



LET'S MOVE YK!
YELLOWKNIFE TRANSPORTATION PLAN

Yellowknife Transportation Plan

September 2026



CITY OF
YELLOWKNIFE



Prepared for:



CITY OF
YELLOWKNIFE

Prepared by:

URBAN
SYSTEMS

Version 1.0 | September 2026

This is the first edition of the Yellowknife Transportation Plan.
This is a living document and will be subject to revisions over time.

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Thank you to the NWT Archives for providing historical images.

LAND ACKNOWLEDGMENT

The City of Yellowknife respectfully acknowledges that we gather, work, and govern within the homelands of the Yellowknives Dene First Nation, the Tłıchǫ, and the North Slave Métis.

We honour their enduring connection to this land and recognize the living laws, knowledge, and stewardship that continue to guide and protect this place. In our work, we commit to walking in partnership and respect, making decisions that honour Ancestors, uplift communities, and care for the generations yet to come.

We recognize all First Nations, Métis, and Inuit who live, work, and contribute to the life of Yellowknife, alongside all residents who now call this city home. Together, we share responsibility for strengthening this community and caring for the land and one another.



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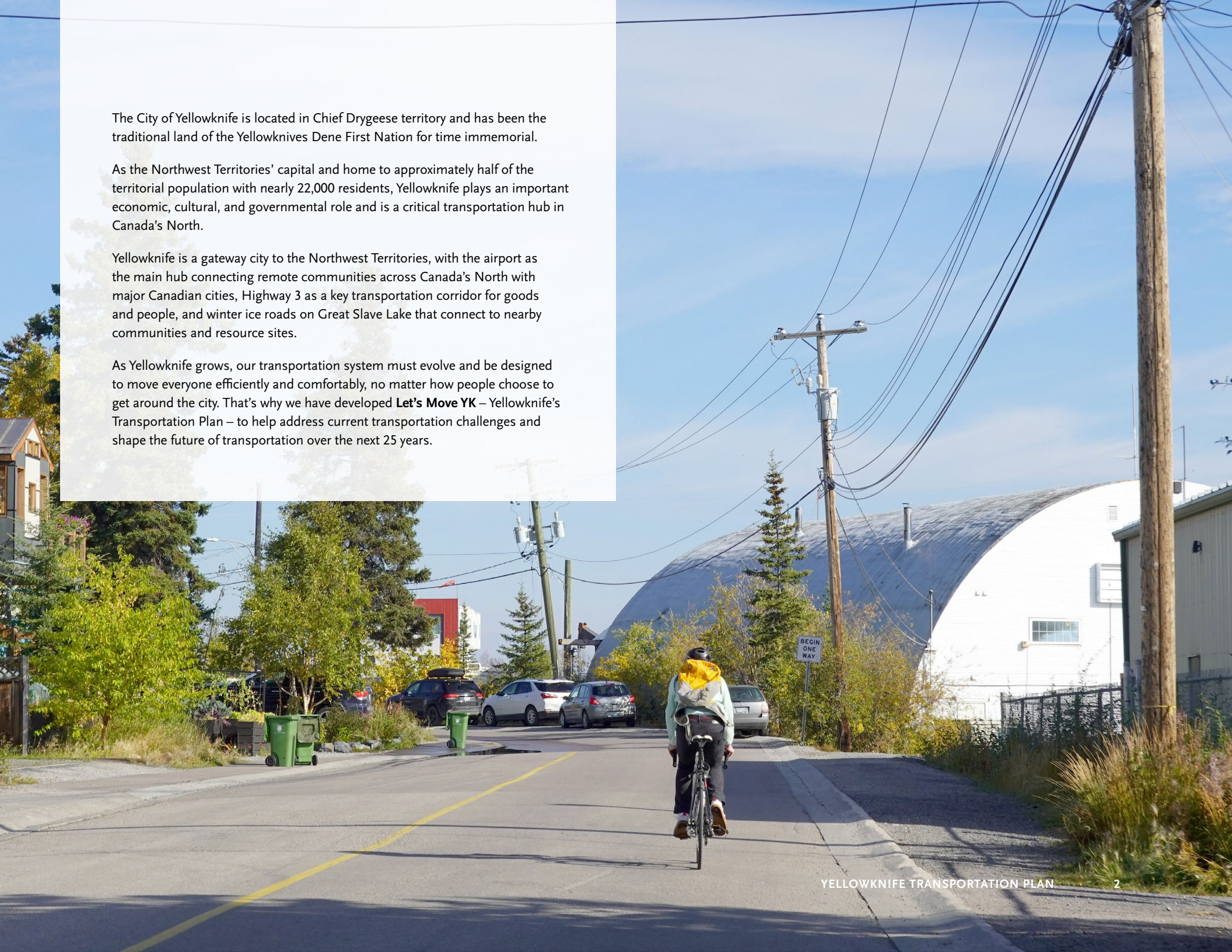
1.0 INTRODUCTION

The City of Yellowknife is located in Chief Drygeese territory and has been the traditional land of the Yellowknives Dene First Nation for time immemorial.

As the Northwest Territories' capital and home to approximately half of the territorial population with nearly 22,000 residents, Yellowknife plays an important economic, cultural, and governmental role and is a critical transportation hub in Canada's North.

Yellowknife is a gateway city to the Northwest Territories, with the airport as the main hub connecting remote communities across Canada's North with major Canadian cities, Highway 3 as a key transportation corridor for goods and people, and winter ice roads on Great Slave Lake that connect to nearby communities and resource sites.

As Yellowknife grows, our transportation system must evolve and be designed to move everyone efficiently and comfortably, no matter how people choose to get around the city. That's why we have developed **Let's Move YK** – Yellowknife's Transportation Plan – to help address current transportation challenges and shape the future of transportation over the next 25 years.



1.1 WHAT IS LET'S MOVE YK?

Yellowknife is always moving through our seasons, across our neighbourhoods, and toward our future. **Let's Move YK** is our plan to shape the future of transportation in Yellowknife.

The name reflects exactly what this plan is meant to do:

Let's

is an invitation. This is a project for everyone, built together by residents, Indigenous governments, community partners, and the City.

Move

captures both the literal ways we travel and the progress we want to make as a community. It is action-oriented, a rallying call for change. It sets the standards and guidance that will shape safer, more inclusive, and connected transportation for everyone.

YK

grounds the plan in our northern reality: our geography, climate, and way of life.

LET'S MOVE!

YK



Let's Move YK brings together past studies, strategies, and policies with new ideas and standards, creating a single, unified roadmap for Yellowknife's transportation network. Its purpose is to make travel safer, more welcoming, and inclusive for all residents, whether they walk, cycle, drive, or take transit.

The plan will help guide the City towards our vision of being a welcoming, inclusive, and prosperous community and is a crucial step towards creating a transportation network that serves community members of all ages and abilities. This plan will serve as our roadmap to guide our transportation investments and decision-making over the next 25 years.

1.2 HOW THE PLAN WAS DEVELOPED

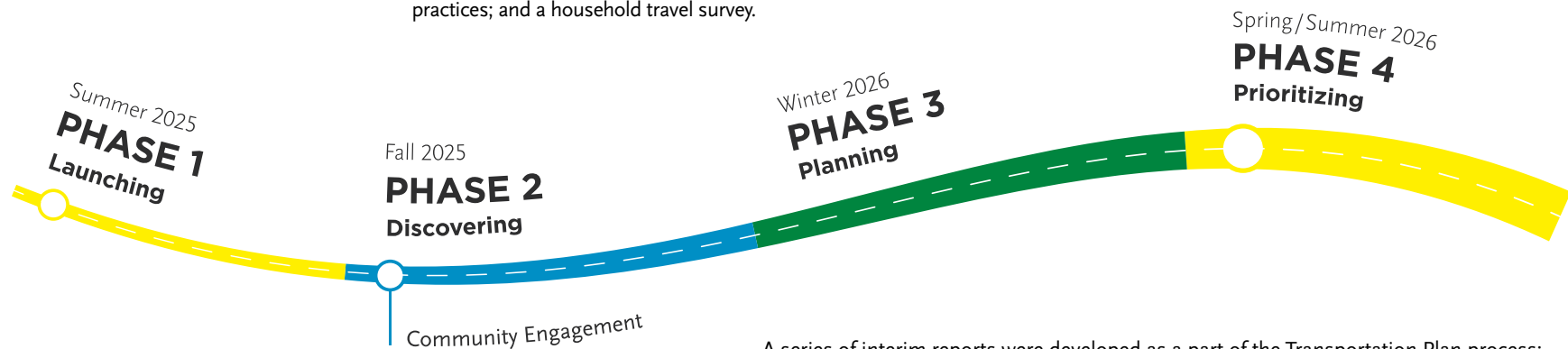
The plan was developed through a four-phase process over a year-long period. The plan was developed based on best and emerging practices from peer jurisdictions as well as local expertise and extensive community input to chart the course for what transportation in Yellowknife will look like in the next 25 years.

Phase 1: Launching involved initiating the project and collecting and reviewing background data and information.

Phase 2: Discovering involved developing a detailed understanding of existing conditions for transportation in Yellowknife. This phase included community engagement; a review of existing conditions, emerging and best practices; and a household travel survey.

Phase 3: Planning involved developing a vision and goals for the future of transportation in Yellowknife along with actions for each mode of transportation.

Phase 4: Prioritizing involved developing an implementation plan and identifying priorities over the short-, medium-, and long-term.



Community engagement was a critical part of the process. Engagement took place between September and October 2025 and involved gathering input on transportation needs, challenges, and opportunities across Yellowknife. Through surveys, interactive maps, pop-up events, and meetings with community organizations, we heard from hundreds of residents who shared their experiences and ideas for improving how people move around the city. A summary of what we heard is provided in the **Round One Engagement What We Heard Report**.

A series of interim reports were developed as a part of the Transportation Plan process:

- **Interim Report #1: Transportation in Yellowknife Today** provides an overview of the existing state of transportation in Yellowknife
- **Interim Report #2: Best Practices and Emerging Trends** provides an overview of best practices and trends from communities across Canada and internationally
- **Interim Report #3: Transportation Possibilities** outlines the potential long-term directions for the Plan including the vision, strategies, action, and networks

Together, the findings from community engagement and technical work from the three interim reports were used to develop the Yellowknife Transportation Plan.

How we informed



10+

Posters



100+

Postcards & Stickers



1,564 views

Project Webpage



10

Social Media Posts



1

Media Release

How we engaged



1 Community Survey

162 respondents



1 Interactive Map

130 pins



1 Youth Survey

51 respondents



1 Household Travel Survey

715 household respondents



2 Pop-ups

183 attendees



6 Interest Group Meetings

7 attendees



Walking & Cycling Map

Leave your thoughts on a sticky-note!

What would make it easier to walk around Yellowknife?

In the past In the future

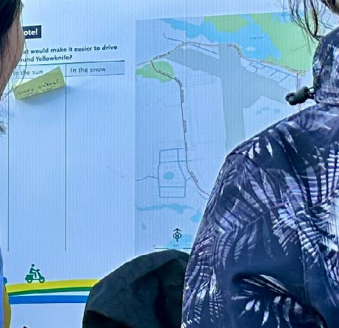
• I've been thinking about walking more often, but I don't have a good route. I need to know where to go and what to expect. I need to know where to go and what to expect. I need to know where to go and what to expect.

• I need to know where to go and what to expect. I need to know where to go and what to expect. I need to know where to go and what to expect.

• I need to know where to go and what to expect. I need to know where to go and what to expect. I need to know where to go and what to expect.



Driving Map



Stay Involved!

Complete the community survey or drop a pin on the interactive map by October 31. Scan here or visit yellowknife.ca/transportation to participate. Tell us what you think about the transportation plan, and share your ideas. It's free and easy to do. Your input will help us create a better transportation plan for Yellowknife. If you need assistance, please contact us at transportation@yellowknife.ca.

Win a \$100 gift card or one of three \$25 gift cards!

What's next?

We are in Phase 1 - Consulting of Let's Move YK.

PHASE 1 Consulting

PHASE 2 Planning

PHASE 3 Implementation

PHASE 4 Evaluation

PHASE 5 Monitoring

1.3 WHY TRANSPORTATION MATTERS

Transportation is an important element in our everyday lives and directly impacts how safe, affordable, and equitable our communities are. The transportation modes we have available to us and choose to use have impacts for our own health and community.

Creating a transportation system that prioritizes people and sustainability can address a wide range of broader societal objectives, shaping our communities and lives.

Safety

High automobile speeds and traffic volumes contribute to traffic-related injuries and fatalities for pedestrians, cyclists, and motorists. Safe street design improves safety for all road users and addresses people's perception of safety.

Climate Action

Transportation-related air pollutants are the largest contributors to poor air quality and produce greenhouse gas (GHG) emissions. The *Corporate and Community Energy and GHG Emissions Inventory and Forecast Report (2023)* found that on-road transportation accounts for 20% of Yellowknife's community GHG emissions. This has had negative implications for community quality of life, public health, and climate change. Supporting sustainable transportation options, such as walking, rolling, cycling, and transit use are ways the City can implement climate action that improves air quality and the resilience of our transportation network. The *Climate Action Plan (2026)* identifies sustainable transportation as a key theme and area of focus to support climate change mitigation and adaptation.

Public Health

Transportation and urban planning policies can effectively encourage physical activity. With more active transportation and transit options, people can be more active. Being more physically active improves people's overall health and can reduce rates of chronic disease and premature death.



Equity & Affordability

Transportation equity means ensuring that all people, regardless of income, age, ability, or access to a vehicle, can safely, affordably, and conveniently reach the destinations and services they need. Affordable and equitable transportation can enable residents of all incomes and abilities to access necessary services and supports (e.g., employment, education, healthcare, public and social services and healthy food) that are critical components to people's dignity and well being.

The cost of owning a vehicle (such as car payments, insurance, maintenance and fuel) is significant and rapidly increasing. This also disproportionately impacts lower income individuals and families. While the City boasts one of the highest average household incomes in Canada at over \$165,000, many households face pressures due to the high cost of living, particularly for the combined costs of shelter and transportation.

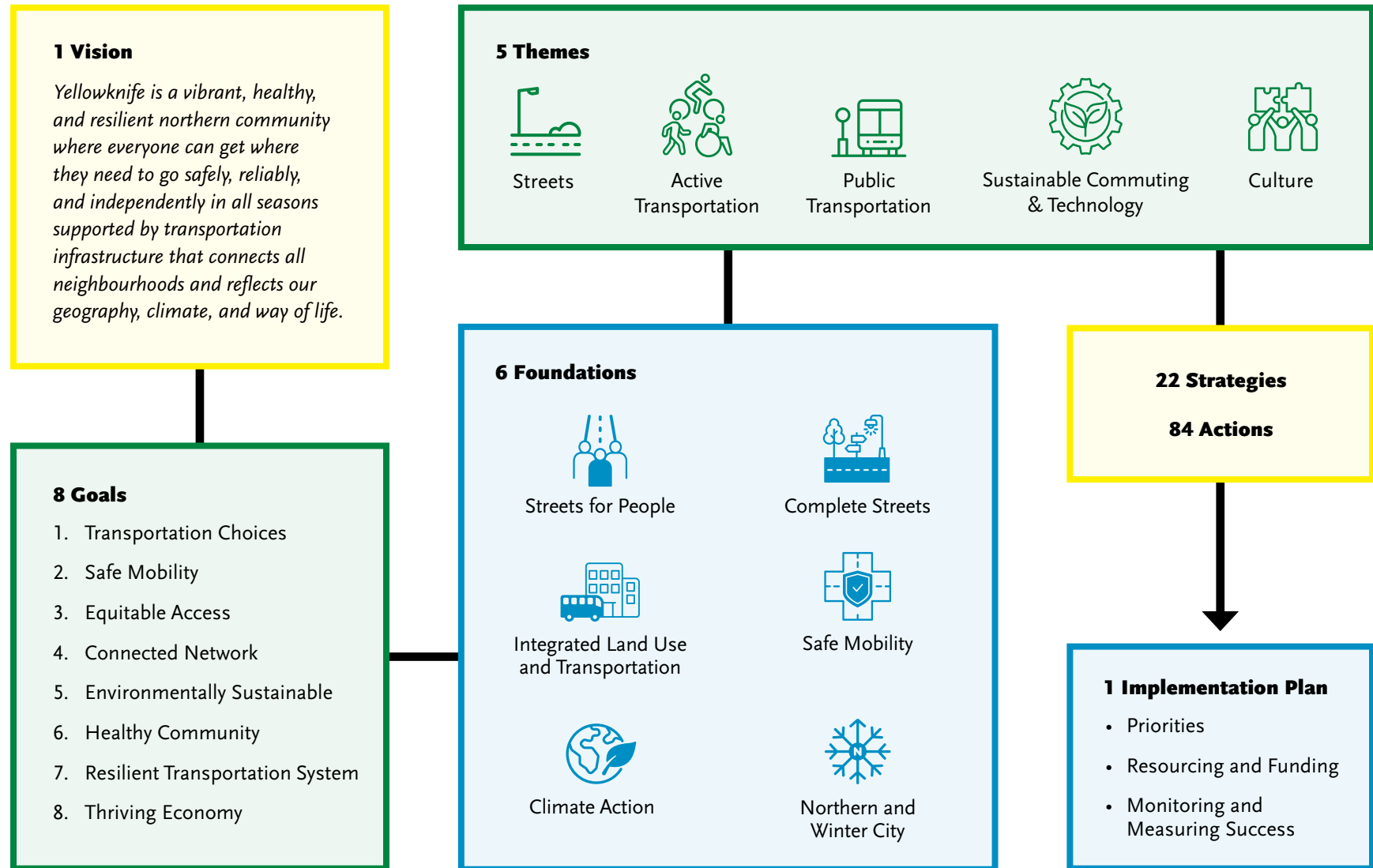
According to Statistics Canada, the average household expenditure on shelter and transportation is over \$44,000 in Yellowknife, which is far higher than the Canadian average of \$31,205. Prioritizing investments that reduce reliance on vehicle ownership can free up resources to support inclusive, affordable transportation options and improve access for residents who face financial or mobility limitations.

Economy

An efficient transportation network benefits more than just commuting employees – goods are delivered with ease, customers can access shops more frequently, and the community becomes a sought-after destination for new businesses. Housing and transportation costs, both of which are often the two largest expenditures for households, are barriers for many. Affordable housing options need to be provided where households have access to sustainable, cost-effective transportation options and choices, particularly transit and proximity to places of employment and daily needs.



1.4 PLAN FRAMEWORK



1.5 HOW TO READ THE PLAN

The Plan has been divided into six sections:

Section 1.0

Introduction

Introduces the Plan's purpose, process, and community engagement activities during the development of the Plan. It also outlines why transportation matters in Yellowknife and how it supports broader community goals.

Section 2.0

Setting The Context

Outlines the considerations that informed the development of the Plan. This includes understanding Yellowknife's context and travel patterns in the community.

Section 3.0

Vision, Goals, and Foundations

Establishes the long-term direction for transportation in Yellowknife. It introduces the vision, goals, and foundations that guide how the transportation system will evolve over the next 25 years.

Section 4.0

Strategies and Actions

Presents strategies and actions under five key themes: streets, active transportation, transit, sustainable commuting and technology, and culture. The strategies and actions guide improvements to the transportation in Yellowknife.

Section 5.0

Implementation Plan

Outlines how the Plan will be delivered, including guiding principles, prioritized actions, infrastructure projects, and resourcing and funding considerations for implementation. It also identifies performance measures to track progress and outlines ways to continue engaging the community, communicating progress, and celebrating success.

Section 6.0

Closing

Summarizes the Transportation Plan and outlines next steps to ensure the Transportation Plan is successfully implemented.

Appendix A

Glossary

Summarizes key terms used throughout the plan.

Appendix B

Policies and Guidelines

Outlines policies and guidelines that support implementation of select strategies and actions.

Appendix C

Action Delivery Framework

Provides practical, step-by-step approaches that the City and our partners can take to move priority actions forward.

Appendix D

Infrastructure Project Sheets

Summarizes recommended concepts for priority projects.



2.0 SETTING THE CONTEXT

Our unique history, geography, climate, and role within the Northwest Territories shapes how people move around the community and how our transportation system operates, both today and in the future.

This section provides an overview of some key aspects that influence transportation in Yellowknife, including the city's historical development and evolution, current land use patterns, policy framework, transportation challenges and opportunities, and existing travel patterns. Together, these elements establish a foundation for guiding future transportation planning in a way that reflects our unique context.



2.1 OUR UNIQUE LOCAL CONTEXT

Yellowknife's transportation system is deeply shaped by our geography, history, and evolving role as the capital of the Northwest Territories. On lands that have long been home to the Yellowknives Dene First Nation, the Tłıchǫ, and the North Slave Métis, Yellowknife has evolved from a resource-based mining town into the administrative capital of the Northwest Territories. Patterns of settlement, growth, and displacement have shaped the city and how people travel today.

Today, Yellowknife's northern climate, geographic constraints, and role as a gateway to the North continue to influence how people and goods move throughout the city and beyond. These factors shape transportation needs, opportunities, and challenges across the community.



A City Shaped by Land, Water, and History

Yellowknife is located in Chief Drygeese territory. Since time immemorial, it has been the traditional land of the Yellowknives Dene First Nation. The Yellowknives Dene people were known for crafting copper tools and lived along the shores of Great Slave Lake. The waters sustained the Yellowknives Dene people by both providing essential resources for fishing, hunting, and gathering, as well as being a vital transportation and trade route connecting communities and supporting the exchange of goods and knowledge across the north.

In the late 18th century, European contact started when fur traders established trading posts near Great Slave Lake. It wasn't until the 1930s when settlement expanded, and Yellowknife grew into a frontier boom town with settlers arriving due to the gold rush. At the same time, Indigenous families were increasingly displaced from their shoreline villages to make way for the influx of settlers and miners settling in Old Town due to the gold mining operations. In 1951, the federal government designated "Lot 500" at the end of Latham Island as an Indigenous-only area which is known as Ndilq.

As the population in Old Town increased, the area became overcrowded, and the Downtown was developed to meet growing residential and commercial needs with an urban street grid. Subsequent growth in the 1970s and 1980s developed in the form of suburban-style neighbourhoods such as Range Lake and Frame Lake. Yellowknife has transformed from being a resource-driven mining town to an administrative capital. The City's designation as the capital of the Northwest Territories in 1967 brought in federal and territorial government offices, workers, and administrative infrastructure. In addition, the discovery of diamonds in the late 1990s and the closure of gold mines in the early 2000s changed the nature of the workforce and patterns.



©NWT Archives/Bishop Arthur Henry Sovereign fonds/N-2024-005: 0034

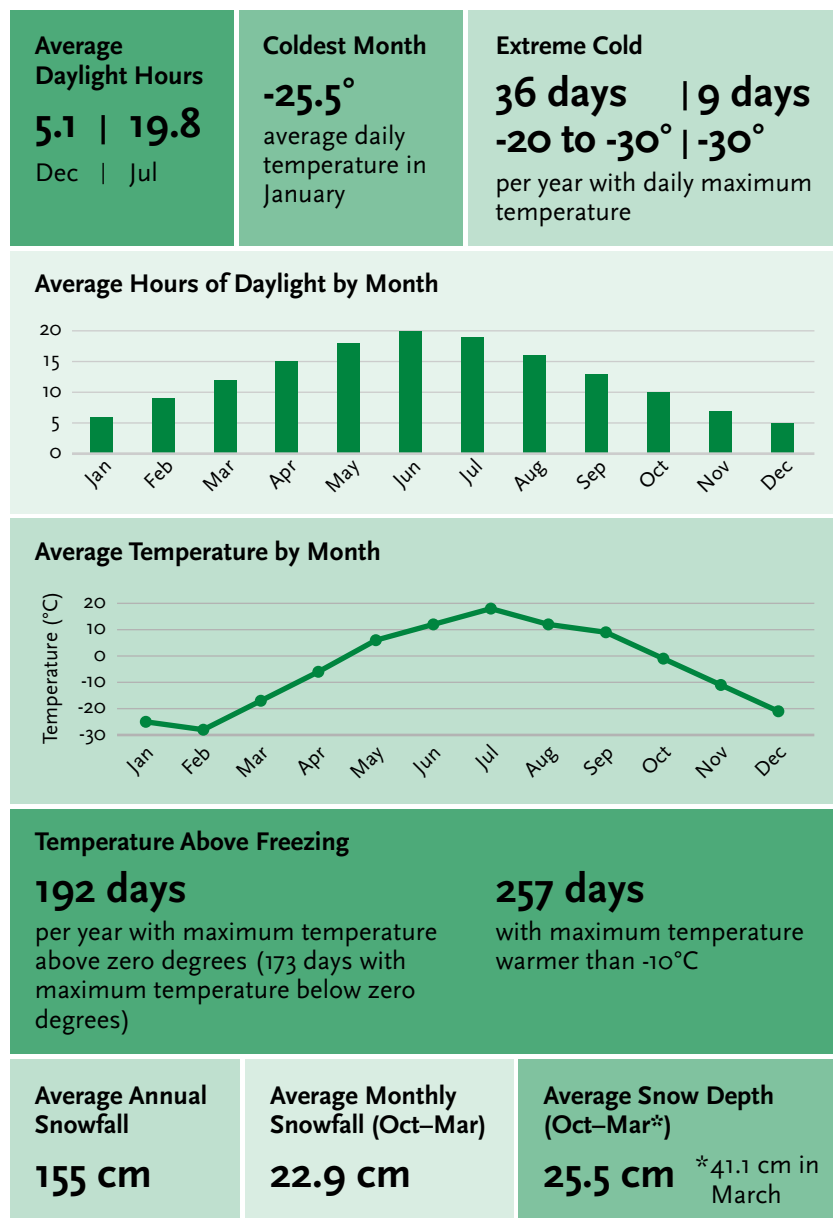
Looking toward New Town from Old Town, 1945



©NWT Archives/Rene Fumoleau fonds/N-1995-002: 3921

Colourful homes built for Dene families in the late 1950s gave the community its nickname, "Rainbow Valley." The community was officially renamed Ndilq in 1991, meaning "end of the island" in the local Dene dialect

KEY FACTS: GEOGRAPHY AND CLIMATE



(Source: Environment Canada Canadian Climate Normals, 1991–2020)

Yellowknife Today

Yellowknife is unique and has distinct transportation needs

Our history and geography continues to profoundly shape how people move through the City today. As a northern, remote, and growing capital city, Yellowknife's transportation system reflects our unique climate, landscape, community, and patterns of development. The following highlights key factors that influence transportation across the city.

A Gateway to the North

Yellowknife is the gateway to Canada's North and a central hub within the Northwest Territories. The City connects remote communities to each other and to the rest of Canada through the airport, Highway 3, and seasonal winter roads across Great Slave Lake, Tibitt to Contwoyto, and the Tłı̄chǫ winter roads. These connections are essential for moving people, goods, and services across vast distances and play a critical role in supporting the northern economy.

As a result, Yellowknife functions as both a transportation and service hub, supporting government, health, education, and economic activity across the territory. Its strategic location positions the City as a key junction for regional and national movement. While many of these connections are fundamental to daily life and economic growth, they are largely outside of the City's jurisdiction, shaping how the City plans and prioritizes our transportation network.

Real Canadian Winters and Limited Daylight

Temperatures often fall below -20°C during the coldest winter months, and during mid winter, Yellowknife experiences as little as five hours of daylight per day, with sunrise near 10:00 a.m. and sunset by 3:00 p.m. These conditions affect visibility, comfort, and safety for all modes of travel, particularly for people walking, cycling, or waiting for transit. Snow, ice, and cold temperatures influence how infrastructure is designed, maintained, and used throughout the year.

Small City, Big Active Transportation Potential

While Yellowknife covers a large geographic area, development is constrained by the Canadian Shield, surrounding water bodies, and the high cost of servicing land. As a result, the City's urban area is very compact, with many residents located within relatively short distances of downtown and key services. This compact form creates strong opportunities for walking, cycling, and transit, as many daily trips can be completed over short distances. These conditions are reflected in Yellowknife's relatively high active transportation mode share (with 27% of all daily trips made by walking, cycling, or other forms of micromobility, based on the 2025 Household Travel Survey), demonstrating that a significant number of residents already choose to walk or cycle.

Outdoor Living and Active Lifestyles

Yellowknife is a highly active community where outdoor recreation is part of daily life in every season. Yellowknifers use trails, lakes, and open spaces year-round for activities such as skiing, snowshoeing, fat biking, cycling, and walking. Multi-use trails and pathways play a critical role in connecting neighbourhoods to parks, lakes, and key destinations, while also supporting a wide range of activities. In winter, frozen lakes and snow-packed trails become extensions of the transportation network, requiring safe access points, clear signage, and thoughtful design.

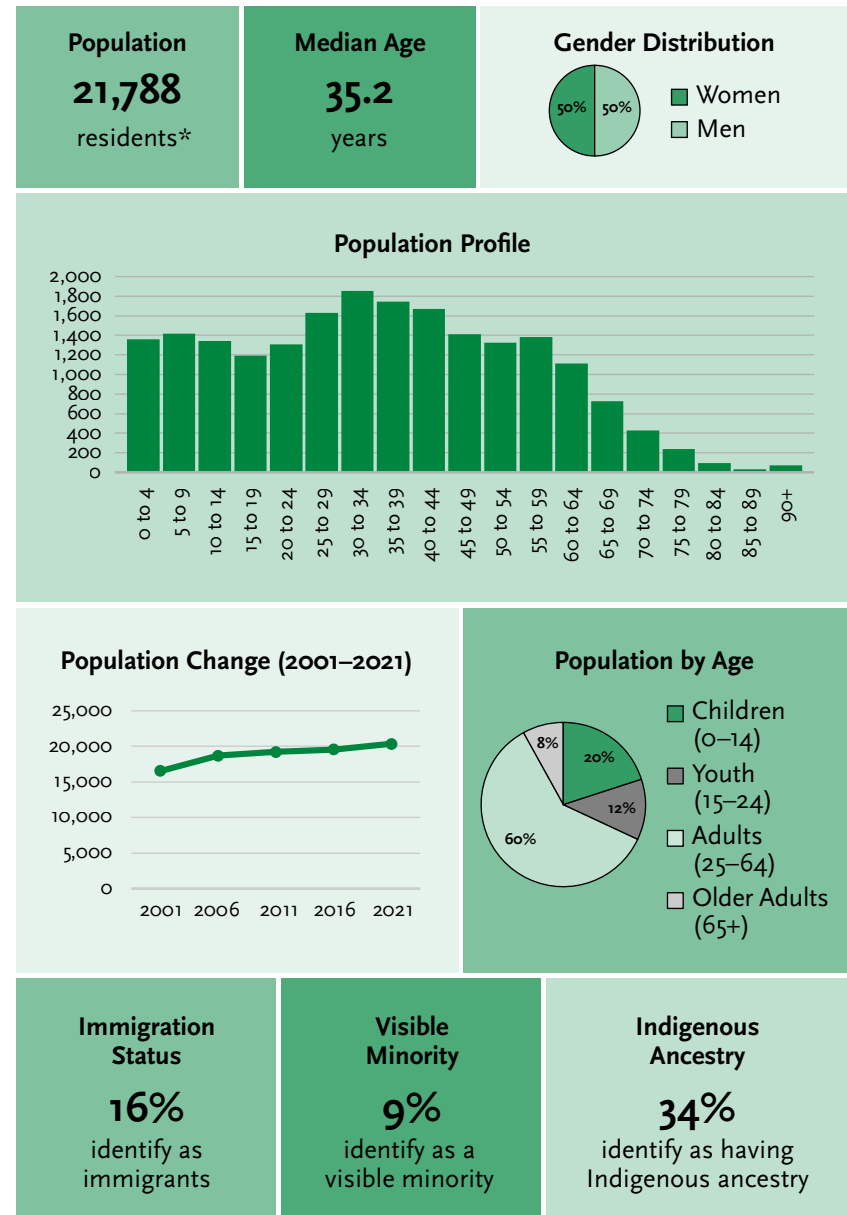
Northern Multi-modal Transportation

Transportation in Yellowknife looks different than in most southern cities. In addition to driving, walking, cycling, and transit, people travel by snowmobile, All-Terrain Vehicles (ATVs), skis, and along trail networks and frozen lakes. Many of these routes are informal or community-maintained, reflecting local knowledge and northern lifestyles.

A Growing City

The City has a population of approximately 22,000 residents. The City's population has increased steadily in recent years, increasing 3.9% between 2016 and 2021, mostly due to natural increases and people moving from other territories and/or provinces. According to the *Yellowknife Population Projections (2025)* report, this growth is expected to continue, with our population expected to increase to between 22,979 and 26,659 people by 2051, depending on the growth scenario. This increased population growth will place increasing pressures on the City's transportation system.

KEY FACTS: DEMOGRAPHICS AND POPULATION GROWTH



* Population based on the City's Population Projections Report

(Source: Statistics Canada)

A Diverse Population

Yellowknife's population includes a significant proportion of youth, older adults, and Indigenous residents, compared to Canada as a whole and other northern cities. Over a quarter (26%) of the City's population is 19 years or younger, while 8% of the population is 65 or over. Indigenous residents make up 24% of the population.

It is important to consider all of Yellowknife's residents as they may have different transportation needs. For example, low-income groups may not be able to afford an automobile, while some groups such as children and seniors may not be able to drive, and may be reliant on public transit or active transportation, and other groups may require unique travel patterns to access medical and social services throughout the day. People with disabilities, including people with mobility challenges or people with sight loss, face additional barriers accessing and navigating the transportation network.

A Seasonal and Temporary Workforce

Yellowknife's population is characterized by a significant number of seasonal and temporary workers, including those employed in remote mining and resource industries. This transient group contributes to fluctuating demand for housing, particularly rental and short-term accommodations, and introduces unique transportation needs related to non-traditional work schedules, fly-in/fly-out travel, and reliable access to the airport and key services.

Affordability and High Cost of Living

While the City boasts one of the highest household incomes in Canada, many households face pressures due to the high cost of living, particularly for the combined costs of shelter, food, and transportation, which are higher than the Canadian average. As a result, it is important to consider transportation from an inclusive approach, including people who may not be able to afford an automobile.

Military and Economic Expansion

Yellowknife continues to evolve as a strategic hub for northern operations, with increased investment from the Department of National Defence and a planned airport expansion. These developments are expected to drive population and employment growth, increasing demand on the transportation system. Growth associated with military and logistics activity will influence travel patterns, goods movement, and access to key facilities. Planning for this future requires a transportation system that is flexible, resilient, and able to support long-term growth.

Complex Jurisdictions and Partnerships

Transportation in Yellowknife involves multiple jurisdictions, including the City, the Government of the Northwest Territories (GNWT), Indigenous governments, and the Federal government. Key corridors such as highways, winter roads, and airport infrastructure are outside municipal control but are critical to how people and goods move. Coordination between partners is essential to deliver a connected and efficient system.

Transportation Equity and Barriers

A GIS-based analysis was used to identify areas of the City where there are higher concentrations of groups experiencing transportation barriers. The results of this analysis identify under-served areas in the City where there is an opportunity to make strategic investments to improve transportation access and opportunities.

The analysis used nine indicators that were combined to determine an overall transportation barrier score:

- Youth aged 14 years and under;
- Seniors aged 65 and over;
- Low-income households;
- Indigenous populations;
- Recent immigrants;
- Visible minorities;
- People with limited knowledge of English;
- Rent-burdened households; and
- Single parent households.

A higher transportation barrier score (dark purple) indicates a greater need to improve transportation access and opportunities, as these areas have more residents who face transportation barriers. The area with the highest concentration of these groups is found near the Downtown core, as shown in **Map 1**.

It is important to note that there are several methodologies that can be used to assess demographic characteristics and neighbourhood needs. This GIS analysis does not apply weighting to the selected criteria and is limited to the information available through the federal census. Due to limitations in spatial data, this analysis did not capture people with accessibility needs, the LGBTQ2SIA+ community, people experiencing substance use disorder, and people experiencing homelessness.

How to Read the Transportation Barriers Map

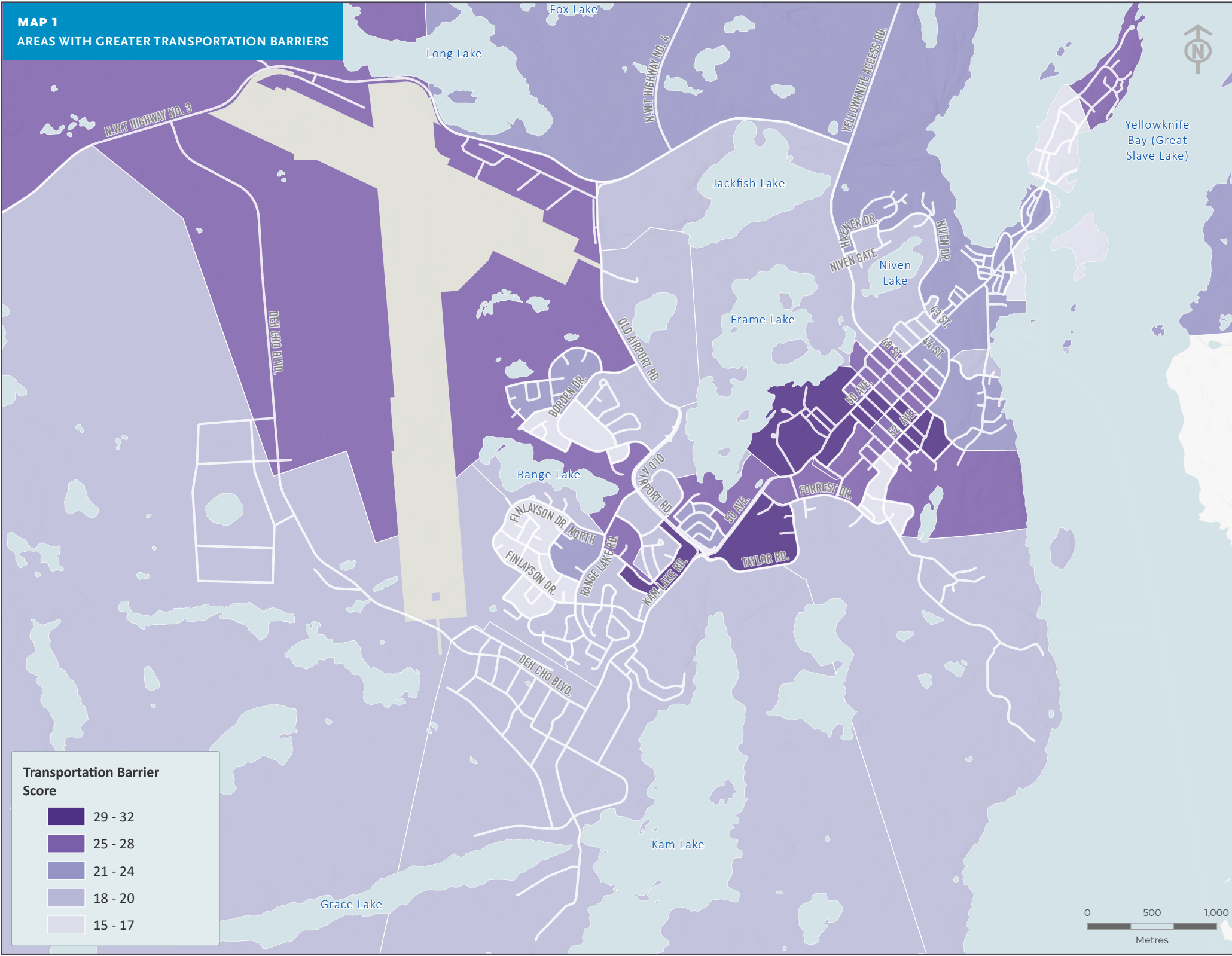
This analysis **uses census tracts** as the geographic unit. Census tracts provide consistent boundaries for comparing population characteristics within a community.

The **size of a census tract on the map represents land area, not population.**

- **Urban tracts** are smaller because they contain higher population densities.
- **Rural tracts** are larger because they cover areas with fewer residents.

Overall, **larger census tracts do not indicate more people - they typically reflect lower population density.**

MAP 1
AREAS WITH GREATER TRANSPORTATION BARRIERS



2.2 OUR POLICY CONTEXT

Let's Move YK is closely linked to several other plans and policies at the local, regional, and territorial levels. These documents set the overarching goals, visions, and objectives for land use, transportation, and other key long-term planning considerations in the city

Alignment with City Plans and Policies

Transportation plays a central role in how the City plans, designs, and operates our infrastructure, from streets, sidewalks, and trails to land use and development decisions. The Transportation Plan builds on and aligns with several existing City plans:

- **Community Plan (2026):** Outlines the important relationship between land use and transportation, emphasizing the City's commitment to a safe, efficient, and accessible transportation system that encourages a shift from private vehicles to sustainable modes like walking, cycling, and public transit.
- **Climate Action Plan (2026):** Identifies sustainable transportation as a key theme and area of focus to support climate change mitigation and adaptation.
- **City of Yellowknife Council Strategic Directions 2023-2026 (2023):** Identifies transportation initiatives such as supporting multi-modal design standards that highlight Yellowknife's advantages as a winter city and providing public transit that meets user needs.
- **Yellowknife Public Transit Review (2020):** Explored opportunities to improve the performance of the City's transit services. A new transit system was introduced on October 1, 2024 as a result of this review with a transit system based on three routes.
- **Bicycle Routing for the City of Yellowknife (2008):** Outlined a plan to enhance cycling infrastructure with proposed bicycle routes

Other relevant plans and policies include:

- Zoning Bylaw No. 5045
- Highway Traffic Bylaw No. 5055
- All Terrain Vehicles Bylaw No. 3054
- Orderly Use of Highways Bylaw No. 1276
- Parking Bylaw No. 5053
- Public Parks and Recreation Facilities Bylaw No. 4564
- Public Transit Bylaw No. 4284
- Snowmobile Bylaw No. 3722
- Fees and Charges Bylaw No. 4436
- Development Initiatives Bylaw No. 5097
- Road Maintenance Program
- Yellowknife Tourism Strategy (2025)
- Design Standards Manual (2022)
- Yellowknife Old Town Emergency Circulation Review and Parking Study (2021)
- Yellowknife Parkade Feasibility Study (2021)
- Economic Development Strategy 2020-2024 (2020)
- Yellowknife Wayfinding Strategy (2019)
- Cycling Route Network (2017)

Alignment with Territorial and Federal Initiatives

Territorial and federal policies and programs also play a key role in shaping Yellowknife's transportation system. Both the Federal and Territorial governments have established bold targets to reduce GHG emissions.

Territorial Initiatives

- **NWT 2030 Energy Strategy (2018):** Establishes a target to reduce GHGs by 40–30% below 2005 levels by 2030 and achieve net-zero emissions by 2050. Specifically identifies a strategic objective that the GNWT will reduce transportation emissions by 10% per capita. The Strategy also establishes a vision electric vehicle network highway which includes Highway 3.
- **NWT Transportation Strategy 2015-2040 (2015):** Guides the long-term development of an integrated transportation system across the GNWT by providing and promoting a safe, reliable, and sustainable multi-modal transportation system by strengthening connections, capturing opportunities, and embracing innovation.
- **NWT Road Safety Plan (2015):** Provides a four-year strategic framework aimed at guiding efforts to reduce fatalities and injuries on all roads throughout the territory, identifying five key focus areas: education and awareness, policy and regulation, infrastructure improvements, data and research, and partnerships with stakeholders.

Federal Initiatives

- **National Active Transportation Strategy (2021):** Outlines a vision to promote active transportation and its benefits to deliver a better quality of life for communities across the country.
- **Canada's Arctic and Northern Policy Framework (2019):** Recognizes the longstanding transportation inequalities that disadvantage people, especially indigenous peoples, in Canada's Arctic and North. One of the goals identified in the framework is to "expand multi-modal transportation infrastructure and operations to connect communities to Canadian and international opportunities and improve access to essential services."



2.3 HOW WE TRAVEL TODAY

How Yellowknife is Currently Moving

This section provides an overview of how people travel in Yellowknife based on findings from the 2025 Household Travel Survey. The Household Travel Survey captured a representative snapshot of how, where, and why residents travelled on a typical weekday in the fall of 2025.

A total of 7,570 randomly selected households were invited to participate in the Household Travel Survey, supported by targeted follow-up to ensure representation across all areas of the city. The final dataset included 694 households and over 1,500 individuals aged five and older, representing approximately 8.2% of all households in Yellowknife. The data was validated and weighted to align with Census demographics, allowing results to be expanded to represent the City's population. Most responses were collected in September 2025, with a smaller portion in October 2025, capturing travel patterns prior to winter conditions. The Household Travel Survey results provide a reliable and representative foundation for understanding travel behaviour in Yellowknife.

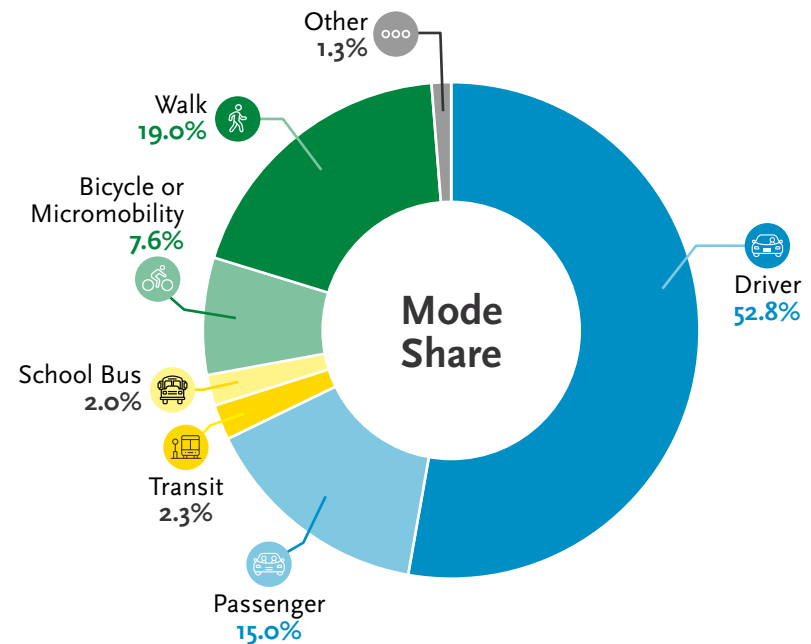
How We Travel

Driving is the dominant mode of travel in Yellowknife, but the city also has a relatively strong active transportation mode share

Approximately two out of every three daily trips (68%) are made by motor vehicle, either as a driver (53%) or passenger (15%). At the same time, Yellowknife also demonstrates a relatively strong active transportation mode share compared to many Canadian communities. More than one in four daily trips (27%) are made by walking, cycling, or other micromobility modes, including 19% by walking, and nearly 8% by bicycles or other types of micromobility devices (such as e-bikes or e-scooters). Public transit accounts for over 2% of all daily trips, with an additional 2% made by school bus.

These travel patterns, especially the relatively high proportion of trips made by active transportation, reflect Yellowknife's compact urban form, short travel distances, and the proximity of many daily destinations, particularly in central neighbourhoods. They also suggest strong potential to grow walking, cycling, and transit use over time by building on an already active community.

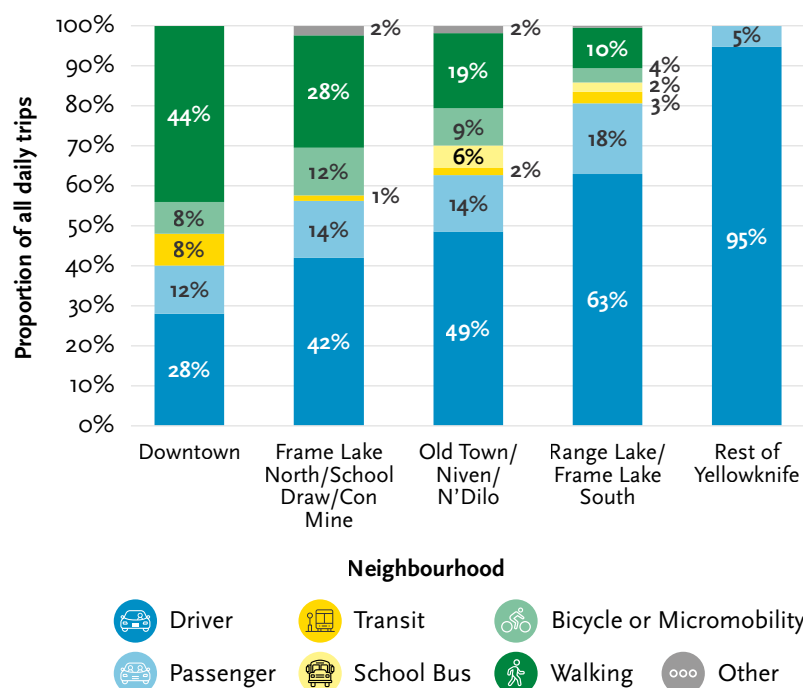
Travel patterns in Yellowknife vary significantly based on where people live, their age, and their household income. These differences highlight how access, proximity, and life stage shape travel behaviour across the community.



