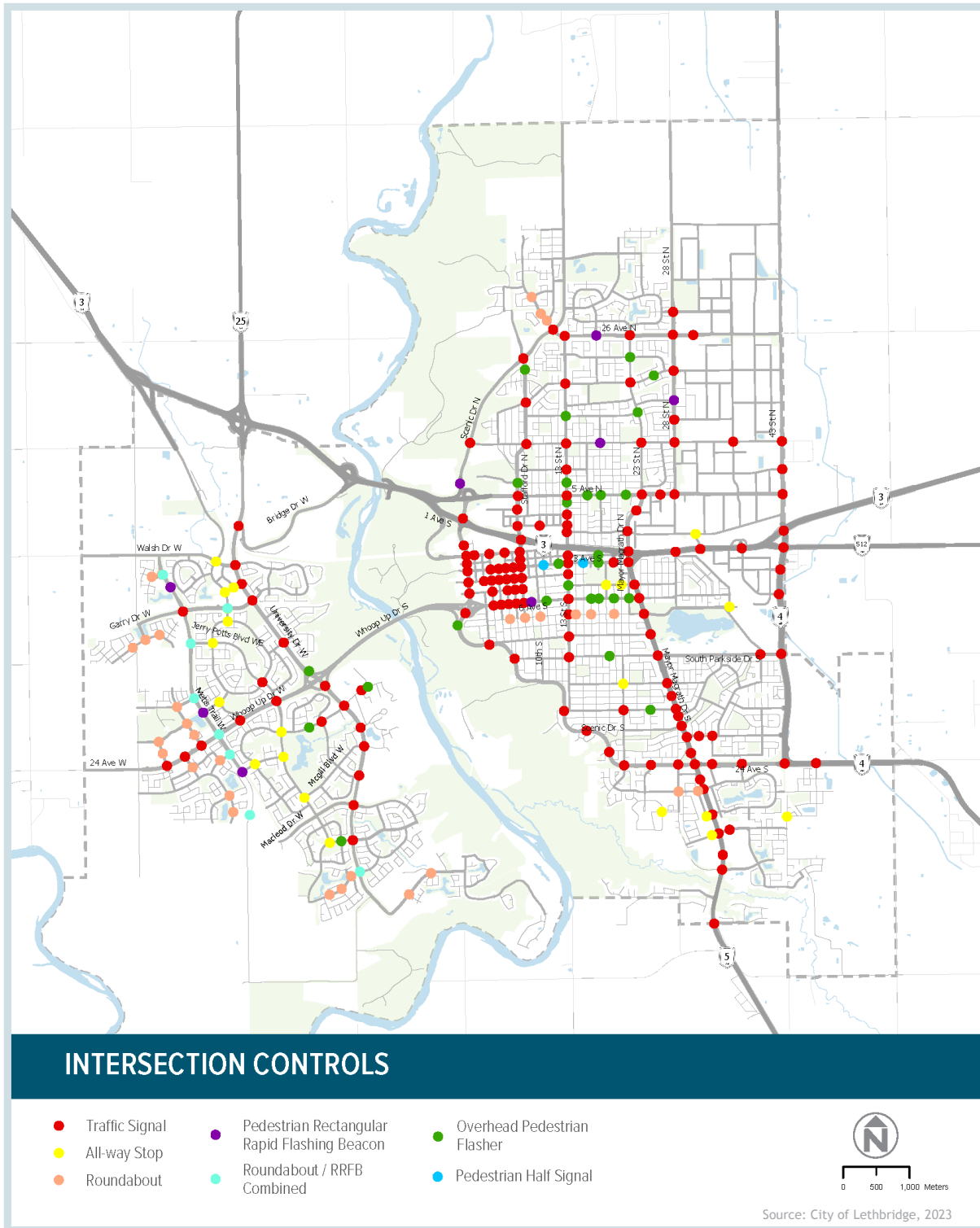
The City's existing functional roadway classification map including provincial highways and county roads is shown below.



As shown in the map below, there are over 230 intersections controlled with traffic signals, pedestrian crossing beacons, roundabouts, or all-way stops in Lethbridge. There are currently 149 traffic signal-controlled intersections, and most include pedestrian push buttons and pedestrian signal heads.

Approximately 45 of the intersections are pedestrian-controlled crossings, which are important to help people make connections between destinations and the larger mobility network. Pedestrian controlled crossings include intersections with pedestrian half-signals (2), roundabouts with rectangular-rapid-flashing-beacons (RRFBs) (8), stand alone RRFB crossings (8) or crossings with overhead flashing beacons (27).

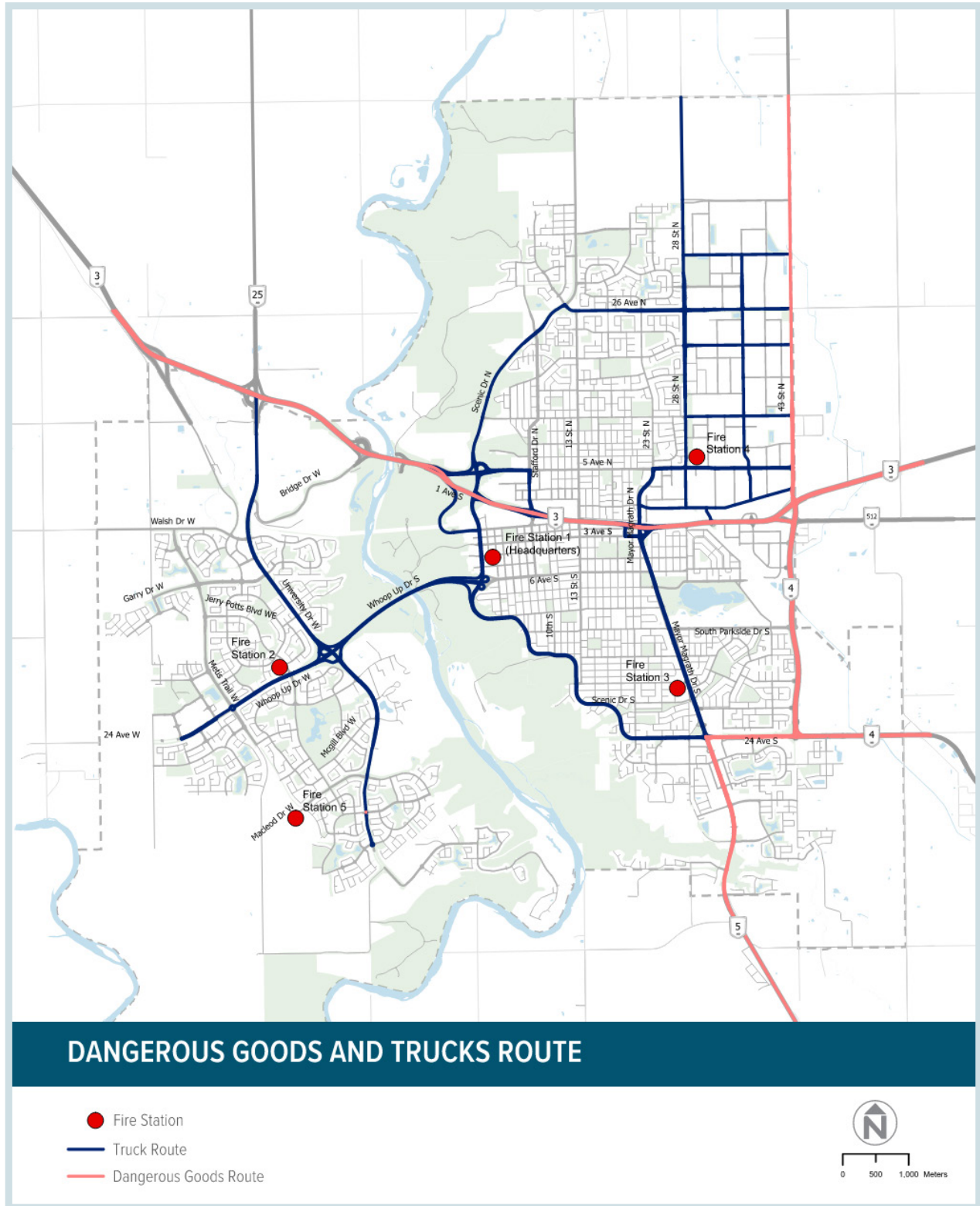
There are also 30 roundabouts and 24 all-way stop controlled intersections providing traffic control in the city.



## Dangerous Goods and Truck Routes

Bylaw 5254 restricts the transport of dangerous goods to specific truck routes. Dangerous goods are those that require a sign on the transporting vehicle because the contents are dangerous to the public. Truck routes are also used for heavy vehicles which weigh more than five tonnes or are more than 11 meters in length. Trucks can also travel on Dangerous Goods Routes.

The following map shows the current dangerous goods and trucks routes.



## Pedestrian and Bikeway

Lethbridge has more than 500 marked pedestrian crosswalks. These crosswalks play a crucial role in creating safe journeys for pedestrians between destinations.

Lethbridge is equipped with an extensive network of sidewalks and pathways, covering over 800 kilometers. Almost all roadways in the city have sidewalks on both sides. In residential areas, local roads and some collector roads have sidewalks without any separation from parked or moving vehicles.

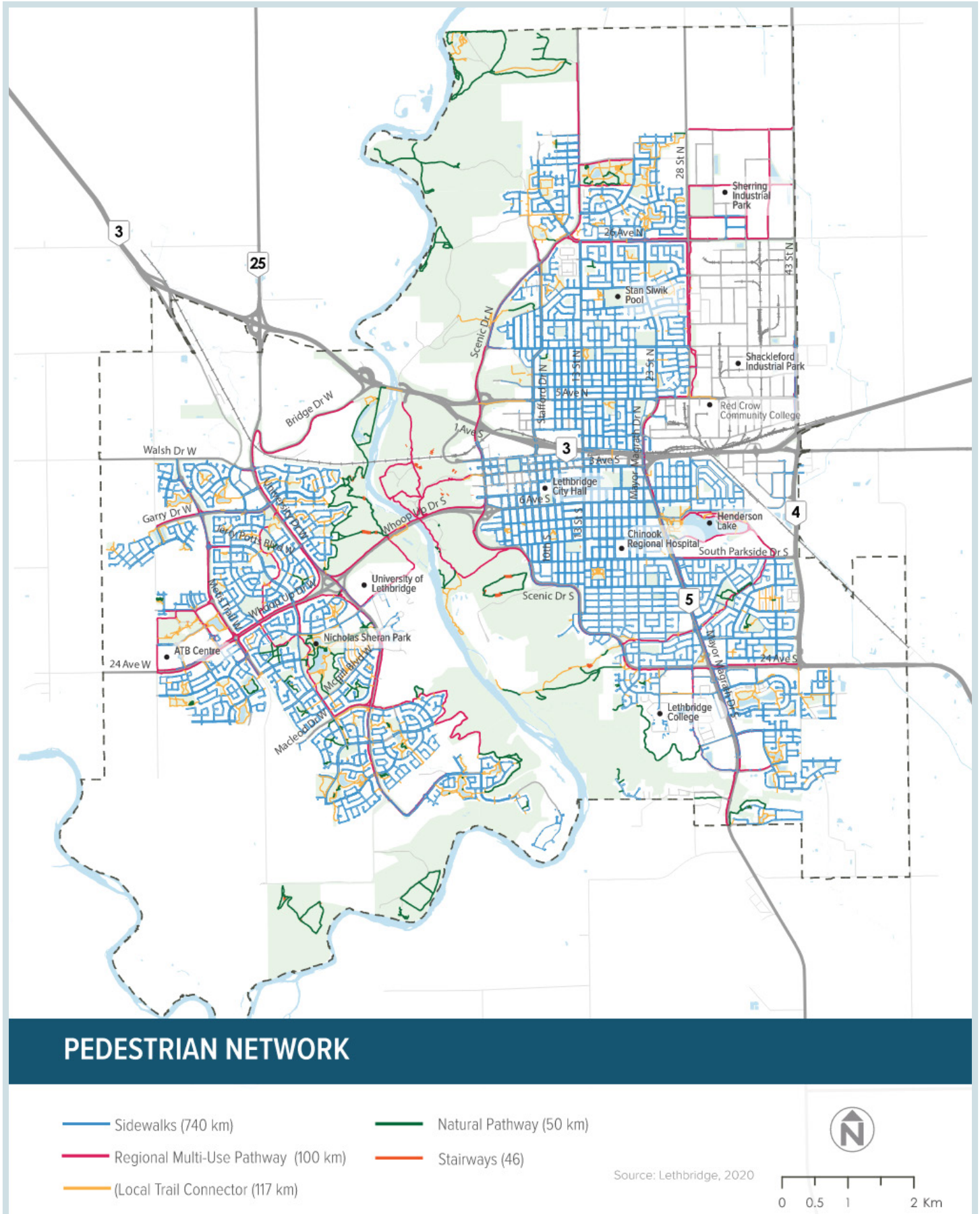
The below table describes the types of existing pedestrian infrastructure in Lethbridge.

### TYPES OF PEDESTRIAN INFRASTRUCTURE

Facility	Description
Sidewalk	Concrete infrastructure for pedestrians. May be separated from the curb.
Multi-Use Pathway / Local Connector	Asphalt infrastructure shared by pedestrians, cyclists, and other active modes users.
Natural Pathway	Pedestrian trails that are typically not paved and use natural materials.
Stairs	Stairs offer additional pedestrian connectivity in areas with steep terrain and are typically located along the banks of Oldman River.



The following map shows the existing pedestrian network.





The images below show various types of cycling infrastructure, including both what is planned for the future and what is already in use in Lethbridge.

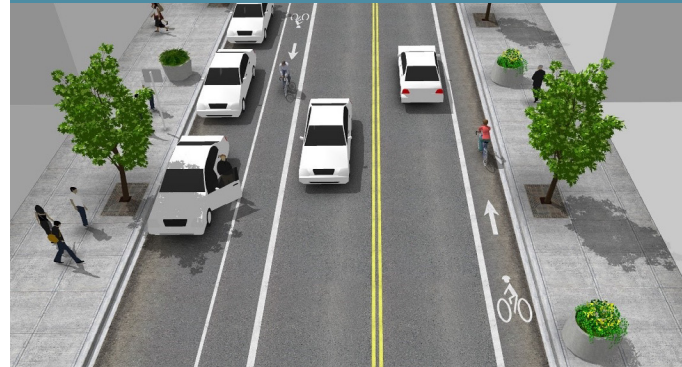
**TYPES OF CYCLING INFRASTRUCTURE**

**Shared Lane**



Streets where people who are cycling share the road with motor vehicles and may include signage or pavement markings.

**Bike Lane / Buffered Bike Lane**



Separate travel lanes designated exclusively for bicycle use that are delineated by a painted line and, in some cases, a painted buffer area.

