CITY OF MAPLE RIDGE
STRATEGIC TRANSPORTATION PLAN

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1.0 INTRODUCTION

The City of Maple Ridge (City) is updating the 2014 Strategic Transportation Plan (STP) to help address existing transportation challenges and shape the future of transportation in Maple Ridge as it adapts to demand, the addition of new development, and changing technologies that alter how the people and goods move around. The STP is a long-term plan that will guide policy and investment by identifying strategies and actions to build connections, improve systems, and plan for the next 30 years of the City's transportation future. All community members were invited to be part of creating a new STP that is inclusive, sustainable, and forward-thinking.

1.1 BACKGROUND

Maple Ridge has more than doubled its population over the last 30 years and is projected to sustain a steady growth rate to nearly 125,000 people by 2050. The City has transformed from a rural community to a regional hub. Employment is expected to grow at a faster rate than population, reducing the proportion of residents that travel longer distances to employment centres in the region. Demographics in the City are also changing with a high percentage of younger residents relative to other parts of the region. These are the main drivers for the City to reconsider its strategy for shaping its transportation future.

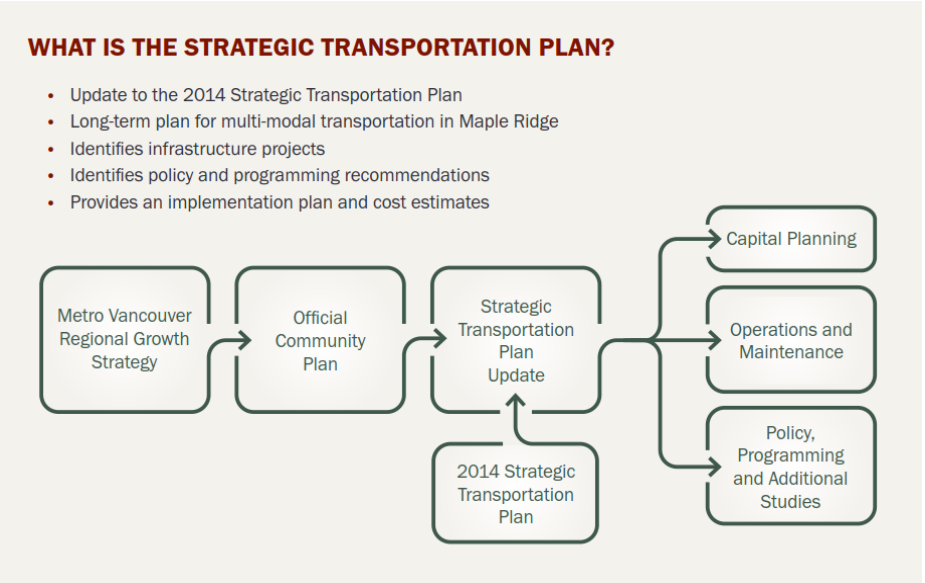


Figure 1-1: What is the STP?

The last STP was adopted in 2014 and resulted in improvements to the City's transportation network, but the community has grown and evolved, along with the regional, provincial, and global transportation context. Typically, communities update their long-term plans every five to ten years to accurately inform capital planning, policy and programming, ongoing operations, and maintenance, as well as respond to policy directions in the Official Community Plan (OCP) and facilitate communication with regional partners. The STP's connection to the City's planning and policy framework is displayed in Figure 1-1.

1.2 STUDY PROCESS

The STP update commenced in April 2021 with Council endorsement. The STP process includes five phases as illustrated in Figure 1-2. More details on the study process can be found in Appendix A.

Figure 1-2: STP Study Process

The STP is grounded in consultation with the community. The City sought feedback from a range of voices in three rounds of engagement, using the findings to shape the strategies and actions. The engagement activities are summarized in Table 1-1.

Table 1-1: STP Engagement Activities

Round 1	Round 2	Round 3
Identify challenges and opportunities, and understand priorities for the future • Online consultation (mapping tool and survey May 17-31, 2021) • Stakeholder groups contacted by letter • Hard copies of surveys at City Hall and distributed to difficult to reach groups • Workshop with Transportation Advisory Committee	Obtain public input on the draft vision, goals, and directions • Online consultation (mapping tool and survey November 17-December 8, 2021) • Advertised on social media, the City's website, and print • Meetings with MOTI, Fraser Health, HUB Cycling, Climate Hub, and TransLink • Consulted several of the City's Advisory Committees, including the Transportation Advisory Committee	Meet with stakeholders to discuss strategies and actions, long-term networks, potential for partnerships, and identify gaps in draft strategies and actions. • Meetings with MOTI, Fraser Health. HUBC Cycling, TransLink, and School District 42 • Consultation with several of the City's Advisory Committees • Workshop with Transportation Advisory Committee

1.3 REPORT STRUCTURE

The STP summarizes key findings from each phase of the study process and presents the core strategies and actions, as well as the implementation plan. The strategies and actions include projects, policies, studies, and partnerships that will move the City towards the vision and goals, and the implementation plan speaks to how the City can prioritize and fund the identified projects, policies, studies, and partnerships. The STP is comprised of the following sections:

- **SECTION 1: INTRODUCTION** – this section provides background context about the study process and intent and the outline of this report, as well as the community engagement process.
- **SECTION 2: SHAPING INFLUENCES** – documents the existing conditions of the City's transportation network, including policy, the community's profile, transportation patterns, and the key issues and opportunities.
- **SECTION 3: FUTURE DIRECTIONS** – documents the STP's plan framework including the vision and goals, and the seven themes into which the strategies and actions are organized.
- **SECTION 4: THEMES, STRATEGIES, AND ACTIONS** – organizes the future directions into themes. Each theme contains several strategies and actions that outline steps the City can take to advance the vision and goals.
- **SECTION 5: IMPLEMENTATION PLAN** – outlines how the City will implement the strategies and actions, including anticipate capital costs for the short-, medium-, and long-term horizons.

This report also includes three Appendices:

- **APPENDIX A:** Study process
- **APPENDIX B:** Maps
- **APPENDIX C:** Implementation Summary

2.0 SHAPING INFLUENCES

The City's transportation system is shaped by many local and regional factors, including land use, location, demographics, policy context, current and historic mobility trends, and many other key issues that have been identified by the community. This section summarizes the existing conditions and key factors that shape mobility patterns in Maple Ridge.

2.1 WHY TRANSPORTATION MATTERS

Transportation networks play a significant role in our daily lives as they influence what mode we choose, how far we need to travel, how long or convenient our trips are, how safe it is, how much it costs, and the experience we have while travelling. Transportation challenges can impact a community in many ways, especially surrounding health, sustainability, and livability. The STP can help the City respond to a number of intersecting and critical challenges, including:

- **SAFETY:** The way our roads and intersections are designed contribute to traffic-related injuries and deaths for pedestrians, cyclists, and motorists. Safe road design can improve safety and address citizens' perception of safety.
- **SUSTAINABILITY**: Supporting residents to choose more sustainable modes of transportation is a result of making walking, rolling, cycling, and transit available and attractive. With a shift to more sustainable modes, there can be less congestion, less greenhouse gas emissions, and better air quality, all contributing to meeting our climate action goals.
- **AFFORDABILITY:** Housing and transportation costs are the two largest expenditures for households. Affordable and equitable transit service can enable residents of all incomes and abilities to access necessary services and supports (i.e., employment, education, healthcare, public and social services, and healthy food) that are critical components to health.
- **PHYSICAL ACTIVITY:** 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 can improve health, increase social interactions and cohesion, as well as reduce rates of obesity, chronic disease, and premature death.
- **LIVABILITY:** Road traffic is the biggest cause of noise in many cities, which can exacerbate stress levels, increase blood pressure, cause sleep disturbance, and negatively affect mental health. Reducing the number of vehicles on the road by creating a positive environment for low-impact transportation options like walking and cycling will help mitigate livability issues.
- **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.

2.2 INTEGRATION WITH OTHER PLANS

The STP will replace the 2014 STP and will help further inform transportation decisions at different levels of planning, including the vision, goals, strategies and actions of the City's OCP and area plans. As a result, the STP is closely linked to several other Acts, plans, and policies at the local, regional, provincial, and federal levels. These documents set the overarching goals, visions, and objectives for land use, transportation, and other key long-term planning considerations in the City and beyond. The STP guides the City's actions within these parameters.

2.2.1 LOCAL PLANS AND POLICIES

The **Official Community Plan** outlines a city-wide, long-term vision for a multi-modal transportation network that supports travel by all modes and for people of all abilities. The Official Community Plan also provides the policy framework for creating compact livable communities in high density areas and along transit corridors, such as the Town Centre and Lougheed Transit Corridor. **Council's Strategic Plan 2023-2026** sets outs five strategic priorities for the next four years, which includes creating a livable and healthy community that supports climate leadership and environmental stewardship. The **Zoning Bylaw** regulates specific uses and density of the property while the **Subdivision Bylaw** outlines the requirements for development and servicing of the City.

The previous **2014 Strategic Transportation Plan** addressed challenges and opportunities focused on growth in population and new development areas. The City has several area plans, which make up part of the Official Community Plan, for Albion, Hammond, North East Albion, Silver Valley, Town Centre, and Lougheed Transit Corridor, which aim to maintain a neighbourhood's unique context and provide guidance on land use, density, form and character.

2.2.2 REGIONAL, PROVINCIAL, AND FEDERAL

Regional, Provincial, and Federal governments have established bold targets to reduce greenhouse gas (GHG) emissions. Canada has set a target to cut its GHG emissions by 40-45% below 2005 levels by 2030 and released the National Active Transportation Strategy and supporting National Active Transportation Fund to grow active transportation infrastructure and mode share.

The Province's CleanBC plan includes targets to reduce GHGs to 40% below 2007 levels by 2030, 60% by 2040, and 80% by 2050. To support this, the Province released Move. Commute. Connect.: B.C.'s Active Transportation Strategy with bold targets to double the percentage of trips taken with active transportation by 2030 as a way to help the Province meet its GHG emissions targets.

Metro Vancouver's Regional Growth Strategies, Metro 2040 and Metro 2050, define Maple Ridge's Town Centre as a Regional City Centre, and connects to the Frequent Transit Network via Lougheed Highway and the Golden Ears Bridge. The Urban Containment Boundary, which aims to prevent urban sprawl, aims to limit development and growth in the western communities of Maple Ridge. The Regional Greenway Network also extends several recreational paths through the City, including connections to Golden Ears Park and the Fraser River.

TransLink's Regional Transportation Strategy, Transport 2050, aims have 50% of all trips by active transportation and transit by 2050. To do this, TransLink aims to expand key networks such as the Reliable & Fast Transit Network to Maple Ridge via Lougheed Highway and over the Golden Ears Bridge, and the Major Bikeway Network via Lougheed Highway, 203 Street, 128 Avenue, 224 Street, and 232 Street. The Maple Ridge-Pitt Meadows Area Transport Plan recommends four key actions to improve the transportation network in the City, including a Golden Ears Way corridor study, bus priority lanes on Lougheed Highway, future travel demand in North Albion, and a West Coast Express Strategy for an additional station.

2.3 COMMUNITY PROFILE

The City of Maple Ridge is a community of 90,990 (Statistics Canada 2021 Census) residents in ten neighbourhoods and historic centres that span over more than 260 km^2 of land area in the northeastern corner of Metro Vancouver between the Fraser River and the Golden Ears Mountains (Figure 2-1). The City is located on the traditional, ancestral territories of the Katzie and Kwantlen First Nations. The geography provides stunning views and ample outdoor recreation opportunities with urban amenities and access to nearby population centres due to its location along Highway 7, along with the West Coast Express into downtown Vancouver.

The City of Maple Ridge is located between the growing communities of the City of Pitt Meadows to the west and the District of Mission to the east. The City's proximity to Downtown Vancouver and other employment hubs in the region, as well as its relative affordability has attracted new families to the community at growing rates. As one of the regional district's most eastern borders, Maple Ridge can play a key role in growth management.

The City is one of the province's first municipalities, and has undergone an urban transformation in recent years, but the community still retains its agricultural and small-town roots. Over the last thirty years, Maple Ridge has been one of the fastest growing municipalities in the region, more than doubling its population. It is projected this rapid growth sustain will continue to reach nearly 125,000 people by 2050 (Figure 2-2). Employment in Maple Ridge is expected to grow at a faster rate than population, meaning directionality of traffic will reduce but more pressure will be placed on the local transportation network. In addition, Maple Ridge is a regional hub for both Metro Vancouver and the Fraser Valley, meaning people from across both regions will travel to the City to access amenities, employment, key transportation corridors, and public transportation such as the West Coast Express.

Density is also increasing in the City, especially in the Town Centre, Central Maple Ridge, West Maple Ridge, and Cottonwood areas; however, half of the projected growth will be in the Town Centre alone. The City's current plans are to infill growth along the Lougheed Highway corridor and Town Centre.

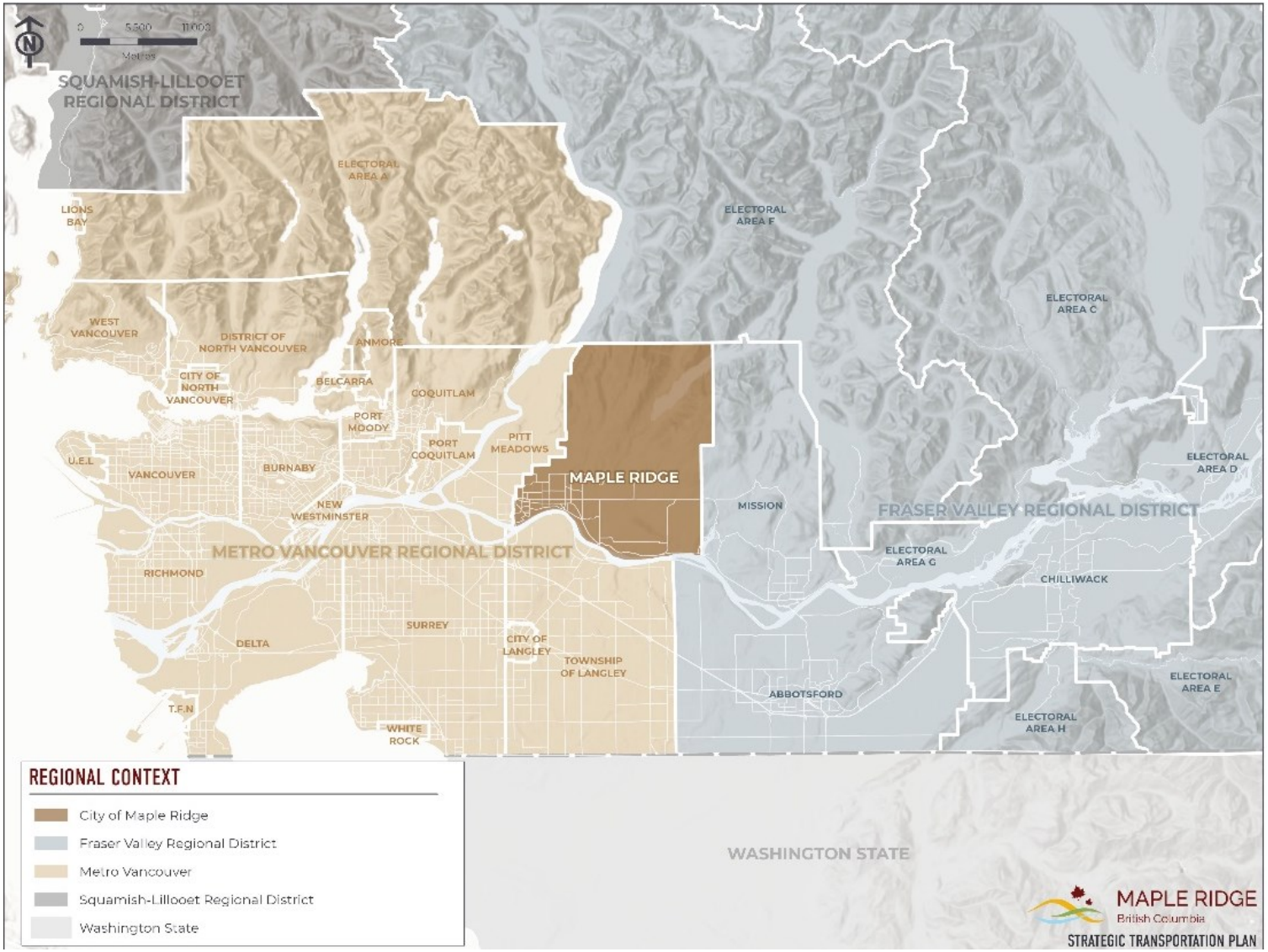


Figure 2-1: Regional Context

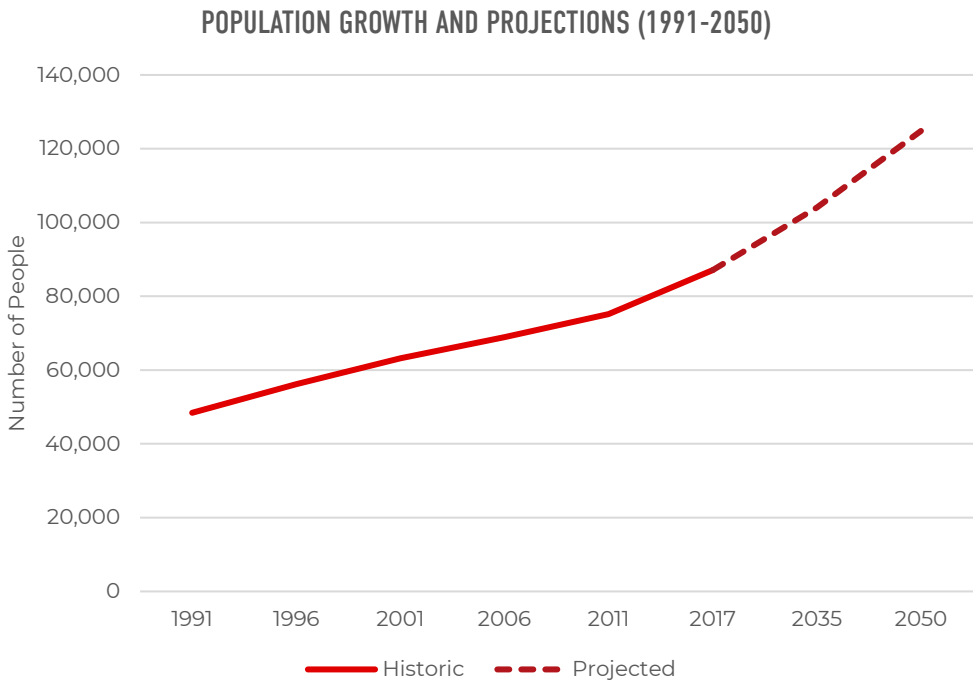


Figure 2-2: Population Growth
Source: Statistics Canada Census Data (Historic) Regional Transportation Demand Model (Projection)

Maple Ridge has a family-oriented population with a growing proportion of youth aged 19 or younger attending school, daycare, and extracurricular activities throughout the community. Approximately 18% of Maple Ridge residents were 14 or younger in 2021, compared to 15% across Metro Vancouver.[1] This points to the importance of the transportation network connecting schools and transit with the densest parts of the City. In addition, the City's current largest adult population cohort is between the ages of 50-54 years. This age cohort, along with others from the 'Baby Boom' generation are likely to require enhanced transportation options in the coming years. The City needs to balance the transportation priorities of all ages and abilities.

[1] Source: Statistic Canada Census Data

Maple Ridge is home to many rivers, lakes, trails, and parks such as the Alouette River and Golden Ears Provincial Park, and approximately 15% is Agricultural Land Reserve and 60% is forested area. The community is well-known for its beautiful and diverse landscape, but the natural barriers present unique challenges to growing and maintaining an efficient transportation system, especially amid rapid population growth. Changing terrains and grades, especially those in the north and east, can be challenging for active transportation, transit, and heavy vehicles.

2.4 TRANSPORTATION PATTERNS

Understanding the way Maple Ridge residents travel offers evidence and insight as to how to best address current and potential transportation issues. This section summarizes key travel patterns based on the most recent information from TransLink's (2017) Regional Trip Diary Survey, including mode share, trip distance, trip purpose, and demographics.

HOW MUCH DO WE TRAVEL?

Maple Ridge residents make more than 270,000 trips each day – or around **3.1 trips per person per day** – travelling an average of 40 km daily. In Metro Vancouver, the average vehicle kilometres traveled (VKT) per day is 18 km per capita, whereas Maple Ridge residents travel **31 km** per capita per day. The number of trips per day and per capita are increasing over time, in addition to the percentage of trips using automobiles.

WHY DO WE TRAVEL?

Most daily trips made by Maple Ridge residents are to **work or post-secondary school** (31%) and for **shopping or personal business** (30%). 17% of trips are for social, recreational, or dining purposes.

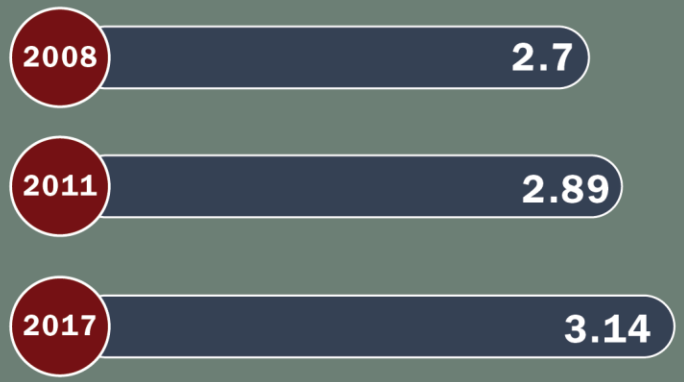
HOW DO WE TRAVEL?

Over 90% of daily trips made by Maple Ridge residents are by motor vehicle, which has been increasing over time (from 87% in 2011), while mode share for passengers, transit, walking, and cycling has been decreasing. This is a different trend than most of the Metro Vancouver region, where mode share for driving has been decreasing over time. Maple Ridge has a lower sustainable transportation mode share (9%) than many Metro Vancouver municipalities.

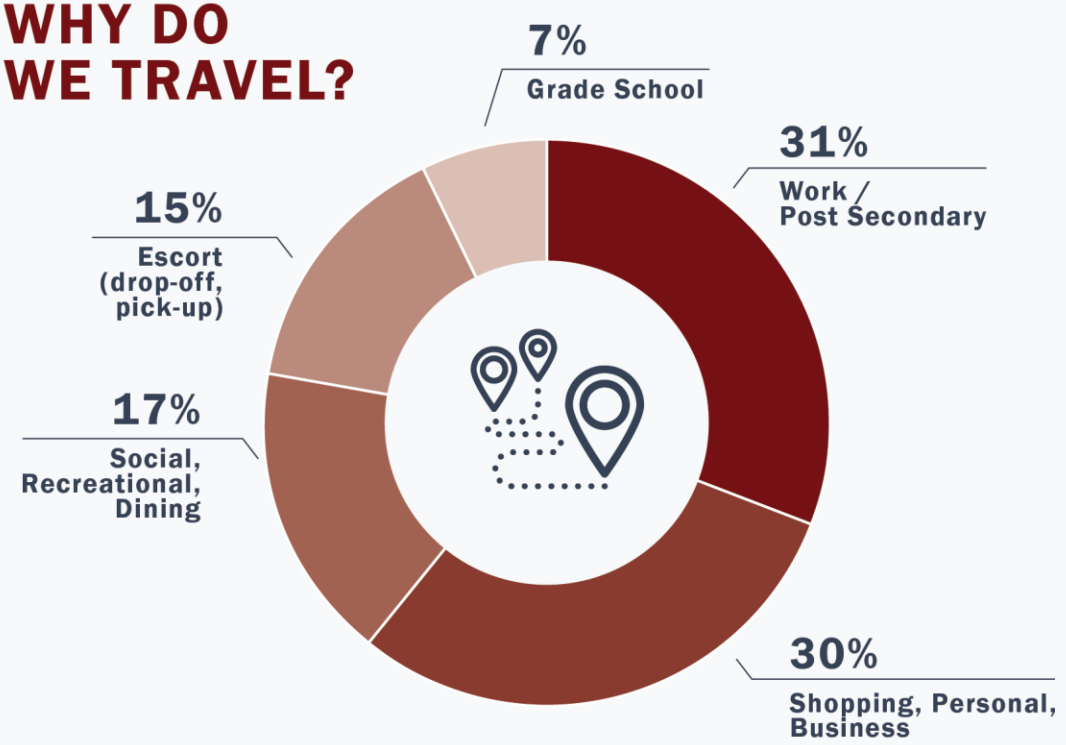
TRANSPORTATION PATTERNS

HOW MUCH DO WE TRAVEL?

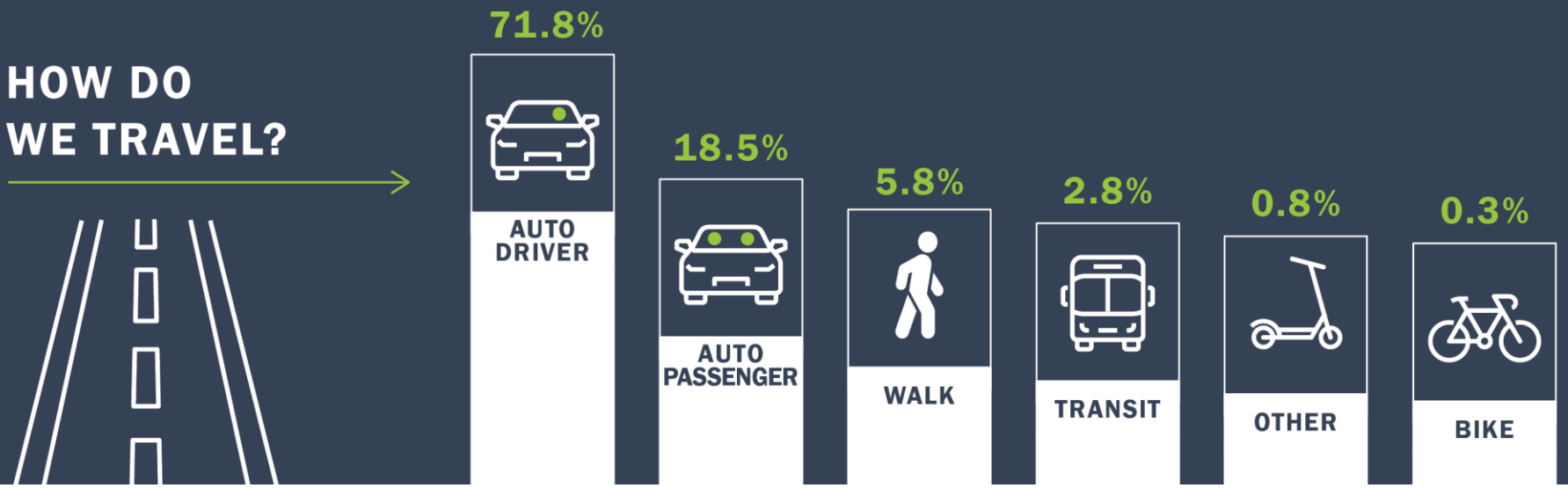
Trips per person, per day



WHY DO WE TRAVEL?



HOW DO WE TRAVEL?



WHERE DO WE TRAVEL?

The vast majority of daily trips (68%) originating within Maple Ridge remain within the borders of the City (Figure 2-3). Another 28% of trips originating in Maple Ridge are destined to locations west or south of the City and use the constrained western gateway around Golden Ears Way / Lougheed Highway or the West Coast Express. The most common destinations outside of the City are Pitt Meadows (6%) and Coquitlam/Port Coquitlam/Port Moody (7%).

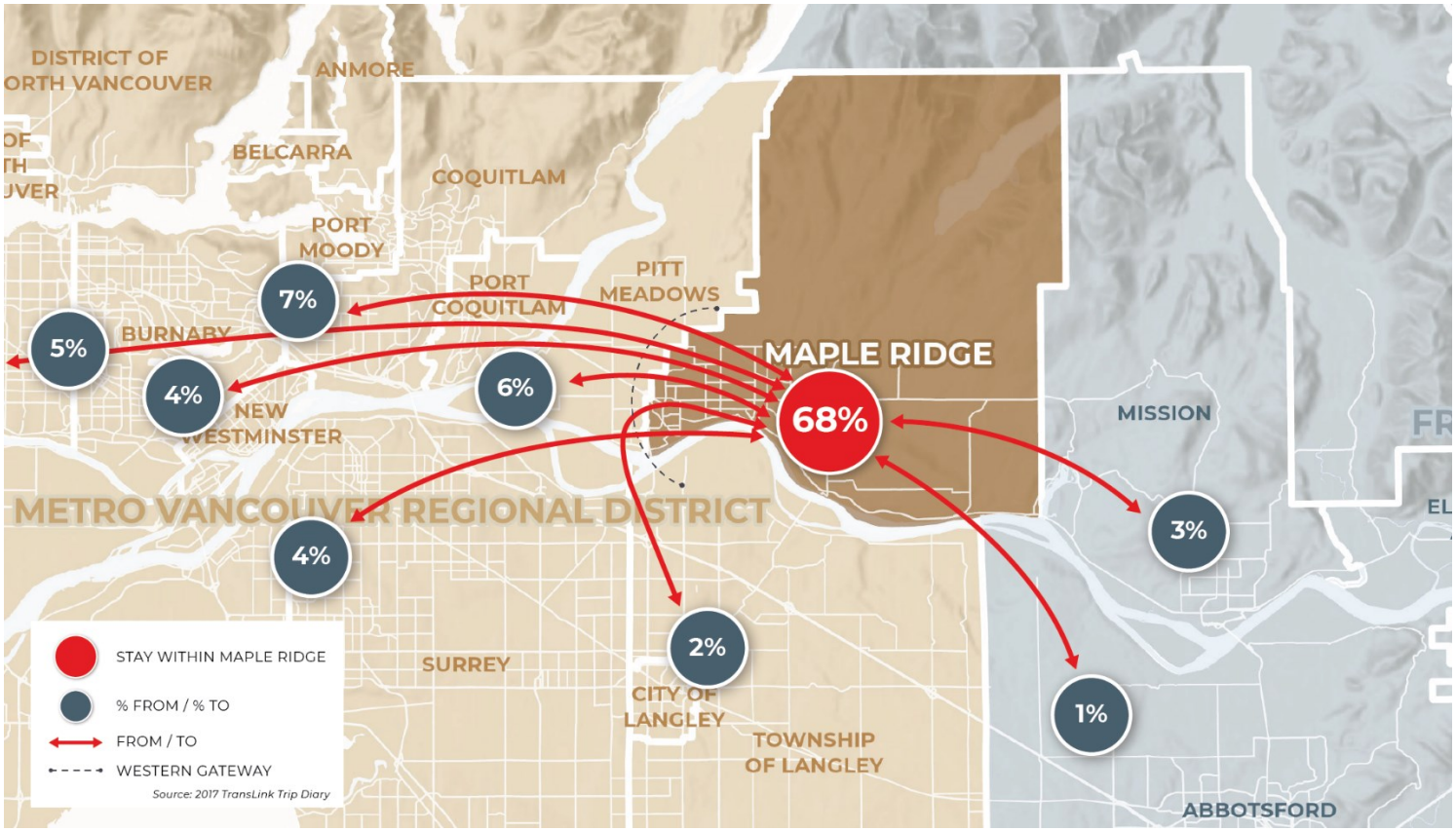


Figure 2-3: Distribution of All Daily Trips Originating in Maple Ridge
Source: 2017 TransLink Trip Diary

2.5 KEY ISSUES AND OPPORTUNITIES

The STP developed an overview of the context and assessment of issues and gaps informed the future directions, strategies, and actions. It reviewed the community context, travel patterns, and infrastructure and performance for each mode of transportation. Some of the key overarching findings include:

- **The community's aspirations for transportation in Maple Ridge are safe, efficient, connected, green / sustainable, fast, affordable, improved infrastructure, less congestion, and reliable.** During engagement, the community communicated a vision of a transportation network that meets the needs of people of all ages and abilities and all modes, and that creates more connectivity and reliability, results in safer roads for vulnerable users, and increases livability through integrated land use, connections to nature, and less noise and pollution.
- **Growth creates opportunities to provide high quality transportation amenities and address network gaps.** Recent growth in population and employment combined with high driver mode share have increased the pressure on the transportation system. Survey respondents noted that congestion is a top priority for the STP, as it results in long commutes and a lower quality of life. Roadways that had been designed for low or rural traffic are increasingly serving development traffic. Gaps in pedestrian and cycling infrastructure are increasingly important as traffic volumes grow. Congestion has also caused delays for transit, reducing the attractiveness of transit as a mode of transportation. At the same time, new development – both infill and greenfield – are an opportunity to provide safe, comfortable walking and cycling infrastructure, to facilitate transit priority, and to right-size roadways and parking to improve the transportation system for everyone.
- **As the Town Centre evolves, it is important to invest in a safe and comfortable transportation network that meets the needs of people of all ages and abilities.** The Town Centre is home to many of Maple Ridge's senior and low-income households. This area was also identified as having some intersections with potential safety issues, as well as growing vehicle delay. The cycling network to and through the Town Centre is discontinuous and there are some remaining gaps in the walking network. There are opportunities to ensure that lighting, accessibility, and transit-supportive amenities in and around the Town Centre are high quality and support mode choice for everyone. Survey respondents noted that safety, accessibility, and affordability are important to making Maple Ridge a livable place, and that the current transportation network is not necessarily meeting all of these needs.
- **There is growing pressure on the western gateway of the City for all modes of transportation.** As the population of Maple Ridge continues to grow and more trips are made by driving, traffic congestion and queues have increased at the western boundary of the City. Survey respondents noted they travel to Vancouver, Burnaby, Coquitlam, and Surrey, and typically by car because transit, walking, and cycling are not feasible alternatives at this time. This has resulted in growing delay for transit riders along with delay for private vehicles and goods movement. As traffic volumes have increased, people walking and cycling have been exposed to more traffic. Connections and land uses have also evolved – and continue to evolve – on the

western side of the City, including the elimination of tolls on the Golden Ears Bridge, growing density, the introduction of the R3 RapidBus, and potential changes to roadway connections in Pitt Meadows. Regionally, a safe and comfortable bicycle route suitable for people of all ages an abilities is required through this busy area, which is particularly important as trips by all modes continue to grow.

- **Current transportation trends are unlikely to result in the City meeting its emissions targets from transportation.** The number, distance, and share of driving trips has increased, and survey respondents felt that driving was the top priority for the STP. To reduce transportation emissions, the number of vehicle kilometres traveled must be reduced and a greater share of those trips must be made by electric vehicles. There is an opportunity to increase electrification while also making walking, cycling, and transit trips more safe, comfortable, and efficient. In addition, most respondents (53%) noted they work or attend school outside of Maple Ridge, meaning there is an opportunity to continue to grow employment and education opportunities in the City.
- **The City's large land mass in contrast to its population, along with drainage constraints, make it difficult to address all network gaps in a short time frame.** The City has a large transportation network because of it's relatively large size. At the same time, the geography and drainage challenges make some types of infrastructure relatively expensive. Potential improvements must be prioritized and targeted where they are most likely to help the City meet its overarching goals and objectives. This may include focusing on areas and along corridors where transportation choice is most likely to result in mode shift, in higher density areas, and / or serving seniors, youth and other vulnerable populations.
- **Transportation technology and infrastructure is changing.** Ridehailing has been established in Maple Ridge since the last STP and future parking and loading strategies will need to consider the needs of ridehailing in addition to traditional modes. Emerging modes, such as micromobility and automated vehicles create opportunities, but also require careful policy consideration to address possible negative outcomes and conflicts with other modes. Survey respondents felt that there are currently limited transportation options in Maple Ridge, and that modes that would reduce travel times and increase convenience would be appreciated.

3.0 FUTURE DIRECTIONS

This section describes the future directions for transportation in Maple Ridge. It is based on the results of technical work on existing and future conditions, broader policy directions, and input from the public, stakeholders, and Council. The STP's framework is based on an overarching vision statement and six goals that set the direction for more specific proposed long-term network plans and strategic directions for each mode of transportation. The long-term networks and strategic directions are organized into seven themes that advance the vision and goals. The specific strategies and actions of the STP articulate how to achieve the goals and vision.

3.1 VISION AND GOALS

A vision statement is a picture and inspirational framework for the City's future, especially in the context of transportation. A vision statement will influence how and where the City allocates its resources. The vision for the STP is:

By 2050, Maple Ridge's transportation system is safe, efficient, connected, accessible, and sustainable. Residents, visitors, and businesses can meet their daily transportation needs reliably and comfortably using their mode of choice.

Feedback from public and stakeholder consultation in Phase 3 indicated support for the vision statement, with more than 60% of respondents indicating that the vision statement was good or excellent at aligning with their own vision for the future of transportation in Maple Ridge.

Figure 3-1: Goals & Themes

Goals provide the STP more specific direction to understand which strategies, actions, and investments best align with the community's desired outcomes and address the most pressing existing issues. The goals align with the vision and are intended to reflect the desired outcomes expressed by the public, stakeholders, and Council. They reflect the core themes of safe, connected, efficient and reliable, accessible, sustainable, and cost-

effective transportation that were common throughout the review of existing policy and consultation. All of these goals had strong support with the public with between 73% and 95% of respondents supporting each of the goals.

Achieving the goals of the STP will shift travel patterns and have positive outcomes on other City priorities, including reducing GHGs. A safe, connected, reliable, accessible, sustainable, and cost-effective transportation system is expected to have a lower proportion of trips by driving, reduce vehicle kilometres travelled per person, and to produce fewer GHGs. Road capacity increases are costly and may conflict with other priorities, including livability and land-use goals; increasing road capacity can also induce demand. Because of these outcomes, decreasing driving mode share is a key lever to improving efficiency and reliability, as well as achieving other STP goals.