Where you live likely influences how you travel

Mode share varies across neighbourhoods, reflecting differences in land use and development patterns, proximity to destinations, and existing transportation infrastructure. In the Downtown area, sustainable transportation accounts for most trips, with 60% of all trips made by walking, bicycle or other micromobility device, or transit, while only 28% of trips are made by driving. This aligns with how most streets in the downtown core and surrounding areas have sidewalks or multi-use pathways on both sides, enhancing pedestrian connectivity and creating a more comfortable and supportive walking environment. In contrast, in areas outside the downtown core, driving is the predominant transportation mode, reaching up to 63% in the Range Lake and Frame Lake South neighbourhoods, and 95% of all trips outside Yellowknife's developed urban core.

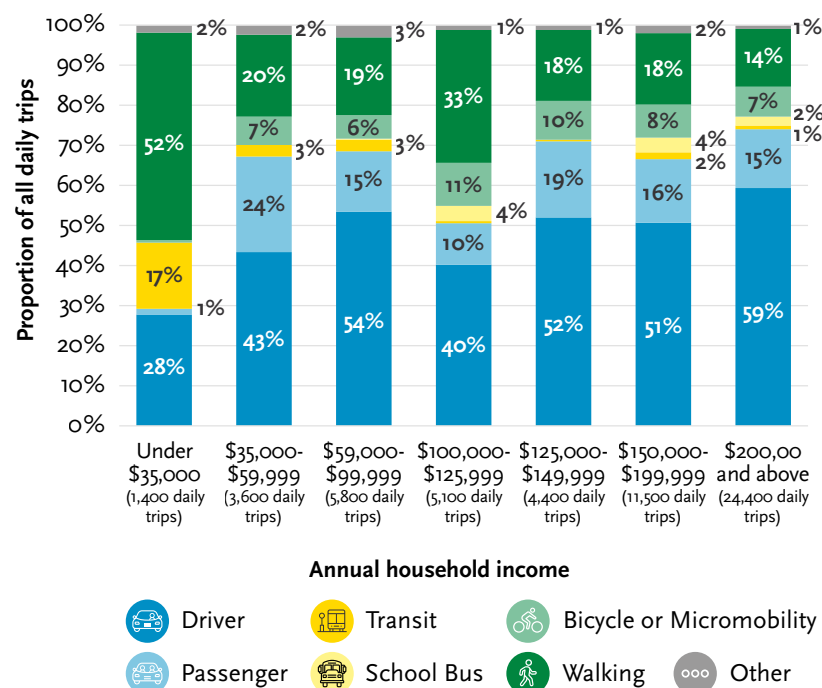
Mode Share by Where People Live



Transportation choice is closely tied to income and access

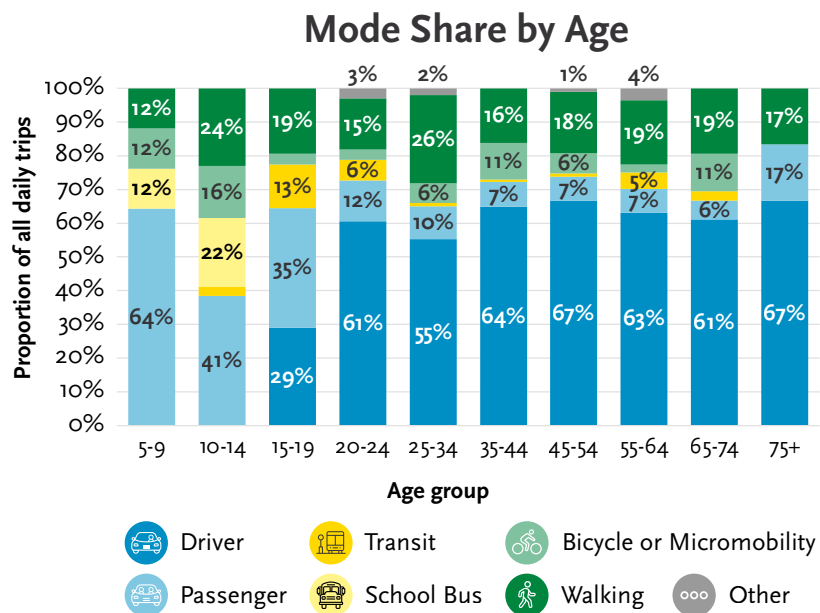
Travel choices are strongly influenced by household income, which affects access to transportation options. Lower-income households (earning under \$35,000 per year) rely heavily on walking and transit, with walking accounting for 52% of trips and transit use reaching 17%, while only 28% of trips are made by driving. In contrast, higher-income households (earning \$200,000 per year and above) are more likely to rely on personal vehicles, with 59% of trips as a driver, while walking declines to 14% and transit use drops to approximately 1-2%. These differences highlight the importance of ensuring reliable and accessible non-auto options to support equitable mobility across income groups.

Mode Share by Household Income



Youth travel patterns shift with age

Travel behaviour changes throughout adolescence. Children aged 5 to 9 primarily travel as passengers (64% of trips), reflecting reliance on caregivers. By ages 10 to 14, travel becomes more diverse, including 41% passenger trips, 22% school bus use, and relatively high walking and cycling rates. By ages 15 to 19, travel patterns shift toward independence, with 29% of trips as a driver and approximately 13% by transit, while active modes decline. This transition highlights a critical period where long-term travel habits are established.

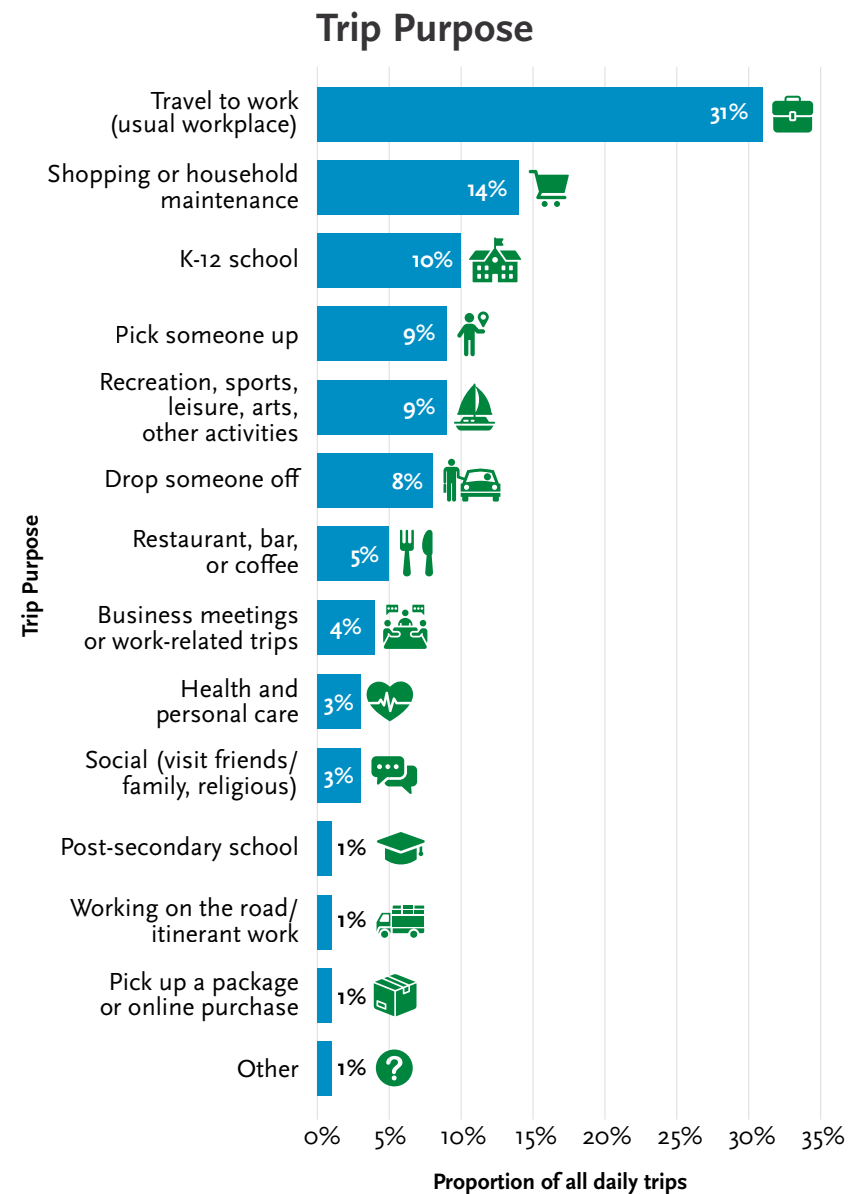


Why People Travel

Travel in Yellowknife is shaped by daily routines, with most trips related to commuting to work or school, shopping, recreation, caregiving, and running errands. Work-related travel is the top trip purpose, representing 36% of all trips when all work activities are included.

However, this means that most trips are not for commuting purposes. School and caregiving trips also play an important role, with 10% of trips to K-12 schools and an additional 16% of trips for pick-up and drop-off, reflecting the influence of household responsibilities on travel patterns. Travel for daily needs is similarly significant, with shopping and errands accounting for 14% of trips, alongside recreation (9%), dining (4%), or social activities (3%).

Together, these patterns demonstrate that travel in Yellowknife is not driven by commuting alone, but by a diverse set of daily activities that require a transportation system capable of supporting short, local, and multi-purpose trips throughout the day.



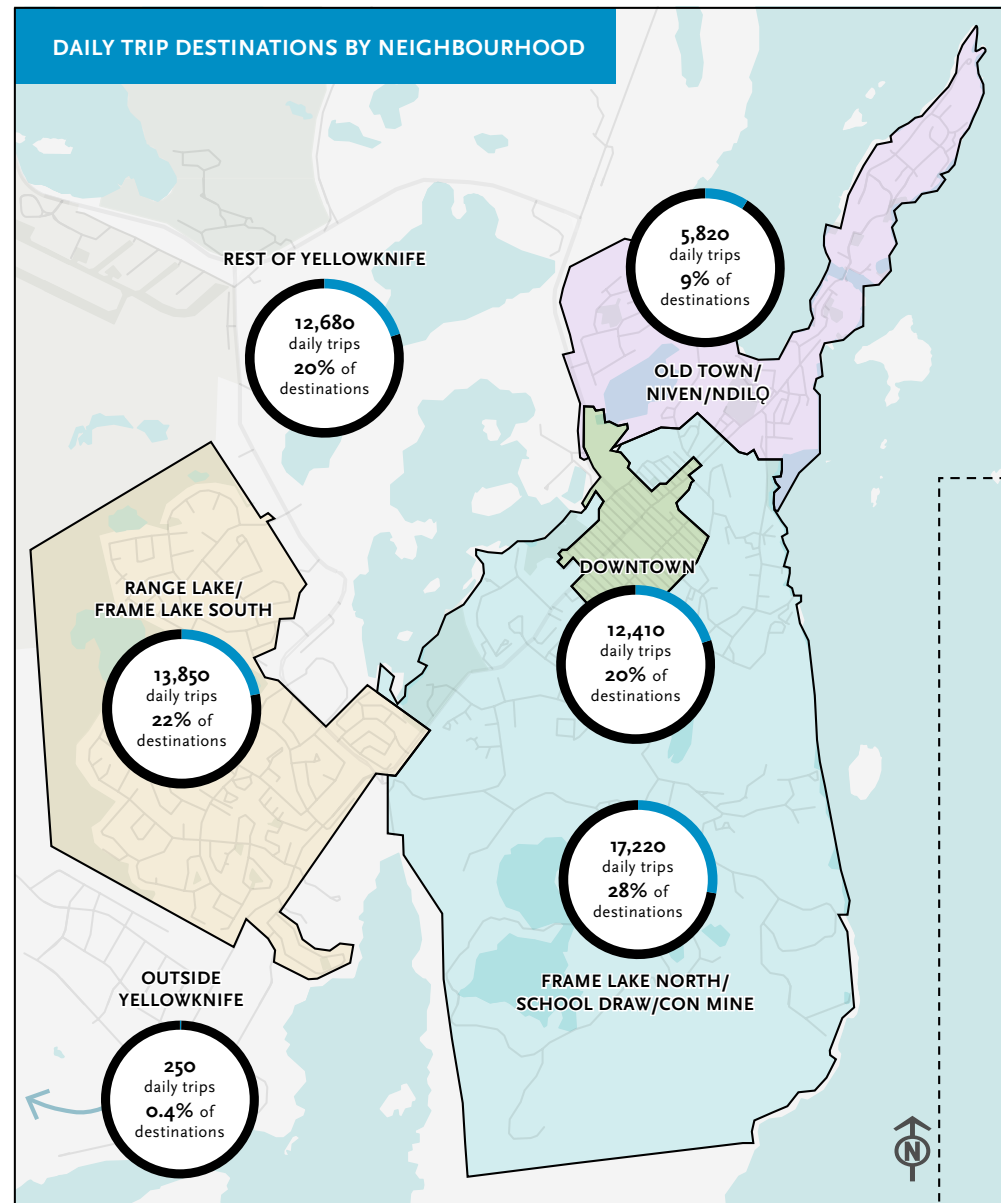
Where People Travel

Travel in Yellowknife is highly local, with almost all daily trips staying within the City. Of the 62,170 daily trips captured in the Household Travel Survey, only 250 trips are made outside Yellowknife, meaning 99.6% of trips remain within the city.

Travel is also concentrated at the neighbourhood scale. About 17,170 daily trips (28%) begin and end within the same neighbourhood, indicating that many trips are short and locally focused. Frame Lake North/School Draw/Con Mine attracts the highest number of daily trips (17,220), making it the most active area in the city. This reflects our role as a key destination, with a mix of residential areas, multiplex and recreation facilities, and nearby civic and downtown-adjacent uses.

When People Travel

Yellowknife residents make approximately 62,200 trips per day across all modes, averaging approximately 3 trips per person per day or 7.4 trips per household per day. Travel is concentrated during short peak periods in the morning and afternoon. The morning peak (7:30-8:30 am) accommodates approximately 5,600 auto driver trips (9% of daily trips), while the afternoon peak (4:30-5:30 pm) sees about 5,300 auto driver trips (9% of daily trips).



Access to Transportation Options

Access to transportation options varies across households and population groups, influencing how people travel throughout the city.

Motor vehicle ownership varies by household size and neighbourhood

On average, residents own 1.6 vehicles per household, and 88% of households have at least one vehicle. However, households in the downtown core are less likely to own a vehicle, with only 67% having at least one, compared to 95% in Range Lake and Frame Lake South. Household size also plays a role, with 63% of one-person households owning a vehicle, compared to over 95% of households with two to four people.

Most households own bicycles or micromobility devices

On average, households own 1.2 adult bicycles, 0.1 e-bikes, and 0.5 child bicycles. Approximately two-thirds of households have at least one bicycle or micromobility device, indicating that active transportation options are present in many homes.

Transit pass ownership and transit use varies by age

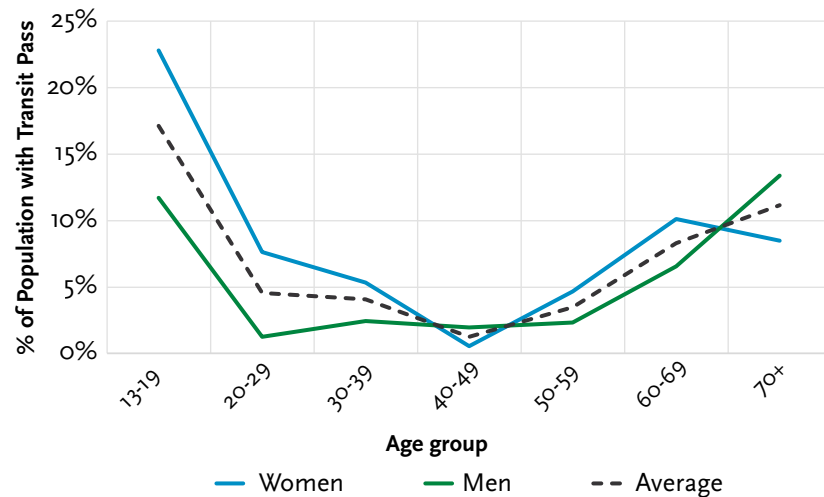
Transit pass ownership rates differ across age groups, reflecting changing travel needs and access to transportation options. Age groups with transit passes are highest among youth (17% for ages 13-19), decline through adulthood (4-5% for ages 20-39 and ~2% for ages 40-49), and then increase again among older adults (8% for ages 60-69 and 11% for ages 70+). Overall, 17% of surveyed household members reported taking transit at least once per month, including 4% who ride daily. Children, youth, and seniors are among the most frequent transit users, including 39% of those aged 10 to 17 who use transit at least once per month.

Potential to Shift More Trips to Active Transportation

The Household Travel Survey findings also point to significant opportunity to increase active transportation in Yellowknife. Walking trips average approximately 1.0 km, cycling and micromobility trips average 2.1 km, and even driving trips are relatively short, averaging only 3.2 km. This suggests that many existing motor vehicle trips could be shifted to walking or cycling with the right conditions, culture shift, and infrastructure in place.

An assessment of mode shift potential found that many trips currently made by auto or transit fall within a reasonable walking or cycling distance. Using a 20-minute travel threshold, equivalent to approximately 1.6 km for walking and 5.5 km for cycling, the analysis found that about 91% of driver trips could be made by bicycle based on distance alone. In mode share terms, this represents a 48% share of trips that could potentially be bikeable and a 15% share that could be walkable.

Transit Pass Ownership by Age



2.4 CHALLENGES, OPPORTUNITIES, AND PRIORITIES

Yellowknife community members shared their experiences, challenges, and aspirations for the future of transportation in Fall 2025. A range of engagement activities were used to gather input and ensure a diversity of perspectives were captured:

- **Community Survey:** An online survey provided residents with an opportunity to share their priorities, travel behaviours, and perspectives on transportation challenges and opportunities.
- **Interactive Map:** A mapping tool was used to collect location-specific feedback, allowing participants to identify areas of concern or opportunity across the network.
- **Youth Survey:** A targeted survey was distributed to high school and college students to better understand the travel needs and perspectives of younger residents.
- **Pop-up Events:** Two pop-up events at the Farmers' Market and Aquatic Centre provided opportunities to share information about the Transportation Plan and gather in-person feedback.
- **Interest Group Meetings:** Meetings with six community interest groups were conducted to hear detailed input from specific user groups and organizations.

Together, these engagement activities provided valuable insights into the current transportation system and helped identify key challenges, opportunities, and priorities for the future.

Key findings and takeaways from this input are summarized below:



Safety is the Top Priority

Improving road safety for all users was identified as the top desired outcome in the community survey. Key concerns include unsafe driving behaviours such as speeding, challenging intersections with long wait times or poor visibility, and personal safety when walking. There is a strong desire for safer road design, improved crossings, and better separation between modes.



Strengthening Connectivity

Gaps in the transportation network were consistently identified across all modes of travel. Sidewalks and trails often lack continuous connections, making it difficult to travel between neighbourhoods and key destinations. Cycling routes are not always connected or direct, which makes it challenging to navigate and move around the community. Transit service also has gaps in coverage, making it challenging for some residents to access key destinations. Improving connectivity across the network will help create a more direct, reliable, and accessible transportation system for all users.



Building a Transportation System for All Seasons

Winter conditions significantly impact how people move around Yellowknife. Extreme cold temperatures can also be a barrier to walking and cycling. Poor snow clearing and icy conditions on sidewalks, cycling routes, and roads reduce safety, comfort, and accessibility for people.



Prioritizing Walking

Walking was ranked as the highest priority mode of travel. Key barriers include personal safety concerns, gaps in pedestrian infrastructure, poor sidewalk conditions, and limited winter maintenance. Community members expressed strong support for more continuous and accessible walking infrastructure, including sidewalks, multi-use pathways, improved lighting, and safer crossings.



Expanding Safe and Connected Cycling Infrastructure

Cycling was identified as the second-highest priority mode, with 37% of respondents indicating they feel somewhat or very unsafe when cycling. The main barriers include a lack of protected cycling infrastructure, gaps in the network, and uncomfortable conditions when riding near traffic. Key improvements include more separated bike lanes, expanded multi-use pathways, and increased bicycle parking and end-of-trip facilities.



Improving Transit to Support More Travel Choice

Approximately two-thirds of community survey respondents indicated they do not regularly use transit. Key barriers include infrequent service, limited routes, and challenges accessing key destinations. Improving transit frequency, expanding route coverage, and enhancing service reliability were identified as critical steps to make transit a more viable option.



A More Balanced Approach to Driving and Mobility

Improving walking, cycling, and transit was identified as the most effective way to improve driving conditions in Yellowknife by reducing the overall need to drive. Key challenges to driving identified unsafe driving behaviours, limited parking availability, and safety concerns at intersections. Addressing these issues alongside investments in other modes will help create a more balanced and efficient transportation network.





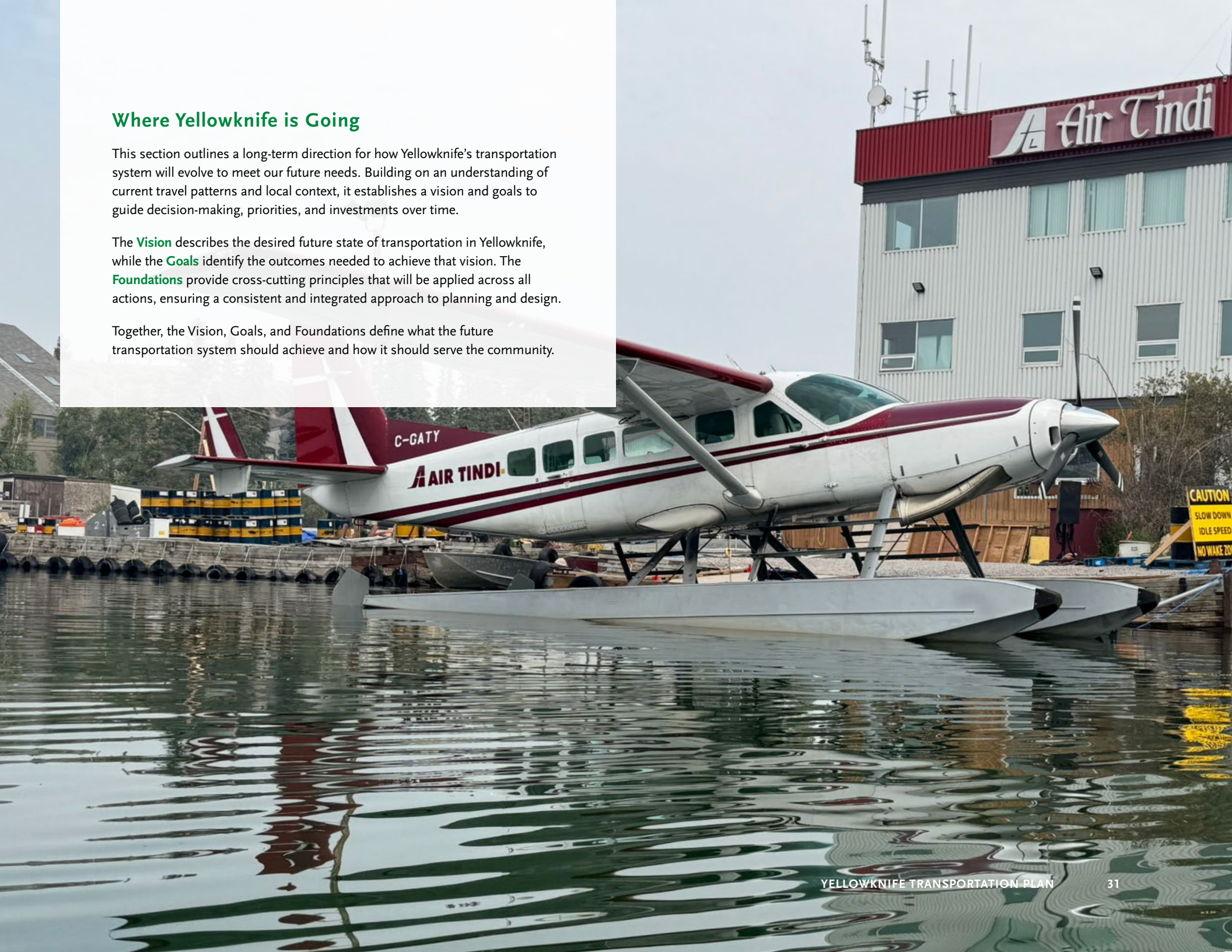
3.0 VISION, GOALS, AND FOUNDATIONS

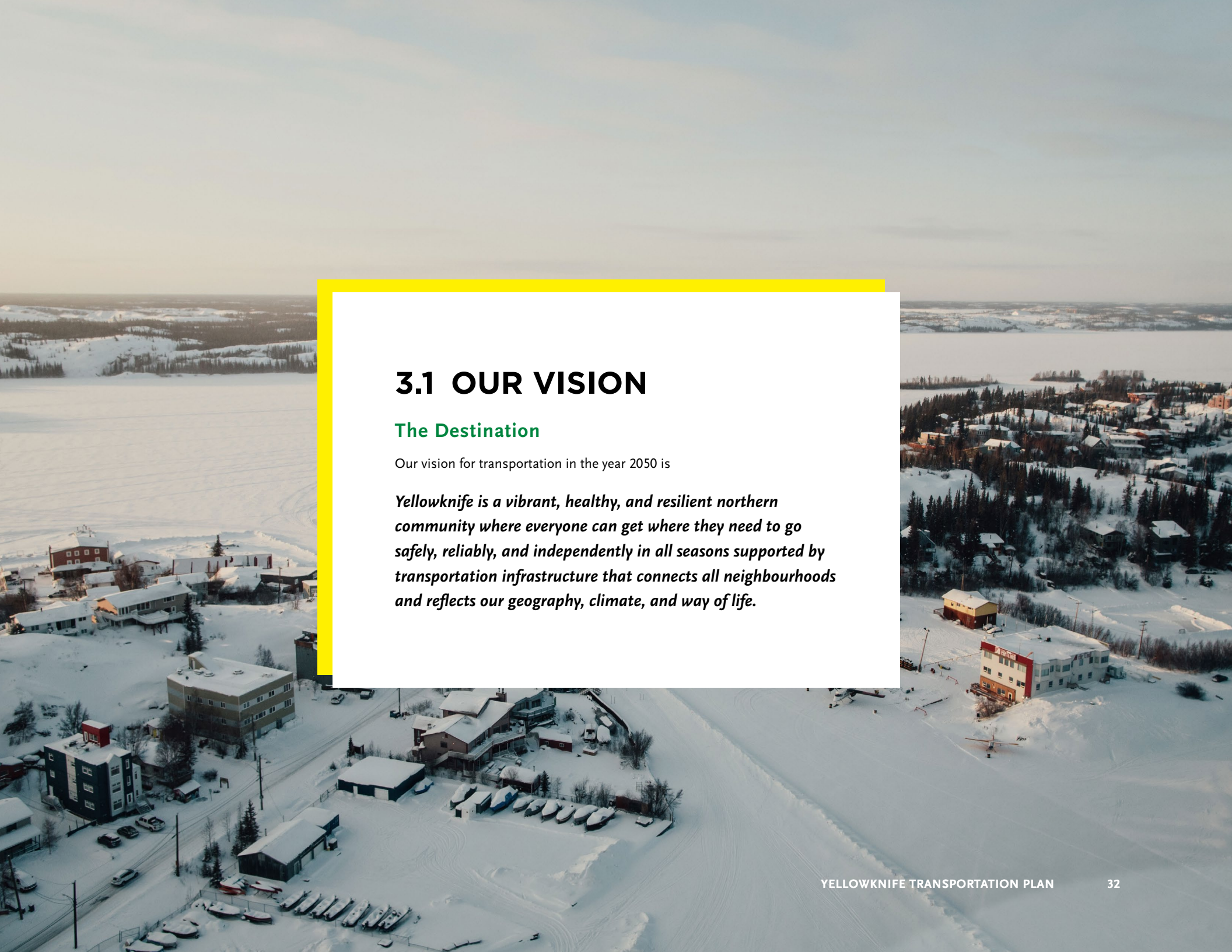
Where Yellowknife is Going

This section outlines a long-term direction for how Yellowknife's transportation system will evolve to meet our future needs. Building on an understanding of current travel patterns and local context, it establishes a vision and goals to guide decision-making, priorities, and investments over time.

The **Vision** describes the desired future state of transportation in Yellowknife, while the **Goals** identify the outcomes needed to achieve that vision. The **Foundations** provide cross-cutting principles that will be applied across all actions, ensuring a consistent and integrated approach to planning and design.

Together, the Vision, Goals, and Foundations define what the future transportation system should achieve and how it should serve the community.





3.1 OUR VISION

The Destination

Our vision for transportation in the year 2050 is

Yellowknife is a vibrant, healthy, and resilient northern community where everyone can get where they need to go safely, reliably, and independently in all seasons supported by transportation infrastructure that connects all neighbourhoods and reflects our geography, climate, and way of life.

3.2 THE GOALS

The Outcomes

The vision is supported by eight goals that will further guide the direction of the Yellowknife Transportation Plan.

Key performance indicators can be found in the **Section 5.0**.

Transportation Choices

Provide people with comfortable, convenient, and reliable transportation choices through all our seasons.

Safe Mobility

Improve people's safety and work to eliminate serious injuries and fatalities from our transportation system.

Equitable Access

Ensure that people of all ages, abilities, backgrounds, and identities can access all modes of transportation.

Connected Network

Provide seamless connections for all modes transportation so people can travel to services, neighbourhoods, and community amenities across the city.

Environmentally Sustainable

Reduce our transportation-related emissions according to the targets set under the *Climate Action Plan 2026-2036*.

Healthy Community

Improve our health and wellbeing.

Resilient Transportation System

Ensure that people can get to their destinations in a consistent, predictable, and reliable manner.

Thriving Economy

Ensure the efficient movement of people and goods to support the local and regional economy.

3.3 THE FOUNDATIONS

The Transportation Plan includes a series of six “Foundations”, which are cross-cutting principles that support every theme identified in the Transportation Plan and will be applied to the transportation network with broad strokes.



Streets for People

A people-first approach redefines how streets are planned, designed, and operated. This is a shift away from a traditional focus on motor vehicles, moving towards prioritizing how people move, experience, and connect within a city. Streets are not only corridors for movement, but also important public spaces that support daily life, access to destinations, and social interaction.

A people-first transportation system prioritizes walking, cycling, and access to transit, while still accommodating motor vehicles in a balanced way. It emphasizes safety, accessibility, and comfort, and ensures that streets support community life, local destinations, and connections going beyond mobility.

Streets for people can take many forms, including expanding the public realm, creating space for parks and gathering areas, widening and improving sidewalks, and providing protected cycling infrastructure. The public realm refers to publicly accessible areas, including streets, parks, and open spaces, supporting the public's interaction and connection with each other and their city.

Traffic calming measures can also be used to create safer and more comfortable environments. Supporting these physical changes are programs and activations that enhance the experience of being in public spaces. These can include wayfinding, lighting, seating, and initiatives that build confidence in walking, cycling, and active school travel. People-centred streets go beyond mobility needs, enhancing community life and creating more vibrant spaces.



Integrated Land Use and Transportation

Land use and transportation are fundamentally interconnected, as land use decisions influence travel patterns, frequency, and mode choice, while transportation investments in turn shape development patterns, support housing and employment growth, and affect how people and goods move. The location, intensity, and mix of housing, jobs, services, schools, and community amenities influence how far people need to travel and whether walking, cycling, and transit are realistic options for daily trips. In turn, transportation investments shape accessibility and guide patterns of development. Research has consistently shown that people who live in areas with higher population and employment densities, greater mixtures of land uses with access to daily needs within short walking distances, and well-connected transportation networks are more likely to walk, roll, or cycle.

With our compact urban form, Yellowknife's built environment already strongly supports sustainable transportation, as most trips are relatively short and can easily be made by walking, cycling, or transit. The Household Travel Survey found that the average trip distance, including trips by all modes is 2.7 kilometres, and 19% of all daily trips are made by walking. Neighbourhoods with higher densities and well-connected street networks have even higher modes shares, with walking accounting for 44% of all trips made by residents living downtown. This is not by accident that residents downtown choose to walk more – this is a reflection of the fact that people living downtown can access their daily needs relatively easily and in a short distance on foot.

In Yellowknife, integrating land use and transportation is particularly important as the city continues to evolve through infill, redevelopment, and future growth areas. A more connected pattern of development focused on complete streets, priority nodes, key destinations, and areas with strong multimodal access can support shorter, more convenient trips and improve overall network efficiency.

While land use is fundamental in shaping how people travel, the Transportation Plan does not explicitly include actions related to land use. Instead, the Community Plan provides directions for land use that align with the strategies and actions in the Transportation Plan. In particular, this foundation aligns with the Community Plan and its direction to focus growth on intensification in existing built-up areas. By coordinating land use decisions with transportation investments, the City can support more sustainable travel patterns, improve access to services and amenities, and create a more connected, resilient, and livable community over time.



Complete Streets

“Complete Streets” is a term that refers to the policy and design approach that streets are for people, not just cars. Complete Streets are designed and operated to enable safe and comfortable use for all, regardless of age or ability. A Complete Streets policy and design approach recognizes that streets have different roles, functions, and characteristics depending on their context. Through attractive design, enhanced safety, and multi-modal infrastructure, streets can be transformed into spaces that increase safety, promote a more active lifestyle, decrease carbon dioxide emissions, encourage a sense of community, and support local businesses.

A Complete Streets approach recognizes that transportation corridors are not only corridors for movement, they are also public spaces that shape how people experience the city. Complete Streets with a strong public realm can make walking, waiting for transit, and spending time in public spaces safer, more comfortable, and more enjoyable. This also supports social interaction, local business activity, tourism, and everyday life. Designing streets as welcoming and attractive spaces encourages more people to walk, spend time outdoors, and use sustainable transportation options.



Safe Mobility

The safety of Yellowknife's transportation network is a top priority, regardless of the travel mode being used. The Transportation Plan includes an overarching emphasis on road safety and creating safe streets where serious injuries and fatalities are reduced or eliminated. Safe mobility is considered in all aspects of the Transportation Plan, with the fundamental premise that the City will commit to significantly reducing collisions resulting in serious injuries and fatalities.

Based on RCMP collision data collected between 2018 and 2022, there were 3,475 reported collisions in Yellowknife. Over the course of these five years, approximately 10% of these collisions resulted in an injury or fatality, including 340 injury collisions and nine fatal collisions. The total number of reported collisions has decreased significantly year-over-year, with a 33% reduction in total annual collisions between 2018 and 2022. However, the proportion of collisions resulting in injury or fatality did not see significant changes over time, as they have fluctuated from approximately 60 to 85 injury or fatal collisions over this time. Transportation-related collisions have significant impacts on people's lives, especially those that cause fatalities or serious injuries. Collisions are traumatic events for those involved and tragic events for families and communities affected.

Despite these statistics, we know from evidence around the world that it is possible to significantly reduce, and even prevent, deaths and serious injuries within our transportation system. Experience from communities around the world shows that deaths and serious injuries in transportation networks are preventable. Many jurisdictions have adopted a Vision Zero approach to road safety, which prioritizes human life and health and sets the goal of eliminating all traffic-related fatalities and serious injuries. Vision

Zero is a systems approach to transportation safety premised on the belief that all traffic fatalities and severe injuries can be eliminated, while increasing safe, healthy, and equitable mobility for all people.

The Transportation Plan applies a Safe System approach, prioritizing human life and health in transportation understanding that deaths and serious injuries are preventable. This Safe System approach emphasizes shared responsibility among planners, engineers, decision-makers, enforcement agencies, and road users. It is guided by principles that place safety at the forefront, including designing systems that are forgiving, applying layered and coordinated measures, and taking proactive steps to reduce risk. The figure below outlines the Safe System approach and its five principles. Together, these principles support a transportation system where all users can travel safely and confidently.



VISION ZERO SAFE SYSTEMS APPROACH

(Source: US DOT Federal Highway Administration)



Climate Action

Transportation-related air pollutants are the largest contributors to poor air quality and produce GHG emissions, which has negative implications for community quality of life, public health, and climate change. In Yellowknife, on-street transportation accounts for 20% of 2023 community GHG emissions. Embracing active transportation and sustainable modes of transportation are essential to reducing GHG emissions and offering co-benefits to the community.

Transportation decisions play an important role in responding to climate change. Supporting more walking, cycling, transit, shared mobility, and low-emission travel can help reduce GHG emissions while also delivering co-benefits such as better health, lower household transportation costs, and improved quality of life.

This foundation aligns with the *Climate Action Plan (2026)* and reflects the community's priorities in balancing environmental goals with transportation needs. It supports a shift toward more sustainable travel behaviour while improving the efficiency and performance of the transportation system. Together, these approaches contribute to a more resilient, low-carbon future for Yellowknife.



Northern and Winter City

Yellowknife's identity as a northern winter city fundamentally shapes how people move. Extreme cold, snow, ice, wind, freeze-thaw conditions, and limited daylight influence travel choices, infrastructure performance, maintenance practices, and the overall experience of getting around. Seasonal conditions can create barriers to mobility, particularly for walking, cycling, and transit, affecting visibility, surface conditions, comfort, and perceived safety.

This foundation recognizes the importance of designing a transportation system that functions reliably in all seasons. Supporting year-round mobility requires thoughtful consideration of materials, maintenance practices, lighting, and design standards that respond to winter conditions. It also requires ensuring that walking, cycling, and transit remain safe, visible, and accessible during the darker winter months.

By embedding winter considerations into all aspects of planning and design, this foundation supports a transportation network that reflects northern realities while maintaining safe, comfortable, and reliable travel options throughout the year.





4.0 STRATEGIES AND ACTIONS

The plan is organized around **five themes**: streets, active transportation, transit, sustainable commuting and technology, and culture.

This section outlines the strategies and actions for each theme, informed by staff input, Council direction, community engagement, existing conditions analysis, and a review of leading practices and emerging trends.

Each **theme** identifies a key area of focus. Within each theme:

- **Strategies** establish the direction for action, and
- **Actions** define the specific step the City will take to implement the strategy.

Each action includes a timeframe and identifies the lead and supporting agencies responsible for implementation. Timeframes are defined as:

- Quick Win (0–2 years)
- Short-term (3–5 years)
- Medium-term (6–10 years)
- Long-term (11+ years)

Several actions will be implemented on an ongoing basis, in which case they are identified under each timeframe.

Policies and guidelines to support implementation of select strategies and actions are provided in **Appendix B**. These policies and guidelines are subject to change over time.



THEMES AND STRATEGIES



Streets

STRATEGY 1.1: Adopt and Implement a Multi-modal Street Network Classification and Standards

STRATEGY 1.2: Street Network Improvements

STRATEGY 1.3: Improve Safety and Accessibility at Intersections and Crossings

STRATEGY 1.4: Design for Safe Speeds

STRATEGY 1.5: Maintain Roadways in a State of Good Repair

STRATEGY 1.6: Plan for Emergencies and Resilience

STRATEGY 1.7: Move Goods and Hazardous Materials Efficiently

STRATEGY 1.8: Coordinate Highway Improvements With the GNWT



Active Transportation

STRATEGY 2.1: Complete the Sidewalk Network

STRATEGY 2.2: Develop a Cycling Network for People of All Ages and Abilities

STRATEGY 2.3: Enhance Trails and Pathways

STRATEGY 2.4: Maintain Multi-Use Pathways Year-Round

STRATEGY 2.5: Encourage Micromobility and Other Forms of Active Transportation

STRATEGY 2.6: Provide Bicycle Parking



Transit

STRATEGY 3.1: Improve Transit Service

STRATEGY 3.2: Enhance the Transit User Experience

STRATEGY 3.3: Improve Transit Accessibility



Sustainable Commuting and Technology

STRATEGY 4.1: Support and Expand Car Share

STRATEGY 4.2: Support Festivals and Community Events with Multi-Modal Access

STRATEGY 4.3: Support Initiatives to Manage Travel Demand



Culture

STRATEGY 5.1: Build a Foundation for Transportation in Early Years

STRATEGY 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility



THEME 1: STREETS

The street network forms the backbone of Yellowknife's transportation system, connecting people, places, and goods across the city. Anchored by key corridors such as Highway 3, Old Airport Road, 50 Avenue, Kam Lake Road, and 48 Street, the network supports regional access, local mobility, and economic activity. It also includes a network of major intersections, including approximately 20 signalized locations, that play a critical role in how people move through the city.

While streets accommodate all modes of travel, this theme focuses on how the street network can safely and efficiently support driving while enabling a balanced, multi-modal system. Enhancing the performance of the street network is essential to improving safety, accessibility, and reliability for all users, including people walking, cycling, taking transit, and driving.

Streets by the Numbers



Yellowknife residents make approximately **62,000** daily trips per day, or approximately **3 trips** per day per resident, or approximately **7.4 trips** per day per household



Private vehicles account for approximately **Two-Thirds (68%)** of all daily trips



104,700 vehicle kilometres are travelled per day



71% of vehicle trips are single-occupant



Peak hour demand is concentrated



Most vehicle trips are made during short, concentrated periods during the morning and afternoon peak periods from **7:30-8:30am** and **4:30-5:30pm**

Source: Household Travel Survey

Top 3 Driving Issues



Unsafe driving behaviours¹



Difficult to find parking



Unsafe intersections²

Top 3 Driving Opportunities



Improve walking, cycling, and transit to reduce the need to drive



Encourage people to drive less



Implement safety improvements at higher collision locations

Source: Community Survey

¹ (e.g., speeding)

² (e.g., impeded sightlines, crosswalks are too long, lack of dedicated left turn lanes)

STRATEGIES

This theme outlines eight strategies to guide how the street network is planned, designed, operated, and maintained:

STRATEGY 1.1: Adopt and Implement a Multi-modal Street Network Classification and Standards

STRATEGY 1.2: Street Network Improvements

STRATEGY 1.3: Improve Safety and Accessibility at Intersections and Crossings

STRATEGY 1.4: Design for Safe Speeds

STRATEGY 1.5: Maintain Roadways in a State of Good Repair

STRATEGY 1.6: Plan for Emergencies and Resilience

STRATEGY 1.7: Move Goods and Hazardous Materials Efficiently

STRATEGY 1.8: Coordinate Highway Improvements With the GNWT

Together, they emphasize a shift toward a more multi-modal, resilient, and context-sensitive network.

STRATEGY 1.1: Adopt and Implement a Multi-Modal Street Network Classification and Standards

Streets are multi-functional spaces that serve many users and different modes of transportation. Street network classifications typically include various types of arterial, collector, and local streets. Highways within the city are under the jurisdiction of the Government of the Northwest Territories (GNWT). Developing an updated street network classification through a lens of multi-modal transportation can set the directions and requirements of future road projects as well as existing roads retrofitting works. A street network classification system is meant to guide many of the City's other activities, such as street maintenance, and provides guidance to developers on the design of new roadways.

The City currently does not have a formalized street network classification. The Development & Design Standards guide how growth and development occur in an organized and coordinated manner, while maintaining and enhancing quality of life. By establishing requirements for transportation infrastructure at the development stage, the Standards ensure that facilities are delivered proactively rather than retrofitted later. **Map 2** highlights the street network classification.

Integrating the multi-modal street network classification into the Development & Design Standards will align these requirements with each street's intended function and modal priorities. This ensures that new developments provide the appropriate infrastructure for all users based on the role of the street within the network. The multi-modal street network classification should reflect Complete Streets principles. The City's Complete Streets Policy and Guidelines can be found in **Appendix B**.

#	Actions	Timeframe
1.1A	Adopt a multi-modal street network classification and incorporate this classification in the Development & Design Standards	Quick Win (0-2 years)
1.1B	Develop updated multi-modal street cross-sections based on the street network classification in the Development & Design Standards	Quick Win (0-2 years)

STRATEGY 1.2: Street Network Improvements

Street network improvements will be coordinated with land use planning, infrastructure and development, and will be guided by Complete Streets principles to create a safe, accessible, and resilient transportation system for pedestrians, cyclists, transit users, and vehicles. **Map 3** shows potential new street connections to improve connectivity, support planned development, and enhance access for all transportation modes.

To support implementation, the City could consider developing complementary policies and guidelines that establish clear objectives and decision-making for traffic operations. The City's Traffic Light Management Objectives Policy can be found in **Appendix B**.

#	Actions	Timeframe
1.2A	Implement upgrades to major streets	Ongoing
1.2B	Implement new street network connections	Long-term (11+ years)
1.2C	Implement traffic light management objectives and policy	Short-term (3-5 years)
1.2D	Minimize access points from arterial roads on new developments	Ongoing
1.2E	Work with property owners to consolidate driveways and access points where possible	Ongoing

STRATEGY 1.3: Improve Safety and Accessibility at Intersections and Crossings

Intersections and crossings are some of the most critical and the highest risk locations within any transportation network. These are the points where people walking, cycling, using mobility devices, and driving intersect, often in complex and constrained environments. Creating safer and more accessible intersections and crossings is essential to supporting a transportation system that works for people of all ages and abilities.

Within Yellowknife, a range of intersection controls and crossing treatments are used to support people walking, cycling, and rolling, including traffic signals and standardized crosswalks, which typically include painted crosswalks along with signage and other enhancements such as flashing beacons. Non-standardized crosswalks can also be considered, such as decorative crosswalks with public art. However, the City does not currently have a policy for non-standardized crosswalks.

While these facilities play an important role in enabling safe crossings, several intersections and crossings present accessibility and safety challenges, especially for older adults and people with disabilities. In addition, ongoing engagement with the City's Accessibility Advisory Committee will support the identification of priority locations, inform design decisions, and help ensure that improvements respond to the lived experiences and needs of people with disabilities.

Addressing safety at intersections and crossings requires a multi-faceted approach that includes improving sightlines, lighting, and visibility to enhance perceived and actual personal safety, as well as reducing conflict points through measures such as separation from motor vehicles, lower vehicle speeds, and clearer right-of-way.

Intersection safety improvements can include treatments such as curb extensions, reduced curb radii, raised crosswalks, Leading Pedestrian Intervals, improved lighting, and/or enhanced crossing treatments such as Rectangular Rapid Flashing Beacons (RRFBs). **Map 4** shows intersection safety and operational improvements, locations for upgraded and new traffic signals and crosswalks.

#	Actions	Timeframe
1.3A	Inventory and evaluate intersections and crossings to align with Transportation Association of Canada best practices	Short-term (3-5 years)
1.3B	Develop and adopt a crosswalk policy	Short-term (3-5 years)
1.3C	Implement new traffic signals	Ongoing
1.3D	Install modern Accessible Pedestrian Signals at all existing and new traffic signals	Ongoing
1.3E	Implement Leading Pedestrian Intervals at signalized intersections downtown	Medium-term (6-10 years)

#	Actions	Timeframe
1.3F	Implement No Right Turn on Red restrictions at locations with demonstrated safety issues	Ongoing
1.3G	Implement left turn protections at signalized intersections where space constraints allow	Ongoing
1.3H	Review and update pedestrian crossing times to accommodate pedestrian crossing times, particularly in areas with a high concentration of vulnerable road users	Short-term (3-5 years)
1.3I	Implement safety and operational improvements at intersections and crossings	Ongoing
1.3J	Implement new crossing locations to improve pedestrian safety	Ongoing
1.3K	Improve safety at existing crosswalks with treatments such as curb extensions, reduced curb radii, raised crosswalks, Leading Pedestrian Intervals, improved lighting, and/or enhanced crossing treatments such as Rectangular Rapid Flashing Beacons (RRFBs) as defined by a warrant analysis	Ongoing

STRATEGY 1.4: Design for Safe Speeds

The maximum speed limit within the City of Yellowknife is typically 45 km/h. School zones and playground zones have a maximum speed limit is 30 km/h. School zones are enforced at all times, 24 hours 7 days a week. Speed limits increase to 70 km/h and above on GNWT highways. Based on GPS-based speed data for arterial roads in the City, many vehicles are travelling above the speed limit on several arterial streets, including Old Airport Road and 48 Street along with Highway 3, while traffic speeds are generally lower in the Downtown core. Through the Community Survey, respondents noted that unsafe driving behaviours such as speeding was the top barrier to driving.

Research clearly shows that higher speeds increase the risk and the likelihood that a crash will result in a serious injury or fatality. At higher speeds, drivers have a narrower field of vision, and they have less time to react to unexpected occurrences. Collisions at higher speeds have worse outcomes for people. The faster a vehicle is moving, the longer the stopping distance and therefore, the greater the force of impact will be. The risk of death and injury increases significantly as travel speeds increase. Research has shown that a pedestrian struck at 30 km/h has a 90% chance of surviving, while at 50 km/h they have only a 15% chance of surviving.

Roads with higher posted speed limits are riskier, regardless of whether drivers exceed those limits. The City will encourage safe speeds through initiatives such as speed limit reductions, traffic calming, and enforcement to minimize the risks of speed and allow the safe movement of all road users.

To support implementation, **Appendix B** includes policies and guidelines that establish a consistent framework for speed management and traffic calming decisions, including a Vision Zero Policy, Speed Limit Policy and Guidelines, and Traffic Calming Policy and Guidelines.