**Bike Boulevard**



Streets with low motor vehicle volumes and speeds that are suitable for motor vehicles and people cycling to share the road. Bike boulevards may include treatments such as signage, pavement markings, traffic calming, and traffic diversion to prioritize bicycles and make the facility comfortable for people of all ages and abilities.

**Protected Bike Lane**



Separate travel lanes designated exclusively for bicycle use that are physically separated from motor vehicles and pedestrians by vertical and/or horizontal elements. Can be one- or two-way.

**Multi-Use Pathway / Local Connector**

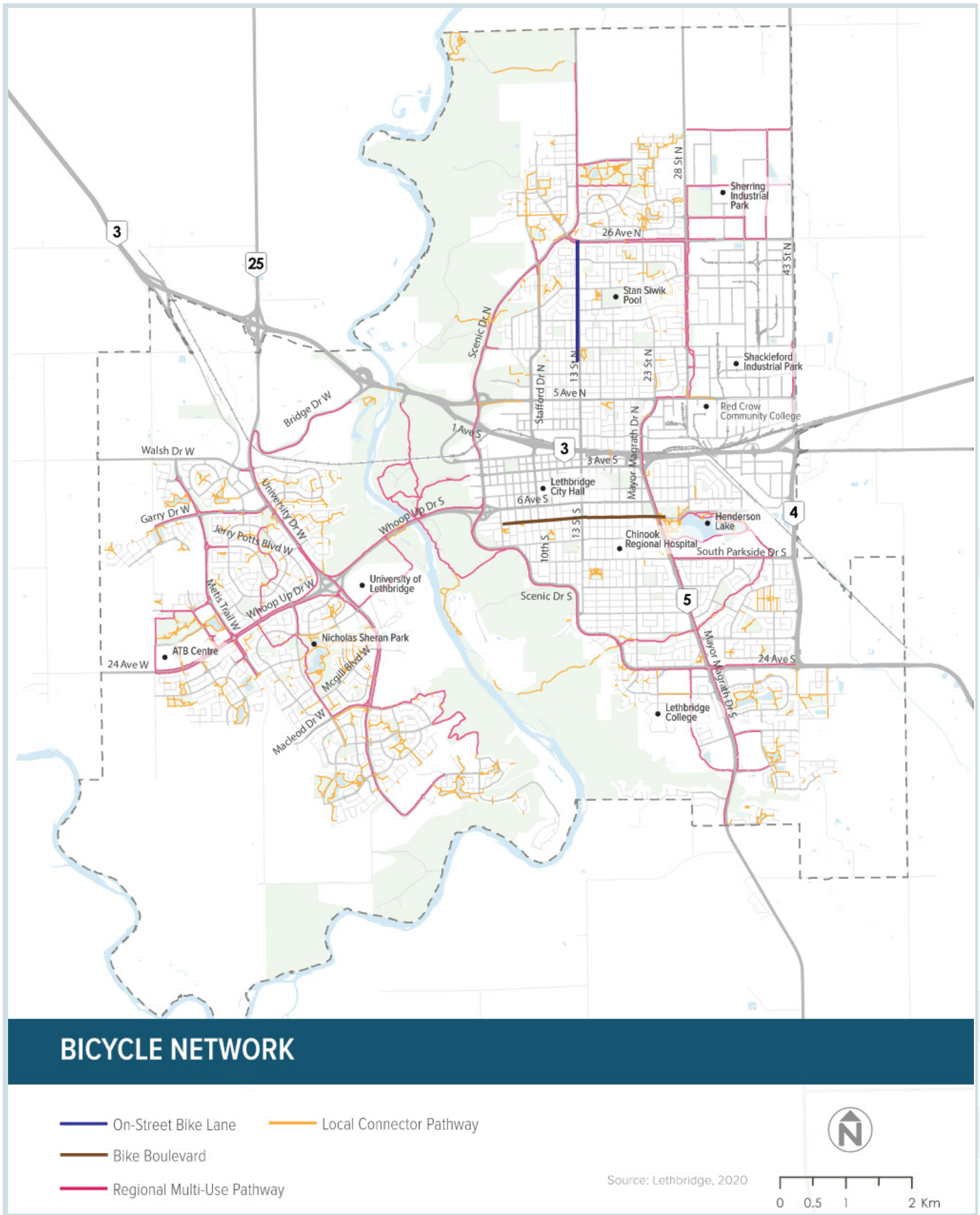


Off-street infrastructure that are shared between people walking, rolling, and cycling and are typically paved with asphalt.

**Related Plan:**

Cycling Master Plan (2017) – build-out of cycling network. Short- and long-term projects.

The following map shows the existing bicycle network.



## BICYCLE NETWORK

- On-Street Bike Lane
- Local Connector Pathway
- Bike Boulevard
- Regional Multi-Use Pathway

Source: Lethbridge, 2020



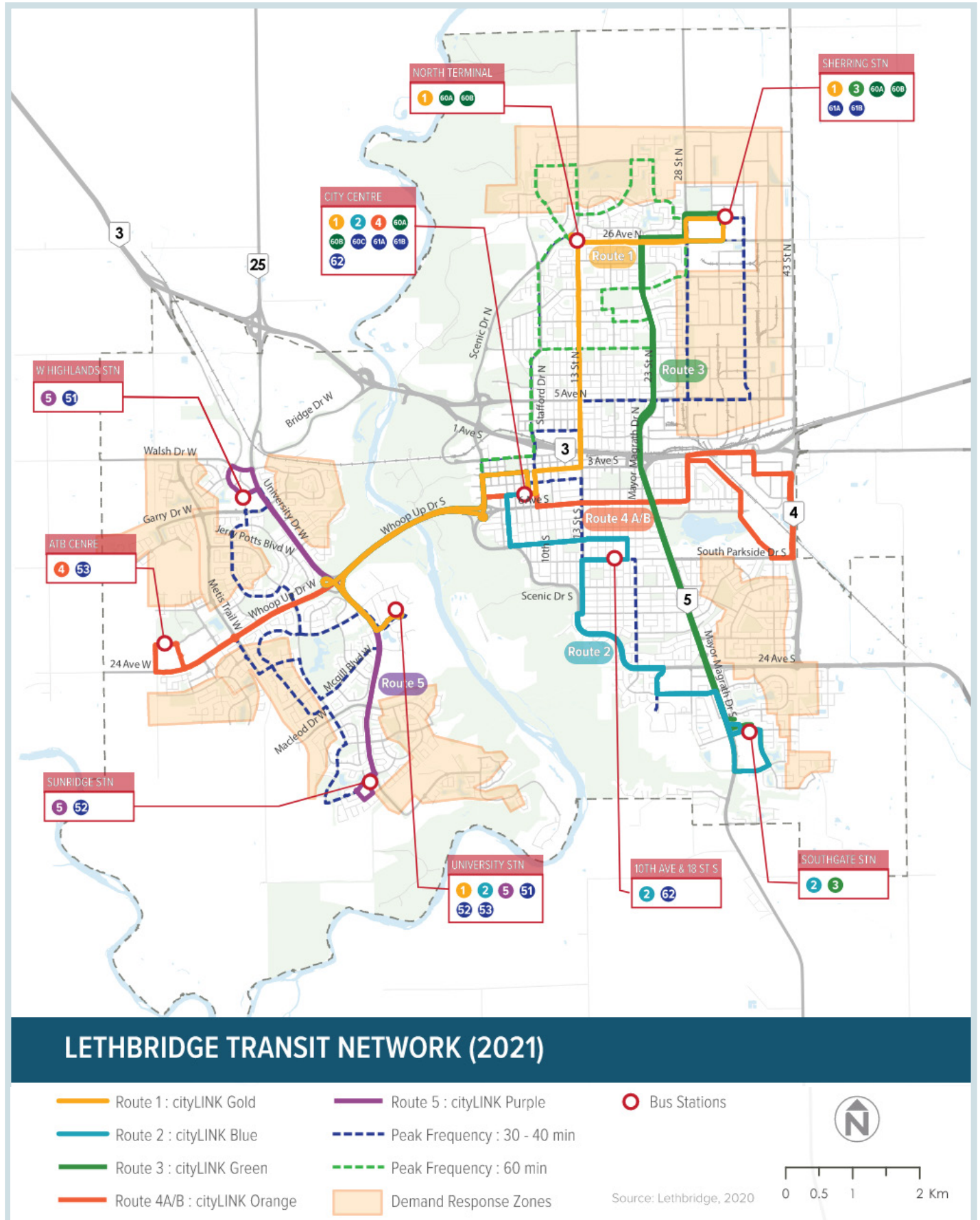
## Transit

Lethbridge Transit provides public transportation through 11 fixed routes and various on-demand services. These on-demand services serve individuals who are unable to use the fixed route bus service and include options like Access-A-Ride. The transit system is designed with a focus on frequent service routes, transit hubs, and services in areas with lower population density. This organization ensures that residents have convenient access to public transportation, even in areas where demand might be lower.

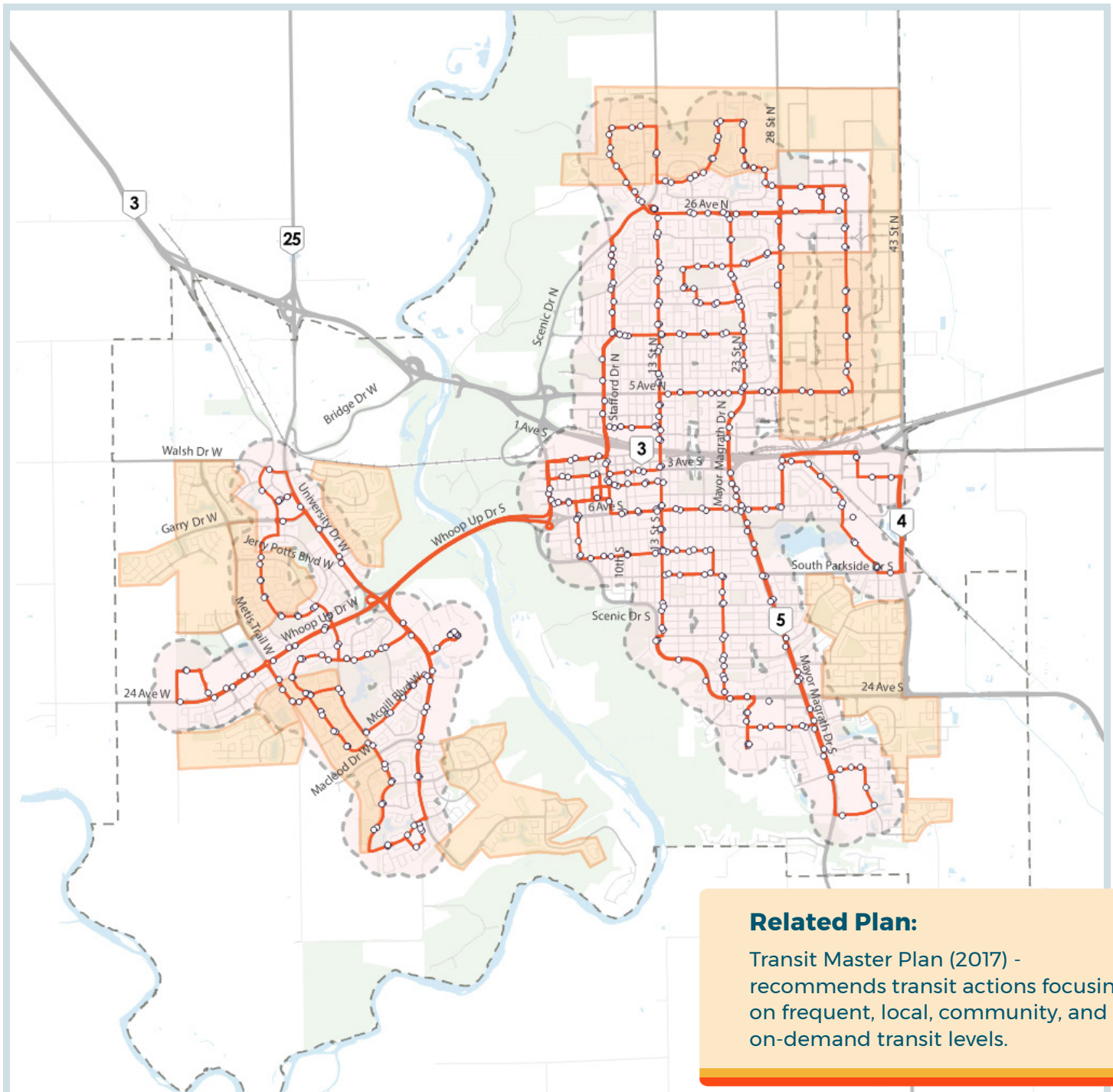
The 2021 Transit Network includes:

- **cityLINK:** Frequent and Direct Connections: To enhance ridership and meet other community development goals, the primary feature of the new fixed route network is a series of cityLINK routes that provide frequent and direct service to key corridors and destinations. Three cityLINK routes provide radial service in and out of the City Centre; one cityLINK route provides crosstown service on the east side of the city; another cityLINK route serves West Lethbridge and the University of Lethbridge.
- **cityHUBS:** Stations and a New Transit Terminal: The cityLINK routes connect a series of eleven stations throughout the city. The heart of the system is the new Regional Park 'n' Ride Transit Terminal that provides connections to regional services (Red Arrow and Spotted Eagle Contracting's Standoff – Lethbridge commuter service) as well as many local routes. The facility also includes a parking garage. Three of the cityLINK routes also serve the University of Lethbridge station, a major destination and ridership generator in the city. The other major cityHUBS in the city include Sherring Station, North Station, Southgate Station, and West Highlands Station.
- **Matching Service with Demand:** Another key feature of the transit network is providing more appropriate service types to areas with less demand. Six community routes provide coverage-oriented fixed route service that connects the stations and cityLINK routes. Lower-density areas in the city are served by Demand Response Zones, which provide on-demand service within the zones and connections to the cityLINK and community routes. There are six separate demand response zones in the city.

The following map shows the transit network from 2020, which illustrates the frequency and days of operation.



While most of Lethbridge’s residents live within 400 meters (about a 5-minute walk) of a transit stop, subdivisions situated on the edges of west Lethbridge and south Lethbridge fall outside of this ideal range. Currently, almost all areas where residents are more than 400 meters from a transit stop are covered by Demand Response Zones. The following map shows the walksheds around Lethbridge’s current transit network.



**Related Plan:**  
 Transit Master Plan (2017) - recommends transit actions focusing on frequent, local, community, and on-demand transit levels.