Transportation outcomes and GHG emissions are influenced by multiple factors, including land-use, policy, economics, public infrastructure, and human behaviour. The strategies and actions contained in the STP are expected to drive positive change; however, because of the complex influences noted above, the City is taking a comprehensive approach to address climate change as part of the Climate Action Plan, which is under development at the time of publication of the STP.

3.2 THEMES

Phase 1 and 2 of the STP identified issues, opportunities, and gaps in transportation in Maple Ridge. The strategic directions and long-term networks seek to address these issues and gaps and to leverage opportunities by moving towards the future envisioned by the vision and goals. As illustrated in Figure 3-2 the strategic directions and long-term networks are organized according to seven themes, all of which will be advanced in service of the goals of a safe, connected, reliable, accessible, sustainable, and cost-effective transportation system in Maple Ridge.

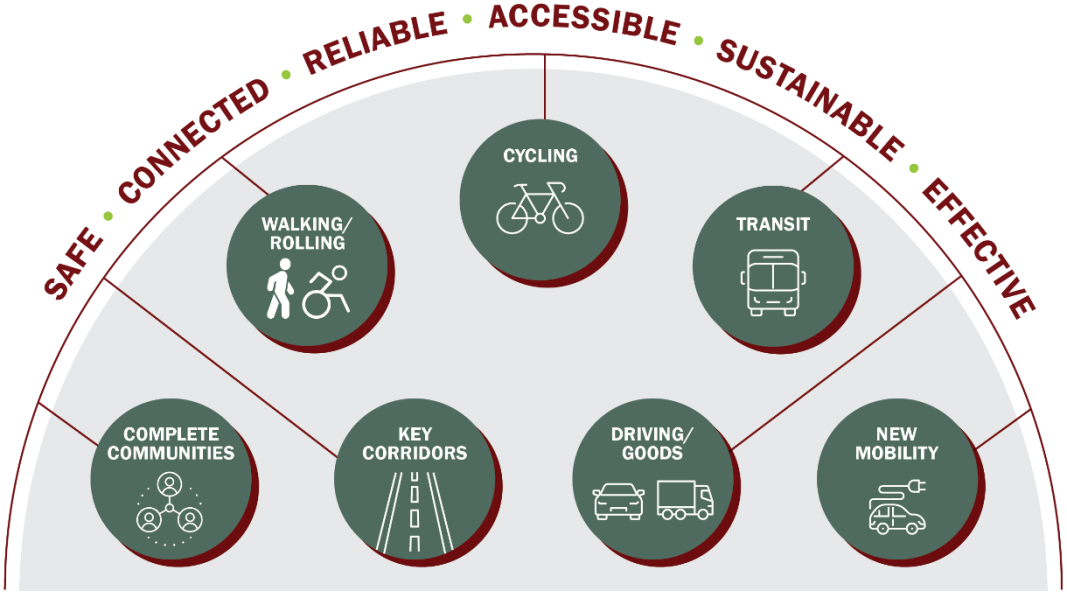


Figure 3-2: Thematic Areas & Goals

4.0 THEMES, STRATEGIES, AND ACTIONS

This section presents the seven themes that organize the strategic directions and long-term networks. Each of the themes contains several strategies and actions that outline the steps to be taken by the City to work towards the vision and goals. Key input to the development of these themes, strategies, and actions includes existing policy, input from the public, stakeholders, and Council. The seven themes are to be advanced in service of the goals of a safe, connected, reliable, accessible, sustainable, and cost-effective transportation system in Maple Ridge.

THEME 1 COMPLETE COMMUNITIES

In a complete community, residents can meet most of their basic needs within their neighbourhood. Complete communities[2] are places where community schools, meeting places, grocery stores, jobs, and services are close and connected enough that people living in all types of housing can choose to walk, roll, or bike. The Strategic Transportation Plan's goals of a safe, connected, efficient and reliable, accessible, sustainable, and cost-effective transportation system can best be met by starting with the foundation of complete and connected communities.

Complete communities benefit residents, employees, employers, visitors, and can help achieve broad community goals. People living in complete communities typically travel shorter distances to reach their destinations and may be more likely to choose walking and cycling as their primary modes of transportation. Higher density complete communities can place more people and destinations within walking distance of frequent and rapid transit. Other benefits of complete communities include lower greenhouse gas emissions per capita, increased personal safety through having more 'eyes on the street', improved access for seniors and low-income households, and improved comfort and vibrancy relative to other built forms. Complete communities offer an opportunity to provide more high-quality public spaces that use Crime Prevention Through Environmental Design (CPTED) principles. CPTED is an approach to planning and designing communities that reduces opportunities for crime, and through the application of its design principles, ensuring people feel safe when they travel.

Metro2040 Dashboard
Healthy & Complete Communities

"Complete communities offer **a mix of housing** to accommodate people at all stages of life, a **good range of jobs**, and **easy access to stores and services** to meet daily needs. They also provide residents with **choices about how to get to, from and around their neighbourhood**. Complete communities exist at different scales across the region – from small neighbourhoods to medium and large Urban Centres, from historic and rural communities to new developments near frequent transit."
- Metro Vancouver
(http://www.metrovancouver.org/metro2040/complete-communities/connected-communities/Pages/default.aspx)

People First Streets

The Transformative Actions in ***Transport 2050*** include transforming roads that have been designed primarily for private cars into people-first streets that are designed for everyone. These streets feature reduced motor vehicle speeds and greater separation of different modes and speeds.

People first streets complement complete communities by creating places where all people – including people with disabilities and people using transit, cycling, walking, or rolling – feel safe, comfortable, and connected.
- Adapted from ***Transport 2050***.

[2] Complete communities are also known by other names, including 15 minute communities.

Regional documents plan for – and outline the benefits of – complete communities. Metro Vancouver's Regional Growth Strategy, ***Metro 2050*** includes a strategy to 'Develop resilient, healthy, connected, and complete communities with a range of services and amenities. It identifies a network of Urban Centres – including the Regional City Centre in Maple Ridge – that are complete communities with a "balanced mix of housing, employment, services and amenities."[3] ***Transport 2050*** – TransLink's Regional Transportation Strategy focuses investment in rapid and frequent transit to Urban Centres and Frequent Transit Development Areas. Strong walking and cycling networks in complete communities focus on connecting people to their everyday destinations. This also aligns with the principles of People First Streets, as outlined in ***Transport 2050***.

Building complete communities is an objective in Maple Ridge, identified in approved Area Plan documents, the OCP and area planning documents currently under review such as the Lougheed Transit Corridor Area Plan. The Strategic Transportation Plan includes strategies and actions that complement the City's planning documents and ensure that transportation infrastructure and policy meet the needs of residents and visitors in Complete Communities.

Strategy 1.1: Link land use, transportation, livability, and climate actions to support a complete, communities.

Land use and transportation are inherently linked and influence the way people travel. Complete communities are core to achieving the goals of the STP. This strategy focuses on actions that connect land use and multi-modal transportation improvements to ensure there are a range of convenient and comfortable travel choices close to where people live, work, and play. This will contribute to improved livability, vibrancy, and reduced greenhouse gas emissions, while allowing the City to invest in transportation infrastructure in a cost-effective way.

The City has been implementing complete communities through policies such as the OCP, neighbourhood plans, and Council's Strategic Plan. Growth must be concentrated near community amenities and services, and along rapid and frequent transit corridors to meet the objectives of the OCP and other guiding documents. This has led to the focus on densification, complete communities, and comfortable transportation connections in the Town Centre and Lougheed Transit Corridor areas. The Strategic Transportation Plan supports these documents by including actions to align transportation policy with land use policy, ensuring that transportation infrastructure enables walking, cycling, rolling, and taking transit in these and other developing communities.

[3] ***Metro 2050: Regional Growth Strategy*** (2022)

Action 1.1.1 In accordance with current City planning documents, concentrate growth and density along the Lougheed Transit Corridor and within the Town Centre to create opportunities to walk, cycle, and use transit.

The Town Centre neighbourhood is identified as a Regional City Centre in ***Metro 2050*** and important destination on the future Major Transit Network (MTN) that is established in ***Transport 2050***. The identification of the Town Centre as a Regional City Centre recognizes its role as a service hub for the Maple Ridge / Pitt Meadows subarea, as well as the opportunity for further evolution into a complete community through concentrated growth and development. ***Metro 2050*** also identifies Lougheed Highway from Maple Ridge Town Centre to Coquitlam as a regional Major Transit Growth Corridor (MTGC) and Frequent Transit Development Area (FTDA). In support of these designations, ***Transport 2050*** identified this corridor for investment in future rapid transit as part of the MTN.

The Lougheed Transit Corridor Area Plan (in development) and Town Centre Area Plan seek to concentrate growth along Lougheed Highway in the Regional City Centre and within the catchment area of the Lougheed Transit Corridor. The area targeted for densification extends from Burnett Street in the east to the Pitt Meadows border the west. These plans allow for multi-family housing and an increased density of destinations and services within a ten-minute walk of rapid transit, linking rapid transit and land use to create complete communities that also have comfortable, frequent, and convenient transit service. The plans encourage commercial mixed-use and transit corridor multi-family land uses surrounding future rapid transit station nodes at 203 Street and Laity Street (Figure 4-1) and the Regional City Centre (Figure 4-2).

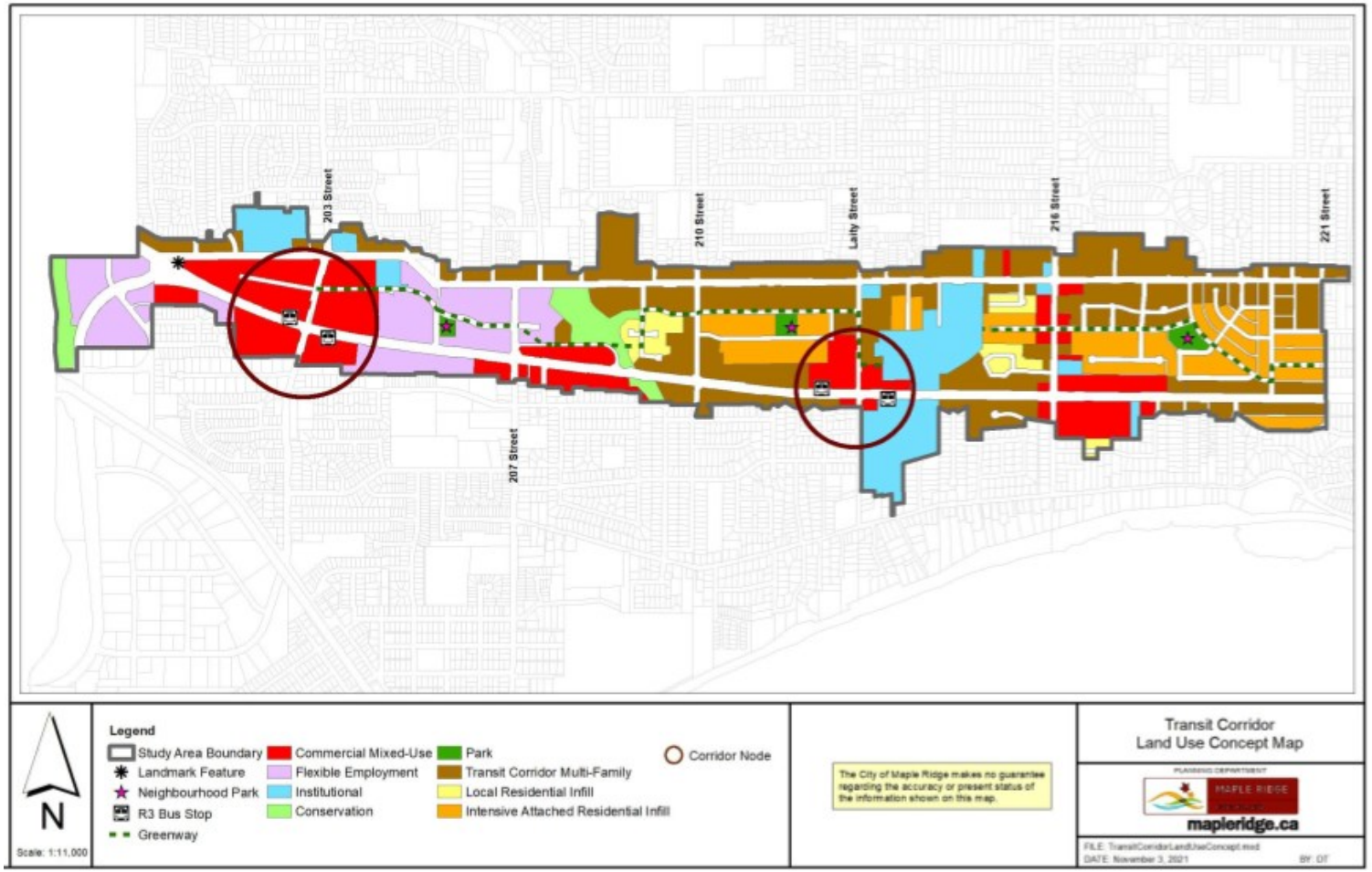


Figure 4-1: Lougheed Transit Corridor Area Plan Land Use Map (under development)
Source: City of Maple Ridge Official Community Plan (2014)

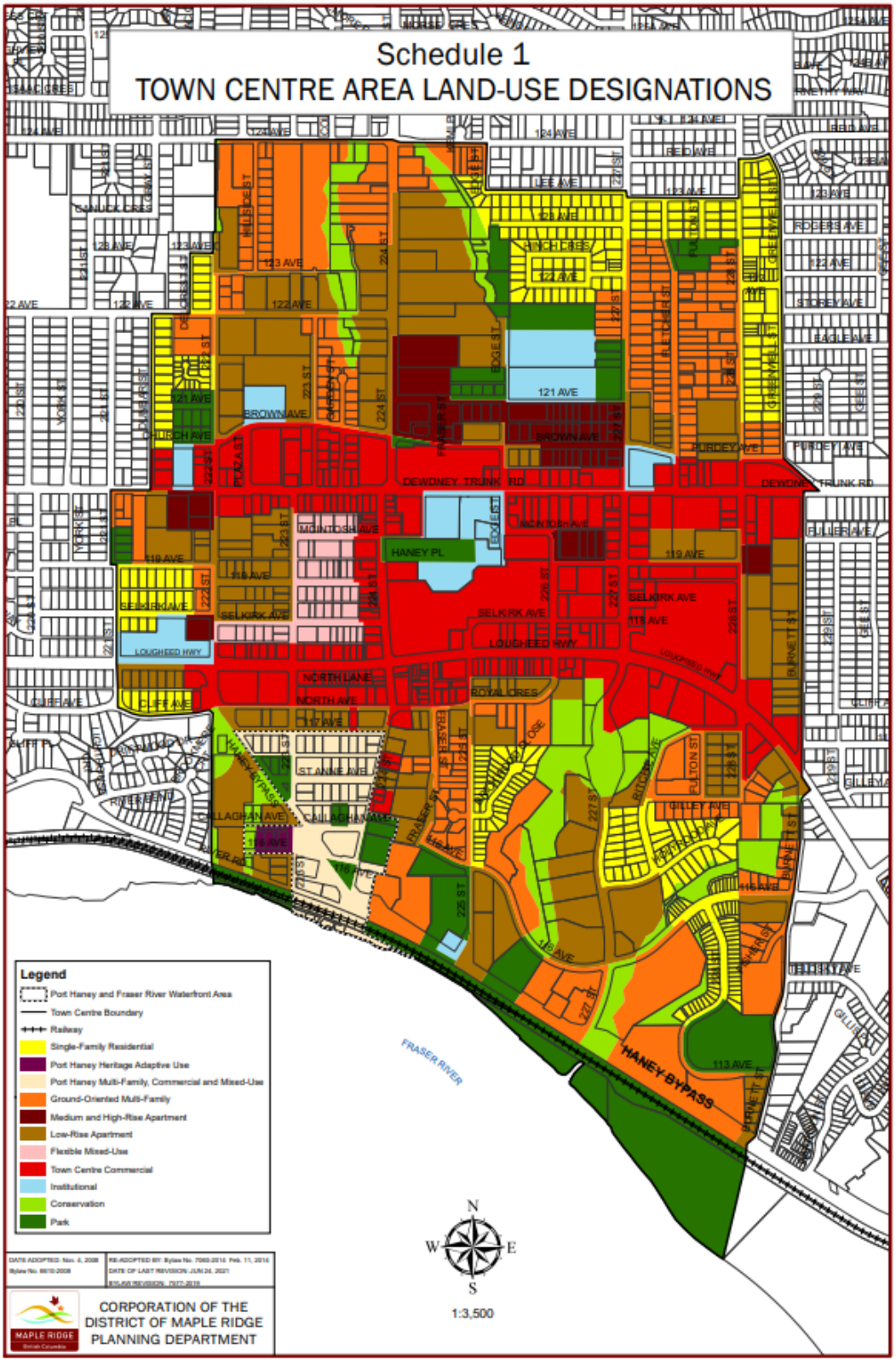


Figure 4-2: Town Centre Area Plan Multi-Modal Transportation Network
Source: City of Maple Ridge Official Community Plan (2014)

As part of this action, the City will

- Continue to work with TransLink, Metro Vancouver, and other regional partners to spur density, growing the stock of Transit-Oriented Development in this area, while also advocating for increased investment in the transit services within and to Maple Ridge.
- Follow the guidance set out in the ***Lougheed Transit Corridor Area Plan (under development)***, the ***Lougheed Transit Corridor Development Permit Guidelines***, the ***Town Centre Area Plan***, and ***Growing Together***.
- Partner with developers to deliver complete communities that achieve the objectives of the STP and align with the intent of TransLink's ***Transit Oriented Community Design Guidelines***. The intent is to deliver communities that have a well-designed public realm, higher-density homes located near commercial uses, a diversity of land uses, well-connected streets that reduce walking distances, complete walking and cycling connections, and access control along arterial roadways.[4]

Figure 4-3: TransLink Transit-Oriented Communities Design Guidelines
Source: TransLink (2012)

Growing Together: Public Engagement Outcomes and Recommendations for Maple Ridge's Town Centre (2022)

Growing Together recognizes that Maple Ridge has grown and evolved since the adoption of the Town Centre Area Plan in 2008 and provides renewed implementation guidance that aligns with the original vision. The recommendations from the public engagement process that was undertaken as part of ***Growing Together*** include creating walkable streets, a well-connected cycling network, planting more street trees and green spaces, a stronger connection to the river, and safety improvements intended to enhance vibrancy.

Transit Corridor Development Permit Guidelines. (2022)

The look and feel of the future built environment within the draft Lougheed Transit Corridor Area Plan is driven by the Lougheed Transit Corridor Development Permit Guidelines. The guidelines include provisions for pedestrian and bicycle access, bicycle parking, and pedestrian-scale design and treatments to make those land uses surrounding the transit nodes accessible, comfortable, and enjoyable for non-auto modes. It is important to implement infrastructure and developments that consider non-auto modes, especially near transit nodes, to encourage complete communities.

[4] Achieving access control may require both closure of existing accesses and the provision of parallel local roads and / or lanes as outlined in Theme 6.

Action 1.1.2 Continue to investigate opportunities for infill commercial and institutional development, as well as advocating for improved internet connectivity in existing predominately single-family neighbourhoods.

Many of the City's existing predominately single-family neighbourhoods are relatively new and not intended to redevelop within the time horizon of this plan. Linking land use, transportation, livability, and climate actions in these neighbourhoods relies on more incremental action and investment in existing assets and community destinations.

As part of this action, the City will:

- Focus on improving comfort and connectivity for walking and biking to existing community destinations, including schools.
- Partner with other levels of governments, developers, and other organizations to add elements of a complete community, such as childcare, plazas, parklets, and community facilities.
- Partner with community members to consider and implement features like traffic calming and traffic diversion though the Traffic Calming Policy.
- Continue to promote fast and reliable internet connections in all areas of the City so that employees in industries that support remote or hybrid (in person and remote work) can choose to work remotely and reduce the number of peak hour vehicle trips.

Working from home can reduce traffic volumes in the most congested time periods

COVID-19 resulted in a societal shift towards working from home for some types of employees. In many cities around the world both motor vehicle traffic volumes and transit use decreased by 50% or more throughout much of 2020. Regional traffic count data in Metro Vancouver indicated that daily traffic volumes returned to within 10% of pre-pandemic levels by May of 2020; however, peak hour traffic volumes have remained below January 2020 levels.

Communities can benefit when some residents choose to work from home full- or part-time. Global experience indicates that when peak hour vehicle trips decrease, residents may have more time and money to invest in their local communities. Enabling work from home requires fast and reliable internet connections for all residents in the City.

Action 1.1.3 Update Subdivision and Development Servicing Bylaw No. 4800-1933 to ensure new and improved streets follow Complete Streets principles, all ages and ability cycling practices, and Universal Design practices for pedestrians.

Standards and industry practices for roadway design have evolved with research focusing on active modes and supportive land use strategies for communities. In particular, the design approach for cycling facilities and pedestrian accessibility measures have changed rapidly in the last ten years. It is good practice to regularly review and update design criteria, specifications, and other elements of design standards that guide the design of new and improved streets by developers and the City. This practice reduces the need for – and complexity of – future retrofit projects and improves comfort for all road users.

Because Maple Ridge has several neighbourhoods constructed in automobile focused eras (1950's to 1990's), many existing roads do not meet current standards for active transportation modes. Reconstructing all roadways is not feasible; however, where there are opportunities to move towards improving existing facilities through development, targeted capital projects, or other City priorities, the design and delivery of roadways should be informed by updated design guidelines, as set out in Bylaw No. 4800-1993. Some roadways may require exceptions to design standards, desirable road cross-section elements, or typical minimums due to localized constraints, needs, and challenges.

Although this strategy focuses on Complete Communities, updating rural cross-sections to facilitate comfortable walking and cycling connections is also important and addressed in the B.C. Active Transportation Design Guidelines. The update of Bylaw No. 4800-1933 should include both urban and rural cross-sections.

Subdivision and Development Servicing Bylaw No. 4800-1993

The City's Subdivision and Development Servicing Bylaw No. 4800-1993 sets out the requirements of developers as they deliver new buildings and neighbourhoods. This bylaw includes typical cross-sections and transportation design guidance for new neighbourhoods, for frontages along the boundaries of development, and is often used to inform the design of other transportation projects. Although the City may require different approaches in specific neighbourhoods or along key corridors, a multimodal approach to design standards that is informed by the B.C. Active Transportation design guidelines and evolving industry best practices will move the City towards it's vision and goals.

B.C. Active Transportation Design Guide (2019)

The Province of British Columbia released the B.C. Active Transportation Design Guide to ensure consistent active transportation facility design across B.C. The document provides guidance and recommendations for the planning, selection, design, implementation, and maintenance of active transportation facilities across the province.

Action 1.1.4 Partner with the development community to deliver complete, comfortable, and connected walking and cycling facilities, high-quality transit amenities, and high-quality urban design and placemaking features, particularly in higher density, mixed-use areas.

Complete communities that support trips by walking, cycling, and transit must have both a good complement of housing and destinations (i.e. complete land uses) and a comfortable and connected network of walking, cycling, and transit infrastructure (i.e. complete transportation) to meet the City's goals. Transportation investment in higher density, mixed use locations are likely to see higher use, making them more cost-effective transportation investments. For developers to partner with the City to effectively deliver walking and cycling connections, transit amenities, intersection improvements, and a high-quality public realm in the context of complete communities, the City must provide clear direction on both the broader vision and specific requirements to ensure that individual sites come together to provide a unified and complete network that meets the City's broader goals.

As part of this action, the City will:

- Work with developers to deliver high-quality, comfortable active transportation infrastructure in infill development. The City can require land developers and property owners to provide street improvements when properties are developed via rezoning or subdivision. Through this mechanism, the City will ensure that frontage and road design meets the City's multi-modal needs and goals.
- Provide guidance and certainty to developers through the development of right-of-way conceptual designs for:
  - Lougheed Transit Corridor area,
  - Town Centre area, and
  - Key transportation corridors (per Theme 2).
- Continue to identify areas where property acquisition or easements would support the building out or enhancement of road, pedestrian and bicycle networks.
- For infill areas and existing infrastructure, prioritize investment in higher density, mixed use areas through:
  - Shorter spacing between active transportation infrastructure.
  - Considering opportunities to decrease the distance between accessible crossings, including shorter blocks and mid-block crossings where appropriate.

Action 1.1.5 Ensure that City capital projects, including utility improvements and civic institutions work towards comfortable walking and cycling infrastructure.

Municipal and regional infrastructure are often located in transportation corridors. Roadways are often reconstructed as part of regular maintenance, replacement, and expansion programs, providing an opportunity to replace the roadway with an improved cross-section when the project is completed.

The City is also responsible for delivering and maintaining other City services and facilities, including asset management and maintenance, parks and recreational facilities, cultural facilities, community centres, and other infrastructure. When the City is constructing or rehabilitating new buildings, transportation network improvements on frontage roadways will typically be considered as part of the overall capital works. Parks projects can provide direct walking and cycling connections that address network gaps, improve existing facilities, or provide new or improved connections to natural and recreation destinations. Road rehabilitation projects can be leveraged to widen and / or improve asphalt shoulders or redesignate existing travel lane space to other modes.

As part of this action, the City will:

- Review municipal and regional projects from a transportation perspective and seek opportunities for improvements identified in the STP.
- Seek opportunities to provide small improvements where larger projects are not feasible, including wider shoulders, bolt-down curbs, and painted buffers.
- Integrate the guidance provided in the B.C. Active Transportation Guidelines and from the Transportation Association of Canada.

THEME 2 KEY CORRIDORS

Roadway corridors are the framework that support the movement of most people and goods in Maple Ridge. Within each road corridor, space is assigned to different functions, including mobility for goods and people, access to property, gathering spaces, landscaping, stormwater management, and parking. The combination of functions on each roadway and the specific design of the space is guided by the roadway classification, historic build outs, transit networks, access needs, and physical constraints.

As the City works to further develop and deliver a multi-modal transportation network, there are key corridors that will play a central role in meeting the goals of the STP. These corridors require improvements across multiple modes of transportation and more detailed consideration of opportunities, and challenges. This theme brings together improvements and needs identified through the walking, cycling, transit, and driving themes to provide unified approaches for key corridors.

Strategy 2.1: Design and deliver multi-modal transportation and public realm improvements along key corridors that will move the City towards its overall goals and objectives.

The actions contained in this strategy are focused on infrastructure improvements along key corridors to deliver a complete and connected transportation network. Each of the actions in this section focuses on a specific corridor and outlines the long-term intent for that corridor, included recommended cross-section elements, key trade-offs and challenges, partnerships, and next steps. The actions also identify locations and types of intersection improvements to be included in the design of improvements along the key corridors. These intersections were identified through the roadway work described in Theme 6. The changes identified are subjected to future design and may be delivered all at once or in stages by the City or key partners, including MOTI, TransLink, or through development. The key corridors are illustrated in Figure 4-4 and recommendations are summarized in Table 4-1. The information included in Table 4-1 is preliminary and to be confirmed through further review and design development.

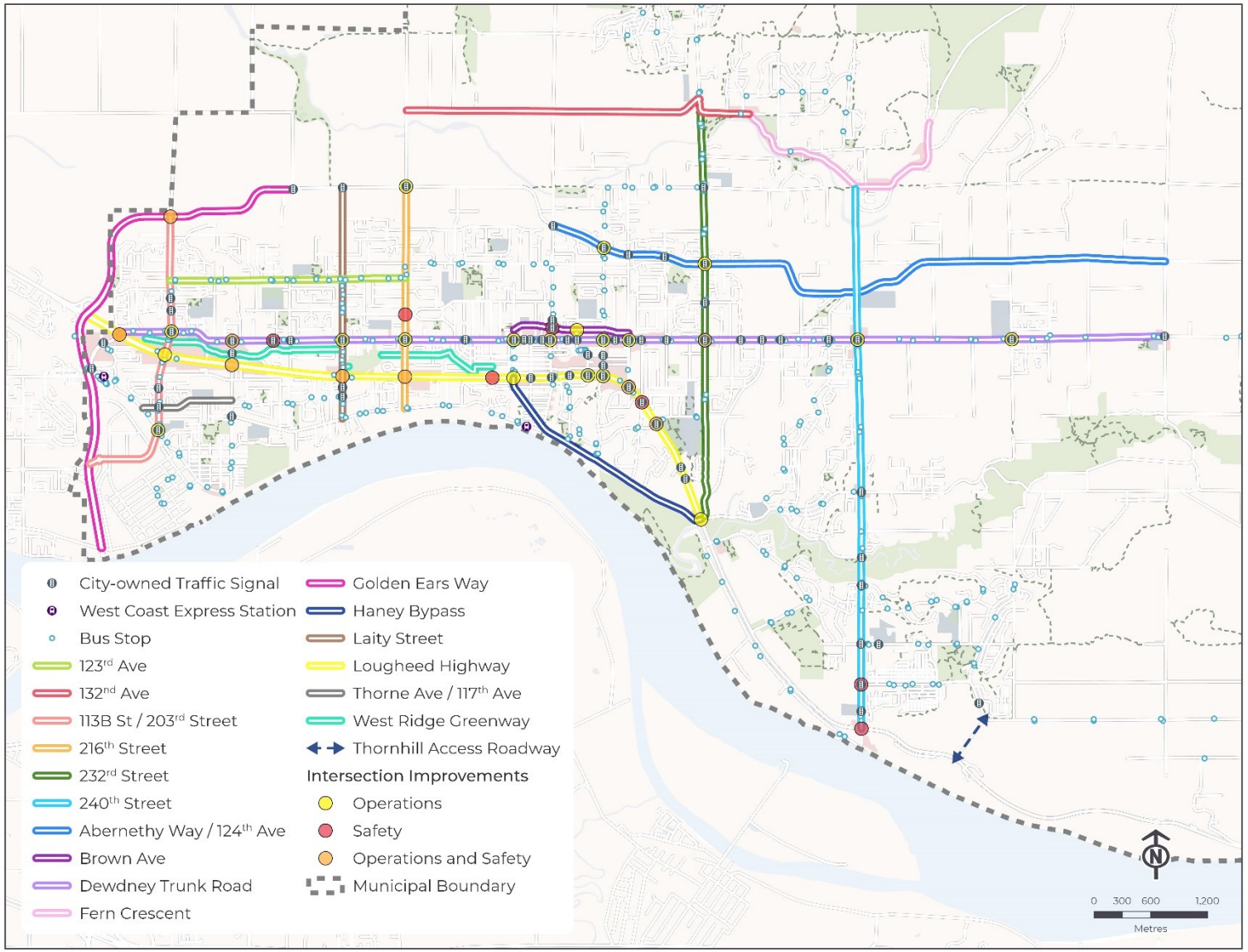


Figure 4-4: Key Corridors

Table 4-1: Future[5] Key Corridors

ACTION NO.	STREET NAME	SECTION	DESCRIPTION	CORRIDOR CLASSIFICATION (DESIGNATION)	WALKING (both / one / none)	CYCLING (primary[6] / secondary / none)	TRANSIT	TRAVEL LANES	AADT (2050)	BOULEVARD	MEDIAN	PARKING	TYPICAL ROW	INTERSECTION IMPROVEMENTS[7]
2.1.1	Golden Ears Way	210 Street to 203 Street	Widen to four lanes plus turning lanes at intersections. Parallel Multi-use Pathway (MUP).	Arterial (MRN[8])	Both	Primary	n/a	4	35.900	Planted	None	None	30 m	
2.1.1	Golden Ears Way	203 Street to Lougheed Interchange	Widen to four lanes. Parallel MUP.	Arterial (MRN)	Both	Primary	n/a	4	41,500	Planted	None	None	30 m	203 Street – geometric, signal timing, and safety improvements
2.1.1	Golden Ears Way	Lougheed Interchange to 113b Avenue	Changes to interchanges to improve multi-modal operations.	Arterial (MRN)	Parallel	Parallel Primary	FTN	4	36,000 – 74,000	n/a	Barrier	None	Varies	
2.1.1	Golden Ears Way	Golden Ears Bridge to 113 B Avenue	Capacity improvements for 113 B interchange to improve multi-modal operations.	Arterial (MRN)	Both	Primary	FTN	6	74,000	Barrier	Barrier	None	Varies	
2.1.2	Lougheed Highway	Boundary with Pitt Meadows to 222 Street	This section is owned and operated by the Province. Through development, widen for rapid transit, protected cycling, and improved pedestrian and public realm. Through development, phase in parallel streets for residential and commercial access. In the short term complete gaps in the cycling network between 216 Street and 220 Street.	Provincial Highway	Both	Primary	Rapid	4 + 2 Transit	49.600 – 61,100	Planted	Planted / turn lane	None	35 m to 40 m	Dewdney – operational and safety improvements 203 Street– operational improvements 207 Street – operational and safety improvements Laity Street – operational and safety improvements 216 Street – operational and safety improvements 221 Street – safety improvements 222 Street – operational improvements.
2.1.2	Lougheed Highway	222 Street to 227 Street	This section is owned and operated by the City and was recently revitalized.	Arterial (MRN)	Both	None	FTN	4	23,800	Planted	None	Limited	25 m to 30 m	226 Street / Royal Crescent – operational improvements
2.1.2	Lougheed Highway	227 Street to Burnett Street / 117 Avenue	This section is owned and operated by the City. Through development, widen for protected cycling, boulevards, and improved pedestrian and public realm. Through development, phase in parallel streets for residential and commercial access	Arterial (MRN)	Both	Primary	FTN	4	23,800	Planted	Planted / turn lane	None	28 m to 33 m	227 Street – operational improvements 228 Street – operational and safety improvements Burnett Street / 117 Avenue – safety improvements
2.1.2	Lougheed Highway	Burnett Street / 117 Avenue to Kanaka Way	This section is owned and operated by the City. Continue the four lane plus protected cycle track cross-section recently installed between Pazarena Place and 112B Avenue throughout the remainder of the section.	Arterial (MRN)	Both	Primary	FTN	4	17,600 – 26,800	Planted	Planted / turn lane	None	30 m (per existing)	116 Avenue – operational and safety improvements Kanaka Way – operational improvements
2.1.3	Abernethy Way / 124 Avenue	224 Street to 232 Street	Widening to four lanes and provide north side MUP and south side sidewalk.	Arterial (MRN)	Both	Primary	None	4	20,500 – 31,100	Varies	None	None	23 m to 24 m (per existing)	227 Street – operational improvements 232 Street – operational improvements
2.1.3	Abernethy Way / 124 Avenue	232 Street to 240 Street	Extend major arterial to 240 Street by widening existing 124 Avenue and acquiring new right of way where required. Include north side MUP and south side sidewalk and turning lanes at key intersections.	Arterial (MRN)	Both	Primary	None	4	15,000	Varies	None	None (existing to be removed)	25 m to 30 m	240 – intersection control & operations

[5] All descriptions in the table focus on the long-term plan for that element of the key corridors.
[6] 'Primary cycling routes are intended to typically be suitable for All Age and Abilities, where feasible. This may include protected cycle tracks, multi-use pathways, bicycle pathways, or neighbourhood bikeways. Secondary cycling routes could feature a wide range of infrastructure, including wide shoulders, shared routes, as well as protected or separated cycling facilities in some areas. Secondary routes typically do not feature continuous sections of AAA facilities.
[7] Improvements indicated by intersection LOS 'F' in Synchro analysis of base 2050 conditions or through city-wide safety review documented in Interim Report 1. Further information is included in Theme 6.
[8] Major Road Network (MRN)

ACTION NO.	STREET NAME	SECTION	DESCRIPTION	CORRIDOR CLASSIFICATION (DESIGNATION)	WALKING (both / one / none)	CYCLING (primary[4] / secondary / none)	TRANSIT	TRAVEL LANES	AADT (2050)	BOULEVARD	MEDIAN	PARKING	TYPICAL ROW	INTERSECTION IMPROVEMENTS[7]
2.1.3	Abernethy Way / 124 Avenue	240 Street to 256 Street	Extend major arterial to 256 Avenue. Volumes indicate demand for two lanes plus turn lanes in the 2050 horizon; however property and design should accommodate future four-laning. North side MUP and south side sidewalk and turning lanes at key intersections.	Arterial (MRN)	Both	Primary	None	4	15,000	Varies	None	None	25 m to 30 m	248 – intersection control & operations 256 – intersection control & operations
2.1.4	240 Street	128 Avenue / Fern Crescent to Abernethy Way	Extend arterial north to cross Alouette River. Two lanes over bridge crossing with MUPs on both sides. Beyond bridge structure, widen to include median / left turn lane and boulevards.	Arterial	Both	Primary	TBD	2	8,000	Varies	Varies	None	20 m to 23 m	Abernethy – intersection control & operations
2.1.4	240 Street	Abernethy to Dewdney Trunk Road	Widen and improve arterial to include two through lanes per direction plus a median / turn lane and additional turning lanes at intersections. Seek to close accesses where feasible. Widen to provide MUPs or separated cycling and pedestrian facilities on both sides.	Arterial	Both	Primary	TBD	4	15,000	Varies	Varies	None	26 m to 33 m	Dewdney Trunk Road – operational improvements
2.1.4	240 Street	Lougheed Highway to Dewdney Trunk Road	Four-lane MRN roadway with turn lanes at major intersections. Over time, develop more consistent cross-section. Look to provide consistent MUPS or separated cycling and pedestrian facilities on both sides of roadway. Remove existing parking.	Arterial (MRN)	Both	Primary	FTN	4	13,500	Varies	None	Some. Reduce existing parking.	26 m to 33 m	
2.1.5	Haney Bypass	222 Street to Kanaka Way	Widen to complete four-lane provincial highway. Work with MOTI to seek to include active transportation facilities on one side.	Highway	One	Primary	FTN	4	34,200	Planted / ditch	None	None	Varies	222 Street – operational improvements Kanaka Way – operational improvements
2.1.6	113B Avenue	Golden Ears Way to Hammond Road	Improve to provide protected bicycle facilities. Requires removal of most parking. Seek to close accesses through development. Seek to widen sidewalks and provide boulevard where feasible. Provide turn lanes at intersections.	Arterial	Both	Primary	None	2	14,900 – 17500	Varies	None	Limited[9] Reduce existing parking.	24 m (per existing)	Hammond – operational improvements
2.1.6	203 Street	Hammond Road to Lougheed Highway	Improve to provide protected bicycle facilities and more comfortable walking. Requires removal of some parking where ROW is narrow. Seek to widen sidewalks and provide boulevard where feasible. Consider left turn lanes at intersections.	Arterial	Both	Primary	FTN	2	12,900	Varies	None	Varies. Some existing removed.	22 m to 27 m (per existing)	Lougheed – operational improvements
2.1.7	203 Street	Dewdney Trunk Road to Lougheed Highway	Identified as a Complete Street in the Lougheed Transit Area Plan. Through development, widen to provide protected cycling, walking, boulevard, and parking pockets. Consider wider activated setbacks at commercial core. Consider widening at intersections for turn lanes.	Arterial	Both	Primary	FTN	2	9,500 – 12,600	Planted	None	Parking pockets provided. Reduce existing parking.	24 m to 27 m	Dewdney Trunk Road – operational improvements and transit priority improvements.
2.1.7	203 Street	Dewdney Trunk Road to Powell Avenue	No change from existing.	Arterial	Both	Primary	FTN	2	9,500 – 12,000	Varies	None	Parking pockets provided. Reduce existing parking.	20 m	
2.1.7	203 Street	Powell Avenue to Golden Ears Way	Widen to create protected bicycle facility. Widen to include turn lanes at key intersections.	Arterial	One	Primary	None	2	7,200	Planted / ditch	None	None[10]	23 m (per existing)	Golden Ears Way – operational and safety improvements.