#	Actions	Timeframe
1.4A	Adopt and implement updated speed limits based on the street network classification	Short-term (3-5 years)
1.4B	Develop and implement a Traffic Calming Program	Short-term (3-5 years)

STRATEGY 1.5: Maintain Roadways in a State of Good Repair

Maintaining the transportation system in a state of good repair is essential to ensuring safety, reliability, and long-term financial sustainability. Effective asset management allows the City to prioritize investments, extend the useful life of existing infrastructure, and minimize costly reactive repairs.

As a part of this strategy, the City will take every opportunity to extend the remaining life of existing infrastructure to avoid service level reductions and further financial strain. Coordinating maintenance and rehabilitation activities with broader transportation objectives will help ensure that investments deliver maximum value while advancing the City's goals for safety, accessibility, and multi-modal mobility.

#	Actions	Timeframe
1.5A	Develop and implement a multi-year pavement rehabilitation plan	Ongoing
1.5B	Align asset management practices and investment priorities with updated street classifications	Short-term (3-5 years)
1.5C	Adopt an ownership and management framework for transportation assets	Short-term (3-5 years)
1.5D	Implement multi-modal improvements with all road upgrades and pavement rehabilitations	Ongoing

STRATEGY 1.6: Plan for Emergencies and Resilience

The transportation network plays a critical role supporting emergency response, evacuation, and long-term resilience to climate-related risks. Yellowknife faces increasing challenges with wildfires, permafrost thaw, and more variable freeze-thaw cycles which impact the safety and reliability of transportation infrastructure.

To complement the *Climate Action Plan (2026)*, strengthening the resilience of the transportation network can be achieved by ensuring streets are designed and maintained to support emergency access, providing redundant and well-connected routes for evacuation, and adapting infrastructure, standards, and maintenance practices to respond to changing climate conditions. This includes reviewing roadway widths to accommodate emergency vehicles, incorporating FireSmart principles along key corridors, planning for multiple access and egress routes to improve network redundancy, and updating design and maintenance approaches to address permafrost thaw and seasonal variability.

#	Actions	Timeframe
1.6A	Review available width of all roadways, including on-street parking, to ensure sufficient width for emergency services	Quick Win (0-2 years)
1.6B	Utilize FireSmart principles strategically to expand the off-street active transportation network	Ongoing
1.6C	Provide alternate routes and redundant street networks to provide travel choices in emergencies	Medium-term (6-10 years)
1.6D	Discourage new subdivisions that do not have multiple access and egress points	Ongoing

STRATEGY 1.7: Move Goods and Hazardous Materials Efficiently

The efficiency and reliability of trucks are essential components of a goods movement network and broader economic development priorities. The interface of truck routes with routes that prioritize active transportation and smaller passenger vehicles must be carefully designed to prioritize the safety of vulnerable road users. Goods movement, or freight, is broadly defined as the wide array of activities involved in transporting goods (primary, intermediate, or finished) from producer/supplier to consumer. Goods movement can be accommodated by road, rail, or water.

The City has identified designated truck routes but has not developed formal Truck Route Bylaw. Existing truck routes include highways under GNWT jurisdiction (including Highway 3, Highway 4, Yellowknife Access Road, and 48 Street) and several streets under the City's jurisdiction (including Deh Cho Boulevard, Old Airport Road, 50th Avenue, Kam Lake Road, and Forrest Drive). **Map 5** shows the designated Truck Route Network.

#	Actions	Timeframe
1.7A	Adopt a Truck Route Bylaw	Quick Win (0-2 years)
1.7B	Develop a Hazardous Materials Network	Quick Win (0-2 years)

STRATEGY 1.8: Coordinate highway improvements with the GNWT

While the primary focus of this plan is on roadways under the City's jurisdiction, the City can also support and/or advocate for improvements along highways under the jurisdiction of the GNWT. The GNWT has jurisdiction of the following roadways (see **Map 6**):

- Highway 3;
- Highway 4 (Ingraham Trail);
- Yellowknife Access Road (north of Highway 3);
- 48 Street (Between Highway 3 and 49 Avenue);
- Stanton Territorial Hospital Access Road; and
- Streets in the vicinity of the Yellowknife Airport, including Archibald Street, Laserich Gate, Bristol Avenue, Idaa Road, Berry Street, and McMillan Street.

Highway 3 is classified as a Highway and provides the main access road to the City of Yellowknife and runs east-west on the northern edge of Yellowknife's urban area. Highway 3 is a two-lane undivided highway that provides access to Yellowknife Airport and acts as a gateway to the City, with major intersections to provide access to the City at Old Airport Road and 48 Street. According to the GNWT's 2023 Highway Traffic Report, Highway 3 accommodates the highest traffic volumes, with Average Annual Daily Traffic Volumes (AADT) of approximately 4,350 vehicles per day in 2023. However, Highway 3 experiences higher volumes in the summer period, with Peak Summer Average Daily Traffic (PSADT) of approximately 5,010 vehicles per day in 2023. Traffic volumes on Highway 3 have been declining in recent years from an AADT of 6,600 vehicles per day and a PSADT of 8,810 vehicles per day in 2014.

Highway 4, also known as the Ingraham Trail, is also classified as a Highway and is a two-lane undivided highway that provides connections beyond Yellowknife to the east to Tiibbit Lake, approximately 70 km east of Yellowknife. In the winter months, Highway 4 also provides access to the Tibbitt to Contwoyto Winter Road, an annual ice road first that provides access to mines and exploration activities. Highway 4 carries an AADT of 600 vehicles per day and a PSADT of 700 vehicles per day in 2023.

Yellowknife Access Road is classified as a Highway and extends north of the intersection of Highway 3 and 48 Street. This roadway formerly provided the main access road to the east before the construction of Highway 4. Today, this roadway primarily provides access to the Giant Mine site.

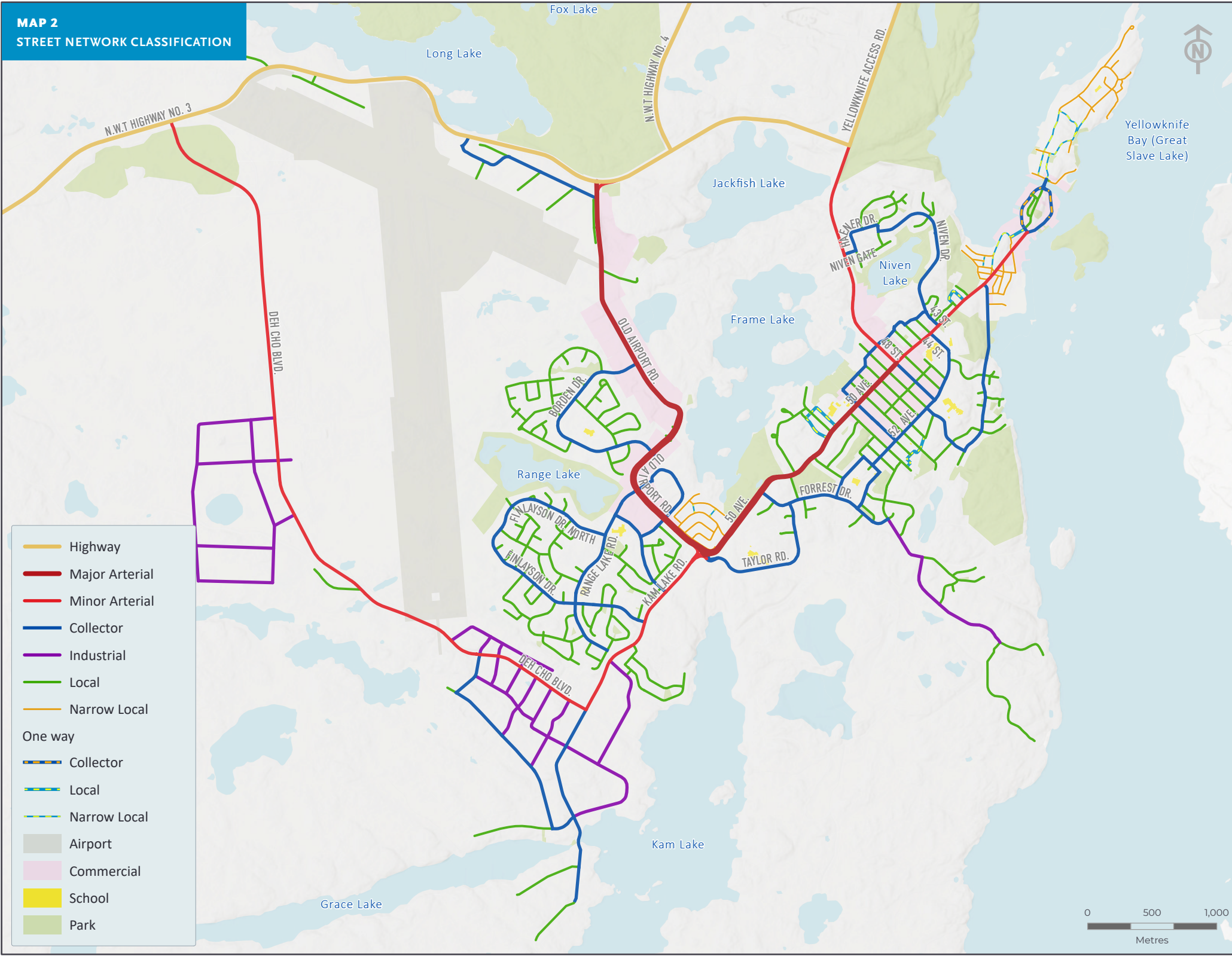
48 Street is classified as a Minor Arterial Street and provides access to the City of Yellowknife. 48 Street is a two-lane undivided roadway that provides access to the Niven neighbourhood, downtown Yellowknife, and several key destinations, including the Northwest Territories Legislative Assembly, Prince of Wales Northern Heritage Centre, and Chateau Nova Yellowknife. A mid-block crossing with actuated flashing beacons is provided at the access road to Chateau Nova Yellowknife and Northwest Territories Legislative Assembly.

The other roadways under GNWT jurisdiction are generally classified as local or collector roads and provide access to the Yellowknife Airport, Stanton Territorial Hospital, and other industrial areas.

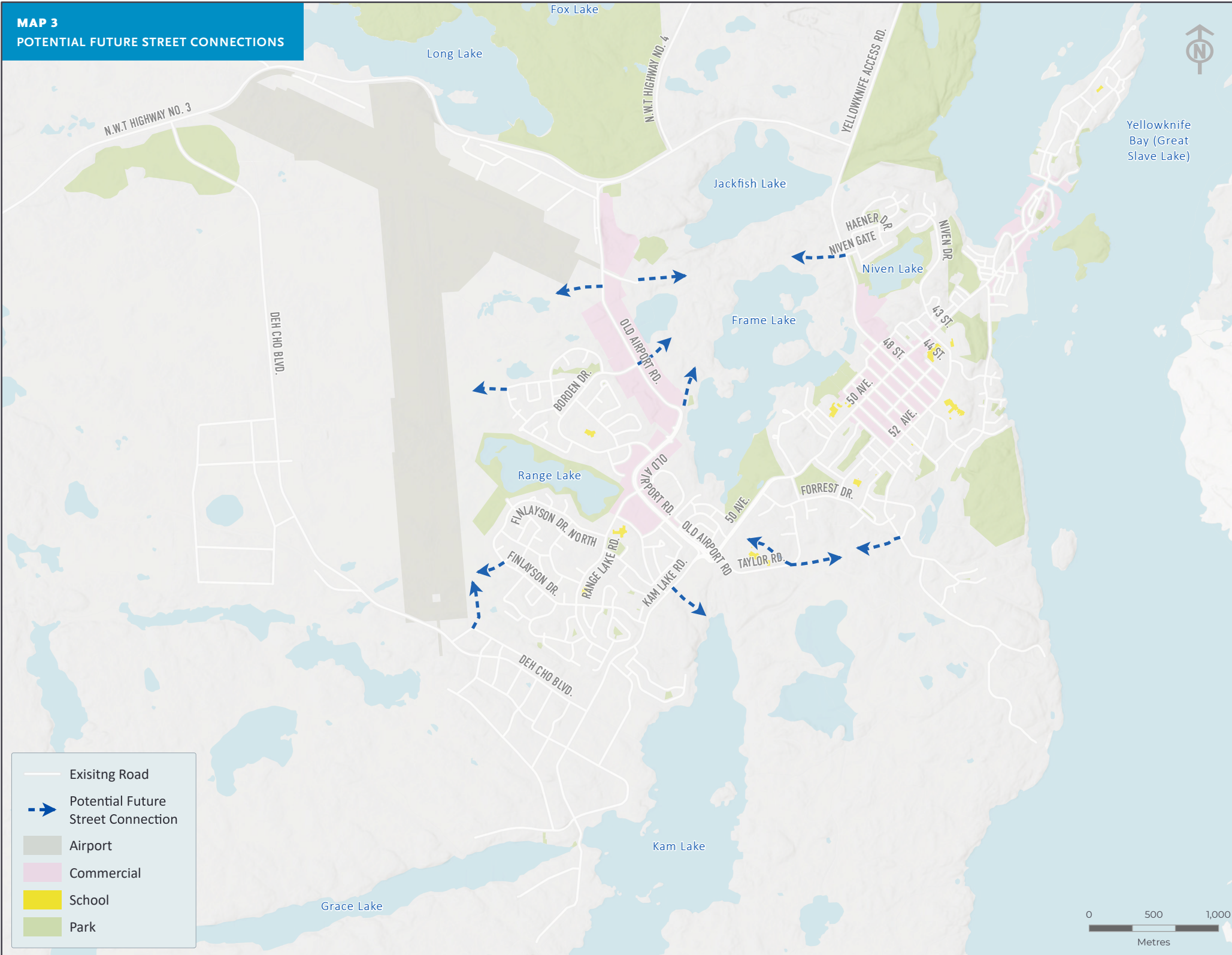
In addition, the Dettah Ice Road is a seasonal winter road that provides direct access from Yellowknife the community of Dettah. The Dettah Ice Road generally operates between December and April (depending on seasonality), and typically carries approximately 600 vehicles per day during those months in which it is operational.

#	Actions	Timeframe
1.8A	Work with the GNWT to identify issues and opportunities to improve regional mobility	Ongoing

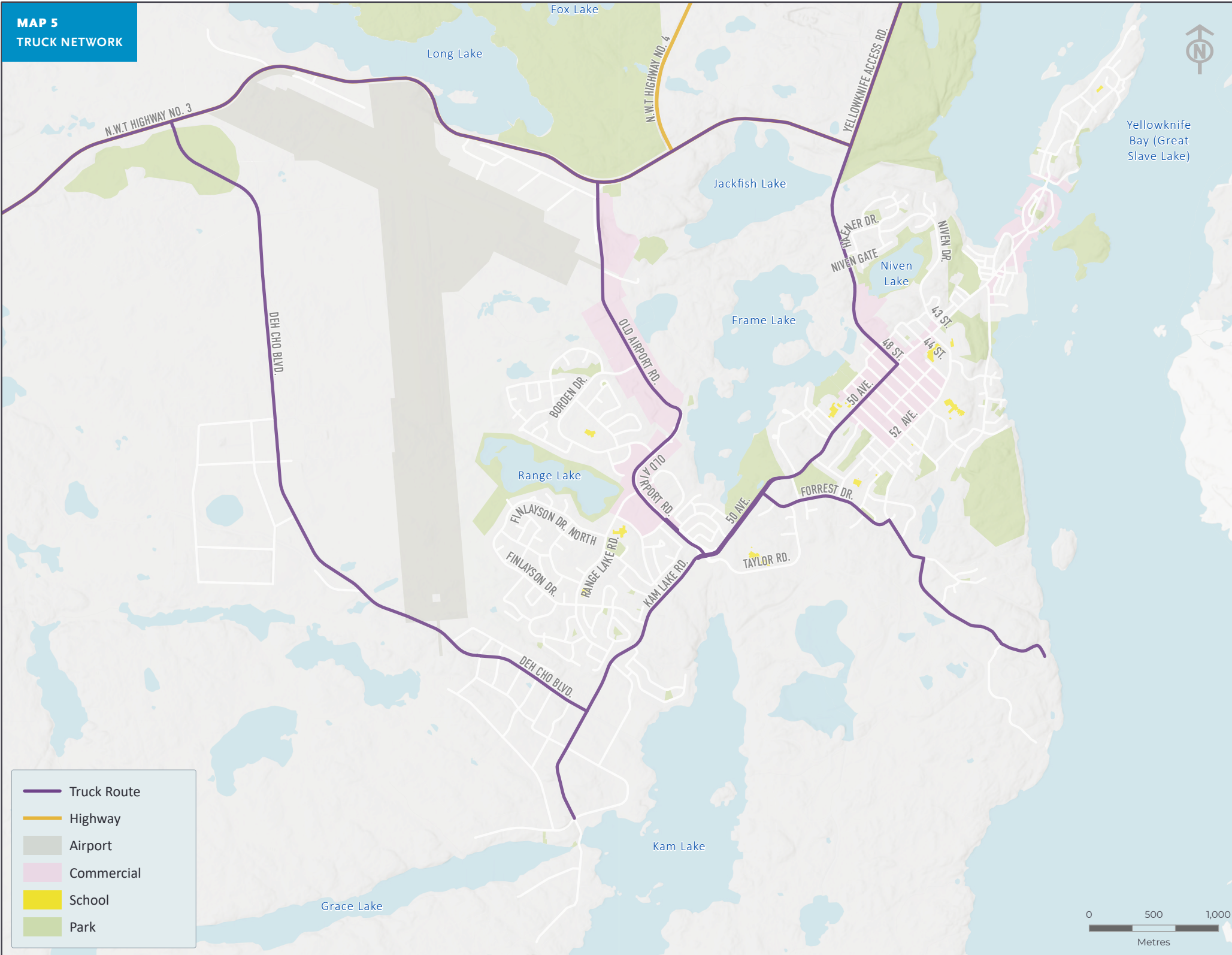
MAP 2 **STREET NETWORK CLASSIFICATION**



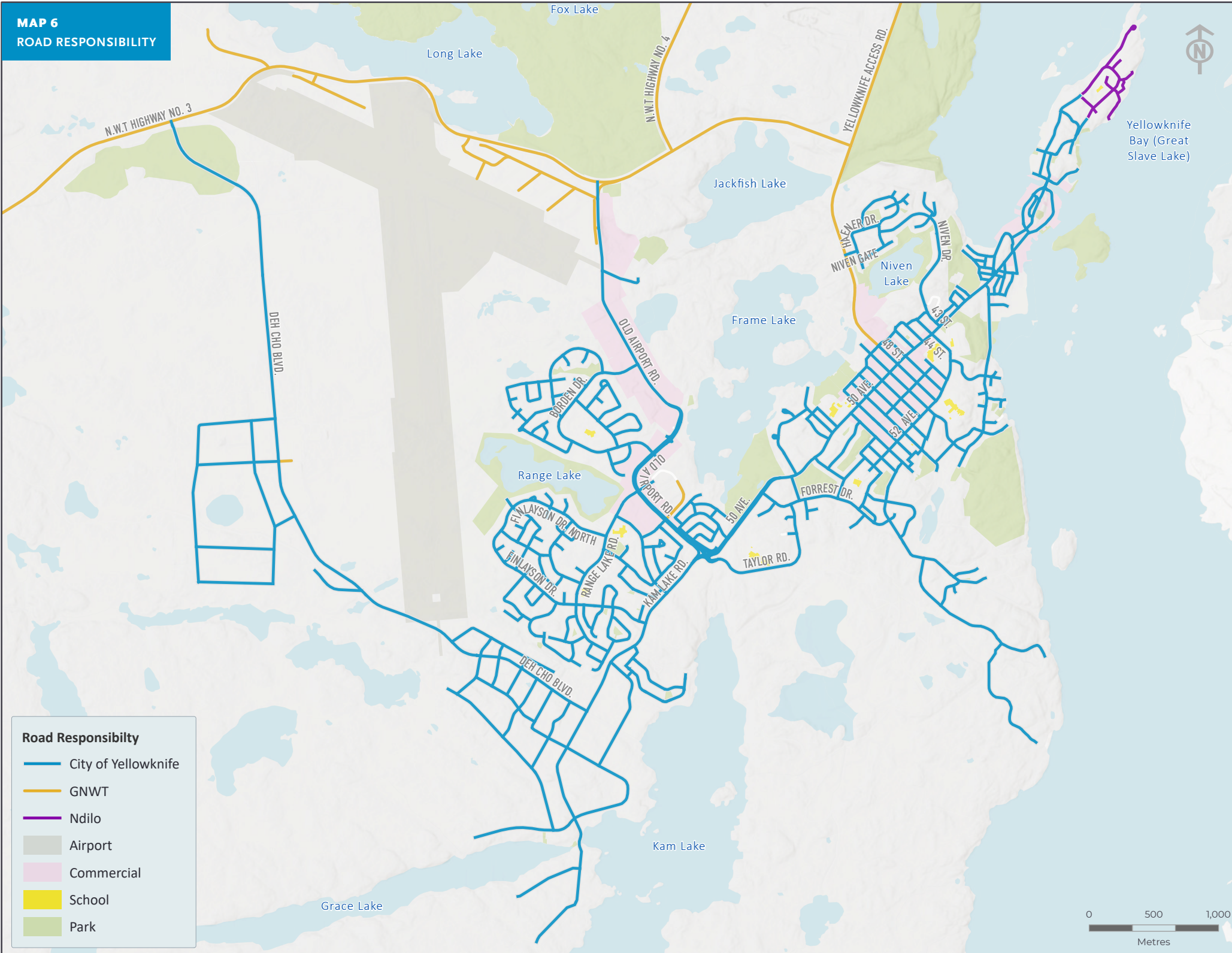
MAP 3
POTENTIAL FUTURE STREET CONNECTIONS



MAP 5
TRUCK NETWORK



MAP 6
ROAD RESPONSIBILITY





THEME 2: ACTIVE TRANSPORTATION

Active Transportation by the Numbers



Over one-quarter of all trips (27%)

are made by walking, wheeling, and cycling



Nearly one in five trips (19%)

are made on foot



49% of residents

cycle at least occasionally



Two-thirds of households

own a bicycle or micromobility device



Trips made by active modes **exceed 50%**
in the downtown areas, but drop to
approximately 14% in suburban areas



Most active transportation trips are short, with average
distances of **1.0 km** for walking and **2.1 km** for
cycling or micromobility

Active transportation plays a fundamental role in Yellowknife's transportation system, supporting daily travel, community connection, and overall quality of life. It includes walking, wheeling, cycling, and other forms of human-powered mobility, and provides a range of benefits such as improved health, lower transportation costs, reduced congestion, and more vibrant and livable neighbourhoods.

Walking is the most basic and universal form of transportation, forming part of every trip regardless of mode. As such, a safe, accessible, and well-connected active transportation network is essential to enabling all other forms of travel. Creating environments where walking and cycling are safe, direct, and comfortable allows more people to choose these modes to get around the community.

Top 3 Walking Issues



Personal safety
such as crime



Lack of
pedestrian
facilities¹



Pedestrian facilities
are in poor condition
or uneven

Source: Household Travel Survey

Source: Community Survey

¹ (e.g., sidewalks, multi-use pathways, or trails)

Top 3 Walking Opportunities



More multi-use pathways (paved)



More trails (unpaved)



More sidewalks

Top 3 Cycling Issues



Lack of on-street cycling routes and infrastructure



Cycling routes are not physically protected from vehicle traffic



Lack of off-street cycling routes²

Top 3 Cycling Opportunities



More multi-use pathways



More on-street bike lanes that are physically separated from traffic



More bicycle parking and end-of-trip facilities

Source: Community Survey

² (e.g., sidewalks, multi-use pathways, or trails)

STRATEGIES

This theme focuses on building a complete and connected network that supports people of all ages and abilities, including seniors, children, and people with disabilities through six strategies:

STRATEGY 2.1: Complete the Sidewalk Network

STRATEGY 2.2: Develop a Cycling Network for People of All Ages and Abilities

STRATEGY 2.3: Enhance Trails and Pathways

STRATEGY 2.4: Maintain Multi-use Pathways Year-round

STRATEGY 2.5: Encourage Micromobility and Other Forms of Active Transportation

STRATEGY 2.6: Provide Bicycle Parking

Together, the strategies under this theme support a shift toward a more inclusive, accessible, and resilient active transportation network that encourages more people to walk, roll, and cycle as part of their daily travel.

STRATEGY 2.1: Complete the Sidewalk Network

Providing a complete and connected sidewalk network is essential to creating an environment where people of all ages and abilities can walk safely and comfortably for a variety of trip purposes.

Yellowknife's pedestrian network includes a range of pedestrian facilities, primarily sidewalks and multi-use pathways. Most streets have a sidewalk or multi-use pathway on at least one side of the street. The City has relatively good sidewalk coverage near commercial destinations and schools. However, there are some gaps particularly on streets providing access to bus stops. While most sidewalks are constructed of concrete, asphalt and gravel sidewalks are found in low-lying areas such as Old Town and portions of Range Lake Road, Borden Drive, and Kam Lake. Many existing sidewalks also fall below the recommended minimum width of 1.5 metres in the current Design Standards, limiting accessibility and comfort for some people.

The sidewalks standards for new streets in Yellowknife are regulated based on the Development & Design Standards Manual. Updating these standards presents an opportunity to ensure that new sidewalks and multi-use pathways are consistent, accessible, and aligned with current best practice design guidance. In addition to updated standards, targeted investments and strategic upgrades are needed to address network gaps, improve sidewalk quality, and better serve areas with high pedestrian demand.

Map 7 shows the existing pedestrian network while **Map 8** shows the long-term pedestrian network, which includes multi-use pathways, sidewalks, trails, and easement pathways.

#	Actions	Timeframe
2.1A	Complete new sidewalks such that there is a sidewalk on at least one side of all existing local streets and a sidewalk and/or multi-use pathway on both sides of all arterial and collector streets	Ongoing
2.1B	Strategically upgrade and widen existing sidewalks in areas of high pedestrian demand	Ongoing
2.1C	When new development occurs and creates a gap in the pedestrian and cycling network, ensure a temporary connection or transition to the roadway is provided.	Ongoing

STRATEGY 2.2: Develop a Cycling Network for People of All Ages and Abilities

Creating a comfortable, complete, and connected network of cycling facilities is critical to encouraging more people to cycle. For cycling to become a realistic and attractive transportation option, cycling routes must be direct, intuitive, and connect people to key community destinations such as schools, parks, employment areas, commercial centres, and recreational facilities. Given that children and youth make up a significant portion of cycling trips made in Yellowknife, it is particularly important to ensure that safe and comfortable cycling routes are provided to key destinations for children and youth such as schools, parks, and community and recreation facilities.

Yellowknife's cycling network currently includes a variety of facility types, including off-street multi-use sidewalks, off-street bicycle paths, on-street painted bicycle lanes, signed bicycle routes, and paved shoulders. The various facility types can be challenging for people cycling to navigate. Routes often require users to transition frequently between different facility types, resulting in an inconsistent and sometimes confusing experience. In addition, many existing facilities do not meet current best practice design guidance.

The cycling network has also developed incrementally and in an ad-hoc manner, leading to incomplete segments and gaps in connectivity. As a result, there are opportunities to both fill network gaps and upgrade existing and future cycling facilities to better align with best practice design guidance and provide a safer, more comfortable experience for people of all ages and abilities.

Expanding and enhancing Yellowknife's cycling network will also require increased operating and maintenance resources. This includes ongoing investments in snow clearing, vegetation management, wayfinding and regulatory signage, and enforcement support from Bylaw Services and the RCMP.

Consistent design guidance will help ensure that future cycling facilities are safe, comfortable, and aligned with current best practices for people of all ages and abilities. **Map 9** shows the existing cycling network while **Map 10** shows the long-term cycling network, which includes multi-use pathways, neighbourhood bikeways, trails, and easement pathways. Cycling Facility Design Guidelines can be found in **Appendix B**.

#	Actions	Timeframe
2.2A	Develop a complete and connected cycling network that is comfortable for people of all ages and abilities	Ongoing

STRATEGY 2.3: Enhance Trails and Pathways

Trails and off-street pathways are a core component of Yellowknife's transportation network and play a critical role in supporting walking, cycling, and other forms of active transportation.

Through the Community Survey, Yellowknife residents identified trails and pathways as one of the most loved features of the city. Community members also identified various ways to improve trails and pathways

Yellowknife has a network of trails and pathways that are deeply embedded in daily life and community identity. The Frame Lake Trail, located at the heart of the city, functions as a key transportation corridor connecting neighbourhoods, employment areas, downtown, and other important community destinations. Other trails, such as the Niven Lake trail, provide key neighbourhood connections and recreational access for residents. Off street pathways also play an important role in linking residential areas to sidewalks, cycling facilities, and the broader active transportation network.

While trails and pathways are a key feature of Yellowknife's active transportation network, many were not originally designed to function as formal, year round active transportation routes. Some trails are unpaved, lack lighting or wayfinding, or have limited and unclear connections to sidewalks and cycling facilities. These limitations can reduce accessibility, comfort, and usability particularly during winter months and periods of reduced daylight.

Trails and pathways are shown on both the long-term pedestrian and cycling network maps (**Map 8** and **Map 10**)

#	Actions	Timeframe
2.3A	Establish a Trail and Pathway Classification and Maintenance Framework	Short-term (3-5 years)
2.3B	Upgrade unpaved trails to paved multi-use pathways where they are part of the active transportation network	Medium-term (6-10 years); Ongoing
2.3C	Provide wayfinding on trails and pathways	Ongoing
2.3D	Convert and formalize wide sidewalks and shoulders to multi-use pathways	Ongoing
2.3E	Ensure trails and pathways have adequate lighting that meets the trail and pathway classification	Ongoing
2.3F	Utilize cut-throughs for active transportation	Ongoing

STRATEGY 2.4: Maintain Multi-use Pathways Year-Round

Ongoing and regular maintenance of existing and new infrastructure throughout the year is critical to promoting and encouraging active transportation. Active transportation infrastructure that is not well maintained becomes inaccessible and less desirable for people walking, cycling, and rolling. Maintenance should be front-of-mind throughout all stages of the planning, design, and implementation process. Undertaking ongoing rehabilitation and maintenance and improving the accessibility of existing infrastructure also needs to be an important focus.

As the active transportation network is implemented and there are more facilities, this will affect the City's operation and maintenance budget. Increasing operations and maintenance budget is essential when approving new capital projects.

As with any new infrastructure investment, the installation of more cycling infrastructure can carry significant long-term operations, maintenance, and renewal cost dependent on facility type. These lifecycle cost implications will be considered alongside benefits during capital project planning and decision-making.

#	Actions	Timeframe
2.4A	Develop an Active Transportation Maintenance Priority Network	Short-term (3-5 years)
2.4B	Formalize a Snow and Winter Road Maintenance Policy to outline winter snow maintenance procedures for active transportation	Quick Win (0-2 years)
2.4C	Inspect active transportation facilities year-round to ensure they are well-maintained	Ongoing

STRATEGY 2.5: Encourage Micromobility and Other Forms of Active Transportation

Micromobility is an umbrella term encompassing a variety of small, lightweight, and low-speed devices that facilitate human transportation. This includes devices such as bicycles, e-bikes, cargo bikes, e-scooters, skateboards and more.

Under the GNWT Motor Vehicles Act, e bikes are classified as power assisted bicycles and are generally subject to the same rules of the road as conventional bicycles. Municipal bylaws may further regulate where and how e bikes operate within city limits. In contrast, there is currently no GNWT legislation that clearly defines or regulates e scooters, resulting in a regulatory gap.

As micromobility continues to evolve and growth, the City will stay up to date with changes and how other jurisdictions are addressing these modes.

#	Actions	Timeframe
2.5A	Update regulations and bylaws to integrate micromobility users on trails and roadways	Short-term (3-5 years)
2.5B	Develop policy and guidelines to regulate motorized users on off-street pathways	Short-term (3-5 years)
2.5C	Support community initiatives to provide winter-based active transportation, such as cross-country skiing	Medium-term (6-10 years)

STRATEGY 2.6: Provide Bicycle Parking

The Community Survey found that providing more bicycle parking was one the most frequently cited opportunities to improve cycling in Yellowknife.

There are generally two bicycle parking types: **short-term bicycle parking** and **long-term bicycle parking**:

- **Short-term bicycle parking** is generally intended for people stopping for two hours or less such as shoppers, people running errands, or visitors. They are found at sidewalks, commercial destinations, schools, and civic facilities. This includes bicycle racks such as Inverted U and Post and Ring racks, as well as bicycle corrals.
- **Long-term bicycle parking** is generally intended for people stopping for two hours or more such as commuters, employees, and residents in multi-family housing. They are typically inside or near workplaces, civic facilities, schools, transit hubs, or multi-family residential buildings. They may be in the form of bike lockers or indoor bike rooms.

Bicycle racks can be found throughout downtown Yellowknife and at city-owned facilities such as City Hall and the Aquatic Centre, and parks. However, bicycle parking can be harder to find and less visible outside of these areas. Additionally, the City's Zoning Bylaw does not differentiate between short-term and long-term bicycle parking. There are opportunities to update bicycle racks and relocate bicycle racks to ensure they can be accessed from all sides and are intuitive to the user.

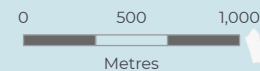
Access to secure bicycle parking reduces the fear of theft or vandalism, providing people with peace of mind. Supporting guidelines can help ensure bicycle parking is provided consistently and meets the needs of both short-term and long-term users. Bicycle Parking Guidelines can be found in **Appendix B**.

#	Actions	Timeframe
2.6A	Review and update requirements for short-term and long-term bicycle parking	Quick Win (0-2 years)
2.6B	Upgrade existing short-term bicycle parking to high-quality, winter-friendly racks, and expand bike parking at civic facilities and priority cycling destinations	Ongoing
2.6C	Implement bicycle parking within the public right-of-way in the downtown, Old Town and other key destinations.	Quick Win (0-2 years)

MAP 7 **EXISTING PEDESTRIAN NETWORK**

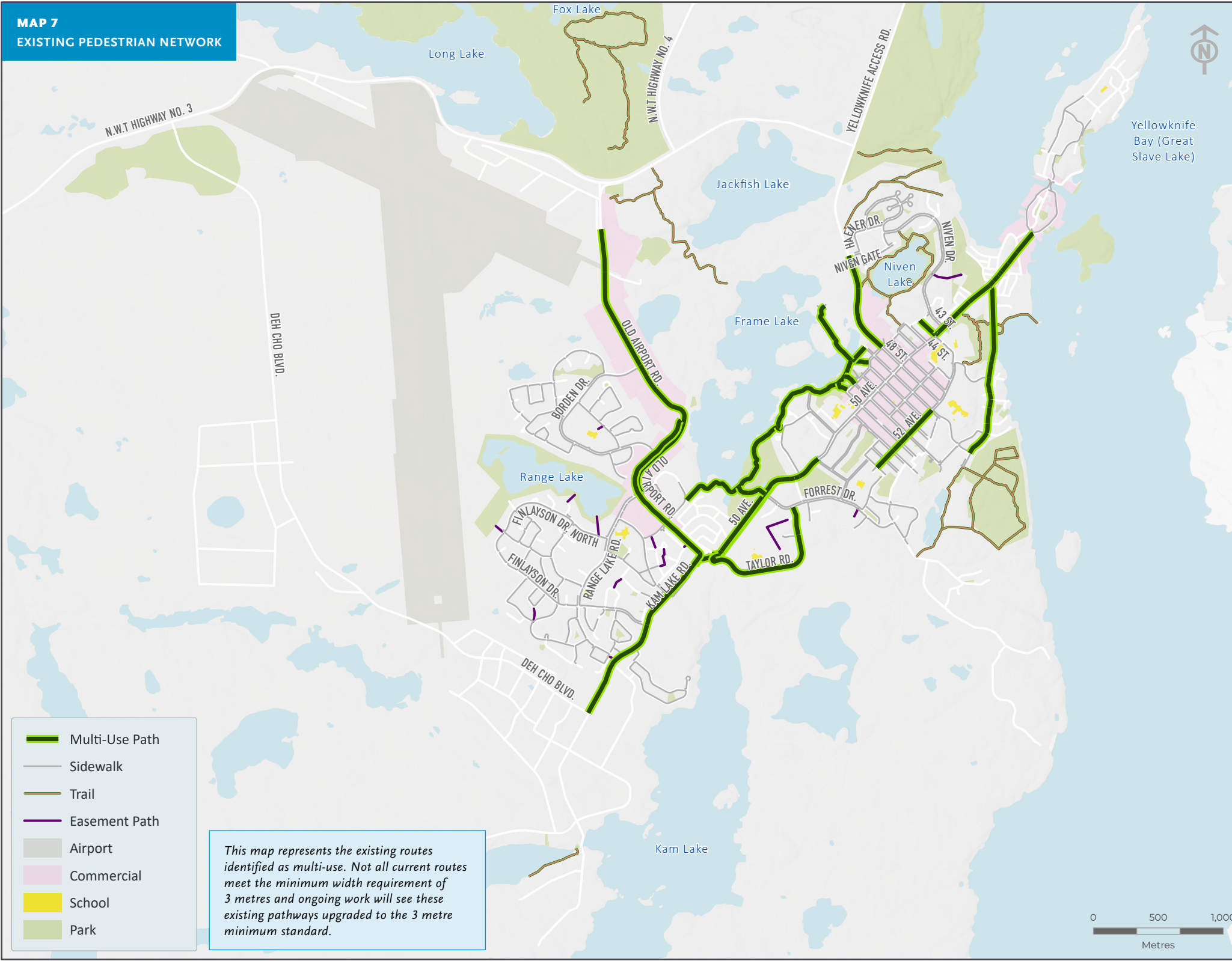


Yellowknife
Bay (Great
Slave Lake)



- Multi-Use Path
- Sidewalk
- Trail
- Easement Path
- Airport
- Commercial
- School
- Park

This map represents the existing routes identified as multi-use. Not all current routes meet the minimum width requirement of 3 metres and ongoing work will see these existing pathways upgraded to the 3 metre minimum standard.



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MAP 8
LONG-TERM PEDESTRIAN NETWORK



Yellowknife
Bay (Great
Slave Lake)

Multi-Use Pathway

-  Existing
-  Upgrade
-  New

Sidewalk

-  Existing
-  New

Trail

-  Existing

Easement Path

-  Existing

 Airport

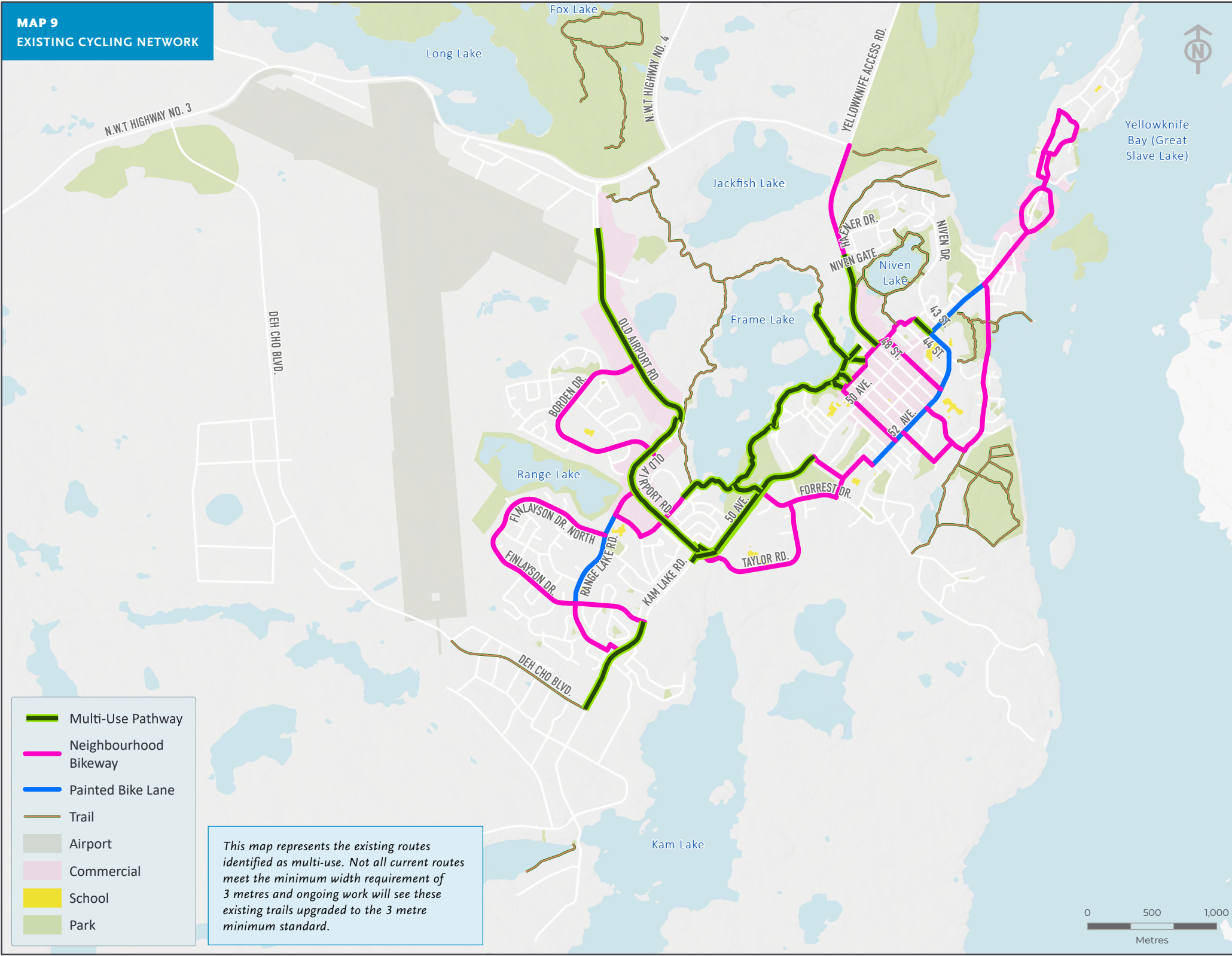
 Commercial

 School

 Park

0 500 1,000
Metres

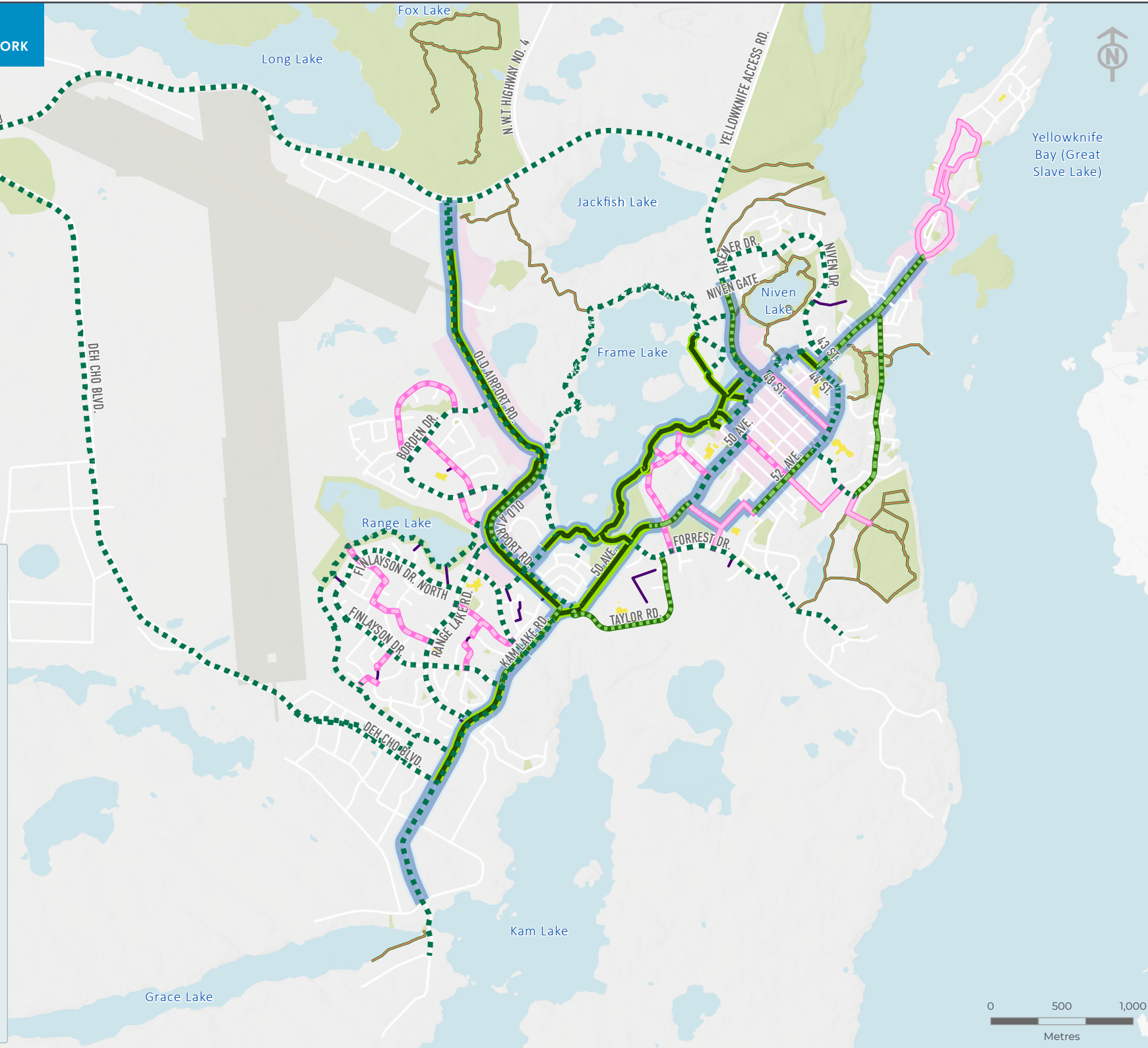
MAP 9 **EXISTING CYCLING NETWORK**



This map represents the existing routes identified as multi-use. Not all current routes meet the minimum width requirement of 3 metres and ongoing work will see these existing trails upgraded to the 3 metre minimum standard.

MAP 10 **LONG-TERM CYCLING NETWORK**

- Core Network**
- Multi-Use Pathway**
 - Existing
 - Upgrade
 - New
- Neighbourhood Bikeway**
 - Upgrade
 - New
- Trail**
 - Existing
- Easement Path**
 - Existing
- Land Use**
 - Airport
 - Commercial
 - School
 - Park





THEME 3: TRANSIT

Transit plays a vital role in providing equitable, reliable, and sustainable transportation options in Yellowknife. It is an essential service for many Yellowknifers, particularly those who do not drive, and contributes to a more inclusive and connected community.

Conventional transit service in Yellowknife is known as YK Transit. YK Transit forms the backbone of the city's conventional transit network, complemented by services such as school buses, taxis, and accessible transit. These services provide important mobility options across the city. However, to be a more competitive and attractive choice to driving, transit must be reliable, frequent, comfortable, and easy to use.

Transit by the Numbers



Transit accounts for **approximately 2%** of all daily trips, with an **additional 2%** of trips made by school bus



Transit use is highest among downtown residents, where it makes up **about 8% of all trips**, compared to **1-2%** in most other neighbourhoods



Approximately **17% of residents** use transit at least once per month, including **4%** who use transit daily



Youth and seniors are among the most frequent transit users, with **39% of youth aged 10 to 17** using transit at least monthly



Only **6% of residents aged 13 and older** have a transit pass, with higher uptake among youth and older adults, as well as among women

Source: Household Travel Survey

Top 3 Transit Issues



Transit isn't frequent enough or doesn't meet my schedule



There is limited transit service to get to destinations in Yellowknife

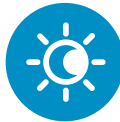


There are no barriers for me taking public transit

Top 3 Transit Opportunities



More frequent transit service



More transit service on weekends and evenings



More transit routes within Yellowknife

Source: Community Survey

STRATEGIES

This theme focuses on three strategies to make transit more reliable, comfortable, and easy to use for everyone:

STRATEGY 3.1: Improve Transit Service

STRATEGY 3.2: Enhance the Transit User Experience

STRATEGY 3.3: Improve Transit Accessibility

Together, these strategies aim to support a more responsive and user-focused transit system that meets the diverse needs of Yellowknife residents.

STRATEGY 3.1: Improve Transit Service

Ensuring that transit service is reliable and efficient is one of the most important components of making transit a competitive alternative to driving and increasing transit ridership.

The City's transit network is made up of three transit routes, including one main connector route and two neighbourhood routes that provide local services throughout Yellowknife. Most transit routes operate six days a week from Monday to Saturday between 6:30 am to 7:30 pm. Transit service is not provided on

Sundays, statutory holidays, or at night. Transit frequency is typically provided every 20 -40 minutes in the morning and afternoon peak periods, and every hour during the mid-day periods and on Saturdays.

Map 11 shows locations with proposed bus shelters, transit stops, and potential future transit route connections.