## WALKSHEDS AROUND LETHBRIDGE TRANSIT NETWORK

- Bus Routes
- Demand Response Zones
- 400m Walkshed to Fixed Route Bus Stop
- Bus Stops



Source: Lethbridge, 2020

## Transportation Safety

In October 2020, the City adopted its Transportation Safety Plan (TSP). The primary goal of the TSP is to identify the necessary actions and resources to provide a safer transportation system in Lethbridge to eliminate deaths and serious injuries by 2040. The Plan sets the following vision:

**“A community on the move towards ZERO transportation-related deaths and serious injuries”**

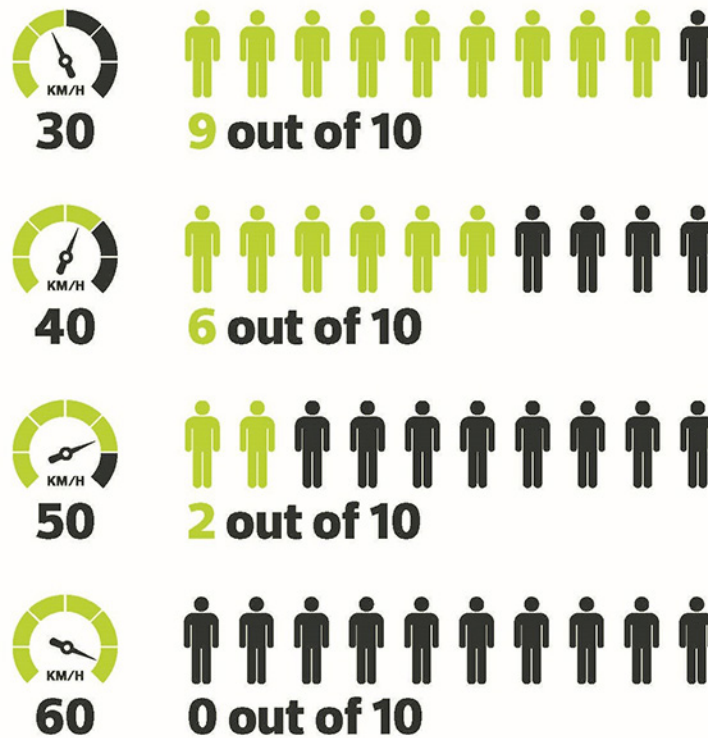
The TSP analyzed collision data from 2012 to 2016. It noted that 38% of severe collisions involved vulnerable road users (people walking and people riding motorcycles, bicycles, and scooters).

The analysis also showed that at least 44% of all severe collisions occur at intersections, with 39% of those occurring at signalized intersections.

Surviving a crash is closely tied to motor vehicle speed. In Lethbridge, unsafe speed was noted by police in 23% of severe collisions. For collisions involving pedestrians, the likelihood of a fatality rises with speed (see image below). Making changes to streets, like lowering speed limits and installing traffic calming measures (such as narrowing travel lanes) can help to reduce crashes and save lives. Narrower road width can affect driver comfort, increase driver attention and lower operating speeds.

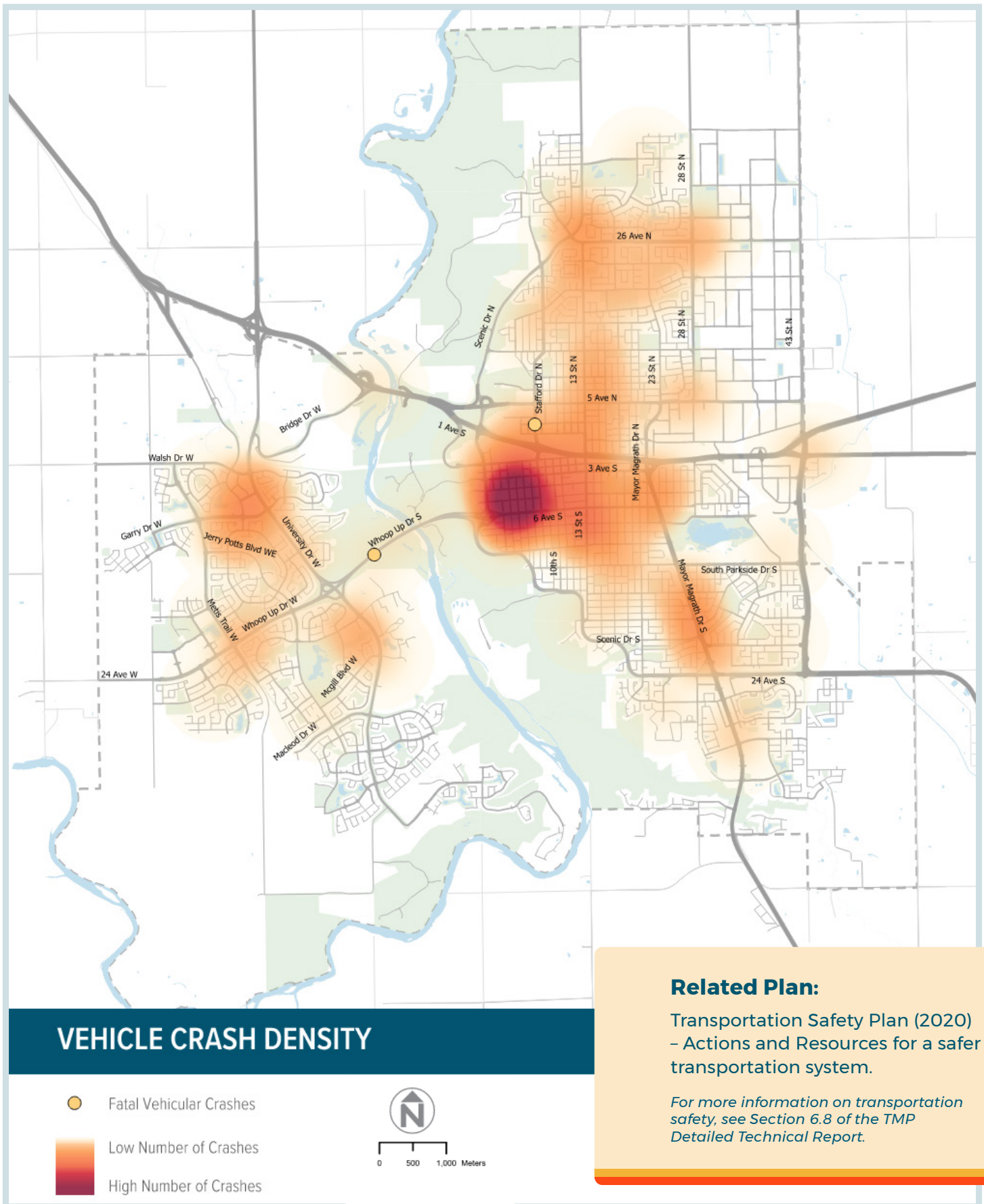
### PEDESTRIAN SURVIVAL RATE FOR DIFFERENT COLLISION SPEEDS

Approximate survival rate if hit by a vehicle at the following speeds.



Based on World Health Organization (WHO) speed management manual.

The following map shows the crash density from collisions between 2016-2020.



**Related Plan:**  
 Transportation Safety Plan (2020)  
 – Actions and Resources for a safer transportation system.

*For more information on transportation safety, see Section 6.8 of the TMP Detailed Technical Report.*

## Accessibility

An accessibility assessment was conducted to better understand Lethbridge's transportation network accessibility. Assessments (undertaken by experts with lived experience) utilized visual inspection, walking, and using a scooter to traverse various locations.

In addition, the City's transit information and the City's Mobility/Accessibility Master Plan were reviewed and assessed for how easy it was to find relevant accessible transportation information on the City's website.

### Related Plan:

Mobility/Accessibility Master Plan (2020)  
- long-term visionary plan to create a universally accessible city that is designed for all people regardless of ability.

*For more information on the TMP's accessibility assessment, visit Section 6.9, of the TMP Detailed Technical Report.*





## Smart Mobility

New technologies and approaches to transportation is broadly categorized as Smart Mobility. By using technology, people have more information and may be less dependent on one transportation mode. To evaluate how ready the City is for Smart Mobility, the following 6 categories were considered:

**Diversity, Equity, Safety and the Environment**, which accounts for much of the physical infrastructure users experience in the transportation system (Eg. real-time transit information displays, real-time driver information displays for travel time or incidents) The presence of available options are evaluated here.

**System Efficiencies** speaks to the potential of Smart Mobility interventions to increase the transportation systems' efficiency for all modes. This targets lane interventions such as High Occupancy Vehicle lanes, coordinated traffic signals or other lane management systems.

**Travel Demand Management and Access to Travel Information** evaluates the City's tools to support the transportation demand giving users the information they need to select the transportation option that works best for them.

**Data Sharing and Privacy** considers opportunities to use data to improve transportation system planning and delivery decisions.

**Interoperability / Communications Across and Between Modal Networks and Communities** looks at how new systems can be used with current technology and other future systems.

**Planning and Governance** which evaluates the people and funding frameworks in place to support Smart Mobility and the multi-modal future.

### THE DOMAINS OF SMARTER MOBILITY



DIVERSITY, EQUITY, SAFETY AND THE ENVIRONMENT



ROADWAY SYSTEM EFFICIENCIES



TRAVEL DEMAND MANAGEMENT AND ACCESS TO TRAVEL INFORMATION



DATA SHARING AND PRIVACY

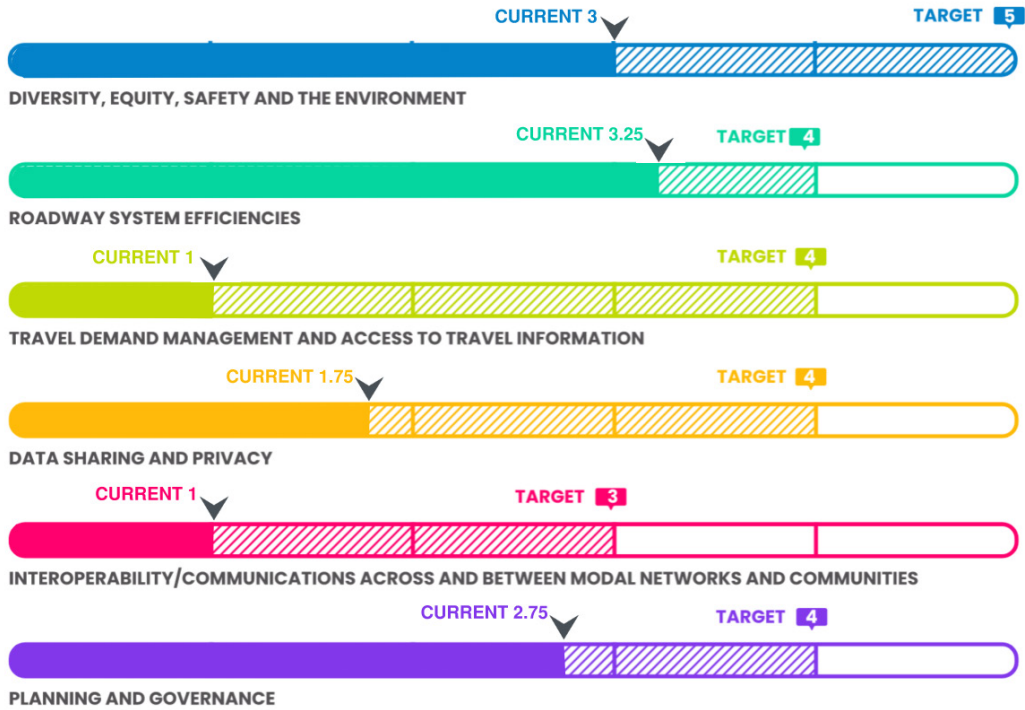


COMMUNICATIONS ACROSS AND BETWEEN MODAL NETWORKS AND COMMUNITIES



PLANNING AND GOVERNANCE

**SMARTER MOBILITY CURRENT READINESS ASSESSMENT & SELF-SET TARGETS FOR THE CITY**



**Related Plan:**

To see the Smarter Mobility Readiness Assessment Report, see Appendix E of the TMP Detailed Technical Report.



## 5. Future Transportation Network

Following the analyses, future network conditions were created. The future network considerations for road networks, dangerous goods transportation, pedestrians, bikeways, crossings, transit, accessibility, and Smart Mobility are discussed in the following section.

### Road Network

Traffic modeling was developed for the years 2029, 2039, and 2069. The results of the model indicate the roadway changes needed at each future horizon.

#### Specific roadway opportunities include:

- Build a third bridge along the Chinook Trail alignment.
- Expand the trucks and dangerous goods network in north Lethbridge.
- Construct the roadway network as identified in the Road Networks Improvements map (below).

### Third Bridge Analysis

The analysis of the third bridge looked at how traffic might be in the year 2069 based on the number of total lanes crossing the Old Man River as well as the position of the proposed bridges. The results showed that if there was no third bridge, additional congestion would cause Whoop-Up Drive and parts of the network east and west of this river crossing to experience unacceptable levels of congestion. Having a third bridge would bring the people and businesses on both sides of the river closer together. The travel demand model from 2039 shows that the bridge will be required sometime after 2039.

Of the two possible locations for the bridge, this analysis suggests that Chinook Trail is the better choice, as compared to Popson Park, for the third river crossing alignment. A Chinook Trail bridge would be less costly and attract more traffic compared to a bridge further south. A bridge in the southwest end of the City would conflict with Popson Park, and would have a longer travel distance to reach business and activity destinations.

### Scenario Analysis

Using the traffic model, testing of different transportation network and land use assumptions was undertaken. Five scenarios were explored to assess the impacts they would have on the city's transportation network. These are summarized below for the 2039 horizon unless otherwise noted:

**Scenario 1: 10% Reduction in Automobile Trips (taken up by other modes of travel)** Between 3-10% less traffic in all areas of Lethbridge and major bridges and an 8% reduction in daily vehicle kilometers travelled.