[9] Remove existing parking
[10] Remove existing informal parking pockets.

ACTION NO.	STREET NAME	SECTION	DESCRIPTION	CORRIDOR CLASSIFICATION (DESIGNATION)	WALKING (both / one / none)	CYCLING (primary[6] / secondary / none)	TRANSIT	TRAVEL LANES	AADT (2050)	BOULEVARD	MEDIAN	PARKING	TYPICAL ROW	INTERSECTION IMPROVEMENTS[7]
2.1.8	Dewdney Trunk Road	Lougheed Highway to 232 Street	Through development, close accesses and widen to create an improved pedestrian realm, boulevards, and a median with turn lanes at intersections. Provide high quality transit amenities and transit priority at intersections with high delay.	Arterial (MRN)	Both	None	FTN	4	19,200 – 25,900	Planted	Planted	None	25 m to 35 m	Lougheed Highway – operational and safety improvements 203 Street – operational improvements 207 Street – operational and safety improvements Rosewood Street – safety improvements Laity Street – operational improvements 216 Street – operational improvements 222 Street – operational improvements 224 Street / Garden Street – operational improvements 227 Street – operational improvements 228 Street – operational improvements
2.18	Dewdney Trunk Road	232 Street to 240 Street	Retain travel lanes as existing. Seek opportunities to close driveways and introduce boulevards over time. Retain and improve existing MUP. Provide turn lanes at intersections.	Arterial (MRN)	Both	Varies (Primary & None)	FTN	4	20,500 – 26,800	Hardscape	None	None.	20 m (per existing	232 Street – operational and safety improvements 240 Street – operational improvements
2.18	Dewdney Trunk Road	240 Street to 256 Street	Through road rehabilitation and repaving projects, develop wide, buffered shoulders that are shared by pedestrians and cyclists.	Arterial	Both	Secondary	Varies (FTN & Fixed Route)	2	10,000 – 14,800	Planted / ditch	None	None	20 m (per existing)	248 Street – operational improvements
2.1.9	232 Street	132 Avenue (North Roundabout) to 132 Avenue / Fern Crescent (South Roundabout)	No change from existing.	Arterial	Both	Primary	FTN	2	11,100	Varies	None	None	20 m (per existing)	
2.1.9	232 Street	132 Avenue / Fern Crescent (South Roundabout) to Abernethy Way / 124 Avenue	Widen to complete sidewalks and create protected cycling lanes and boulevard where feasible. Provide turn lanes at intersections. Provide parking pockets where feasible.	Arterial (MRN)	Both	Primary	FTN	2	8,700	Varies	None	Limited parking pockets provided. Reduce existing parking.	20 m (per existing)	
2.1.9	232 Street	Abernethy Way 124 Avenue to Dewdney Trunk Road	Convert two existing travel lanes to protected cycling lanes and boulevard where feasible. Retain turn lanes at intersections.	Arterial (MRN)	Both	Primary	FTN	2	10,000	Varies	Varies	Varies. Some existing removed.	24 (per existing)	
2.1.9	232 Street	Dewdney Trunk Road to 116 Avenue	Maintain existing cross-section	Arterial	Both	Primary	FTN	2	4,300	Varies	None	One side	22 m (per existing)	Dewdney Trunk Road – operational and safety improvements
2.1.9	232 Street	116 Avenue to Kanaka Way	Maintain existing cross-section for most of length. Provide protected cycling facility on approach to Kanaka Way. Improve active transportation crossing at Cottonwood Drive.	Arterial	Varies	Primary	None	2	1,500	Varies	None	One side	20 m (per existing)	Cottonwood Drive – cycling and pedestrian crossing improvement
2.1.10	Laity Street	128 Avenue to Dewdney Trunk Road	Complete west side sidewalk / east side MUP where feasible. Seek to widen over time to create boulevard and pedestrian throughfare that is free from obstruction. Seek additional property for future widening where feasible.	Major Collector	Both	Secondary	Varies (FTN & None)	2	2,400 – 5,400	Varies	None	Varies. Some existing removed.	20 m	
2.1.10	Laity Street	Dewdney Trunk Road to Lougheed Highway	Identified as a Complete Street in the Lougheed Transit Area Plan. Through development, limit driveways and create wide boulevards, pedestrian areas, and a multi-use pathway that is consistent with the West Ridge Greenway. Include parking pockets where feasible. . Provide turn lanes at intersections.	Major Collector	Both	Secondary	FTN	2	4,800	Planted	None	Limited parking pockets	20 m to 25 m	Dewdney Trunk Road – operational improvements

ACTION NO.	STREET NAME	SECTION	DESCRIPTION	CORRIDOR CLASSIFICATION (DESIGNATION)	WALKING (both / one / none)	CYCLING (primary[4] / secondary / none)	TRANSIT	TRAVEL LANES	AADT (2050)	BOULEVARD	MEDIAN	PARKING	TYPICAL ROW	INTERSECTION IMPROVEMENTS[7]
2.1.10	Laity Street	Lougheed Highway to River Road	Through development, widen at approach to Lougheed Highway to add additional turning lanes. Address existing sidewalk gap on east side of Laity, south of Ridge Meadows Hospital. The portion of this segment that is between 117 Avenue and the access to the Ridge Meadows Hospital is primary cycling and should include a separated cycling facility with crossing treatments.	Major Collector	Both	Varies	FTN	2	2,500	Varies	None	Varies (one side / none)	18 m (per existing)	Lougheed Highway – operational and safety improvements
2.1.11	216 Street	128 Avenue to 124 Avenue	Provide continuous walking and protected cycling connection within existing right-of-way. Provide turn lanes at intersections.	Arterial	Both	Primary	Varies (None & FTN)	2	7,300	Narrow planted	None	Limited Parking pockets. Some existing removed	20 m (per existing)	128 Avenue – operational improvements
2.1.11	216 Street	124 Avenue to Glenwood Avenue	Maintain existing curb-to-curb width and provide protected cycling facility by removing parking. Provide turn lanes at intersections.	Arterial	Both	Primary	None	2	8,500	None	None	None. Existing parking removed.	20 m (per existing)	121 Avenue / Mountainview Crescent – safety improvements
2.1.11	216 Street	Glenwood Avenue to 117 Avenue	Identified as a Complete Street in the Lougheed Transit Area Plan. Through development, widen to provide two travel lanes, left turn lane / median, protected cycling, planted boulevards, a wide pedestrian throughfare, and an activated frontage. Limited parking pockets provided to facilitate loading. Provide turn lanes at intersections.	Minor collector (south of Highway 7) Arterial (north of Highway 7)	Both	Primary	None	2	9,.200	Planted	Planted / turn lane.	Limited Parking pockets.	25 m to 30 m	Dewdney Trunk Road – operational improvements Lougheed Highway -operational and safety improvements
2.1.11	216 Street	117 Avenue to River Road	Change classification to minor collector.	Minor collector	One	None	None	2	6,100	Narrow planted	None	TBD	20 m (per existing)	
2.1.12	Brown Avenue	222 Street to 228 Street	Change classification to major collector. Through development, provide wide protected cycling facilities, wide pedestrian throughfares, and high-quality public realm. Complete the missing connection between 228 Street and Fletcher Street.	Major collector	Both	Primary	None	2	5,000 – 7,000	Varies	None	Parking pockets.	26 m	
2.1.13	West Ridge Greenway	Western terminus to west of Rosewood Street	Identified in the Lougheed Transit Area Plan.	Local	Both	Primary	None	2	n/a	None	None	Varies	26 m	
2.1.13	West Ridge Greenway	West of Rosewood Street to Maple Ridge Cemetery	Identified in the Lougheed Transit Area Plan.	Local	Both	Primary	None	2	n/a	None	None	Varies	20 m to 22 m	
2.1.13	West Ridge Greenway	Maple Ridge Cemetery to 221 Street	Identified in the Lougheed Transit Area Plan.	Local	Both	Primary	None	2	n/a	None	None	Varies	20 m to 22 m	
2.1.14	Thorne Avenue	Hammond Road to 207 Street	Maintain existing curb-to-curb with improvements at some intersections. Improvements to walking and cycling throughout.	Minor Collector	Both	Primary	None	2	4,700	None	None	Both sides. Largely retained.	20 m (per existing)	
2.1.14	117 Avenue	207 Street to Laity Street	Maintain existing curb-to-curb with improvements at some intersections. Improvements to walking and cycling throughout.	Minor Collector	Both	Primary	FTN	2	2,000	None	None	Both sides. Largely retained.	17 m (per existing)	
2.1.15	123 Avenue	203 Street to Laity Street	Identified as protected cycling infrastructure with connections to schools and future frequent transit service. Improvements to walking and cycling may reduce parking supply.	Major Collector	Both	Primary	FTN	2	4,100	Varies	None	Limited parking pockets. Some existing removed.	16 to 20 m (per existing)	

ACTION NO.	STREET NAME	SECTION	DESCRIPTION	CORRIDOR CLASSIFICATION (DESIGNATION)	WALKING (both / one / none)	CYCLING (primary[6] / secondary / none)	TRANSIT	TRAVEL LANES	AADT (2050)	BOULEVARD	MEDIAN	PARKING	TYPICAL ROW	INTERSECTION IMPROVEMENTS[7]
2.1.1.5	123 Avenue	Laity Street to 216 Street	Identified as protected cycling infrastructure with connections to schools and transit service. Provide MUP on north side and phase in sidewalk on south in coordination with development due to the limited ROW width.	Major Collector	Both	Primary	FTN	2	n/a	Varies	None	Limited parking pockets. Some existing removed.	12 m (per existing)	
2.1.16	Thornhill Access Roadway	Lougheed to Thornhill neighbourhood	As noted in the OCP, Thornhill is an Urban Reserve Area with several conditions identified before urban development in this area would be supported. One of these conditions is a transportation study that reflects proposed land uses and identifies an alignment that is supported by partners agencies.	Arterial	Both	Primary	TBD	2	9,600	TBD	TBD	None	30 m	
2.1.17	Fern Crescent	132 Avenue to Golden Ears Parkway	Provide MUP on one side throughout. Seek to provide segments of sidewalk or MUP on north side to connect to bus stops, commercial uses, and other destinations where feasible.	Arterial (MRN)	Varies	Primary	FTN		1,000 – 2,500	Planted / ditch	None	None	20 m (per existing)	
2.1.17	Fern Crescent / 132 Avenue	232 Street to Fern Crescent	Provide MUP throughout. Seek to formalize north side trail to MUP or sidewalk where feasible.	Arterial (MRN)	Varies	Primary	FTN	2	6,200	Varies	None	None	16 m (per existing)	
2.1.18	132 Avenue	216 Street to 232 Street	Complete pathway connection.	Arterial	One	Secondary	None	2	9,300	Planted / ditch	None	None	12 m to 20 m (per existing)	

THEME 3 WALKING & ROLLING

Walking and rolling[11] (i.e. using a personal mobility device designed for use by an individual with limited or impaired mobility) is the most fundamental form of transportation. Providing complete and accessible pedestrian connections – particularly within complete communities – reduces automobile dependence, congestion, and emissions, and improves community health and livability. Approximately 17 % of trips made by Maple Ridge drivers[12] are less than 2 km long and may be suitable for walking.

This theme includes strategies and actions to create a more walkable community for people of all ages and abilities, focusing on the areas where people are most likely to walk for transportation.

> ***What is 'Universal Design'?***
> Universal design refers to the design of products, environments, programs, and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized modifications. Universal design ensures that the built environment is accessible to people of all ages and abilities, regardless of any type of physical or cognitive challenge.
>
> Universal design is a fundamental design principle that has been applied throughout the Plan. It is specifically embedded in changes to overall design guidance (Action 1.1.3) and a comfortable and accessible pedestrian network (Action 3.2.1).

Strategy 3.1: Complete community connections to ensure residents can walk to important destinations like schools, commercial areas, community centres, and transit.

Community connections allow people to comfortably walk or roll to the daily destinations in their neighbourhoods, like schools, shops, and services. Maple Ridge is geographically large compared to many other cities in the lower mainland, with many historic neighbourhoods where roadways were not built with sidewalks. Approximately 35% of roadways have pedestrian facilities (sidewalks or multi-use pathways) on one or both sides of the street. Given the scale of sidewalk gaps in the City, this strategy focuses on completing the pedestrian connections that are likely to serve the most walking trips, resulting in cost-effective investment in walking that is aligned with the focus on Complete Communities explored in Theme 1. Key walking destinations include schools, commercial areas, community centres, and transit.

[11] In the context of the walking network, rolling refers to the use of wheelchairs, mobility scooters, and powered wheelchairs to travel as a pedestrian. Other rolling modes include bicycles (electric, human-powered, cargo, and / or velomobiles (addressed in Section 3.3.2), and scooters, e-scooters, electric mopeds, and other micromobility devices (addressed in Section 3.3.5).
[12] According to the 2017 TransLink Trip Diary.

Action 3.1.1 Fill in the gaps in the pedestrian network, prioritizing pedestrian facility investments in locations with the highest potential for use.

The City will partner with MOTI, TransLink, property owners, and other organizations to address connectivity gaps in the sidewalk network. The intent of this action is to work towards a connected walking network where there is a continuous accessible walking route to most destinations, prioritizing complete communities where there is the highest potential for walking. To assess pedestrian infrastructure needs, each roadway in Maple Ridge was assigned a priority based on the following factors:

- Road classification
- Proximity to transit
- Proximity to schools
- Population density
- Demographics of neighbourhood (presence of seniors, youth, and low-income households)
- Contribution to a connected pedestrian network

The infrastructure priorities were compared to the existing pedestrian infrastructure to identify locations for investment in pedestrian facilities – which may include trails and / or sidewalks – within the 2050 time horizon. The proposed changes were modified following public and stakeholder consultation to reflect community and partner input where feasible and aligned with the STP goals. The long-term pedestrian network is illustrated in Figure 4-5. The walking network may also include some components of the off-street pathway system.

New walking connections can be sidewalks or multi-use pathways that are shared with cyclists and other users. Walking connections can be implemented in four primary ways:

- **City initiated walking improvements** are delivered by the City through capital projects. These types of projects may include broader corridor construction (per Theme 2), be integrated into other City and regional infrastructure projects (e.g. stormwater or utility improvements), or be targeted pedestrian infrastructure projects. Investments may be funded by the City's capital budget, through Development Cost Charges as part of new roadways or road widening, or through grants and partnerships.
- **MOTI initiated walking improvements** along infrastructure owned and operated by the Province. This is expected to include Lougheed Highway between the boundary with Pitt Meadows and 222 Street as explored in Action 2.1.2 and Haney Bypass, as explored in Action 2.1.5.
- **Developer initiated walking improvements**, which will be required through redevelopment as per the City's area plans, subdivision servicing bylaw, relevant development permit guidelines, and other documents as required by the City. All developments are expected to provide suitable walking facilities along the full frontage of the property – including those not identified in Figure 4-5. Pedestrian requirements associated with development are explored further throughout this Theme.
- **Resident initiated sidewalks**, where residents can request a sidewalk through the Local Area Service improvement Process. Residents may partner with their neighbours to fund a sidewalk to connect the street they live on to the broader walking network.

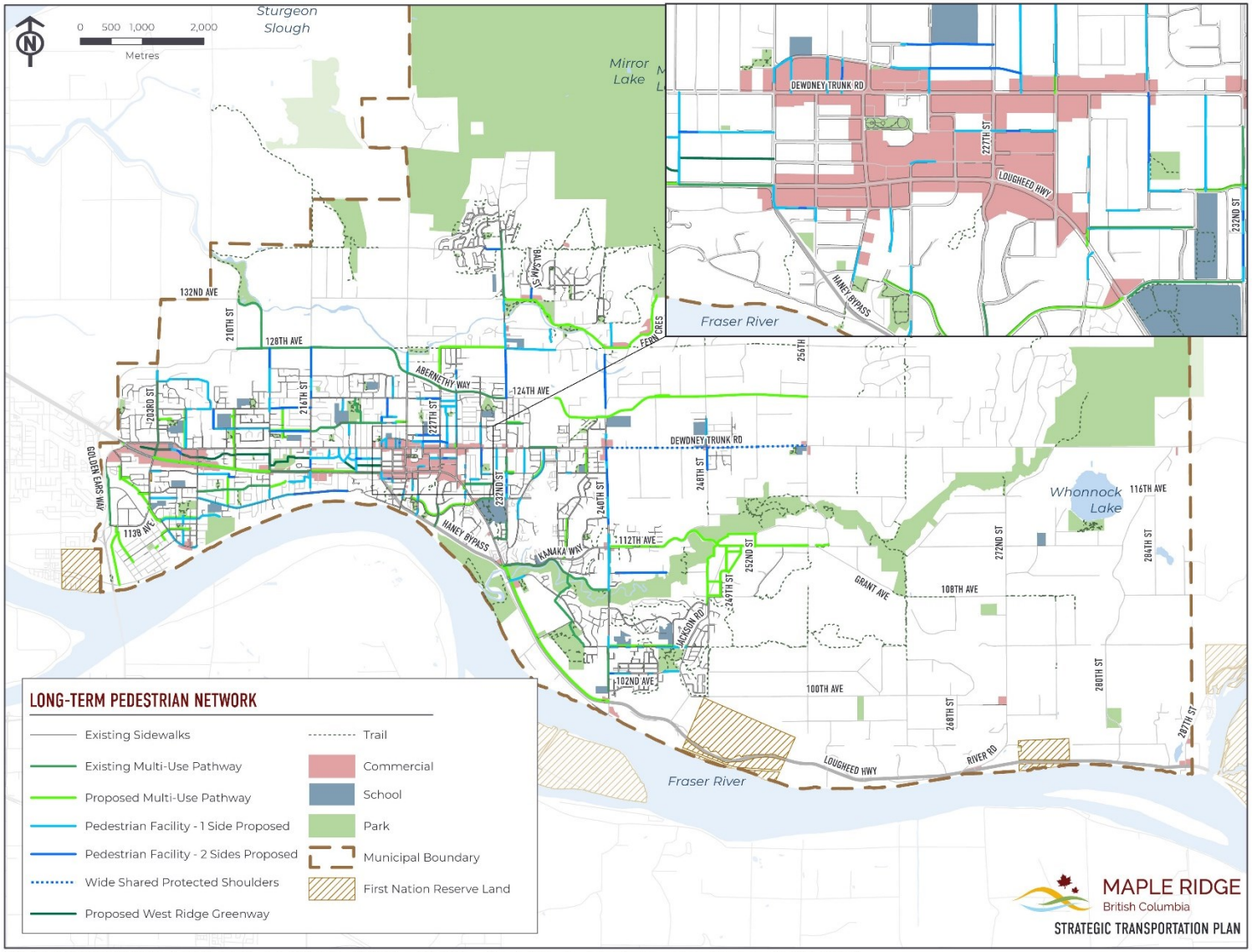


Figure 4-5: Long-Term Pedestrian Network

Action 3.1.2 Ensure new developments provide active transportation connections that shorten walking distances and provide a safe, comfortable, and pleasant public realm.

Development can transform and create communities and the type, connectivity, and quality of public realm delivered through development will directly influence the City's ability to meet the goals of the STP. The City has a number of areas that have been identified for potential redevelopment, as well as areas that are suitable for greenfield development.

Direct pedestrian connections support a walkable community by making walking trips shorter. ***TransLink's Transit Oriented Communities Design Guidelines*** (2012) include *Distance* as the second of six 'Ds' of transit oriented design. Short walking (and cycling) distances enable people to walk (or cycle) to destinations in their community and to transit services for longer trips. The existing road network in Maple Ridge includes locations where local roads end in cul-de-sacs and / or crescents and long street blocks where pedestrians are not able to follow the most direct path between destinations. For both infill areas and new communities, developments should provide a dense and connected grid of publicly accessible active transportation connections. In infill areas, this may include dedicated transportation right-of-way to provide an active transportation connection that shortens the travel path between to or more existing roadways. As part of this action, the City will:

- Work with developers to ensure new communities feature high intersection density and a connected internal street network.
- Work with developers to identify active transportation connections, including pathways and cut-throughs that provide the most direct travel path between destinations.
- Ensure that street frontages delivered by development meet or exceed guidance provided by appliable area plans, development permit guidelines, and public realm guidance. This is explored further in Strategy 3.2 and Strategy 3.3.
- Ensure that street frontages and new cut-throughs are accessible, include adequate lighting, and follow CTPED principles.

Action 3.1.3 Work with public agencies and other institutions (e.g. schools, hospitals, etc.) to ensure that new projects are designed and oriented to prioritize walking to community destinations and that new and existing sites provide pathway connections whenever feasible.

Public agencies, including school districts, health authorities, utility companies, and religious organizations often own large parcels of land that serve both as key community destinations and on a desire line for through travel. The City can partner with these organization to ensure that there is comfortable, connected walking infrastructure leading to and through these sites, where feasible, secure, and appropriate. The City will:

- Look for opportunities to partner to create public easements on institutional land through redevelopment or where new institutions are being constructed.
- Work with agencies and organizations developing institutional land to ensure sites are designed and oriented to prioritize walking and meet guidance in the B.C. Active Transportation Design Guide.
- Look for opportunities to partner with institutions to improve walking connectivity on, around, and through existing large sites where feasible, secure, and appropriate.

Action 3.1.4 Enhance trails and pathways, identifying greenway corridors and formalizing connections between community destinations and creating opportunities to recreate within the City.

Access to nature is an important component of the City's OCP. The City is home to many regional, provincial, and local parks that attract visitors from across the municipality, region, and beyond. As part of this action, the City will seek to work with partners to improve transportation connections that align with greenways and connections to parks along the following corridors:

- Fern Crescent connection to Golden Ears Provincial Park
- Lower Hammond dyke connections using alternate routing identified as primary and secondary cycling networks in Theme 3 (new Hammond neighbourhood off-street pathway, Lorne Ave, Maple Crescent, Westfield Ave, Golf Lane, Steeves Street, 117 Avenue, 216 Street, Lougheed Highway.
- Silver Valley connection via 136 Avenue to the dyke system
- Bonsonworth Avenue / Grant Avenue / 108 Avenue connection to Whonnock Lake.

The City will also partner with regional organizations to improve wayfinding along key pedestrian corridors, the Regional Greenway Network and between the Regional Greenway Network and destinations in Maple Ridge.

Strategy 3.2: Prioritize personal safety and comfort by ensuring walking infrastructure is comfortable and accessible, including improved crossings and lighting.

Addressing linear gaps in sidewalks and pathways is one component of improving the pedestrian network. A comfortable and accessible pedestrian network also follows Universal Design principles for accessibility. This strategy focuses on actions by the City to improve the comfort and accessibility of walking in Maple Ridge.

Action 3.2.1 Implement Universal Design, including accessible curb ramps, detectable warning surfaces, and audible pedestrian signals.

Universal Design principles ensure that the transportation network is accessible to people of all ages and abilities, including people with reduced mobility, vision, hearing, strength, dexterity, and comprehension. Design elements that can improve accessibility include:

- Pedestrian throughfares that are minimum 1.8 m and free from obstructions.
- Ensuring surfaces are smooth, firm, slip-resistant, free of tripping hazards, and well maintained year-round.
- Accessible curb ramps.
- Frequent resting spots, especially on uphill segments.
- Detectable warning surfaces.
- Audible pedestrian signals
- Signals that always provide a pedestrian phase with well located and easy to activate pedestrian push buttons
- Pedestrian-scale lighting
- Intuitive wayfinding

There are many locations in the City where historic planning and design does not reflect Universal Design principles. As outlined in Action 1.1.3, Bylaw 4800-1993: Subdivision & Development Servicing Bylaw, should be updated to reflect these principles, which will ensure their use in development-driven road network improvements. Beyond this, improvements to key corridors and new pedestrian infrastructure projects by the City and others will follow these principles.

As part of this Action, the City will:

- Ensure key corridors and other transportation improvement projects are planned and designed with Universal Design principles in mind.
- Work with TransLink to improve accessibility and connections to West Coast Express stations
- Improve accessibility in the Town Centre and Lougheed Transit Corridor Area, as explored further in Strategy 3.3.

Action 3.2.2 Provide new crossing opportunities to support a connected pedestrian network where warranted.

Direct pedestrian connections, including mid-block crossings and cut-throughs, support a connected pedestrian network. The City will assess locations identified through continuation of their annual pedestrian crossing assessment program, input from the public, and other studies to identify locations where mid-block crossings are warranted as per criteria established by the Transportation Association of Canada . As discussed in Action 3.1.2 and Action 3.1.3, the City will partner to identify cut-throughs and connections that will shorten walking distances.

Action 3.2.3 Continue to support community and regional organizations in their initiatives to promote walking, such as Safe Routes to Schools, walking clubs and pedestrian safety education.

The City supports programs and organizations that foster walking in Maple Ridge with a special focus on walking to school. As part of this action, the City will continue to support these programs as they evolve over time.

Strategy 3.3: Invest and partner for a walkable Regional City Centre and Lougheed Transit Corridor Area to ensure most trips in these areas can be comfortably and safely made by walking.

As explored in Theme 1, people are most likely to walk where there is both a complete community of homes and destinations and a complete and connected walking network. Existing historic neighbourhoods of Maple Ridge have a high potential for walking; however, the sidewalk network in these neighbourhoods is often discontinuous. Investment in these areas will benefit existing residents and businesses while also leveraging development to create complete, connected and walkable communities. Future rapid transit along Lougheed Highway also creates an opportunity to facilitate more people walking to transit to complete longer trips. Investment in walking in the Town Centre and along the Lougheed Transit Corridor is aligned with the City's priorities.

The Town Centre area of Maple ridge is a Regional City Centre and has existing and future conditions to support growing walking trips. The Town Centre is also an important location for seniors and low-income households, with the area having the highest proportion of both groups in Maple Ridge. Providing comfortable and accessible walking facilities will address existing equity gaps by connecting these residents to community destinations and transit and enabling essential trips.

Action 3.3.1 Address sidewalk gaps and improve and accessibility in the Town Centre and the Lougheed Transit Corridor Area.

Gaps in the comfort, accessibility, and connectivity of the pedestrian network in the Town Centre and the Lougheed Transit Corridor Area will limit the City's ability to meet it's goals. Action 3.1.1 identified long-term walking network improvements; planned improvements within the Town Centre and Lougheed Transit Corridor Area will be prioritized in implementation planning. Additional improvements will result from developer delivered frontage improvements. The type, cross-section width, and quality of pedestrian and public realm design should exceed minimum requirements where feasible in these areas, including wider pedestrian throughfares, building frontages that are suitable for activation,, wide boulevards with street trees and furniture, and high-quality pedestrian-scale lighting. Vehicle access (driveways) onto arterial and major collector roadways should be limited to reduce conflicts with pedestrians (and cyclists).

Beyond these connections, the Town Centre and Lougheed Transit Corridor Area are particularly important as accessible and comfortable pedestrian and public realm areas. Accessibility, lighting, and wayfinding are important as these areas emerge as vibrant, complete, and connected communities.

As part of this action, the City will:

- Prioritize addressing sidewalk gaps in the Town Centre and the Lougheed Transit Corridor Area
- Develop specific guidance for developers in these areas outlining a requirement to deliver pedestrian facilities and amenities that exceed the minimum guidelines set in Bylaw 4800-1993[13] wherever feasible.
- Review existing gaps in pedestrian accessibility in these areas and continue to address gaps over time.
- Create a wayfinding plan for these areas, including direction to heritage and river destinations, branding and direction for the civic core ring route, direction to the West Coast Express and Rapid Transit, and wayfinding for other destinations.
- Follow the guidance for the pedestrian and the public realm provided in the ***Lougheed Transit Corridor Area Development Permit Guidelines***, the ***Lougheed Transit Corridor Area Plan***, the ***Town Centre Area Plan***, and ***Growing Together***.

[13] As updated through Action 1.1.3.

Action 3.3.2 Work with the Ministry of Transportation and Infrastructure and developers to construct new pedestrian infrastructure and enhance existing infrastructure on Lougheed Highway.

Lougheed is a central connection through both the Lougheed Transit Corridor Area and the Town Centre and essential for pedestrian access to rapid transit and commercial and institutional land uses. To achieve the vision set out in area plans and other documents, pedestrian facilities along Lougheed should be supportive of the urban environment and follow the best practices outlined in the B.C. Active Transportation Design Guidelines. Opportunities for activated building frontage, wide pedestrian thoroughfares, a high-quality furnishing zone / boulevard, and lighting are central components of the vision for this corridor. The intent for Lougheed as a key corridor is outlined in Action 2.1.2. Note that this is detailed in the key corridors theme. As part of this action, the City will partner with MOTI and developers to ensure the future Lougheed Transit Corridor meets these pedestrian and public realm needs.

THEME 4 CYCLING

Cities with safe, comfortable, and connected cycling networks are more likely to have a higher proportion of cycling mode share. In any given community, approximately half of the population is interested in cycling, but have concerns over their safety. In Maple Ridge and Metro Vancouver, cycling is a growing mode of transportation, and stakeholders at the local, regional, and provincial levels have expressed the need to grow the City's cycling network to increase its mode share and reach climate goals. Linking key community destinations and transit with safe and comfortable cycling facilities can help to grow cycling mode share in Maple Ridge.

Regionally, ***TransLink's Regional Cycling Strategy*** and ***Transport 2050*** identify a Major Bikeway Network (MBN) that connects Urban Centres and major destinations across the region, as well as a Regional Greenways Network, which connects to parks, open spaces, natural areas, and scenic pathways. These networks were considered in the development of strategies and actions within this theme.

The Strategic Transportation Plan includes the following strategies and actions to build out a network of complete, connected, and comfortable cycling facilities to encourage more cycling trips by people of all ages and abilities.

Strategy 4.1: Complete connections to community destinations to ensure that most residents and visitors can easily and comfortably access amenities across the City by bicycle.

Facilitating cycling trips requires a network of comfortable cycling routes that connect people to the places they want to go. A complete and connected network of primary cycling routes that are comfortable for most and suitable for people of All Ages and Abilities (AAA wherever feasible will increase the mode share of cycling and enable the City to meet the broader goals of the STP. AAA routes can consist of physically separated facilities, such as multi-use pathways, protected bicycle lanes, and off-street pathways on streets with high traffic volumes and / or speeds, as well as local street bikeways. Local street bikeways are signed bikeways on low volume neighbourhood streets, where cyclists travel on-street with vehicles. These streets have lower speed limits and potential traffic calming features implemented by the City. Cycling networks typically also include routes with less comfortable supporting facilities that provide more options for cyclists, but may not be suitable for all. Figure 4-6 illustrates a range of bicycle facility types, including both AAA and Supporting Facilities. The City's cycling network will combine facilities that are AAA, facilities that are comfortable for most, and supporting cycling facilities.

Beyond facility type, a range of other factors influence the comfort and accessibility of cycling, including intersection treatments, multimodal connections, and end of trip amenities.

Figure 4-6: Bicycle Facility Types

Action 4.1.1 Develop a complete and connected cycling network, focusing on connecting community destinations such as commercial areas, schools, community centres, natural areas, and transit.

The long-term cycling network includes two complementary designations – primary and secondary. Primary cycling routes are intended to typically be suitable for All Age and Abilities, where feasible. This may include the facilities illustrated in the blue 'All Ages and Abilities' area of Figure 4-6. Secondary cycling routes could feature a wide range of infrastructure, this may include those listed in the maroon Supporting Facilities' area of Figure 4-6. Secondary routes typically do not feature continuous sections of AAA facilities.

The long-term cycling network shown in Figure 4-7 was developed collaboratively with stakeholders based on the following principles:

- Include the MBN corridors in the Primary network and seek to make those facilities AAA where feasible. These include Lougheed / Highway 7, 113B Avenue / 203 Street, portions of Golden Ears Way / 128 Avenue / Abernethy Way, and 232 Street.
- Provide the highest density of Primary network in the Town Centre, which is an important community destination with an urban form that can be challenging for cyclists, including on-street parking, driveways, and high-speed roadways.
- Provide a high density of routes in the areas within and around the Lougheed Transit Corridor Area and Town Centre, where more people and destinations, including Ridge Meadows Hospital, will be close to investments in cycling infrastructure.
- Connect communities to schools to ensure that as many families as possible can cycle to school on Primary cycling routes.
- Create a network of continuous north-south and east-west Primary routes to connect neighbourhoods.
- Strengthen multi-modal connections between transit and cycling, such as connections in the Town Centre, West Coast Express stations, current RapidBus stops (and future Bus Rapid Transit Stops, as identified in Theme 1 and Theme 5), and Haney Place Transit Exchange.
- Create a network of supporting secondary routes that supplement the Primary route, leverage existing infrastructure, and provide connections to rural and natural areas.

In addition to linear infrastructure along primary and secondary routes, bicycle network improvements also include intersection treatments, such as cross-rides, bicycle signals, and protected intersections can improve the safety and comfort of bicycle facilities.

As part of this action, the City will work with partners to design and deliver the long-term cycling network illustrated in Figure 4-7.

Rapid Implementation Design Guide for Bikeways in Metro Vancouver
In certain contexts, the City may consider using rapid implementation approaches when building out the cycling network. Rapid implementation is a fast and cost-effective method of implementing active transportation projects that use adjustable, low-cost materials.

TransLink's Rapid Implementation Design Guide provides guidance for the planning, design, implementation, maintenance, and monitoring of bikeways through rapid implementation lens.

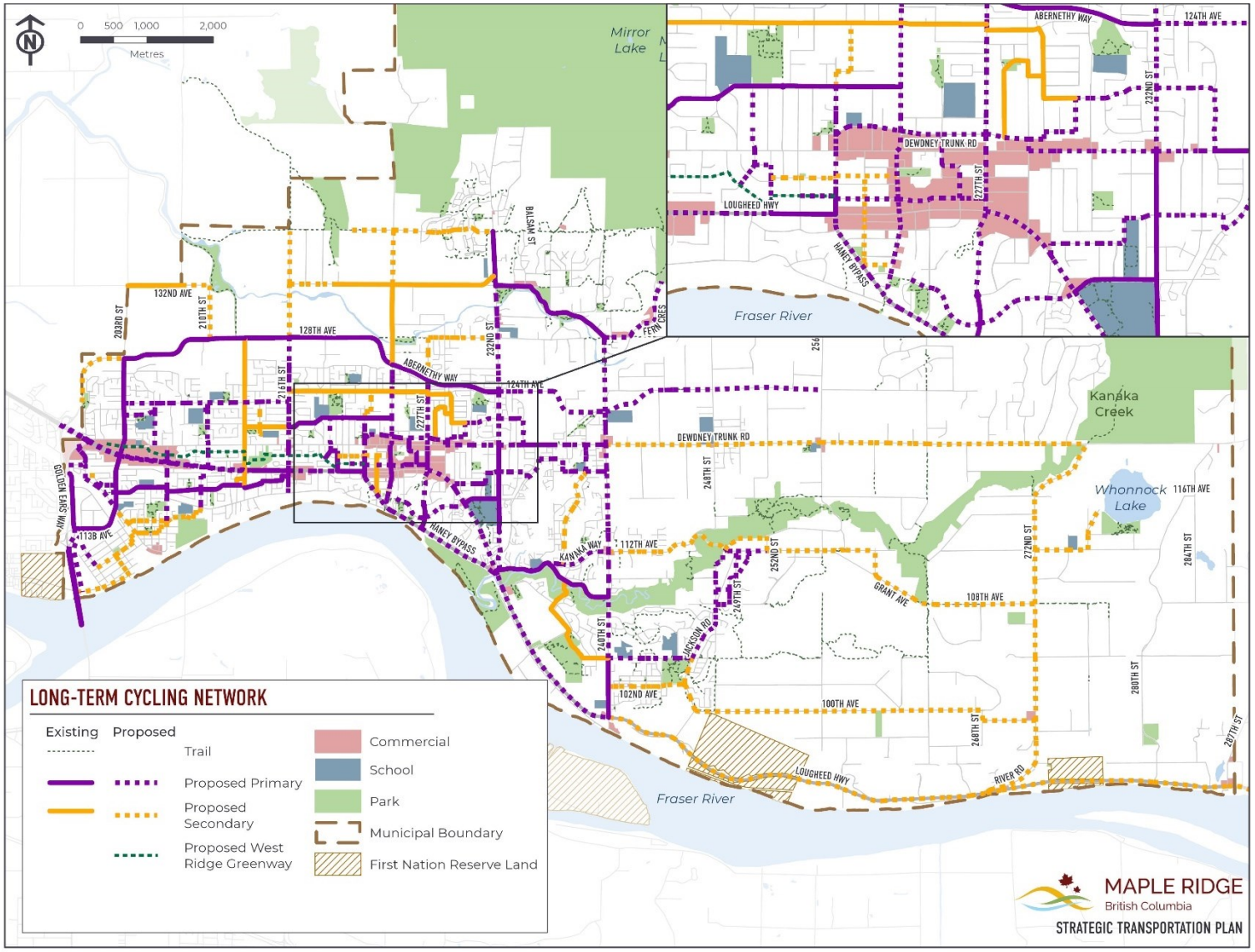


Figure 4-7: Long-Term Cycling Network

Action 4.1.2 Work towards upgrading existing cycling infrastructure on the Primary network towards All Ages and Abilities and improving the comfort of cycling on the Secondary network.