#	Actions	Timeframe
3.1A	Ensure the transit network connects with all major destinations in the City	Ongoing
3.1B	Ensure all new large-scale development areas have transit service within a five-minute walking distance	Medium-term (6-10 years)
3.1C	Improve transit service frequency during peak periods	Long-term (11+ years)
3.1D	Improve transit service during off-peak periods, including weekends, evenings, and holidays	Long-term (11+ years)
3.1E	Increase transit service levels to correspond with population increases	Long-term (11+ years)
3.1F	Work with hotels and major employers to encourage increased shuttle service to the airports and remote destinations	Long-term (11+ years)
3.1G	Reexamine the feasibility of on-demand transit and/or smaller neighbourhood-based transit vehicles at the next Transit Study	Long-term (11+ years)

STRATEGY 3.2: Enhance the Transit User Experience

To make public transit an attractive transportation option, the user experience must be safe, comfortable, and enjoyable. Improving bus stop passenger amenities is one way that the City can make transit use more enjoyable for Yellowknife residents. Amenities that make bus stops and transit exchanges more comfortable can also have a significant impact on passenger safety and satisfaction, in addition to attracting new customers.

Upgrades to transit facility amenities that Yellowknife can consider include:

- **Benches and Shelters:** Shelters provide protection weather protection, making waits significantly more pleasant. Benches allow people to rest after their walk to the transit stop and are especially important for seniors and people with physical disabilities.
- **Litter/Recycling Bins** help keep the bus stop area clean.
- **Route Information** assists with wayfinding and indicates which buses routes stop at that location.

#	Actions	Timeframe
3.2A	Continue to improve shelters and amenities at bus stops	Ongoing
3.2B	Review the transit service fare structure to encourage accessibility and increased ridership	Medium-term (6-10 years)

STRATEGY 3.3: Improve Transit Accessibility

Transit must be accessible for everyone. While all conventional transit vehicles are accessible, not everyone is able to use conventional transit. The City also operates YKFlex, an accessible door-to-accessible door custom transit service for people who are unable to use conventional transit with safety and dignity due to a temporary or permanent physical or functional disability. Through community engagement it was noted that more accessible transit service for seniors is desired.

#	Actions	Timeframe
3.3A	Provide more flexible booking options for YKFlex	Medium-term (6-10 years)
3.3B	Ensure website and mobile applications have digital accessibility features, such as screen-reader compatible apps	Medium-term (6-10 years)
3.3C	Ensure transit operators continue to provide training that supports respectful and inclusive interactions with people with disabilities, Indigenous peoples, and racialized groups	Ongoing

MAP 11
LONG-TERM TRANSIT NETWORK

Transit Routes

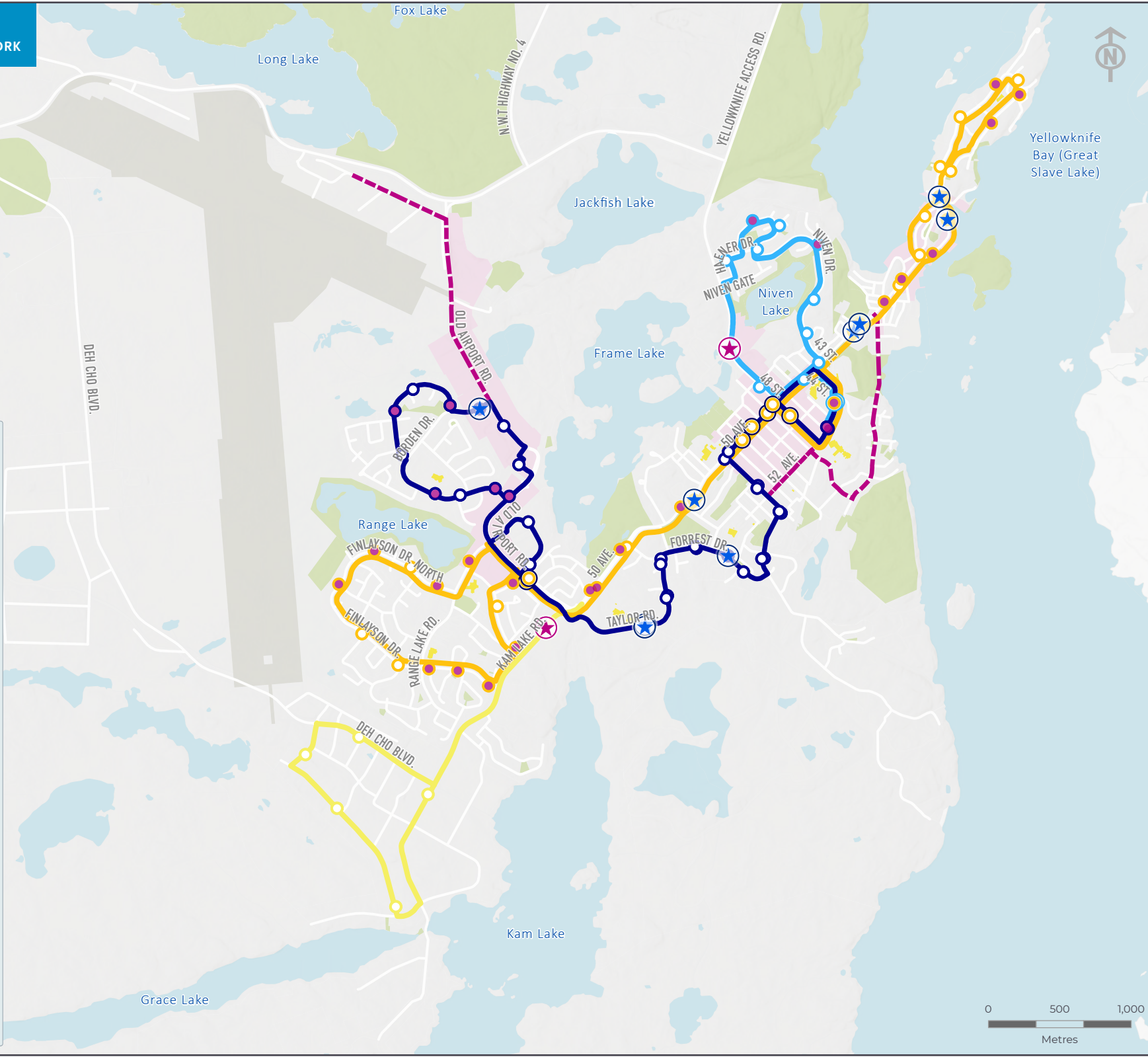
- YK Connector
- Borden / Forrest
- Niven Loop
- Kam Lake
- Potential Future Connection

Transit Stops

- Borden / Forrest
- Kam Lake
- Niven Loop
- YK Connector
- Proposed Transit Stop

Bus Shelters

- Existing
- Proposed
- Airport
- Commercial
- School
- Park





THEME 4: SUSTAINABLE COMMUTING & TECHNOLOGY

Sustainable commuting refers to managing how people travel throughout Yellowknife through Transportation Demand Management (TDM) measures as cost-effective and strategic way to manage increasing travel demands. In Yellowknife today, single-occupant vehicles account for the majority of commute trips, placing increasing pressure on the transportation network. As the city grows and employment continues to concentrate in key areas such as downtown and major corridors, managing travel demand is essential to supporting a more efficient, resilient, and sustainable transportation system.

Transportation Demand Management (TDM) is a broad term that refers to a range of infrastructure, policies, and incentives that can help reduce congestion by supporting changes to people's travel patterns and behaviours. TDM is a shared responsibility – while the City plays a critical role by providing infrastructure, employers can also play an important role with their own policies and programs.

There is no single measure that will work for all employers and employees, as all workplaces are unique with different opportunities and challenges, while people all make their own individual travel choices. TDM provides a toolkit of options that employers and employees can consider – where it makes most sense for them – such as traveling by sustainable modes, providing flexible work from home options, traveling at off-peak times, or using different routes

TDM measures typically focus on four key areas:

- **Infrastructure**, such as providing secure bicycle parking, end-of-trip facilities and workplace vehicle fleets;
- **Policies**, such as allowing remote work and providing flexible work arrangements;
- **Incentives**, such as subsidizing transit passes and hosting sustainable transportation competitions or challenges; and
- **Education**, such as education campaigns to learn more about sustainable transportation options available.

In addition to TDM measures, emerging transportation technologies also play a critical role in shaping how people travel more sustainably, such as through encouraging car sharing services.

Sustainable Commuting and Technology by the Numbers



More than half of workers (54%)

drive alone to work, reinforcing dependence on single-occupant vehicles



30% of commute trips are made by walking or cycling, highlighting strong potential for active commuting



Transit use remains limited, with only **around 3% of workers** commuting by transit, indicating opportunities for incentives and service improvements



Desire for more **expanded transportation options** such as car share, flexible travel choices, and improved multi-modal access to transportation choices

Source: Household Travel Survey, Community Survey

STRATEGIES

This theme focuses on three strategies to encourage TDM and emerging technologies to support more flexible and sustainable ways to getting around the community:

STRATEGY 4.1: Support and Expand Car Share

STRATEGY 4.2: Support Festivals and Community Events with Multi-modal Access

STRATEGY 4.3: Support Initiatives to Manage Travel Demand

Together, the strategies in this theme focus on reducing reliance on single-occupant vehicles, supporting behaviour change, and leveraging technology to create a more adaptable and efficient transportation system.

STRATEGY 4.1: Support and Expand Car Share

Car share services increase mobility options and affordability by providing access to motor vehicles without having to purchase a private vehicle. This promotes sustainable transportation choices, allowing residents to make most trips by active transportation and transit and use a car only when required. Two-way car share services need to be picked up and returned to the same spot, whereas one-way car share allows users to start and end a trip anywhere within a designated home zone.

The City sponsors YK Car Share Co-op, a community-owned electric vehicle car sharing initiative that offers personal plans for individuals and corporate plans for teams and organizations. YK Car Share is a two-way car share service where their pick-up and drop-off locations are located at City Hall and at an Outpost location at a car rental store. YK Car Share has two electric vehicles in their fleet available for hourly and daily rentals.

#	Actions	Timeframe
4.1A	Continue to support the expansion of car share opportunities throughout Yellowknife	Ongoing

STRATEGY 4.2: Support Festivals and Community Events with Multi-modal Access

Yellowknife hosts many unique northern, community, and seasonal events and festivals throughout the year, including the Yellowknife Farmers Market at Somba K'e Civic Plaza, Folk on the Rocks, NWT Pride, and the Snowking's Winter Festival. These events are an important part of community life and attract large numbers of residents and visitors and may create temporary pressure on parking, traffic circulation, and the surrounding streets. Improving multi-modal access can help reduce congestion and parking demand. Events and festivals can also present an opportunity to pilot new approaches, test temporary changes, and try alternative ways of using street space.

#	Actions	Timeframe
4.2A	Use temporary street changes during events to pilot future permanent improvements	Short-term (3-5 years)

STRATEGY 4.3: Support Initiatives to Manage Travel Demand

Transportation Demand Management (TDM) can offer meaningful benefits for employees, employers, and the broader community by making it easier to choose sustainable commuting year-round. TDM can result in several benefits, including:

- **Employee benefits** can include improved physical and mental health, reduced costs, and a reduced carbon footprint.
- **Employer benefits** can include reduced overhead costs by reducing the demand for employee parking and decreasing costs for operating parking lots, improve employee recruitment and retention, and enhanced public image.
- **Community benefits** can include reduced municipal investment in infrastructure, lower risk of collisions, and opportunities to reallocate space for people, gathering places, and events, contributing to a more livable city.

Embedding TDM into City policies, development processes, and day to day operations helps ensure that growth and travel demand are managed in a way that supports the Transportation Plan. Integrating TDM into how new developments are planned and approved and through encouraging travel behaviour change through large employers, institutions, and major developments can help reduce vehicle travel and support more sustainable transportation choices.

#	Actions	Timeframe
4.3A	Integrate TDM requirements into development projects	Ongoing
4.3B	Encourage TDM plans for large employers, institutions, and major developments	Short-term (3-5 years); Ongoing
4.3C	Support Active Commute Challenges	Ongoing



THEME 5: CULTURE

Creating a transportation system that works for everyone requires more than physical infrastructure. It also depends on fostering a culture that supports safe, inclusive, and respectful use of all modes. A strong transportation culture helps build awareness, confidence, and long-term support for how people move through the city, ensuring that investments in infrastructure are effective and widely used.

Culture and Safety by the Numbers



Approximately two-thirds of children aged 5 to 9 **(64%)** are driven to school

For ages 10-14, travel becomes more varied: **41%** driven, **22%** school bus, and **24%** walking, showing a transition into independence



Unsafe driving behaviours were identified as the top concern among residents



Improving road safety was ranked as the top priority for the Transportation Plan



Education and encouragement were identified as key needs across all modes, particularly to support safe interactions and awareness



Residents expressed a need for ongoing **education for all road users**, including understanding the rules of the road and how to safely navigate new and existing infrastructure



There is strong support for **safe routes to school**, as well as children and youth programming to build confidence, skills, and a culture of active transportation

Source: Household Travel Survey, Community Survey



STRATEGIES

This theme emphasizes the importance of “soft” measures, such as education, encouragement, and community-led initiatives, that complement infrastructure improvements through two strategies:

STRATEGY 5.1: Build a Foundation for Transportation in Early Years

STRATEGY 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility

These efforts help people understand their travel options, develop practical skills, and feel confident navigating the transportation system. They also reinforce shared responsibility among all users, supporting safer interactions across modes.

STRATEGY 5.1: Build a Foundation for Transportation in Early Years

Early experiences play a critical role in shaping how people move through their communities as they age. Building a strong foundation for transportation in the early years helps children and youth develop the skills, confidence, and independence needed to navigate their neighbourhoods safely and comfortably by walking, cycling, rolling, and using other forms of active transportation.

Findings from the Household Travel Survey highlight the importance of focusing on younger age groups. For example, cycling mode share is highest among children and youth aged 5-9 and 10-14, and the use of sustainable transportation modes (walking, cycling or micromobility, school bus, and transit) is also highest among youth aged 10-14. These patterns suggest that children and youth are already more likely to use active and sustainable modes, presenting an important opportunity to both support existing users and encourage greater participation. Investments that improve the safety, comfort, and connectivity of walking and cycling networks

can help ensure that children and youth can travel safely, encourage more students and families to choose active modes, and reinforce travel behaviours that may be carried into adulthood. Maintaining and growing active transportation use among younger age groups can contribute to long-term shifts toward more sustainable travel patterns across the community.

There are limited formal, coordinated school-based or community-based transportation education and awareness initiatives in Yellowknife. This presents an opportunity for the City to work with schools, families, and community partners to support early learning and skill-building that encourages safe, active, and independent travel from a young age. By introducing transportation skills early, children and youth are better equipped to make safe and healthy transportation choices as they grow.

#	Actions	Timeframe
5.1A	Support Safe and Active Travel for Children and Youth	Short-term (3-5 years)

STRATEGY 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility

Building a culture of transportation safety and shared responsibility helps ensure that all users feel confident, respected, and supported, regardless of how they travel. In Yellowknife, people move around the city in many different ways and often share spaces across modes and seasons.

Through embedding safety, education, and collaboration in everyday decision making and community life can create that foundation of transportation safety, respect, and shared responsibility. When various groups come together to shape transportation outcomes, lasting change and culture shift can be achieved. By elevating community voices, supporting education and awareness, and encouraging shared ownership of transportation initiatives, the City can foster safer behaviours and more respectful interactions across the transportation system.

#	Actions	Timeframe
5.2A	Develop partnerships with schools, community organizations, non-profit organizations, and cultural groups to co-deliver transportation education and awareness initiatives	Short-term (3-5 years)



5.0 IMPLEMENTATION PLAN

The Implementation Plan provides guidance on prioritizing strategies and actions, identifying key infrastructure projects and cost considerations, and outlining approaches to resourcing and funding. It also establishes a framework for monitoring progress, measuring success, and adapting implementation over time. this section provides a flexible roadmap that enables the City and our partners to respond to evolving needs, funding opportunities, and community priorities.



5.1 GUIDING PRINCIPLES

The implementation plan was developed on the following guiding principles:

A Step Towards a Long-term Vision

The Transportation Plan represents an important step toward achieving Yellowknife's long-term vision. While it establishes clear priorities and actions, it is not the final step. Implementation will occur over time as the City evolves, with future plans and initiatives building on this foundation.

A Flexible and Adaptive Living Document

There is some level of flexibility regarding the corridors and specific locations identified for the transportation network. Recommendations are based on the engagement process and technical analysis, but staff will need to continue to assess feasibility, respond to emerging needs, and engage meaningfully with the public as projects are refined and advanced. The Policies and Guidelines in **Appendix B** are also subject to change and may evolve over time.

Ongoing Monitoring and Updates

We will track progress on implementation and monitor performance to understand what is working and where adjustments are needed. Regular review and updates will ensure the plan continues to reflect community priorities, supports evidence-based decision-making, and responds to new opportunities and challenges.

Strategic and Sustainable Investment

Implementation will require thoughtful and strategic use of City resources, including both financial and human capital. Investments will be prioritized to maximize impact while considering long-term costs related to operations, maintenance, and programming. Ensuring that infrastructure and initiatives can be sustainably maintained over time will be a key consideration in decision-making.

Partner and Relationship-driven Implementation

Collaboration will be essential to delivering the plan. The City will work closely with internal departments, the Government of the Northwest Territories, Indigenous governments and organizations, community groups, and private sector partners. Building and maintaining strong relationships will support coordinated action and help advance shared goals established in the Transportation Plan.

Continued Community Engagement

Ongoing engagement with residents, businesses, and stakeholders will be critical to successful implementation. Local knowledge and lived experience of Yellowknifers will help refine actions, inform priorities, and ensure that investments reflect community needs and values.

Aligning Priorities with Financial Planning

Implementation will be grounded in realistic and aligned financial planning. Short-term priorities will be integrated into our 5-year Financial Plan, while longer-term actions will inform future capital planning and investment strategies. We will also pursue external funding opportunities to support implementation and maximize available resources.

5.2 PRIORITIZING STRATEGIES AND ACTIONS

An approach for implementing the actions for the Transportation Plan is outlined in **Tables 1 to 5**. These tables provide guidance with respect to:

Status

- **Continue:** Actions already being conducted by the City or by external partners which the City can continue to support.
- **Enhance:** Actions that build on existing initiatives but require expansion or refinement.
- **New:** Actions that are not currently been implemented by the City or its partners.

Timeframe

- **Quick Win:** Within 0-2 years
- **Short-term:** Within 3-5 years
- **Medium-term:** Within 6-10 years
- **Long-term:** 11+ years

Method of Implementation

This column identifies how each action will be implemented: as a capital project, through ongoing operations and maintenance, or as a policy or programming initiative.

Responsibility

This column suggests the lead and supporting City departments and agencies for each action. Many actions are the primary responsibility of the City of Yellowknife (including Public Works and Engineering, Planning and Development; Finance; Protective Services; Community Services; Economic Opportunities, Investments, and Partnerships), while other actions should be led by external agencies, such as the GNWT, community groups, or the private sector.

Actions identified as “Quick Win” and “Short-term” are supported by detailed next steps outlined in **Appendix C** in an Action Delivery Framework that the City and our partners can take to move actions forward. These actions were identified in collaboration with City staff as those likely to deliver the greatest impact while remaining feasible to implement within the next three years.

TABLE 1: ACTION SUMMARY – STREETS

 THEME 1: STREETS	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 1.1: Adopt an Updated Multi-Modal Street Network Classification and Standards														
Action 1.1A: Adopt a multi-modal street network classification and incorporate this classification in the Development & Design Standards			✓							✓	Public Works and Engineering	Planning and Development		✓
Action 1.1B: Develop updated multi-modal street cross-sections based on the street network classification in the Development & Design Standards		✓								✓	Public Works and Engineering	Planning and Development		✓
Strategy 1.2: Street Network Improvements														
Action 1.2A: Implement upgrades to major streets	✓							✓			Public Works and Engineering		✓	
Action 1.2B: Implement new street network connections			✓					✓			Public Works and Engineering		✓	
Action 1.2C: Implement traffic light management objectives and policy			✓							✓	Public Works and Engineering			✓
Action 1.2D: Minimize access points from arterial roads on new developments		✓								✓	Planning and Development	Public Works and Engineering		✓
Action 1.2E: Work with property owners to consolidate driveways and access points where possible		✓								✓	Planning and Development	Public Works and Engineering		✓
Strategy 1.3: Improve the Safety and Accessibility at Intersections and Crossings														
Action 1.3A: Inventory and evaluate intersections and crossings to align with Transportation Association of Canada best practices			✓							✓	Public Works and Engineering			✓
Action 1.3B: Develop and adopt a crosswalk policy			✓							✓	Public Works and Engineering			✓
Action 1.3C: Implement new traffic signals	✓							✓			Public Works and Engineering		✓	
Action 1.3D: Install modern Accessible Pedestrian Signals at all existing and new traffic signals		✓						✓			Public Works and Engineering		✓	
Action 1.3E: Implement Leading Pedestrian Intervals at signalized intersections downtown			✓						✓		Public Works and Engineering			✓
Action 1.3F: Implement No Right Turn on Red restrictions with demonstrated safety issues		✓							✓		Public Works and Engineering			✓
Action 1.3G: Implement left turn protections at signalized intersections where space constraints allow		✓							✓		Public Works and Engineering			✓
Action 1.3H: Review and update pedestrian crossing times to accommodate pedestrian crossing times, particularly in areas with a high concentration of vulnerable road users		✓							✓		Public Works and Engineering			✓
Action 1.3I: Implement safety and operational improvements at intersections		✓						✓	✓		Public Works and Engineering		✓	
Action 1.3J: Implement new crossing locations to improve pedestrian safety		✓	✓					✓			Public Works and Engineering		✓	
Action 1.3K: Improve safety at existing crosswalks with treatments such as curb extensions, reduced curb radii, raised crosswalks, Leading Pedestrian Intervals, improved lighting, and/or enhanced crossing treatments such as Rectangular Rapid Flashing Beacons (RRFBs) as defined by a warrant analysis		✓						✓			Public Works and Engineering		✓	

 THEME 1: STREETS	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 1.4: Design for Safe Speeds														
Action 1.4A: Adopt and implement updated speed limits based on the street network classification			✓							✓	Public Works and Engineering			✓
Action 1.4B: Develop and implement a Traffic Calming Program			✓					✓		✓	Public Works and Engineering		✓	✓
Strategy 1.5: Maintain Roadways in a State of Good Repair														
Action 1.5A: Develop and implement a multi-year pavement rehabilitation plan		✓							✓	✓	Finance	Public Works and Engineering	✓	✓
Action 1.5B: Align asset management practices and investment priorities with updated street classifications		✓								✓	Finance	Public Works and Engineering		✓
Action 1.5C: Adopt an ownership and management framework for transportation assets			✓						✓		Public Works and Engineering, Community Services			✓
Action 1.5D: Implement multi-modal improvements with all road upgrades and pavement rehabilitations		✓						✓			Public Works and Engineering		✓	
Strategy 1.6: Plan for Emergencies and Resilience														
Action 1.6A: Review available width of all roadway, including on-street parking, to ensure sufficient width for emergency services			✓						✓		Public Works and Engineering	Protective Services		✓
Action 1.6B: Utilize FireSmart principles strategically to expand the off-street active transportation network			✓					✓			Public Works and Engineering	Protective Services	✓	
Action 1.6C: Provide alternate routes and redundant street networks to provide travel choices in emergencies		✓						✓			Planning and Development, Protective Services, Public Works and Engineering			
Action 1.6D: Discourage new subdivisions that do not have multiple access and egress points		✓								✓	Planning and Development			✓
Strategy 1.7: Move Goods and Hazardous Materials Efficiently														
Action 1.7A: Adopt a Truck Route Bylaw			✓							✓	Public Works and Engineering			✓
Action 1.7B: Develop a Hazardous Materials Network			✓							✓	Public Works and Engineering, Protective Services			✓
Strategy 1.8: Coordinate Highway Improvements with the GNWT														
Action 1.8A: Work with the GNWT to identify issues and opportunities to improve regional mobility	✓									✓	GNWT	Public Works and Engineering		✓

TABLE 2: ACTION SUMMARY – ACTIVE TRANSPORTATION

THEME 2: ACTIVE TRANSPORTATION	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 2.1: Complete the Sidewalk Network														
Action 2.1A: Complete new sidewalks such that there is a sidewalk on at least one side of all existing local streets and on both sides of all arterial and collector streets		✓						✓			Public Works and Engineering		✓	
Action 2.1B: Strategically upgrade and widen existing sidewalks in areas of high pedestrian demand		✓						✓			Public Works and Engineering		✓	
Action 2.1C: When new development occurs and creates a gap in the pedestrian and cycling network, ensure a temporary connection or transition to the roadway is provided			✓						✓		Public Works and Engineering			✓
Strategy 2.2: Develop a Cycling Network for People of All Ages and Abilities														
Action 2.2A: Develop a complete and connected cycling network that is comfortable for people of all ages and abilities			✓					✓			Public Works and Engineering		✓	
Strategy 2.3: Enhance Trails and Pathways														
Action 2.3A: Establish a Trail and Pathway Classification and Maintenance Framework			✓							✓	Community Services	Public Works and Engineering		✓
Action 2.3B: Upgrade unpaved trails to paved multi-use pathways where they are part of the active transportation network		✓						✓			Public Works and Engineering		✓	
Action 2.3C: Provide wayfinding on trails and pathways	✓							✓			Community Services	Public Works and Engineering	✓	
Action 2.3D: Convert and formalize wide sidewalks and shoulders to multi-use pathways		✓						✓			Public Works and Engineering		✓	
Action 2.3E: Ensure trails and pathways have adequate lighting that meet the trail and pathway classification	✓							✓			Community Services		✓	
Action 2.3F: Utilize cut-throughs for active transportation	✓							✓			Public Works and Engineering	Planning and Development, Community Services	✓	

 THEME 2: ACTIVE TRANSPORTATION	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 2.4: Maintain Multi-use Pathways Year-round														
Action 2.4A: Develop an Active Transportation Maintenance Priority Network			✓							✓	Public Works and Engineering	Community Services		✓
Action 2.4B: Formalize a Snow and Winter Road Maintenance Policy to outline winter snow maintenance procedures for active transportation			✓							✓	Public Works and Engineering	Community Services		✓
Action 2.4C: Inspect active transportation facilities year-round to ensure they are well-maintained		✓							✓		Public Works and Engineering	Community Services		✓
Strategy 2.5: Encourage Micromobility and Other Forms of Active Transportation														
Action 2.5A: Update regulations and bylaws to integrate micromobility users on trails and roadways			✓							✓	Community Services	Public Works and Engineering		✓
Action 2.5B: Develop policy and guidelines to regulate motorized users on off-street pathways			✓							✓	Community Services	Public Works and Engineering		✓
Action 2.5C: Support community initiatives to provide winter-based active transportation, such as cross-country skiing			✓							✓	Community Services, Public Works and Engineering	Economic Opportunities, Investments and Partnerships		✓
Strategy 2.6: Provide Bicycle Parking														
Action 2.6A: Review and update requirements for short-term and long-term bicycle parking		✓								✓	Planning and Development	Public Works and Engineering		✓
Action 2.6B: Upgrade existing short-term bicycle parking to high-quality, winter-friendly racks, and expand bike parking at civic facilities and priority cycling destinations			✓					✓			Community Services	Public Works and Engineering	✓	✓
Action 2.6C: Implement bicycle parking within the public right-of-way in the downtown, Old Town and other key destinations.		✓						✓			Community Services	Public Works and Engineering	✓	✓

TABLE 3: ACTIONS SUMMARY – TRANSIT

THEME 3: TRANSIT	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 3.1: Improve Transit Service														
Action 3.1A: Ensure the transit network connects with all major destinations in the City		✓								✓	Public Works and Engineering	Planning and Development		✓
Action 3.1B: Ensure all new large-scale development areas have transit service within a five-minute walking distance			✓							✓	Planning and Development	Public Works and Engineering		✓
Action 3.1C: Improve transit service frequency during peak periods		✓							✓		Public Works and Engineering			✓
Action 3.1D: Improve transit service during off-peak periods, including weekends, evenings, and holidays		✓							✓		Public Works and Engineering			✓
Action 3.1E: Increase transit service levels to correspond with population increases		✓							✓		Public Works and Engineering. Planning and Development	Finance		✓
Action 3.1F: Work with hotels and major employers to encourage increased shuttle service to the airports and remote destinations	✓								✓			Economic Opportunities, Investments and Partnerships		✓
Action 3.1G: Reexamine the feasibility of on-demand transit and/or smaller neighbourhood-based transit vehicles at the next Transit Study			✓							✓	Public Works and Engineering			✓
Strategy 3.2: Enhance the Transit User Experience														
Action 3.2A: Continue to improve shelters at bus stops		✓						✓			Public Works and Engineering		✓	
Action 3.2B: Review the transit service fare structure to encourage accessibility and increased ridership	✓									✓	Public Works and Engineering	Finance		✓
Strategy 3.3: Improve Transit Accessibility														
Action 3.3A: Provide more flexible booking options for YKFlex		✓							✓		YK Transit Operator	Public Works and Engineering		✓
Action 3.3B: Ensure website and mobile applications have digital accessibility features, such as screen-reader compatible apps		✓							✓		YK Transit Operator	Public Works and Engineering		✓
Action 3.3C: Ensure transit operators continue to provide training that supports respectful and inclusive interactions with people with disabilities, Indigenous peoples, and racialized groups		✓								✓	YK Transit Operator	Public Works and Engineering		✓

TABLE 4: ACTION SUMMARY – SUSTAINABLE COMMUTING & TECHNOLOGY

 THEME 4: SUSTAINABLE COMMUTING & TECHNOLOGY	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 4.1: Support and Expand Car Share														
Action 4.1.A: Continue to support the expansion of car share opportunities throughout Yellowknife	✓									✓	Planning and Development, Corporate Services			✓
Strategy 4.2: Support Festivals and Community Events with Multi-modal Access														
Action 4.2A: Use temporary street changes during events to pilot future permanent improvements			✓					✓		✓	Public Works and Engineering		✓	✓
Strategy 4.3: Support Initiatives to Manage Travel Demand														
Action 4.3A: Integrate TDM requirements into development projects		✓								✓	Planning and Development			✓
Action 4.3B: Encourage TDM plans for large employers, institutions, and major developments			✓							✓	Planning and Development, Economic Opportunities, Investments and Partnerships			✓
Action 4.3C: Support Active Commute Challenges			✓							✓	Economic Opportunities, Investments and Partnerships			✓

TABLE 5: ACTION SUMMARY – CULTURE

 THEME 5: CULTURE	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 5.1: Build a Foundation for Transportation in Early Years														
Action 5.1A: Support Safe and Active Travel for Children and Youth			✓					✓		✓	Public Works and Engineering		✓	✓
Strategy 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility														
Action 5.2A: Develop partnerships with schools, community organizations, non-profit organizations, and cultural groups to co-deliver transportation education and awareness initiatives			✓							✓	School Districts, Community Organizations, Non-profits	Economic Opportunities, Investments and Partnerships		✓

5.3 INFRASTRUCTURE PROJECTS

The Transportation Plan identifies an expanded pedestrian network, an expanded cycling network, transit improvements, and improvements for intersections and crossings to advance the City's long-term transportation vision. While these recommendations establish the long-term direction for the transportation network, implementation will occur incrementally through a series of infrastructure projects throughout the community. Some projects are being advanced as short-term priorities in parallel with the development of this plan, while others have been identified as future corridor improvements that will require a phased approach to fully implement.

Currently, three projects are being advanced and are anticipated to be implemented in the short-term, including:

- Frame Lake Trail Extension (Stanton Territorial Hospital to Underpass)
- 52 Street Multi-use Pathways (52 Street to 54 Avenue)
- 52 Street Sidewalk Widening (50 Avenue to 51 Avenue)
- Mandeville Drive Sidewalk Widening
- Taylor Road Transit Stop Improvements (bus shelter at the bus pull-outs)
- Traffic Signal Modernization Program

In addition, a few corridors were identified as priority gap projects to address existing multi-modal improvements and gaps in the transportation network. For these locations, an interim concept is proposed to provide short-term improvements that can be delivered more quickly and cost-effectively while preserving the ability to implement a more comprehensive ultimate concept in the long-term. Interim improvements would use low-cost and temporary materials such as pavement markings and signage.

As funds become available in the future, these routes will be improved further with permanent and more substantial infrastructure. This phased approach enables the City to make meaningful progress toward our transportation objectives while aligning major capital investments with future funding opportunities, roadway renewal cycles, and long-term growth.

The corridors identified for this phased implementation approach include:

- Byrne Road (Woolgar Avenue to Frame Lake Trail)
- Range Lake Road (Old Airport Road to Woolgar Avenue and Finlayson Drive South to Bourque Drive)
- Woolgar Avenue (Range Lake Road to Kam Lake Road)

Project sheets for each of these corridors are provided in **Appendix D**. The project sheets summarize existing conditions, key issues and opportunities, the rationale for improvement, and recommended interim and ultimate concepts. These concepts are intended to serve as a planning-level foundation to support future feasibility assessments, detailed design, funding applications, and implementation planning. They are not intended to represent final designs but rather provide strategic direction for how the City can progressively address network gaps and improve transportation connections over time. These project sheets were developed to balance current design guidance best practices and existing City budgets, desires, and snow clearing operations. For all cycling facilities apart from neighbourhood bikeways, physical separation between cyclists and motor vehicles is desired to provide an all ages and abilities facility.

Costs

The Transportation Plan includes order-of-magnitude capital cost estimates to support implementation of the transportation network. These estimates were developed using costing information from construction projects in Yellowknife and are summarized in **Table 6**.

TABLE 6: FACILITY UNIT COSTS

Facility Type	Capital Unit Costs
Pedestrian	Cost per Metre
Sidewalk (new curb required)	\$2,150
Cycling	Cost per Metre
Neighbourhood Bikeway (includes signage and traffic calming)	\$400
Multi-use Path	Cost per Metre
Multi-use Path – Permanent (new curb required)	\$1,600
Multi-use Path – Permanent (remove existing sidewalk, lighting upgrades, intersection improvements, and utility relocation)	\$4,070
Intersections and Crossings	Lump Sum
Traffic Signal	\$350,000
Special Crosswalk Signal	\$150,000
Pedestrian Crossing Modification (RRFB)	\$50,000
Pedestrian Crossing Pavement Markings	\$10,000
Curb Extensions	\$35,000
Signal Timing Improvements	\$7,000
Transit Shelter	\$60,000

The estimates are intended to illustrate relative costs for planning purposes and should not be used for detailed budgeting.

Additional costs not captured in these estimates may be significant and can include items such as detailed project design, retaining walls, and utility pole removal or relocation, as well as other site-specific requirements.

Unit rates provided above represent the cost to implement infrastructure in isolation; however, active transportation facilities are often constructed in conjunction with other infrastructure construction projects such as road repaving, utility upgrades, or adjacent development. Coordinating construction activities as noted above is recommended to reduce the total cost compared to implementing each in isolation.

5.4 RESOURCING AND FUNDING THE PLAN

Implementing the Transportation Plan will require significant investment and resources. This includes staff resources, operations and maintenance, and seeking funding strategies to implement and maintain transportation in Yellowknife.

Staff Resources

Additional staff resources will be needed to implement the strategies and actions identified in the Transportation Plan. An additional staff position, such as a Transportation Planner, will facilitate coordinated planning and design support and/or hiring of consultants. This will support a coordinated implementation of Let's Move YK.

Operations and Maintenance

Building a transportation system that is safe, comfortable, and accessible for everyone requires sustained investment in operations and maintenance. While the Transportation Plan includes new and upgraded infrastructure, the long-term success of the transportation network depends on how well it is maintained and operated year-round.

The City currently undertakes a range of core maintenance activities to support the existing transportation network, including roadway rehabilitation, repaving, and seasonal maintenance. Winter maintenance is a critical component of this work, with efforts focused on sanding for traction at intersections and hills, daily plowing and grading of snow-covered surfaces, and scheduled snow removal to manage accumulation.

As the City expands and enhances our active transportation network, additional operating and maintenance resources will be required to ensure these facilities remain usable and safe in all seasons.

This includes ongoing investment in:

- Snow clearing and de-icing for active transportation facilities
- Vegetation management to maintain clear sightlines and access
- Wayfinding and regulatory signage maintenance
- Lighting and surface upkeep for safety and usability
- Enforcement support from Bylaw Services and the RCMP

Expanding the network will also require investment in equipment and operational capacity. The City currently operates three street sweepers for seasonal roadway and sidewalk maintenance. In spring, two sweepers are deployed to remove winter sand, after which operations transition to a reduced configuration, with one unit serving residential areas and another operating in the downtown core during off-peak hours. Similarly, winter maintenance relies on a combination of sanding, plowing, grading, and snow removal activities.

The City may also continue to rely on contractors to support seasonal maintenance needs, particularly for winter operations, where contractors already play a role. As part of future maintenance contracts, the City could explore enhanced approaches to strengthen accountability for maintaining safe and accessible conditions across all modes. This may include adopting performance-based contracting models, where compensation is tied to outcomes such as infrastructure usability and level of service, rather than relying solely on technical service standards. Approaches could also incorporate user feedback or satisfaction such as bonus incentives or evaluation criteria linked to community experience. These approaches could help better align maintenance outcomes with user experience and goals of the Transportation Plan.

Ongoing collaboration with operations and maintenance staff will be essential to understand equipment, staffing, and training needs associated with expanding the network. This includes identifying opportunities to optimize existing resources, as well as planning for future investments.

Funding Strategies

To maximize value and ensure successful implementation, the Transportation Plan identifies a range of potential funding strategies and sources that the City may pursue to support implementation.

Given that funding programs and opportunities evolve over time, the information in this section should be reviewed and updated regularly. We will actively monitor funding opportunities across all levels of government and pursue external funding wherever possible to supplement local investment.

Local

Capital Planning

We will incorporate Transportation Plan recommendations into our short-, medium-, and long-term budgeting processes. Incorporating these recommendations into the capital planning framework will help ensure that transportation improvements are delivered in a coordinated and cost-effective manner.

To support this, we will consider adjustments to our capital budget to accommodate medium- and long-term priorities. Wherever possible, transportation improvements should be aligned with other capital projects such as road rehabilitation and utility upgrades to achieve efficiencies, reduce costs, and minimize disruption.

We will also explore ways to reinvest by reallocating portions of parking revenue towards the transportation and road safety improvements identified in the Transportation Plan. This could be achieved by creating a dedicated fund to support walking, cycling, transit, and public realm improvements to advance the Transportation Plan.

While external funding can support implementation, it is not always predictable or sufficient on its own. Establishing stable and consistent local funding sources will be important to enable long-term planning, support staff capacity, and ensure that projects can be delivered as scheduled.

Development Contributions

We will work to leverage transportation investments during the planning of new development projects. Some ways transportation investments can be leveraged through development activity includes:

- Frontage improvements delivered as part of development projects
- Transportation capacity and safety improvements identified through Transportation Impact Assessments (TIAs)
- Voluntary public realm improvements provided by developers
- Density bonusing and other amenity contribution mechanisms
- Cash-in-lieu of parking
- Provision of high-quality bicycle parking and end-of-trip facilities

These approaches can help integrate transportation improvements into growth areas and ensure new development contributes to a connected and accessible network.

Partnerships and Community Contributions

Community organizations, service clubs, and the private sector can also play an important role in supporting the implementation of the Transportation Plan. Programs such as bicycle parking initiatives (e.g., “adopt-a-rack”), trail maintenance and clean-up, cycling education, and community events can be led or supported by local groups.

Partnerships with organizations and businesses can also support sponsorship opportunities for infrastructure such as multi-use trails, wayfinding, and amenities. In many communities, service clubs have contributed funding and volunteer support for active transportation projects, and similar opportunities may exist in Yellowknife.

Territorial

Community Access Program

The GNWT Community Access Program (CAP) provides grant funding to support the construction and maintenance of access roads, trails, docks, and wharfs. In 2026, the program had an annual budget of \$1.5 million. The CAP accepts proposals twice annually, with a spring intake for summer projects and a fall intake for winter projects. Funding is awarded competitively based on how well proposals demonstrate: improved community transportation access, direct economic benefits, local employment and skills development, indirect community benefits, financial or in-kind contributions from partners, capacity to deliver and maintain the project, level of community support, and available program budget.

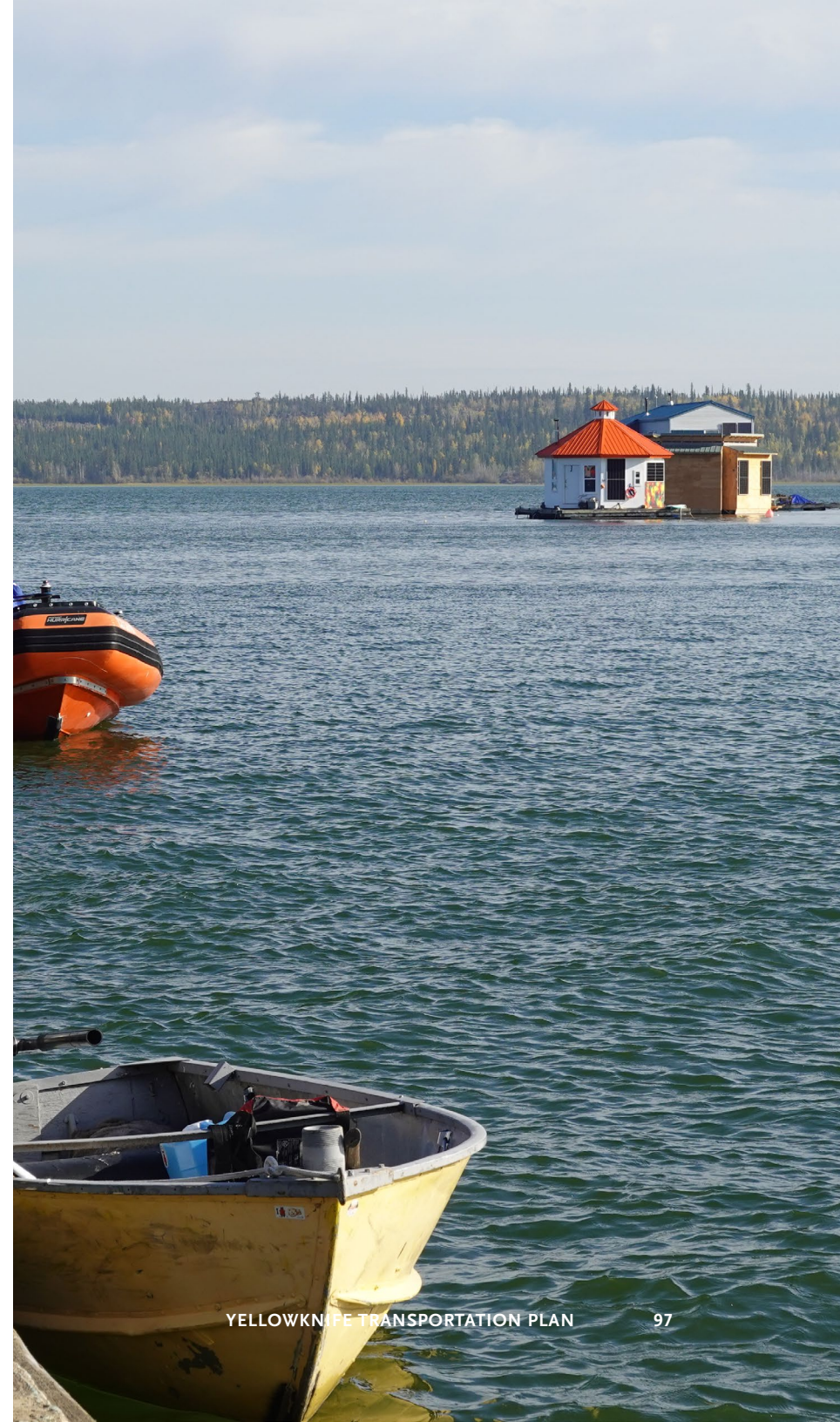
Federal

Green Municipal Funds

Green Municipal Funds are managed by the Federation of Canadian Municipalities, with a total allocation of \$550 million. This fund is intended to support municipal government efforts to reduce pollution, reduce greenhouse gas emissions and improve quality of life. The expectation is that knowledge and experience gained in best practices and innovative environmental projects will be applied to national infrastructure projects.

First Nation Infrastructure Fund Program

Indigenous Services Canada has a **First Nation Infrastructure Fund** program that supports the delivery of on-reserve infrastructure. Proposals for off-reserve projects may be considered if the primary beneficiary is a participating Indigenous community. Eligible infrastructure projects include capital or infrastructure planning, comprehensive community planning, and projects that construct, restore or improve public roads and bridges to improve safety and support tourism, commerce, and the social and economic development of local areas.



5.5 MONITORING AND MEASURING SUCCESS

To measure the success of the Transportation plan, it is essential to monitor how well we are working towards implementing the plan. Monitoring supports informed decision-making, enables the efficient allocation of financial and staff resources, and helps identify where adjustments may be needed to respond to changing conditions or priorities.

A successful monitoring framework is:

- **Manageable.** Monitoring considers resource constraints and prioritizes efforts based on the most critical areas using available information.
- **Measurable.** Monitoring involves clear, measurable criteria based on accessible data.
- **Meaningful.** Monitoring will provide meaningful results and point to success in achieving the goals of the Transportation Plan.

Data Collection and Management

Effective monitoring relies on consistent and reliable data collection. We will build on existing data sources where possible and identify opportunities to strengthen data collection and management practices over time.

Maintaining an up-to-date inventory of transportation assets will be critical to supporting both implementation and monitoring. This includes tracking the location, extent, condition, age, and key characteristics of infrastructure such as roadways, sidewalks, pathways, crossings, and traffic control devices as they are updated, expanded, or newly constructed. Keeping current and accurate records will ensure that we have a clear understanding of the condition, location, and extent of our transportation network over time. This information supports more effective monitoring of implementation progress, helps identify gaps or maintenance needs, and enables informed decision-making related to lifecycle planning, rehabilitation, and future investments.

We will also leverage technologies to enhance data collection, such as automated counters, temporary count programs, and emerging monitoring tools. These approaches can provide valuable insights into travel patterns across modes and help track changes in network use over time. Strengthening data collection will also help demonstrate the value and impact of transportation investments, providing evidence to support funding requests, prioritize future improvements, and communicate progress to Council and the community.

Ongoing coordination across departments will also be important to ensure data is collected, stored, and used in a consistent and efficient manner. Over time, enhanced data collection and management practices will support more informed decision-making and help us track progress toward achieving the goals of the Transportation Plan.

Indicators

Metrics or measures help quantify, indicate or assess the status of strategies, actions, and infrastructure. Where possible, goals outlined in the Transportation Plan were designed to be specific, measurable, achievable, relevant, and time-bound.

The development of key performance indicators is guided by the following principles:

- **Simplicity:** Data should be readily available and easy to understand
- **Relevance:** Indicators should meaningfully reflect progress toward desired outcomes
- **Reliability:** Data should be collected consistently over time to support accurate trend analysis

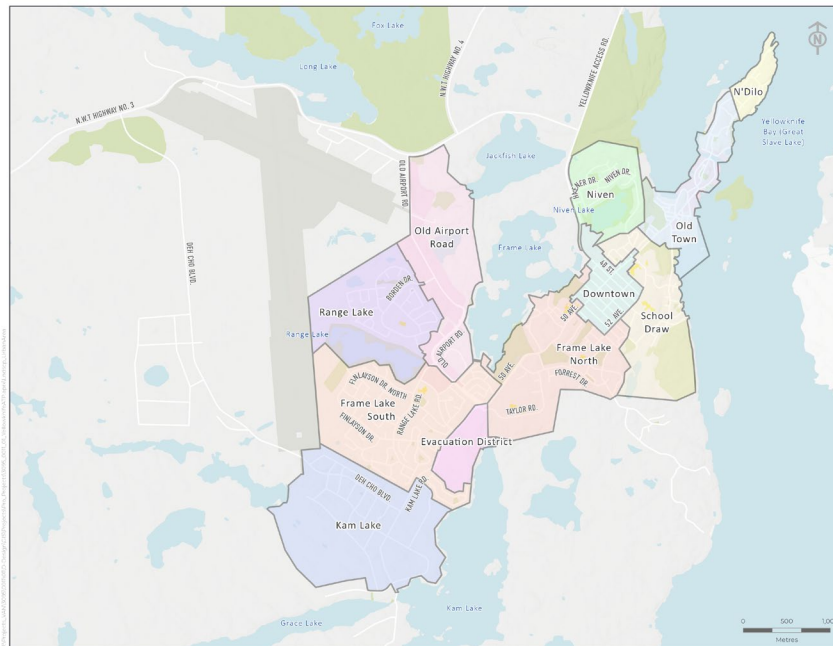
Table 7 identifies key performance indicators associated with each goal, ensuring that implementation is both measurable and actionable.