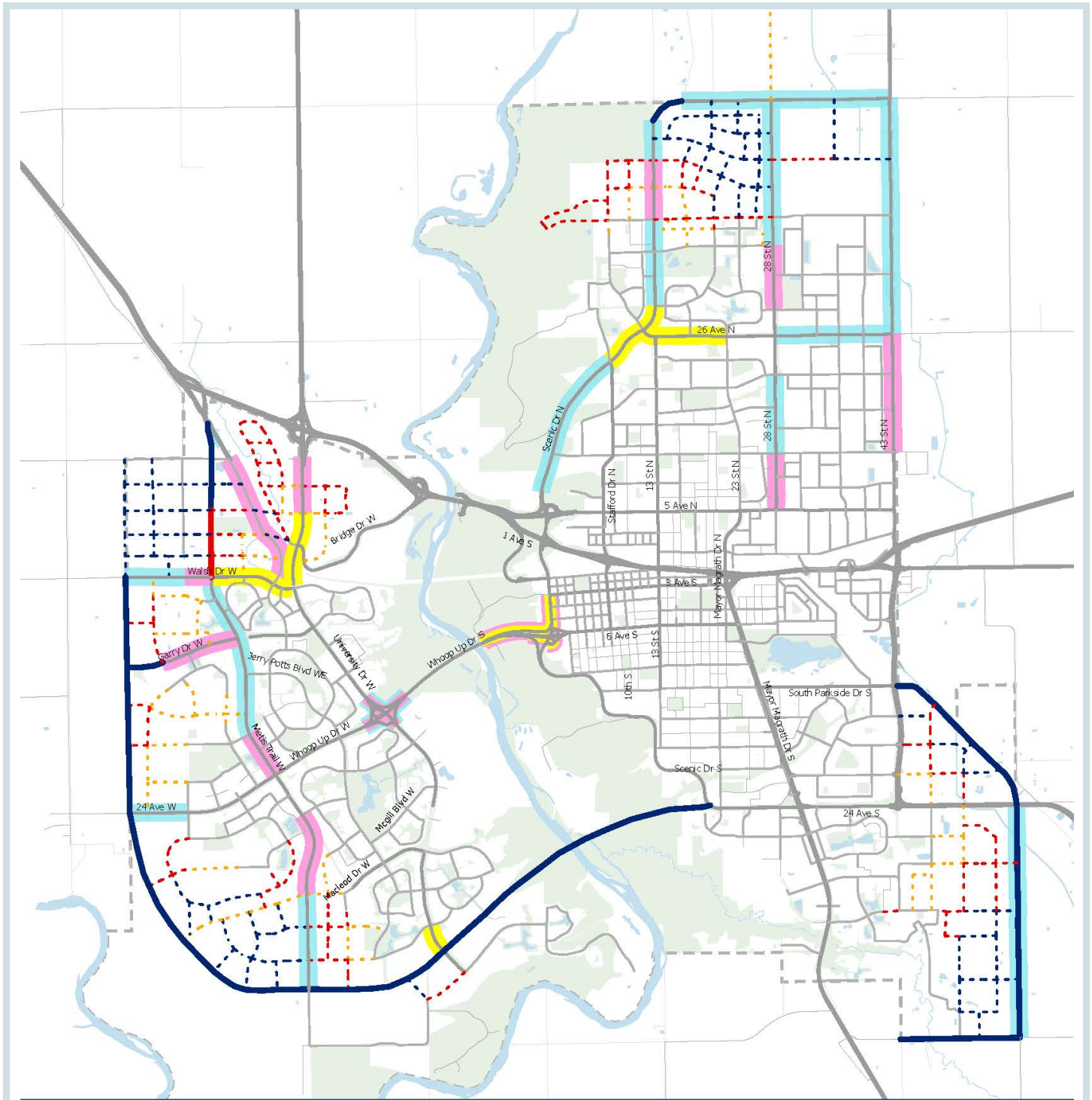
**Scenario 2: Narrowing of Mayor Magrath Drive from 6 to 4 lanes** Minor traffic impacts in most areas of Lethbridge. 20-25% reduction of traffic on Mayor Magrath Drive. 10-15% increase in traffic on parallel streets.

**Scenario 3: No Employment in West Lethbridge Employment Centre** Minor traffic impacts in most areas of Lethbridge. Up to 8% increase of traffic on Whoop-Up Drive and 2% increase in daily vehicle kilometers travelled.

**Scenario 4: No CANAMEX Bypass (2069 Horizon)** Minor impacts in most areas of Lethbridge. 20% increase in traffic on Highway 3 bridge.

**Scenario 5: 20% of Residential Growth Through Central Infill (2069 Horizon)** 5% higher traffic in Central Lethbridge. Up to 15% lower traffic in all other areas of Lethbridge. Approximately 5% lower traffic on all bridge crossings.

The following map shows new arterial and collector roadways in future years.



## ROAD NETWORK IMPROVEMENTS

- Arterial, 2029
- Arterial, 2039
- Arterial, 2069
- - - Collector, 2029
- - - Collector, 2039
- - - Collector, 2069
- Existing Roads
- Road Widening (Prior to 2029)
- Road Widening (Prior to 2039)
- Road Widening (Prior to 2069)

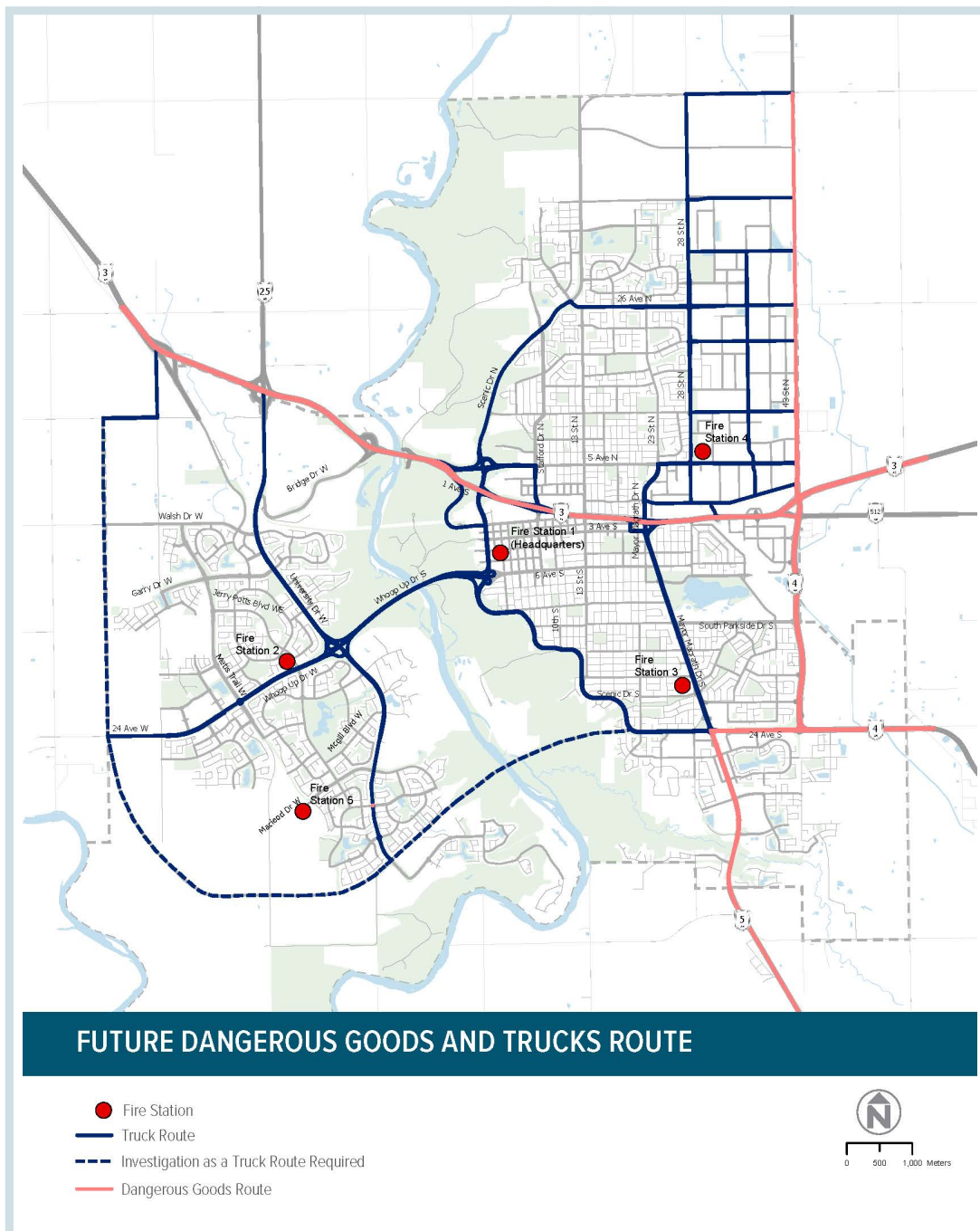
To see more details on the types of upgrades and road network improvements please see section 9.2.1 of the TMP Detailed Technical Report.

## Dangerous Goods and Truck Routes

As the industrial areas of north Lethbridge (Sherring Industrial Park and north Sherring Future Development Area) continue to expand, it will be necessary to expand the current heavy truck network.

**The current heavy truck network should be expanded along the following corridors:**

- 28 Street N to 62 Avenue N
- 62 Avenue N between 28 Street N and 43 Street N
- 44 Avenue N (Cavendish Road N) between 28 Street N and 43 Street N
- With the completion of Chinook Trail, this could be added to the heavy truck network from the Highway 3 connection near 30 Street W to Scenic Drive S (subject to environmental impact review).



## Pedestrian and Bikeway Network

To understand how people in Lethbridge will travel in the future using different modes of transportation, the focus was placed on finding areas where improvements are needed, and where the current or planned networks might not be enough to meet transportation needs.

Three areas stood out for improvement based on the analysis of the current conditions, direction from City Council, and feedback from the community. These areas are:

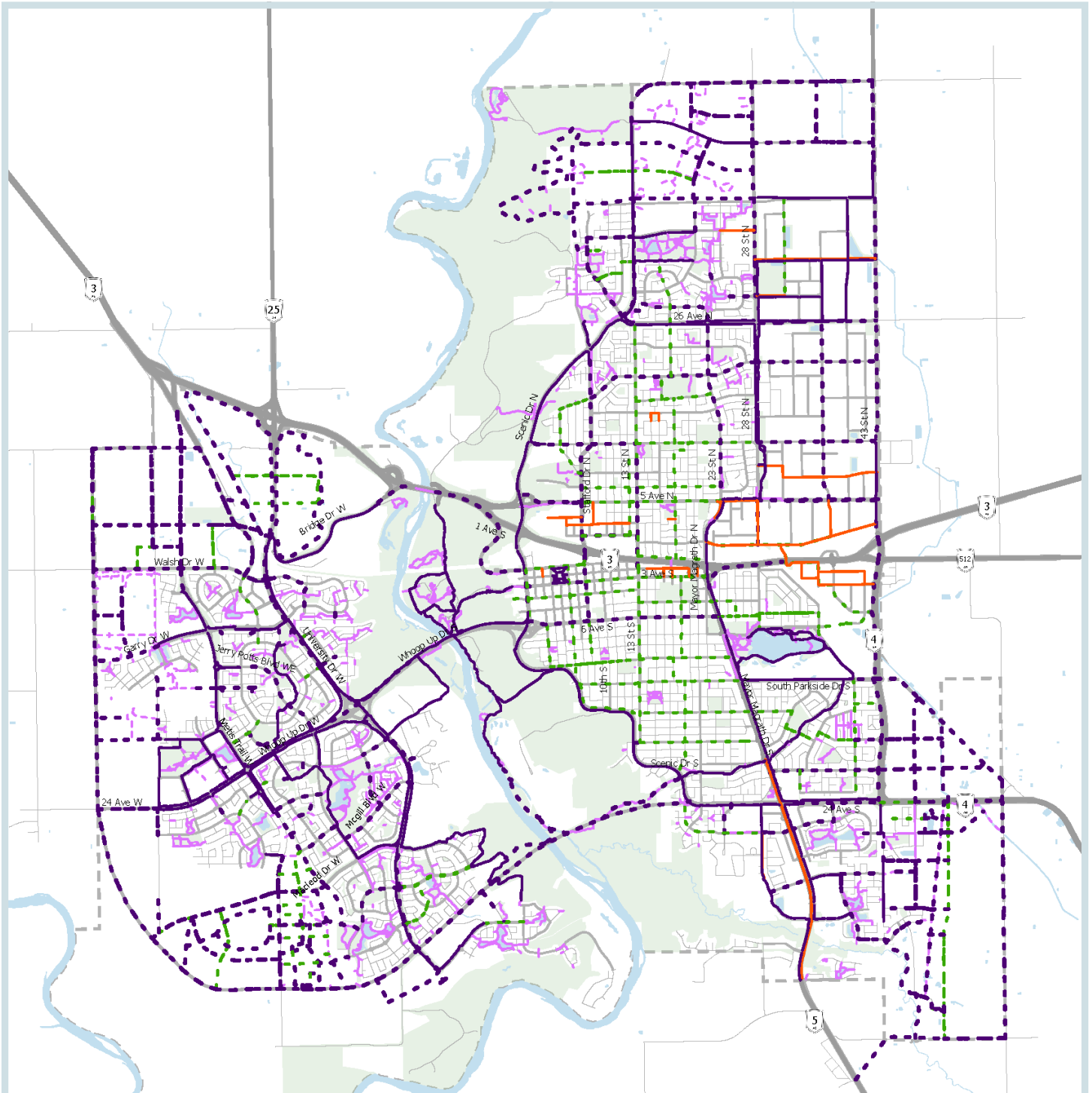
- Access to public transit
- Challenges faced by pedestrians and cyclists when crossing roads
- Potential conflicts between different modes of transportation

### **To address these, key improvement recommendations to the pedestrian and bikeway network include:**

- Use Universal Design standards for new or redeveloped infrastructure
- Improve access to transit by placing a high priority on sidewalk installation in areas with low sidewalk coverage like Churchill Industrial Park, Sherring Industrial Area
- Remove barriers for pedestrians at roadway crossings, particularly in the industrial areas in northeast Lethbridge, the Commercial and Retail centers in south Lethbridge, and multiple areas of West Lethbridge. Analysis shows that downtown does not have significant issues due in large part to the density of signalized intersections and short blocks
- Improve pedestrian crossings near transit, particularly in the industrial area of north Lethbridge, and some communities in the south part of south Lethbridge
- Install more protected cycling infrastructure in existing and new areas
- Improve cycling infrastructure at intersections analyzed as more difficult to cross. This includes intersections in north Lethbridge industrial areas, some new communities in south Lethbridge, and most communities in west Lethbridge
- Install floating bus stops (see page 36 for examples) along combined bicycle/transit corridors like 13 Street N
- Expand the pathway network, particularly in the river valley including a new river crossing for active modes

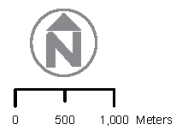
The network, alignment and types of cycling infrastructure and/or multi-use pathways in new neighbourhoods is to be determined at outline plan stage.

Recommended active mode connections can be seen in the following map.