There are some existing cycling routes in the City that are located along the future Primary network but are not currently suitable for All Ages and Abilities. There are some existing Secondary routes where there is little separation between cyclists and high-speed motorized vehicles, or where broader key corridor improvements are anticipated. As part of this action, the City will:

- Seek to provide AAA facilities wherever possible along these routes.
- Seek opportunities to improve bicycle facilities on secondary routes with high volumes and speeds.

Action 4.1.3 Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient.

Support facilities make cycling a more attractive and convenient transportation choice by making sure that cyclists have the infrastructure and guidance needed before, during, and after their trip. As part of this action, the City will:

- Create and install bicycle route signage along primary and secondary routes. This is particularly important for neighbourhood bicycle routes and shared streets, where the best and / or most direct route may not be immediately clear to new riders or visitors to the area. Wayfinding can also help cyclists understand which route best matches their abilities and comfort levels. Bicycle wayfinding can also help educate drivers about the potential presence of cyclists on the roadway.
- Partner to install safe, secure parking for bicycles at key destinations, including West Coast Express and Rapid Transit stations, Municipal Hall, libraries, and schools.
- Work with developers to provide secure bicycle parking and end-of-trip facilities through the update of Bylaw 4350-1990.
- Seek opportunities to provide cycling amenities throughout the City, including drinking fountains with bottle fill stations and bicycle maintenance stations.

Figure 4-8: Bicycle Maintenance Station

Action 4.1.4 Work with developers to implement high quality cycling infrastructure.

Both infill and new development provide unique opportunities to deliver high quality cycling infrastructure that will connect key destinations for both new and existing residents. As discussed in Theme 1, providing connections in the City's emerging complete communities is particularly cost effective because of both the number of potential cyclists and the density of destinations. Working with greenfield development to ensure cycling is embedded in neighbourhood design provides a high level of value and reduces the need for future changes. As part of this action, the City will:

- Acquire property and / or easements along the road right-of-way and along cut-through desire lines to facilitate the delivery of the primary and secondary cycling network.
- Leverage development in infill areas to deliver the planned cycling infrastructure along each frontage. In some cases, this will result in a discontinuous network over time until more properties are developed. The City will seek to tie ultimate cross-sections delivered through development to interim connections wherever possible.
- Direct developers towards the ***BC Active Transportation Design Guidelines*** to supplement city design guidelines for bicycle infrastructure in the City of Maple Ridge.
- In new neighbourhoods, work with developers to plan delivery of separated AAA cycling infrastructure on arterial and collector roadways, with particular attention to roadways that connect to schools.

Strategy 4.2: Partner to complete regional cycling network that connects to neighbouring municipalities and to grow local and regional cycling.

The City is part of a broader region and area with the potential for growth in both regional and local cycling for transportation and recreation. Regional coordination is essential to best leverage local investments.

Action 4.2.1 Work with the Ministry of Transportation and TransLink to deliver All Ages and Abilities (AAA) cycling infrastructure along Lougheed Highway from the City of Pitt Meadows boundary into the Town Centre.

As identified in Theme 2, the City will continue to work with MOTI to implement the Major Bikeway Network along Lougheed Highway by partnering to acquire property and ensure that development frontages include protected cycling infrastructure. The city will also partner with MOTI to seek opportunities to provide interim improvements to cycling infrastructure along the remainder of Lougheed Highway and the Haney Bypass.

Action 4.2.2 Work with the City of Mission, City of Pitt Meadows and Township of Langley to implement and enhance cycling connections to neighbouring municipalities.

Cyclists in Maple Ridge must connect to – and travel through – other municipalities to reach key regional destinations. As part of this Action, the City will work with municipal neighbours to provide and enhance continuous cycling connections at municipal boundaries.

Action 4.2.3 Work with Metro Vancouver to revise the Regional Greenways Network within the road right-of-way and to make key connections to the Primary and Secondary cycling networks.

The STP has undertaken technical review and consultation to understand the needs and opportunities for cycling for transportation purposes within Maple Ridge. Key connections that align with the Regional Greenways Network have been incorporated into this plan, which supersedes the regional document for connections within the road right-of-way. As part of this action, the City will:

- Partner with Metro Vancouver to connect the Regional Greenway Network to the Primary and Secondary Cycling network where feasible, including along locations identified in Action 3.1.4.

Action 4.2.4 Work with the B.C. Ministry of Transportation and Infrastructure to construct new cycling infrastructure and enhance existing infrastructure on Haney Bypass and Lougheed Highway east of the Town Centre

The Province owns and operates Haney Bypass between 222 Street and Kanaka Way and Lougheed Highway between Kanaka Way and the Mission / Maple Ridge Boundary. As discussed in the Key Corridors theme, this highway connection forms the spine for through travel in Maple Ridge and currently provides for regional and provincial goods movement, transit, and private vehicles trips. As summarized in Action 2.1.2 Lougheed Highway has been identified as part of the Major Bikeway Network. As identified in Action 2.1.5, the Haney Bypass provides a connection between Albion and the Town Centre that has a low elevation change that is reasonable for most cyclists. As part of this action, the City will:

- Continue to work with MOTI to explore opportunities to provide a protected cycling connection along or parallel to the Haney Bypass.
- Continue to work with MOTI to explore options to improve cycling connectivity and separation along or parallel to Lougheed Highway from Kanaka Way to 240 Street.
- Continue to work with MOTI to improve cycling connectivity to Mission via Lougheed Highway east of 240 Street.

Action 4.2.5 Continue to support cycling education and promotion programs and events like Bike to Work Week and Bike Valet.

The City supports programs and organizations that foster cycling in Maple Ridge with a special focus on walking to school. As part of this action, the City will continue to support these programs as they evolve over time.

THEME 5 TRANSIT

Public transit has the highest people moving capacity of all modes. Fast, reliable, and convenient transit systems are more likely to attract high levels of ridership. Shifting trips to transit can improve the efficiency of the road network, reducing congestion, collision rates, and emissions, while also increasing affordability, livability, and equity in our community. Land use and density on frequent transit corridors can help to promote connections between residents and visitors to where they want to go, and when they want to get there.

Maple Ridge has experienced rapid population growth, the City has more than doubled its population over the last 30 years and is projected to reach nearly 125,000 people by 2050. While the City is enabling the growth of complete communities along the Lougheed Transit Corridor area and in the Town Centre (as described in Theme 1), regionally, ***Transport 2050*** is establishing the Major Transit Network (MTN) with a focus on serving urban centres and frequent transit development areas, including those in Maple Ridge. ***Transport 2050***, together with regional and municipal land use planning actions, aim for 55% of Metro Vancouver's residents to live within walking distance of the MTN.[14]

Regional investment in transit service as outlined in ***Transport 2050*** aims to make transit the most convenient choice for longer trips. The MTN will be convenient, reliable, fast and competitive with car travel. Currently 68% of trips starting in Maple Ridge stay in Maple Ridge, another 28% travel through the western gateway of the City via Lougheed or Golden Ears Way / Golden Ears Bridge. These longer distance trips are currently mostly served by private vehicles and investment in the MTN and frequent transit along these routes has the potential to shift these long-distance trips to transit. The recent introduction of the R3 along Lougheed Highway is an initial step towards improved service along this route and MOTI and the City are partnering to explore future opportunities to advance delivery of the MTN in Maple Ridge. As a part of ***Transport 2050***, regional investments such as the planned Rapid Bus from Haney Place to Langley and Bus Rapid Transit from Haney Place to Coquitlam Central Station are outlined within the 10-year priorities.

The Strategic Transportation Plan includes the following actions that focuses on the City's role in improving the reliability and efficiency of the transit network and amenities, as well as aligning density, land use and transportation, to make taking transit a competitive option for medium and long-distance trips.

[14] Walking distance is defined as 800 m from the MTN.

Strategy 5.1: Continue pursuing land use planning that supports transit to ensure that the community and transit are oriented around one another, promoting transit use.

As identified in Theme 1, transit-oriented development increases the number of people, jobs, and services within walking distance of transit and improves the effectiveness of investments in transit frequency and bus priority. This strategy echoes Theme 1 and includes actions focused on aligning land use and transit.

Action 5.1.1 Support TransLink and Metro Vancouver priorities to align the transit network with residential populations, ensuring that most residents live within 400m of the transit network.

The *Maple Ridge-Pitt Meadows Area Transport Plan* (ATP) identified transit service and frequency improvements throughout Maple Ridge. The routes proposed in that plan have been incorporated into the STP, as shown in Figure 4-9. The *ATP* and *Transport 2050* both identify a future rapid transit corridor along Lougheed Highway.

The City's plans, as outlined in Theme 1, focus residential density in the areas that are best served by transit. This will increase the proportion of people that are within walking distance of the transit network. At the same time, the City will work with TransLink to increase service to residents in eastern Maple Ridge, ensuring that most residents live within 400 m of the transit network.

Maple Ridge-Pitt Meadows Area Transport Plan (2021)

The Maple Ridge-Pitt Meadows Area Transport Plan (ATP) establishes a "blueprint" for improving the transportation network in Pitt Meadows and Maple Ridge over the next ten years in a way that is responsive to local needs and consistent with regional objectives in Metro 2040 and ***Transport 2050***. The plan makes recommendations around transit service and infrastructure, walking, cycling, and regional roads and goods movement, ensuring that municipal land use and transportation plans support existing and expected land use and travel patterns.

In addition to conventional and on-demand transit provided by TransLink, the School District provides school bus services to students in Silver Valley and east Maple Ridge. TransLink also offers HandyDART service for people who are unable to navigate conventional public transit without assistance.

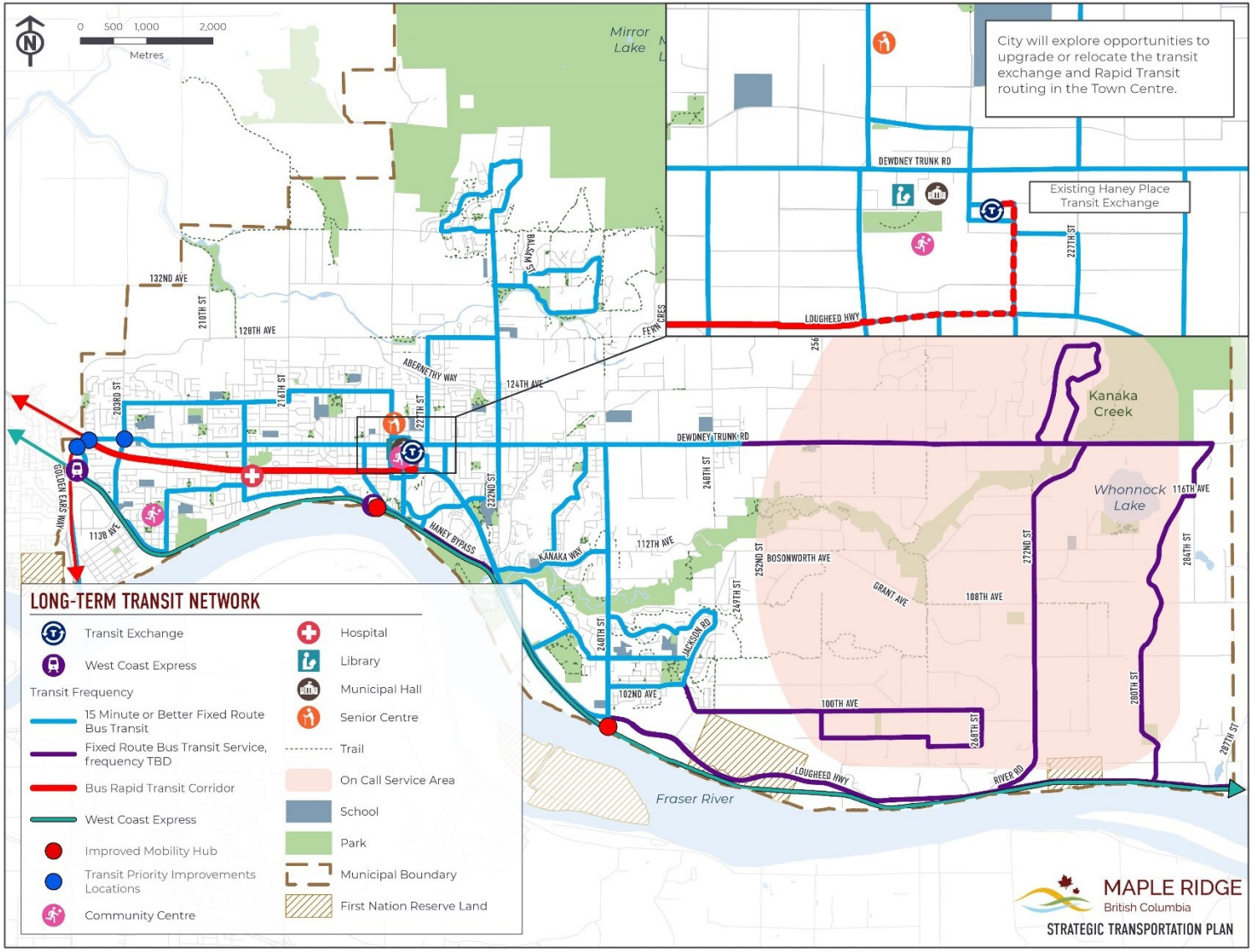


Figure 4-9: Long-term Transit Network (based on recently approved ATP)

Action 5.1.2 Continue to align mixed use land uses, density and transportation within the Town Centre and Lougheed Transit Corridor.

As noted above and outlined in Theme 1, the City's plans and policies will create Complete Communities in the Town Centre and Lougheed Transit Corridor area, which are also well served by frequent and rapid transit. The ***Lougheed Transit Corridor Area Plan*** identifies Transit Nodes near planned rapid transit stations near the intersections of 203 Street and Lougheed Highway and Laity Street and Lougheed Highway. The planned terminus for rapid transit is the Town Centre with a transit hub that is a major transfer point of multiple transit routes. The areas within walking distance of rapid transit and along the rapid transit corridor will be mixed-use employment hubs with higher density housing that serves the needs of many.

As part of this action, the City will work with developers and TransLink to deliver transit-oriented communities in the Town Centre and the Lougheed Transit Corridor Area.

Action 5.1.3 Leverage development to identify a new location for the Town Centre transit hub, which will replace and update the Haney Transit Exchange.

Development in the Town Centre will create opportunities to reimagine connections and services. This include reconsidering the location, design, and amenities of the Town Centre transit hub. As identified in the ***ATP***, the existing Haney Place exchange lacks amenities such as washrooms. The existing location also has poor cycling connectivity and requires the rapid bus to take an indirect travel path. Additional amenities and service improvements, along with additional layover capacity, may be feasible through the relocation of the Town Centre transit hub.

As part of this action, the City will:

- Work with the development community to identify and implement a new location and or, improvements for the Haney Transit Exchange.

Strategy 5.2: Partner for a more efficient transit system through bus speed and reliability road network improvements.

Reliable and efficient transit service increases ridership and provides better service to residents and businesses. Transit service in Maple Ridge currently includes the R3 RapidBus, the West Coast Express, conventional buses operating on fixed routes as part of the Frequent Transit Network, conventional and community buses offering less frequent fixed route service, on-demand transit, and handy-dart service. All of these services work together to deliver transit connectivity to residents, employees, and visitors to Maple Ridge.

The ***2019 Bus Speed and Reliability Report*** identified that 80% of bus routes in Metro Vancouver were slower in 2019 than they were in 2014. Traffic congestion on busy routes cause delays to bus service, resulting in longer waits, bus bunching, and higher operating costs for the same level of service. TransLink estimates that $75 million per year in operating costs are attributable to roadway delay. Because congestion on the municipal and provincial road network cause delay to bus service, road authorities have a central role to play in improving bus speed and reliability.

Action 5.2.1 Work with TransLink and MOTI to work towards on-street bus rapid transit along Lougheed Highway

Transport 2050 identifies the Lougheed Highway corridor part of the proposed new MTN. This route will serve the evolving transit-oriented communities in the Lougheed Transit Corridor Area and in the Town Centre. The intent for Lougheed is summarized as part of Theme 2 and is expected to include dedicated bus rapid transit lanes on Lougheed Highway between Coquitlam Central (Transit Hub) and the Haney Place Transit Exchange. In addition to the rapid transit connection to Coquitlam, ***Transport 2050*** also identifies a rapid transit connection to Langley to support the Surrey Langley Skytrain (SLS) extension (SLS is planned for operation by 2028). Since ***Transport 2050*** was approved in January 2022, subsequent work is needed to determine the type of rapid transit service, impacts to general purpose travel lanes, and the corresponding roadway cross section required to accommodate rapid transit service on Lougheed Highway and the Golden Ears Bridge.

While the full build-out of the rapid transit corridor relies on property acquired through development, there is an opportunity to increase transit priority and active transportation connectivity to transit along Lougheed over time through interim improvements at intersections and along development frontages.

As part of this action, the City will:

- Work with TransLink and MOTI to define and design the future Lougheed Highway and Golden Ears Bridge, connecting the rapid transit route to the future Town Centre transit hub.
- Seek to improve active transportation connectivity and the quality of the public realm on roadways that intersect with Lougheed, creating complete, people-first streets.
- Work with MOTI and developers to acquire property and easements required to deliver the vision for this corridor.

Action 5.2.2 Work with TransLink to identify and implement transit priority measures that improve bus speed and reliability along the FTN.

Road authorities can improve transit speed and reliability by investing in transit priority measures in congested locations. The *ATP* identifies the intersections of Dewdney Trunk Road & Lougheed Highway, Dewdney Trunk Road & 203 Street and connections to Maple Meadows station as locations where road congestion reduces bus reliability. Bus priority measures can include transit signal priority or passive signal priority, dedicated transit lanes, managing curbside uses, and providing bus bulges, boarding islands, floating bus stops, and improved platform designs. Bus stop consolidation can also improve bus speed and reliability.

As part of this action, the City will work with TransLink to identify locations where bus priority measures could improve reliability and complete design and planning work to determine the feasibility of improvements at these locations. The City will also work with developers to identify potential transit reliability improvements through development, including opportunities for property acquisition to support transit priority measures.

Action 5.2.3 Continue to promote West Coast Express improvements, including frequency and hours of service improvements, to all levels of government, TransLink, and rail companies.

The West Coast Express is a reliable and comfortable transit service with limited frequency and hours of service. Improving West Coast Express service is a high priority for many Maple Ridge residents.

As part of this action, the City will:

- Continue to promote West Coast Express improvements, including working with TransLink to engage in the planned *West Coast Express Strategy*.
- Support the potential for development of a new mobility hub with transit service, active transportation amenities, parking, and / or West Coast Express station in Albion.

Strategy 5.3: Complete connections to community destinations to ensure that all residents and visitors can easily and comfortably access amenities across the City and the region.

Most transit trips begin with another mode – people walk, cycle, drive, take a taxi, ride-hail, or use a micro-mobility device to reach transit stops and stations and continue on with their trip. A complete and connected network that is oriented towards transit services improves the comfort and attractiveness of transit as a mode of transportation, particularly for longer trips. Many of the actions that improve this connectivity are within municipal jurisdiction, while others require partnership with other agencies and developers. This strategy identifies actions to improve the ease and comfort of transit access.

Action 5.3.1 Improve walking access to transit stops and stations.

Many transit riders arrive at transit stops and stations as pedestrians. As identified in Theme 3, planned improvements to the walking network are focused on areas around transit stops and stations. Bus landing pads and accessible loading areas are also an important component of providing accessible transit stops and stations. As part of this action, the City will seek to provide accessible pedestrian connections to transit stop sand stations.

Action 5.3.2 Improve bus stop, transit exchange, and West Coast Express passenger amenities, enhancing accessibility of bus stops.

Transit passenger amenities that make bus stops and transit exchanges more comfortable can increase both the attractiveness of transit and increase passenger safety and satisfaction. Bus stop amenities typically include benches, shelters, bicycle parking, customer information, lighting, garbage bins. Transit exchanges may also feature public restrooms, heated spaces, enhanced bicycle and micro-mobility parking, park-and-rides, passenger drop-offs, and places to purchase food and drink. As part of this action, the City will:

- Continue to improve amenities at bus stops including benches, shelters and accessibility.
- Work with TransLink to implement the recommendations of the ATP concerning amenities around West Coast Express stations (e.g. washrooms, accessible pedestrian connections, improved lighting, cycling connections, bicycle parking, wayfinding).
- Seek opportunities to integrate amenities into the delivery of new rapid transit stations and the future Town Centre transit hub.

Action 5.3.3 Improve multi-modal connections at bus stops, transit exchanges and West Coast Express stations.

Most trips using transit begin with another mode, including walking or rolling, cycling, driving, or being a passenger in a vehicle. Comfortable and accessible multi-modal connections to transit are included in Strategies 3.1, 3.3, 4.1, 4.2, and Actions 5.2.3, 5.31. and 5.3.2.

THEME 6 DRIVING / GOODS MOVEMENT

Driving is currently the most common mode of transportation in Maple Ridge and the use of the road network for commercial vehicles is important this Regional City Centre and the local economy. By encouraging a safe, connected, and efficient road network, driving and goods movement trips can avoid long, circuitous routes to their destinations, reducing congestion, greenhouse gas emissions, and the risk of collision. The City is expected to continue experiencing rapid growth, and the road network needs to sufficiently accommodate growth to ensure residents, visitors, and businesses can continue to thrive. Beyond building and expanding roadways, the City also has the opportunity to work to shift some of these trips to transit, cycling, rolling, and walking to promote a safe and efficient road network through Transportation Demand Management initiatives to simultaneously support addressing congestion.

The recommendations in this theme were developed through an assessment of existing and projected future traffic volumes using TransLink's Regional Travel Demand Model, which had been updated to reflect proposed land uses in Maple Ridge and Mission. The model was used to understand potential changes in vehicle volumes on the road network in 2035 and 2050 and to confirm the need for new or expanded roadways based on demand.

This theme includes strategies and actions that create new connections and improvements to reduce inefficiencies and accommodate growth, improve safety, and look forward to manage the demand for the road network.

Strategy 6.1: Completing the road network to ensure that neighbourhoods and destinations are connected to one another in an efficient way.

The 2014 STP identified new roadway connections that will complete the transportation network in new areas, providing multimodal links to developing industrial land and new neighbourhoods. Since 2014, the City has advanced the design of some of these connections, including identifying alignments. As part of the 2022 STP, these links were reviewed based on existing and forecast traffic volumes to confirm the recommended future road cross-sections and potential timing for these changes. These links will reduce delay and congestion on parallel roadways, create network redundancy, and increase the City's resilience to climate change and natural disasters. The completed roadway network will also include transportation networks within developments, which are specified by Bylaw 4800-1993, as discussed as part of Action 1.1.3.

Action 6.1.1 Complete the arterial road network in developing areas, including completing the Abernethy Way, 240 Street Bridge, Grant Avenue, 248 Street, and the Thornhill Access Roadway.

The long-term roadway network is illustrated in Figure 4-10. It includes the Thornhill Access Roadway and extensions of Abernethy Way and 240 Street, which are key corridors and explored further in Theme 2, as well as two additional new arterial roadways that were not included in the key corridors. Planned new arterial roadways include:

- **Abernethy Way from 232 Street to 256 Street** – this roadway provides a northern east-west connection and alternative to Dewdney Trunk Road and Lougheed Highway. It is mainly surrounded by lands designated as part of the Agricultural Land Reserve (ALR), which is unlikely to change in the future. The ***Abernethy Way Extension Study*** completed analysis of the first easterly extension of Abernethy from its current terminus at 232 Street with a proposed new alignment extending this roadway to 240 Street. This route selection was confirmed in November 2019 and is planned for completion by 2026. This segment is planned to be phased initially with two lanes and ultimately four lanes projected to accommodate approximately 15,000 vehicles per day by 2050. The general alignment for the extension of Abernethy Way from 240 Street to 256 Street was confirmed in November 2020, this route generally follows the 124 Avenue alignment and is expected to have a two-lane cross section and to accommodate between 3,000 and 9,500 vehicles per day (dependent on land-use utilization for the north east sector of the City) by 2050.
- **240 Street from Dewdney Trunk Road to Fern Crescent** – this extension of 240 Street is planned to connect north across the Alouette River to Fern Crescent. This extension will provide a second access for the Silver Valley neighbourhood and Golden Ears Provincial Park to complete a reliable and resilient network..
- **Thornhill Access Roadway** – as noted in the OCP, Thornhill is an Urban Reserve Area. Based on recent work done by the City, meeting the Urban Reserve OCP policy thresholds for urban residential future in Thornhill is not expected to occur for the next 50+ years. The City is considering an alternative option that explores the potential for employment use in the Thornhill Area. Development of this area is subject to several conditions and further assessments including a transportation study that would review the terrain, environmental conditions in conjunction with other studies that would assess ground water tables, developable land parcels, types of land-use and geotechnical ground conditions. as the A new road connection may be required to connect this neighbourhood to Highway 7. For the purposes of the STP a high-level road connection is provided, the specific location, timing, and cross-section is subject to further review.
- **248 Street Connection** – this roadway will extend to 112 Avenue and connect from 108 Avenue through the development of the North East Albion Area. This road is unlikely to connect to the DTR due to environmental considerations.

- **Grant Avenue Connection** – this roadway generates limited traffic by 2050 and there is capacity on other east-west routes in this part of the City. Although this connection is not anticipated to be required by 2050, the City should continue to pursue suitable right-of-way for a future multi-modal arterial roadway connection to 272 Street.

As part of this action, the City will seek to deliver new roadways to complete the arterial road network and retain property for future arterial roads.

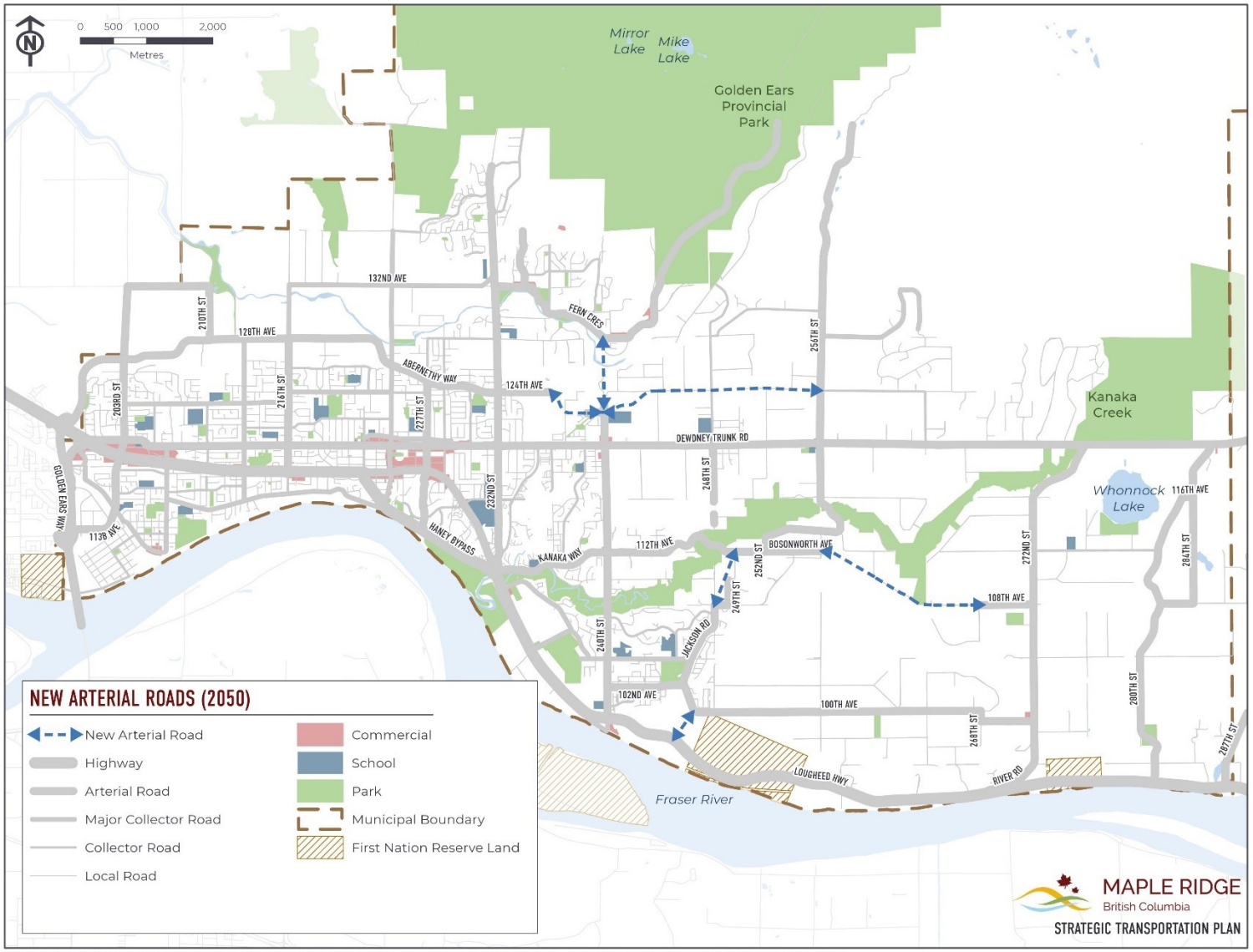


Figure 4-10: New Arterial Roads (2050)

Action 6.1.2 Work with developers to ensure that greenfield developments feature multi-modal collector and local road networks that meets the City's needs.

Beyond arterial roadways, developing neighbourhoods require a complete and connected network of major collectors, minor collectors, local roads, and lanes. New roadway networks should seek to create modified grid networks that limit vehicle through movements on roadways with lower classifications, while providing shorter and more direct connections for active transportation. The City will work with developers to ensure all roadways in greenfield areas are planned and designed in accordance with the updated Bylaw 4800-1993.[15]

Action 6.1.3 Close gaps in the existing collector and local road networks.

There are a number of small gaps in the existing collector and local road network, which the City will complete through development or capital projects to achieve a complete and connected roadway network. These include:

- Brown Avenue between Fletcher Street and 228 Street as a Major Collector
- Golf Lane at 209 Street as a Local road
- 124 Avenue at 246 Street as a Local road

Beyond these connections, partner with developers to introduce local roadways and lanes parallel to arterials and highways to facilitate greater access control that aligns with roadway classification.

Action 6.1.4 Create a Dangerous Goods Route Network

Dangerous goods include a wide range of materials that meet the daily needs of residents and businesses. These goods move in a range of vehicle types, including heavy trucks, light trucks and vans, and cars. Dangerous goods can include flammable liquids (like gasoline intended for retail sale), liquified or compressed gases, corrosive substances (including batteries), or materials destined for laboratories and hospitals (e.g. radioactive or toxic / infectious substances.) Where these goods move by truck[16], they are subject to truck routing and restrictions.

[15] As updated in Action 1.1.3.
[16] Vehicles with a gross weight higher than 11,800 kg.

Within Metro Vancouver, TransLink[17] has the authority to designate routes and times of travel on the MRN for motor vehicles transporting dangerous goods, subject to municipal consent. TransLink also has the authority to prohibit the movement of dangerous goods in motor vehicles on portions of the MRN or for certain times of travel. At the time of delivery of this report, TransLink is collaborating with municipal and provincial partners to develop a Dangerous Goods Route network along the MRN for the region, which will identify routes for the through travel of dangerous goods by motor vehicle in Maple Ridge:

- Golden Ears Bridge / Golden Ears Way (TL Authority)
- Highway 7 (MOTI)
- Maple Meadows Way (City of Maple Ridge between Golden Ears Way and Highway 7)

Vehicles carrying dangerous goods must travel along the dangerous goods route network until it is no longer practical to do so to reach their destination. Once they leave the dangerous goods route network, they are encouraged to travel on the highest classification of road and then exit at the closest point to reach their destination.

Strategy 6.2: Widen and improve major roadways to accommodate recent and future growth in Maple Ridge and neighbouring municipalities.

East-west roadways within Maple Ridge provide a conduit for travel within the municipality, between Maple Ridge and the remainder of Metro Vancouver, and between neighbouring communities. In particular, Lougheed Highway is a provincial corridor for provincial and regional east-west travel, as well as being an important part of the local transportation network. Existing MRN roadways also provide regional connectivity, including being part of future connections to industrial land. This strategy identifies future widening to accommodate recent and future growth within Maple Ridge, as well as in neighbouring municipalities.

Action 6.2.1 Work with the Ministry of Transportation and Infrastructure and TransLink to implement improvements to major roadways

The roadways identified in the STP for widening are all part of the provincial or regional networks. As part of this Action, the City will work with TransLink and MOTI to pursue widening Golden Ears Way, the Abernethy Connector, the Haney Bypass, and portions of a current two-lane section of Lougheed Highway to four lanes, as illustrated in Figure 4-11. Widening major roadways can potentially prioritize space for sustainable modes such as incorporating transit priority measures as well as new or enhanced active transportation facilities. The intent for the three key corridors of Haney Bypass, Golden Ears Way, and Abernethy are explored

[17] TransLink's authority is designated through the South Coast British Columbia Transportation Authority Act [SBC 1998]

further in Theme 2 . This action also includes improvements to the north end of the Golden Ears Bridge and the interchanges along Golden Ears Way. As development occurs, part of transportation assessments for development planning and permitting process, portion of roadways not identified in Figure 4-11 may be identified for widening to accommodate localized needs within an area.

Figure 4-11: Major Roadway Widening by 2050

Action 6.2.2 Update the City's Street classification network.

The roadway classification system describes the intended function of the roadway and guides decision making about changes in physical design characteristics, as well as the access characteristics of surrounding land uses. Maple Ridge updated the road classification hierarchy and definitions as part of the 2014 STP. This update to the STP includes minor revisions to road classification definitions, as well as some proposed changes to individual road classifications.

Road classifications and designations within the City include:

- **Provincial highways** are roadways that are owned and operated by MOTI and accommodate regional and provincial through traffic. At-grade signalized intersections are widely spaced, and direct access to provincial highways is minimized to maximize capacity and limit delays to through traffic. Posted speeds are typically higher than other urban roadways – generally 60 km/h or higher and parking is usually prohibited. Transit service is often limited to express services with relatively few or no stops along the roadway. Within Maple Ridge, Highway 7 is a provincial facility, but it should be noted that the section of Highway 7 within the Lougheed Transit Corridor area functions as an urban arterial – i.e. the corridor has relatively frequent at-grade intersections.
- The **Major Road Network (MRN)** is a road designation principally composed of municipal arterial roadways that serve a regional function and that accommodate a high volume of general-purpose vehicles, transit passengers, and / or trucks. TransLink partners with municipalities to fund the operation, maintenance, and rehabilitation of the MRN; however, municipalities retain ownership and operational responsibilities for this group of roadways. Changes that reduce the people-moving capacity of an MRN roadway are subject to approval by TransLink. Dewdney Trunk Road west of 232, 128 Avenue / Abernethy and parts of 232 Street are examples of the MRN within Maple Ridge.
- The primary function of **Arterial roads** is to provide mobility. They usually serve regional traffic – travel between major local destinations or between municipalities. Direct access to arterial roads is often limited to commercial driveways, although many arterials in Maple Ridge also provide residential driveway access. Speed limits are generally 50 km/h and on-street parking is restricted and or, limited. Arterials are often used for major transit corridors. Examples of arterial roads in Maple Ridge include Dewdney Trunk Road (east of 232) and 216 Street.
- **Collector roads** typically serve a dual function. They provide mobility for travel between local neighbourhood streets and municipal arterials, but they also offer access to individual properties. In Maple Ridge, there are many private driveways along collectors. On-street parking may be permitted. Transit service is often provided. Posted speeds are usually 50 km/h, although they can be lowered to 30 km/h in school or playground zones, along cycling routes, or in other areas with high

pedestrian volumes. River Road and Laity Street are examples of collectors in Maple Ridge. There are two types of collector roadways in Maple Ridge:

  - **Major collectors** have higher traffic volumes and play a more significant role in connectivity and mobility within the City's road network. These roadways may serve as route for transit and / or response routes for emergency services.
  - **Minor collectors** have lower traffic volumes and a limited network contribution.
- The primary function of **Local roads** is to provide access to property. Commercial and residential properties have driveway access and parking is typically permitted.