TABLE 7 TRANSPORTATION PLAN KEY PERFORMANCE INDICATORS

Goal	Description	Key Performance Indicator	Baseline Data	Desired Trendline	Data Source
Transportation Choices	Provide people with comfortable, convenient, and reliable transportation choices through all our seasons	Proportion of all trips made by sustainable transportation (walking, cycling, or transit)	30.9% (2025)		Household Travel Survey
Safe Mobility	Improve people's safety and work to eliminate serious injuries and fatalities from our transportation system	Number of traffic-related injuries and fatalities	77 (2022)		RCMP collision data
Equitable Access	Ensure that people of all ages, abilities, backgrounds, and identities can access all modes of transportation	Proportion of trips among children, seniors, and women made by sustainable transportation	Children aged 10 to 14: 65% (2025) Children aged 15 to 19: 35% (2025) Seniors aged 65 to 74: 33% (2025) Women: 33% (2025)		Household Travel Survey
Connected Network	Provide seamless connections for all modes transportation so people can travel to services, neighbourhoods, and community amenities across the city	Proportion of the urban area* of the City that is within 400 metres of each of a bus stop, bicycle route, and sidewalk	Bus stop: 79.6% (2026) Bicycle route: 88.0% (2026) Sidewalk: 82.4% (2026)		Infrastructure Data
Environmentally Sustainable	Reduce our transportation-related emissions according to the targets set under the Climate Action Plan (2026)	Transportation-related GHG emissions	53,965 t CO2e (2023)		Corporate and Community Energy and GHG Emissions Inventory

Goal	Description	Key Performance Indicator	Baseline Data	Desired Trendline	Data Source
Healthy Community	Improve our health and wellbeing	Proportion of all trips made by walking, rolling, and cycling	26.6% (2025)	↑	Household Travel Survey
Resilient Transportation System	Ensure that people can get to their destinations in a consistent, predictable, and reliable manner	Proportion of arterial roads with PM peak median traffic speeds below the posted speed limit	75.5% (2025)**	↑	GPS-based vehicle Speed Data
Thriving Economy	Ensure the efficient movement of people and goods to support the local and regional economy	Number of intersections with Level of Service (LOS) D or better in the AM and PM peak hours	TBD***	↓	Intersection Turning Movement Counts

* Urban area defined based on the neighbourhood boundaries shown in the figure



** Based on GPS-based data provided by TomTom for arterial roads in Yellowknife

*** Reliable traffic data was not available for this plan and Level of Service analysis has not yet been completed

5.6 COMMUNITY PROGRESS AND CELEBRATING SUCCESS

Clear communication, ongoing engagement, and recognition of progress are essential to maintaining momentum and building long-term support for implementation of the Transportation Plan. Together, these elements help ensure transparency and accountability, keep the community informed, and create opportunities for residents to remain actively involved as the plan is delivered. Celebrating progress and sharing successes will also help reinforce the value of transportation investments, build awareness of improvements, and foster a sense of shared ownership of Yellowknife's evolving transportation system.

Engaging the Community and Gathering Input

Ongoing engagement will be an important component of implementation, ensuring that community perspectives continue to inform decision-making as projects are advanced.

We will continue to engage residents, businesses, and stakeholders through a range of methods, building on the engagement undertaken during the development of the plan. This may include project-specific engagement, targeted outreach, and opportunities for ongoing feedback.

To further support this, we will explore establishing a Transportation Advisory Committee to provide community perspectives and advice on transportation planning, policy, and implementation. The Committee can support the delivery of the Transportation Plan and help strengthen collaboration between community members, City staff, and Council.

The Committee can be composed of representatives reflecting a broad range of transportation users and lived experiences, including people who walk, cycle, roll, use transit, drive, and rely on winter mobility options. It is important to include groups who have historically faced transportation barriers, such as youth, seniors, people with disabilities, and Indigenous peoples. A Terms of Reference for the Transportation Advisory Committee could be developed to define its mandate, scope, roles, and operating procedures.

Communicating Progress

Clear and consistent communication will help ensure transparency and accountability throughout implementation. We will provide regular updates to Council, stakeholders, and the public on progress made toward implementing the Transportation Plan. This can be achieved in various ways.

- **Annual or Periodic Progress Updates:** Providing summaries highlighting how the implementation of the Transportation Plan is progressing, noting completed actions, ongoing initiatives, and upcoming priorities, can help keep Council and the public informed. An annual “report card” format can communicate progress in a clear and accessible way, using indicators and visuals to show how we are advancing toward our goals.
- **Updates Aligned with Capital Planning Cycles and Key Milestones:** Integrating progress reporting with existing City processes, such as capital budget cycles or major project milestones can help ensure transportation updates are coordinated with broader municipal planning and helps communicate how investments are being delivered and phased over time.

Reporting on progress will help demonstrate how investments are contributing to improved transportation outcomes and support continued alignment with community priorities.

Celebrating Success

Recognizing and celebrating progress will be key to maintaining momentum and reinforcing the value of transportation investments. Highlighting completed projects and early successes can help build public awareness, demonstrate impact, and foster a sense of shared ownership.

This can be achieved by sharing transportation successes through social media, community events, and public activations to highlight progress, recognize community contributions, and build excitement around transportation implementation. Making transportation improvements visible and relatable will help residents understand how projects benefit everyday travel and encourage broader community support.

We will also continue to use and refine the “Let’s Move YK” transportation branding to promote educational material and spread awareness about transportation initiatives. Information about transportation can be added to a webpage on our website as a central resource to continue to build support and share transportation resources

Celebrating success not only acknowledges progress but also helps build continued support for implementation and encourages broader participation in achieving the plan’s vision.





6.0 CLOSING

The Yellowknife Transportation Plan provides a comprehensive approach to guide Yellowknife's progress and investments in transportation infrastructure, programming, and policies over the next 25 years and beyond.

The plan includes recommendations for improving transportation policies, standards, infrastructure and programs over the long-term, along with priorities over the short- and medium-term.

The Yellowknife Transportation Plan will contribute to increased transportation options by improving the accessibility, comfort, convenience, and safety of active transportation. The Transportation Plan has been developed based on extensive technical work and engagement through a four-phase process.

The City of Yellowknife would like to thank all community members for their participation in the process and valuable input developing the Yellowknife Transportation Plan.



APPENDIX A:

Glossary



The following terms have been defined below as they are referenced in the Transportation Plan and may not be readily understood by all readers.

Accessible	Transportation facilities, infrastructure, and services designed or programmed to enable all people safe and comfortable access and use, regardless of age, physical or cognitive abilities, or socio-economic background.	Mode	A specific form of transportation, such as walking, rolling, cycling, taking transit, or driving.
Active Transportation	Any form of human-powered transportation, including walking, cycling or rolling, including small-wheeled transport such as strollers, roller skates, skateboards, and push scooters. It may also include winter-based active modes (e.g., cross-country skiing and snowshoeing), water-based active modes (e.g., canoe, kayak, and stand-up paddle boarding), and horseback riding.	Mode Share	The percentage of all trips made by a particular mode.
All Ages and Abilities (AAA)	Active transportation infrastructure that is comfortable, convenient, safe, and attractive for everyone regardless of age or ability.	Multi-modal	Two or more modes of transportation. This typically includes the pattern of several modes during a single trip, such as walking to transit; characteristics of a street that accommodates more than one mode; and/or a transport hub that enables people to connect and transfer between different modes of transportation.
Complete Streets	A planning and design approach that creates streets that are safe, comfortable, and accessible for all users, regardless of age, ability, or mode of travel. Complete Streets balance the needs of people walking, cycling, rolling, using transit, driving, and moving goods, while also serving as public spaces that support community activity, local businesses, and placemaking.	Placemaking	Planning, designing, and management to create meaningful places for people.
Key Performance Indicator	A quantifiable measure used to evaluate success in meeting targets and goals.	Public Realm	An area that is publicly accessible, including streets, parks, and open spaces, enabling the public's interaction and connection with each other and their city.
Micromobility	Micromobility is an umbrella term encompassing a variety of small, lightweight, and low-speed devices that facilitate human transportation. This includes devices such as bicycles, e-bikes, cargo bikes, e-scooters, skateboards, and more.	Right-of-way	A right-of-way is a type of easement granted or reserved over the land for transportation purposes, such as a highway, street, footpath, or bicycle path.
		Rectangular Rapid Flashing Beacon (RRFB)	A pedestrian-activated safety device installed at crosswalks to alert drivers, using bright irregular amber LED flashing patterns. RRFBs enhance visibility of people crossing, increasing driver yielding rates at marked crossings.
		Safe Systems Approach	An approach that emphasizes a shared responsibility among planners, engineers, decision-makers, enforcement agencies, and road users.

Sustainable Transportation	Modes of transportation and/or systems that have a low impact on climate and the environment.
Traffic Calming	The combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for non-motorized street users.
Transportation Demand Management (TDM)	A broad term that refers to a range of infrastructure, policies, and incentives that can help reduce congestion by supporting changes to people's travel patterns and behaviours.
Transportation Equity	The principle that all people, regardless of income, age, ability, gender, race, location, or access to a vehicle, have fair access to safe, affordable, reliable, and accessible transportation options and opportunities.
Vision Zero	A systems approach to transportation safety premised on the belief that all traffic fatalities and severe injuries can be eliminated, while increasing safe, healthy, and equitable mobility for all people.
Walking and Rolling	The mode of transportation of a pedestrian. It includes people travelling by foot and people using mobility devices, such as wheelchairs or walkers and people with strollers.
Wayfinding	A system that assists travellers in orienting, navigating, and moving through an environment using architectural and urban design features, visual cues, and signage.

APPENDIX B:

Policies and Guidelines



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A. COMPLETE STREETS POLICY AND GUIDELINES

PURPOSE

Complete Streets are streets that are designed for all ages, abilities, and modes of transportation. A Complete Streets approach moves away from a traditional vehicle-centric approach to a people-focused approach to planning and designing streets.

Complete streets approaches recognize that streets serve dual purposes: they are routes for moving people and goods, but they are also important places that shape how people experience the city. A Complete Streets approach supports the design and operation of streets that are safe, comfortable, and functional for all users – whether they are walking, cycling, using transit, carpooling, or driving – while also contributing to a vibrant, inclusive, and attractive community.

The Complete Streets Policy and Guidelines will provide guidance for the City and developers to consistently design streets within the public right-of-way following a Complete Streets approach that puts the needs of people before those of vehicles.

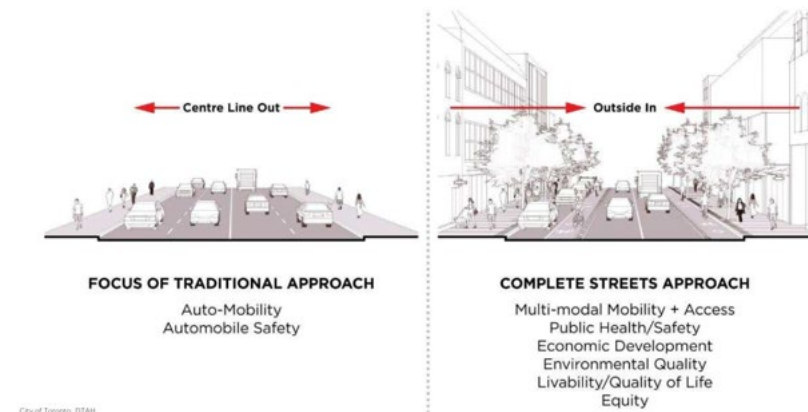
BACKGROUND

The Yellowknife Transportation Plan outlines a long-term vision to provide a safe, reliable, and connected multi-modal transportation network that provides transportation choices and prioritizes safe mobility.

“Complete Streets” is a term that refers to the policy and design approach that streets are for people, not just vehicles. Complete Streets are designed and operated to enable safe and comfortable use for everyone, regardless of their age or ability. A Complete Streets policy and design approach recognizes that streets have different roles, functions, and characteristics depending on their context. Through attractive design, enhanced safety, and multi-modal infrastructure, streets can be transformed into spaces that increase safety, promote a more active lifestyle, decrease greenhouse gas emissions, encourage a sense of community, and support local businesses.

RATIONALE

A Complete Streets approach can help the City transition from a more traditional, approach to street design, which has historically focused on prioritizing motor vehicles, to a more balanced approach that creates diverse and safe transportation options and a transportation system that meets the needs of all residents and road users (see **Appendix B Figure 1**). The status quo of streets being designed primarily for motorists is no longer considered acceptable, with more Canadian cities moving towards more inclusive streets that are supportive of all road users and experiences. This includes the need to consider the unique needs of people walking, cycling, using micromobility devices, or using transit, as well as people with disabilities and equity-priority groups, in the planning and design of Yellowknife's streets.



APPENDIX B FIGURE 1: TRADITIONAL VS COMPLETE STREETS APPROACH TO TRANSPORTATION PLANNING (Source: City of Toronto, DTAH)

Complete streets are intended to be reimagined as multi-modal streets that prioritize walking, cycling, and transit and have been identified in the Community Plan on Old Airport Road from the Co-op to Lakeview Cemetery Road and on 50 Avenue through downtown from Old Airport Road to School Draw Avenue. Additionally, new streets implemented through development or road rehabilitation projects should be considered an opportunity to implement a complete street.

POLICY

As noted in the Yellowknife Transportation Plan, complete streets in Yellowknife should be planned, designed, operated, and maintained to enable accessible, comfortable, convenient, and safe access and mobility for all users, regardless of their selected mode of travel.

Policy Statement

Through this policy, the City will create safer and more accessible streets that consider the needs of all users – including pedestrians, cyclists, micromobility users, transit and school bus riders, drivers, passengers, people moving goods, delivery personnel, and emergency responders – following Complete Streets principles. This can be done by reviewing available right-of-way, land use and neighbourhood context, and the function of the street as part of any street project.

Objectives

The Complete Streets Policy also includes the following objectives:

- Prioritize safety over traffic operations
- Focus on the needs of people walking, cycling, and using transit over the needs of private vehicles
- Design streets to be universally accessible
- Adopt Complete Streets as the default condition – not the exception – for Yellowknife's streets at all stages of the planning process, from planning and design to implementation, operations and maintenance
- Embed this Complete Streets approach in all of Yellowknife's transportation planning and design projects, including spot improvements, retrofits, reconstruction, new construction, capital and operational projects, and projects taking place through redevelopment

Guidelines

Streets are dynamic spaces that typically serve two overarching functions of mobility and access. The potential functions of streets are summarized below.

- **Mobility of People:** Streets enable people to travel to their desired destination, including trips within a community or between communities, by walking, rolling, cycling, taking transit, driving, and any combination.
- **Mobility of Goods:** Streets support the reliable movement of goods and services to serve the local economy and beyond.
- **Access for People:** Streets facilitate people's arrival to their destination or transfer point between modes. Access for people includes bus stops, bicycle parking, passenger loading zones, and driveways.
- **Access for Goods:** Streets facilitate the exchange of goods and services between buyers and sellers by providing the infrastructure and interfacing between the street, building, and commercial or business activity, including but not limited to sidewalk, storefront, display, driveway, and loading facilities.
- **Activation:** Streets provide social spaces for people to inhabit and enjoy, and contribute to a community's vibrancy, safety, and sense of place. Street activation includes plazas and parklets, outdoor patios, public art, wayfinding and special street name signage, and street furniture.
- **Greening:** Streets incorporate landscaping and sustainable features within streetscape design to mimic natural systems found in nature and contribute to aesthetics, comfort, and enjoyment of moving through or being on the street.
- **Storage:** Streets can provide parking for cars, commercial vehicles, bicycles, scooters, and other emerging technologies, as well as receptacles (i.e. recycling and garbage) to support people's use of the street

A Complete Streets planning approach prioritizes pedestrians, cyclists, transit users, and motorists, ensuring accessibility for all. Key features include sidewalks, bicycle lanes, safe crossings, and traffic calming, enhancing safety, and economic activity.

It is important to note that there are capital and operational costs associated with the features noted above, and throughout this document, that should be considered as part of the planning and design process.

There is no 'one size fits all approach' when thinking about the elements and principles of a complete street. The typology and elements that are included on a street are informed by:

- The function and role of the street within the network (road classification, truck route, transit route, commercial street with parking or loading zones etc.)
- Available right-of-way space or an opportunity to reallocate road space
- The form of the street is influenced by adjacent land uses, buildings, activity, and any other factors that may make it unique

- The impact on emergency services balancing emergency vehicle access needs with street design that supports pedestrians, cyclists, and transit
- Cost considerations

A review of each roadway is required to determine which, if any, complete street elements can be included in a roadway. **Appendix B Table 1** summarizes key characteristics of each street classification.

APPENDIX B TABLE 1: FUNCTIONS AND CHARACTERISTICS OF DIFFERENT STREET CLASSIFICATIONS

	Primary Functions	Secondary Functions	Typical Daily Traffic Volumes	Vehicle Lanes	Crossing Opportunities	Pedestrian Facilities	Cycling Facilities	On-street Parking
Major Arterial	• Movement for people • Mobility for goods • Emergency services	• Access for people • Activation • Greening	>10,000	Four 3.5 metre lanes with dedicated 3.3m turn lanes	Every 200–400 metres	3.0 metre multi-use pathway on both sides separated by landscaped boulevard		None (outside commercial areas) Both sides (within commercial areas)
Minor Arterial	• Movement for people • Mobility for goods • Emergency services	• Access for people • Access for goods • Activation • Greening	4,000–10,000	Two 3.5-metre lanes with dedicated 3.3m turn lanes	Every 200–400 metres	3.0 metre multi-use pathway on both sides separated by landscaped boulevard		None
Collector	• Movement for people • Access for people • Access for goods	• Movement for goods • Activation • Greening • Storage • Emergency services	1,000–5,000	Two 3.5-metre lanes	Every 100–200 metres	2.0 metre sidewalk on both sides separated by landscaped boulevard or 3.0 metre multi-use pathway on one side and sidewalk on the other	3.0 metre multi-use pathway on at least one side	Both sides

	Primary Functions	Secondary Functions	Typical Daily Traffic Volumes	Vehicle Lanes	Crossing Opportunities	Pedestrian Facilities	Cycling Facilities	On-street Parking
Industrial	• Mobility for goods • Mobility for people • Access for goods	• Access for people	<1,000	Two 3.5-metre lanes with 1.5m shoulders	Every 200–400 metres	On transit route only, 2.0 metre sidewalk on one side separated by landscaped boulevard	Not required	Both sides
Local	• Access for people • Access for goods • Greening	• Activation • Storage • Movement for people • Emergency services	<1,000	One 6.0 metre shared roadway	Every 100 metres	2.0 metre sidewalk on both sides separated by landscaped boulevard	Neighbourhood bikeway	Both sides
Narrow Local	• Access for people • Access for goods • Greening	• Activation • Storage • Movement for people	<500	One 6.0 metre shared roadway	Every 100 metres	N/A	N/A	Restrict parking on roads that cannot provide a minimum operating space of 6.0 metres for emergency access vehicles to safely operate
Lane	• Access for people	• N/A	<100	One 6.0 metre shared roadway	N/A	N/A	N/A	N/A

In addition to the features described above, several urban design features can be considered to create Complete Streets, including:

- **Wide Sidewalks** make walking more comfortable and accessible for everyone, particularly in high activity areas and on commercial streets.
- **Cycling Facilities** help to provide a complete and interconnected cycling network throughout Yellowknife. This is critical to support and encourage more people to bicycle.
- **Boulevards and Curb Extensions** are buffers that separate people walking from vehicle traffic. These spaces create a more comfortable walking

experience and provide space for street trees and other amenities, including bicycle parking or seating. Curb extensions shorten the crossing distance while creating additional space for appropriate landscaping and amenities.

- **Street Trees** play an important role in increasing the comfort and safety of people walking and should be incorporated into all sidewalks wherever possible. Trees are particularly important for streets with high pedestrian demand or where parking does not provide a buffer between the road and sidewalk. Street trees also help to provide shade in the summer, improve air quality, create wildlife habitat, reduce the urban heat island effect, and act as carbon sinks, absorbing and storing greenhouse gases.

- **Pedestrian Amenities** such as planters, litter and recycling bins, and benches help to improve the attractiveness and comfort of the pedestrian environment.
- **Public Art and Historic Features** such as artistic benches, community art projects, and community-based design initiatives can help to improve spaces for people walking. These features can be used to help showcase Yellowknife's diversity and inclusiveness celebrating the local and historical context of the City.
- **Wind Mitigation:** Reducing wind exposure can improve pedestrian comfort year-round, particularly in winter conditions. This can be achieved through urban design and streetscape elements such as strategic landscaping, building placement and orientation, and street furniture.
- **Enhanced Lighting:** Pedestrian-scale street lighting can significantly enhance a street's character while also improving its safety and accessibility.
- **Wayfinding and Pedestrian-Scale Signage:** Wayfinding creates a navigable pedestrian environment by identifying pedestrian routes, key destinations, and access to public transit. Wayfinding and signing can be designed to showcase a neighbourhood's or corridor's unique character, which helps to create a sense of place.
- **Urban Parks and Plazas:** These spaces allow people to gather, create unique destinations, and add to the overall character, vibrancy, and visual appeal of the city. Pedestrians can stop, take a break, and enjoy the facilities offered.
- **Establish Pedestrian Priority Streets:** Treatments can be used to turn streets into high activity spaces that welcome and prioritize pedestrians in a traffic calmed environment. These streets can also be designed to stimulate business activity with patios, seating, and other design elements such as public art, lighting, and planters.
- **Laneways:** Laneways play an important role in the streetscapes of Downtown Yellowknife. Creating inviting, unique, and well used laneways will provide long term benefits to the neighbourhood. The beautification of laneways has become a popular way to re-invent the use of space in communities of all sizes.
- **Outdoor Patio Spaces:** Temporary outdoor patio space located within a public roadway is a popular solution to provide cafes and restaurants with an expanded seating area for the summer months. Temporary patios support the sharing of public space and show the public how streets can be altered in a temporary fashion. If there is public support after a number of trial seasons, the City can explore making some patio spaces more permanent through tenure agreements with adjacent businesses and expansion of the sidewalk into parking areas.

IMPLEMENTATION

The City will update standard cross-section drawings in the Development & Design Standards Manual based on road classification that incorporate complete street guidance. Proposed updates include:

- Requiring sidewalks and/or multi-use pathways on both sides of all streets, except industrial streets that do not have transit service;
- Requiring sidewalks be at least 2.0 metres for all street classifications and that a landscaped boulevard be provided between the sidewalk and the street where possible;
- Including All Ages and Abilities cycling facilities in cross-sections; and
- Establishing consistent lane widths for motor vehicle lanes and on-street parking lanes, recognizing there is currently significant variability in the existing cross-sections based on street classifications.

For new roads, cross-sections for new roads in the Development & Design Standards Manual should be updated following the guidance in **Appendix B Table 2** for new roads.

For retrofit roads, guidance in **Appendix B Table 3** should be followed to determine potential cross-section elements, depending on the road width. However, note that all retrofit projects are unique and this guidance may not address all site-specific conditions. Practitioners should use this as a starting point to consider the range of complete street elements as part of road retrofit projects, prioritizing improvements that enhance safety accessibility, and comfort for vulnerable road users.

Develop Key Performance Indicators to monitor success following a Complete Streets approach, including indicators for all modes of transportation.

APPENDIX B TABLE 2: COMPLETE STREETS PROPOSED CROSS-SECTIONS FOR NEW ROADS¹

New Roads	Utility Border	MUP	SW	Bldv	Parking	Lane	Lane	Turn	Median	Lane	Lane	Parking	Bldv	SW	MUP	Utility Border	Total ROW	Total Road
Major Arterial 30.0m ²	0.3	3.0		2.3		3.5	3.5	3.3	2.0	3.5	3.5		2.3		3.0	0.3	30.5	19.3
Collector 25.0m ³	0.5	3.0		3.0	3.0		3.5			3.5		3.0	3.0	2.0		0.5	25.0	13.0
Local 20.0m	0.5		2.0	2.0	3.0		3.0			3.0		3.0	2.0	2.0		0.5	21.0	12.0

APPENDIX B TABLE 3: COMPLETE STREETS PROPOSED CROSS-SECTIONS FOR RETROFIT ROADS

New Roads	Utility Border	MUP	SW	Bldv	Parking	Lane	Lane	Turn	Median	Lane	Lane	Parking	Bldv	SW	MUP	Utility Border	Total ROW	Total Road
25.0m - MUP one side, sidewalk one side	1.0	3.0		2.5	3.0		3.5			3.5		3.0	2.5	2.0		1.0	25.0	13.0
24.0m - MUP one side, sidewalk one side	0.5	3.0		2.5	3.0		3.5			3.5		3.0	2.5	2.0		0.5	24.0	13.0
23.0m - MUP one side, sidewalk one side	0.5	3.0		2.0	3.0		3.5			3.5		3.0	2.0	2.0		0.5	23.0	13.0
22.0m - MUP one side, sidewalk one side	0.3	3.0		1.7	3.0		3.5			3.5		3.0	1.7	2.0		0.3	22.0	13.0
21.0m - MUP one side, sidewalk one side	0.3	3.0		1.2	3.0		3.5			3.5		3.0	1.2	2.0		0.3	21.0	13.0
20.0m - MUP one side, sidewalk one side	0.3	3.0		0.9	3.0		3.5			3.5		3.0	0.5	2.0		0.3	20.0	13.0
20.0m - Industrial, No Parking, Separated sidewalk one side ⁴	0.5		2.0	3.0			5.0			5.0						4.5	20.0	10.0
20.0m - Separated sidewalk with moderate buffer both sides	0.5		2.0	1	3.0		3.5			3.5		3.0	1.0	2.0		0.5	20.0	13.0
19.0m - Separated sidewalk narrow buffer both sides	0.3		2.0	0.7	3.0		3.5			3.5		3.0	0.7	2.0		0.3	19.0	13.0
18.0m - Monolithic sidewalk one side and separated sidewalk narrow buffer	0.3		2.0	0.2	3.0		3.5			3.5		3.0	0.2	2.0		0.3	18.0	13.0
17.0m - Monolithic sidewalk one side and parking both sides	0.5		2.0		3.0		3.5			3.5		3.0				1.5	17.0	13.0
16.0m - Monolithic sidewalk one side and parking both sides	0.5		2.0		3.0		3.5			3.5		3.0				0.5	16.0	13.0
15.0m - Monolithic sidewalk one side and parking one side	2.0		2.0				3.5			3.5		3.0				1.0	15.0	10.0
14.0m - Parking both sides and no sidewalk	1.5				3.0		3.0			3.0		3.0				1.5	15.0	12.0
<10.0 m - Alley, no parking and no sidewalks, low speed and volume road	1.5						3.0			3.0						1.5	9.0	6.0–9.0

1 All vehicle travel lanes include gutter pan width where applicable.

2 Turn lanes and medians share the same space. At mid-block, medians will widen to encompass the total combined width (4.8m) and serve as snow storage. Medians can be reduced midblock to accommodate wider boulevards or other street amenities. At intersections, the centre median narrows to 1.5m to accommodate the turn lane (3.3m).

3 Boulevard and/or utility border space may be reduced to accommodate MUP on both sides as opposed to sidewalk on one side.

4 Industrial roads should feature 3.5m travel lanes with 1.5m shoulders.

B. VISION ZERO POLICY

PURPOSE

The purpose of this policy is to outline how the City of Yellowknife will work towards Vision Zero and incorporate Vision Zero principles into transportation projects at the planning, design, and implementation phases of the project.

BACKGROUND

The safety of Yellowknife's transportation network is a top priority, regardless of the travel mode being used. Based on RCMP collision data collected between 2018 and 2022, there were 3,475 reported collisions in Yellowknife.

Evidence from around the world indicates that it is possible to significantly reduce, and even prevent, deaths and serious injuries from transportation systems. Many communities around the world have increasingly been taking a "Vision Zero" approach to road safety. Vision Zero is a philosophy that views death and serious injuries as unacceptable consequences of collisions and establishes the goal to eliminate them. Vision Zero prioritizes human life and health in the transportation system and asserts that deaths and serious injuries are preventable.

What is Vision Zero?

Vision Zero seeks to eliminate all traffic fatalities and serious injuries while promoting safe, healthy, and equitable mobility for all road users. This includes, but is not limited to, people who walk, ride a bike, use a mobility aid, ride a motorcycle, take the bus, or drive. It is a recognition that one traffic fatality or serious injury is too many.

RATIONALE

Over the past decade, there has been increased recognition that fatalities and serious injuries on our roads can and should be eliminated. This had led to the development of strategies globally and at all levels of government.

- Nationally, *Canada's Road Safety Strategy (2025)* provides a national framework for addressing safety, including a year-to-year fatal and serious injury reduction target, an endorsement of the Safe System Approach, and a list of high-risk behaviours and countermeasures. A revised strategy will come into effect in 2026.
- The Government of the Northwest Territories developed a *Road Safety Plan (2015)* which highlights the importance of road and transportation safety. While it doesn't reference Vision Zero specifically, it highlights a list of strategies including policy updates that focus on reducing collisions and fatalities on roads within the territory.
- Several municipalities throughout Canada have developed strategies that outline their commitment to Vision Zero. The City of Whitehorse for example has developed a Vision Zero Policy and Safe Mobility Action Plan.

POLICY

To work towards Vision Zero, the City will follow a 'Safe System Approach' to road safety. This approach aims to create a safe mobility system that is forgiving of human error. Everyone involved in the transportation system, including planners, engineers, policy makers, and police officers, have a shared responsibility with road users for designing a road system that does not allow human error to result in serious or fatal outcomes. **Appendix B Figure 2** summarizes the Safe System Approach, and the relationship with Vision Zero. Vision Zero is the *what* and the Safe System Approach is *how* it is achieved.

The Safe System Approach is based on the following principles:

- Deaths and serious injuries on roads are unacceptable;
- People make mistakes and they are inherently vulnerable but they should not result in injury or death;
- Responsibility is shared among system designers and road users;
- A systematic approach that includes overlapping measures is necessary; and
- Improvements to safety are proactive.

The Safe Systems Approach utilizes six key elements – **safe road design, safe speeds, safe vehicles, safe road users, safe land use planning, and post-crash care.**

The City has the strongest influence on the following elements:

- **Safe road design** – The City will design and maintain transportation infrastructure that is context appropriate and that reduce the risk of crashes occurring and the severity of an injury in case of a crash. This is typically done by separating different modes, designing for safe speed limits, and ensuring roads are designed so that users understand what is expected of them.
- **Safe speeds** – managing speed is critical for avoiding crashes and designing for survivable speeds. This is typically done by establishing appropriate speed limits (see the accompanying Speed Limit Policy and Guidelines), designing roads for the appropriate and desired speed, enforcing speed limits, and educating road users.
- **Safe land use planning** – integrating road safety policy and recommendations into community planning can influence where and how people travel (mode choice). For example, land use planning can encourage people to walk, take transit, or cycle instead of using their private automobile. It can also reduce average trip length and travel distance.



APPENDIX B FIGURE 2: VISION ZERO AND SAFE SYSTEM APPROACH
(Source: Transportation Association of Canada)

IMPLEMENTATION

There are several planning and engineering approaches that the City will adopt to support moving towards Vision Zero, as summarized in the Yellowknife Transportation Plan, such as:

- Filling in gaps in the pedestrian network and expanding the City's cycling network;
- Encouraging more transit ridership as the safest form of transportation;
- Implementing fully protected left turns at signalized intersections;
- Providing Leading Pedestrian Intervals at signalized intersections;
- Installing Rectangular Rapid Flashing Beacons (RRFBs) at uncontrolled approaches to improve pedestrian safety, where warranted;
- Reducing curb radii where possible with any new and improved street designs to prioritize slower turn movements and improve pedestrian safety, while ensuring design and control vehicles can be accommodated;
- Implementing roundabouts or other treatments that slow speeds through intersection;
- Including warning and delineation on horizontal curves and reduce complexity on intersection approaches;
- Adopting and implementing the Speed Limit Policy and Guidelines; and
- Adopting and implementing the Traffic Calming Policy and Guidelines.

C. SPEED LIMIT POLICY AND GUIDELINES

PURPOSE

The purpose of this policy is to set guidelines for establishing appropriate regulatory speed limits on all streets under the jurisdiction of the City of Yellowknife. This policy follows a simple, flexible, and context-sensitive approach that provides staff with guidance based on the context of the street, while also ensuring a consistent approach to establishing speed limits throughout the City that is easy for staff and the public to understand.

Staff may use their discretion, where appropriate, to deviate from these guidelines should a well-documented justification exist based on engineering judgment.

BACKGROUND

This policy was informed by a review of current research and best practices for establishing speed limits, including the National Association of City Transportation Officials' (NACTO) *City Limits: Setting Safe Speed Limits on Urban Streets*, Global Designing Cities Initiative's (GDCI) *Designing for Safe Speeds*, and several municipalities across Canada using innovative approaches.

Research shows that higher speeds increase the risk and the likelihood that a crash will result in a serious injury or fatality. At higher speeds, drivers have a narrower field of vision, and they have less time to react to unexpected occurrences. Collisions at higher speeds have worse outcomes for people. The faster a vehicle moves, the longer the stopping distance and therefore, the greater the force of impact will be.

Collisions at 30 km/h or less correlate with a higher probability of survival (90%), whereas at motor vehicle speeds above 40 km/h, the probability of survival decreases significantly (see **Appendix B Figure 3**). Streets with higher posted speed limits are riskier, regardless of whether drivers exceed those limits. These findings highlight the importance of managing motor vehicle speeds as one way to reduce the number and severity of collisions, thus making roads safer for everyone.

There is evidence that speed limit reductions alone (even in the absence of complementary engineering interventions) can reduce speeds and crashes, stating: "A growing body of research shows that speed limit changes alone can lead to measurable declines in speeds and crashes, even absent enforcement or engineering changes."⁵ While Yellowknife can encourage safe speeds through initiatives such as speed limit reductions, other initiatives such as traffic calming (see **Section D Traffic Calming**) and enforcement are also recommended to minimize the risks of speed and allow the safe movement of all road users.



APPENDIX B FIGURE 3: RELATIONSHIP BETWEEN MOTOR VEHICLE SPEEDS AND PEDESTRIAN FATALITY RISK IN A COLLISION (Source: City of Kelowna, *Safe Mobility Action Plan*, 2024)

RATIONALE

The City of Yellowknife's *Highway Traffic Bylaw No. 5055 (2022)* regulates traffic and vehicle use on highways and public areas within the City. The Bylaw outlines restrictions on speed within the community and states that the maximum speed limit on most streets under City of Yellowknife jurisdiction is typically 45 km/h, unless otherwise posted. The City also has school zones and playground zones with maximum speed limits of 30 km/h. School zones are enforced at all times, 24 hours 7 days a week. Speed limits increase to 70 km/h and above on GNWT highways.

Based on GPS-based speed data for arterial streets in the City, many vehicles are travelling above the speed limit on several arterial streets, including Old Airport Road and 48 Street along with Highway 3.

⁵ A 2004 study found that a 10% reduction in the average speed resulted in 19% fewer injury crashes, 27% fewer severe crashes, and 34% fewer fatal crashes

POLICY

Establishing speed limits for the safety of all users is an important piece in creating a safe and accessible transportation system. Two possible speed limits categories are recommended (30 km/h and 45 km/h) based on two types of streets as follows:

Type A Street (Local Street)

Streets in this category are defined as:

- Streets classified as “Local Streets” in the Street Network Classification;
- Streets without a continuous yellow centre line; and/or
- Streets with an existing “Neighbourhood Bikeway” (as defined in the Cycling Facility Design Guidelines)

The maximum speed limit on all Type A streets shall be 30km/h.

Type B Street (Collector and Arterial Street)

Streets in this category are defined as:

- Streets classified as “Collector Streets”, “Industrial Streets”, or “Arterial Streets” in the Street Network Classification;
- Streets with a continuous yellow centre line; and/or
- Streets not captured in Street Type A.

The maximum speed limit on all Type B streets shall be 45 km/h, unless otherwise noted as follows:

- Intersections are spaced less than 125 metres apart;
- Street is located in area of high pedestrian activity;
- Active transportation facilities are present but are not physically separated from motor vehicle traffic;
- Street is located in designated School Zone; and/or
- Street is located in designated Playground Zone.

The City may consider reducing the speed limit to 30 km/h in each of the cases noted above. In all such cases where the speed limit is reduced, posted 30 km/h speed limits shall be enforced at all times, 24 hours 7 days a week.

IMPLEMENTATION

The guidelines outlined in this policy are intended as guidance and are applicable on streets where the design or operational characteristics support the suggested speed limit.

The City should establish a map identifying all Type A and Type B streets and all exceptions to Type B streets to ensure the public has a clear understanding of speed limits.

These suggested speed limits are not intended to be applied across the City all at once. Changes to posted speed limits require changes in regulatory signage to establish the new posted speed limit. As such, the City should implement changes to speed limits on Type A streets on an incremental basis focusing on implementing the changes one neighbourhood at a time in the following neighbourhoods:

- Range Lake North;
- Frame Lake;
- Downtown;
- Niven Lake;
- Old Town;
- School Draw;
- Industrial area.

Implementation of changes to speed limits on Type A streets can also be done in conjunction with the implementation of traffic calming changes, as per the corresponding Traffic Calming Policy in **Section D**.

Changes to speed limits on Type B streets are to be implemented on a location-specific basis as required in areas with higher active transportation activity, while allowing higher speeds for streets intended to move people across the City.

Speed limit changes may also be pursued in conjunction with capital projects or operational improvements such as pavement markings, curb extensions, signal timing adjustments, crossing upgrades, or gateway treatments, when these changes create conditions that support the intended operating speed.

D. TRAFFIC CALMING POLICY AND GUIDELINES

PURPOSE

The purpose of this policy is to outline a process for the City of Yellowknife to follow when assessing requests for traffic calming, initiating technical reviews, prioritizing candidate Traffic Calming locations, and selecting Traffic Calming Measures.

BACKGROUND

Traffic calming is a tool used to reduce vehicle speeds and lower traffic volumes, contributing to safer and more livable neighbourhoods. Traffic calming measures can be effective in reducing motor vehicle speeds, decreasing traffic volumes, alleviating conflicts between street users, and improving neighbourhood safety and livability.

Traffic calming can help to achieve two key goals:

- **Improve Safety:** Traffic calming can make streets safe for everyone, including all road users – pedestrians, cyclists, motorists and others. Many conflicts and collisions are the result of excessive speeds and excessive through traffic – the very problems that traffic calming can correct on local or collector streets. Research has shown that specific traffic calming devices can reduce collision rates by as much as 90%.
- **Improve Livability:** Traffic calming can help to preserve and enhance the livability of a neighbourhood by minimizing the negative impacts of traffic, such as noise, pollution, and visual intrusion. Attractively designed and landscaped traffic calming devices can also enhance the streetscape, enhancing livability as a result.

Objectives to achieve the goals of improving safety and livability include:

- **Reduce vehicle speeds:** Speeds which are suitable for one type of street – such as an arterial road, for example – may be considered excessive on a collector or local street within a neighbourhood. Measures which reduce vehicle speeds help to improve safety on neighbourhood streets

for pedestrians, cyclists, motorists and other road users, and also help to improve the livability of a community by reducing noise and other negative impacts of traffic.

- **Discourage through traffic on neighbourhood streets:** Local streets are primarily intended for access to properties, not for accommodating through traffic. Reducing through traffic helps to improve safety by reducing the potential for conflicts. Reducing through traffic also reduces delays for local traffic, pedestrians, cyclists and other road users, and helps to improve livability by reducing noise and other negative impacts of traffic.
- **Minimize conflicts between street users:** Reducing conflicts between road users helps to improve safety, as well as improve the livability of a community.
- **Enhance the neighbourhood environment:** Reducing vehicle speeds, traffic volumes, and conflicts helps to enhance the livability of a community by reducing the apparent dominance of traffic. This means reducing noise from traffic, reducing air pollution, and reducing congestion on neighbourhood streets. Traffic calming measures can also enhance the streetscape by providing opportunities for landscaping and public art.
- **Establish an on-going process to address problems:** New streets, additional development and other changes may result in changes in traffic patterns within a neighbourhood, and may create new traffic problems in the future. Establishing an on-going process of monitoring and review can help to ensure that these problems are corrected when they occur, or better yet, are anticipated and corrected before they occur.

RATIONALE

The City of Yellowknife is committed to creating livable neighbourhoods with inviting streets that are safe for all road users. Traffic calming can be an effective tool for reducing motor vehicle speeds and volumes on streets classified as “Local Streets” or “Collector Streets” in the Street Network Classification, while maintaining reasonable access for residents, public transit, snow clearing, and emergency services on these roads. The City will use traffic calming to improve

safety and neighbourhood livability for Yellowknife residents, in combination with other engineering, education, enforcement, and community engagement initiatives.

The City should follow the Transportation Association of Canada (TAC) *Canadian Guide to Traffic Calming Second Edition (2018)* for detailed information and guidance related to the planning, design, installation, operation, and maintenance of traffic calming measures.

Traffic calming is possible in winter communities, with a thoughtful framework to snow clearing.

POLICY

The objectives of this policy are to:

- Provide guidance on the types of traffic calming measures that can be considered based on the type of street;
- Provide guidance on the process for residents to request a technical review; and
- Provide guidance on the process for staff to initiate technical reviews, prioritize candidate locations, and select measures for traffic calming.

Types of Traffic Calming

Traffic calming measures consist of devices that reduce motor vehicle speeds and/or motor vehicle volumes. The types of traffic calming devices can generally be divided into three categories: vertical deflections, horizontal deflections, and modal filters, each of which are described below.

The TAC *Canadian Guide to Traffic Calming Second Edition (2018)* provides design guidance on various traffic calming treatments, some of which may be appropriate to reduce motor vehicle speeds along a neighbourhood bikeway as described below.

Vertical Deflections

Vertical deflection measures cause a vertical upward movement of the motor vehicle, thereby lowering motor vehicle speeds as motorists slow to avoid an unpleasant sensation as they traverse the traffic calming measure. Vertical deflections have the secondary benefits of reducing motor vehicle volumes and deterring neighbourhood short-cutting traffic.

In winter cities such as Yellowknife, it is important to ensure that signage is provided with any vertical deflections to alert all road users, including maintenance vehicles and emergency services, to the presence of the vertical deflection.

Vertical deflections include:

- **Speed Humps:** Raised areas of a road that cause the vertical upward movement of a traversing motor vehicle, intended to reduce motor vehicle speeds. Speed humps should be used only on local or collector streets where transit vehicles, emergency vehicles, and other large vehicles are not anticipated at high volumes.
- **Speed Tables:** Elongated raised speed humps with a flat-topped section that is long enough to raise the entire wheelbase of a motor vehicle. Speed tables may be used on public transit and emergency response routes.
- **Raised Crosswalks:** Type of speed tables enhanced to provide a marked pedestrian crosswalk. Raised crosswalks follow the same design guidance as speed tables, except that they should extend the full width of the roadway to provide a direct connection to the sidewalk.
- **Raised Intersections:** Intersections constructed at a higher elevation than the approach roads, resulting in a vertical change upon entry to the intersection. The purpose of raised intersections is to reduce motor vehicle speeds and reduce conflicts, as they often are provided in conjunction with a stop control on one or both intersecting roads.

Horizontal Deflections

Horizontal deflection measures include a lateral shift in the travel pattern of motor vehicles and cause motorists to slow down in response to either a visually narrower road or a need to navigate a curving travel lane. Various horizontal deflection measures are described below.

In winter cities such as Yellowknife, it is important to ensure that signage and obstruction markers are provided with any horizontal deflections to alert all road users, including maintenance vehicles and emergency services, to the presence of the horizontal deflection and the location of the curb.

- **Traffic Circles:** Islands located at the centre of an intersection that require motor vehicles to travel through the intersection in a counter-clockwise direction around the island. Traffic circles are applied on lower

road classifications typically replace either uncontrolled intersections or intersections controlled by stop signs. Traffic circles are effective in reducing motor vehicle speeds and also eliminate the need for people cycling to stop as is the case where stop signs are provided.

- **Curb Extensions:** Horizontal intrusions of the curb into the road, resulting in a narrower section of the road. Curb extensions visually and effectively narrow the road width. This reduces motor vehicle speeds, reduces pedestrian crossing distances, prevents parking close to an intersection, and increases motorist and cycling sightlines.
- **Chicanes:** A series of curb extensions on alternating sides of a street, which narrow the street and require motorists to steer from one side of the street to the other to travel through the chicane.

Modal Filters

Modal filters refer to devices that restrict motor vehicle movements at intersections, while allowing unrestricted movements for people walking, rolling, and cycling. These devices are effective in reducing motor vehicle volumes. Since emergency vehicle access can be an issue with traffic diversion devices, local jurisdictions should work with emergency service providers prior to implementing these devices. In addition, local jurisdictions should consult with the community to ensure that impacts to traffic ingress and egress are understood and managed.

Practitioners should take a network-wide approach to placement, locating diversion measures so they strategically disrupt through-traffic routes without shifting volumes onto nearby parallel local streets. While there is no fixed standard for spacing, placement should be informed by street network geometry, block lengths, and observed cut-through patterns.

- **Directional Closures:** A series of curb extensions or vertical barriers extending to approximately the directional dividing line of a road, effectively prohibiting one direction of motor vehicle traffic.
- **Diagonal Diverters:** Raised barriers placed diagonally across an intersection that force motor vehicle traffic to turn and prevents through movement.
- **Intersection Channelizations:** The use of raised islands or bollards in an intersection to obstruct traffic movements and physically direct motor vehicle traffic through an intersection.

- **Right-in / Right-out Islands:** Raised triangular islands at an intersection approach which obstruct left turns and through movements by motor vehicles to and from the intersecting street or driveway.
- **Raised Medians:** Concrete or asphalt islands located on the directional dividing line of a two-way road through an intersection that prevents left turns and through movements for motor vehicles to and from the intersecting roads.
- **Full Closures:** Barriers extending the entire width of the road that obstructs all motor vehicle traffic movements from continuing along the road.

Process

Annual Traffic Calming Program

The City will set and adopt an annual budget for traffic calming projects. Each year, the City will prepare a priority list of candidate locations for traffic calming projects based on resident requests and technical reviews. The City will implement traffic calming measures for as many candidate locations as possible on the priority list, based on the available budget allocated by Council, staff capacity, and timing of other City initiatives.

The Annual Traffic Calming Program will be administered based on the following guiding principles:

- **Livable neighbourhoods:** The Annual Traffic Calming Program improves safety for all road users, reduces speeding and shortcutting traffic, and contributes to inviting streets where people want to spend time.
- **Fair decision-making:** The Annual Traffic Calming Program supports a consistent and transparent process that enables Yellowknife residents to contribute in a meaningful way.
- **Best-value projects:** The Annual Traffic Calming Program prioritizes areas where projects will have the most benefit and maximizes the impact of available resources.

The Annual Traffic Calming Program will have two separate project streams: Neighbourhood Improvements and Spot Improvements (**Appendix B Table 4**).

APPENDIX B TABLE 4: NEIGHBOURHOOD VS SPOT IMPROVEMENTS

	Neighbourhood Improvements	Spot Improvements
<i>Scope</i>	Several streets within a community or neighbourhood	Single street
<i>Number of Projects</i>	Up to 1 neighbourhood/year	Up to 5 spot improvements/year
<i>Budget</i>	Variable budget determined through capital budgeting process	Set annual budget determined by Council
<i>Number of Measures</i>	More than one	One per spot

Data Collection

The City will collect traffic speed and volume data every Fall for each request that met Technical Warrant 1 (Eligibility). Data will not be collected on statutory holidays. Additional data collection can occur at the discretion of the Manager of Engineering Services.

The Manager of Engineering Services can choose to share the data with the RCMP to guide enforcement efforts. The City will request updated collision data from the Government of the Northwest Territories (GNWT) biannually every Spring and Fall to inform technical reviews. The City will work with other departments to monitor the operating cost impacts of traffic calming measures.

Engagement

The City will host public engagement to gather input on proposed traffic calming projects, at minimum:

- **Before and after surveys** for both Neighbourhood Improvements and Spot Improvements; and
- **Open houses** for Neighbourhood Improvements.

The City will prepare an annual report for City Council sharing information about:

- **The number of requests received, reviewed, and escalated** to the priority list for the Annual Traffic Calming Program;

- **Potential operating impacts** to other departments; and
- **Impacts of traffic calming measures** on speed, volume, and collisions. Technical Warrants may be revised at the discretion of the Manager of Engineering Services. If revisions are made, all requests must be reviewed consistently against the most recent Technical Warrants.

These technical warrants are based on existing guidance from TAC *Canadian Guide to Traffic Calming Second Edition (2018)* and the *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* and provide a starting point for communities across Canada to support implementation. Technical Warrants may be revised at the discretion of the Director of Public Works and Engineering or Designate. If revisions are made, all requests must be reviewed consistently against the most recent Technical Warrants.

Traffic Calming Request and Technical Review Process

The following steps should be completed as part of the request and technical review process:

Step 1: Resident submits complete intake form with information to support the request for Traffic Calming. Complete intake forms received before September 30 each calendar year will be reviewed and considered for implementation the following Summer.

Step 2: Based on the completed intake form received, the City will complete Technical Warrant 1 (Eligibility) and determine if the location is eligible for traffic calming, based on:

- Street network classification (traffic calming measures are most suitable for Local and Collector street);
- Posted speed limit;
- Road length; and
- Recently completed technical reviews in the area.

Step 3: If Technical Warrant 1 (Eligibility) is met, then the City will complete Technical Warrant 2 (Problem Definition). The City will analyze recent traffic data to determine if the perceived nature and severity of the traffic issue aligns with the speed, volume, and collision data.