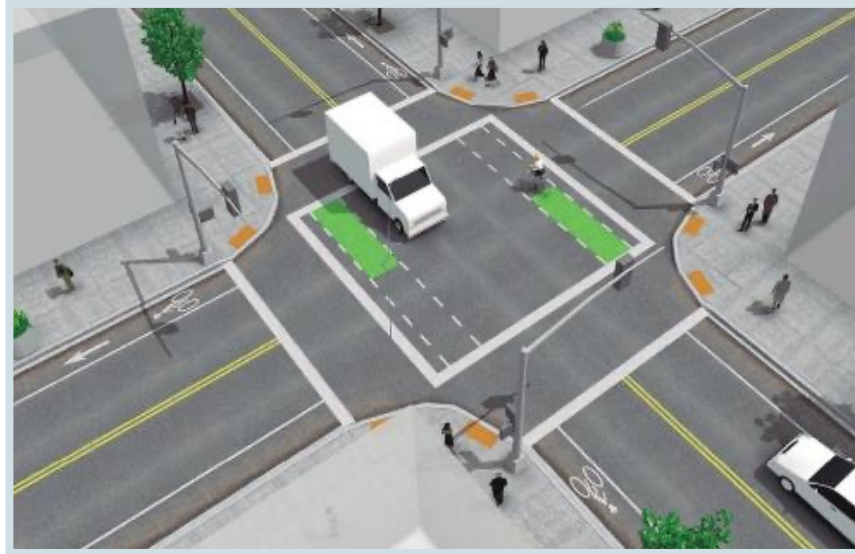
## ACTIVE MODE CONNECTIONS

- Existing Roads
- Existing Sidewalks
- Existing Local Connectors
- Existing Multi-Use Pathway / On-Street Cycling Infrastructure
- Future Sidewalk in Existing Areas
- Future Multi-Use Pathway
- Future On-Street Cycling Infrastructure
- Future Local Connectors



Using the Multi-modal Needs Analysis and Future Accessibility Needs, two categories of intersection improvements were also identified:

**Cycling Crossing Improvements** – existing signalized intersections with pedestrian, cycling, and/or accessibility improvements. An example is shown below. This illustration shows painted bike lanes in each direction with solid green and dashed white bike lane lines to provide better visibility to the high conflict areas between cyclists and motorists.



*Example of improved cycling crossing*

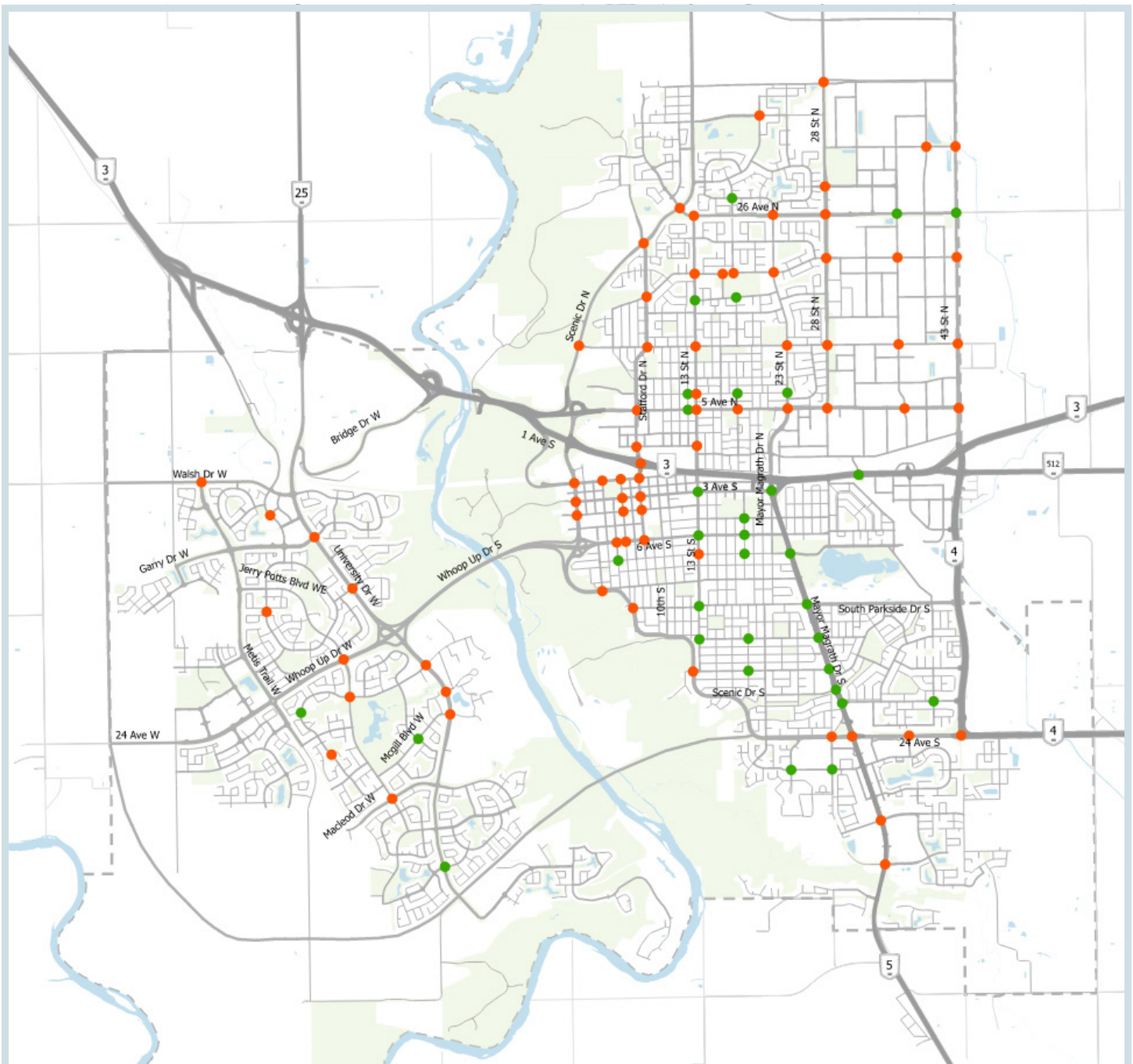
**Pedestrian Crossing Improvements** – existing un-signalized, t-intersection, or minor intersections (residential/collector) with pedestrian, cycling, and/or accessibility improvements. An example is shown below. This illustration shows curb-extensions, enhanced crosswalk markings, dual wheelchair ramps, and tactile surface treatments.



*Example of improved pedestrian crossing*

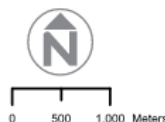


Intersection improvements targeted at pedestrians and cyclists generally make the intersection safer for all users (including drivers) as operating speeds are lower, cyclists are given their own designated space, and existing pedestrian crossings are improved such that pedestrian visibility is greater, and exposure time is reduced. Suggested future intersection improvements are noted on the following map.



## FUTURE INTERSECTION IMPROVEMENT

- Recommended Pedestrian Crossing Improvements
- Recommended Cycling Crossing Improvements
- Existing Roads



To read more about pedestrian and bikeway connection improvements please see section 9.2.2 of the TMP Detailed Technical Report.

## Transit and Accessibility

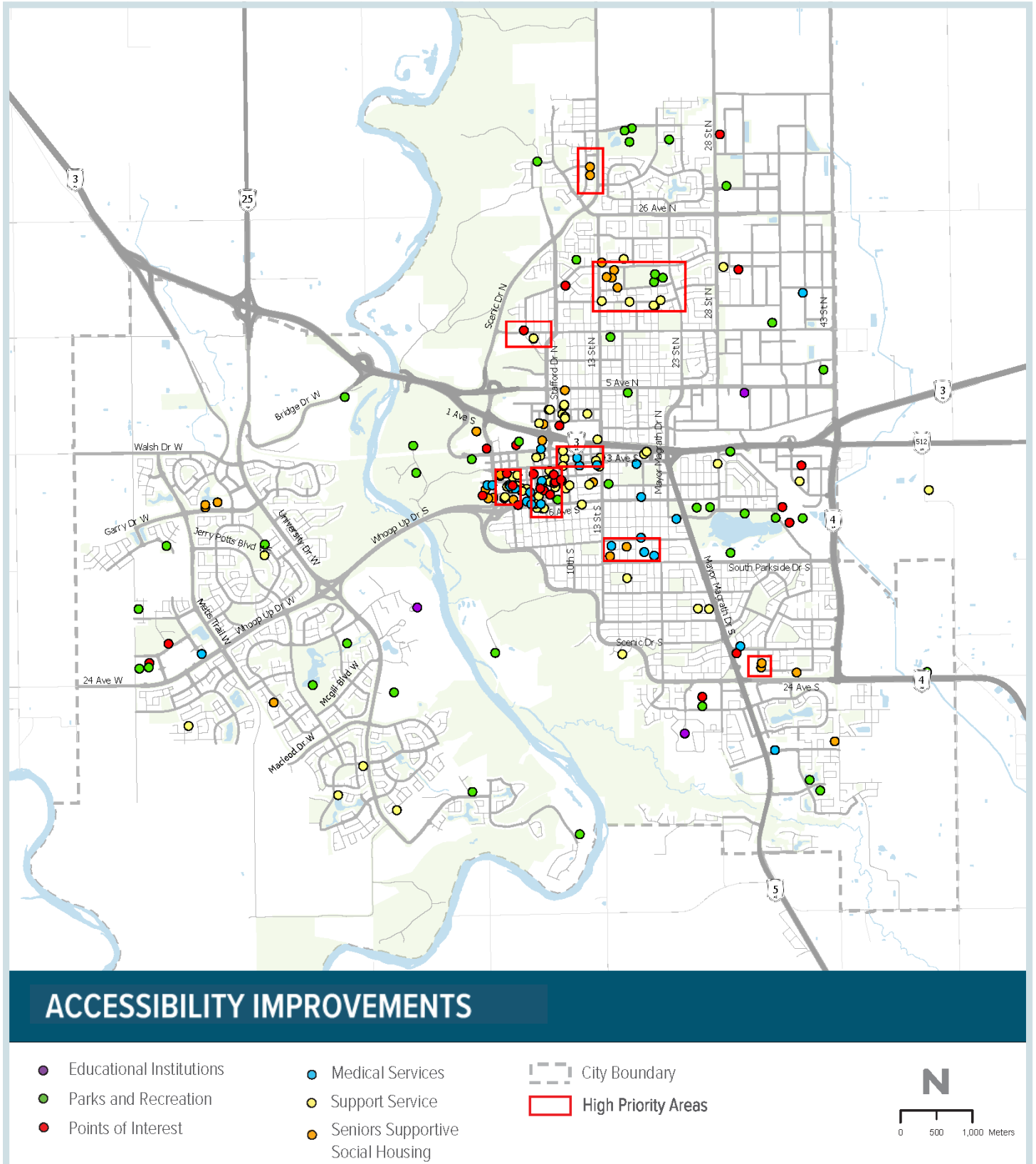
An accessible transportation network allows everyone to move around freely and participate fully in the community. Universal design, which considers the needs of various individuals such as those with disabilities, seniors, parents with strollers, and children, is important in creating an inclusive environment for everyone.

### **Policies for consideration to improve accessibility in the City include:**

- The provision of affordable and accessible mobility choices, such as Access-A-Ride, available on an as-needed basis to ensure residents can access community resources at any time
- Universal design principles are to be applied in all aspects of the planning, design, operation, and maintenance of transportation infrastructure and services
- The transit network, including all vehicles and supporting infrastructure (such as sidewalks and bus stops), be designed and built to Universal Design standards, over and above the National Building Code of Canada requirements
- Accessible bus stops to be provided at high-priority locations in the short-term and medium and low-priority locations in the long term
- Directional ramps with functional connections to active mode networks should be provided at the corners of intersections, along with a Complete Streets strategy to ensure all exterior paths of travel connected to public transit are accessible



It is crucial to prioritize the placement of accessible transit stops in areas that have been identified as high priority to ensure that people can easily access resources, entertainment, housing, medical services, and support services. The following map provides an overview of destinations requiring accessibility and high priority areas for future improvements.



## ACCESSIBILITY IMPROVEMENTS

- Educational Institutions
- Parks and Recreation
- Points of Interest
- Medical Services
- Support Service
- Seniors Supportive Social Housing
- ▭ City Boundary
- ▭ High Priority Areas

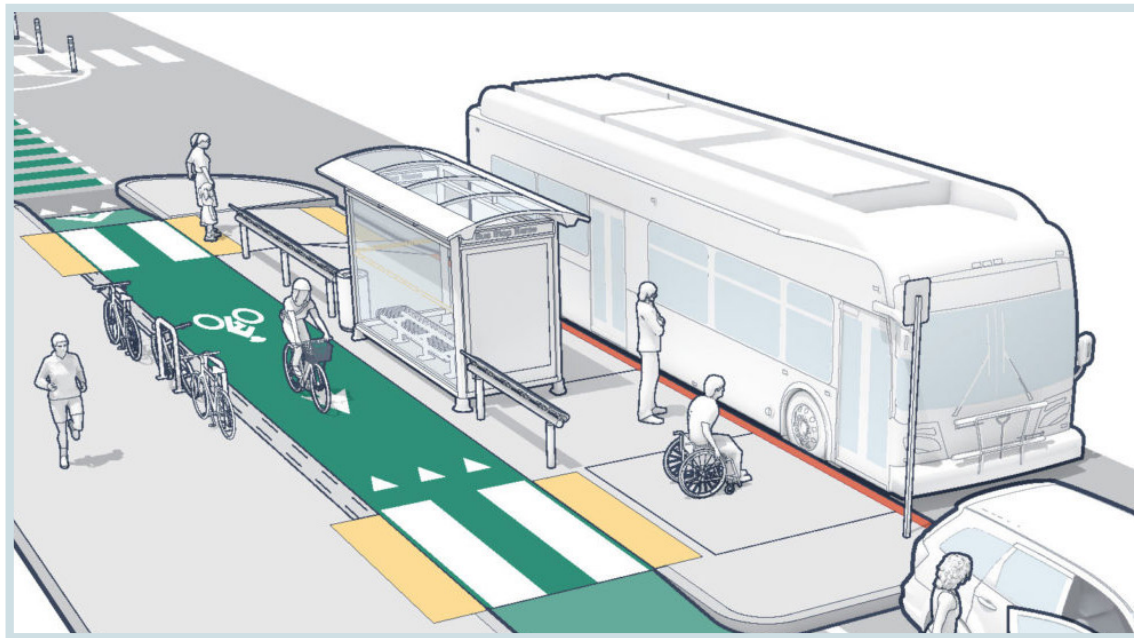


Along with the placement of accessible transit stops, it will be important to improve the integration of on-street bike routes with transit routes. This requires the implementation of floating transit stops where the bicycle facility is realigned behind the transit stop. This removes the conflict between the slowing or stopped bus, and cyclists using the same space. This design does create a new conflict between cyclists and transit users that must cross this new bicycle facility, however, it is mitigated by implementing pedestrian crossing treatments (pavement markings, tactile strips) as would be done for crossing regular traffic lanes. Examples are shown in the images below.