The proposed updated classification map is illustrated in Figure 4-12. The following roadway segments are recommended for a change in classification:

- 232 Street from Silver Valley Road to 141 Avenue – change to Minor Collector
- Brown Avenue west of 222 Street – change to Local road
- Brown Avenue from 222 Street to 228 Street / Purdey Avenue – change to Major Collector with a wider cross section for active travel modes.
- 210 Street north of 117 Avenue – change to Local road
- 116 Avenue east of Cottonwood Drive – change to Local road
- 118 Avenue between 236 Street and 240 Street – change to Local road
- 128 Avenue / Katonien Street / Lilley Drive from 256 Street to Lilley Drive cul-de-sac – change to Major Collector

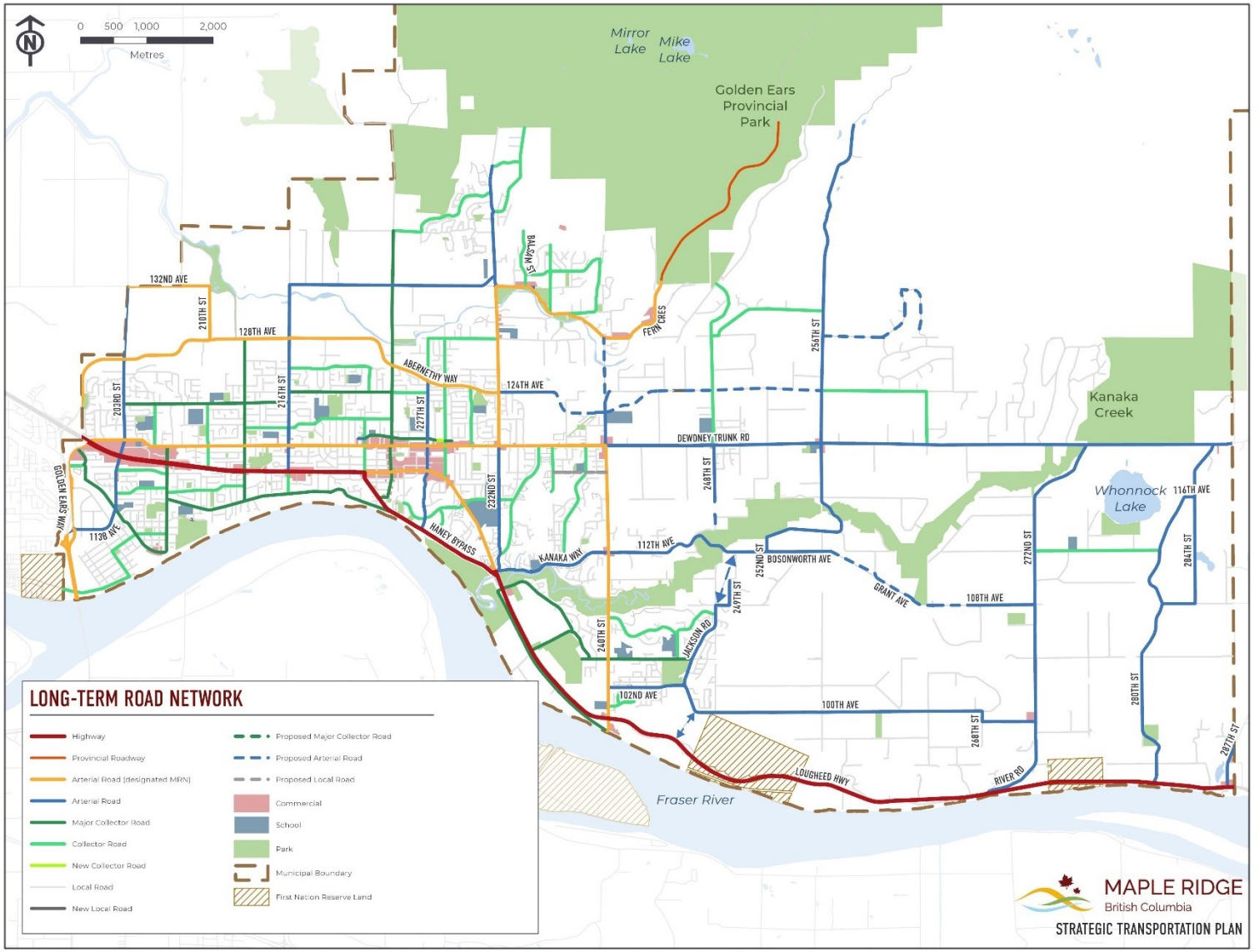


Figure 4-12: Proposed Roadway Classification

Strategy 6.3: Improve the safety, efficiency, and reliability of operations at key intersections.

Intersections are the source of most delay, low reliability, and collisions on the transportation network. This strategy includes actions that focus on intersections.

Action 6.3.1 Address capacity and operational issues at key intersections.

Through a preliminary high level safety assessment, a number of intersections throughout Maple Ridge have been identified for potential safety and / or operational issues. Twenty-seven intersections were identified[18] for further safety assessment based on having a high collision rate and collision severity indices. detailed review of these intersections through collision statistics will help determine if mitigation measures can be employed to reduce the frequency and severity of collisions at these locations. The City may be able to implement improvements in some areas, while in others work may be focused on an enforcement or advocacy level.

What is Level of Service (LOS)?

The overall performance of an intersection is typically measured by the delays experienced by vehicles for each individual movement and collectively, also referred to as the level of service (LOS). The LOS is defined by a letter grade and can range between LOS A (best) to LOS F (worst). LOS A through C generally indicates that the intersection experiences very few delays during the peak hour whereas LOS F suggests the delays are significant (greater than 80 seconds per vehicle at a signalized intersection and greater than 50 seconds per vehicle at an unsignalized intersection) and that the intersection is not meeting typical operational criteria. For planning purposes, overall intersection operation of LOS D or better and minor approach operation of LOS E or better are generally considered an acceptable threshold, while operations outside of these thresholds may require improvement.

Intersection performance was assessed relative to conditions today and how locations are projected to perform in the future. Fifteen intersections were identified as locations that require operational improvements. Table 4-2 summarizes the municipal intersections that have high collision rates and severity index and / or capacity constraints, along with recommended improvements. It should be noted that the locations and improvement types were developed at a high-level and each location will require a detailed safety and / or operational study to identify and design recommended improvements.

[18] This assessment was developed using five years of data provided by ICBC and aggregated to the intersection level. It did not include a detailed review of collisions patterns or trends.

Table 4-2: Maple Ridge Intersection Improvements

INTERSECTION	INTERSECTION LOS				SAFETY	IMPROVEMENT(S)	NOTES
	2021		2050 BASE				
	AM	PM	AM	PM			
Lougheed Highway & 228 Street	B	C	**F**	**F**		Additional turn lanes	Part of future key corridors (Action 2.1.2)
Lougheed Highway & 116 Avenue	C	C	**F**	**F**	✓	Additional turn lanes Safety improvements	Part of future key corridors (Action 2.1.2)
203 Street & Dewdney Trunk Road	C	C	E	**F**		Additional turn lanes	Part of future key corridors (Action 2.1.8)
227 Street & Dewdney Trunk Road	C	D	D	**F**		Corridor signal timing re-coordination. Additional turn lanes	Part of future key corridors (Action 2.1.8)
228 Street & Dewdney Trunk Road	C	C	D	**F**		Corridor signal timing re-coordination.	Part of future key corridors (Action 2.1.8)
232 Street & Dewdney Trunk Road	D	E	**F**	**F**	✓	Corridor signal timing re-coordination. Traffic demand anticipated to decrease because of Abernethy Way extension. Safety improvements	Part of future key corridors (Action 2.1.8)
West Street/200 Street & Maple Meadows Way	B	A	B	**F**		Additional turn lanes	
113B Avenue/203 Street & Hammond Road/Maple Crescent	C	D	**F**	**F**		Additional turn lanes	Part of future key corridors (Action 2.1.6)
207 Street & River Road	B	B	C	**F**		Additional turn lanes	
209 Street/210 Street & Golden Ears Way/128 Avenue	B	**F**	D	**F**		Additional turn lanes and eastbound through lane at the intersection	Part of future key corridors (Action 2.1.1)
216 Street & 128 Avenue/Abernethy Way	E	B	**F**	D		Additional turn lanes	Part of future key corridors (Action 2.1.11)
227 Street & Abernethy Way	B	B	**F**	**F**		Corridor signal timing re-coordination.	Part of future key corridors (Action 2.1.3)

INTERSECTION	INTERSECTION LOS				SAFETY	IMPROVEMENT(S)	NOTES
	2021		2050 BASE				
	AM	PM	AM	PM			
Abernethy Way/124 Avenue & 232 Street	C	B	**F**	D		Additional turn lanes	Part of future key corridors (Action 2.1.3)
West Street & Dunn Avenue	A	**F**	D	**F**		Signal with additional turn lanes or roundabout	
207 Street & Dewdney Trunk Road	B	C	C	E	✓	Safety review with potential improvements	Part of future key corridors (Action 2.1.8)
203 Street & Golden Ears Way	B	B	D	C	✓	Safety review with potential improvements	Part of future key corridors (Action 2.1.1)
Kingston Street & Stewart Crescent	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
205 Street & Lorne Avenue & Maple Crescent	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
102 Avenue & 240 Street	B	A	C	B	✓	Safety review with potential improvements	Part of future key corridors (Action 2.1.4)
112 Avenue & Lockwood Street	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
Burnett Street & Lougheed Highway	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
222 Street & Selkirk Avenue	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
121 Avenue & 216 Street	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
Dewdney Trunk Road & Rosewood Street	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
224 Street & Brown Avenue	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis
224 Street & Selkirk Avenue	N/A	N/A	N/A	N/A	✓	Safety review with potential improvements	Intersection not included in traffic analysis

In addition to the City locations identified, several intersections within Maple Ridge that are within the occupation and or, authority of TransLink and MOTI were noted for further safety assessment and potential mitigation and or, intersection efficiency improvements. The City will endeavour to work collaboratively with TransLink and or, MOTI to make improvements to the following locations:

- Maple Meadows Way/Dewdney Trunk Rd & Lougheed Highway
- 203 Street and Lougheed Highway
- 207 Street and Lougheed Highway
- Laity Street & Lougheed Hwy
- 216 Street and Lougheed Highway
- 221 Street & Lougheed Highway
- 222 Street & Lougheed Hwy
- Haney Bypass/Kanaka Way & Lougheed Hwy &
- 240 Street & Lougheed Highway
- River Road & Lougheed Highway
- 272 Street & Lougheed Highway

Typical improvements include intersection modifications such as adding turn lanes, installing new traffic controls (e.g., traffic signals, installing pedestrian and bicycle signals, crosswalk upgrades, and / or installing new crosswalks), and signage improvements. Investment in intersection improvements can also mitigate existing safety issues, while extending the life of infrastructure, helping to delay larger and more expensive capacity improvements.

Action 6.3.2 Continue the intersection safety program.

The City regularly identifies and addresses new safety issues arising at intersections on an ongoing basis. Staff identify intersections for safety studies based on feedback received from residents, business, and third-party organizations, through Traffic Impact Assessments, through other transportation studies, and through staff observation. Staff conduct an initial evaluation of physical characteristics, corporate history, sightlines, ICBC accident data, turning movement data, and speed and traffic data. Through this initial assessment, between 20 and 30 intersections each year are identified for more formal study. Potential improvements, including changes to geometry, intersection control, signal timing, or other factors are identified. Minor improvements may be included in annual program funding, while larger projects are identified for inclusion in future capital plans.

As part of this action, the City will:

- Continue to use the existing intersection safety program to identify and address new issues arising.
- Continue to partner with ICBC through their Road Safety Improvement Program to fund safety improvements.

Action 6.3.3 Continue traffic control warrant assessment and investment program.

The City regularly identifies and assesses intersections and mid-block crossing locations to determine if traffic control upgrades are required as per best practices outlined by the Transportation Association of Canada. Assessment locations are identified based on feedback received from residents, business, third-party organizations and staff knowledge. The City conducts the required data collection and evaluates operations using industry standard approaches, including warrants. If new traffic control is warranted, it is installed as part of development, through annual program funding, or included in future capital plans.

As part of this action, the City will:

- Continue the traffic control warrant assessment and investment program.

Action 6.3.4 Consider traffic operational systems improvements.

Optimized signal timing and signal coordination along corridors can reduce traffic delay, reduce collisions, and make the highest use of existing physical infrastructure with relatively low-cost investment in ongoing improvements. Further, investments in new signal equipment and emerging technology can improve overall operations for a lower cost than road widening and enable other improvements, such as turning lanes with protected, split, and / or overlap phases and signal coordination.

As part of this action, the City will:

- Investigate opportunities to improve coordination and efficiency through signal equipment upgrades, coordination, and optimization.
- Continue to monitor traffic signal operations and adjust traffic signal phasing for efficiency and safety improvements.

Strategy 6.4: Ensure proactive steps are taken to improve safety for vulnerable road users and motorists.

The B.C. Active Transportation Design Guidelines summarizes research that indicates that the severity of collisions involving vulnerable road users and motor vehicles increases with motor vehicle speeds. Recent studies indicate collisions with motor vehicles travelling at speeds greater than 40 km/hr have a less than 70% survival rate, compared to a more than 90% survival rate at 30 km/hr or less. Vehicle speed also contributes to both the rate and severity of collisions involving two or more vehicles.[19] Higher vehicle volumes also increase risk by increasing exposure.

As explored in Strategy 6.3:, the STP seeks to improve safety by investigating and addressing safety challenges at locations with a relatively high rate and / or severity of collisions.[20] Beyond improvements to individual intersections, programs that reduce traffic speeds in key conflict locations and updates to design standards can reduce transportation-related injuries and fatalities.

Action 6.4.1 Continue the existing Traffic Calming Policy approach.

Traffic calming seeks to reduce the speed and / or volume on local and minor collector roadways to create a more comfortable experience for road users and residents. Through the City's existing Traffic Calming Policy, neighbourhood residents work with professional engineers and planners to develop a traffic calming plan within their neighbourhood. The City's Traffic Calming Policy was recently updated to align with the 2019 edition of the Transportation Association of Canada Guide for Traffic Calming 2nd Edition and has been successfully applied in multiple neighbourhoods. Minor traffic calming measures can be installed through the annual traffic calming budget, while larger projects are identified for inclusion in future capital plans.

As part of this action the City will continue to use the existing Traffic Calming Policy and related practices to initiate, assess, prioritize, and plan traffic calming measures, as well as to finance and deliver recommendations.

Action 6.4.2 Collaborate at a regional level to explore opportunities to introduce people first neighbourhoods.

At the regional level, ***Transport 2050*** explores strategies and actions that focus on people first streets that are designed for everyone. and feature reduced speeds for motor vehicles, as well as greater physical separation between modes of transportation.

[19] SWOV Fact Sheet: The relation between speed and crashes. (https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa1304/Resources3/08%20-%20The%20Relation%20Between%20Speed%20and%20Crashes.pdf)
[20] STP Report 1 documented 15 intersections with a collisions rate that is 10% higher than the critical collision rate and a Collision Severity Index that is greater than 5, as well as eight intersections that had no volume data available, but had a collision frequency greater than one collision per year and a Collision Severity Index greater than five.

One element of this strategy is creating walkable neighbourhoods where motor vehicles travel at slower speeds and another is to create localized car-free or low-volume environments within the transportation network, including cut throughs and plazas.

The City will consider regional possibilities to pilot elements of people-first neighbourhoods and work to understand how these programs and approaches will evolve over time.

Strategy 6.5: Use transportation demand management to reduce the demand on the road network, increasing efficiency.

Transportation demand management (TDM) seeks to reduce the demand on the road network by reducing the number of vehicle trips during times of peak congestion and the overall vehicle kilometers traveled (VKT) per person. TDM focuses on shifting trips from driving alone to carpooling and non-auto modes of transportation; shifting trips to different times of day; and eliminating some trips. The actions in this strategy leverage TDM measures to reduce VKT, improve reliability, and reduce congestion.

Action 6.5.1 Consider the introduction of high occupancy vehicle lanes that are shared with transit at key locations.

Where the City is considering transit priority measures, the City and partners will evaluate opportunities to include high occupancy vehicle lanes. In some cases, high occupancy vehicles can be accommodated in the short-to medium- term until transit frequency increases. The number of occupants required for use of high occupancy vehicle lanes may be changed over time to accommodate increasing transit service or to reduce delays to transit caused by congestion in these lanes. The use of high occupancy vehicles lanes will be explored alongside Strategy 5.2.1 as a potential interim measure if road widening of Highway 7 occurs between Pitt Meadows and the Haney Bypass in advance of the Rapid Transit that would require this additional lane for exclusive use.

Action 6.5.2 Review parking requirements in Bylaw 4350-1990, including changes that encourage the use of car pooling and reduce parking minimums.

The number and use of parking spaces required in new developments influences vehicle ownership and travel choices, as well as the affordability of residential unit. Potential TDM parking policies include allowing shared parking for commercial and residential visitor use, providing designated spaces for car-pooling and car sharing, and reducing parking minimums. The City will consider opportunities to embed TDM into parking policy for new developments as part of the review and update of Bylaw 4350-1990.

Action 6.5.3 Continue to work with TransLink to educate and promote the use of non-auto modes of transportation.

In alignment with ***Transport 2050***, the City will partner with TransLink to educate and promote the use of non-auto modes through programs and policies that include TravelSmart, programs for major employers, school travel programs, and other initiatives.

Action 6.5.4 Continue to work with local businesses, stratas, Business Improvement Associations, and the Chamber of Commerce to review and address curbside management requests.

As the way people and goods move changes, there is increasing pressure on the curbside space. This includes increasing demand for short-term parking to be used for pick-up and drop-off of passengers, as well as short-term loading for couriers and delivery services. There is also demand on the curbside for visitor parking for both commercial and residential uses, in addition to long-term parking. Typically, when parking occupancy exceeds 85%, spaces become harder to find and there can be impacts to the types of short-term loading and parking needs that support economic activity – the City has historically used this threshold to inform curbside management decisions. The City will continue to follow industry best practices and regional approaches to adapt to changing technology and demands for the curbside in collaboration with local stakeholders.

THEME 7 NEW MOBILITY

The way we travel is evolving and expected to continue to do so with the introduction of new mobility and technology such as electrification, connectivity, automation, shared mobility, and road pricing. Integration and accommodation of new mobility and technology into the City's transportation networks can support the City's broader societal objectives, making clean, fast, and affordable transportation accessible and safe for everyone. In addition, the region is likely to implement policy and programming that will introduce new travel modes and/or, regulations on our transportation networks, such as shared mobility, autonomous vehicles, and road pricing. The City can participate in these discussions to ensure there is a broader positive impact for its residents and visitors consistent across the region.

The Strategic Transportation Plan identifies key strategies and actions that will support the integration of current and future technologies and trends, ensuring the City is a conduit for shifting transportation patterns to cleaner, more affordable, and safer modes.

Strategy 7.1: Support the 'electrification' of travel to ensure that the City can accommodate future trends, and proactively reduce greenhouse gas emissions.

Metro Vancouver's ***Climate 2050 Strategic Framework*** (2019) estimates that 31% of greenhouse gas emissions in the region are a result of cars and trucks. Moving towards higher adoption of zero emissions vehicles, including electric passenger cars and trucks, is an important component of achieving the City's Climate Action Goals. Demand for electric vehicles is increasing and there are provincial and federal incentives for residents to purchase an electric vehicle – the Government of Canada has committed to achieve net-zero emissions by 2050 and has a goal to reach 100% of passenger zero-emissions vehicle sales by 2040.

The City will adopt to these changes by focusing on the availability of electric vehicle charging infrastructure. Electric vehicles are recharged by plugging into the electricity grid. There are three levels of charger, each with a different time required to reach a full charge:

- Level 1 (Ten hours adds about 70 km of range): Standard cord-set that plugs into a regular wall socket.
- Level 2 (2.5 hours adds about 100 km of range): The most common level for public charge stations.
- Level 3 (30 – 40 minutes adds about 100 km of range).

Other new forms of mobility, including electric bicycles, electric cargo bicycles, and electric scooters can also help lower greenhouse gas emissions by expanding the number and type of trips that are feasible by non-auto modes of transportation. These vehicles also benefit from electric outlets in parking lots, particularly where there is secure bicycle parking.

The actions within this strategy focus on two approaches to increasing the availability of electric charging infrastructure.

Action 7.1.1 Continue to install and expand electric charging infrastructure at community facilities.

The City has installed public Electric Vehicle Charging Stations at City Hall and other locations in the City. As part of this Action, the City will continue to seek opportunities to install public charging locations, focusing on Level 2 charging stations at community facilities. Locations are expected to include existing and planned community centres and libraries. The City will also partner with TransLink to seek opportunities to install Electric Vehicle Charging Stations at West Coast Express Stations.

Action 7.1.2 Ensure new electric charging infrastructure is a required minimum for new developments.

The City is currently reviewing Bylaw 4350-1990 which regulates off-street parking and loading. This bylaw can require new electric charge infrastructure as part of new developments and retrofits of older buildings. Through this review, the City will be developing a new off-street and loading bylaw update Bylaw to align with current best off-street parking and loading best practices. For electric charging infrastructure, the new off-street parking and loading bylaw will:

- Require outlets in secure bicycle parking areas.
- Require Ready to Charge infrastructure for accessible parking spaces. 'Ready to Charge' means providing all the infrastructure, including the charging head. The number of Ready to Charge accessible parking spaces will be determined as part of the bylaw update study.
- Include EV-ready requirements for new buildings. 'EV-ready' means that the vehicle's electrical system can accommodate a high level of future charging, including parking spaces that are ready for the installation of a final connection point. The percentage of EV-ready spaces required will be determined as part of the bylaw update study.
- Include a minimum requirement for Level 2 chargers as part of parking requirements for commercial and institutional land uses. The number of EV-ready spaces required will be determined as part of the bylaw update study.

Strategy 7.2: Explore the role of new ways of travelling, including car share (e.g. Evo, Modo), ride share (e.g. Uber, Lyft), micromobility (bike share, electric bikes, scooter share, etc.) in improving mobility for all.

Transportation is evolving as new technology emerges and creates new choices, opportunities, and challenges. These technologies will enable individuals to choose new modes that best fit their needs while responding to broader challenges, including climate change, affordability, and safety. Shared transportation systems and ride hailing can reduce the demand for vehicle storage, while providing convenient and comfortable connections. Micromobility devices allow people to travel farther more comfortably than walking or cycling alone. Much is uncertain about the future of connected and autonomous vehicles; however, there is hope that these technologies will reduce transportation injuries and fatalities while increasing transportation reliability and efficiency.

These new modes pose regulatory and practical challenges and policy makers will need to adjust quickly to enable opportunities while mitigating challenges that arise over time. Agencies in Metro Vancouver have historically collaborated to introduce new technology in a collaborative way. Many of these new modes are operated by private companies and co-operatives and require profitable conditions for expansion.

Transport 2050 identifies making it convenient for all households to make the occasional car trip without needing to own a car as a strategy to support regional goals. The document includes actions focusing on using pricing, regulations, and public investment to prioritize a rapid and near-term transition to zero-emissions carshare vehicles, taxis, and ride-hail vehicles that are universally accessible. ***Transport 2050*** also plans to seamlessly connect different transport services, including taxi, carshare, or bikeshare. The actions in this section focus on enabling the City to react to both the opportunities and challenges of new ways of travelling as they evolve.

What are some new ways of travelling?

- **Micromobility** is a category of small one-person electric vehicles, such as e-bikes, e-scooters, or other devices. These extend the comfort and ease of travelling over longer distances and / or carrying heavier loads. Micromobility can be privately owned, or owned and operated as part of shared transportation systems. It can be used for personal travel or play a role in goods movement via cargo e-bikes.
- **Shared transportation systems** enable users to rent a car, bike, or micro-mobility vehicle on a short-term basis. They can be point-to-point (users can pick up the vehicle or device in one location and return in another) or return-to-base (users must pick up or drop off from the same locations).
- **Ride-hailing** systems connect passengers to drivers for hire using smart phone apps.
- **Connected and autonomous vehicles** are a range of self-driving or partially automated vehicles that are connected to infrastructure and each other. They are not yet widely available, but are expected to change the future of transportation over the next five to fifteen years.

Action 7.2.1 Collaborate at a regional level to regulate and manage micromobility devices and shared micromobility.

Maple Ridge's transportation system is integrated with the larger Metro Vancouver transportation system, as well as within provincial laws, regulations, and infrastructure. Several municipalities have active shared micromobility services (public and private) and some are participating in the provincial electric kick scooter pilot project. As the region learns from these initial applications, regional approaches will emerge for the regulation and management of micromobility devices. As part of this action, the City will collaborate with TransLink and municipalities across the region to regulate and manage micromobility devices ensuring a consistent approach for the region and province..

Action 7.2.2 Encourage car share organizations to extending service to Maple Ridge, particularly within the Lougheed Transit Corridor and Town Centre areas.

Car share companies and cooperatives provide a valuable service to residents and may allow some households to own fewer vehicles. These companies typically locate in areas where their vehicles will be well used, including in denser, mixed-use areas. *Transport 2050* calls for priority parking and charging for carshare vehicles. As part of this action, the City will explore opportunities to encourage car share organizations to consider extending services to Maple Ridge.

Action 7.2.3 Ensure new developments provide for the secure storage and charging of electric bicycle, cargo bicycles, and scooters and improve storage amenities at City-owned destinations.

As new types of micromobility devices emerge, they will require different storage amenities. This is particularly important for cargo bicycles, which can replace a car for some families, but require different storage amenities, particularly in multi-family buildings and commercial and institutional destinations. As part of this action, the City will:

- Ensure the update of Bylaw 4350-1990 provides for short- and long-term secure storage of emerging modes, including cargo bicycles, electric bicycles, and scooters.
- Seek opportunities to provide secure electric bicycle, cargo bicycle, and scooter parking for visitors and employees to municipal buildings, with particular focus on buildings that are often visited by families and seniors.

Action 7.2.4 Subsequent updates to the STP will provide regular updates on advancement in transportation technologies to ensure the City is prepared to accommodate future travel needs of the community

As noted previously, transportation technology is quickly evolving with new opportunities and challenges. The City will ensure that subsequent updates to the STP will address advancements in transportation technology.

Strategy 7.3: Coordinate for automation to ensure that the regional introduction of Autonomous Vehicles is smooth and creates a positive impact on the transportation network.

Connected and autonomous vehicles include a range of self-driving or partially automated vehicles that are connected to infrastructure and each other. As illustrated in Figure 4-13, levels of automation range from '0' (i.e., no automation: a human performs all driving tasks) to '5' (i.e., full automation: vehicle can drive itself without supervision and in any condition). Level 1 automation (i.e., driver assistance functions) have been available for many years and include features like cruise control. Level 2 and 3 automation (i.e., vehicles that include advanced driver assistance systems) are now available. Level 4 and 5 automation are not yet available.

Research completed for ***Transport 2050*** suggests that Level 4 automation is likely to be available by

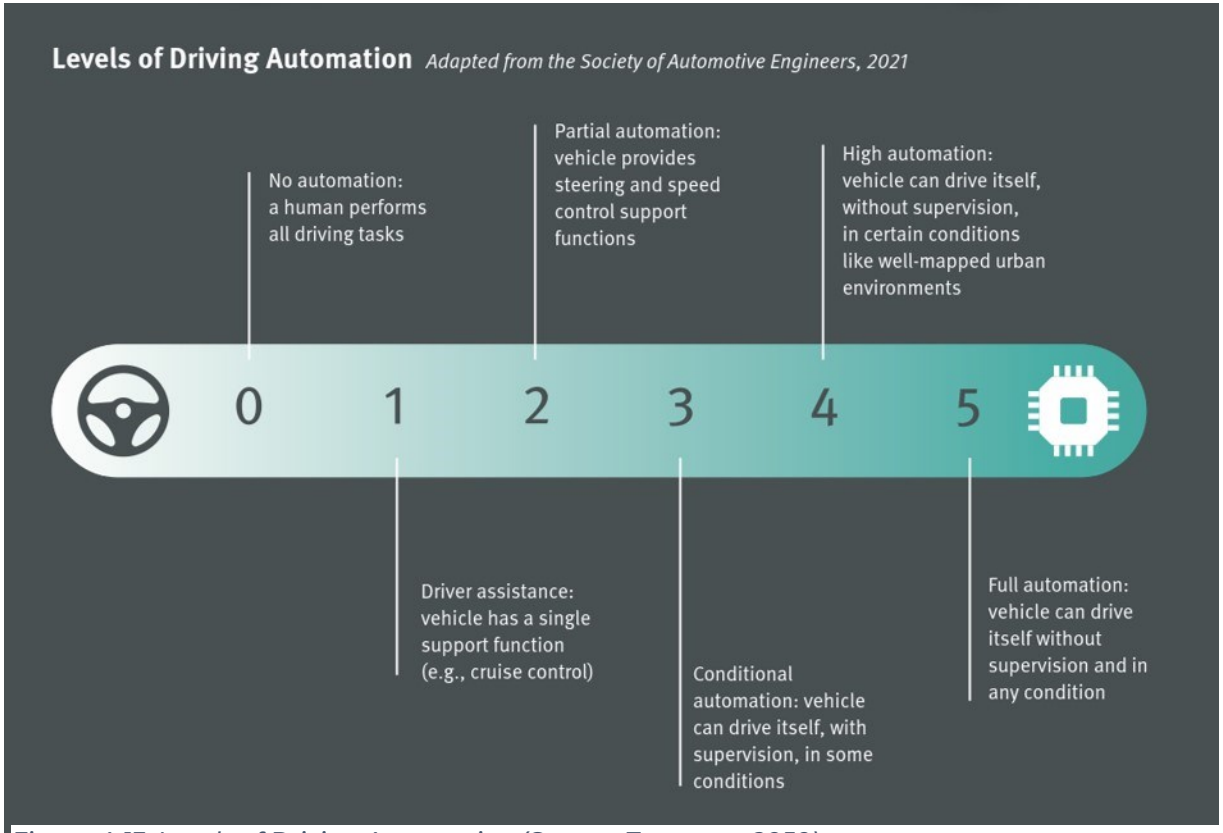


Figure 4-13: Levels of Driving Automation (Source: Transport 2050)

2030 and widespread by 2050. This will bring challenges as the region adapts to a mixed fleet of privately owned vehicles with different degrees of automation. A regional approach to regulating and responding to automation will create consistency across different road jurisdictions (i.e. municipal, regional, and provincial roadways) and across municipal boundaries, improving compliance and allowing for shared approaches to technology and other tools.

Managing the opportunities and challenges of automation will require regional collaboration, as outlined in the actions below.

Action 7.3.1 Collaborate at a regional level to study the impacts of Autonomous Vehicles.

The City will work with regional partners to proactively regulate and respond to the arrival of Autonomous Vehicles. Regional efforts are expected to include continued study and research, allowing for an ongoing evolution of the regional response. This regional approach is expected to include consistent bylaws and municipal policies around use of autonomous vehicles, pricing, curbside regulations, technology, and other levers to work towards a positive impact that aligns with the goals outlined in ***Transport 2050*** and future plans.

Strategy 7.4: Participate in Regional dialogue exploring Mobility Pricing.

Mobility pricing is a name for a coordinated and strategic approach to pricing transportation. Currently, transportation system users typically pay for services and infrastructure through a combination of means, including auto insurance, transit fares, fuel tax, parking fees, and user fees for taxis, car sharing, and ride sharing. The fees collected by government agencies, along with other sources of revenue (e.g. income tax, property tax) help fund the maintenance and improvement of transportation infrastructure. Network expansion is often funded through a combination of development cost charges[21] and general revenue at all levels of government.

In the Metro Vancouver region, mobility pricing was studied by the Mobility Pricing Independent Commission, which produced the ***Metro Vancouver Mobility Pricing Study*** (2018). The Commission found that a comprehensive mobility pricing policy that includes a decongestion charge could support Metro Vancouver's growth. A decongestion charge could take the form of regional congestion point charges or multi-zone distance-based charges, either of which could be designed to reduce congestion and raise capital to invest in transportation infrastructure. The Commission recognized that any system would need to follow the guiding

[21] Development cost charges are fees that municipalities collect from new developments at the time of development approval to assist in paying the cost of upgrading or providing infrastructure to support the new development.

principles of reducing congestion, achieving fairness, supporting investment, providing positive economic benefits, protecting privacy, ensuring stability, supporting regional growth targets, and continued public dialogue.

Action 7.4.1 Participate in Regional dialogue exploring Mobility Pricing.

The ***Metro Vancouver Mobility Pricing Study*** sets the framework for moving forward on mobility pricing as a region. The Commission recognized that further study – including ongoing public dialogue – is required before decongestion charging could be brought forward as part of a broader Mobility Pricing approach. The City of Maple Ridge recognizes the benefits of Mobility Pricing – including reducing congestion and increasing funds availability for new transportation infrastructure – and the challenges – including the risk that decongestion charging will contribute to the overall unaffordability of living in Metro Vancouver and the need for a fair and equitable approach.

To engage in Mobility Pricing requires regional implementation with a consistent and equitable approach. As part of this action, the City will continue to participate in dialogue with regional partners to explore Mobility Pricing.

5.0 IMPLEMENTATION PLAN

The strategies and actions included in the STP will be carried out by the City over the next 30 years and beyond. To implement the actions as described, the City will need to increase funding for sustainable travel modes and new connections and also secure new and additional sources of funding through local, provincial, and federal partnerships. As noted throughout the STP, the City will also partner with the private sector, leveraging development to achieve shared objectives for a safe, connected, reliable, and effective transportation system.

The implementation plan provides the framework for advancing the actions, including a phasing strategy for advancing specific transportation improvements. The phasing strategy identifies recommended improvements over the short-term (0 – 10 years), medium term (10 – 20 years), and long term (beyond 20 years). A summary of the implementation plan listing all the actions and activities recommended in the STP is provided in **Appendix C**.

Progress on delivery of the actions outlined in the STP will be done annually as part of the City's Business Planning processes. Changes in key metrics, including mode share and vehicle kilometres travelled per capita are monitored through TransLink's regional Trip Diary survey, which typically takes place every five years.[22] The City will also be taking a comprehensive approach to monitoring as part of the Climate Action Plan.

Integrating an Equity Lens into Planning and Implementation

Equity means striving for a just, free, and fair society where all people have access to opportunities and resources to live a healthy and meaningful life. Addressing structural inequities and ensuring communities are healthy, vibrant, diverse, and inclusive requires prioritizing groups who are underserved and face barriers to participating equally in society – including their access to safe, convenient, and affordable transportation. Applying an intersectional and inclusive equity lens means striving to recognize and mitigate these factors through planning.

An equity lens was applied throughout the STP and in the implementation plan, where neighbourhood demographics that consider the presence of seniors, youth, and low-income households was used to prioritize pedestrian, cycling, and transit infrastructure needs . Focusing improvements in areas that serve seniors, youth, and low-income populations can make the City's investments more effective.

[22] https://www.translink.ca/plans-and-projects/data-and-information/research-and-insights/trip-diary-survey

5.1 OVERALL PLAN COSTS

To provide a sense of the potential overall future levels of transportation investment for the City in current (2023) dollars, conceptual order-of-magnitude cost estimates were developed for each of the capital investments identified in the STP. These costs are summarized in Table 5-1.

These estimates serve for comparative purposes and are based on high-level concepts; additional refinement and design is required to establish project budgets. Actual implementation costs for each initiative could vary as costs change over time. Beyond the costs of the specific facilities identified throughout the plan, a number of actions are associated with ongoing spending programs that will result in capital investments in specific types of infrastructure, with the City prioritizing investment locations and details based on information that is available to staff on an annual basis. These investment programs have been assigned an annual allocation on an ongoing or periodic basis.

Some costs are expected to be eligible for contributions from other agencies or the private sector. Estimating the amount and timing of these contributions is not feasible as part of a high-level city-wide strategy.

The level of investment required to implement the improvements recommended in the STP that are within municipal jurisdiction is approximately $685million (2023 CAD).

Table 5-1: Ultimate Implementation Order-of-Magnitude Costs (2023 CAD)[23]

CATEGORY OF IMPROVEMENT	LEVEL OF INVESTMENT
Key Corridors	$394M
Walking Facilities	$95M
Pedestrian Network Improvements	$82M
Regional Greenway Wayfinding Program	$0.2 M
WCE Accessibility Program	$0.5 M
Town Centre & Lougheed Transit Area Accessibility Program	$0.7M
Pedestrian Crossing Program	$9M
Cycling Facilities	$150M
Cycling Network Improvements	$149M
Cycling Wayfinding Program	$0.1M
Bicycle Parking Program	$0.2M
Bicycle Amenities Program	$0.3M
Transit Facilities	$26M
Transit Priority Program	$4M
Bus Stop Amenity Program	$2.4M
WCE Exchange Amenity Allocation	$20M
Street Network	$21M
Roadway Completion	$8M
Intersection Improvements	$2M
Intersection Safety Program	$3M
Traffic Control Warrant Assessment & Investment Program	$6M
Traffic Signal Operations Program	$.1M
Traffic Calming Policy Program	$2M
New Mobility	$.0.2M
Electric Charging Expansion Program	$.0.2M
TOTAL	**$685M**

[23] Cost estimates are based on concept level information using unit rates for linear works and an allocation for intersection improvements. Cost estimates include 15% engineering and communications as well as 50% contingency. Costs do not include property, utility relocations, retaining structures, and other significant impacts. These estimates should not be used for budgeting purposes.

5.2 PRINCIPLES

This implementation plan identifies the capital improvements that have been prioritized for implementation within the next ten years. The priorities were identified based on the guiding principles included throughout the STP and summarized below:

- Prioritize investments in walking and cycling infrastructure in the areas with the highest potential for use, including around schools and community centres, near transit stations and stops, and in areas with land uses that are higher density and mixed use.
- Investments should, whenever possible, complete existing connections to create a complete and continuous network.
- Lower cost improvements should be prioritized where they can be leveraged to serve more of the community or create a more connected network.
- Prioritize connections that support climate resilience and emergency response.
- Priority street and intersection improvements that target the areas where there is existing queuing or where the potential for safety improvements have been identified.