Requests for traffic calming will be considered in areas where there are:

- Recorded vehicle speeds that substantially exceed the posted speed limit;
- Traffic volumes that are higher than appropriate based on the road classification; and/or
- More than one reported collision, with a focus on injury or fatal collisions, and collisions involving pedestrians, cyclists, or motorcyclists.

Step 4: If Technical Warrant 2 (Problem Definition) is met, then the City will complete Technical Warrant 3 (Prioritization) to prioritize candidate locations for traffic calming projects. Requests will be prioritized in the following areas:

- Areas with recorded speeding, shortcutting, and reported collisions;
- Areas with a higher proportion of vulnerable road users. Vulnerable road users can include older adults, children, and people with disabilities;
- Areas where road renewal projects are planned and there are opportunities for integration with other projects; or
- Areas where there has been a history of resident requests and support from community associations.

If the request meets all three Technical Warrants, the City will add to the list of potential traffic calming projects as part of the Annual Traffic Calming Program.

Selecting Traffic Calming Measures

The City will review applicable plans related to the area (e.g. Yellowknife Transportation Plan, Community Plan) to understand how the potential traffic calming project aligns with the overall development and transportation context.

When possible, it is encouraged to trial traffic calming measures first with low cost, temporary solutions, to enable quick implementation and have a trial period to gauge effectiveness before investing in more permanent improvements.

The City will select measures and develop traffic calming projects based on best practice, engineering judgement, internal engagement, public engagement, technical standards, and the following considerations adapted from the TAC *Canadian Guide to Traffic Calming Second Edition (2018)*:

- **Effectiveness:** Will the proposed traffic calming measure address the target problem (speeding, shortcutting, or collisions)?

- **Local vehicle access:** Will the benefits of the proposed traffic calming measure justify the impact on access for local people driving and parking cars?
- **Pedestrian/cyclist access:** Will the proposed traffic calming measure maintain or improve access for local people walking, rolling, or wheeling?
- **Transit/emergency vehicle access:** Will the benefits of the proposed traffic calming measure justify the impact on transit/emergency vehicle access?
- **Winter maintenance:** Will the benefits of the proposed traffic calming measure justify the impact on winter maintenance?
- **Community design:** Will the proposed traffic calming measure improve the community design and contribute to an inviting streetscape where people want to spend time?
- **Flexibility:** Will the proposed traffic calming measure allow for future adjustments based on internal or public engagement feedback?
- **Grade:** Is the proposed traffic calming measure suitable for the grade?
- **Cost:** Will the benefits of the proposed traffic calming measure justify the cost?

Removing Traffic Calming Measures

Some traffic calming measures will be implemented seasonally and removed annually prior to winter conditions.

To give people time to adjust to new road conditions, the City will not action requests to remove traffic calming measures for at least three (3) months after a project is implemented.

The City reserves the right to modify or remove a traffic calming measure at any time for safety reasons.

The City will review resident requests to remove traffic calming measures in their neighbourhood and prioritize safety concerns. City Council must approve the permanent removal of traffic calming measures.

If a traffic calming measure is removed at the request of residents, the City will not review new traffic calming requests on that street for at least three (3) years.

E. TRAFFIC SIGNAL MANAGEMENT POLICY

PURPOSE

The purpose of this policy is to guide the planning, design, timing, coordination, and operation of traffic signals in the city. Traffic signal management objectives touch on elements such as accessibility and safety. This policy will provide directions on items such as pedestrian crossing times and coordination with nearby intersections.

This document provides:

- Guidance on the implementation of new traffic signals
- Considerations for modifications to existing intersection crossings and signals

This policy will be reviewed and updated to reflect changes in development and emerging technologies.

BACKGROUND

The City's Complete Streets, Vision Zero, Speed Limit, and Traffic Calming policies highlight the importance of planning, designing, and implementing a transportation network that prioritizes the safe and accessible movement of all road users. Intersections and traffic signals play an important role within the transportation system enabling safe and accessible crossings of streets in Yellowknife.

Within Yellowknife, a range of intersection controls and crossing treatments are used to support people walking, cycling, and rolling, including traffic signals, painted crosswalks, and Rectangular Rapid Flashing Beacons (RRFBs). While these facilities play an important role in enabling safe crossings, several intersections and crossings present accessibility and safety challenges, especially for older adults and people with disabilities.

The Transportation Plan has an action specifically tied to implementing new traffic signals as part of new developments and implementing safety and operational improvements at intersections. Additionally, the Plan notes that the City should implement targeted safety and operational improvements at intersections.

This Traffic Signal Management Policy provides guidance on the features of traffic systems that can promote consistent, safe, and efficient control of traffic signals.

RATIONALE

This document will be used by those involved in traffic signal operations and planning to promote consistent, safe, and efficient traffic signal operations in the City. The recommendations included in this policy are based on the following guiding principles:

- Follow the Vision Zero Policy and prioritize safety for all road users
- Provide complete streets and a transportation network that supports all modes of transportation
- Provide consistent, reliable, and efficient traffic signal operations

When considering the need for and type of traffic control, signal timing and progression, and other considerations, the impact on safety for vulnerable road users should be the top priority. While some traffic signal treatments may improve vehicle flow and reduce delays for motorists, they may also create delays, barriers, or safety concerns for other road users. Similarly, certain treatments may prioritize pedestrian comfort and safety while resulting in longer delays for motor vehicle traffic. Decisions regarding traffic signal operations should consider the surrounding land use context, the presence and needs of vulnerable users, and the tradeoffs associated with different treatments and techniques. In all cases, safety should take precedence when evaluating these tradeoffs.

Since traffic signal technology changes at a rapid pace, the City reserves the right to change the Traffic Signal Management Policy at any time. The recommendations included in this document are based on the *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* and *Transportation Association of Canada (TAC) Guidelines*. Additionally, the *BC Active Transportation Design Guide (2019)*, the *City of Toronto Traffic Signal Operations Policies and Strategies (2021)* document, and *City of Vancouver Traffic Signal Timing Guidelines (2023)* were reviewed for reference.

POLICY

The objectives of the policy are to provide guidance on:

- Implementing new traffic signals and traffic control devices
- Balancing safety and mobility
- The types of signalized traffic control and warning devices
- Signal timing and progression policies
- Other considerations

Implementing New Traffic Signals and Traffic Control Devices

The identification and implementation of new traffic signals and traffic control devices can occur through different mechanisms. The Yellowknife Transportation Plan identifies proposed traffic signals to improve safety, traffic operations, and multimodal accessibility based on a review of existing conditions, community input, and connections to future areas of development. The following section outlines some of the mechanisms and approaches to identifying and confirming the location of new traffic signals and crossing improvements.

Development: As new development occurs and the transportation network is expanded, there may be need to plan and implement new traffic signals. In this case, road classification is often an indicator of when signalization is recommended. The need for a traffic signal should be considered when:

- Two arterial roads intersect
- An arterial road intersects a collector road (especially if the collector road is the main access point to a new subdivision/development)

Warrants: Warrant analyses are comprehensive studies of traffic conditions and the physical characteristics of the site to determine which traffic control device should be implemented. Documents that can be used to support the warrant process include:

- *TAC Pedestrian Crossing Control Guide (2018)*: the Treatment Selection Tool, contained within the Guide, is a reference that may be used to support and inform the selection of a suitable crossing treatment.
- *TAC Traffic Signal and Pedestrian Head Warrant Handbook (2014)*

It is important to note that warrants should not be used as a substitute for engineering judgement. It is a traffic practitioner's fundamental responsibility to exercise engineering judgement and experience on technical matters. Designing for context has become increasingly important, and considerations regarding the presence of collisions, community member complaints, proximity to schools, and known or anticipated use by vulnerable users should be considered when reviewing the need for a change in traffic control.

Ongoing Monitoring: When considering when and where to install a new or upgrade the existing traffic control system, the City will continue to monitor potential locations for:

- Increasing traffic volumes or specific turning movements
- Road user behaviours (e.g., are people taking more risks, making unsafe movements due to inadequate gaps in opposing traffic ?)
- Change in users (e.g., is there is an increase in vulnerable road users due to changing land use?)

While there are several different techniques for monitoring, within the context of Yellowknife, manual data collection may be the most appropriate.

Types of Signalized Traffic Control and Warning Systems

Appendix B Table 5 outlines the types of traffic control and warning systems that can be considered in Yellowknife. A brief description has been provided along with some of the advantages and disadvantages of each system.

APPENDIX B TABLE 5: POTENTIAL TRAFFIC CONTROL AND WARNING SYSTEMS FOR USE IN YELLOWKNIFE

Type of Signal	Description	Advantages	Disadvantages
Traffic Signals (Full Signals)	Traffic signals control all approaches and regulate which user can enter the intersection at a given time. Traffic signals are used at intersections between a combination of roads that are major and minor in functional classification. The installation of full traffic signals is often determined by a warrant process.	• All users are given a clear signal of when to cross and stop • Suitable for roads with higher volumes and larger cross sections • Ability to coordinate/delay/time the actuations and calls • May be accessible for all users	• Highest installation costs due to more infrastructure required than other traffic devices • May impact traffic operations and result in delay to people walking, rolling, and cycling • May cause pedestrian delay which can reduce convenience and discourage walking • High warrant demands for justification
Pedestrian Activated Signal (Half Signal)	Pedestrian activated signals are traffic signals that include all the elements of a full traffic signal, except for side road vehicle indication and detection. Pedestrian activated signals are intended to facilitate pedestrian (and cycling) movements while controlling motor vehicle movements on only one road, rather than two or more roads. They can be used at the intersection of major and minor roads, or they can be used at major mid-block crossings. The decision to implement is typically determined by a study that includes a warrant process and can be installed wherever deemed appropriate.	• Pedestrians are given a clear signal when to cross, and motorists on the major road see a conventional signal indicating when to stop • Suitable for roads with higher volumes, speeds, and larger cross sections, where crossing opportunities are less frequent and where side-mounted systems are less effective • Less delay for major streets as it is activated on demand only	• Lower installation cost than a traffic signal but higher installation cost compared to other traffic devices • Increased delay for major roads compared to overhead pedestrian flashers or RRFBs • If located on transit routes, could impact the predictability of transit schedule as pedestrian and bicycle activation will slow motor vehicle traffic • May increase short-cutting motor vehicle traffic on minor side streets unless implemented with traffic calming and traffic diversion measures • Potential confusion with side road being stop controlled

Type of Signal	Description	Advantages	Disadvantages
Overhead Flashing Beacon	Overhead flashing beacons are also known as Special Crosswalks. They are not considered a traffic control signal but are instead a traffic control device installed to enhance visibility and yielding of motorists for a crosswalk at intersections or mid-block locations. The system consists of an overhead illuminated Pedestrian Crossing sign (MUTCDC RA-5) with pedestrian-activated flashing amber beacons. Advanced warning signs and flashers can be installed where sightlines are constrained. Pavement markings and side-mounted signs and beacons also supplement the overhead flashing beacons. Beacons flash in an alternating pattern. Practitioners should undertake a site-specific assessment to determine the most appropriate active pedestrian crossing control for each location under consideration.	• Less delay for major road, as it is activated on demand only • Can be implemented when conventional signal warrant is not met or where a conventional traffic signal is not desired • Lower installation costs than traffic signals (full or half) • Requires less infrastructure than traffic signals (full or half)	• Warning device only, does not provide a 'red/stop' condition for motorists, and may lead to variation in motorist behaviour • No platooning of crossing users can be unpredictable for motor vehicle traffic • Less visibility than a traffic signal • Typically not suitable for higher speed roadways
Rectangular Rapid Flashing Beacon (RRFB) or Other Side-Mounted Flashing Beacon	When activated, Rectangular Rapid Flashing Beacons (RRFBs) or other side-mounted flashing beacons have flashing amber lights that alternate back and forth to attract motorists' attention, increasing yielding behaviour. As flashing amber lights indicate caution only, RRFB's should not be used to assign right-of-way. When used, RRFBs or other side-mounted flashing beacons should be installed with one on either side of the road and a two-sided RRFB in the median island, if a median exists. RRFBs or other side-mounted flashing beacons can be used to mitigate conflicts at challenging crossings such as channelized right turn lanes, roundabouts, and at mid-block crossings, bicycle crossings, or multi-use pathway crossings.	• Less delay for major road • Can be implemented when conventional signal warrant is not met or where a conventional traffic signal is not desired • Requires less infrastructure than all other devices • Lowest installation cost compared to other traffic devices	• Warning device only, does not provide a 'red/stop' condition for motorists and may lead to variation in motorist behaviour • Wide roads can make side of road signing more difficult for drivers to see • No platooning of crossing users can be unpredictable for motor vehicle traffic • Generally, not suitable for higher speed roadways, and on roads with multi-lane cross-sections

Signal Timing and Progression Policies

Signal Phasing: The *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* defines a signal phase as the right-of-way (green), amber, and all-red clearance intervals in a signal cycle that are assigned to an independent traffic movement or combination of non-conflicting traffic movements serving different modes (i.e. motorists, pedestrians, cyclists, and transit). Different phases are considered depending on the intersection configuration and site conditions to balance the different needs of road users. The underlying recommendation is to focus on minimizing unnecessary delays for pedestrians.

Signalized movements requiring actuation utilize detectors that identify users (cyclists, vehicles, and pedestrians) of the intersection. For **fixed time signals**, detection infrastructure may not be required. The signal phasing is operated by pre-programmed sequences. However, this may not always align with demand and can result in unnecessary delays if pedestrian volumes are low.

For **fully actuated signals**, every movement contains vehicle, cyclists, and/or pedestrian detectors that moderate the length of green time based on the current demand (detection is required). **Semi-actuated signals** maintain the through phase for the major street unless a minor street vehicle detector or a pedestrian push-button is actuated.

Protected and Permissive Turning Movements: Protected signal phases allow a specified turning movement to be made while other conflicting traffic is stopped or only the adjacent through movement is allowed. Protected turning movements reduce the potential for conflicts between flows of traffic but may increase overall intersection cycle lengths and increase delay.

Left Turn Movements: To determine if a protected left turn movement is recommended, the City should review the Need in comparison to the Impact. This includes reviewing vehicle volumes, traffic delays, and collision experience.

- **Need:** Factors that highlight why a left-turn phase would be beneficial – high left-turn volumes, high opposing through-traffic volumes, collision history, identified safety concerns, or significant traffic delays due to turning movements.
- **Impact:** unacceptable delays or operational problems for other road users.

Additionally, intersection geometry and the ability to allocate space to a turn lane may factor in the decision. Depending on the intersection context the City may implement:

- **Protected / Permissive Left-Turn Phasing:** Allows left turns on a green arrow and later permits left turns on a green ball while yielding to oncoming traffic.
- **Fully Protected Left-Turn Phasing:** A fully exclusive phase where left-turning traffic has a dedicated arrow and opposing traffic is stopped.

Right Turn Movements: Some communities have implemented protected/permissive or fully protected right turn phasing. Right-turn phasing is typically only installed when there is a complementary left-turn phase, green phase, and an exclusive right turn lane.

Signal Coordination: Depending on the location of the route and time of day, signal coordination design strategies may be developed to optimize traffic flow along arterial routes. Typically, coordination should balance overall delays and manage safe and reasonable speeds. Coordination can be considered for signalized intersections whereby the spacing between intersections is less than 400 metres. For coordination between signalized intersections, consider, and where possible, reduce delays for pedestrians.

Signal Timing Plans: Because traffic conditions vary based on the time of day, day of the week, or for special events, traditional signal controllers can be programmed to operate with different timing plans depending on the forecast demand. As Yellowknife evaluates various approaches to phasing signal timing, different signal timing plans based on time of day or week may be considered.

Pedestrian Phase and Signal Components

The pedestrian phase consists of 'Walk' and 'Flashing Don't Walk' (FDW) intervals. The Walk interval is the time that allows pedestrians to notice the change in signal indications and begin their movement. The FDW interval follows the Walk interval where sufficient crossing time is given for someone who entered the crosswalk (at the end of the Walk interval) to reach a designated pedestrian refuge or the other side of the road in a safe manner before conflicting traffic receives a green indication.

Pedestrian Walk Times: A minimum of 7.0 seconds of initial Walk time can be provided for pedestrian signals. In areas with higher pedestrian volumes and/or where pedestrian storage is an issue, the Walk duration can extend beyond 7.0 seconds.

Pedestrian Walk Speeds: Pedestrian walking speed is used to determine the minimum safe pedestrian clearance interval for which a pedestrian may cross a signalized intersection. Pedestrian walking speeds vary depending on the demographics of the pedestrians.

In accordance with the *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* guidelines, crossing time should be determined using a pedestrian walking speed ranging from 0.8 m/s to 1.0 m/s. The range of walking speeds are described below:

- **0.8 m/s** - walking speed should be used near hospitals and senior centers where pedestrians crossing the signalized intersection use assistive devices for mobility.
- **0.9 m/s** - walking speed should be used in cases where a moderate percentage of pedestrians crossing the signalized intersection are older pedestrians (65 years of age or older).
- **1.0 m/s** - walking speed should be used to accommodate the general population.

In special circumstances, an increase up to a walk speed of 1.2 m/s may be explored when maintaining coordination with adjacent signals and/or reducing the overall signal cycle length is deemed critical.

Leading Pedestrian Intervals (LPI): A LPI is a traffic signal timing strategy that can be used to give pedestrians a head start before motor vehicle traffic to increase visibility and reduce conflicts. This early walk phase (typically 3 to 7 seconds) allows pedestrians to enter the crosswalk and establish visibility in the intersection, reducing the likelihood of conflicts with turning vehicles, particularly right-turning motorists. LPIs are especially beneficial in urban environments and high-conflict intersections, as they enhance pedestrian safety by increasing yielding compliance and reducing vehicle encroachment into the crosswalk.

LPIs are recommended by the Federal Highway Administration (FHWA), National Association of City Transportation Officials (NACTO), and are included in the *MUTCDC*. LPIs are a cost-effective measure to improve pedestrian safety without requiring significant changes to intersection geometry.

Pedestrian Signal Components:

- Accessible Pedestrian Signals (APS) are used to provide non-visual cues to support people with sight loss to cross the street safely. The main resource for APS is the *TAC Guidelines for Understanding, Use, and Implementation of Audible Pedestrian Signals (2008)*. The *Canadian Standards Association (CSA) Accessible Design of the Built Environment (2023)* defers to these TAC guidelines. However, they have not been updated recently. Additional resources include the *National Cooperative Highway Research Program (NCHRP) Report 117A: Accessible Pedestrian Signals: A Guide to Best Practices (2007)*, *BC Active Transportation Design Guide (2019)*, and the Accessible Design for the Blind, Consumer Access Group, Canadian Nation Institute for the Blind (CNIB) Foundation are also helpful references.
- Pedestrian push button placement should be provided for each direction of travel and should be properly placed to offer the full benefits to all pedestrians, including people with sight loss. Pedestrian push buttons should be placed either on stub poles or on the same pole as the pedestrian signal head. The *TAC Guidelines for Understanding, Use, and Implementation of Audible Pedestrian Signals (2008)* provides detailed recommendations on the placement of pedestrian push buttons.
- Pedestrian countdown timers provide information for pedestrians to cross the street by informing them of the time until the pedestrian phase terminates. Pedestrian countdown timers indicate the remaining time in the Walk phase, giving pedestrians an idea of how long the signal will display.

Pedestrians retain the legal right to complete their crossing even after the countdown ends. They should be provided at all signalized intersections. There are mixed research results regarding pedestrian and driver compliance and behaviours.

- Automatic pedestrian detection can be considered, particularly in areas with high pedestrian volumes and continuous activity. In cases where automatic pedestrian detection is in place, a push button would not be required. See the section above regarding signal phasing regarding detection.

Other Considerations

Detection: Vehicle detection systems are installed at intersections to actuate and extend signal phases based on traffic demand. They are typically in-roadway sensors, video, or radar detection. Detection can be used to trigger certain cycles at fully actuated signals, including turning phases. Pedestrian detectors include pedestrian push buttons, which trigger a pedestrian phase.

Preemption: Allows the typical signal operation to be preempted by a different signal operation (typically triggered by emergency vehicles, rail crossings or transit). The traffic signal controller safely terminates the current phase and serves a pre-defined or set of pre-emption phases.

Malfunction: Cold weather conditions can result in equipment malfunctions. Signal obstructions (particularly LED traffic lights), camera detection failure, and battery degradation due to ice accumulation and extreme weather. Heating elements integrated into technologies (such as heat tape and lens warmers) and hydrophobic and anti-ice coatings have been shown to help. Monitoring and early detection of malfunctions is extremely important to mitigate issues quickly.

F. CYCLING FACILITY DESIGN GUIDELINES

INTRODUCTION

The purpose of this design guide is to supplement the Yellowknife Transportation Plan and provide guidance to the City when selecting, designing future cycling facilities. This document includes a cycle facility selection tool as well as guidelines for the recommended widths, signage, and pavement markings for a range of cycling facilities.

This document has been developed based on best practice and guidance from the *Active Transportation Design Guide for Yukon Highways (2025)*, *BC Active Transportation Design Guide (2019)*, the *Transportation Association of Canada (TAC) Geometric Design Guidelines for Canadian Roads (2017)*, and the *Ontario Traffic Manual Book 18: Cycling Facilities (2014)*.

Other references from outside of Canada include the *Federal Highway Administration's Small Town and Rural Multimodal Networks (2016)*, *National Association of Transportation Officials Urban Bikeway Design Guide (2025)*, and the *City of Oulu's Winter Maintenance Guidelines*.

The *Active Transportation Design Guide for Yukon Highways (2025)* and the *BC Active Transportation Design Guide (2019)* were primarily used as references due to their recency and cycling focus that builds off the TAC *Geometric Design Guide*. Most of the figures and graphics included in this document have been pulled from existing guidelines to illustrate preferred designs.

PLANNING AND DESIGN CONSIDERATIONS

Design Domain

The *BC Active Transportation Design Guide (2019)* includes two levels within the design domain: desired and constrained with absolute minimums and maximums provided where applicable. These levels will be used for these guidelines as they facilitate decision making that is flexible to meet the context of local conditions.

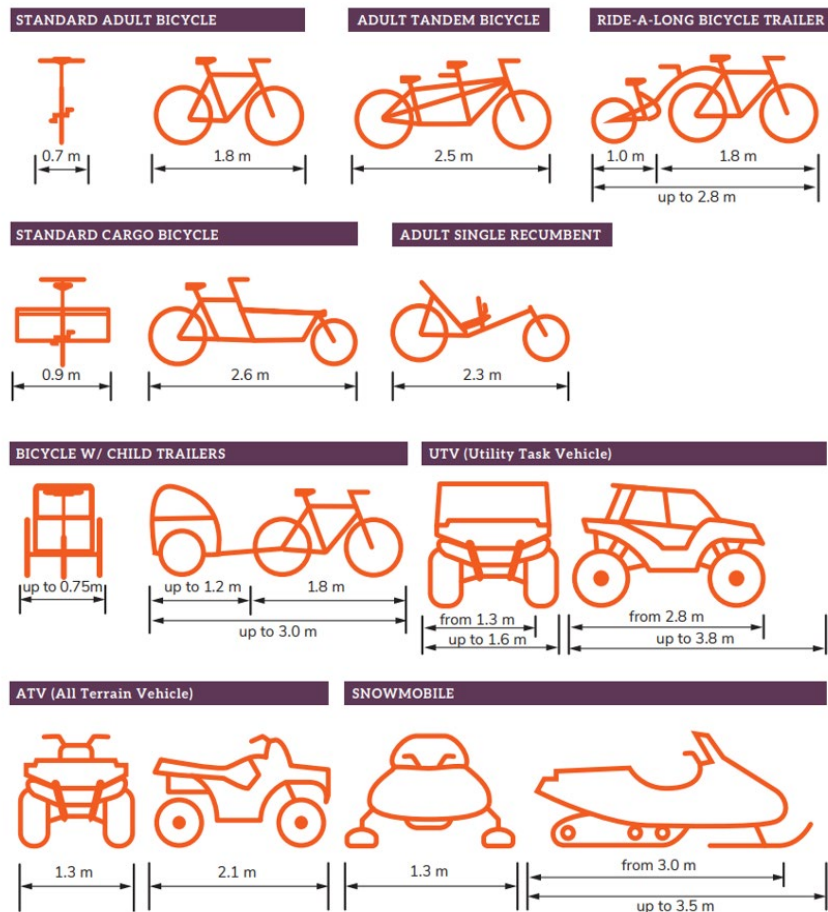
This range has a relationship with the fitness-for-purpose of the design element. Values on the lower end of the range will be less costly to construct but provide a less satisfactory experience for users, while values on the higher end of the range may run into cost issues or space constraints. Whichever value is chosen will have unique benefits and constraints in terms of operational performance and the experience of the user. While all values within the range of the Design Domain are acceptable, some may be better than others for a given situation. Engineering judgement will need to be used to determine this in any given situation.

Calculating Measurements

Where there is a curb and/or gutter, all measurements in this document are measured from the lip of gutter (as opposed to the face of curb) and exclude the gutter pan. Where there is no curb and/or gutter, all measurements in this Design Guide are measured to the edge of pavement. In addition, measurements to longitudinal pavement markings are calculated to the centre of the painted line.

Bicycle Dimensions and Operating Space

Bicycles come in many shapes and sizes, with “non-standard” cycles becoming increasingly common across North America. Cycling facilities must be designed to accommodate the full range of cycles, including standard cycles such as road, touring, mountain, fat tire cycles, and hybrid styles, but also non-standard bicycles such as children's cycles, adult tricycles, cargo bicycles, bicycles with trailers, electric bicycles (e-bikes), and recumbent bicycles (**Appendix B Figure 4**). Considering all types of bicycles in the planning and design process can ensure the cycling facility is accessible for all ages and abilities.

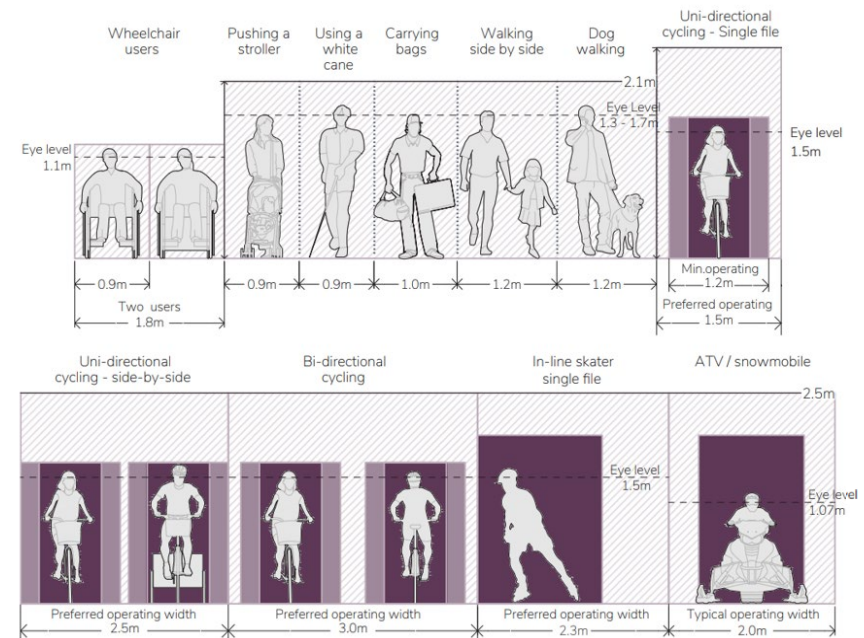


APPENDIX B FIGURE 4: TYPICAL DEVICE DIMENSIONS (Source: Active Transportation Guide for Yukon Highways, 2025)

Designers are reminded that this is not to be considered an exhaustive list and that bicycles come in many different configurations, including bicycles built for use by people with mobility restrictions. Facilities designed with this range of design vehicles in mind, including consideration of bicycles built for people with mobility restrictions, will accommodate most existing and potential bicycle users. Additional users of cycling facilities may include skateboarders, longboarders, in-line skaters, electric scooter riders, and roller skaters.

Type 3 trails (recreational motorized pathways) as outlined in the Trail and Pathway Classification in Action 2.3A of the Transportation Plan can include motorized users such as snowmobiles and ATVs. Emerging technologies, both human-powered and electric, will require consideration in the future as well.

The operating space required by a person cycling is shown in **Appendix B Figure 5**. In addition to the dimensions of the bicycle itself, the person riding the bicycle must also be considered. A single person cycling requires a horizontal operating envelope of 1.2 to 1.5 metres, which allows for variations in tracking (i.e. lateral movement, which is common when riding uphill and when moving at full speed). These dimensions form the basis of the design parameters for cycling facilities.



APPENDIX B FIGURE 5: TYPICAL OPERATING SPACE (Source: Active Transportation Guide for Yukon Highways, 2025)

Cycling Facility Selection

There are a wide variety of considerations for selecting the type of cycling facility infrastructure for a given roadway context. Some of the key factors to consider include:

- Motor Vehicle Speed and Volume
- Users
- Road Width
- Curbside Use
- Natural Features
- Truck and Bus Traffic
- Conflict Points
- Aesthetics
- Cost / Funding
- Maintenance and Operations
- Land Use and Development Context
- Road Classification

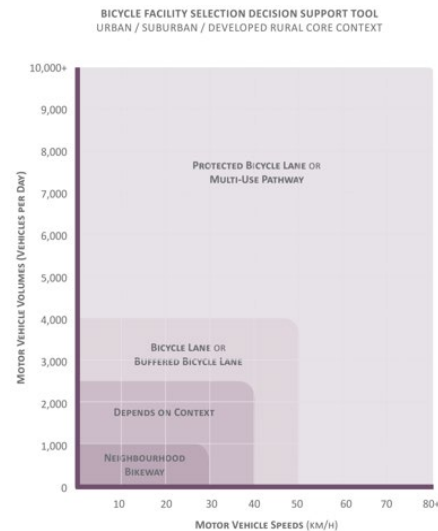
The cycling facility selection process is complex. The choice between facility types is not always simple, as all of the factors noted above must be weighed against one another. Facility design selection involves a certain degree of flexibility, as designs must recognize context and adapt to site specific characteristics. The final decision regarding bicycle infrastructure design will depend in part on the experience and professional judgment of a qualified professional.

Further guidance is provided in Section D.1 of the *BC Active Transportation Design Guide (2019)*.

A simple facility selection tool can be seen in **Appendix B Figure 6**. This tool can be used to select cycling facility type based off both the speed and the volume of the roadway.

APPENDIX B FIGURE 6: CYCLING FACILITY SELECTION TOOL

(Source: *BC Active Transportation Design Guide, 2019*)



The road network in Yellowknife has been reviewed through the lens of determining what facility types are best suited for each street classification.

Appendix B Table 6 below outlines facility recommendations and considerations to be used when selecting cycling facility types.

APPENDIX B TABLE 6: CYCLING FACILITY BY ROAD CLASSIFICATION

City of Yellowknife Road Classification	Recommended Cycling Facility	Other Considerations
Highway	Multi-Use Pathways or Protected Bicycle Lanes	Coordination with the Government of the Northwest Territories would be required
Arterial	Multi-Use Pathways Bicycle Lanes (including Buffered Bicycle Lanes)	On arterial roadways with existing sidewalks buffered bicycle lanes may be suitable to expediate the implementation of the long term cycling network
Collector	Multi-Use Pathways Bicycle Lanes (including Buffered Bicycle Lanes)	Consider multi-use pathways on collector roadways without existing sidewalks
Local	Neighbourhood Bikeways	Neighbourhood bikeways are suitable for local streets, install traffic calming treatments as required

CYCLING FACILITY DESIGN GUIDANCE

There is a range of different cycling facility types that can be appropriate in various contexts. Municipalities have been moving towards networks of cycling facilities that are considered comfortable for most or comfortable for many.

The Transportation Plan identifies a proposed cycling network that is made up of a variety of facility types:

- Multi-use pathways
- Neighbourhood bikeways
- Bicycle lanes

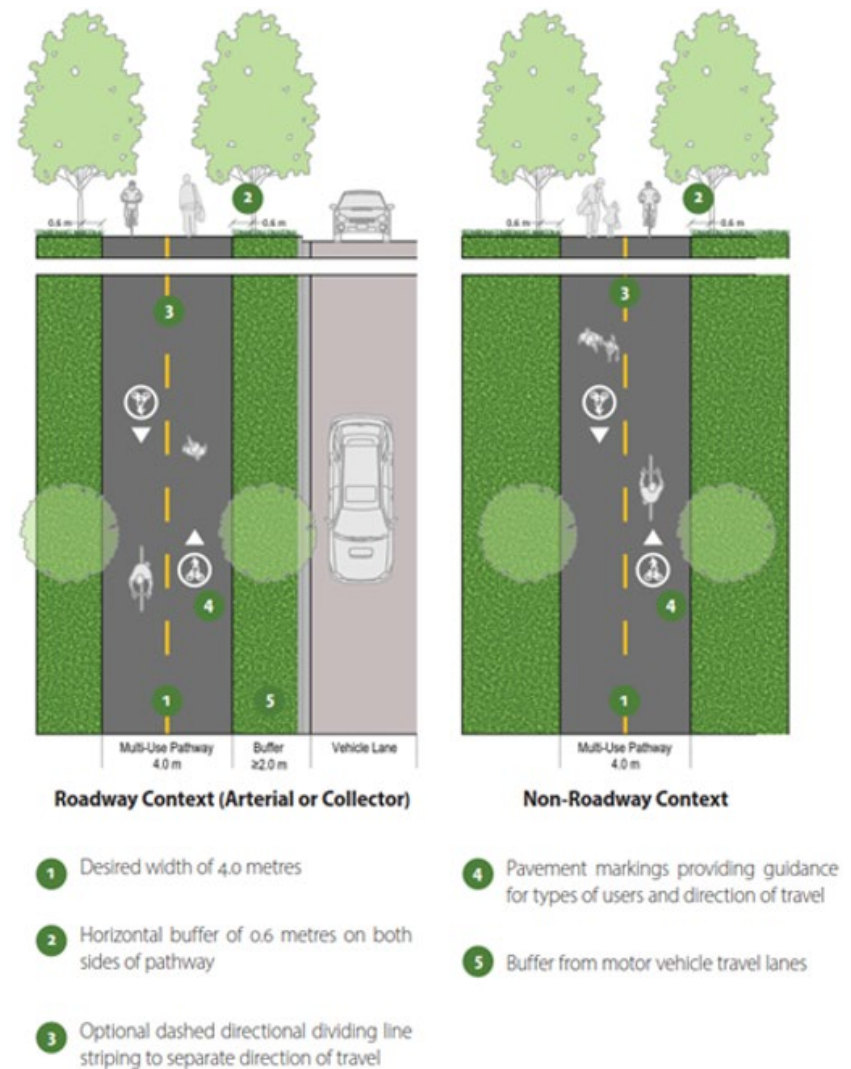
Multi-use Pathways

Multi-use pathways are physically separated from motor vehicles by an open space or barrier, depending on the application, and can be used simultaneously by a number of users including cyclists, pedestrians, joggers, in-line skaters, people walking dogs, people with mobility aids, and a variety of other users at the same time. An example of a multi-use path can be seen in **Appendix B Figure 7**. Multi-use pathways provide great connections for recreational and commuter purposes.

Considerations for separating cyclists and pedestrians should be made when the off-street pathway is either used by a high percentage of pedestrians, at locations where the total user volumes are high, or where space is available. Generally, it is recommended that if there are consistently more than 1,500 combined users on a 3.0 to 4.0 metre wide pathway and space is available, separation is recommended. When users are separated out with physical separation (beyond a painted line) the cycling facility would then be referred to as a bike path. Design guidance on bike paths is provided in the following section.



APPENDIX B FIGURE 7: MULTI-USE PATHWAY IN YELLOWKNIFE



APPENDIX B FIGURE 8: MULTI-USE PATHWAY CROSS-SECTION

(Source: BC Active Transportation Design Guide, 2019)

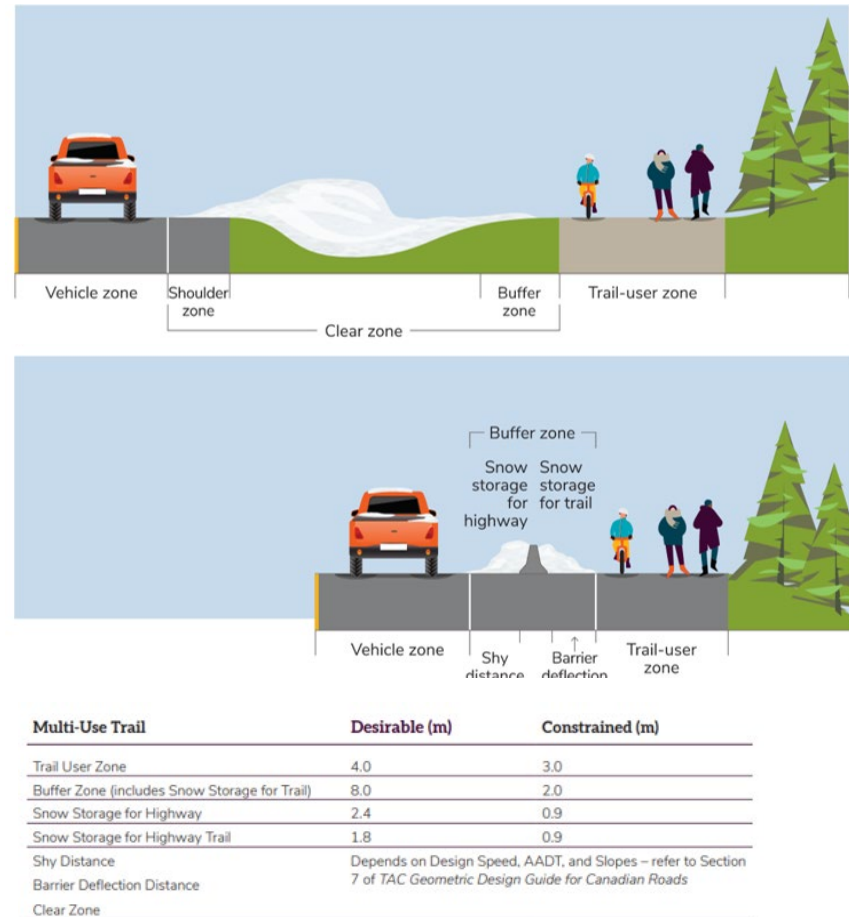
Width

Multi-use pathways are recommended to be built between 3.0 metres and 4.0 metres wide. A multi-use pathway within these widths provides a comfortable width for cyclists passing another cyclist traveling in the opposing direction, or two pedestrians walking side by side. **Appendix B Figure 9** shows the design domain widths recommended by the *BC Active Transportation Design Guide (2019)*. More information on considerations for the design width of multi-use pathways can be found in the *BC Active Transportation Design Guide (2019)*.

CONTEXT	DESIRABLE (M)	CONSTRAINED (M)
Highway Corridor		
See Chapter F.1		
Roadway Corridor (Arterial and Collector Roads)		
Pathway Width	4.0	3.0
Street buffer Zone Width*	≥ 2.0	0.6
Roadway Corridor (Local Roads)		
Pathway Width	3.0 – 4.0**	3.0
Street Buffer Zone Width*	≥ 1.5	0.6
All Other Contexts		
Pathway Width	3.0 – 4.0**	2.7
Lateral Clearance	0.6***	0.6

APPENDIX B FIGURE 9: MULTI-USE PATH WIDTH DESIGN GUIDANCE (Source: *BC Active Transportation Design Guide, 2019*)

Special considerations need to be made when designing a multi-use pathway within a highway right-of-way. When a multi-use pathway is to be built within a highway right-of-way it should be located outside of the clear zone of the highway, which is based on the design speed and traffic volume of the highway.



APPENDIX B FIGURE 10: MULTI-USE PATHWAY DESIRABLE AND CONSTRAINED CROSS-SECTIONS (Source: *Active Transportation Guide of Yukon Highways, 2025*)

Separating Users

As noted, considerations for separating cyclists and pedestrians should be made when the multi-use pathway is either used by a high percentage of pedestrians, at locations where the total user volumes are high, or if adequate space is available. There are varying levels and types of separation that can be provided to separate modes travelling along a multi-use pathway ranging from median or boulevard separation, curb separation, tactile warning delineator separation, and paint. The type of separation used typically depends on the amount of space available.

In Yellowknife, on multi-use pathways that are 3.5 metres or wider, adjacent to a roadway, and there is a multi-use pathway on both sides of the street, a dashed painted line separating users is recommended. This would accommodate uni-directional bicycle travel and bi-directional pedestrian travel. In this scenario, a white dashed centre line would be provided with a bicycle stencil indicating the direction of travel for cyclists and two-way pedestrian stencil.



APPENDIX B FIGURE 11: EXAMPLE OF A MULTI-USE PATHWAY SEPARATING USERS
(City of North Vancouver, BC)

Signage

Along shared multi-use pathways, the Shared Pathway (RB-93) sign may be used to indicate that both people cycling and walking are permitted to use the trail. Additional pathway etiquette signs indicating the recommended yielding behaviour of different modes of pathway users can be used but is not required. The Pathway Organization sign (RB-94) indicates to people cycling and walking how to share a pathway on which there is a designated area provided for each. This sign may be installed back-to-back. The Turning Vehicles Yield to Bicycle sign (RB-37) may be used at conflict zones where motorists are required to cross a bike path.

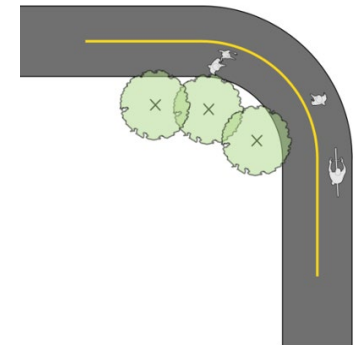
Signage may also be used to restrict unwanted motorized vehicle access. Signage that can be used include the Parking Prohibited Sign (RB-51), Stopping Prohibited Sign (RB-55), Motorcycles Prohibited Sign (RB-85), and/or the Automobiles Prohibited Sign (RB-88).

Pavement Markings

General multi-use path stencils should be used at pathway entrances, after any intersection, and at conflict points. Additionally, stencils may be placed every 50 to 100 metres along the trail, depending on context. Tighter spacing may be considered near sharp corners.

Centreline striping is generally not recommended along off-street pathways. However, in certain scenarios, centerline striping may provide safety and wayfinding benefits. Centreline striping should be implemented when it is being used to separate users. This can include a dashed line. The use of yellow or white paint will be dependent on whether the pathway accommodates uni-directional or bi-directional bicycle travel.

Centreline striping is recommended when multi-use paths are located on hills with a grade steeper than 5%, at locations where passing is dangerous due to space constraints and limited visibility (**Appendix B Figure 12**), and/or as a way of wayfinding and demarcating the multi-use path at locations such as trail access points and intersections. Centreline striping is also recommended at locations where the multi-use path experiences high bi-directional volumes.



APPENDIX B FIGURE 12: CENTRELINE STRIPING FOR LIMITED VISIBILITY
(Source: Urban Systems)

Grade

The recommended longitudinal grade for a multi-use path is 0.6%, as the slight grade is required to facilitate drainage. The ideal grade for a multi-use path is less than 5.0% from a user accessibility standpoint. For pathways situated in hilly areas with a longitudinal grade exceeding 5% but less than 6%, flatter resting areas of 3% or less should be provided every 100 metres. For pathways between 6% and 8%, the interval of rest areas is reduced to 50 metres. For pathways with a grade of greater than 8%, alternative solutions should be explored, such as relocating the pathway to a flatter area, or implementing switchbacks along the path.

Neighbourhood Bikeways

Neighbourhood bikeways refer to shared bicycle routes that are located on local streets with lower traffic volumes and speeds and that have been optimized to varying degrees to prioritize bicycle traffic. In cases where traffic volumes and speeds are relatively low, and the street is of sufficient width to allow safe passing between cyclists and motor vehicles, cyclists and motorists are able to comfortably share the road without the need for significant physical improvements to the roadway.



APPENDIX B FIGURE 13: EXAMPLE OF A NEIGHBOURHOOD BIKEWAY
(Lethbridge, AB)

In cases where existing conditions on the local street have relatively low traffic volumes (<1,000 vehicles/day) and speeds (≤ 30 km/h posted speed), the only improvements required may be signage, intersection treatments, and pavement markings to help identify the road as a bicycle route. In cases where a neighbourhood bikeway is desired on a local street, but the existing speed and/or volume exceeds the recommended limit, traffic calming measures can be used to slow down the travel speed and potentially reduce short cutting traffic. Recommended treatment levels based on the speed and volume of a local roadway are summarized in **Appendix B Figure 14** below.

Existing Motor Vehicle Volumes (VPD)	Existing Posted Motor Vehicle Speeds	Level of Treatments		
		Level 1: Required Treatments (Intersection Treatments, Signage, and Pavement Markings)	Level 2: Traffic Calming (Speed Management)	Level 3: Traffic Diversion (Volume Management)
<1,000	30 km/h or less	✓		
<1,000	30 to 50 km/h	✓	✓	
1,000 – 2,500	30 km/h or less	✓		✓
1,000 – 2,500	30 to 50 km/h	✓	✓	✓
>2,500	> 50 km/h	Consider alternate facility type		

APPENDIX B FIGURE 14: NEIGHBOURHOOD BIKEWAY LEVEL OF TREATMENT GUIDANCE (Source: BC Active Transportation Guide, 2019)

Signage

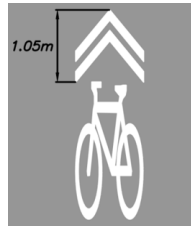
In many cases, neighbourhood bikeways can be implemented easily and for a low cost with the application of bicycle route signage to identify the road as a bicycle route. The purpose of the signage is to identify routes for both cyclists and motorists and may provide destination and distance information and/or warn users about changes in road conditions. Recognizing the maintenance costs associated with pavement marking in the Yellowknife context, additional signage should be considered for neighbourhood bikeways at every intersection.

Pavement Markings

In addition to route signs, bicycle sharrow pavement markings (**Appendix B Figure 15**) should be placed on the roadway to identify the route as a neighbourhood bikeway.

APPENDIX B FIGURE 15: SHARROW PAVEMENT MARKING

(Source: BC Active Transportation Design Guide, 2019)



Traffic Calming

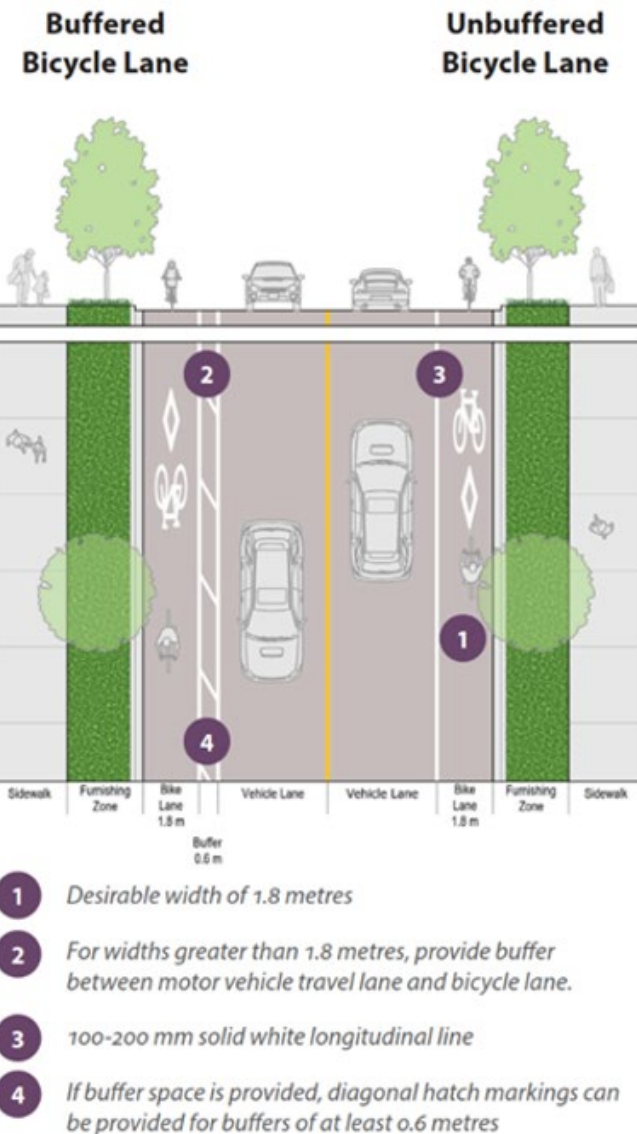
Traffic calming measures consist of devices that provide either horizontal or vertical deflection to reduce motor vehicle speeds and volumes, improving cycling safety and comfort. Traffic calming measures should be considered on all neighbourhood bikeways with posted vehicle speeds of 50km/h or greater. There are several typical traffic calming measures that can be considered, including: traffic circles, speed humps, speed tables, and curb extensions. For further guidance on traffic calming measures refer to Yellowknife's Traffic Calming Policy and Guidance, Section D.2, TAC *Canadian Guide to Traffic Calming Second Edition (2018)* and Appendix C of the *BC Active Transportation Design Guide (2019)*.