**Related Plan:**  
 Mobility/Accessibility Master Plan (2020)  
 - long-term visionary plan to create a universally accessible city that is designed for all people regardless of ability.

**MIDBLOCK FLOATING TRANSIT STOP (ISOMETRIC VIEW)**

SOURCE: AC TRANSIT MULTIMODAL CORRIDOR DESIGN GUIDELINES, TOOLE DESIGN



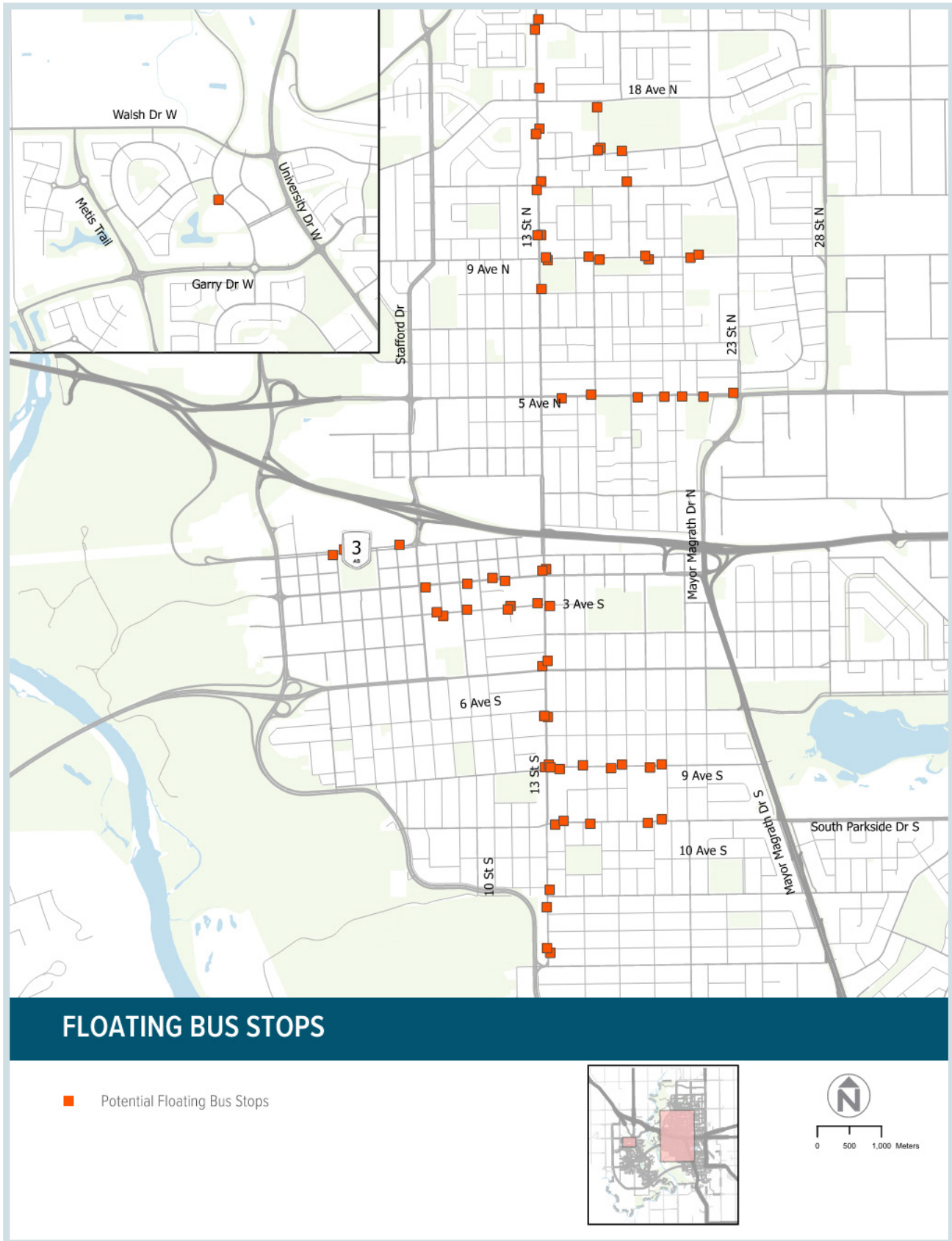
**Example Floating Transit Stop (Burrard Street, Vancouver, BC)**

SOURCE: PAGE H-12, BC ACTIVE TRANSPORTATION DESIGN GUIDE



Floating transit stop, Burrard Road, Vancouver, B.C.

There are nearly 70 locations where floating bus stops could be implemented in Lethbridge, which are identified in the map below. Floating bus stop locations are somewhat clustered, as the Cycling Master Plan attempted to minimize conflict between Transit and the planned on-street cycling network.



## Smart Mobility

While the Smarter Mobility Readiness Assessment Tool focused on establishing existing scores and future targets, recommended actions that emerged from the Smarter Mobility Readiness Assessment Report were also created.

Smarter Mobility Readiness Assessment recommendations include:

- Prioritize multi-modal opportunities in the TMP
- Smart connected signals
- Install permanent traffic counters for pedestrians, cyclists, and vehicles
- Enhance open data and data sharing policies
- Explore partnerships with local industries for the development of a transportation demand management program and/or MaaS platform
- Deploy a mobility hub at the Lethbridge Regional Park and Ride Transit Terminal
- Support vehicle electrification

## 6. Supporting Initiatives and Strategies

For a successful implementation of the TMP over the next several years, several initiatives and strategies that should continue, or are strongly encouraged to consider include:

### Current Initiatives & Strategies

- **Regional Improvements**

As an example, the 15-kilometer Cor Van Raay LINK Pathway connecting Lethbridge and Coaldale will help reduce reliance on the vehicle for trips between these two destinations.

- **Complete Streets Policy and Design Guidelines**

The completion of a Complete Streets Policy and corresponding revisions to the current Design Standards, should be a high priority for the City.

- **Transit Master Plan**

The Transit Master Plan is designed to be implemented in multiple phases. It begins with adjustments routes and recommends gradually increasing transit frequency as funding permits.

- **Permanent Count Stations**

Installing permanent count stations for cars and bikes in Lethbridge has many benefits. These stations collect important information about how much traffic there is and how it moves. This helps the city figure out where to make transportation better and find ways to reduce congestion. The count stations can show where to improve things like bike lanes or places for people to cross the road, making it safer and

easier for everyone to get around. By keeping track of this information regularly, the City can also see how traffic changes over time and make sure improvements are working well. Putting these count stations in strategic locations (e.g. Old Man River, expressways, railways) and around the major entrances to the downtown will help determine how many people are coming in and out of those areas.

### New Initiatives & Strategies

- **Vision Zero Strategy**

While the Transportation Safety Plan (TSP) has all the elements needed to achieve its ambitious targets, the City should consider rebranding the TSP to a “Vision Zero Initiative”. This “branding” is generally associated with stronger community involvement and political commitment/ leadership to provide direction, ensure resources, and drive progress.

- **Traffic Calming Policy and Guidelines**

A formal traffic calming policy would help the City streamline the traffic calming implementation process and focus on the high-priority locations first.

- **Roundabout Implementation and Guidelines**

It is recommended that the City develop design guidelines for roundabouts which include guidance around where and when to implement them, and detailed design standards to support their design and implementation.

- **Smart Mobility and Emerging Technologies**

Recommended actions that emerged from the Smarter Mobility Readiness Assessment Report include:

- » Prioritize multi-modal opportunities
- » Smart connected signals
- » Install permanent traffic counters for pedestrians, cyclists, and vehicles
- » Enhance open data and data sharing policies
- » Explore partnerships with local industries for the development of a transportation demand management program and/or MaaS platform
- » Deploy a mobility hub at the Lethbridge Regional Park and Ride Transit Terminal
- » Support vehicle electrification

- **Intelligent Transportation Systems (ITS)**

Lethbridge has a lot to gain from implementing intelligent transportation system solutions. These solutions can reduce traffic congestion, enhance safety, improve public transit efficiency, reduce emissions, and improve accessibility for people with disabilities. By investing in these technologies, the City can improve the quality of life for its residents and enhance its reputation as a forward-thinking, sustainable city. Three areas for Lethbridge to focus on for ITS solutions when it comes to traffic signals specifically are:

- » Continue giving transit signal priority at intersections along main transit routes.
- » Improving bike detection at new

intersections by using camera detection technology or sensors to help give cyclists a comfortable experience while enabling them to change the signal when traffic volumes are low.

- » The importance and function of limited access highways, including using ramp meters at highway interchanges to make them work more smoothly and help traffic flow better, especially for people going into or out of the city.

- **Traffic Management Center**

Setting up a traffic management center (TMC) can help handle traffic signals, congestion, and detours in real-time within the city. A TMC uses connected infrastructure to make important adjustments based on the daily needs of the transportation system.

- **Transportation Demand Management**

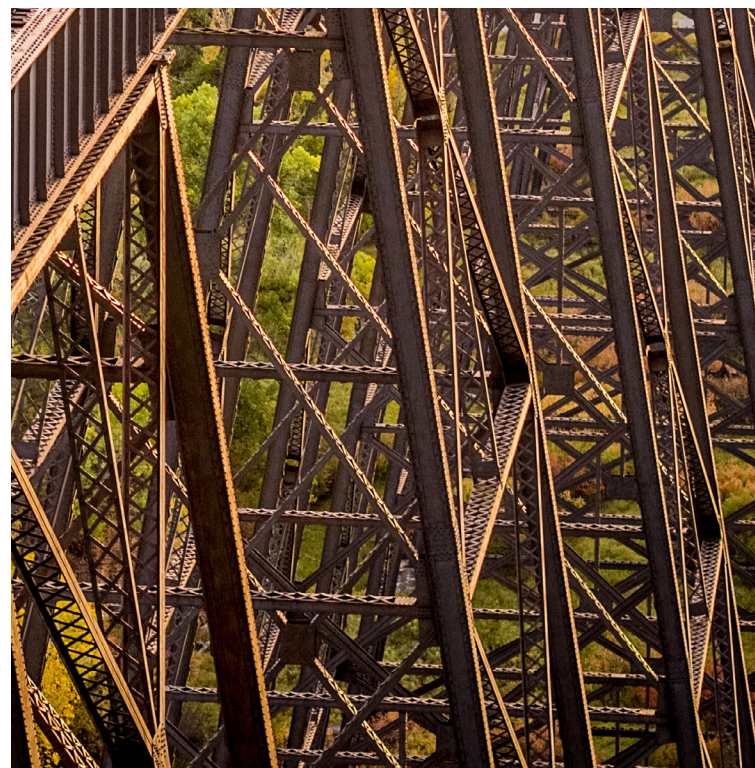
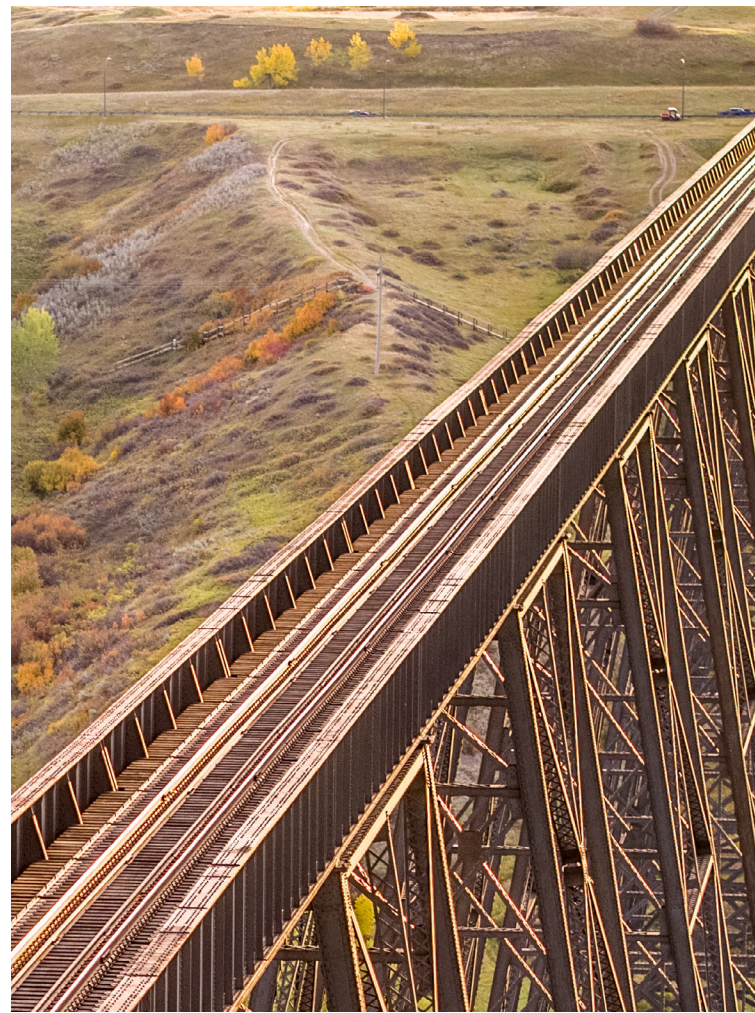
By providing special transportation programs for big employers, the City can achieve its transportation goals and help reduce traffic jams, make the air cleaner, and lower the amount of pollution. Some ideas for these programs include giving people tools to carpool and find parking easily, giving employees discounted bus fares, making safe places for bikes to park, and having showers and lockers for people who bike or walk to work. These types of programs can also make employees' lives better by reducing stress from commuting and getting them to exercise more. It can help employers too by reducing the need for parking spaces and saving money, making employees happier and more likely to stay, and making the company look good as a responsible and environmentally friendly place to work.

- **Parking Strategy**

The purpose of a city-wide parking strategy is to enable cohesive management of public and private parking. The parking strategy and its implementation can generate revenue, improve parking availability, and reduce environmental impact preparing the City for additional investment, redevelopment and revitalization in its core areas and its downtown. A parking strategy also needs to consider secure bike parking, secure micromobility parking, and transit access both in urban design and presence. It is important for the City to carefully consider these factors and engage with stakeholders before implementing any changes to the parking system.

- **Whoop Up Drive Monitoring Strategy**

To make the most of this important road, it is recommended that the City comes up with a monitoring strategy for Whoop Up Drive. Since there are only two ways to connect to the western part of the city and there is significant growth expected in that area, traffic on Whoop Up Drive will likely increase. Having a yearly plan to keep an eye on the traffic on Whoop Up Drive, measure how crowded the road gets, and suggest ways to ease the congestion, would be helpful and could push the need to build a costly third bridge at Chinook Trail further into the future.