It is recognized that some proposed improvements are located in areas that are likely to redevelop in the short- to medium- term. In some of these locations, there is not sufficient existing ROW to achieve the desired facility types. Improvements in these locations were assigned to the medium-term horizon to align with the expected re-development.

5.3 PHASING STRATEGY

The transportation improvements identified throughout the STP have been prioritized based on the principles outlined above. Priority projects within each theme were identified for implementation over the short-term (0 – 10 years), medium-term (10 – 20 years), and long-term (beyond 20 years). The short-term and medium-term phases are described in more detail in the following sections.

5.3.1 SHORT-TERM IMPLEMENTATION PHASE

The level of investment required to deliver the improvements identified within the short-term implementation phase is approximately $330 million over ten years. The proposed short-term improvements are illustrated in **Figure 5-1**.

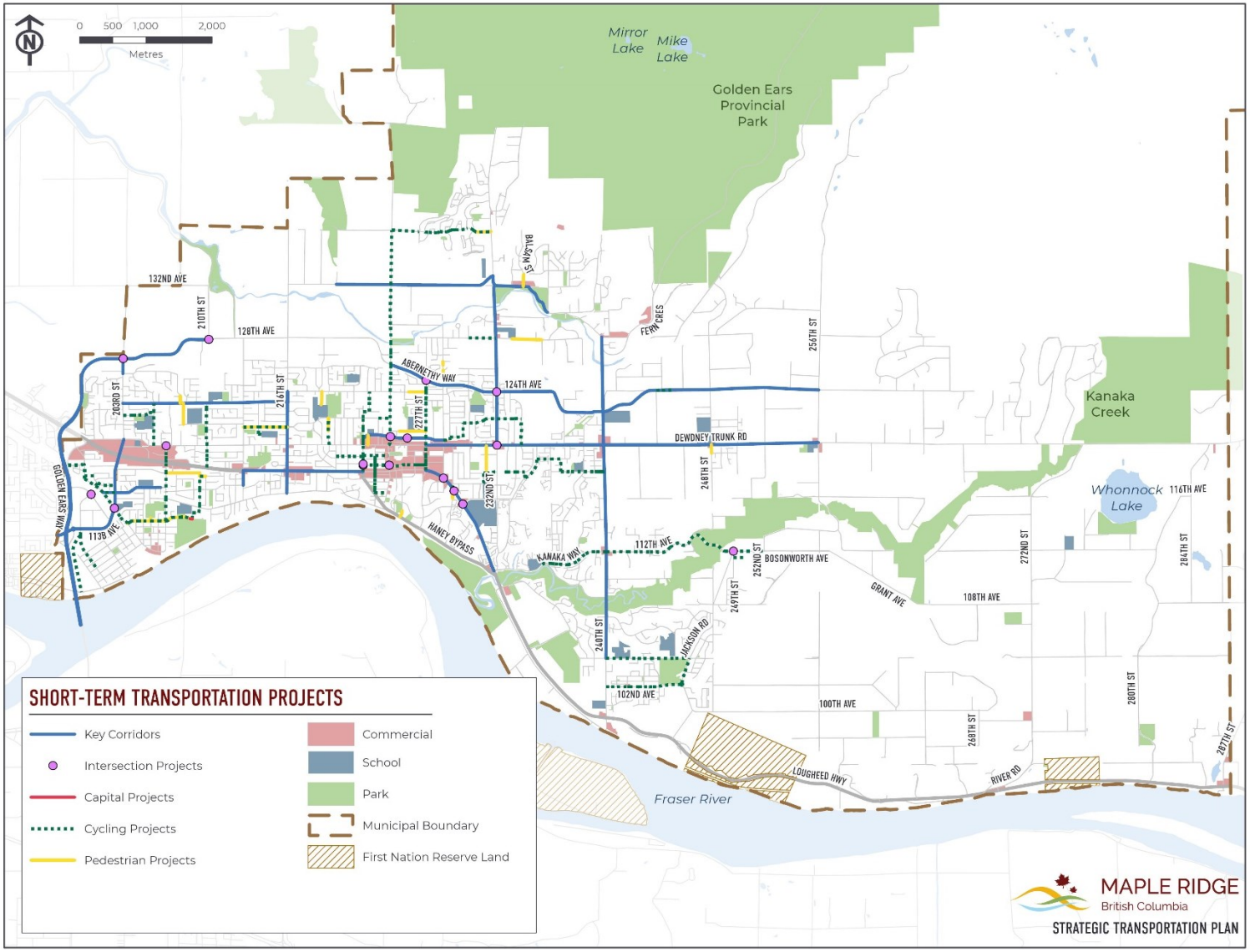


Figure 5-1: Short-Term Improvements

Table 5-2: Short-term Horizon Implementation Order-of-Magnitude Costs (2023 CAD)[24]

CATEGORY OF IMPROVEMENT	LEVEL OF INVESTMENT
Key Corridors	$230M
Walking Facilities	$24M
Pedestrian Network Improvements	$21M
Regional Greenway Wayfinding Program	$0.06M
WCE Accessibility Program	$0.3M
Town Centre & Lougheed Transit Area Accessibility Program	$0.3M
Pedestrian Crossing Program	$3M
Cycling Facilities	$71M
Cycling Network Improvements	$71M
Cycling Wayfinding Program	$0.03M
Bicycle Parking Program	$0.05M
Bicycle Amenities Program	$0.1M
Transit Facilities	$1.4M
Transit Priority Program	$1M
Bus Stop Amenity Program	$0.4M
WCE Exchange Amenity Allocation	-
Street Network	$3.5M
Roadway Completion	$0.5M
Intersection Improvements	$1.1M
Intersection Safety Program	$0.5M
Traffic Control Warrant Assessment & Investment Program	$1M
Traffic Signal Operations Program	$0.2M
Traffic Calming Policy Program	$0.3M
New Mobility	$0.04M
Electric Charging Expansion Program	$.04M
TOTAL	**$330M**

[24] Cost estimates are based on concept level information using unit rates for linear works and an allocation for intersection improvements. Cost estimates include 15% engineering and communications as well as 50% contingency. Costs do not include property, utility relocations, retaining structures, and other significant impacts. These estimates should not be used for budgeting purposes.

5.3.2 MEDIUM-TERM IMPLEMENTATION PHASE

The level of investment required to deliver the improvements identified within the medium-term implementation phase is approximately $194 million over ten years. The proposed short-term improvements are illustrated in **Figure 5-2**.

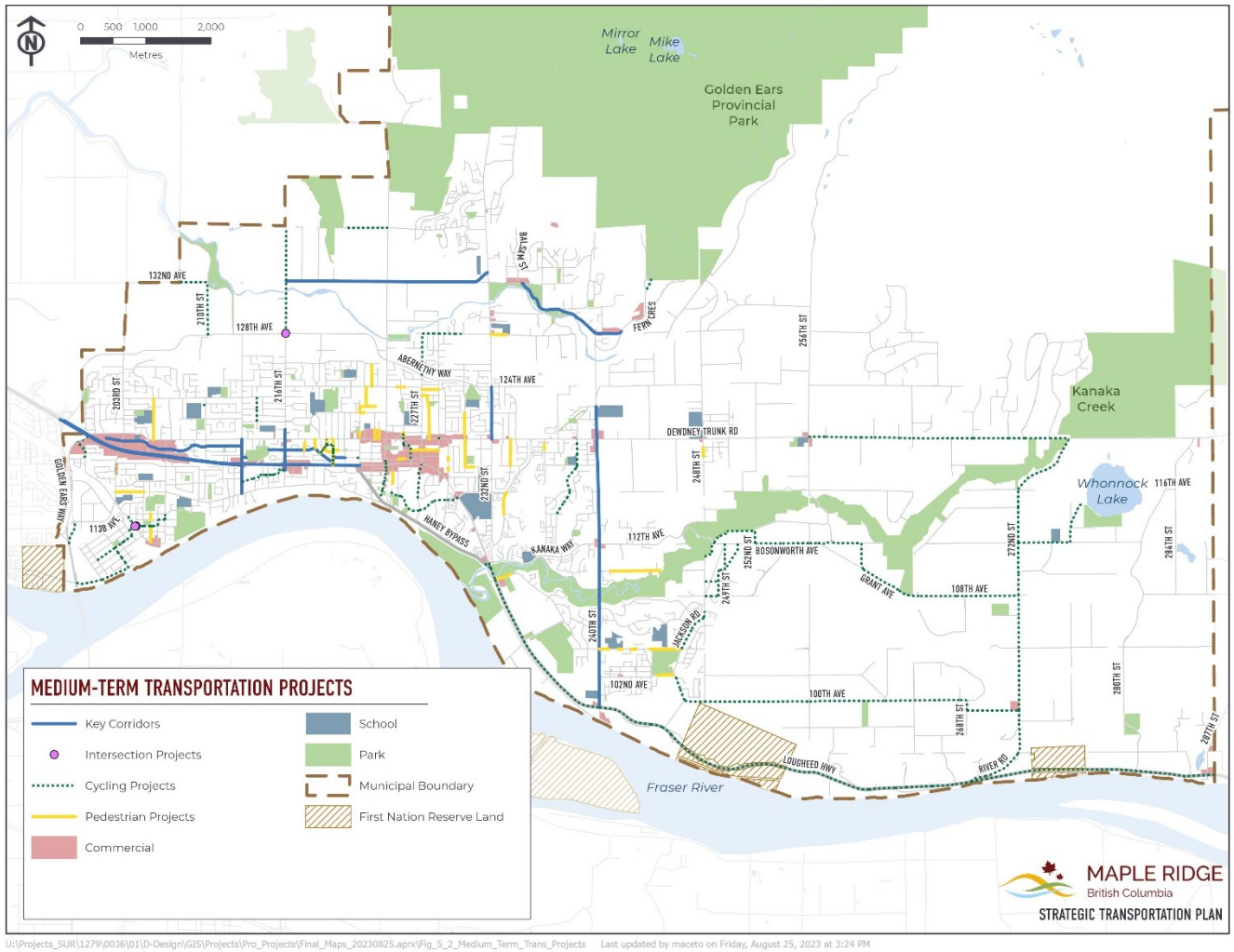


Figure 5-2: Medium-Term Improvements

Table 5-3: Medium-term Horizon Implementation Order-of-Magnitude Costs (2023 CAD)[25]

CATEGORY OF IMPROVEMENT	LEVEL OF INVESTMENT
Key Corridors	$75M
Walking Facilities	$35M
Pedestrian Network Improvements	$31M
Regional Greenway Wayfinding Program	$0.1 M
WCE Accessibility Program	$0.3 M
Town Centre & Lougheed Transit Area Accessibility Program	$0.3M
Pedestrian Crossing Program	$1.5M
Cycling Facilities	$72M
Cycling Network Improvements	72M
Cycling Wayfinding Program	$0.03M
Bicycle Parking Program	$0.05M
Bicycle Amenities Program	$0.1M
Transit Facilities	$11M
Transit Priority Program	$1M
Bus Stop Amenity Program	$0.4M
WCE Exchange Amenity Allocation	$10M
Street Network	$2M
Roadway Completion	-
Intersection Improvements	$0.1M
Intersection Safety Program	$0.5M
Traffic Control Warrant Assessment & Investment Program	$1M
Traffic Signal Operations Program	$0.2M
Traffic Calming Policy Program	$0.3M
New Mobility	$0.04M
Electric Charging Expansion Program	$0.04M
TOTAL	**$194M**

[25] Cost estimates are based on concept level information using unit rates for linear works and an allocation intersection improvements. Cost estimates include 15% engineering and communications as well as 50% contingency. Costs do not include property, utility relocations, retaining structures, and other significant impacts. These estimates should not be used for budgeting purposes.

5.4 FUNDING STRATEGIES

While the STP is estimated to cost approximately $685 million over the next 30 years and beyond, these costs can be shared by pursuing external funding from other levels of governments, partnerships with other organizations and the development industry, and integration of improvements with other plans and projects. This section describes several strategies that the City may consider to help leverage its investments and to maximize its ability to implement transportation improvements. The City should pursue all available sources of funding for transportation facilities and programs, including the programs identified below. As funding opportunities change regularly, the information in this section is subject to change. The City should regularly check with all levels of government to keep up to date on current funding opportunities.

- **Capital Planning:** The City should incorporate the recommendations from the STP into its short-, medium-, and long-term budgeting plans to ensure that the projects are accounted for in the City's capital planning process. To accommodate this, the City may seek changes to its capital budget to fund the implementation of this Plan over the medium- and long-term. The City should also seek to integrate transportation improvements with other capital projects, such as utility projects.
- **Localized Improvements by the Private Sector:** An important component of the implementation of the STP will be the City's ability to leverage transportation investments during planning of new development projects. Many of the actions in the STP identify practices and approaches to align development contributions and the built environment in developing areas with the goals of the STP.
- **Development Cost Charges:** The City has a DCC bylaw that should be updated to include projects identified in the STP. Where projects are already included, cost estimates should be updated. It should be emphasized that DCC eligible projects should not only include street network projects but can also include active transportation and transit projects that benefit new growth in the community.
- **Provincial Programs and Initiatives:** The Provincial Government administers a smaller scale Active Transportation Infrastructure Grant program, which promotes new, safe, and high-quality active transportation infrastructure through cost-sharing with local governments. The grant program may provide funding for infrastructure to implement active transportation network plans adopted by the local government. To ensure maximum success at obtaining grant funding, the City needs to have conceptual designs ready to avail future application opportunities.
- **Federal Funding:** There are federal programs that provide funding for environmental and local transportation infrastructure projects in municipalities across Canada. If deemed eligible, the federal government may contribute one third to a half of the infrastructure project cost. Provincial government may also contribute toward regionally significant projects. The Federal Government recently announced the National Active Transportation Fund (ATF), which will provide $400 million

over five years to help build new and expanded active transportation facilities across the country. The federal Disaster Mitigation and Adaptation Fund supports infrastructure projects strengthen the resilience of Canadian communities by mitigating current and future climate-related risks. This program is applicable to projects with a minimum in $1 million in total eligible costs.

- **TransLink:** TransLink administers several municipal funding programs including Bicycle Infrastructure Capital Cost Sharing Program (BICCS), Walking Infrastructure to Transit (WITT), Bus Speed and Reliability (BSR), and Major Road Network & Bike Cost Share (MRNB) programs on an annual basis. The City should continue to work with TransLink to identify and fund eligible initiatives under these programs.
- **Green Municipal Funds:** The Federation of Canadian Municipalities manages the Green Municipal Fund, with a total allocation of $550 million. This fund is intended to support local 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. There are several funding streams that capital transportation projects would be eligible for cost share funding. More information about the funding streams available can be found at https://greenmunicipalfund.ca/funding.
- **Carbon Tax Rebate:** Each municipality that has signed the Climate Action Charter receives an annual rebased based on completion of the CARIP form. The City could choose to direct this funding towards sustainable transportation projects, such as funding bicycle, pedestrian, and transit infrastructure.
- **ICBC:** ICBC currently partners with the City to fund road safety improvements, including pedestrian and bicycle infrastructure, where there is potential to reduce crashes and reduce insurance claims costs. In addition to ICBC's Road Improvement Program, ICBC has a Speed Watch Program (through the Community Policing Centres), Speed and Intersection Safety Program, Counter Attack, Operation Red Nose, and Road Sense Speaker Program for Schools.
- **Local Area Service Program**: The City has a Local Service Program that provides the ability for some road improvements to be constructed or accelerated. This legislated cost sharing process provides a means to implement localized infrastructure improvements such as sidewalks, curb and gutter, traffic calming, lane paving, and street lighting. Property owners directly benefitting from the work pay the full or partial cost of the project. A petition process is initiated by the property owners or the City to introduce or to avert a project, respectively.
- **Private Sector**: Private sector corporations may wish to be good corporate neighbours— to be active in the community and to promote environmentally-beneficial causes. Bicycle and pedestrian routes and facilities may attract corporate sponsorship. Examples in BC include Construction Aggregates in Sechelt, which constructed an overpass over a gravel

conveyor to provide a link for pedestrians and cyclists, and 7-Eleven and Molson Breweries, which have sponsored multiuse pathways in Metro Vancouver.

- **Other Potential Revenue Streams**: Other revenue streams sometimes leveraged by municipal governments for transportation investments include parking revenues; advertising revenues from bus stop shelters and benches; Highway Use Permit duration-based charges; and civic facility sponsorship.

APPENDIX A

STUDY PROCESS

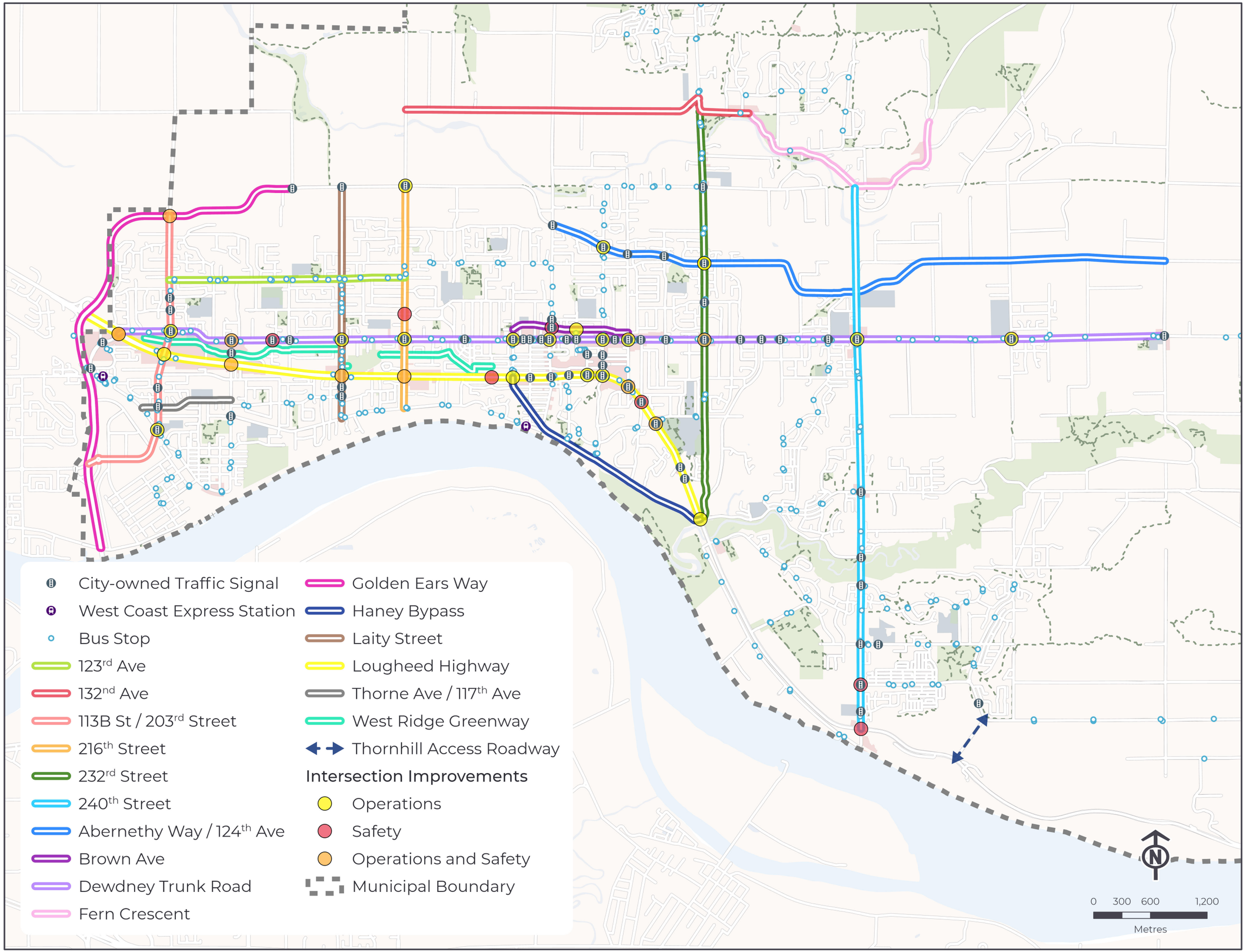
STUDY PROCESS

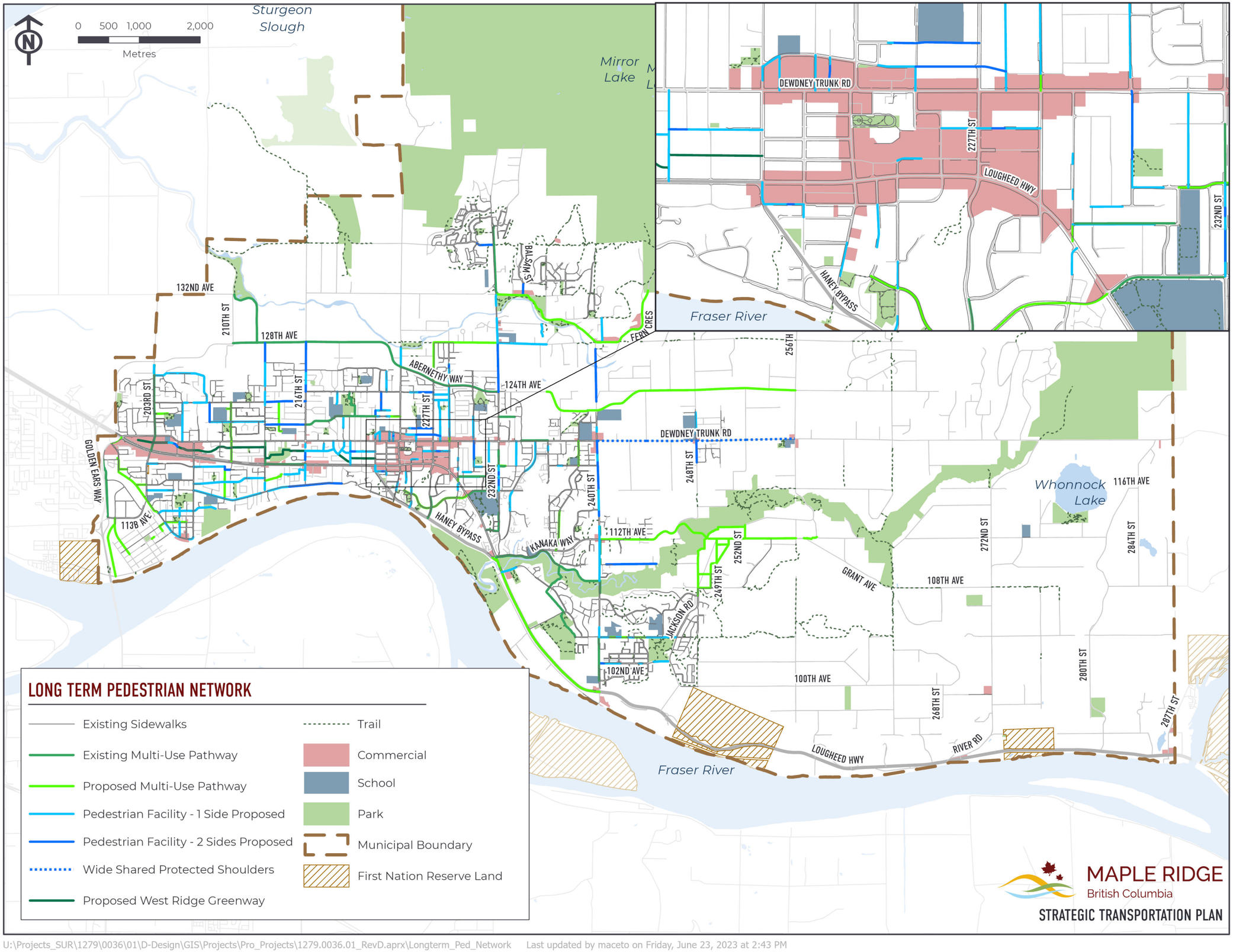
The Plan was developed based on national best practices as well as local expertise and public input. This approach results in a plan that responds to how we get around today and how we want to get around in the future. The STP is the result of technical work completed throughout all phases of the study and is informed by both rounds of public and stakeholder engagement. It focuses on identifying the specific strategies and actions – including projects, policies, studies, and partnerships – that will move the City towards its Vision and Goals for transportation. It responds to the results of the work in Phases 1 through 3, which identified existing and future issues and set future directions through both technical planning and engineering work and public and stakeholder engagement.

- **PHASE 1:** Project Launch & Administration – this phase includes preliminary project start up tasks and coordination between the project team and City Staff.
- **PHASE 2:** Existing & Future Conditions – this phase focuses on technical analysis of existing and projected future conditions and the first round of public and stakeholder consultation. STP Report #1 summarizes the results of this phase.
- **PHASE 3:** Vision, Goals, and Plan Development – this phase includes the development of an overarching Vision and Goals to guide the STP and identification of high-level plans for multi-modal networks.
- **PHASE 4:** Strategy Development & Refinement – this phase results in the identification and assessment of strategies, as well as development, refinement, and assessment of potential infrastructure projects.
- **PHASE 5:** Implementation & Final Plan – this phase completes the study with costing, and development of the final STP. This report summarizes the results of all five phases of the study.

APPENDIX B

MAPS


City-owned Traffic Signal
West Coast Express Station
Bus Stop
123rd Ave
132nd Ave
113B St / 203rd Street
216th Street
232rd Street
240th Street
Abernethy Way / 124th Ave
Brown Ave
Dewdney Trunk Road
Fern Crescent
Golden Ears Way
Haney Bypass
Laity Street
Lougheed Highway
Thorne Ave / 117th Ave
West Ridge Greenway
Thornhill Access Roadway
Intersection Improvements
Operations
Safety
Operations and Safety
Municipal Boundary
N
0 300 600 1,200
Metres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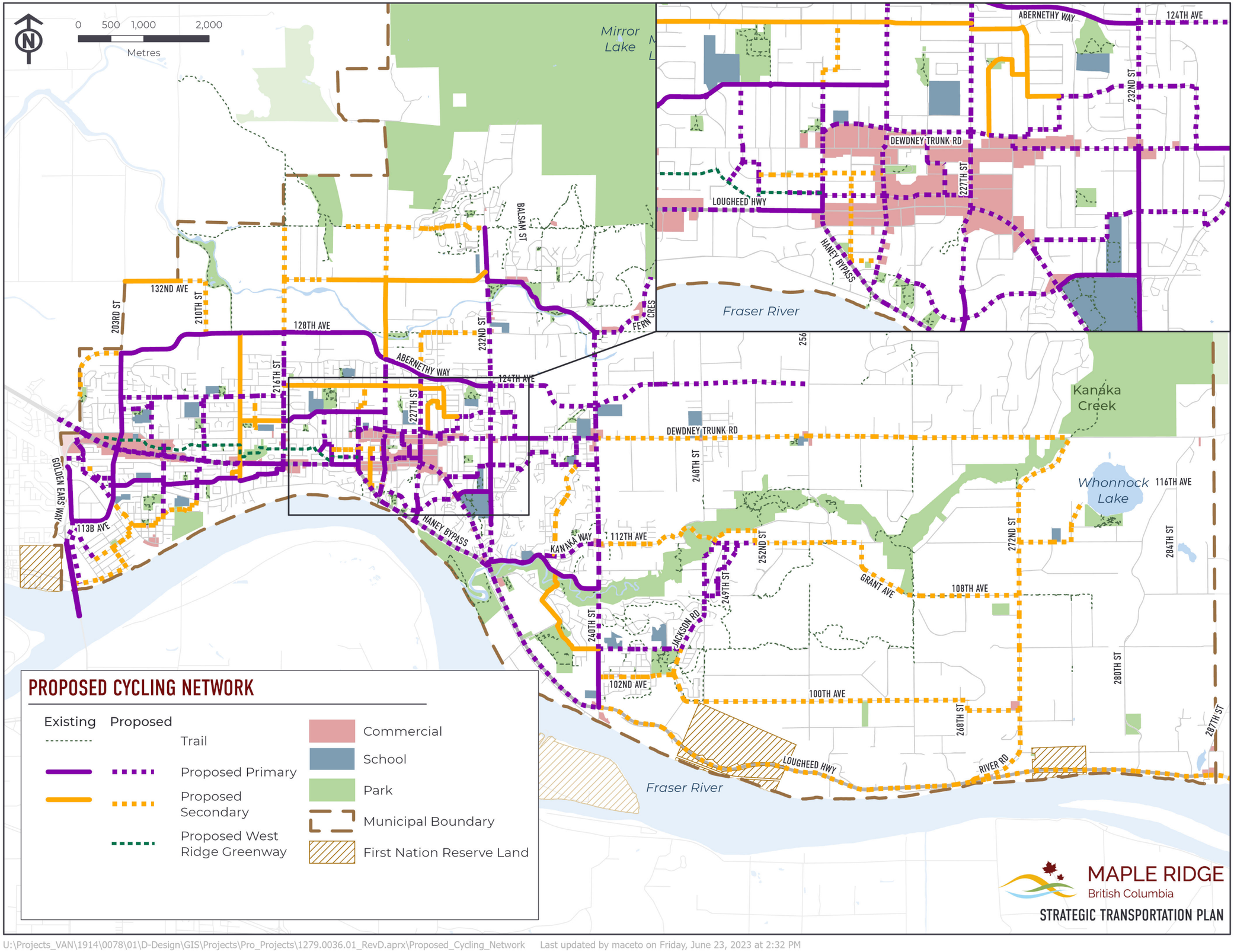
Metres
Sturgeon Slough
Mirror Lake
DEWDNEY TRUNK RD
227TH ST
LOUGHEED HWY
232ND ST
HANEY BYPASS
Fraser River
132ND AVE
210TH ST
128TH AVE
BALSAM ST
FERN CRES
ABERNETHY WAY
124TH AVE
203RD ST
216TH ST
227TH ST
232ND ST
240TH ST
256TH
248TH ST
DEWDNEY TRUNK RD
GOLDEN EARS WAY
113B AVE
HANEY BYPASS
KANAKA WAY
112TH AVE
252ND ST
247TH ST
JACKSON RD
102ND AVE
100TH AVE
GRANT AVE
108TH AVE
Whonnock Lake
116TH AVE
272ND ST
284TH ST
280TH ST
268TH ST
287TH ST
RIVER RD
LOUGHEED HWY
Fraser River
LONG TERM PEDESTRIAN NETWORK
Existing Sidewalks
Existing Multi-Use Pathway
Proposed Multi-Use Pathway
Pedestrian Facility - 1 Side Proposed
Pedestrian Facility - 2 Sides Proposed
Wide Shared Protected Shoulders
Proposed West Ridge Greenway
Trail
Commercial
School
Park
Municipal Boundary
First Nation Reserve Land
MAPLE RIDGE
British Columbia
STRATEGIC TRANSPORTATION PLAN



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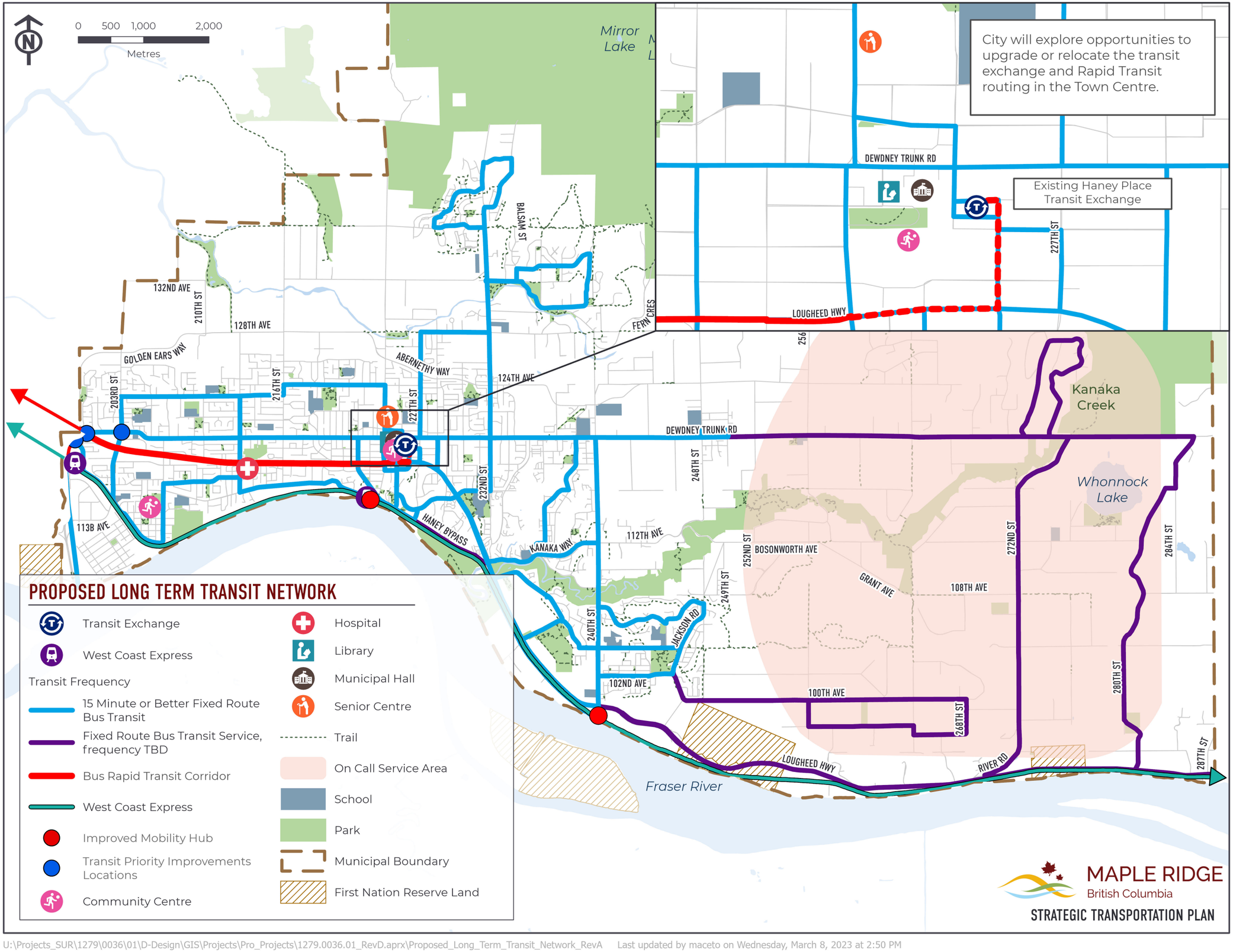

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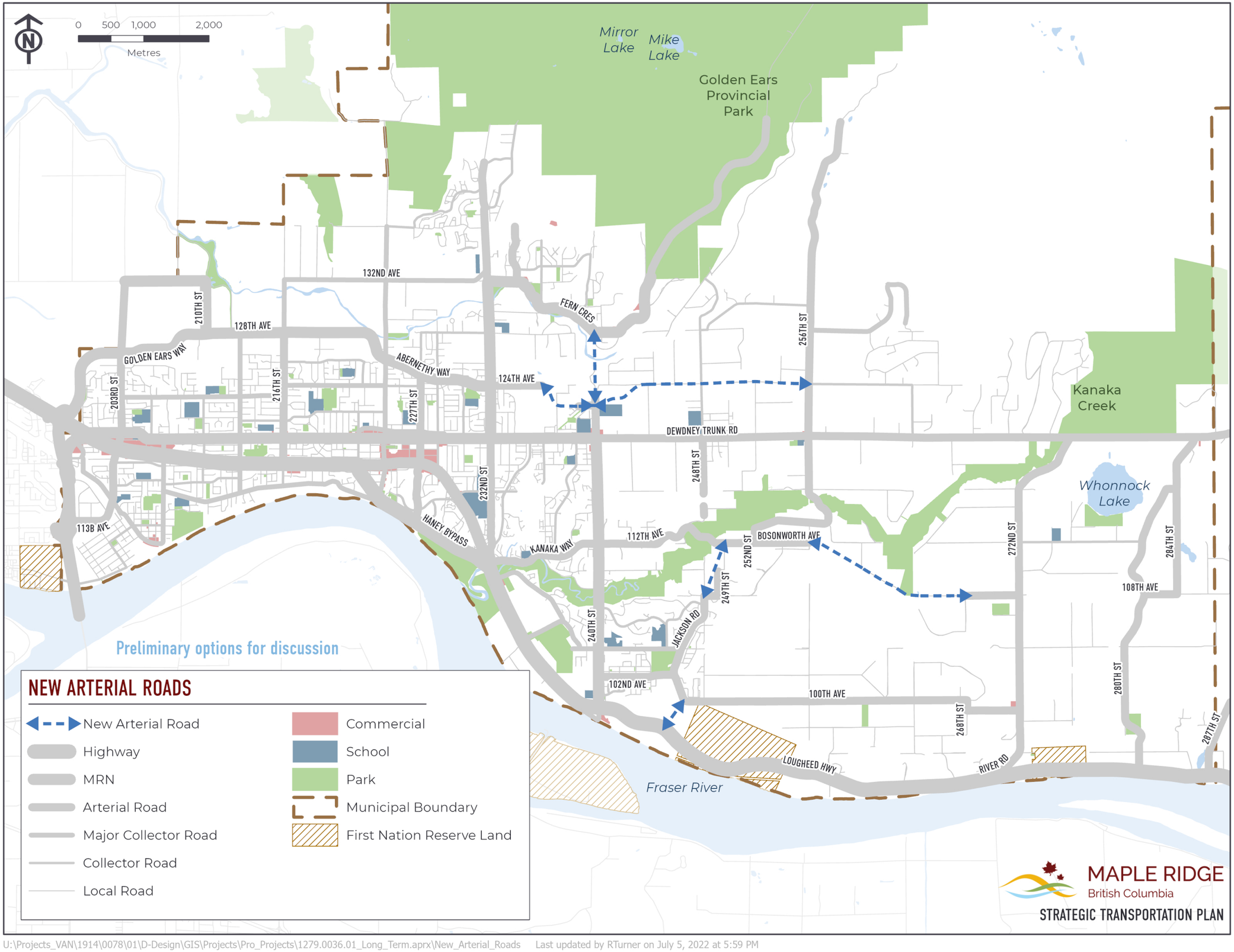