Painted Bicycle Lanes

Conventional bicycle lanes are separate travel lanes designated for the exclusive use of bicycles. In most cases, they are located on the right-hand side of the road adjacent to the curb, and are identified with a solid white line and by signage and pavement markings placed at regular intervals. Bicycle traffic in a conventional bicycle lane is typically one-way in the same direction as the adjacent travel lane. Painted bicycle lanes may be installed with a painted buffer on busier roads or where additional space is available to create a more safe and comfortable cycling environment (**Appendix B Figure 16**).



APPENDIX B FIGURE 16: PAINTED BICYCLE LANE IN YELLOWKNIFE



APPENDIX B FIGURE 17: PAINTED BICYCLE LANE CROSS-SECTION

(Source: BC Active Transportation Design Guide, 2019)

Width

Painted bicycle lanes are recommended to be between 1.5 metres and 1.8 metres wide to accommodate single file bicycle travel and allow passing. Additionally, the painted bicycle lane width is recommended to be at least 1.8 metres when adjacent to parked vehicles to provide a space of at least 0.3 metres for motor vehicle doors to open while still allowing cyclists to pass in the remaining unobstructed painted bike lane. According to the *BC Active Transportation Design Guide (2019)*, the absolute lower limit for width of a painted bicycle lane is 1.2 metres based on the horizontal operating envelope noted in the **Bicycle Dimensions and Operating Space** section. When painted bicycle lanes less than 1.5 metres are used, a special design exception should be required to justify and outline the constraints present.

FACILITY	DESIRABLE (M)	CONSTRAINED LIMIT (M)
Curbside bicycle lane	1.8*	1.5**
***Buffer (between bicycle lane & motor vehicle lane)	0.6	0.3

*For any width greater than 1.8 metres, a buffer should be provided to avoid the bicycle lane being mistaken or used for other purposes, such as parking or motor vehicle travel.

**The absolute minimum width of an unbuffered curbside bicycle lane is 1.2 metres. A bicycle lane width between 1.2 metres and 1.5 metres should only be considered for short distances (less than 100 metres), in constrained areas, and when reasonable consideration has been given to an alternate design.

*** Where motor vehicles speeds are 50 km/h or greater, adding a buffer is strongly recommended.

APPENDIX B FIGURE 18: PAINTED BICYCLE LANE DESIGN DOMAIN

(Source: *BC Active Transportation Design Guide, 2019*)



Signage

Along painted bicycle lanes, Reserved Bicycle Lane signs (RB-91, RB-90) should be installed at a minimum of one sign between each intersection and spaced mid-block at least every 200 metres, when intersection spacing exceeds 200 metres in an urban environment. This frequency should increase where pavement markings are challenging to maintain.

Pavement Markings

Solid white lines 100mm thick should be painted to delineate the edge of a travel lane dedicated for bicycle use. At locations where motor vehicle traffic is allowed to cross into the bicycle lane to access a bus stop, driveway, or at an intersection, a dashed white line should be used. When a dashed line is used, it should be used for a minimum of 15 metres.

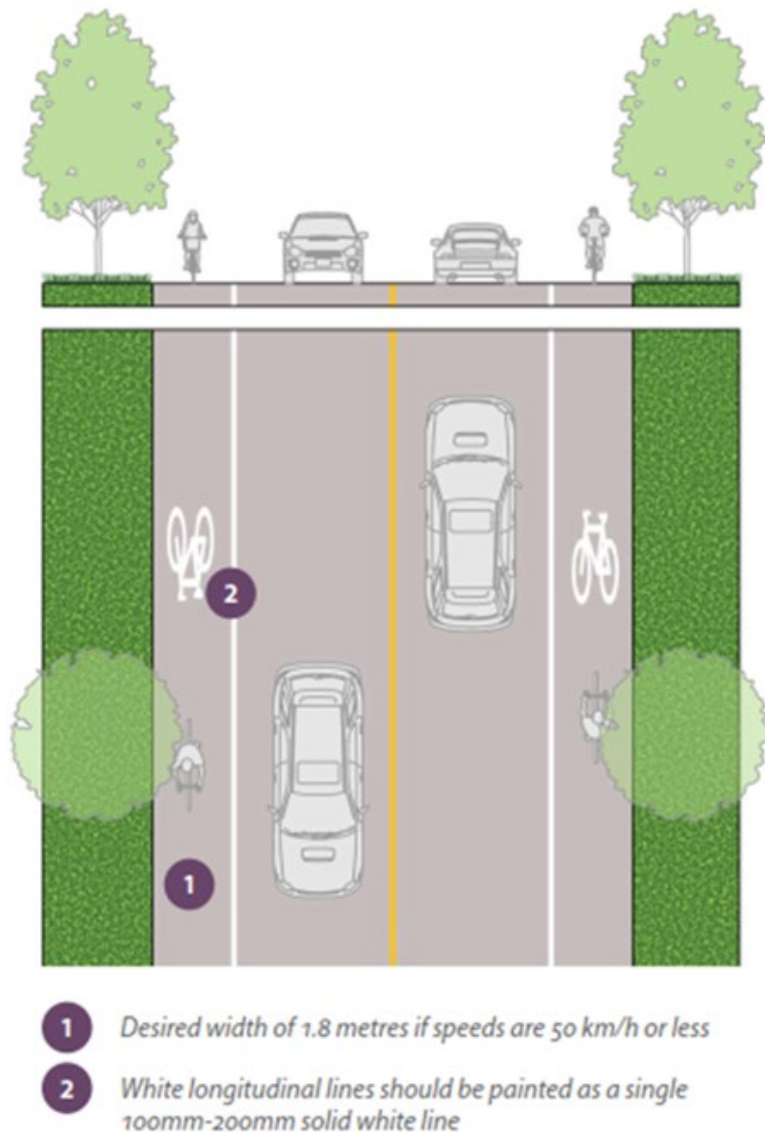
An elongated bicycle symbol with an accompanying diamond symbol should be installed in the painted bicycle lane in advance of and after intersections to indicate the dedicated use of the lane by bicycles (**Appendix B Figure 24**).

Shoulder Bicycle Lanes

A shoulder bicycle lane is a paved area located next to a travel lane and separated by a white painted line, shown in **Appendix B Figure 19**. Typically shoulder bicycle lanes exist in cases where the roadway does not have a curb and gutter, such as a highway or rural roadway. Shoulder bicycle lanes are typically not designed or designated for cyclists and are often shared with pedestrians in rural contexts. Travel in a shoulder bicycle lane is always one-way in the direction of the adjacent motor vehicle lane.



APPENDIX B FIGURE 19: EXAMPLE OF A SHOULDER BICYCLE LANE



APPENDIX B FIGURE 20: SHOULDER BICYCLE LANE CROSS-SECTION
(Source: BC Active Transportation Design Guide, 2019)

Width

Shoulder bicycle lanes are recommended to be a minimum of 1.8 metres, but on roadways with speed limits of 50 km/h or lower a 1.5 metre bicycle shoulder is sufficient. The design domain recommendations from the *BC Active Transportation Design Guide (2019)* are shown in **Appendix B Figure 21**.

FACILITY BY DESIGN SPEED	DESIRABLE (M)	CONSTRAINED LIMIT (M)
Rural ≤ 50 km/h	1.8	1.5
Rural < 70 km/h	2.5	1.5
Rural > 70 km/h	3.0	2.0
Buffer (between shoulder and motor vehicle lane for higher posted speed and/or higher motor vehicle volumes)	1.2	0.9

APPENDIX B FIGURE 21: SHOULDER BICYCLE LANE DESIGN DOMAIN
(Source: BC Active Transportation Design Guide, 2019)

Signage

Roadways with shoulder bicycle lanes should have bike route signage to create awareness for both cyclists and motorists. If on-street parking is likely to occur in the shoulder bicycle lane, no parking signage should be considered to keep the shoulder free for cyclists.

Pavement Markings

A solid white line 100-200 mm wide should be used to delineate the shoulder bicycle lane along the right-hand side of the road. Shoulder bicycle lanes may include the standard bicycle symbol but should not be supplemented by the diamond which denotes exclusive use.

Bike Paths

Similar to multi-use pathways, off-street bike paths are physically separated from motor vehicles by an open space or barrier, depending on the application, but are for the exclusive use of bicycles (**Appendix B Figure 22**). Bike paths can be either two-way or one-way. Bike paths provide great connections for commuter purposes but can also be enjoyed by recreational cyclists.



APPENDIX B FIGURE 22: EXAMPLE OF A BI-DIRECTIONAL OFF-STREET BIKE PATH
(Vancouver, BC)

Width

Unidirectional bike paths are recommended to be built between 1.8 metres and 3.0 metres wide. Bidirectional bike paths are recommended to be built between 3.0 metres and 4.0 metres wide. Bike paths should be a minimum of 1.8 metres (uni-directional) or 3.0 metres (bi-directional) in most cases. However, absolute minimum widths of 1.5 meters (uni-directional) or 2.7 metres (bi-directional) can

be considered, but only in exceptional cases where there are physical constraints that prevent a wider facility to ensure network connectivity. However, these absolute minimums should only be considered for short segments (less than 100 metres) and if no other options exist to provide a wider facility in that location. **Appendix B Figure 23** shows the design domain widths recommended by *BC Active Transportation Design Guide (2019)*. Further information on considerations for the design width of bike paths can be found in the *BC Active Transportation Design Guide (2019)*.

FACILITY	DESIRABLE (m)	CONSTRAINED LIMIT (m)
Bicycle Pathway (Uni-Directional Bicycle)	2.0*	1.8
Bicycle Pathway (Bi-Directional Bicycle)	4.0	3.0

*If uni-directional bicycle pathway has greater than 150 bicycle users per peak hour for bicycle traffic, or there is a desire for side-by-side riding, then pathway should be 2.5 metres to 3.0 metres.

APPENDIX B FIGURE 23: BIKE PATH DESIGN DOMAIN

(Source: *BC Active Transportation Design Guide, 2019*)

Signage

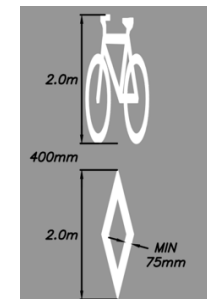
Signage plays an important role in designating the dedicated space for cyclists and requires additional consideration when the bike path travels adjacent to a sidewalk, and where the bike path crosses a roadway. Along bike paths that are adjacent to a sidewalk, the Pathway Organization sign (RB-94) should be used, as per Section A.2.9.6.6 of the *MUTCDC*. The Turning Vehicles Yield to Bicycle sign (RB-37) may be used at conflict zones where motorists are required to cross a bike path.

Pavement Markings

An elongated bicycle symbol with an accompanying diamond symbol (**Appendix B Figure 24**) should be installed on off-street bike paths directly adjacent to motor vehicle roadways in advance of and after intersections to indicate the dedicated use of the lane by bicycles. Additional bicycle symbols and diamonds should be installed at a spacing of 50 to 100 metres depending on the context. Tighter spacing may be considered in areas of conflict and high traffic.

APPENDIX B FIGURE 24: DEDICATED BICYCLE LANE SYMBOL

(Source: *BC Active Transportation Design Guide, 2019*)



When a bike path is directly adjacent to a sidewalk and no physical or tactile separation is provided, solid or broken striping should be added to demarcate the bike path from the sidewalk. A yellow centerline should be installed for bidirectional bike paths in the 10 metres approaching all intersections as well as around curves with limited sightlines and on extended grades 5% and steeper.

Conflict zone pavement markings, including green pavement markings or contrasting surface colors, can be used at conflict points such as driveways, alleyways, and intersections.

Intersections

Intersections tend to be high conflict areas along bicycle routes, so careful consideration must be taken to ensure bicyclists can navigate them in a safe and comfortable manner.

Multi-use Pathways and Off-street Bike Paths

Where multi-use pathways and off-street bike paths intersect with a roadway, additional design considerations should be taken to inform pathway users and drivers of the crossing. Some of the treatments to consider include: pavement markings, contrasting paving materials, vertical deflection, and protected signal-phasing for the pathway users crossing (**Appendix B Figure 25**). However, winter cities such as Yellowknife cannot rely on surface treatments such as pavement markings and contrasting paving materials due to these surfaces being covered with snow and excessive wear from snow clearing activities. Thus, other approaches such as signage and geometric design should be used to improve MUP safety at intersections.



APPENDIX B FIGURE 25: EXAMPLE INTERSECTION TREATMENTS FOR BICYCLES

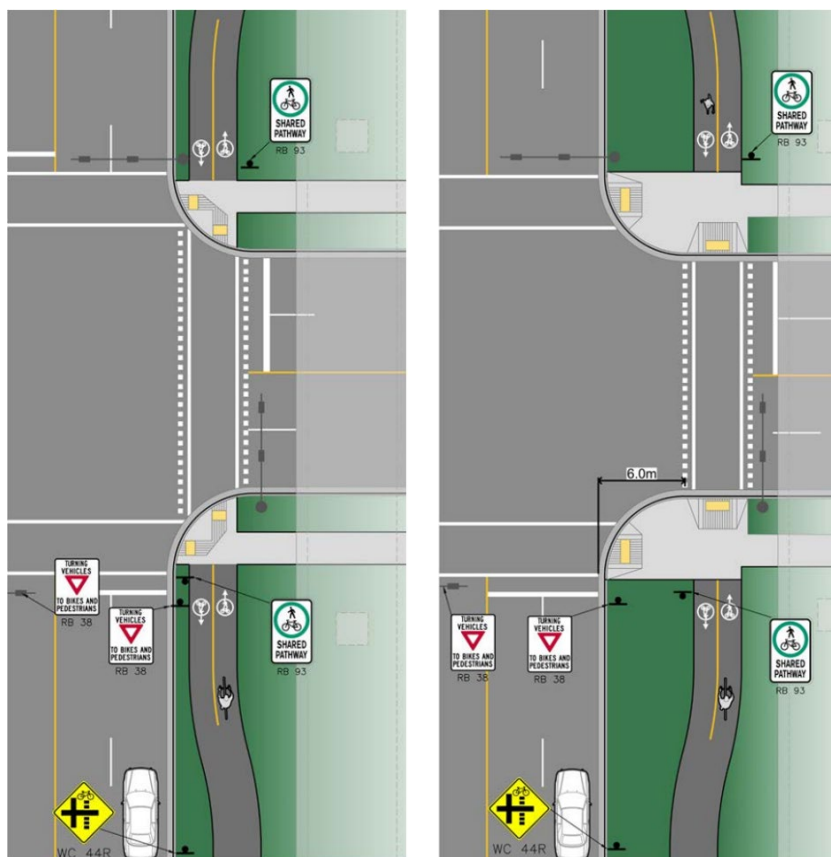
Design considerations can be made to shift the alignment of off-street pathways which run parallel to a roadway as it approaches an intersection. It is desirable for the pathway to either bend-in towards the roadway or bend-out away from the roadway as seen in **Appendix B Figure 26**. Both options provide benefits by improving pathway user awareness of the approaching intersection, reducing pathway user speeds, and enhancing the visibility of pathway users for drivers. Where the right-of-way space exists, the bend-out option is generally preferred.

Cross ride pavement markings should be used at intersections and conflict points such as busy driveways or alleyways when multi-use pathways continue through the intersection. Continuous green pavement markings may also be used to further enhance the visibility of pathway users. Advance warning and regulatory signage should be provided to alert both pathway users and drivers of the upcoming crossing, reinforce right-of-way expectations, and increase awareness of potential conflicts.

Curb let-downs for MUPs should be at least 3.0m wide and ideally 4.0m wide to safely accommodate pedestrians and cyclists at the same time. If sufficient space is available, pedestrians and cyclists should have their own separate crossing and curb ramps.

Raised crossings can be provided at minor intersections and mid-block crossings to reduce motor vehicle speed and enhance the comfort, safety, and visibility of pathway users. When an off-street pathway crosses at a signalized intersection, considerations should be made for pathway users to actuate the traffic signal, most often with the installation of signal actuation pushbuttons, to avoid long delays.

Further information on off-street pathway intersection design can be found in Section G.5 of the *BC Active Transportation Design Guide (2019)*.



APPENDIX B FIGURE 26: BEND-IN (LEFT) AND BEND-OUT (RIGHT) MULTI-USE PATHWAY INTERSECTIONS (Source: BC Parkway Intersection Design Guidelines, 2019)

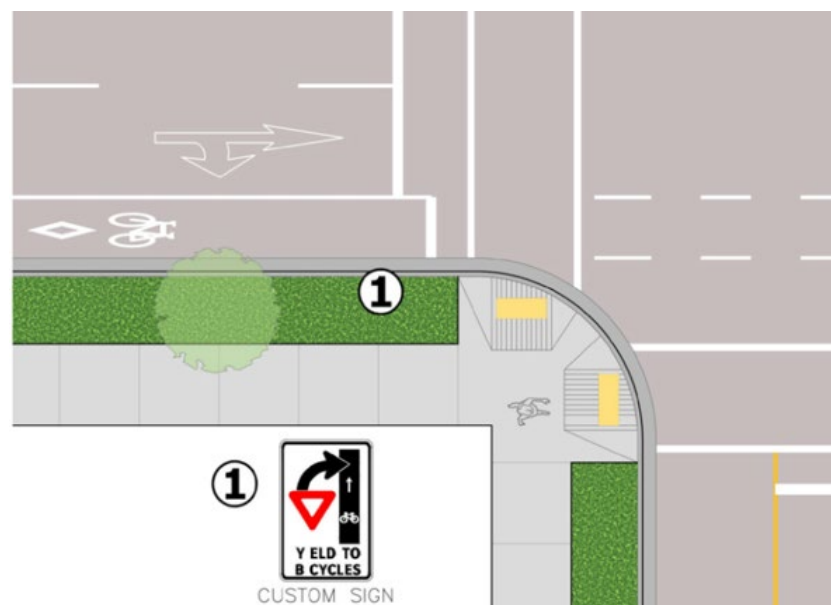
To increase the visibility of pathway users at intersections and conflict points, such as busy driveways or alleyways, contrasting surface colours for crosswalks may be used until the City develops a non-standard crosswalk policy.

APPENDIX B FIGURE 27: EXAMPLE OF A CROSSWALK WITH CONTRASTING SURFACE COLOURS IN YELLOWKNIFE



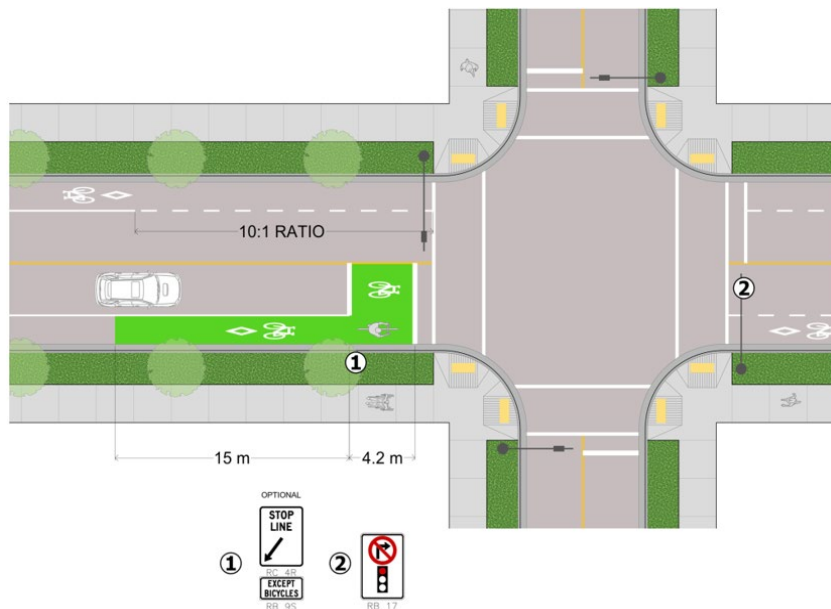
Painted Bicycle Lanes

Painted and buffered bicycle lanes require careful consideration at intersections. Intersection design needs to consider the conflicting bicycle and motor vehicle movements present at each intersection. Pavement markings, signage, and signal phasing can be used to reduce the risk of conflicts between cyclists and motorists. Designs can include intersection tracking pavement markings and advanced stop bars as seen in **Appendix B Figure 28** to create awareness for motorists turning across the cycling lane.



APPENDIX B FIGURE 28: INTERSECTION PAVEMENT MARKINGS (Source: BC Active Transportation Design Guide, 2019)

Additional considerations should be made to ensure that cyclists are able to safely make turning movements out of their lane and change directions at intersections if desired, this can be done through the use of a bike box as seen in **Appendix B Figure 29**. Continuous green pavement markings may also be used to further enhance the visibility of pathway users. Advance warning and regulatory signage should be provided to alert both pathway users and drivers of the upcoming crossing, reinforce right-of-way expectations, and increase awareness of potential conflicts.



APPENDIX B FIGURE 29: LEFT TURN BICYCLE BOX

(Source: *BC Active Transportation Design Guide*, 2019)

Further information on painted bicycle lane intersection design can be found in Section G.4 of the *BC Active Transportation Design Guide (2019)*.

Other Facility Types

When cycling facilities such as bicycle boulevards, shoulder bicycle lanes, shared use lanes cross major roads it is important to accommodate safe and convenient crossing.

At these critical locations additional design considerations are required to ensure safe access for cyclists. Crossing treatments can be used to assist cyclists, pedestrians, and others in crossing major roads, and to minimize potential conflicts with motor vehicles. The type of crossing treatment depends on the width of the intersecting road, the volume of motor vehicle traffic, and the number of cyclists, pedestrians and others using the crossing.

G. BICYCLE PARKING GUIDELINES

INTRODUCTION

The Bicycle Parking Guidelines supplement the Yellowknife Transportation Plan by providing guidance on the selection, design, and placement of bicycle parking facilities throughout the city. The document outlines the different types of bicycle parking, including short-term and long-term facilities, and provides considerations for selecting appropriate bicycle parking solutions, as well as siting and placement best practices.

These Guidelines are informed by industry best practices and draw primarily from the *Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines, Third Edition (2026)* and the *BC Active Transportation Design Guide (2019)*. These documents were selected because they are among the leading and most comprehensive references available for bicycle parking planning and design. While many active transportation design guides include limited guidance on bicycle parking, relatively few publications focus specifically on bicycle parking best practices, making these resources particularly valuable in informing the recommendations contained in this document.

Many of the figures and illustrations included in this document have been adapted or reproduced from these resources to demonstrate recommended bicycle parking design, siting, and placement principles.

TYPES OF BICYCLE PARKING

There are different types of bicycle parking, each of which is suitable in different situations depending on the duration of the stay and trip purpose. There are two primary categories of bicycle parking: short-term and long-term.

- Short-term bicycle parking is generally intended for people stopping for two hours or less, such as shoppers, people running errands, or visitors. Short-term bicycle parking is often found adjacent to sidewalks, at commercial destinations, schools, and civic facilities.
- Long-term bicycle parking is generally intended for people stopping for two

hours or more, such as commuters, employees, and residents in multi-family housing. They are typically inside or near workplaces, civic facilities, schools, or multi-family residential buildings. They may be in the form of bike lockers or indoor bike rooms

Appendix B Figure 30 provides an overview of criteria to help guide planning for bicycle parking.

Criteria	Short-Term	Long-Term
Parking duration	Less than two hours	More than two hours
Fixture types	Simple bicycle racks	Lockers, bike racks in secured areas
Weather protection	Often unsheltered	Sheltered or enclosed
Security	Typically self-lock, passive surveillance (eyes on the street)	Secured, active surveillance
		Unsupervised: "Individual-secure" such as bicycle lockers
		"Shared-secure" such as bicycle room or cage
Typical Land Uses	Commercial or retail, medical/healthcare, parks and recreation areas, and community centers	Supervised: Valet bicycle parking
		Paid bike parking area of transit station
		Residential, workplace, and transit

APPENDIX B FIGURE 30: CRITERIA FOR SHORT-TERM AND LONG-TERM BICYCLE PARKING (Source: APBP Bicycle Parking Guide, 2026)

Short-term Bicycle Parking

Short-term Bicycle Parking often consists of bicycle racks distributed in the public right-of-way in commercial areas and at key destinations. **Appendix B Table 7** outlines the typical performance criteria for bike racks.

APPENDIX B TABLE 7: BICYCLE RACK PERFORMANCE CRITERIA

(Adapted from the BC Active Transportation Design Guide, 2019)

Criteria	Detail
Supportive	Supports a bicycle in the upright position, providing two points of contact with the frame.
Lockable	Allows the frame and at least one wheel to be securely locked to the rack using a U-lock.
Flexible	Accommodates a variety of bicycles and attachments.
Intuitive	Easy to recognize and use. Does not require lifting the bicycle.
Secure	Made from durable materials and installed with tamperproof bolts.

Below are example images of post-and-ring racks, inverted 'U' racks and short-term covered bicycle parking in Toronto, ON, Winnipeg, MB, and Victoria, BC.



APPENDIX B FIGURE 31: EXAMPLES OF VARIOUS SHORT-TERM BICYCLE PARKING OPTIONS

Short-term bicycle parking can take a variety of forms, but the two most user-friendly designs are inverted 'U' racks and post-and-ring racks (see **Appendix B Figure 32**). **Appendix B Figure 33** shows several types of bicycle racks to avoid since they fail to meet the performance criteria identified in **Appendix B Table 7**.

RACK TYPE	NOTES
Inverted U (Also called loop or staple rack) 	• Can support two bicycles per rack. • Can be installed alone or in a series on rails. • Many variations are available. • Can be efficiently located within the Furnishing Zone of a public right-of-way.
Post and Ring 	• Can support two bicycles per rack. • Products exist to retrofit certain parking metres to create custom post and ring racks. • Can be efficiently located within the Furnishing Zone of a public right-of-way.

APPENDIX B FIGURE 32: PREFERRED BICYCLE RACK TYPES

(Source: BC Active Transportation Design Guide, 2019)

RACK TYPE		NOTES
Wave		•Only supports frame at one location and can require lifting wheel to park bicycle. •Often fails to provide advertised capacity.
Spiral		•Only supports frame at one location and can require lifting wheel to park bicycle. •Often fails to provide advertised capacity.
Coat Hanger		•Top bar limits the height of bicycles that can be accommodated. •Thin 'coat hanger' loops are less durable than the thicker posts on other rack types.
Schoolyard		•Only supports frame at one location and can lead to wheel damage. •Does not allow locking of frame to bicycle rack.
Wheelwell		•Presents a tripping hazard when not in use. •Only supports frame at one location and can lead to wheel damage. •Does not allow locking of frame to bicycle rack.
Bollard		•Similar to Post and Ring rack, but narrower design typically does not support bicycle at two locations
Swing arm secured		•Only accommodates limited bicycle designs. •Moving parts create maintenance complications.

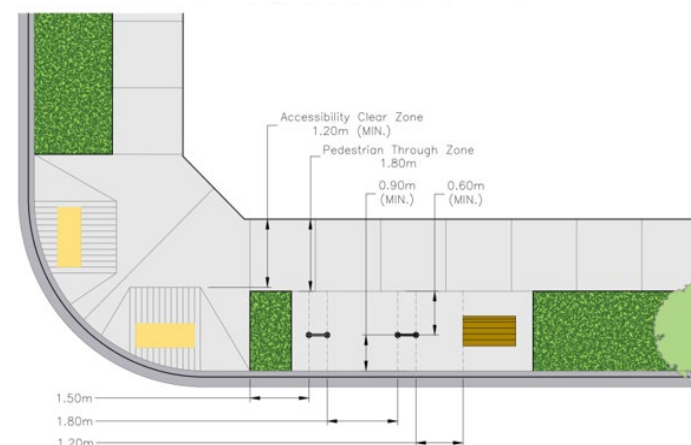
APPENDIX B FIGURE 33: BICYCLE RACKS TO AVOID

(Source: BC Active Transportation Design Guide, 2019)

Additionally, consideration should be given to position racks to allow longer bicycles (non-standard bicycles), such as bicycle with trailers, to park securely without impeding the sidewalk or building entrances.

In terms of placement and siting, considerations need to be made to locate bicycle racks clear from other people's travel paths, **Appendix B Figure 34** outlines the recommended clear space when installing bike racks. Bicycle racks should be located as close to destinations as possible in convenient and highly visible locations.

CLEAR SPACE REQUIRED BETWEEN:	DESIRABLE WIDTH (M)	CONSTRAINED LIMIT WIDTH (M)
Bicycle racks in series (parallel to curb)	1.8	1.8
Bicycle racks in series (perpendicular to curb)	1.2	0.9
Bicycle racks in series (angled)	0.7	0.7
Bicycle rack and face of curb	0.9	0.6
Bicycle rack and street furniture and utilities*	1.2	0.9
Bicycle rack and multi-modal conflicts (curb ramps, driveways, crosswalks, loading zone, bus stops)*	1.2	1.2



APPENDIX B FIGURE 34: BICYCLE PARKING REQUIRED SPACE

(Source: BC Active Transportation Design Guide, 2019)

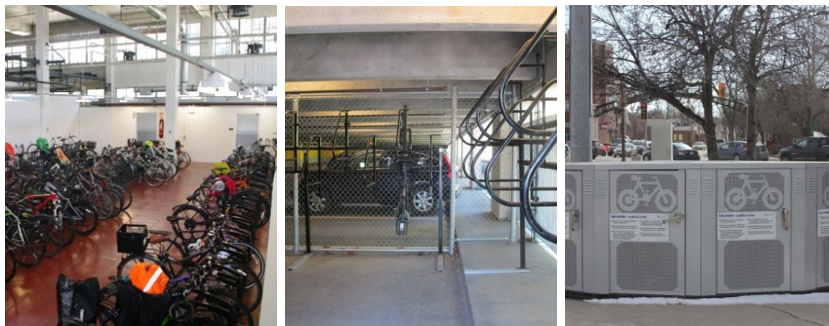
Covered Bicycle Parking

Providing covered short-term bicycle parking can improve the experience for bicycle users and encourage all-weather cycling by providing shelter from rain, snow, and sun. Covered bicycle parking is warranted anywhere that bicycle racks may be located, but is most appropriate in a variety of locations, including major commercial centres, areas with sufficient space on the sidewalk or in plazas, and where there is demand for longer-term bicycle parking, such as at schools, recreation centres, and community centres.

Long-term Bicycle Parking

Long-Term Bicycle Parking is more secure than short-term bicycle parking. It may include bicycle lockers or larger secure facilities, such as bicycle rooms, bicycle cages, secure bicycle parking areas, or full-service bicycle stations. Long-term parking is generally oriented towards cyclists needing to park a bicycle for longer periods of time such as at workplaces or multi-family housing. With the increasing prevalence of non-standard bicycles, a proportion of the bicycle parking spots should be large enough to accommodate non-standard bicycles that are longer or wider, such as cargo bicycles or bicycles with trailers.

Below are example images of a bike room, bike cage, and bike locker in Vancouver, BC, Victoria, BC, and Winnipeg, MB.



APPENDIX B FIGURE 35: EXAMPLES OF VARIOUS LONG-TERM BICYCLE PARKING OPTIONS

Bike Lockers

Bike lockers are large metal or plastic stand-alone boxes that offer high-security, weather-protected bicycle parking. They are suitable for daily and overnight long-term bicycle parking (where permitted) at locations such as universities and transit stations. In addition to providing secure bicycle parking, bicycle lockers can also securely store gear and other accessories along with the bicycle, giving people cycling more flexibility in their travel arrangements. A flat, level surface is required for installation. They should be installed close to building entrances or on the first level of a parking garage.

Bike Rooms, Cages, and Parkades

Bicycle rooms, cages, and parkades are types of off-road, long-term, higher capacity bicycle parking designed for increased security, weather protection, and capacity. They can be built as standalone structures or added to existing buildings or motor vehicle parkades. These facilities are suitable at post-secondary educational institutions, transit stations, and dense commercial or residential buildings.

Each of these facilities consist of enclosed structures containing bicycle racks and secured with a locked door. These facilities vary by enclosure type, capacity, level of security, means of access, and other features. Some bicycle rooms and parkades also include other end-of-trip amenities.

Refer to Section H.2 of the *BC Active Transportation Design Guide (2019)* for further information on bicycle parking.

APPENDIX C:

Action Delivery Framework



The Action Delivery Framework provides additional guidance to support the implementation of “Quick Win” and “Short-Term” actions identified in this Plan. It outlines practical, step-by-step approaches that the City and its partners can take to move actions forward.

The framework is intended to support actions that are expected to be initiated within the short-term and focuses primarily on implementation steps that can be advanced over approximately the first five years of the Plan. While some of these actions may be completed within the quick win and short-term timeframe, others require ongoing effort or phased implementation over multiple timeframes. Accordingly, the delivery approaches outlined in this appendix focus on quick win and short-term actions and may not include all future steps required to fully implement an action over the life of the Plan.

ACTION 1.1A: Adopt a multi-modal street network classification and incorporate this classification in the Development & Design Standards

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Review the proposed street network classification (**Map 2**) to ensure it reflects existing and future transportation needs.
- Undertake an internal review with City departments to ensure the proposed street network classification supports City operations, infrastructure planning, maintenance practices, and long-term growth objectives.
- Formally adopt the street network classification through Council approval and integrate the street network classification into relevant plans, policies, and design documents.
- Update GIS spatial data to ensure all streets are updated with their adopted street classification.
- *Ongoing:* Maintain GIS spatial datasets as development occurs and the street network changes.
- *Ongoing:* Periodically review the classification system to reflect changes in growth patterns and transportation needs.

ACTION 1.1B: Develop updated multi-modal street cross-sections based on the street network classification in the Development & Design Standards

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Review the City's existing standard cross-sections and identify opportunities to better align cross-sections with Complete Streets principles (see **Appendix B**).
- Develop updated standard cross-sections for each adopted street classification.
- Consider providing staff training and guidance materials to support the consistent application of updated standards during development review and roadway reconstruction projects.
- *Ongoing:* Periodically review and refine cross-sections as best practices evolve, new facility types emerge, and the City's transportation network changes over time.

ACTION 1.2C: Develop and adopt traffic light management objectives and policy

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review and formally adopt the Traffic Signal Management Policy (**Appendix B**) and incorporate it into the planning, design, operation, and maintenance of signalized intersections throughout the city.
- Complete a comprehensive review of all existing signalized intersections, signal timing plans, pedestrian crossing times, accessibility features, and signal coordination strategies to identify opportunities for improvement.
- Consider developing procedures for regularly reviewing signal performance, responding to public requests, investigating safety concerns, and identifying opportunities to improve operations.

ACTION 1.3A: Inventory and evaluate intersections and crossings to align with Transportation Association of Canada best practices

Timeframe: Short-term (3–5 years)

Delivery Approach

- Develop a comprehensive inventory of all signalized intersections, stop-controlled intersections, pedestrian crossings, and mid-block crossings throughout the city. Document existing crossing controls, accessibility features, traffic control devices, pavement markings, lighting, and intersection geometry.
- Assess each location for safety, accessibility, visibility, comfort, and operational performance. Evaluation criteria may include crossing distance, pedestrian refuge opportunities, curb ramp design, sightlines, crossing delays, vehicle turning movements, and compliance with accessibility requirements.
- Review collision history, public feedback, maintenance requests, and community concerns to identify intersections and crossings with known or recurring safety issues.
- Develop a prioritization framework to identify locations requiring upgrade. This could be based on factors such as collision history, pedestrian demand, proximity to key destinations, and existing accessibility barriers.
- Prepare a city-wide intersection and crossing improvement program that identifies short-, medium-, and long-term upgrades, including opportunities to coordinate improvements with planned roadway rehabilitation, active transportation projects, and utility works.
- *Ongoing:* As intersections and crossings are upgraded or new ones are introduced, update the inventory to reflect current conditions, ensuring it remains a living tool to guide ongoing improvements and long-term investment decisions.

ACTION 1.3B: Develop and adopt a crosswalk policy

Timeframe: Short-term (3–5 years)

Delivery Approach

- Conduct a review of guidance and practices from comparable northern municipalities, transportation agencies, and accessibility organizations to inform the development of the policy for both standardized and non-standardized crosswalks.
- Engage key interest holders, including accessibility advocates, school representatives, emergency services, and transportation staff, to ensure the policy reflects a range of user needs and operational considerations.
- Write the policy based on best practice review and key interest holder engagement.
- Adopt and integrate the policy into the City's transportation planning, capital project delivery, and roadway maintenance programs to ensure consistent application of crossing treatments across the network.

ACTION 1.3H: Review and update pedestrian crossing times to accommodate pedestrian crossing times, particularly in areas with a high concentration of vulnerable road users

Timeframe: Short-term (3–5 years)

Delivery Approach

- Conduct a city-wide review of pedestrian crossing times at all signalized intersections using the walking speed guidance identified in the Traffic Signal Management Policy (**Appendix B**).
- Prioritize intersections located near schools, seniors housing, healthcare facilities, recreation centres, transit stops, commercial areas, and other destinations frequently used by vulnerable road users.
- Assess pedestrian crossing distances, signal timing parameters, queue lengths, and observed pedestrian behaviour to identify locations where existing crossing times may not provide sufficient time for users to safely complete their crossing.
- *Ongoing:* Monitor pedestrian compliance, safety performance, and user feedback following implementation to determine whether further adjustments are warranted.

ACTION 1.4A: Adopt and implement updated speed limits based on the street network classification

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review and formally adopt the Speed Limit Policy and Guidelines (**Appendix B**) and incorporate the policy into the Highway Traffic Bylaw and other applicable municipal regulations.
- Develop a comprehensive speed limit map that identifies all Type A and Type B streets, including locations where exceptions to standard speed limits apply.
- Review all existing posted speed limits to identify locations where current speed limits are inconsistent with the adopted street network classification and policy framework.
- Develop a phased implementation program that introduces revised speed limits neighbourhood-by-neighbourhood.
- Identify corridors and locations where 85th percentile operating speeds significantly exceed the desired or posted speed limit and develop targeted speed management measures to support compliance. Potential measures may include traffic calming, roadway narrowing, curb extensions, gateway treatments, enhanced crossings, active transportation improvements, speed feedback signs, or other context-appropriate engineering interventions.
- Update regulatory signage, pavement markings, and supporting wayfinding infrastructure required to communicate revised speed limits to road users.
- Coordinate implementation with roadway reconstruction, active transportation improvements, traffic signal upgrades, and traffic calming projects wherever possible to reinforce desired operating speeds.
- *Ongoing:* Monitor speeds, collision trends, user perceptions, and compliance rates following implementation and adjust where warranted.

ACTION 1.4B: Develop and implement a Traffic Calming Program

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review and formally adopt the Traffic Calming Policy (**Appendix B**) and establish an annual Traffic Calming Program with dedicated operating and capital funding allocations.
- Develop and launch a standardized traffic calming request process, including application forms, technical review procedures, prioritization criteria, and public-facing guidance materials.
- Establish annual data collection and monitoring programs to gather traffic speed, traffic volume, shortcutting, and collision information needed to support the technical review process.
- Develop a city-wide inventory of candidate traffic calming locations and apply the policy's technical warrants and prioritization framework to create a rolling implementation program.
- Using the Traffic Calming Policy and TAC Canadian Guide to Traffic Calming to identify appropriate measures based on local conditions, develop conceptual and detailed designs for traffic calming projects.
- Coordinate traffic calming projects with active transportation improvements, speed limit changes, neighbourhood bikeways, school travel planning initiatives, and Complete Streets projects to maximize community benefits.
- *Ongoing:* Conduct before-and-after evaluations to measure changes in vehicle speeds, traffic volumes, collisions, and user perceptions, and publish annual results as part of the City's Traffic Calming Program reporting.
- *Ongoing:* Review and update the annual priority list each year to ensure new requests, changing conditions, and emerging safety concerns are incorporated into future implementation programs.

ACTION 1.5B: Align asset management practices and investment priorities with updated street classifications

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review the City's existing asset management practices to understand how streets are prioritized for rehabilitation, renewal, reconstruction, maintenance, and upgrades.
- As outlined in the Complete Streets Policy and Guidelines (**Appendix B**), review the updated street network classifications and their primary and secondary functions. Update asset management criteria to reflect the function of each street classification.
- Integrate the updated and adopted street classification into the City's pavement rehabilitation process.
- Coordinate asset management planning with the City's capital planning and budgeting processes so that transportation investments are sequenced in a way that supports long-term network performance. Where possible, roadway rehabilitation should be coordinated with utility upgrades, drainage improvements, active transportation projects, accessibility upgrades, and other planned capital works to reduce costs and minimize disruption.
- Develop a process to regularly update asset condition data and reassess investment priorities as roadway conditions, land use patterns, growth areas, and transportation demands change over time. This should include mechanisms for incorporating new data from inspections, maintenance records, public requests, and capital project outcomes.

ACTION 1.5C: Adopt an ownership and management framework for transportation assets

Timeframe: Short-term (3–5 years)

Delivery Approach

- Develop a comprehensive inventory of transportation assets that require clear ownership and management responsibility. This may include streets, sidewalks, multi-use pathways, trails, bicycle facilities, crossings, traffic signals, signage, pavement markings, bicycle parking, bus stops, lighting, street furniture, parking assets, and other transportation-related infrastructure.
- Identify the current department or external agency responsible for each asset type across its lifecycle, including planning, design, construction, inspection, operations, maintenance, renewal, and replacement. This review should document current roles, informal practices, areas of overlap, and known gaps in responsibility.
- Develop an ownership and management framework that clearly assigns roles and responsibilities for each transportation asset category. The framework should identify who is responsible for asset planning, capital delivery, maintenance, inspections, condition assessments, data updates, budget requests, public requests, and long-term renewal planning.
- Create a process to document asset ownership in GIS and asset management systems so that responsibility is transparent, searchable, and updated as infrastructure is added, upgraded, transferred, or removed.
- *Ongoing:* Review and update the framework periodically to reflect organizational changes, new infrastructure types, evolving maintenance practices, and changes in service levels.

ACTION 1.6A: Review available width of all roadways, including on-street parking, to ensure sufficient width for emergency services

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Complete a GIS-based review of all streets under City jurisdiction to assess available roadway width, including the impact of on-street parking, snow storage, curbside activity, and other obstructions on clear operating space for emergency vehicles.
- Identify streets where the available operating width (6.0 metres) may be constrained due to narrow pavement widths, parking on one or both sides of the street, or other roadway conditions. Attention should be given to residential streets, narrow local streets, older neighbourhoods, cul-de-sacs, areas with limited off-street parking, and routes that provide critical emergency access.
- Develop a prioritized list of locations where corrective action may be required. Mitigation measures may include restricting parking on one or both sides of the street, formalizing seasonal parking restrictions, improving signage and enforcement, adjusting snow storage practices, widening roadways where feasible, or introducing curbside management measures.
- Coordinate the review with Protective Services, Public Works and Engineering, Planning and Development, and winter maintenance staff to confirm that recommended changes are operationally feasible and aligned with emergency response needs, neighbourhood access, and maintenance practices.

ACTION 1.7A: Adopt a Truck Route Bylaw

Timeframe: Quick Win (0-2 years)

Delivery Approach

- Develop a Truck Route Bylaw that clearly identifies designated truck routes, restricted routes, allowable exemptions, and conditions for truck access to destinations located off the truck route network. The bylaw should provide clear direction for heavy vehicles, over-dimensional and over-weight vehicles, commercial deliveries, construction access, and local deliveries.
- Review and define vehicle types, weight thresholds, truck route requirements, and exemptions in a way that is clear, enforceable, and consistent with the City's existing regulatory framework.
- Develop an implementation plan that includes bylaw adoption, public and industry communication, signage installation, enforcement approach, and transition procedures. The City should ensure truck route information is clearly available through maps, the City website, permit materials, and development review processes.

ACTION 1.7B: Develop a Hazardous Materials Network

Timeframe: Quick Win (0-2 years)

Delivery Approach

- Develop a Hazardous Materials Network that identifies designated routes for the safe movement of dangerous goods through the community. The network should balance public safety, efficient goods movement, emergency response considerations, and connectivity to industrial areas, highways, and major freight generators.
 - › Review and define the types of hazardous materials, vehicle classes, routing requirements, restrictions, and exemptions that will apply to the network.
- Develop an implementation plan that includes network designation, mapping, signage requirements, emergency management coordination, communication with industry stakeholders, and integration with permitting and development review processes.
 - › The City will ensure Hazardous Materials Network information is clearly available through maps, the City website, and permit materials.

ACTION 2.3A: Establish a trail and pathway classification and maintenance framework

Timeframe: Short-term (3–5 years)

Delivery Approach

- Complete an inventory of existing trails, multi-use pathways, informal pathways, park trails, neighbourhood connections, and off-street active transportation routes. The inventory should document location, surface type, width, lighting, wayfinding, accessibility, maintenance responsibility.
- Review and adopt the proposed trail and pathway classification system:

Trail Type	Trail Description	Primary Mode	Primary Purpose	Width	Surface	Year-round Considerations
1	Nature Trail	Walking	Recreation	At least 1.25 metres	Natural surface	No lighting or winter maintenance required
2	Recreational Trail	Walking, Mountain Biking	Recreation	At least 2.0 metres	Gravel or compacted aggregate	No lighting or winter maintenance required
3	Recreational Motorized Pathway	Walking, Rolling, Cycling, and Motorized Users (snowmobiles, ATVs)	Transportation	At least 3.0 metres	Unpaved	No lighting or winter maintenance required
4	Multi-use Pathway	Walking, Rolling, and Cycling (including e-bikes and e-scooters)	Transportation	At least 3.0 metres	Paved	Lighting and winter maintenance required

- Integrate the classification and maintenance framework into capital planning, asset management, winter maintenance planning, wayfinding, active transportation network planning, and development review processes.

ACTION 2.4A: Develop an active transportation maintenance priority network

Timeframe: Short-term (3–5 years)

Delivery Approach

- Develop and adopt an Active Transportation Maintenance Priority Network that identifies the walking, cycling, trail, pathway, and multi-use pathway facilities that should receive the highest level of maintenance service throughout the year.
- Develop mapping and communication materials identifying maintenance priority networks for staff, the public, and contractors.
- *Ongoing:* Monitor feedback, maintenance requests, and network performance annually to evaluate whether maintenance priorities continue to align with travel patterns and community needs.

ACTION 2.4B: Formalize a Snow and Winter Road Maintenance Policy

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Conduct a Snow and Ice Study to review existing winter maintenance practices and operational procedures to identify gaps and opportunities for improvement. This study will include:
 - › Reviewing existing snow and winter road maintenance practices, service levels, operational procedures, and prioritization methods for roads, sidewalks, transit stops, crossings, multi-use paths, and cycling facilities.
 - › Developing a comprehensive Snow and Winter Road Maintenance Policy that consolidates winter maintenance procedures, priorities, service standards, and responsibilities into a clear, publicly accessible document.
- *Ongoing:* Periodically review and update the policy to reflect network expansion, changing climate conditions, evolving best practices, and community needs, including consideration of sidewalk maintenance responsibilities where appropriate.

ACTION 2.5A: Update regulations and bylaws to integrate micromobility users on trails and roadways

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review existing bylaws, regulations, and policies related to bicycles, e-bikes, e-scooters, skateboards, rollerblades, and other micromobility devices to identify gaps and inconsistencies.
- Work with the GNWT to monitor legislative developments related to emerging micromobility devices.
- Update the Highway Traffic Bylaw to clarify where different micromobility devices are permitted to operate, including roads, trails, pathways, bicycle facilities, and sidewalks.
- Consider permitting children to ride bicycles on sidewalks in defined circumstances, such as age-based or bicycle size-based allowances.
- Develop public education materials to improve understanding of updated regulations and safe operating practices.
- *Ongoing:* Periodically review regulations to ensure they remain aligned with evolving technologies, legislation, and user needs.

ACTION 2.5B: Develop policy and guidelines to regulate motorized users on off-street pathways

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review existing trail and pathway use to identify where motorized users such as snowmobiles and ATVs currently operate and where user conflicts occur.
- Develop a policy that establishes where motorized users are permitted, restricted, or prohibited on off-street pathways.
- Establish criteria to guide permitted motorized use based on pathway type, width, user volumes, surrounding land use, seasonal conditions, environmental sensitivity, and potential impacts on natural areas and wildlife habitat.
- Identify and designate appropriate routes for snowmobiles and ATVs that minimize conflicts with active transportation users.
- Develop maps that clearly identify permitted, restricted, and seasonal motorized-use routes.
- Install clear signage and wayfinding to communicate permitted uses and user expectations.
- *Ongoing:* Monitor user conflicts, compliance, and feedback and update the policy as needed over time.

ACTION 2.6A: Review and update requirements for short-term and long-term bicycle parking

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Review existing bicycle parking requirements outlined in the Zoning Bylaw and assess if they reflect current best practices.
- Using the Bicycle Parking Guidelines (**Appendix B**), update Zoning Bylaw bicycle parking requirements to establish separate standards for short-term and long-term bicycle parking. Increase minimum bicycle parking requirements and provide design guidance on appropriate siting, accessibility, weather protection, visibility, and security to ensure bicycle parking is convenient, comfortable, and easy to use.