## 7. Implementation Plan

Capital cost estimates provide suggested timing and costing for recommended transportation projects, based on modeling. This helps the City plan for future spending. Short, medium, and long-term upgrades are often included. Short-term upgrades are imminent. Medium-term upgrades are either in pre-planning, centrally located, or benefit established communities. Lastly, long-term upgrades are reserved for newer parts of the city. Detailed cost estimates can be found in section 9.3.4 of the TMP.

### Road Infrastructure Cost Estimates

The road infrastructure costs summarized below include road widening, new arterial roads, and new bridges. It does not include developer-constructed roads.

#### Road Infrastructure Cost Estimates (2023)

Corridor	< 10 years	10-20 years	20+ years	Total
26 Avenue N	\$10.0 M	\$0 M	\$4.7 M	\$14.7 M
28 Street N	\$4.5 M	\$13.5 M	\$16.1 M	\$34.1 M
43 Street N	\$0 M	\$6.2 M	\$12.7 M	\$18.9 M
62 Avenue N	\$0 M	\$0 M	\$23.1 M	\$23.1 M
Garry Drive W	\$0 M	\$2.7 M	\$3.3 M	\$6.0 M
Métis Trail	\$6.6 M	\$2.6 M	\$28.7 M	\$37.9 M
Scenic Drive N	\$7.3 M	\$12.3 M	\$19.5 M	\$39.1 M
Scenic Drive S	\$12.3 M	\$0 M	\$0 M	\$12.3 M
University Drive	\$9.5 M	\$12.6 M	\$0 M	\$22.1 M
Walsh Drive	\$17.3 M	\$4.0 M	\$4.1 M	\$25.4 M
Westside Drive W	\$0 M	\$0 M	\$0.4 M	\$0.4 M
Whoop Up Drive	\$10.0 M	\$45.0 M	\$42.9 M	\$97.9 M
<b>Chinook Trail</b>				
- Scenic Drive S to University Drive W (including bridge: 4km)	\$0 M	\$0 M	\$130.0 M	\$130.0 M
- University Drive W to Métis Trail W (2km)	\$0 M	\$0 M	\$19.8 M	\$19.8 M
- Métis Trail W to Whoop Up Drive W (3.5km)	\$0 M	\$0 M	\$38.5 M	\$38.5 M
- Whoop Up Drive W to Walsh Drive W (3.2km)	\$0 M	\$0 M	\$31.9 M	\$31.9 M
<b>TOTAL</b>	<b>\$77.5 M</b>	<b>\$98.9 M</b>	<b>\$375.7 M</b>	<b>\$552.1 M</b>

## Active Transportation Cost Estimates

Infrastructure costing estimates for active transportation include infrastructure like bike boulevards, painted bicycle lanes, protected bicycle lanes, sidewalks, pathways, and crossing improvements. The combined cost estimates for active transportation infrastructure are provided in the table below. You can see more detailed cost estimates in section 9.3.4 of the TMP.

**Active Transportation Infrastructure Cost Estimates**

Infrastructure Type	Quantity	Total over 10+ years
Bikeways	18 km	\$59.5 M
Sidewalks	31 km	\$8.0 M
Multi-Use Pathways	79 km	\$18.7 M
Intersections (Pedestrians)	82	\$22.1 M
Floating Transit Stops	69	\$7.7 M
<b>TOTAL</b>		<b>\$116.0 M</b>

Bikeway specific infrastructure projects, facility type, and costs are provided in the following table. It includes bike boulevards (BB), painted bicycle lanes (BL), and protected bicycle lanes (PBL). It is important to note at the outset of planning and design, the cycling corridors should be reviewed to confirm that no other alignments are more desirable given the current conditions. Changes in understanding of infrastructure suitability or changes in cycling usage are examples of reasons this review is necessary.

**Table E-6: Bikeway Infrastructure Cost Estimates**

Corridors	Limits	Facility Type**	Timeframe	Project Cost
13 Street N*	8 Avenue N to 26 Avenue N	PBL	Short	\$10.1 M
13 Street S* 16 Avenue S*	2 Avenue S to 16 Avenue S 13 Street S to Scenic Drive S	PBL	Short	\$6.0 M
13 Street N* 2A Avenue N*	2A Avenue N to 2 Avenue S Stafford Drive N to 13 Street N	PBL PBL	Short	\$3.7 M
1 Avenue S* 7 Street S*	Scenic Drive S to Stafford Drive S 1 Avenue S to 10 Avenue S	PBL PBL	Short	\$3.7 M
Scenic Drive S	1 Avenue S to 6 Avenue S	PBL	Short	\$0.5 M
4 Avenue S* 5 Avenue S	Scenic Drive S to 13 Street S 13 Street S to Mayor Magrath Drive S	PBL	Short	\$4.9 M
12C Street N	8 Avenue N to 2A Avenue N	BB	Short	\$1.3 M

1 Avenue N 6 Avenue N 18 Street N	13 Street N to Mayor Magrath Drive N Stafford Drive to 23 Street N 1 Avenue N to 9 Avenue N	BB BB BB	Med	\$1.8 M
10 Avenue S 16 Avenue S 17 Street S 18 Street S	Scenic Drive S to Mayor Magrath Drive S 13 Street S to Mayor Magrath Drive S 9 Avenue S to 10 Avenue S 10 Avenue S to Scenic Drive S	PBL BL BB BB	Med	\$2.6 M
12 Avenue S Scenic Drive S (Service Road)	Scenic Drive S to Henderson Lake Boulevard S 10 Avenue S to 12 Avenue S	BL BL	Med	\$1.0 M
Grand River Boulevard W Princeton Crescent W Riverglen Link W	University Drive W to Riverstone Boulevard W Métis Trail W to Columbia Boulevard W University Drive W to Riverdale Terrace W	BL BL BL	Med	\$0.5 M
2 Avenue N	Mayor Magrath Drive N to 30 Street N	PBL	Med	\$2.3 M
3 Avenue S 9 Avenue S 18 Street S	Stafford Drive S to Mayor Magrath Drive S 13 Street S to Mayor Magrath Drive S 3 Avenue S to 9 Avenue S	PBL BL BB	Med	\$2.6 M
Stafford Drive S	6 Avenue S to 9 Avenue S	BB	Med	\$2.0 M
Coalbanks Link W 30 Street	Firelight Way W to Coalbanks Boulevard W Whoop Up Drive W to Coalbanks Blvd W	PBL PBL	Med	\$0.4 M
32 Street S Forestry Avenue S / Lakemount Boulevard S Henderson Lake Boulevard S / Lakeridge Boulevard S	20 Avenue S to 24 Avenue S 43 Street S to Lakeridge Boulevard S 12 Street S to Forestry Avenue S	BL BL BL	Med	\$0.5 M
4 Street S 9 Avenue S	7 Avenue S to Scenic Drive S 4 Street S to 13 Street S	BL BL	Med	\$0.5 M
40 Avenue N Grace Dainty Road N Haru Moriyama Road N Lettice Perry Road N Mildred Dobbs/Edith Emma Coe	Mildred Dobbs Boulevard N to 13 Street N Lettice Perry Road N to 13 Street N Mildred Dobbs Boulevard N to Lettice Perry Road N Mildred Dobbs Boulevard N to 40 Avenue N Lettice Perry Road N to 40 Avenue N	PBL PBL BL BL BL	Med	\$1.2 M
5 Avenue N* 9 Avenue N	Stafford Drive N to 23 Street N 13 Street N to 28 Street N	PBL PBL	Med	\$6.0 M
Parkside Drive S / 7 Avenue S WT Hill Boulevard S	34 Street S to WT Hill Boulevard S 4 Avenue S to 43 Street S	BL BL	Med	\$1.5 M

6 Street N / Stafford Avenue N	9 Avenue N to Stafford Bay N	BL	Med	\$0.4 M
Blackfoot Blvd Country Meadows Boulevard W Grassland Boulevard W Highlands Boulevard W	Métis Trail W to Red Crow Boulevard W 30 Street W to Métis Trail W County Meadows Boulevard W to Garry Drive W Walsh Drive W to Red Crow Boulevard W	BB BB BB BB	Med	\$1.0 M
Edgewood Boulevard W Mic Mac Boulevard W	University Drive W to Sherwood Boulevard W Red Crow Boulevard W to University Drive W	PBL PBL	Long	\$1.2 M
5 Avenue S 6 Avenue S 28 Street S 34 Street S	Mayor Magrath Drive S to 25 Street S Mayor Magrath Drive S to 34 Street S 6 Avenue S to Parkside Drive S Leaside Avenue S to Parkside Drive S	PBL PBL PBL PBL	Long	\$0.4 M
Great Lakes Road S Nipigon Road S	South Parkside Drive S to Cul-de-Sac Great Lakes Road N to 43 Street S	BB BB	Long	\$0.7 M
36 Street N 2 Avenue N	2 Ave N to 26 Ave N 30 St N to 36 St N	BL BL	Long	\$1.0 M
15 Avenue N 18 Street N	13 Street N to 23 Street N 9 Avenue N to 26 Avenue N	BL BB	Long	\$1.2 M
Tudor Boulevard S / 28 Avenue S	Scenic Drive S to 28 Street S	BB	Long	\$0.5 M
<b>TOTAL</b>				<b>\$59.5 M</b>

\*Cost includes road improvements

## Operating Cost Considerations

As the City proceeds with the implementation of transportation projects, operational funding will need to be considered. Costing, on the operational side, will vary depending on the recommendation. These new operational needs have been summarized below under anticipated areas of focus:

- 1. Transportation & Land Use Planning Integration** - Consideration for administration staff time in reviewing new developments and supporting City policy development.
- 2. Multi-modal Integration** - The development of new sidewalks, new pathways, new on-street bicycle infrastructure (painted and protected bike lanes) and new roads will need to consider both lifecycle maintenance and seasonal maintenance.
- 3. Transit Integration** - Public transit carries considerable operational costs, with increased operating hours and distances traveled increasing the cost of drivers and maintenance on the vehicles.
- 4. Transportation Demand Management** - Most Transportation Demand Management solutions come tied with a separate business case model, such as car share or ride share. The use of information sharing supporting Transportation Demand Management is achieved through either online or separate applications, each with its own operational and maintenance implications.
- 5. Transportation Supply Management** - Management of transportation supply is dependent on the collection of accurate data whether continuous real-time or sampled data, which have added costs.
- 6. Monitoring and Reporting** - Successful implementation of the TMP will require dedicated staff and other resources to initiate and deliver actions, monitor TMP progress, and report back to Administration and Council.
- 7. Winter Maintenance** - New pathways, sidewalks, on-street bikeways, and universal access at intersections and transit stops will require an additional budget for snow and ice control including snow clearing, salting/sanding, and spring clean-up.

## Policies & Actions






The TMP policies and their supporting actions will guide transportation projects and programs throughout the city for years to come. They are helpful tools to ensure the TMP vision and strategic goals are met. These policies and actions are summarized in the following tables under five themes:




- Transportation & Land Use Planning Integration
- Multi-Modal Integration
- Manage Transportation Demand
- Transportation Supply
- Parking

The policies and supporting actions for each theme are presented in the following sections. They are accompanied by a relative priority, projected implementation timeline, and relative cost. The priority is categorized as High, Medium, or Low, indicating the importance of each supporting action in fulfilling the vision statement of the TMP. The implementation timeline is estimated based on the time required to execute a task if it has been allocated resources and initiated. It is divided into three time periods: less than 5 years, less than 10 years, and more than 10 years. There is also a separate category for 'ongoing' actions, where a policy decision or direction can begin delivering results if the City has the current capacity and capability to do so. The cost is indicated on a scale of \$, \$\$, or \$\$\$, which can include both operational and capital expenses. A \$ represents a small-scale project (e.g., a supporting action costing less than \$100,000), \$\$ corresponds to a medium-scale project (e.g., a supporting action between \$100,000 and \$500,000), and \$\$\$ denotes a larger-scale project surpassing the medium-scale threshold of \$500,000.

## Transportation & Land Use Planning Integration











The policies and supporting actions under this theme focus on connecting the transportation network to where residents live, work, and visit. Making the most efficient use of the transportation network requires convenient access to transportation options and more intensive and mixed land-uses where public transit is available.

#	Policy	Supporting Actions	Priority	Timeline	Cost
1-1     	Develop new lands with the intention of accommodating all modes (and encouraging active modes and transit).	A. Ensure high-quality pedestrian and cycling connections exist to major activity centers and transit stops.	High	Ongoing	\$\$
		B. Promote transit routes to serve activity centers and residential developments.	High	Ongoing	\$\$
		C. Support a continuous high-quality active transportation network throughout new developments.	High	Ongoing	\$\$
		D. Develop road network to maintain a high-quality transit service with walkable stop locations.	High	< 10 years	\$\$\$
		E. Work with the development industry to encourage the provision of secure and high-quality parking for regular bicycles, e-bicycles and cargo/over-sized bicycles.	High	< 5 years	\$
		F. Update City of Lethbridge Traffic Impact Study guidelines to improve considerations of all modes of transportation.	High	< 5 years	\$
		G. Work with Lethbridge County and Alberta Transportation to plan for the future arterial road connection from the southeast boundaries of the city to Highway 5.	High	< 5 years	\$
		H. Continue the logical expansion and maintenance of the City's industrial rail network.	High	Ongoing	\$\$\$
		I. Through the Municipal Development Plan and other related planning documents, endeavor to balance the development of activity nodes throughout the City as best as possible to assist in the distribution of traffic on the road network.	High	Ongoing	\$











<p>1-2</p> 	<p>Support development in targeted nodes and corridors serviced by transit and intensify uses and activities in these areas.</p>	<p>A. Promote a mixture of land uses at current and future transit hubs and stops which can support one another for a range of user groups and mobility solutions. This needs to be achieved in parallel to ensure that transit is available at occupancy.</p>	<p>Med</p>	<p>Ongoing</p>	<p>\$</p>
<p>1-3</p> 	<p>Support opportunities for mixed-use developments in areas with existing infrastructure.</p>	<p>A. Support a network that connects and promotes basic services (e.g., convenience retail, health food options, schools, social services, and parks) at a local level.</p>	<p>Med</p>	<p>Ongoing</p>	<p>\$\$</p>
<p></p>	<p></p>	<p>B. Ensure contextually sensitive infill and redevelopment in existing built-up areas informs multi-modal transportation infrastructure investments.</p>	<p>Med</p>	<p>Ongoing</p>	<p>\$\$</p>
<p></p>	<p></p>	<p>C. Pursue opportunities to make auto-dependent existing neighbourhoods more accessible near bus stops, along arterial roads, and at intersections.</p>	<p>Med</p>	<p>&lt; 5 years</p>	<p>\$\$</p>
<p></p>	<p></p>	<p>D. Explore funding options to pave commercial roadways and rear lanes.</p>	<p>Low</p>	<p>&lt; 5 years</p>	<p>\$</p>
<p>1-4</p> 	<p>Improve communication to be inclusive, accessible, and equitable.</p>	<p>A. Provide the opportunity for Indigenous Relations Advisors/ Specialists to be engaged during the planning, design, and implementation phases of future transportation projects.</p>	<p>High</p>	<p>&lt; 5 years</p>	<p>\$</p>
<p></p>	<p></p>	<p>B. Transportation staff to complete development reviews with equity, diversity, and inclusion lenses specifically considered.</p>	<p>High</p>	<p>Ongoing</p>	<p>\$</p>
<p></p>	<p></p>	<p>C. Ensure that all public transportation communication materials and planning events are accessible and available by providing different formats for users with diverse abilities.</p>	<p>High</p>	<p>&lt; 5 years</p>	<p>\$</p>








## Multi-Modal Integration

The policies and supporting actions under this theme focus on ensuring that streets are designed for multiple modes, are safe for everyone, and that the public is made aware of the opportunities and benefits.