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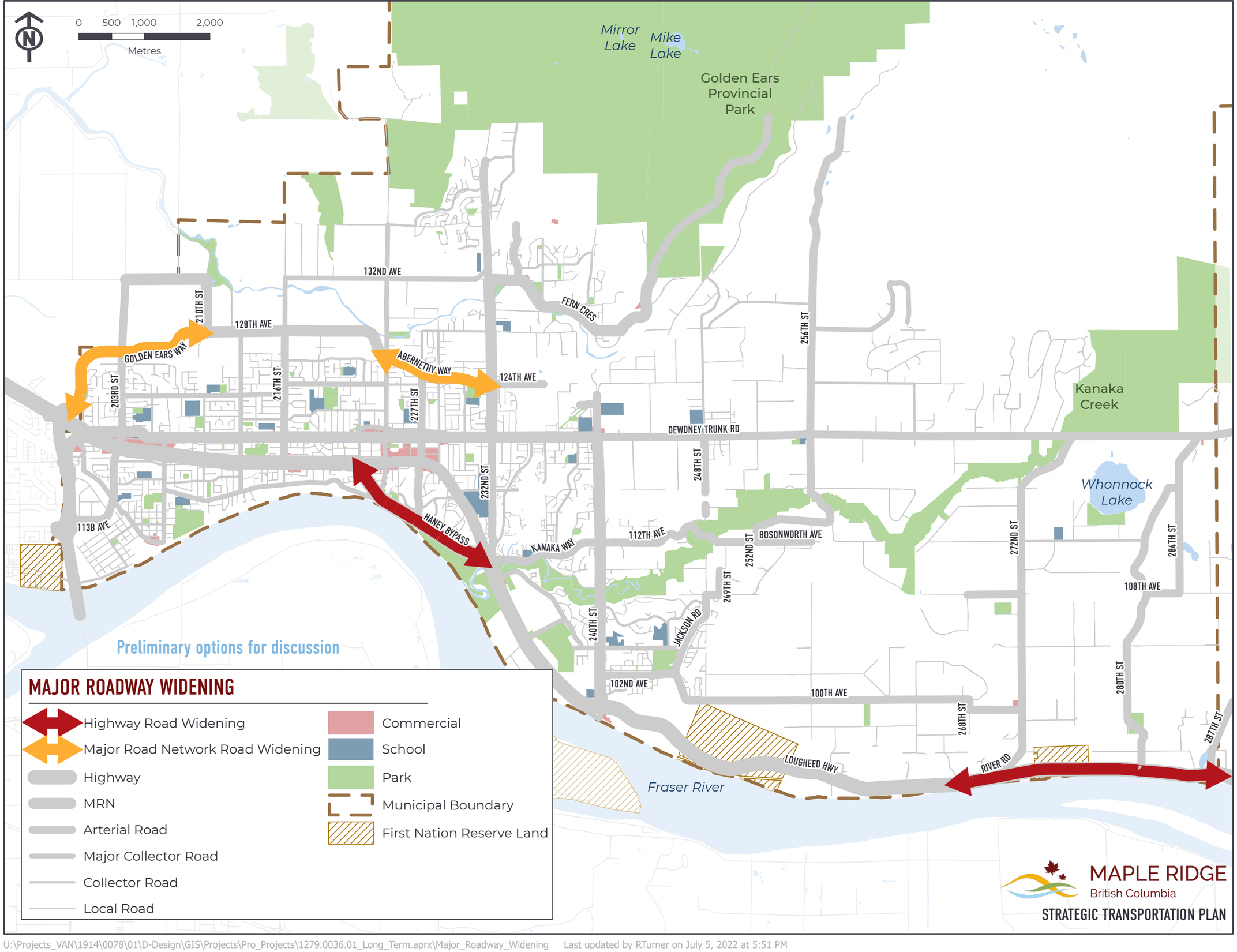

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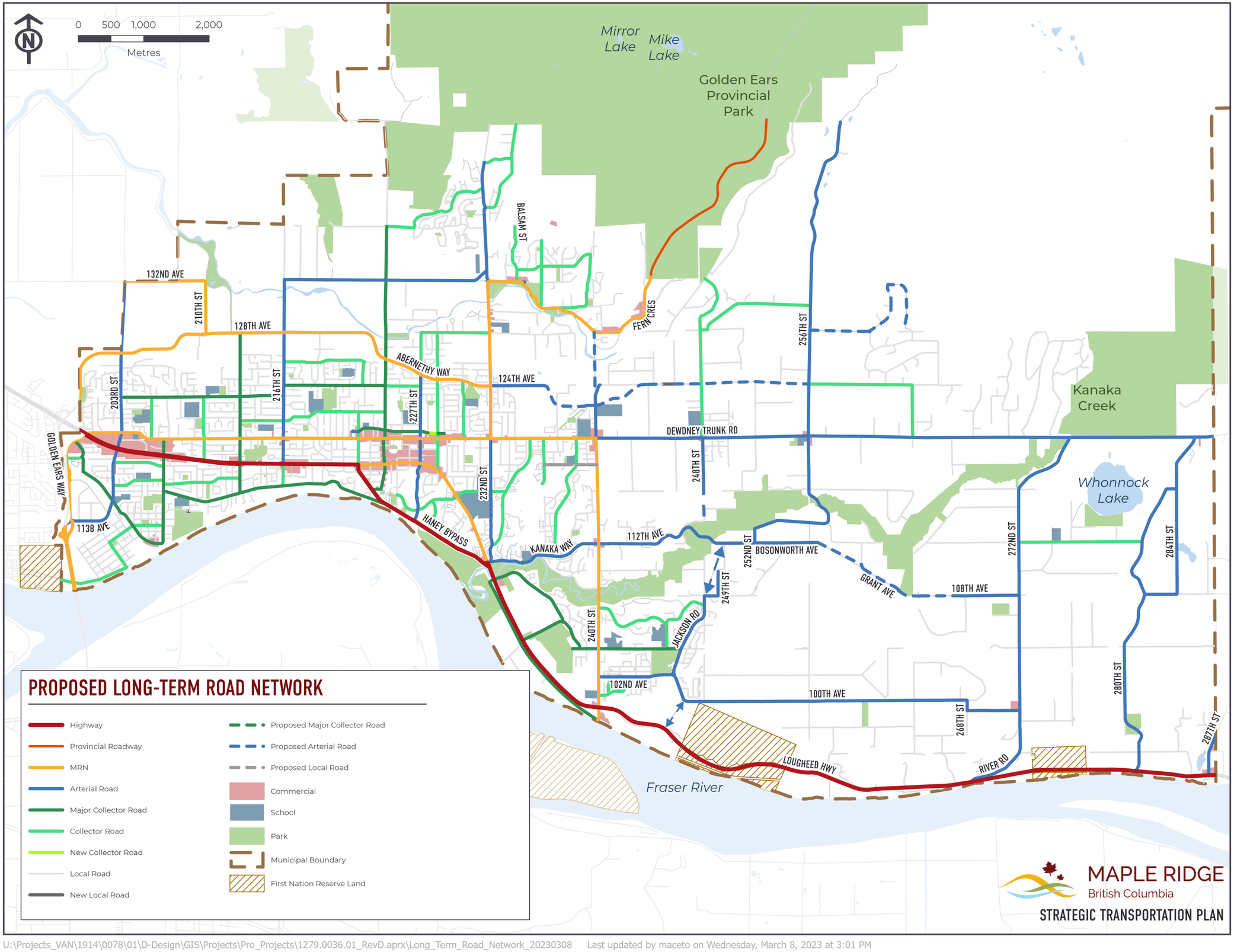
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Metres
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Mike Lake
Golden Ears Provincial Park
BALSAM ST
FERN CRES
256TH ST
132ND AVE
210TH ST
128TH AVE
ABERNETHY WAY
124TH AVE
203RD ST
216TH ST
227TH ST
232ND ST
DEWDNEY TRUNK RD
248TH ST
Kanaka Creek
Whonnock Lake
GOLDEN EARS WAY
113B AVE
HANEY BYPASS
KANAKA WAY
112TH AVE
252ND ST
BOSONWORTH AVE
249TH ST
GRANT AVE
108TH AVE
272ND ST
284TH ST
240TH ST
JACKSON RD
102ND AVE
100TH AVE
268TH ST
280TH ST
287TH ST
LOUGHEED HWY
RIVER RD
Fraser River
PROPOSED LONG-TERM ROAD NETWORK
Highway
Provincial Roadway
MRN
Arterial Road
Major Collector Road
Collector Road
New Collector Road
Local Road
New Local Road
Proposed Major Collector Road
Proposed Arterial Road
Proposed Local Road
Commercial
School
Park
Municipal Boundary
First Nation Reserve Land
MAPLE RIDGE
British Columbia
STRATEGIC TRANSPORTATION PLAN

0 500 1,000 2,000
Metres

Mirror Lake
Mike Lake
Blaney Bog Regional Reserve
Golden Ears Provincial Park
Kanaka Creek
Whonnock Lake
Fraser River

132ND AVE
128TH AVE
124TH AVE
116TH AVE
113B AVE
112TH AVE
108TH AVE
102ND AVE
100TH AVE
210TH ST
203RD ST
216TH ST
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248TH ST
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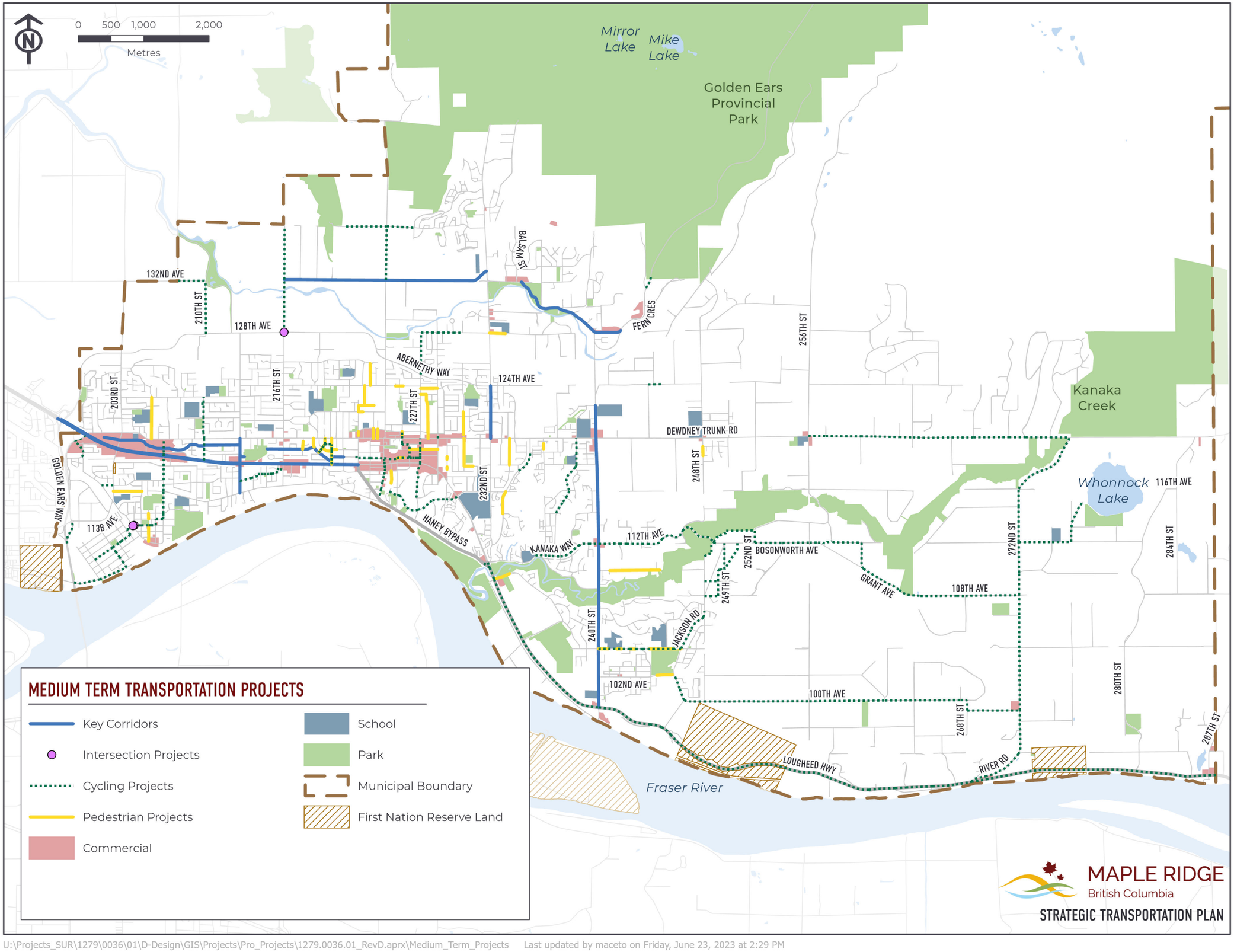
287TH ST
BALSAM ST
FERN CRES
ABERNETHY WAY
DEWDNEY TRUNK RD
BOSONWORTH AVE
GRANT AVE
KANAKA WAY
HANEY BYPASS
JACKSON RD
LOUGHEED HWY
RIVER RD
GOLDEN EARS WAY

SHORT-TERM TRANSPORTATION PROJECTS

- Key Corridors
- Intersection Projects
- Capital Projects
- Cycling Projects
- Pedestrian Projects
- Commercial
- School
- Park
- Municipal Boundary
- First Nation Reserve Land

MAPLE RIDGE
British Columbia

STRATEGIC TRANSPORTATION PLAN



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APPENDIX C

IMPLEMENTATION SUMMARY

CATEGORY OF IMPROVEMENT	ULITIMATE ($)	SHORT-TERM ($)	MEDIUM-TERM ($)	LONG-TERM ($)
Key Corridors	$ 393,724,510	$ 229,840,620	$ 74,823,970	$ 89,059,920
Walking Facilities	$ 94,591,049	$ 24,286,981	$ 33,421,599	$ 36,882,469
Pedestrian Network Improvements	$ 81,871,049	$ 20,726,981	$ 31,361,599	$ 29,782,469
Regional Greenway Wayfinding Program	$ 220,000	$ 60,000	$ 60,000	$ 100,000
WCE Accessibility Program	$ 500,000	$ 250,000	$ 250,000	$ -
Town Centre & Lougheed Transit Area Accessibility Program	$ 1,500,000	$ 250,000	$ 250,000	$ 1,000,000
Pedestrian Crossing Program	$ 10,500,000	$ 3,000,000	$ 1,500,000	$ 6,000,000
Cycling Facilities	$ 149,582,609	$ 70,908,472	$ 72,355,140	$ 6,318,997
Cycling Network Improvements	$ 148,932,609	$ 70,783,472	$ 72,230,140	$ 5,918,997
Cycling Wayfinding Program	$ 150,000	$ 25,000	$ 25,000	$ 100,000
Bicycle Parking Program	$ 200,000	$ 50,000	$ 50,000	$ 100,000
Bicycle Amenities Program	$ 300,000	$ 50,000	$ 50,000	$ 200,000
Transit Facilities	$ 26,400,000	$ 1,400,000	$ 11,400,000	$ 13,600,000
Transit Priority Program	$ 4,000,000	$ 1,000,000	$ 1,000,000	$ 2,000,000
Bus Stop Amenity Program	$ 2,400,000	$ 400,000	$ 400,000	$ 1,600,000
WCE Exchange Amenity Allocation	$ 20,000,000	$ -	$ 10,000,000	$ 10,000,000
Street Network	$ 20,831,750	$ 3,465,900	$ 2,000,000	$ 15,365,850
Roadway Completion	$ 7,901,750	$ 455,900	$ -	$ 7,445,850
Intersection Improvements	$ 1,530,000	$ 1,110,000	$ 100,000	$ 320,000
Intersection Safety Program	$ 3,000,000	$ 500,000	$ 500,000	$ 2,000,000
Traffic Control Warrant Assessment & Investment Program	$ 6,000,000	$ 1,000,000	$ 1,000,000	$ 4,000,000
Traffic Signal Operations Program	$ 900,000	$ 150,000	$ 150,000	$ 600,000
Traffic Calming Policy Program	$ 1,500,000	$ 250,000	$ 250,000	$ 1,000,000
New Mobility	$ 240,000	$ 40,000	$ 40,000	$ 160,000
Electric Charging Expansion Program	$ 240,000	$ 40,000	$ 40,000	$ 160,000
TOTAL	**$ 685,369,917**	**$ 329,941,974**	**$ 194,040,708**	**$ 161,387,235**

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - OVERALL IMPLEMENTATION SUMMARY

Theme	Strategy	Action	Action Name	Task	Task Type *(capital project, study, investment program, internal approach, other)*	Cross reference	Frequency *(one-time, periodic, ongoing annual)*	Horizon *(short, medium, long, all, n/a)*	Comments
1	1.1	1.1.1	In accordance with current City planning documents, concentrate growth and density along the Lougheed Transit Corridor and within the Town Centre to create opportunities to walk, cycle, and use transit.	Continue to work with TransLink, Metro Vancouver, and other regional partners to spur density, growing the stock of Transit-Oriented Development in this area, while also advocating for increased investment in the transit services within and to Maple Ridge.	internal approach		ongoing annual	all	
1	1.1	1.1.1	In accordance with current City planning documents, concentrate growth and density along the Lougheed Transit Corridor and within the Town Centre to create opportunities to walk, cycle, and use transit.	Follow the guidance set out in the Lougheed Transit Corridor Area Plan (under development), the Lougheed Transit Corridor Development Permit Guidelines, the Town Centre Area Plan, and Growing Together.	internal approach		ongoing annual	all	
1	1.1	1.1.1	In accordance with current City planning documents, concentrate growth and density along the Lougheed Transit Corridor and within the Town Centre to create opportunities to walk, cycle, and use transit.	Partner with developers to deliver complete communities that align with the intent of TransLink's Transit Oriented Community Design Guidelines that have a well-designed public realm, higher-density homes located near commercial uses, a diversity of land uses, and well-connected streets that reduce walking distances.	internal approach		ongoing annual	all	
1	1.1	1.1.2	Continue to investigate opportunities for infill commercial and institutional development, as well as advocating for improved internet connectivity in existing predominately single-family neighbourhoods.	Focus on improving comfort and connectivity for walking and biking to existing community destinations, including schools.	internal approach		ongoing annual	all	
1	1.1	1.1.2	Continue to investigate opportunities for infill commercial and institutional development, as well as advocating for improved internet connectivity in existing predominately single-family neighbourhoods.	Partner to add elements of a complete community, such as childcare, plazas, parklets, and community facilities.	internal approach		ongoing annual	all	
1	1.1	1.1.2	Continue to investigate opportunities for infill commercial and institutional development, as well as advocating for improved internet connectivity in existing predominately single-family neighbourhoods.	Partner with community members to consider and implement features like traffic calming and traffic diversion though the Traffic Calming Policy.	internal approach		ongoing annual	all	
1	1.1	1.1.2	Continue to investigate opportunities for infill commercial and institutional development, as well as advocating for improved internet connectivity in existing predominately single-family neighbourhoods.	Continue to promote fast and reliable internet connections in all areas of the City so that employees in industries that support remote or hybrid in person / remote work can choose to work remotely and reduce the number of peak hour vehicle trips.	internal approach		ongoing annual	all	
1	1.1	1.1.3	Update Subdivision and Development Servicing Bylaw No. 4800-1933 to ensure new and improved streets follow Complete Streets principles, all ages and ability cycling practices, and Universal Design practices for pedestrians.	Update bylaw	study		one-time	short	

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - OVERALL IMPLEMENTATION SUMMARY

Theme	Strategy	Action	Action Name	Task	Task Type *(capital project, study, investment program, internal approach, other)*	Cross reference	Frequency *(one-time, periodic, ongoing annual)*	Horizon *(short, medium, long, all, n/a)*	Comments
1	1.1	1.1.4	Partner with the development community to deliver complete, comfortable, and connected walking and cycling facilities, high-quality transit amenities, and high-quality urban design and placemaking features, particularly in higher density, mixed-use areas.	Work with developers to deliver high-quality, comfortable active transportation infrastructure in infill development. The City can require land developers and property owners to provide street improvements when properties are developed via rezoning or subdivision. Through this mechanism, the City will ensure that frontage and road design meets the City's multi-modal needs and goals.	internal approach		ongoing annual	all	
1	1.1	1.1.4	Partner with the development community to deliver complete, comfortable, and connected walking and cycling facilities, high-quality transit amenities, and high-quality urban design and placemaking features, particularly in higher density, mixed-use areas.	Develop conceptual desings for Lougheed Transit Corridor Area	study		one-time	short	
1	1.1	1.1.4	Partner with the development community to deliver complete, comfortable, and connected walking and cycling facilities, high-quality transit amenities, and high-quality urban design and placemaking features, particularly in higher density, mixed-use areas.	Develop conceptual designs for Town Centre Area	study		one-time	short	
1	1.1	1.1.4	Partner with the development community to deliver complete, comfortable, and connected walking and cycling facilities, high-quality transit amenities, and high-quality urban design and placemaking features, particularly in higher density, mixed-use areas.	Develop conceptual desings for Key Transportation Corridors	study	Theme 2	n/a	n/a	Implemented in Theme 2
1	1.1	1.1.4	Partner with the development community to deliver complete, comfortable, and connected walking and cycling facilities, high-quality transit amenities, and high-quality urban design and placemaking features, particularly in higher density, mixed-use areas.	Continue to identify areas where property acquisition or easements would support the building out or enhancement of road, pedestrian and bicycle networks.	internal approach		ongoing annual	all	
1	1.1	1.1.4	Partner with the development community to deliver complete, comfortable, and connected walking and cycling facilities, high-quality transit amenities, and high-quality urban design and placemaking features, particularly in higher density, mixed-use areas.	For infill areas and existing infrastructure, prioritize investment in higher density, mixed use areas through: - Shorter spacing between active transportation infrastructure. - Considering opportunities to decrease the distance between accessible crossings, including shorter blocks and mid-block crossings where appropriate.	internal approach		ongoing annual	all	
1	1.1	1.1.5	Ensure that City capital projects, including utility improvements and civic institutions work towards comfortable walking and cycling infrastructure	Review municipal and regional projects from a transportation perspective and seek opportunities for improvements identified in the STP	internal approach		ongoing annual	all	

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - OVERALL IMPLEMENTATION SUMMARY

Theme	Strategy	Action	Action Name	Task	Task Type *(capital project, study, investment program, internal approach, other)*	Cross reference	Frequency *(one-time, periodic, ongoing annual)*	Horizon *(short, medium, long, all, n/a)*	Comments
1	1.1	1.1.5	Ensure that City capital projects, including utility improvements and civic institutions work towards comfortable walking and cycling infrastructure	Seek opportunities to provide small improvements where larger projects are not feasible, including wider shoulders, bolt-down curbs, and painted buffers	internal approach		ongoing annual	all	
1	1.1	1.1.5	Ensure that City capital projects, including utility improvements and civic institutions work towards comfortable walking and cycling infrastructure	Integrate the guidance provided in the B.C. Active Transportation Guidelines and from the Transportation Association of Canada	internal approach		ongoing annual	all	
2	2.1		Design and deliver multi-modal transportation and public realm improvements along key corridors that will move the City towards its overall goals and objectives.	Refer to Key Corridors Implementation for details	capital projects			all	
3	3.1	3.1.1	Fill in the gaps in the pedestrian network, prioritizing pedestrian facility investments in locations with the highest potential for use.	Partner with MOTI, TransLink, property owners, and other organizations to address connectivity gaps in the sidewalk network.	internal approach		ongoing annual	all	
3	3.1	3.1.1	Fill in the gaps in the pedestrian network, prioritizing pedestrian facility investments in locations with the highest potential for use.	Implement new walking connections (e.g., city initiated walking improvements, MOTI initiated walking improvements, developer initiated walking approvements, resident initiated walking improvements) as they come up.	internal approach		ongoing annual	n/a	
3	3.1	3.1.1	Fill in the gaps in the pedestrian network, prioritizing pedestrian facility investments in locations with the highest potential for use.	See long-term pedestrian network in Figure 2-6	capital projects			all	See Pedestrian Implementation Plan
3	3.1	3.1.2	Ensure new developments provide active transportation connections that shorten walking distances and provide a safe, comfortable, and pleasant public realm.	Work with developers to ensure new communities feature high intersection density and a connected internal street network	internal approach		ongoing annual	all	
3	3.1	3.1.2	Ensure new developments provide active transportation connections that shorten walking distances and provide a safe, comfortable, and pleasant public realm.	Work with developers to identify active transportation connections, including pathways and cut-throughs that provide the most direct travel path between destinations	internal approach		ongoing annual	all	
3	3.1	3.1.2	Ensure new developments provide active transportation connections that shorten walking distances and provide a safe, comfortable, and pleasant public realm.	Ensure that street frontages delivered by development meet or exceed guidance provided by appliable neighbourhood plans, development permit guidelines, and public realm guidance	internal approach		ongoing annual	all	
3	3.1	3.1.2	Ensure new developments provide active transportation connections that shorten walking distances and provide a safe, comfortable, and pleasant public realm.	Ensure that street frontages and new cut-throughs are accessible, include adequate lighting, and follow CTPED principles	internal approach		ongoing annual	all	
3	3.1	3.1.3	Work with public agencies and other institutions (e.g. schools, hospitals, etc.) to ensure that new projects are designed and oriented to prioritize walking to community destinations and that new and existing sites provide pathway connections whenever feasible	Look for opportunities to partner to create public easements on institutional land through redevelopment or where new institutions are being constructed	internal approach		ongoing annual	all	
3	3.1	3.1.3	Work with public agencies and other institutions (e.g. schools, hospitals, etc.) to ensure that new projects are designed and oriented to prioritize walking to community destinations and that new and existing sites provide pathway connections whenever feasible	Work with agencies and organizations developing institutional land to ensure sites are designed and oriented to prioritize walking and meet guidance in the B.C. Active Transportation Design Guide	internal approach		ongoing annual	all	

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - OVERALL IMPLEMENTATION SUMMARY

Theme	Strategy	Action	Action Name	Task	Task Type *(capital project, study, investment program, internal approach, other)*	Cross reference	Frequency *(one-time, periodic, ongoing annual)*	Horizon *(short, medium, long, all, n/a)*	Comments
3	3.1	3.1.3	Work with public agencies and other institutions (e.g. schools, hospitals, etc.) to ensure that new projects are designed and oriented to prioritize walking to community destinations and that new and existing sites provide pathway connections whenever feasible	Look for opportunities to partner with institutions to improve walking connectivity on, around, and through existing large sites where feasible, secure, and appropriate	internal approach		ongoing annual	all	
3	3.1	3.1.4	Enhance trails and pathways, identifying greenway corridors and formalizing connections between community destinations and creating opportunities to recreate within the City	Work with partners to improve transportation connections that align with greenways and connections to parks along the following corridors: - Fern Crescent connection to Golden Ears Provincial Park	capital project	Action 4.1.1	one-time	short	Included in Cycling Implementation Plan
3	3.1	3.1.4	Enhance trails and pathways, identifying greenway corridors and formalizing connections between community destinations and creating opportunities to recreate within the City	Work with partners to improve transportation connections that align with greenways and connections to parks along the following corridors: - Lower Hammond dyke connections using alternate routing identified as primary and secondary cycling networks in Theme 3 (new Hammond neighbourhood off-street pathway, Lorne Ave, Maple Crescent, Westfield Ave, Golf Lane, Steeves Street, 117 Avenue, 216 Street, Lougheed Highway.	capital project	Action 4.1.1	one-time	medium	Included in Cycling Implementation Plan
3	3.1	3.1.4	Enhance trails and pathways, identifying greenway corridors and formalizing connections between community destinations and creating opportunities to recreate within the City	Work with partners to improve transportation connections that align with greenways and connections to parks along the following corridors: - Silver Valley connection via 136 Avenue to the dyke system	capital project	Action 4.1.1	one-time	medium	Included in Cycling Implementation Plan
3	3.1	3.1.4	Enhance trails and pathways, identifying greenway corridors and formalizing connections between community destinations and creating opportunities to recreate within the City	Work with partners to improve transportation connections that align with greenways and connections to parks along the following corridors: - Bonsonworth Avenue / Grant Avenue / 108 Avenue connection to Whonnock Lake.	capital project	Action 4.1.1	one-time	medium	Included in Cycling Implementation Plan
3	3.1	3.1.4	Enhance trails and pathways, identifying greenway corridors and formalizing connections between community destinations and creating opportunities to recreate within the City	Partner with regional organizations to improve wayfinding along the Regional Greenway Network and between the Regional Greenway Network and destinations in Maple Ridge	investment program		periodic	all	
3	3.2	3.2.1	Implement Universal Design, including accessible curb ramps, detectable warning surfaces, and audible pedestrian signals	Ensure key corridors and other transportation improvement projects are planned and designed with Universal Design principles in mind	internal approach		ongoing annual	all	
3	3.2	3.2.1	Implement Universal Design, including accessible curb ramps, detectable warning surfaces, and audible pedestrian signals	Work with TransLink to improve accessibility and connections to West Coast Express stations	investment program		ongoing annual	short- and medium- term	

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3	3.2	3.2.1	Implement Universal Design, including accessible curb ramps, detectable warning surfaces, and audible pedestrian signals	Improve accessibility in the Town Centre and Lougheed Transit Corridor Area	investment program		ongoing annual	all	
3	3.2	3.2.2.	Provide new crossing opportunities to support a connected pedestrian network where warranted	Assess locations identified through continuation of the City's annual pedestrian crossing assessment program, input from the public, and other studies to identify locations where mid-block crossings are warranted as per criteria established by the Transportation Association of Canada	investment program		ongoing annual	all	
3	3.2	3.2.2.	Provide new crossing opportunities to support a connected pedestrian network where warranted	Work with partners and developers to identify cut-throughs and connections that will shorten walking distances.	internal approach		periodic	all	
3	3.2	3.2.3	Continue to support community and regional organizations in their initiatives to promote walking, such as Safe Routes to Schools, walking clubs and pedestrian safety education	Continue to support these programs as they evolve over time	other		ongoing annual	all	
3	3.3	3.3.1	Address sidewalk gaps and improve and accessibility in the Town Centre and the Lougheed Transit Corridor Area.	Prioritize addressing sidewalk gaps in the Town Centre and the Lougheed Transit Corridor Area	internal approach		periodic	all	
3	3.3	3.3.1	Address sidewalk gaps and improve and accessibility in the Town Centre and the Lougheed Transit Corridor Area.	Develop specific guidance for developers in these areas outlining a requirement to deliver pedestrian facilities and amenities that exceed the minimum guidelines set in Bylaw 4800-1993 wherever feasible	study	Action 1.1.3	one-time	all	
3	3.3	3.3.1	Address sidewalk gaps and improve and accessibility in the Town Centre and the Lougheed Transit Corridor Area.	Review existing gaps in pedestrian accessibility in these areas and continue to address gaps over time	study		periodic	all	
3	3.3	3.3.1	Address sidewalk gaps and improve and accessibility in the Town Centre and the Lougheed Transit Corridor Area.	Create a wayfinding plan for these areas, including direction to heritage and river destinations, branding and direction for the civic core ring route, direction to the West Coast Express and Rapid Transit, and wayfinding for other destinations	study		one-time	all	
3	3.3	3.3.1	Address sidewalk gaps and improve and accessibility in the Town Centre and the Lougheed Transit Corridor Area.	Follow the guidance for the pedestrian and the public realm provided in the Lougheed Transit Corridor Area Development Permit Guidelines, the Lougheed Transit Corridor Area Plan, the Town Centre Area Plan, and Growing Together	internal approach		ongoing annual	all	
3	3.3	3.3.2	Work with the Ministry of Transportation and Infrastructure and developers to construct new pedestrian infrastructure and enhance existing infrastructure on Lougheed Highway	Partner with MOTI and developers to ensure the future Lougheed meets these pedestrian and public realm needs	internal approach		ongoing annual	all	
4	4.1	4.1.1	Develop a complete and connected cycling network, focusing on connecting community destinations such as commercial areas, schools and community centres	City will work with partners to design and deliver the long-term cycling network illustrated in Figure 2-8	capital projects			all	See Cycling Implementation Plan

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4	4.1	4.1.1	Work towards upgrading existing cycling infrastructure on the Primary network towards All Ages and Abilities and improving the comfort of cycling on the secondary network	Seek to provide AAA facilities wherever possible along these routes	internal approach		ongoing annual	all	
4	4.1	4.1.1	Work towards upgrading existing cycling infrastructure on the Primary network towards All Ages and Abilities and improving the comfort of cycling on the secondary network	Seek opportunities to improve bicycle facilities on secondary routes with high volumes and speeds	capital project		ongoing annual	all	See Cycling Implementation Plan
4	4.1	4.1.2	Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient	Create and install bicycle route signage along primary and secondary routes.	investment program		ongoing annual	all	
4	4.1	4.1.2	Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient	Partner to install safe, secure parking for bicycles at key destinations, including West Coast Express and Rapid Transit stations, Municipal Hall, libraries, and schools	investment program		ongoing annual	all	
4	4.1	4.1.2	Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient	Work with developers to provide secure bicycle parking and end-of-trip facilities through the update of Bylaw 4350-1990	study	Action 6.5.2, Action 7.1.2, Action 7.2.3	one-time	short	
4	4.1	4.1.2	Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient	Seek opportunities to provide cycling amenities throughout the City, including drinking fountains with bottle fill stations and bicycle maintenance stations	investment program		ongoing annual	all	
4	4.1	4.1.3	Work with developers to implement high quality cycling infrastructure	Acquire property and / or easements along the road right-of-way and along cut-through desire lines to facilitate the delivery of the primary and secondary cycling network	internal approach		ongoing annual	all	
4	4.1	4.1.3	Work with developers to implement high quality cycling infrastructure	Leverage development in infill areas to deliver the planned cycling infrastructure along each frontage.	internal approach		ongoing annual	all	
4	4.1	4.1.3	Work with developers to implement high quality cycling infrastructure	Direct developers towards the BC Active Transportation Design Guidelines to supplement city design guidelines for bicycle infrastructure in the City of Maple Ridge	internal approach		ongoing annual	all	
4	4.1	4.1.3	Work with developers to implement high quality cycling infrastructure	In new neighbourhoods, work with developers to plan delivery of separated AAA cycling infrastructure on arterial and collector roadways, with particular attention to roadways that connect to schools	internal approach		ongoing annual	all	
4	4.2	4.2.1	Work with the Ministry of Transportation and TransLink to deliver All Ages and Abilities (AAA) cycling infrastructure along Lougheed Highway from the City of Pitt Meadows boundary into the Town Centre	Continue to work with MOTI to implement the Major Bikeway Network along Lougheed Highway by partnering to acquire property and ensure that development frontages include protected cycling infrastructure	internal approach	Theme 2	periodic	short- and medium- term	
4	4.2	4.2.1	Work with the Ministry of Transportation and TransLink to deliver All Ages and Abilities (AAA) cycling infrastructure along Lougheed Highway from the City of Pitt Meadows boundary into the Town Centre	Partner with MOTI to seek opportunities to provide interim improvements to cycling infrastructure along the remainder of Lougheed Highway and the Haney Bypass	internal approach		periodic	all	

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4	4.2	4.2.2	Work with the City of Mission, City of Pitt Meadows and Township of Langley to implement and enhance cycling connections to neighbouring municipalities	Work with municipal neighbours to provide and enhance continuous cycling connections at municipal boundaries	internal approach		ongoing annual	all	
4	4.2	4.2.3	Work with Metro Vancouver to revise the Regional Greenways Network within the road right-of-way and to make key connections to the Primary and Secondary cycling networks	Partner with Metro Vancouver to connect the Regional Greenway Network to the Primary and Secondary Cycling network where feasible, including along locations identified in Action 3.1.4	internal approach	Action 3.1.4	periodic	short- and medium- term	
4	4.2	4.2.4	Work with the B.C. Ministry of Transportation and Infrastructure to construct new cycling infrastructure and enhance existing infrastructure on Haney Bypass and Lougheed Highway east of the Town Centre	Continue to work with MOTI to explore opportunities to provide a protected cycling connection along or parallel to the Haney Bypass	internal approach	Action 2.1.5	periodic	all	
4	4.2	4.2.4	Work with the B.C. Ministry of Transportation and Infrastructure to construct new cycling infrastructure and enhance existing infrastructure on Haney Bypass and Lougheed Highway east of the Town Centre	Continue to work with MOTI to explore options to improve cycling connectivity and separation along or parallel to Lougheed Highway from Kanaka Way to 240 Street.	internal approach	Action 4.1.1	periodic	medium-term	
4	4.2	4.2.4	Work with the B.C. Ministry of Transportation and Infrastructure to construct new cycling infrastructure and enhance existing infrastructure on Haney Bypass and Lougheed Highway east of the Town Centre	Continue to work with MOTI to improve cycling connectivity to Mission via Lougheed Highway east of 240 Street	internal approach	Action 4.1.1	periodic	all	
4	4.2	4.2.5	Continue to support cycling education and promotion programs like Safe Routes to School, Everyone Rides 4/5, Learn2Ride, and events like Bike to Work Week and Bike Valet	Continue to support these programs as they evolve over time	other		ongoing annual	ongoing	
5	5.1	5.1.1	Support TransLink and Metro Vancouver priorities to align the transit network with residential populations, ensuring that most residents live within 400m of the transit network	Work with TransLink to increase service to residents in eastern Maple Ridge, ensuring that most residents live within 400 m of the transit network	internal approach		ongoing annual	all	
5	5.1	5.1.2	Continue to align mixed use land uses, density and transportation within the Town Centre and Lougheed Transit Corridor	Work with developers and TransLink to deliver transit-oriented communities in the Town Centre and the Lougheed Transit Corridor Area	internal approach		ongoing annual	all	
5	5.1	5.1.3	Leverage development to identify a new location for the Town Centre transit hub, which will replace and update the Haney Transit Exchange	Work with the development community to identify and implement a new location and or, improvements for the Haney Transit Exchange	internal approach		ongoing annual	all	
5	5.2	5.2.1	Work with TransLink and MOTI to work towards on-street bus rapid transit along Lougheed Highway	Work with TransLink and MOTI to define and design the future Lougheed Highway and Golden Ears Bridge, connecting the rapid transit route to the future Town Centre transit hub	study	Theme 2	periodic	all	
5	5.2	5.2.1	Work with TransLink and MOTI to work towards on-street bus rapid transit along Lougheed Highway	Seek to improve active transportation connectivity and the quality of the public realm on roadways that intersect with Lougheed, creating complete, people-first streets	internal approach	Action 2.1.2	ongoing annual	short- and medium- term	