ACTION 2.6B: Upgrade existing short-term bicycle parking to high-quality, winter-friendly racks, and expand bike parking at civic facilities and priority cycling destinations

Timeframe: Ongoing

Delivery Approach

- Conduct a comprehensive inventory of existing short-term bicycle parking at civic facilities and priority destinations. Document the location, type, condition, and capacity of existing racks, and assess their alignment with current best practices for safety, accessibility, and usability. This review should also evaluate siting, visibility, and placement relative to building entrances and pedestrian routes.
- Use the inventory to identify non-compliant racks, high-demand locations, and gaps in provision. Prioritize upgrades at civic facilities, commercial areas, transit stops, and key destinations where racks are outdated, poorly located, or insufficient to meet demand.
- Replace non-compliant or outdated racks with durable, secure, and user-friendly designs (e.g., inverted U or post-and-ring racks) that provide two points of contact and allow secure locking. Refer to the Bicycle Parking Guidelines (**Appendix B**) for more guidance.
- Seek opportunities to work with property owners and businesses to repurpose or relocate removed racks and support installation on private property, particularly in commercial areas. Where racks are transferred, clearly establish that responsibility for installation, maintenance, and upkeep will rest with the property owner or business.

ACTION 2.6C: Implement bicycle parking within public right-of-way in the downtown, Old Town and other key destinations

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Using the inventory of existing short-term bicycle parking, identify gaps, and prioritize locations for bicycle parking within the downtown, Old Town, and other key destinations for bicycle parking, including civic buildings, trail entrances, and high-activity areas.
- Refer to the Bicycle Parking Guidelines (**Appendix B**) to guide the selection, placement, and installation of high-quality bicycle racks that are durable, accessible, and suitable for year-round use.
- Prioritize installation of bicycle parking in the downtown core. Ensure there are at least two bicycle racks on every block. At the intersection of 50 Street and 50 Avenue, provide a downtown bicycle parking hub with at least eight bicycle racks.
- Install bicycle parking at all City-owned facilities where gaps are identified and expand bicycle rack coverage in Old Town.
- Work with partner agencies to support broader bicycle parking provision:
 - › Collaborate with school boards to develop a coordinated approach for procuring and installing bicycle parking on school grounds.
 - › Coordinate with GNWT to provide bicycle parking at key destinations such as the Prince of Wales Northern Heritage Centre and Legislative Assembly.

ACTION 4.1A: Continue to support the expansion of car share operations throughout Yellowknife

Timeframe: Ongoing

Delivery Approach

- Work with car share operators to identify barriers to expansion and opportunities to improve the car share experience in Yellowknife.
- Identify priority locations for car share vehicles based on population density, multifamily housing, employment areas, civic facilities, and access to transit and active transportation networks.
- Support car share operators through measures such as providing dedicated parking spaces, reducing parking requirements in new developments, and exploring other incentives where appropriate.
- Encourage developers to incorporate car share spaces and memberships into new residential and mixed-use developments as part of Transportation Demand Management (TDM) strategies.
- Consider promoting awareness of car share services and their benefits through public education and partnerships with major employers and institutions.

ACTION 4.2A: Use temporary street changes during events to pilot future permanent improvements

Timeframe: Short-term (3–5 years)

Delivery Approach

- Identify opportunities to use community events, festivals, and seasonal programming to test temporary street changes that support walking, cycling, placemaking, and community use of public space.
- Implement temporary treatments such as street closures, expanded pedestrian areas, temporary crossings, bicycle parking, pop-up bicycle lanes, traffic calming measures, seating areas, and parklets to demonstrate potential long-term improvements.
- Prioritize pilots in locations where future transportation, public realm, or active transportation improvements have been identified through community feedback or City plans.
- Work with event organizers, businesses, residents, and community groups to design and implement temporary street changes that support event activities.
- Collect feedback during pilots to evaluate impacts on safety, accessibility, comfort, business activity, and overall user experience.
- Use lessons learned from successful pilot projects to inform the design, prioritization, and implementation of future permanent transportation and public realm improvements.

ACTION 5.1A: Support active and safe travel for children and youth

Timeframe: Short-term (3–5 years)

Delivery Approach

- Consider the needs of children and youth when planning, designing, and prioritizing transportation improvements, particularly in areas surrounding schools and other destinations frequently accessed by students.
- Work with schools, school districts, parents, and community organizations to support and promote active, safe, and independent travel by walking, cycling, and rolling.
- Incorporate school-area needs into existing transportation initiatives and capital projects, including sidewalk, crossing, pathway, bicycle parking, wayfinding, and traffic calming improvements.
- Support and promote transportation education, awareness campaigns, and community-led initiatives that encourage safe and active travel choices among children and youth.
- Prioritize transportation safety improvements around schools through existing programs, policies, and funding opportunities.

ACTION 5.2A: Develop partnerships with schools community organizations, non-profit organizations, and cultural groups to co-deliver transportation education and awareness initiatives

Timeframe: Short-term (3–5 years)

Delivery Approach

- Establish partnerships with schools, Indigenous governments and organizations, community organizations, non-profits, cultural groups, and other stakeholders to support transportation education and awareness initiatives.
- Work with partners to deliver education and awareness initiatives on topics such as road safety, active transportation skills, winter mobility, transit use, micromobility awareness, and respectful sharing of streets, trails, and pathways.
- Support the development of educational materials and campaigns that can be tailored to different audiences, including children, youth, older adults, new residents, and people with disabilities.
- Leverage schools, community events, recreation programs, and cultural programming to build transportation knowledge and encourage safe travel behaviours from an early age.
- Support community-led initiatives by providing technical expertise, promotional support, educational resources, and access to City facilities and public spaces where appropriate.

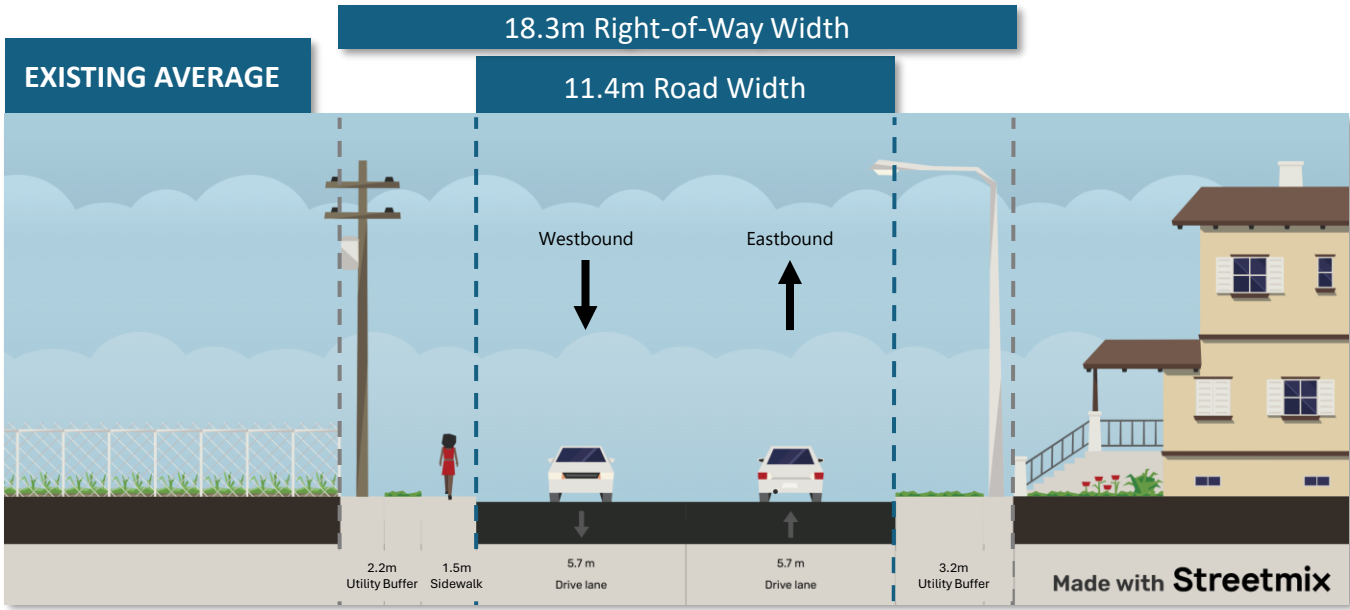
APPENDIX D:

Infrastructure Project Sheets



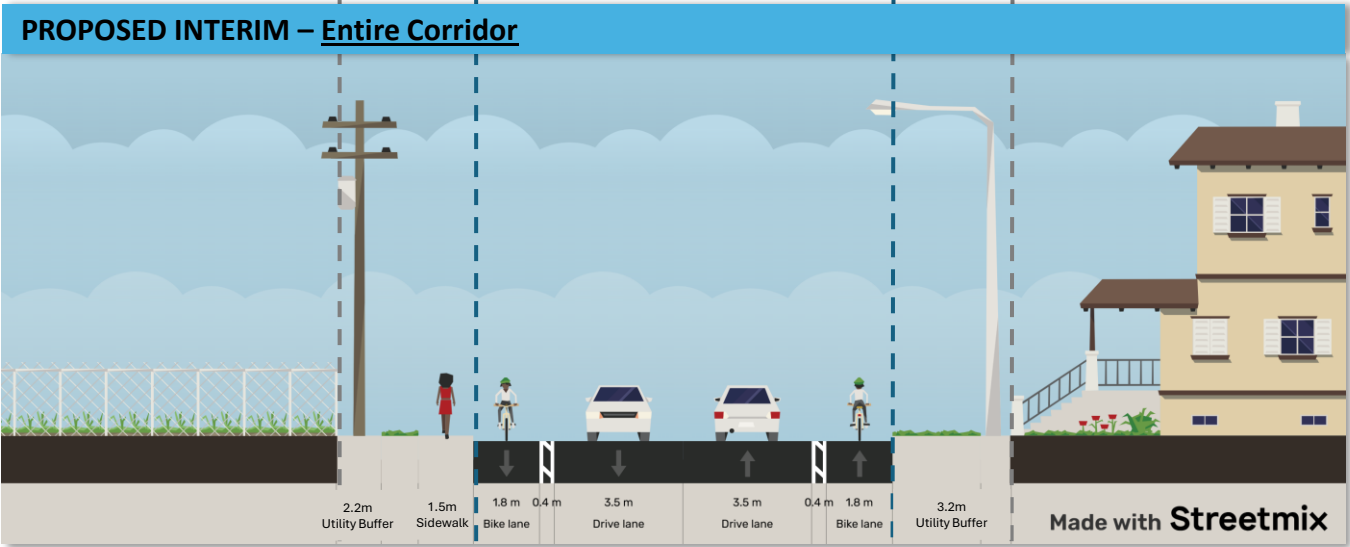
Byrne Road

Woolgar Avenue to Frame Lake Trail



- ### Opportunities

 - Direct connection to Frame Lake Trail
 - One bus stop on south side near Bromley Drive to connect to broader network of accessible pathways
 - Sidewalk missing in some sections on south side
 - Sufficient right-of-way to provide MUP without property acquisition
 - Regular street lighting provided



- ### Interim

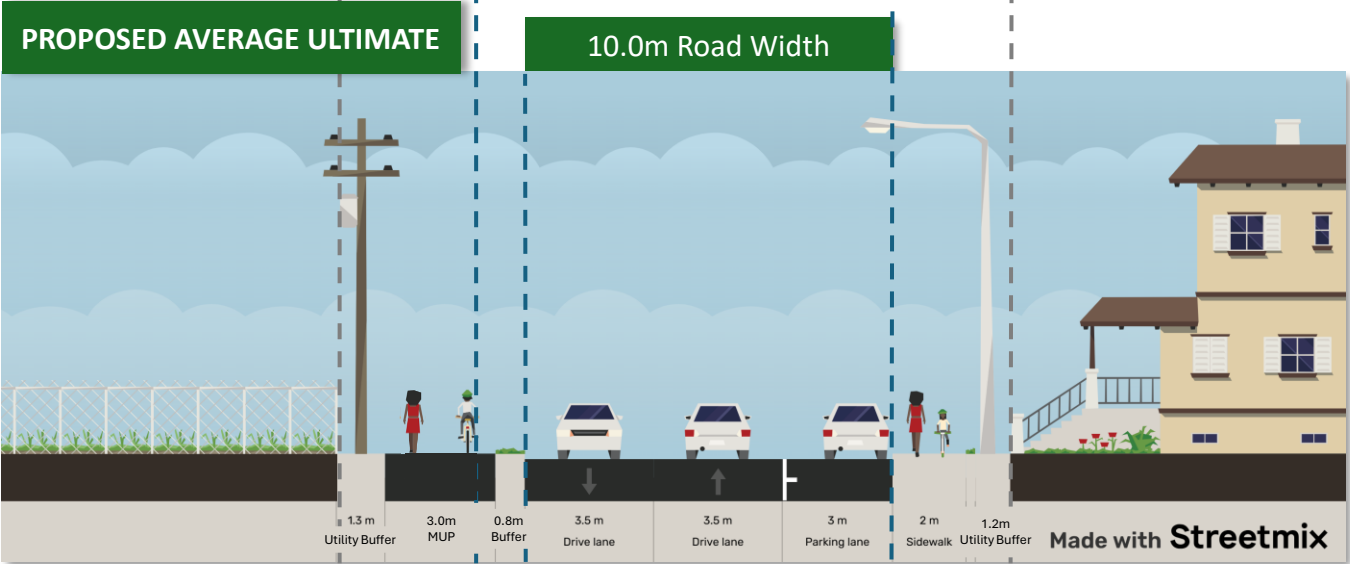
Concept

 - Painted and buffered bike lanes (1.8m + 0.4m)
 - Supplementary signage and pavement markings for bike lanes
 - 3 intersections and 1 midblock crossing

- ### Ultimate

Concept

 - Permanent 3.0m MUP on north side
 - *North side preferred for constructability*
 - Sidewalk on south side to close gap in network
 - Parking on south side reinstated
 - 3 intersections and 1 midblock crossing



*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.

- ### Challenges

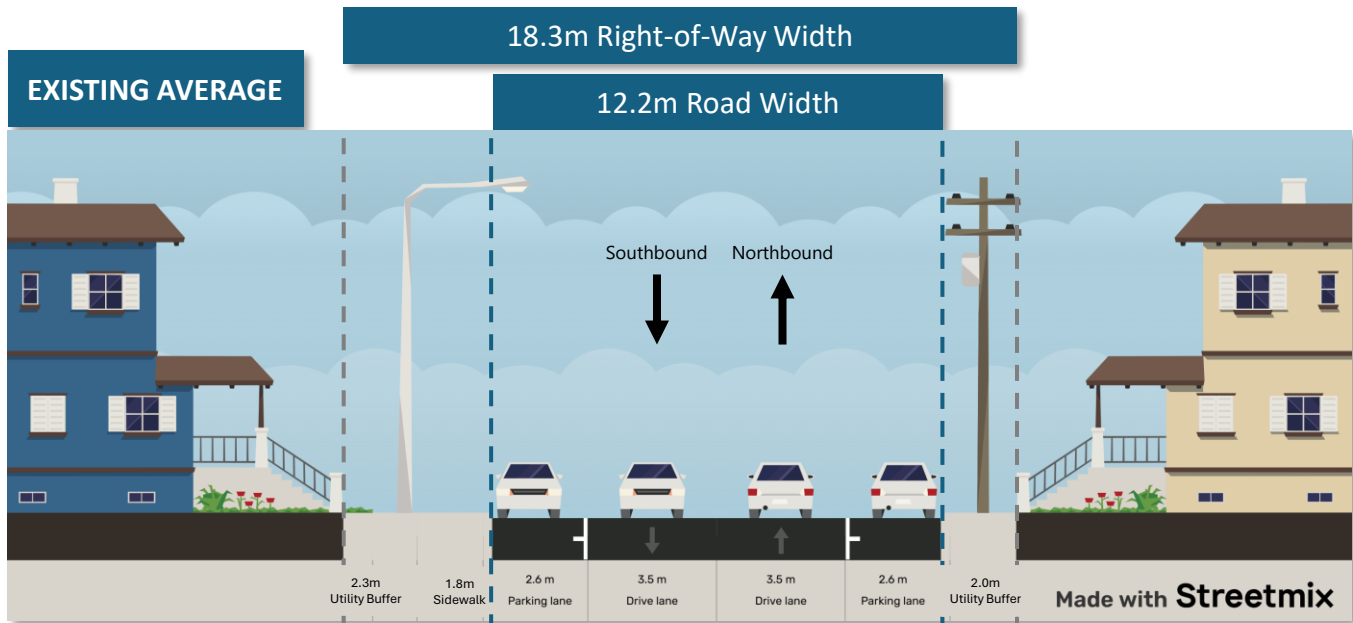
 - Removal of parking lanes on both sides during summer
 - Painted separation does not align with best practice for 45km/h roads, vertical separation preferred
 - 0.6m painted buffer preferred

- ### Challenges

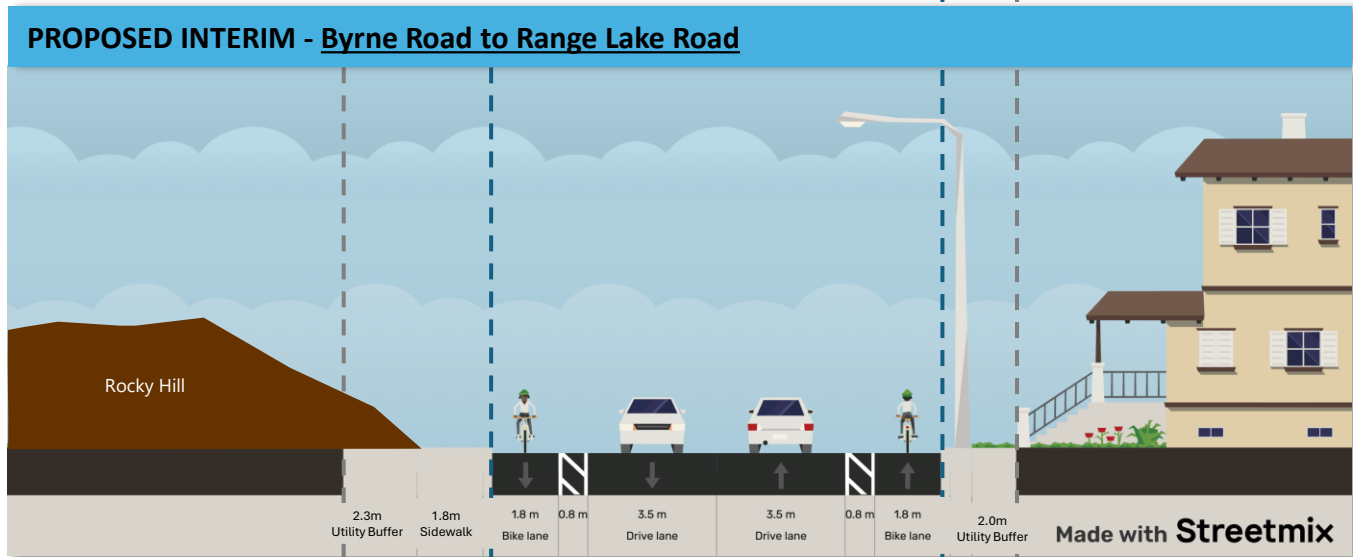
 - ~4 houses on south side of Byrne Road are at a significant elevation and may require substantial driveway restoration
 - Catch basin and utility pole relocation required
 - Additional street lighting may be required

Woolgar Avenue

Range Lake Road to Kam Lake Road



- Opportunities**
 - Direct connection to Range Lake Road bike lanes
 - One bus stop on east side to connect to broader network of accessible pathways
 - No sidewalk on east side north of Bromley Drive
 - Sufficient right-of-way to provide MUP without acquisition
 - Regular street lighting provided, though side of street alternates

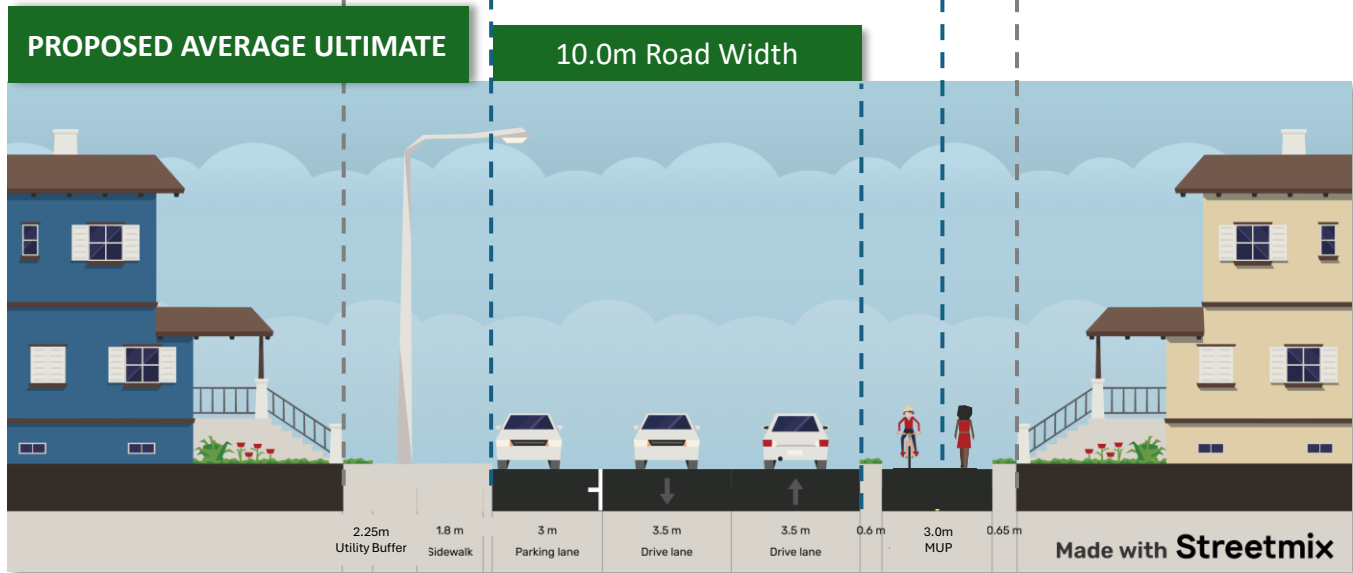


- Interim**

Concept
 - Painted and buffered bike lanes (1.8m + 0.8m)
 - Supplementary signage and pavement markings for bike lanes
 - 5 Intersection crossings

- Ultimate**

Concept
 - Permanent 3.0m MUP on east side
 - *East side preferred due to existing sidewalk on west side*
 - MUP constructed within existing on-street parking and back boulevard
 - 5 Intersection crossings



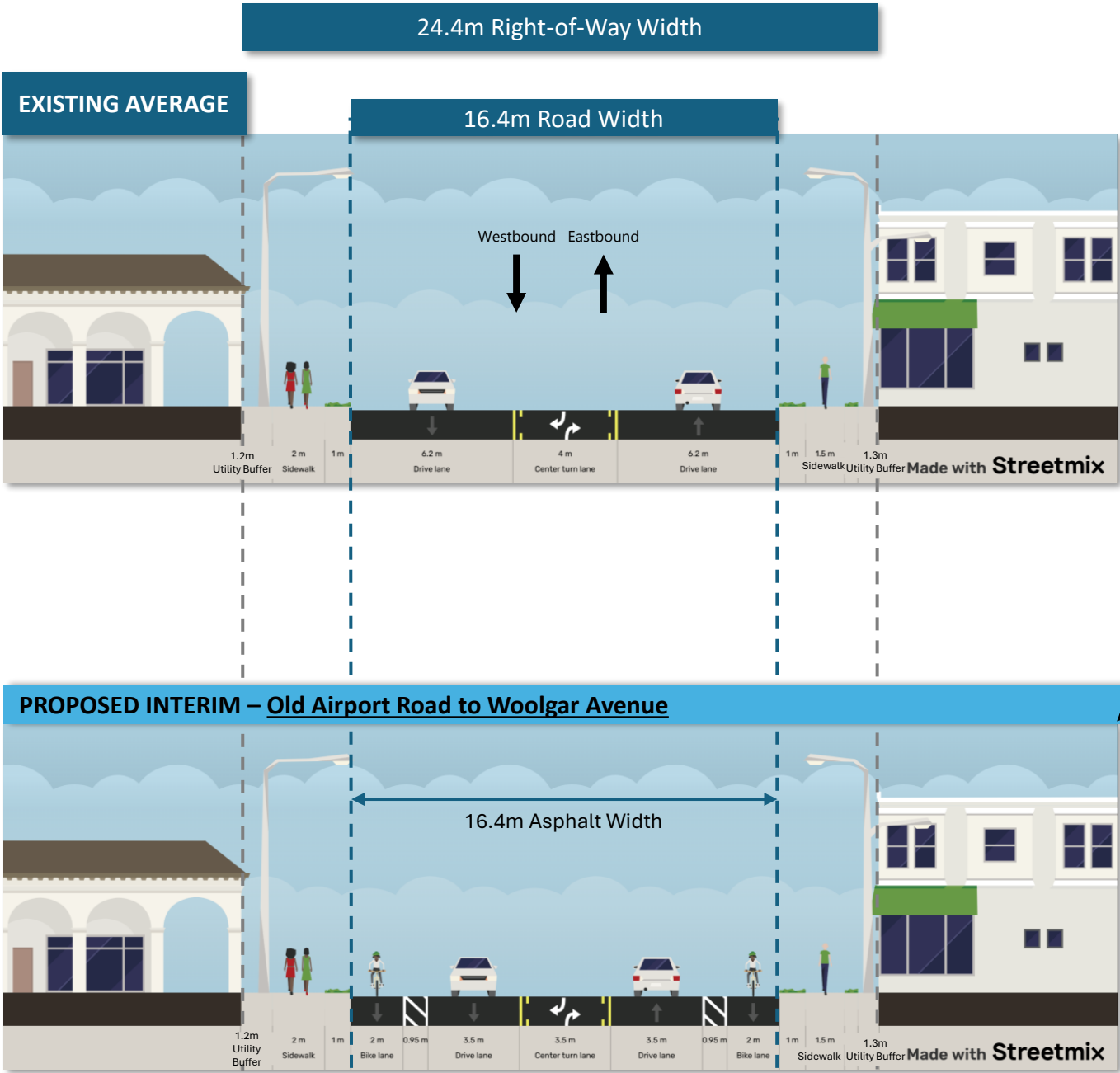
*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.

- Challenges**
 - Removal of parking lanes on both sides during summer
 - Vertical separation elements such as concrete curbs or flexible bollards preferred

- Challenges**
 - Requires relocation of utilities and likely streetlights on east side
 - Parking on east side not reinstated unless curb on west side is realigned and utilities are relocated

Range Lake Road

INTERIM - Old Airport Road to Woolgar Avenue



*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.

Opportunities

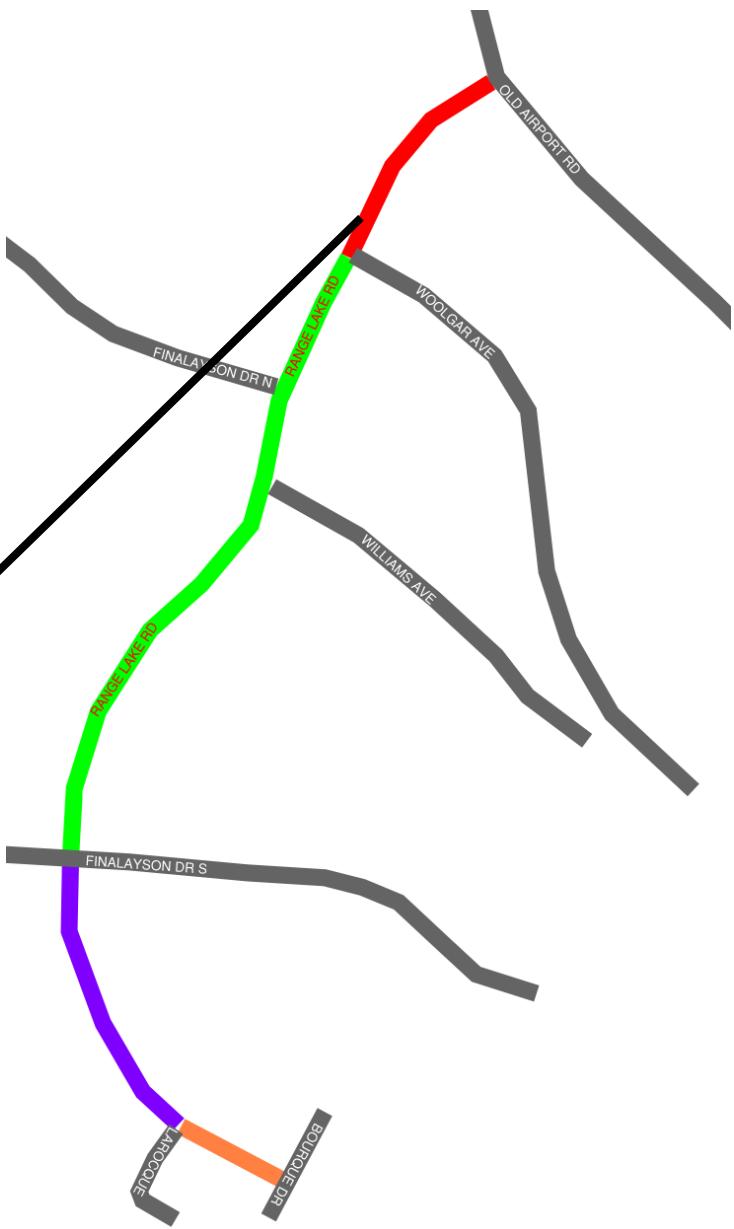
- Wide right-of-way allows for flexibility in improvement options
- Parking is prohibited along most of the section in the existing condition, thus interim bike lanes will have minimal impact

Concept

- Painted and buffered bike lanes
- Supplementary signage and pavement markings for bike lanes
- 2 Intersection crossings total
- Connects to existing unidirectional cyle lanes in interim conditions between Woolgar Avenue and Finlayson Drive South

Challenges

- Several driveway crossings that conflict with proposed bike lanes in this section
- Turning lanes likely condensed to shared through/turn lanes
- Wide asphalt width can encourage higher vehicle speeds

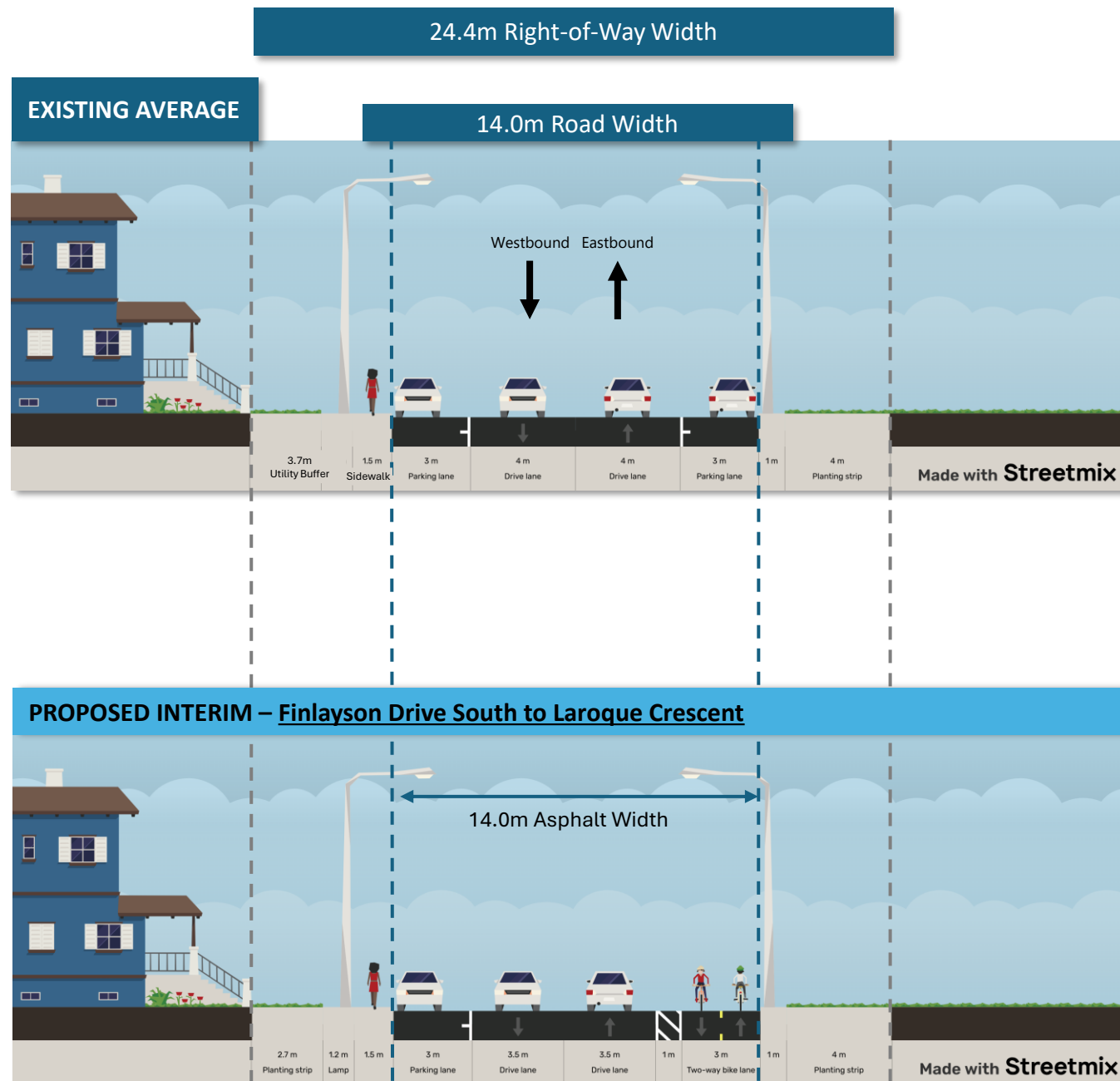


Range Lake Road

INTERIM - Finlayson Drive South to Larocque Crescent



LET'S MOVE YK!
YELLOWKNIFE TRANSPORTATION PLAN



Opportunities

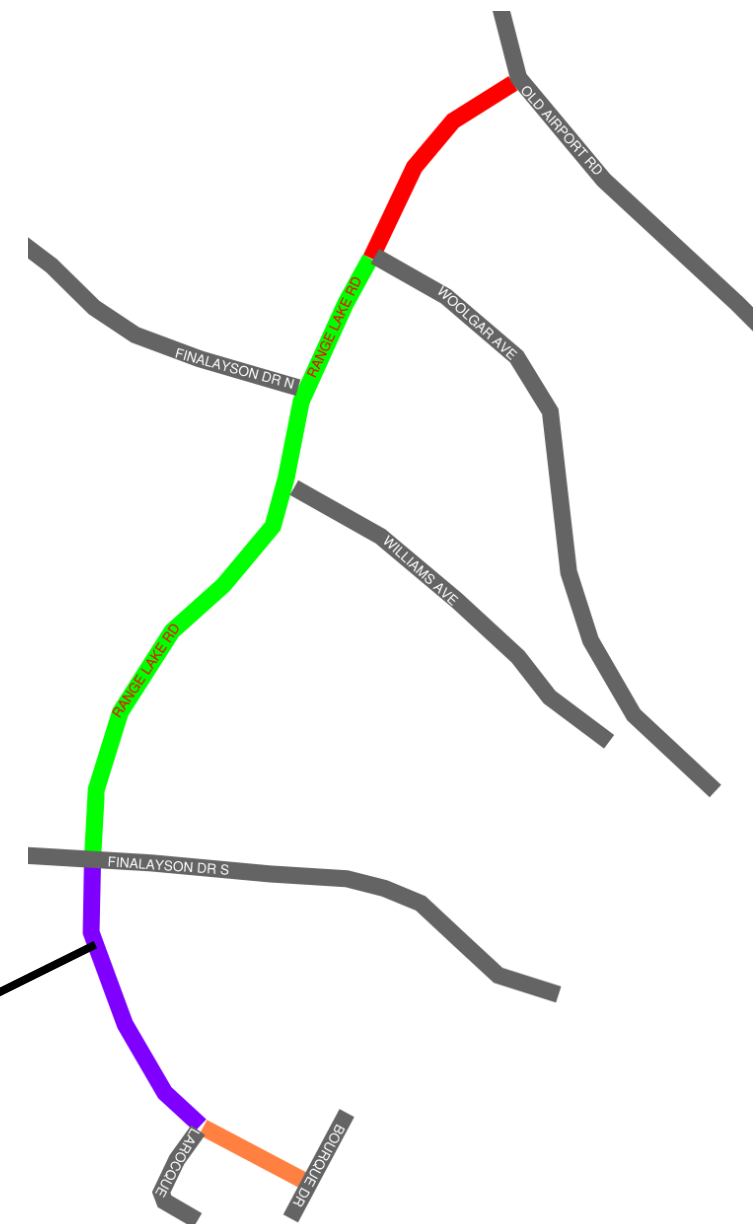
- Wide right-of-way allows for flexibility in improvement options
- Absence of buildings on the east side of the section allows for easier, quicker, and less costly implementation.

Concept

- Painted and buffered bi-direction bike lane on south side
 - *South side preferred for connectivity to school and to avoid driveway crossings*
- Supplementary signage and pavement markings for bike lanes
- 4 Intersection crossings total
- Continues existing unidirectional cycle lanes in interim conditions between Woolgar Avenue and Finlayson Drive South

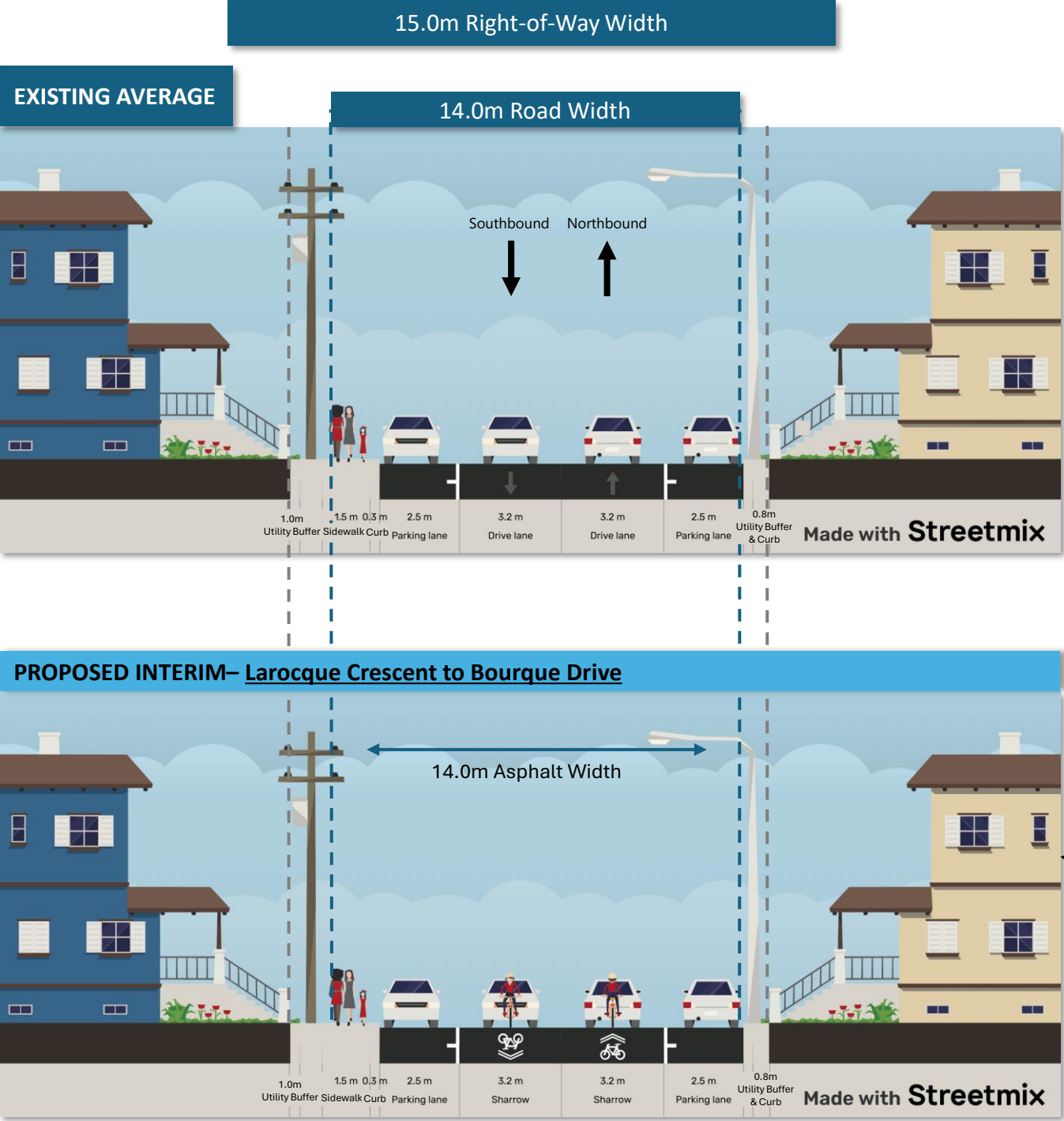
Challenges

- Asphalt width varies in this section, facility widths may vary
- Removal of parking on the east side
- Southbound cyclists must cross the street at Finlayson Drive / Range Lake Road to access bi-directional bike lanes



Range Lake Road

INTERIM - Larocque Crescent to Bourque Drive



Opportunities

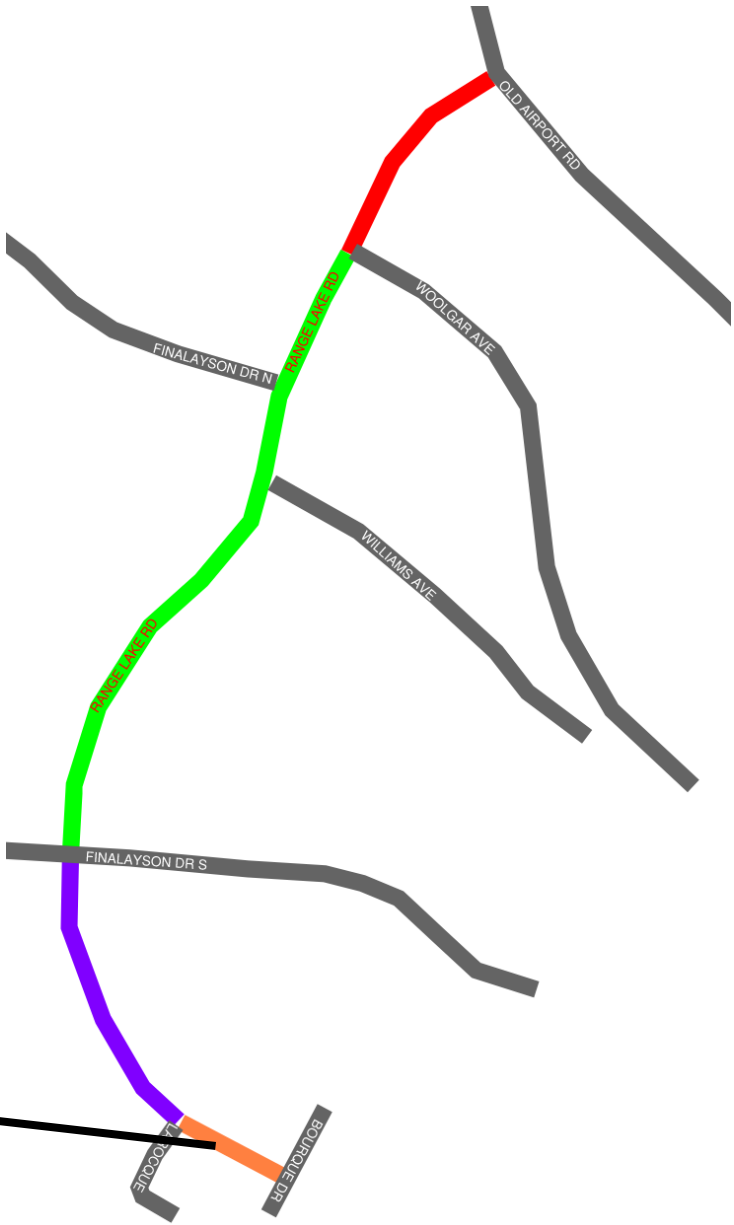
- Existing connection to Kam Lake Road nearby
- Narrow right-of-way supports lower cost bicycle facilities

Concept

- Neighbourhood bikeway
- Supplementary signage and pavement markings
- Interim solution same as ultimate
- 2 Intersection crossings total

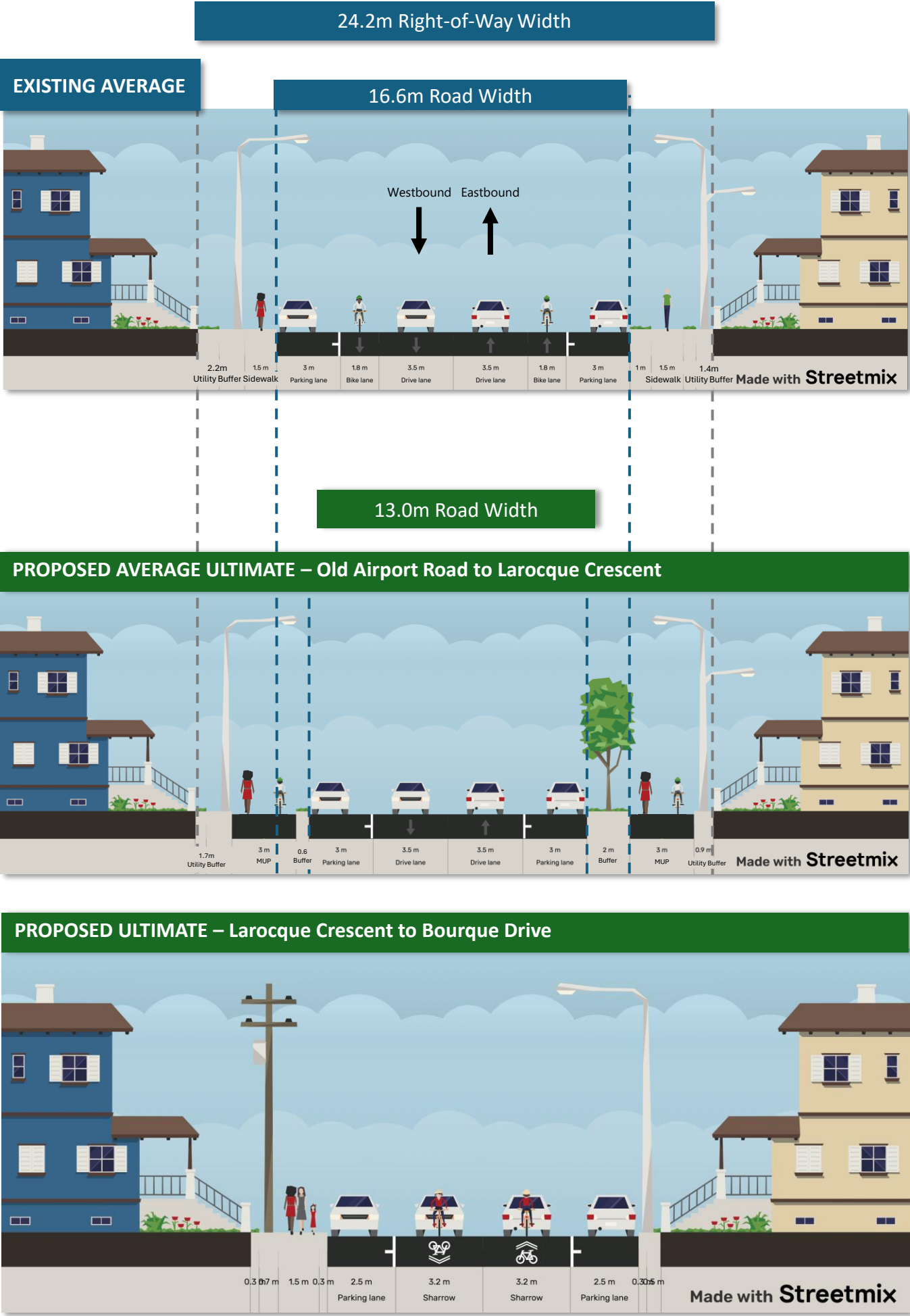
Challenges

- Existing asphalt width is wider than recommended for neighbourhood bikeways. Traffic calming measures such as curb extensions and/or speed humps recommended to improve bicycle safety. Alternatively, the existing sidewalk could be widened to reduce asphalt width.
- Transition to proposed directional facility required



Range Lake Road

ULTIMATE - Old Airport Road to Larocque Crescent



Opportunities

- Wide right-of-way allows for flexibility in improvement options
- Sidewalk alternates from north to south side throughout the corridor, providing opportunity to close the gaps on both sides of Range Lake Road
- Links schools more broadly to surrounding neighbourhoods
- Opportunity to prioritize MUP on one side to provide continuous connection

Ultimate

Concept

- Permanent 3.0m MUP on both sides of the street connecting to shared facility at Larocque Crescent
- Boulevard space for street trees or snow storage
- Road surface width reduced
- Vehicle turn lanes at intersections condensed to share through/turn lanes
- 9 Intersection crossings

Challenges

- Right-of-way varies throughout the corridor, facility widths may vary between Old Airport Road and Larocque Crescent
- Requires relocation of both north and south existing curb lines
- Transition between MUPs and shared street required at Larocque Crescent

*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.