#	Policy	Supporting Actions	Priority	Timeline	Cost
2-1       	Design streets to create pedestrian, cycling, and transit-supportive environments.	A. Facilitate flexibility in design standards by completing the Complete Streets Guidelines/ Policy and providing a greater range of roadway cross sections to include a range of appropriate active transportation and transit infrastructure.	High	< 5 years	\$\$
		B. Update design standard to include the principles of Universal Design.	High	< 5 years	\$
		C. Ensure the missing links in the pathway system are completed to accommodate pedestrians and cyclists.	Med	< 10 years	\$\$\$
		D. Commit to a new active-modes river crossing to create a river valley multi-use pathway loop and directly connect southwest and southeast Lethbridge communities.	Med	> 10 years	\$\$\$
		E. Support expanded shared mobility opportunities including electric scooter and electric bike share.	Med	< 5 years	\$\$
		F. Consider opportunities to integrate cultural heritage (i.e., indigenous public art) into transportation infrastructure (e.g., concrete treatment for underpasses, art pieces for roundabouts).	Med	< 10 years	\$\$
		G. Consider opportunities to integrate shade, wind buffering, and nature-based solutions to create supportive environments for all users.	Med	< 10 years	\$\$\$
2-2   	Build awareness and promote the benefits of walking and cycling.	A. Develop an education program to provide information (to decision-makers, and the public) on the environmental, economic/financial (both City and individual), and health benefits of walking and cycling by way of advertising and promotional activities.	High	< 5 years	\$
		B. Secure capital, grant, or alternative funding streams to earmark for cycling network implementation.	Med	< 5 years	\$










<p>2-3</p>      	<p>Ensure the transportation network serves everyone, including people of all ages, incomes, and abilities.</p>	A. Commit to the winter maintenance of pathways, cycle lanes and sidewalks to promote alternative modes throughout the year.	Med	< 5 years	\$\$\$
		B. Accelerate the retrofit programs for the construction of accessible infrastructure to ensure accessible wheelchair ramp angle and design, and the addition of tactile walking strips.	High	< 5 years	\$\$
		C. Ensure intersection and crossing improvement implementation, prioritizing locations of high traffic stress, near transit, schools, and other activity centres.	High	< 5 years	\$\$
		D. Create new standards and/or adopt existing standards from other municipalities to improve the legibility of street name signs and pedestrian information/wayfinding signs.	Med	< 10 years	\$\$
		E. Update Indigenous Street names to culturally appropriate spellings.	Med	< 5 years	\$
		F. Update temporary traffic control standards to include accessibility requirements.	Med	< 5 years	\$\$\$
		G. Support regional transportation initiatives.	Low	Ongoing	\$
		H. Develop a wayfinding strategy that incorporates the principles of universal design.	Med	< 5 years	\$
<p>2-4</p>    	<p>Ensure that new developments adhere to design standards and incorporate multi-modal infrastructure.</p>	A. Work with the development industry (Building Industry & Land Development Association - BILD) and/or other similar organizations to develop planning guides for cycling networks in new communities.	High	Ongoing	\$
		B. Ensure all new developments provide safe and convenient pedestrian environments through the provision of infrastructure such as sidewalks, crosswalks, lighting, etc.	High	< 5 years	\$

2-5       	Ensure Lethbridge streets are safe for all people.	A. Commit funding towards and implement the actions of the 5 focus areas identified in the 2020 Transportation Safety Plan: Distraction, Speed & Aggressive Driving, Intersections, Vulnerable Road Users, and Safe Vehicles.	High	> 10 years	\$\$\$
		B. Develop an education and encouragement program for residents and businesses to support a shift in mode choice, safe routes, and 'sharing the road'.	High	< 5 years	\$\$
		C. Provide communications programs for safety relating to natural risks to driver and user safety (e.g., threats from wildlife collisions, seasonal weather, etc.)	Low	< 5 years	\$\$

## Manage Transportation Demand

The policies and supporting actions under this theme focus on managing or reducing traffic demand, particularly during peak hours when the transportation system is under the most stress.








#	Policy	Supporting Actions	Priority	Timeline	Cost
3-1       	Design streets to create pedestrian, cycling, and transit-supportive environments.	A. Create and fill the position of Transportation Demand Management Coordinator within the City staffing structure, to be responsible for leading and managing the City's implementation of Transportation Demand Management strategies.	Med	< 5 years	\$\$
		B. Develop a comprehensive Transportation Demand Management implementation plan that will confirm key objectives, set priorities for short-term actions, and identify required resources.	Med	< 5 years	\$
		C. Promote sustainable transportation choices through communication and outreach methods including partnering with other agencies, web sites, integrated transit, cycling, and pathways maps, cycling and transit skills training, media relations, and special events that raise the profile of sustainable transportation choices.	Med	< 5 years	\$

3-2 	Consider traffic calming as an effective means of reducing the negative impacts of traffic on the quality of life for Lethbridge residents, in existing and future neighbourhoods and built-up areas.	A. Require the development of neighbourhood traffic management plans as part of future outline plans and area redevelopment plans.	Med	< 5 years	\$
		B. Develop a Traffic Calming Policy to guide the prioritization and implementation of traffic calming measures.	Med	< 5 years	\$\$
		C. Develop (or adopt existing) traffic calming design standards.	Med	< 5 years	\$\$

## Transportation Supply








The policies and supporting actions under this theme focus on maximizing the capacity or efficiency of the transportation network through technology, data collection and monitoring, and wayfinding.

#	Policy	Supporting Actions	Priority	Timeline	Cost
4-1 	Maximize the multimodal capacity of current infrastructure (e.g., transit priority, access management).	A. Develop and require incorporation of key criteria and factors that impact or define the level of service for each major mode – walking, cycling, goods, transit, and vehicles in all planning and design projects.	Med	< 10 years	\$\$\$

<p>4-2</p>   	<p>Keep Lethbridge moving by developing and maintaining a well-connected street network to address traffic flows.</p>	A. Install permanent traffic counters and promote the use of Location Based Data for monitoring traffic growth and for improved open data sharing.	High	< 5 years	\$\$
		B. Begin the planning process for implementing a Traffic Management Centre to manage traffic signals, transit operations, detours, and incidents in real-time.	Med	< 10 years	\$\$\$
		C. Continue expanding the Transit Signal Priority program and investigate the use of dynamic signals in areas of high congestion.	Med	< 10 years	\$\$\$
		D. Promote Mobility as a Service digital platforms to integrate transportation systems and options for visitors and residents.	Med	Ongoing	\$
		E. Undertake a review of the current signage and ease of wayfinding for Trucks and Dangerous Goods, and implement improvements where required.	Med	< 5 years	\$
<p>4-3</p>    	<p>Consider the life cycle benefits and costs when planning, maintaining, and operating the transportation system.</p>	A. Ensure that direct investments in roadway projects will enhance mobility, safety, and the Level of Service on the City's arterial road network.	Med	Ongoing	\$
		B. Ensure roadway segments scheduled for maintenance or restriping are compared against planned on-street bicycle routes to lower the capital cost and accelerate the implementation of the bicycle network.	High	Ongoing	\$
		C. Limit the impact to natural lands when designing and implementing new infrastructure to protect and, in some instances, recognize, adjacent historical Indigenous sites.	High	Ongoing	\$
		D. Ensure designs for transportation corridors, notably arterials, provide sufficient spacing and easements suitable for compatible utilities, such as high-pressure gas lines and electrical transmission.	High	Ongoing	\$\$

## Parking

The policy and supporting actions under this theme focus on strategies to provide adequate, but not oversupply, parking which is an inefficient use of land, creates additional municipal costs and does not encourage the use of alternative modes of travel.

#	Policy	Supporting Actions	Priority	Timeline	Cost
5-1   	Attempt to balance the need to supply sufficient parking to support residents and businesses while avoiding excess parking supply that can discourage alternative modes.	A. Ensure that parking standards in the Land-Use Bylaw accurately represent needs by specific land use and do not result in excess parking supply,	Med	< 5 years	\$
		B. Support reducing the amount of required parking along major transit routes by creating parking maximums or reducing parking minimums.	Med	Ongoing	\$
		C. Explore eliminating or reducing parking minimums in the Land Use Bylaw.	Med	< 10 years	\$
		D. Reduce the reliance on public curbside parking and allow repurposing of this space for street furniture, patios, bicycle, and micro-mobility parking.	Med	< 10 years	\$
		E. Create cycling and micro mobility parking minimums.	Med	< 5 years	\$
5-2    	Improve on-street parking operations	A. Require periodic parking needs surveys in the downtown to determine utilization and potential for pricing.	Med	< 5 years	\$\$

# 8. Monitoring

Monitoring the progress or success of the TMP requires key performance indicators, metrics (and a means to collect those metrics), baseline data and targets. Eleven key indicators for mobility have been identified for the TMP. These cover progress on the infrastructure for pedestrians, cyclists/micromobility users and those with accessibility requirements, all of which directly impacts the transportation mode split. For the vehicular mode, there are two key indicators: progress on EV station growth and maintaining an average speed threshold for the street network. Data sources to monitor these metrics include the 5-year federal census survey, city GIS inventory and mapping, and the regional transportation model. The table below summarizes the eleven key indicators, their metrics, baseline years and values, and target values for both 2029 and 2039.

**Key Indicators for Mobility (TMP)**

#	Key Indicator	Metric	Baseline Year	Baseline	2029	2039
1	Transportation Mode Split	Walking Mode Split (all-purpose trips, 24 hrs, city-wide)	2019	4.7%	7%	10%
		Cycling Mode Split (all-purpose trips, 24 hrs, city-wide)	2019	1.3%	3%	5%
		Transit Mode Split (all-purpose trips, 24 hrs, city-wide)	2019	1.4%	3%	5%
		Auto Mode Split (all-purpose trips, 24 hrs, city-wide)	2019	89.0%	87%	80%
2	Bikeway Network (On-Street)	% Phase 1 (Cycle Master Plan) complete	2019	10%	30%	100%
3	Pathways	% Pathway network complete	2021	73%	85%	100%
4	Sidewalks	% Sidewalk network complete	2021	86%	90%	100%
5	Accessible Ramps	% of Intersections with pedestrian ramps	2023	77%	85%	100%
6	Tactile Walking Surface Indicators	% of downtown, major collector and arterial intersections with tactile walking surface indicators at ramps	2023	4%	50%	100%
7	Audible Traffic Signals	% of signalized intersections with audible pedestrian signals	2023	77%	88%	100%
8	E-Scooter/e-Bike Services	# of Annual Trips	2022	167,000	50% increase	100% increase
9	EV Stations	# EV Charging Stations (publicly owned)	2022	6	400% increase	800% increase
10	Average Street Network Speed	Average speed for all daily trips (based on the VISSUM model)	2019	39km/hr	>35 km/hr	>35 km/hr
11	Safety	Traffic Related Severe Injuries & Fatalities	2019	20 per year (5-year average)	50% reduction	100% reduction (to zero)

*It is recommended that progress on the action items and key indicators should be reported back to Council every 2 to 3 years and that the TMP be updated in 10 years.*

## 9. Glossary of Terms

**Arterial roadways** allow movement between sections and subdivisions within the City of Lethbridge and are generally laid out on 1.6 km intervals along the boundaries of neighbourhoods. These roads also function as part of the Truck Route system.

**Collector roadways** collect and distribute traffic in commercial areas, between and within residential communities, as community entry roadways, and within industrial areas. These roadways serve secondary traffic generators such as industrial areas, commercial centres, recreational amenities, schools, and traffic from neighbourhood to neighbourhood within the community. Many collector roadways also serve as transit routes throughout the city. The five types of collector roadways are Super, Community Entrance, Major, Minor, and Industrial.

**Complete Streets** are an approach to road design that considers all users, ages, and abilities, particularly pedestrians and cyclists, as traditional road design has been focused almost exclusively on vehicles.

**County roads** connect rural areas to the City. These roads are generally two-lane roadways, with an asphalt or graveled surface. These roads are owned and operated by Lethbridge County.

**Land uses** is a term used to describe the human use of land, such as agriculture, residential, commercial and business, industrial, and recreational.

**Local roadways** provide access to adjacent residential lots and connect to Collector roadways. They may include cul-de-sac and P loops and serve as part of the Fire & Emergency Services access routes.

**MaaS** is Mobility as a Service, a transportation concept that integrates different modes of transportation into a single mobility service, often through a digital platform. MaaS aims to provide travelers with a seamless and convenient transportation experience, by allowing them to plan, book, and pay for their trips using a single app or service. MaaS can include various modes of transportation such as public transit, ride-hailing, bike-sharing, car-sharing, and more.

**Other roadways** includes roadways within parks and provide connectivity to recreational areas, as well as private roadways in residential, commercial, and industrial developments that provide access to the City's roadway network.

**Provincial roadways** connect Lethbridge to the rest of Alberta, including Highways 3, 4, 5, and 25. Provincial roadways may have multiple travel lanes in each direction, and some are limited-access freeways. These highways are owned and operated by Alberta Transportation.

**TMC** is a Traffic Management Centre, a facility where traffic monitoring, control, and management are conducted. TMCs are typically responsible for monitoring traffic conditions, responding to incidents, and supplying real-time traffic information to the public.

**TMP** is a Transportation Master Plan, a long-term plan that outlines the goals, strategies, and actions for improving the transportation system in a particular area. "TMP" is used to reference this document.

**Tactile Walking Surface Indicator (TWSI)** is a raised pattern on the ground used to indicate the presence of a pedestrian crossing.

**Universal Design**, in the context of the transportation network, facilitates transit access, system equity, and ease of movement for all users, especially people using wheelchairs or mobility devices, the elderly, people with children and strollers, and people carrying groceries or packages. It employs tactile, visual, and audible design elements together to guide people of all abilities through the street environment.