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5	5.2	5.2.1	Work with TransLink and MOTI to work towards on-street bus rapid transit along Lougheed Highway	Work with MOTI and developers to acquire property and easements required to deliver the vision for this corridor	internal approach	Action 2.1.2	ongoing annual	short- and medium- term	
5	5.2	5.2.2	Work with TransLink to identify and implement transit priority measures that improve bus speed and reliability along the FTN	Work with TransLink to identify locations where bus priority measures could improve reliability and complete design and planning work to determine the feasibility of improvements at these locations	investment program		periodic	all	
5	5.2	5.2.2	Work with TransLink to identify and implement transit priority measures that improve bus speed and reliability along the FTN	Work with developers to identify potential transit reliability improvements through development, including opportunities for property acquisition to support transit priority measures	internal approach		ongoing annual	all	
5	5.2	5.2.3	Continue to promote West Coast Express improvements, including frequency and hours of service improvements, to all levels of government, TransLink, and rail companies	Continue to promote West Coast Express improvements, including working with TransLink to engage in the planned West Coast Express Strategy	internal approach		one time per WCE station	medium-term and long-term	
5	5.2	5.2.3	Continue to promote West Coast Express improvements, including frequency and hours of service improvements, to all levels of government, TransLink, and rail companies	Support the potential for development of a new mobility hub with transit service, active transportation amenities, parking, and / or West Coast Express station in Albion	internal approach		ongoing annual	medium- and long- term	
5	5.3	5.3.1	Improve walking access to transit stops and stations	Seek to provide accessible pedestrian connections to transit stop sand stations	capital project	Action 3.1.1	periodic	all	
5	5.3	5.3.2	Improve bus stop, transit exchange, and West Coast Express passenger amenities, enhancing accessibility of bus stops	Continue to improve amenities at bus stops including benches, shelters and accessibility	investment program		ongoing annual	all	
5	5.3	5.3.2	Improve bus stop, transit exchange, and West Coast Express passenger amenities, enhancing accessibility of bus stops	Work with TransLink to implement the recommendations of the ATP concerning amenities around West Coast Express stations (e.g. washrooms, accessible pedestrian connections, improved lighting, cycling connections, bicycle parking, wayfinding).	investment program		one time per WCE station	medium-term and long-term	
5	5.3	5.3.2	Improve bus stop, transit exchange, and West Coast Express passenger amenities, enhancing accessibility of bus stops	Seek opportunities to integrate amenities into the delivery of new rapid transit stations and the future Town Centre transit hub	internal approach		ongoing annual	all	
5	5.3	5.33	Improve multi-modal connections at bus stops, transit exchanges and West Coast Expressstations		internal approach	Strategies 3.1, 3.3, 4.1, 4.2 Actions 5.2.3, 5.3.1, 5.3.2	ongoing annual	all	
6	6.1	6.1.1	Completing the network to ensure that neighbourhoods and destinations are connected to one another in an efficient way	Deliver new roadways to complete the arterial road network and retain property for future arterial roads	capital project	Theme 2	ongoing annual	all	
6	6.1	6.1.1	Completing the network to ensure that neighbourhoods and destinations are connected to one another in an efficient way	Deliver new roadways to complete the arterial road network and retain property for future arterial roads (248 Street Connection)	capital project		one-time	medium	

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6	6.1	6.1.1	Completing the network to ensure that neighbourhoods and destinations are connected to one another in an efficient way	Deliver new roadways to complete the arterial road network and retain property for future arterial roads (Grant Avenue Connection)	capital project		one-time	long	
6	6.1	6.1.2	Work with developers to ensure that greenfield developments feature multi-modal collector and local road networks that meets the City's needs	Work with developers to ensure all roadways in greenfield areas are planned and designed in accordance with the updated Bylaw 4800-1993	internal approach	Action 1.1.3, Action 3.3.1	ongoing annual	ongoing	
6	6.1	6.1.3	Close gaps in the existing collector and local road networks	Close gaps through development or capital projects to achieve a complete and connected roadway network. - Brown Avenue between Fletcher Street and 228 Street as a Major Collector	capital project	Action 2.1.12	one-time		
6	6.1	6.1.3	Close gaps in the existing collector and local road networks	Close gaps through development or capital projects to achieve a complete and connected roadway network. - Golf Lane at 209 Street as a Local road	capital project		one-time	short	
6	6.1	6.1.3	Close gaps in the existing collector and local road networks	Close gaps through development or capital projects to achieve a complete and connected roadway network. - 124 Avenue at 246 Street as a Local road	capital project		one-time	long	
6	6.1	6.1.4	Create a Dangerous Goods Route Network	Create a Dangerous Goods Route Network which will identify routes for the through travel of dangerous goods by motor vehicle in Maple Ridge: -Golden Ears Bridge (TL Authority) -Highway 7 (MOTI) -Maple Meadows Way (City of Maple Ridge between Golden Ears Bridge and Highway 7)	study		one-time	short	
6	6.2	6.2.1	Work with the Ministry of Transportation and Infrastructure and TransLink to implement improvements to major roadways	Work with TransLink and MOTI to pursue widening Golden Ears Way, the Abernethy Connector, and the Haney Bypass, and portions of a current two-lane section of Lougheed Highway to four lanes, as illustrated in Figure 2-11	capital project	Theme 2	one-time	short	
6	6.2	6.2.1	Work with the Ministry of Transportation and Infrastructure and TransLink to implement improvements to major roadways	Improvements to the north end of the Golden Ears Bridge and the interchanges along Golden Ears Way	capital project	Theme 2	one-time	short	
6	6.2	6.2.2	Update the City's Street classification network	See updated classification map in Figure 2-12.	study		one-time	short	
6	6.3	6.3.1	Address capacity and operational issues at key intersections	See Table 4-2 for intersection improvements.	capital project		one-time	ongoing	
6	6.3	6.3.2	Continue the intersection safety program	Continue to use the existing intersection safety program to identify and address new issues arising	investment program		ongoing annual	all	

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6	6.3	6.3.2	Continue the intersection safety program	Continue to partner with ICBC through their Road Safety Improvement Program to fund safety improvements	internal approach		ongoing annual	ongoing	
6	6.3	6.3.3	Continue traffic control warrant assessment and investment program	Continue the traffic control warrant assessment and investment program	investment program		ongoing annual	all	
6	6.3	6.3.4	Consider traffic operational systems improvements	Investigate opportunities to improve coordination and efficiency through signal equipment upgrades, coordination, and optimization	study		periodic	ongoing	
6	6.3	6.3.4	Consider traffic operational systems improvements	Continue to monitor traffic signal operations and adjust traffic signal phasing for efficiency and safety improvements	investment program		ongoing annual	all	
6	6.4	6.4.1	Continue the existing Traffic Calming Policy approach	Continue to use the existing Traffic Calming Policy and related practices to initiate, assess, prioritize, and plan traffic calming measures, as well as to finance and deliver recommendations	investment program		ongoing annual	all	
6	6.4	6.4.2	Collaborate at a regional level to explore opportunities to introduce people first neighbourhoods	Consider regional possibilities to pilot elements of people-first neighbourhoods and work to understand how these programs and approaches will evolve over time	study		ongoing annual	ongoing	
6	6.5	6.5.1	Consider introduction of high occupancy vehicle lanes that are shared with transit at key locations	Evaluate opportunities to include high occupancy vehicle . - The use of high occupancy vehicles lanes will be explored alongside Strategy 5.2.1 as a potential interim measure if road widening of Highway 7 occurs between Pitt Meadows and the Haney Bypass in advance of the Rapid Transit that would require this additional lane for exclusive use	internal approach	Strategy 5.2; Theme 2	periodic	short- and medium- term	
6	6.5	6.5.2	Review parking requirements in Bylaw 4350-1990, including changes that encourage the use of car pooling and reduce parking minimums	Consider opportunities to embed TDM into parking policy for new developments as part of the review and update if Bylaw 4350-1990	study	Action 4.1.2, Action 7.2.3, Action 7.1.2	one-time	short	
6	6.5	6.5.3	Continue to work with TransLink to educate and promote the use of non-auto modes of transportation	Partner with TransLink to educate and promote the use of non-auto modes through programs and policies that include TravelSmart, programs for major employers, school travel programs, and other initiatives.	other		ongoing annual	ongoing	
6	6.5	6.5.4	Continue to work with local businesses, stratas, Business Improvement Associations, and the Chamber of Commerce to review and address curbside management requests	Continue to follow industry best practices and regional approaches to adapt to changing technology and demands for the curbside in collaboration with local stakeholders	internal approach		ongoing annual	ongoing	
7	7.1	7.1.1	Continue to install and expand electric charging infrastructure at community facilities	Continue to seek opportunities to install public charging locations, focusing on Level 2 charging stations at community facilities	investment program		periodic	short- and medium- term	

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7	7.1	7.1.1	Continue to install and expand electric charging infrastructure at community facilities	Partner with TransLink to seek opportunities to install Electric Vehicle Charging Stations at West Coast Express Stations	internal approach		ongoing annual	ongoing	
7	7.1	7.1.2	Ensure new electric charging infrastructure is a required minimum for new developments	Update Bylaw 4350-1990	study	Action 4.1.2, Action 6.5.2, Action 7.2.3	one-time	short- and medium- term	
7	7.2	7.2.1	Collaborate at a regional level to regulate and manage micromobility devices and shared micromobility	Collaborate with TransLink and municipalities across the region to regulate and manage micromobility devices ensuring a consistent approach for the region and province	internal approach		ongoing annual	ongoing	
7	7.2	7.2.2	Encourage car share organizations to extending service to Maple Ridge, particularly within the Lougheed Transit Corridor and Town Centre areas	Explore opportunities to encourage car share organizations to consider extending services to Maple Ridge	study		periodic	all	
7	7.2	7.2.3	Ensure new developments provide for the secure storage and charging of electric bicycle, cargo bicycles, and scooters and improve storage amenities at City-owned destinations	Ensure the update of Bylaw 4350-1990 provides for short- and long-term secure storage of emerging modes, including cargo bicycles, electric bicycles, and scooters	study	Action 4.1.2, Action 6.5.2, Action 7.1.2	one-time	short	
7	7.2	7.2.3	Ensure new developments provide for the secure storage and charging of electric bicycle, cargo bicycles, and scooters and improve storage amenities at City-owned destinations	Seek opportunities to provide secure electric bicycle, cargo bicycle, and scooter parking for visitors and employees to municipal buildings, with particular focus on buildings that are often visited by families and seniors	study	Action 4.1.2, Action 6.5.2, Action 7.1.2	ongoing annual	all	
7	7.2	7.2.4	Subsequent updates to the STP will provide regular updates on advancement in transportation technologies to ensure the City is prepared to accommodate future travel needs of the community	Ensure that subsequent updates to the STP will address advancements in transportation technology	internal approach		periodic	all	
7	7.3	7.3.1	Collaborate at a regional level to study the impacts of Autonomous Vehicles	Work with regional partners to proactively regulate and respond to the arrival of Autonomous Vehicles	internal approach		ongoing annual	all	
7	7.4	7.4.1	Participate in Regional dialogue exploring Mobility Pricing	Continue to participate in dialogue with regional partners to explore Mobility Pricing	internal approach		ongoing annual	all	

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Action	ProjectID	Corridor	Segment	Description	Horizon	Estimated Corridor Cost	Intersection Improvement Cost	Total Cost	Comment
2.1.1	K2111	Golden Ears Way	210 Street to 203 Street	Widen to four lanes plus turning lanes at intersections. Parallel Multi-use Pathway (MUP).	short	<$9,142,980>	<$185,000>	$ -	Location of congestion in existing condition. Expected to improve travel times, reduce traffic at other intersections. EXCLUDED FROM ALL TOTALS - NOT IN MUNICIPAL JURISDICTION
2.1.1	K2112	Golden Ears Way	203 Street to Lougheed Interchange	Widen to four lanes. Parallel MUP.	short	<$8,949,600>	$ -	$ -	Location of congestion in existing condition. Expected to improve travel times, reduce traffic at other intersections. EXCLUDED FROM ALL TOTALS - NOT IN MUNICIPAL JURISDICTION
2.1.1	K2113	Golden Ears Way	Lougheed Interchange to 113b Avenue	Changes to interchanges to improve multi-modal operations.	short	$ -	$ -	$ -	Important cycling & vehicle connection under existing pressure. Packaged with other GEW improvements for regional discussions
2.1.1	K2114	Golden Ears Way	Golden Ears Bridge to 113 B Avenue	Capacity improvements for 113 B interchange to improve multi-modal operations.	short	$ -	$ -	$ -	Important cycling & vehicle connection under existing pressure. Packaged with other GEW improvements for regional discussions
2.1.2	K2121	Lougheed Highway	Boundary with Pitt Meadows to 222 Street	This section is owned and operated by the Province. Through development, widen for rapid transit, protected cycling, and improved pedestrian and public realm. Through development, phase in parallel streets for residential and commercial access. In the short term complete gaps in the cycling network between 216 Street and 220 Street.	medium	<$52,000,000>	$ -	$ -	Within 10-year time horizon identified in Transport 2050. EXCLUDED FROM ALL TOTALS - NOT IN MUNICIPAL JURISDICTION
2.1.2	K2122	Lougheed Highway	222 Street to 227 Street	This section is owned and operated by the City and was recently revitalized.	n/a		$ -	$ -	
2.1.2	K2123	Lougheed Highway	227 Street to Burnett Street / 117 Avenue	This section is owned and operated by the City. Through development, widen for protected cycling, boulevards, and improved pedestrian and public realm. Through development, phase in parallel streets for residential and commercial access	long	$ 9,050,580	$ 160,000.00	$ 9,210,580.00	Burnett is one of the intersections identified for safety improvement. Some ROW here likely to be available in the next 5 years.
2.1.2	K2124	Lougheed Highway	Burnett Street / 117 Avenue to Kanaka Way	This section is owned and operated by the City. Continue the four lane plus protected cycle track cross-section recently installed between Pazarena Place and 112B Avenue throughout the remainder of the section.	long	$ 7,855,650	$ 260,000.00	$ 8,115,650.00	Sufficient property available. Completing Lougheed between Kanaka & Burnett provides high value connection when tied to existing intersecting MUPs
2.1.3	K2131	Abernethy Way / 124 Avenue	224 Street to 232 Street	Widening to four lanes and provide north side MUP and south side sidewalk.	short	$ 12,353,220	$ -	$ 12,353,220.00	Under construction
2.1.3	K2132	Abernethy Way / 124 Avenue	232 Street to 240 Street	Extend major arterial to 240 Street by widening existing 124 Avenue and acquiring new right of way where required. Include north side MUP and south side sidewalk and turning lanes at key intersections.	short	$ 27,500,000	$ 160,000.00	$ 27,660,000.00	Prioritized to provide climate resilient access to Silver Valley. Cost provided by City va Abernethy Way Extension Study
2.1.3	K2133	Abernethy Way / 124 Avenue	240 Street to 256 Street	Extend major arterial to 256 Avenue. Volumes indicate demand for two lanes plus turn lanes in the 2050 horizon; however property and design should accommodate future four-laning. North side MUP and south side sidewalk and turning lanes at key intersections.	short	$ 55,000,000	$ -	$ 55,000,000.00	Required a industrial land develops. Analysis indicates not required in short term; however, can be advanced to facilitate development. Cost provided by City via Abernethy Way Extension Study
2.1.4	K2141	240 Street	128 Avenue / Fern Crescent to Abernethy Way	Extend arterial north to cross Alouette River. Two lanes over bridge crossing with MUPs on both sides. Beyond bridge structure, widen to include median / left turn lane and boulevards.	short	$ 60,000,000	$ -	$ 60,000,000.00	Prioritized to provide climate resilient access to Silver Valley. Complexity of design & funding recognized in horizon. Cost provided by City via Abernethy Way Extension Study

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 2 - KEY CORRIDORS SUMMARY

Action	ProjectID	Corridor	Segment	Description	Horizon	Estimated Corridor Cost	Intersection Improvement Cost	Total Cost	Comment
2.1.4	K2142	240 Street	Abernethy to Dewdney Trunk Road	Widen and improve arterial to include two through lanes per direction plus a median / turn lane and additional turning lanes at intersections. Seek to close accesses where feasible. Widen to provide MUPs or separated cycling and pedestrian facilities on both sides.	medium	$ 4,007,030	$ -	$ 4,007,030.00	Paired with K2141
2.1.4	K2143	240 Street	Lougheed Highway to Dewdney Trunk Road	Four-lane MRN roadway with turn lanes at major intersections. Over time, develop more consistent cross-section. Look to provide consistent MUPS or separated cycling and pedestrian facilities on both sides of roadway. Remove existing parking.	medium	$ 30,396,840	$ 100,000.00	$ 30,496,840.00	Key north-south connection as network spine for east side of city.
2.1.5	K2151	Haney Bypass	222 Street to Kanaka Way	Widen to complete four-lane provincial highway. Work with MOTI to seek to include active transportation facilities on one side.	n/a	n/a	$ -	$ -	MOTI infrastructure with no fixed plan in place. EXCLUDED FROM ALL TOTALS - NOT IN MUNICIPAL JURISDICTION
2.1.6	K2161	113B Avenue	Golden Ears Way to Hammond Road	Improve to provide protected bicycle facilities. Requires removal of most parking. Seek to close accesses through development. Seek to widen sidewalks and provide boulevard where feasible. Provide turn lanes at intersections.	long	$ 5,423,220	$ -	$ 5,423,220.00	Critical network connection for multiple modes
2.1.6	K2162	203 Street	Hammond Road to Lougheed Highway	Improve to provide protected bicycle facilities and more comfortable walking. Requires removal of some parking where ROW is narrow. Seek to widen sidewalks and provide boulevard where feasible. Consider left turn lanes at intersections.	long	$ 4,485,360	$ 160,000.00	$ 4,645,360.00	Critical netwok connectino for cycling. Completes a portion of the network in high priority area.
2.1.7	K2171	203 Street	Dewdney Trunk Road to Lougheed Highway	Identified as a Complete Street in the Lougheed Transit Area Plan. Through development, widen to provide protected cycling, walking, boulevard, and parking pockets. Consider wider activated setbacks at commercial core. Consider widening at intersections for turn lanes.	long	$ 1,103,550	$ -	$ 1,103,550.00	Critical netwok connectino for cycling. Completes a portion of the network in high priority area.
2.1.7	K2172	203 Street	Dewdney Trunk Road to Powell Avenue	No change from existing.	n/a	$ -	$ -	$ -	Complete
2.1.7	K2173	203 Street	Powell Avenue to Golden Ears Way	Widen to create protected bicycle facility. Widen to include turn lanes at key intersections.	short	$ 472,320	$ 100,000.00	$ 572,320.00	Critical netwok connection for cycling. Completes a portion of the network in high priority area.
2.1.8	K2181	Dewdney Trunk Road	Lougheed Highway to 232 Street	Through development, close accesses and widen to create an improved pedestrian realm, boulevards, and a median with turn lanes at intersections. Provide high quality transit amenities and transit priority at intersections with high delay.	long	$ 26,033,330	$ 160,000.00	$ 26,193,330.00	Limited space for geometric improvements. Leverage development (may require longer timeline)
2.18	K2182	Dewdney Trunk Road	232 Street to 240 Street	Retain travel lanes as existing. Seek opportunities to close driveways and introduce boulevards over time. Retain and improve existing MUP. Provide turn lanes at intersections.	long	$ 3,344,510	$ -	$ 3,344,510.00	Retain existing cross-section unless opportunity arises through development.
2.18	K2183	Dewdney Trunk Road	240 Street to 256 Street	Through road rehabilitation and repaving projects, develop wide, buffered shoulders that are shared by pedestrians and cyclists.	short	$ 10,456,880	$ -	$ 10,456,880.00	Increase separation between active modes and high speed traffic. Service to schools.

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 2 - KEY CORRIDORS SUMMARY

Action	ProjectID	Corridor	Segment	Description	Horizon	Estimated Corridor Cost	Intersection Improvement Cost	Total Cost	Comment
2.1.9	K2191	232 Street	132 Avenue (North Roundabout) to 132 Avenue / Fern Crescent (South Roundabout)	No change from existing.	n/a	$ -	$ -	$ -	Complete
2.1.9	K2192	232 Street	132 Avenue / Fern Crescent (South Roundabout) to Abernethy Way / 124 Avenue	Widen to complete sidewalks and create protected cycling lanes and boulevard where feasible. Provide turn lanes at intersections. Provide parking pockets where feasible.	short	$ 9,420,840	$ -	$ 9,420,840.00	Transition after 240 is in place
2.1.9	K2193	232 Street	Abernethy Way 124 Avenue to Dewdney Trunk Road	Convert two existing travel lanes to protected cycling lanes and boulevard where feasible. Retain turn lanes at intersections.	medium	$ 4,578,550	$ -	$ 4,578,550.00	Transition after 240 is in place
2.1.9	K2194	232 Street	Dewdney Trunk Road to 116 Avenue	Maintain existing cross-section	n/a	$ -	$ -	$ -	
2.1.9	K2195	232 Street	116 Avenue to Kanaka Way	Maintain existing cross-section for most of length. Provide protected cycling facility on approach to Kanaka Way. Improve active transportation crossing at Cottonwood Drive.	long	$ 2,904,000	$ -	$ 2,904,000.00	Address missing gap in spine network. Project complete from 116 Ave and Cottonwood Dr
2.1.10	K21101	Laity Street	128 Avenue to Dewdney Trunk Road	Complete west side sidewalk / east side MUP where feasible. Seek to widen over time to create boulevard and pedestrian throughfare that is free from obstruction. Seek additional property for future widening where feasible.	long	$ 7,232,350	$ -	$ 7,232,350.00	Outside of core. Challenge and costly to update.
2.1.10	K21102	Laity Street	Dewdney Trunk Road to Lougheed Highway	Identified as a Complete Street in the Lougheed Transit Area Plan. Through development, limit driveways and create wide boulevards, pedestrian areas, and a multi-use pathway that is consistent with the West Ridge Greenway. Include parking pockets where feasible. . Provide turn lanes at intersections.	medium	$ 1,603,800	$ -	$ 1,603,800.00	Key connection to hospital and rapid transit. Likely to see redevleopment in medium-term
2.1.10	K21103	Laity Street	Lougheed Highway to River Road	Through development, widen at approach to Lougheed Highway to add additional turning lanes. Address existing sidewalk gap on east side of Laity, south of Ridge Meadows Hospital. The portion of this segment that is between 117 Avenue and the access to the Ridge Meadows Hospital is primary cycling and should include a separated cycling facility with crossing treatments.	medium	$ 963,510	$ -	$ 963,510.00	Key connection to hospital
2.1.11	K21111	216 Street	128 Avenue to 124 Avenue	Provide continuous walking and protected cycling connection within existing right-of-way. Provide turn lanes at intersections.	long	$ 5,159,690	$ 160,000.00	$ 5,319,690.00	
2.1.11	K21112	216 Street	124 Avenue to Glenwood Avenue	Maintain existing curb-to-curb width and provide protected cycling facility by removing parking. Provide turn lanes at intersections.	long	$ 1,182,720	$ 100,000.00	$ 1,282,720.00	Existing cycling lanes and sidewalks, requires loss of parking in established neighbourhood deprioritize compared ot other investments.

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 2 - KEY CORRIDORS SUMMARY

Action	ProjectID	Corridor	Segment	Description	Horizon	Estimated Corridor Cost	Intersection Improvement Cost	Total Cost	Comment
2.1.11	K21113	216 Street	Glenwood Avenue to 117 Avenue	Identified as a Complete Street in the Lougheed Transit Area Plan. Through development, widen to provide two travel lanes, left turn lane / median, protected cycling, planted boulevards, a wide pedestrian throughfare, and an activated frontage. Limited parking pockets provided to facilitate loading. Provide turn lanes at intersections.	medium	$ 8,406,000	$ -	$ 8,406,000.00	Requires development to deliver due to ROW.
2.1.11	K21114	216 Street	117 Avenue to River Road	Change classification to minor collector. New sidewalk on ones side of the road.	short	$ 491,800	$ -	$ 491,800.00	Complete connection from neighbourhood to the south to Rapidbus.
2.1.12	K21121	Brown Avenue	222 Street to 228 Street	Change classification to major collector. Through development, provide wide protected cycling facilities, wide pedestrian throughfares, and high-quality public realm. Complete the missing connection between 228 Street and Fletcher Street.	short	$ 5,511,250	$ 5,000.00	$ 5,516,250.00	Priority due to growing density in area. Development in process on portion of corridor.
2.1.13	K21131	West Ridge Greenway	Western terminus to west of Rosewood Street	Identified in the Lougheed Transit Area Plan.	medium	$ 5,771,460	$ -	$ 5,771,460.00	Key walking and cycling connection. Requires development.
2.1.13	K21132	West Ridge Greenway	West of Rosewood Street to Maple Ridge Cemetery	Identified in the Lougheed Transit Area Plan.	medium	$ 4,983,990	$ -	$ 4,983,990.00	Key walking and cycling connection. Requires development.
2.1.13	K21133	West Ridge Greenway	Maple Ridge Cemetery to 221 Street	Identified in the Lougheed Transit Area Plan.	medium	$ 5,890,170	$ -	$ 5,890,170.00	Key walking and cycling connection. Requires development.
2.1.14	K21141	Thorne Avenue	Hammond Road to 207 Street	Maintain existing curb-to-curb with improvements at some intersections. Improvements to walking and cycling throughout.	short	$ 1,527,660	$ -	$ 1,527,660.00	COST INCLUDES FORMALIZATION OF PATHWAY. Key connection to address short gap between existing / under construction walking and cycling facilities.
2.1.14	K21142	117 Avenue	207 Street to Laity Street	Maintain existing curb-to-curb with improvements at some intersections. Improvements to walking and cycling throughout.	short	n/a	$ -	$ -	Under construction
2.1.15	K21151	123 Avenue	203 Street to Laity Street	Identified as protected cycling infrastructure with connections to schools and future frequent transit service. Improvements to walking and cycling may reduce parking supply.	short	$ 4,045,140	$ -	$ 4,045,140.00	Missing spine connection in network
2.1.1.5	K21152	123 Avenue	Laity Street to 216 Street	Identified as protected cycling infrastructure with connections to schools and transit service. Provide MUP on north side and phase in sidewalk on south in coordination with development due to the limited ROW width.	short	$ 2,333,760	$ -	$ 2,333,760.00	Missing spine connection in network
2.1.16	K21161	Thornhill Access Roadway	Lougheed to Thornhill neighbourhood	As noted in the OCP, Thornhill is an Urban Reserve Area with several conditions identified before urban development in this area would be supported. One of these conditions is a transportation study that reflects proposed land uses and identifies an alignment that is supported by partners agenices.	long		$ -	$ -	High uncertainty - no cost estimate provided
2.1.17	K21171	Fern Crescent	132 Avenue to Golden Ears Parkway	Provide MUP on one side throughout. Seek to provide segments of sidewalk or MUP on north side to connect to bus stops, commercial uses, and other destinations where feasible.	long	$ 14,284,960	$ -	$ 14,284,960.00	Missing spine connection in network. Fern Ave to 240 St Medium Term. 240 East Long Term

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 2 - KEY CORRIDORS SUMMARY

Action	ProjectID	Corridor	Segment	Description	Horizon	Estimated Corridor Cost	Intersection Improvement Cost	Total Cost	Comment
2.1.17	K21172	Fern Crescent / 132 Avenue	232 Street to Fern Crescent	Provide MUP throughout. Seek to formalize north side trail to MUP or sidewalk where feasible.	short	$ 1,014,750	$ -	$ 1,014,750.00	Missing spine connection in network
2.1.18	K21181	132 Avenue	216 Street to 232 Street	Change classification to major collector. Complete pathway connection.	medium	$ 8,122,620	$ -	$ 8,122,620.00	Complete missing link in network. Timeline acknowledge complexity.
2.1.2	K2121	Lougheed Highway	Boundary with Pitt Meadows to 222 Street		short	<$4,524,000>			EXCLUDED FROM ALL TOTALS - NOT IN MUNICIPAL JURISDICTION
2.1.2	K2122	Lougheed Highway	Burnett Street / 117 Avenue to Kanaka Way		short	$ 3,487,000		$ 3,487,000.00	
2.1.2	K2123	Lougheed Highway	227 Street to Burnett Street / 117 Avenue		short	$ 1,282,000		$ 1,282,000.00	
2.1.4	K2141	240 Street	Abernethy to Dewdney Trunk Road		short	$ 1,254,000		$ 1,254,000.00	
2.1.4	K2142	240 Street	Lougheed Highway to Dewdney Trunk Road		short	$ 9,808,000		$ 9,808,000.00	
2.1.6	K2161	113B Avenue	Golden Ears Way to Hammond Road		short	$ 2,817,000		$ 2,817,000.00	
2.1.6	K2162	203 Street	Hammond Road to Lougheed Highway		short	$ 2,020,000		$ 2,020,000.00	
2.1.7	K2171	203 Street	Dewdney Trunk Road to Lougheed Highway		short	$ 636,000		$ 636,000.00	
2.1.8	K2181	Dewdney Trunk Road	232 Street to 240 Street		short	$ 4,031,000		$ 4,031,000.00	
2.1.8	K2182	Dewdney Trunk Road	Lougheed Highway to 232 Street		short	$ 2,687,000		$ 2,687,000.00	
2.1.9	K2191	232 Street	Abernethy Way 124 Avenue to Dewdney Trunk Road		short	$ 2,019,000		$ 2,019,000.00	
2.1.10	K21101	Laity Street	Lougheed Highway to River Road		short	$ 560,000		$ 560,000.00	
2.1.11	K21111	216 Street	Glenwood Avenue to 117 Avenue		short	$ 1,583,000		$ 1,583,000.00	
2.1.17	K21171	Fern Crescent	132 Avenue to Golden Ears Parkway		short	$ 1,275,000		$ 1,275,000.00	
2.1.18	K21181	132 Avenue	216 Street to 232 Street		short	$ 5,989,000		$ 5,989,000.00	
TOTAL COST								**$ 393,724,510.00**	

SUMMARY	
Short-term	$ 229,840,620.00
Medium-term	$ 74,823,970.00
Long-term	$ 89,059,920.00
Total	**$ 393,724,510.00**

2.1.9		232 Street	Cottonwood Dr to Kanaka Way		short	$ 682,000		$ 682,000.00	keep as is

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 3 - PEDESTRIAN FACILITIES SUMMARY

Project Code:	Street_Name_Text	Project_From_Street	Project_To_Street	Horizon	Pedestrian Facility Type Code:	Facility Type Cost	Length (m)	Raw Project Cost	Project Cost Rounded to nearest 1000
P10	118th Ave	203rd Street	118th Avenue	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	179.65	$517,400	$517,000
P100	Balsam St	Larch Avenue	Fern Avenue	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	185.30	$882,007	$882,000
P101	Mill St	130th Avenue	128th Avenue	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	395.78	$1,139,832	$1,140,000
P102	Glenhurst St	Dewdney Trunk Road	118th Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	405.64	$1,168,247	$1,168,000
P103	Cottonwood Dr	Dewdney Trunk Road	234th A Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	566.84	$1,008,984	$1,009,000
P104	Cottonwood Dr	116th Avenue	114th A Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	348.27	$1,003,030	$1,003,000
P105	236th St	Dewdney Trunk Road	119th Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	83.52	$240,543	$241,000
P106	118th Ave	236B Street	Creekside Street	Long	Sidewalk (One Side) L2 – Shifting Curb Required	$2,140	85.93	$183,893	$184,000
P107	Tamarack Lane	Lougheed Highway	Tamarack Lane	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	254.72	$733,594	$734,000
P108	102nd Ave	240th Street	241st Street	Long	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	77.82	$370,410	$370,000
P109	102nd Ave	240th Street	241st Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	275.82	$794,349	$795,000
P11	River Rd	207th Street	Wood Street	Long	Sidewalk (One Side) L2 – Shifting Curb Required	$2,140	1,144.88	$2,450,038	$2,448,000
P110	102nd Ave	243rd A street	244th Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	62.54	$180,109	$180,000
P111	102nd Ave	244th St	Jackson Rd	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	240.67	$693,118	$693,000
P112	110th Ave	240th Street	Dead End	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	766.89	$3,650,403	$3,650,000
P113	248th St	Dewdney Trunk Road	119 Ave	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	129.24	$615,205	$615,000
P114	248th St	122nd A Avenue	Dewdney Trunk Road	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	360.62	$1,038,572	$1,039,000
P115	128th Ave	232nd Street	128th Crescent	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	109.24	$314,602	$315,000
P116	248th St	119 Ave	118 B Ave	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	142.34	$677,518	$678,000
P117	248th St	118 B Ave	118 A Avenue	Long	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	86.69	$412,622	$413,000
P118	208th St	Powell Avenue	123 B Avenue	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	333.09	$959,297	$959,000
P119	Dover St	Acadia St	Wicklow Way	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	91.31	$262,972	$263,000
P12	117th Ave	207th Street	Laity Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	1,188.30	$2,115,172	$2,116,000
P120	123rd Ave	Fletcher St	228th Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	171.87	$494,992	$495,000
P121	228th St	Mid-block south of 126 B Avenue	125 B Ave	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	74.65	$214,982	$215,000
P122	228th St	122 Ave	Purdey Avenue	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	399.23	$710,621	$711,000
P123	Edge St	Maple Ridge Square Access	Dewdney Trunk Rd	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	52.71	$151,798	$152,000
P124	128th Ave	232nd Street	128th Crescent	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	243.98	$702,671	$703,000
P125	110th Ave	240th Street	Dead End	Long	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	59.49	$283,162	$283,000
P126	206th St	Hammond Community Centre	114th Avenue	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	46.40	$133,640	$134,000
P127	River Rd	Darby St	Carshill St	Long	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	864.50	$4,115,033	$4,115,000
P128	River Rd	Anderson Pl	Darby St	Long	Sidewalk (One Side) L2 – Shifting Curb Required	$2,140	363.21	$777,276	$777,000
P129	104th Ave	24460 104th Ave	24393 104th Ave	Medium	Sidewalk (One Side) L2 – Shifting Curb Required	$2,140	140.24	$300,119	$300,000
P130	104th Ave	24393 104th Ave	Jackson Rd	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	351.20	$1,011,446	$1,011,000
P131	104th Ave	240th St	24086 104th St	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	155.23	$447,073	$447,000
P132	24156 104th Ave	24170 104th Ave	Jackson Rd	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	70.54	$203,148	$203,000
P133	104th Ave	242 B St	243 St	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	86.21	$248,278	$248,000
P13	Camwood Ave	207th Street	Owen Street	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	97.79	$281,624	$282,000
P14	Camwood Ave	Owen Street	Steeves Street	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	414.02	$1,192,382	$1,192,000
P15	Steeves St	Camwood Avenue	118th Avenue	Short	Sidewalk (Two Sides) L1 – Existing Space and No Change to Curb	$1,570	50.96	$80,013	$80,000
P17	118th Ave	Steeves St	210th St	Short	Sidewalk (Two Sides) L1 – Existing Space and No Change to Curb	$1,570	89.91	$141,158	$141,000
P19	117th Ave	Morris Street	Holly Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	243.21	$432,919	$433,000
P2	Maple Cres	Dartford Street	207th Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	89.95	$160,112	$160,000
P20	Holly St	Mayo Place	117th Avenue	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	68.70	$197,845	$198,000
P21	117th Ave	Holly Street	216th Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	96.75	$278,626	$278,000
P23	206th St	123rd Avenue	122nd Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	133.94	$385,743	$386,000
P24	206th St	122nd Avenue	Dewdney Trunk Road	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	504.74	$1,453,660	$1,454,000

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 3 - PEDESTRIAN FACILITIES SUMMARY

Project Code:	Street_Name_Text	Project_From_Street	Project_To_Street	Horizon	Pedestrian Facility Type Code:	Facility Type Cost	Length (m)	Raw Project Cost	Project Cost Rounded to nearest 1000
P25	Powell Ave	203rd Street	208th Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	841.06	$2,422,255	$2,421,000
P26	208th St	123 B Ave	123rd Avenue	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	113.60	$327,181	$327,000
P27	Skillen St	123rd Avenue	Wicklund Avenue	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	318.74	$1,517,183	$1,517,000
P28	Wicklund Ave	Skillen Street	Laity Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	906.99	$1,614,435	$1,614,000
P29	121st Ave	Laity Street	216th Street	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	664.66	$3,163,767	$3,164,000
P3	206th St	Lorne Avenue	Maple Crescent	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	247.13	$711,734	$712,000
P30	Hall St	Dewdney Trunk Road	Donovan Avenue	Medium	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	119.48	$212,676	$213,000
P31	Wicklow Way	Dewdney Trunk Road	Donovan Avenue	Medium	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	136.38	$242,751	$243,000
P32	Davison St	124th Avenue	Dead End	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	203.95	$587,369	$587,000
P34	Dover St	122nd Avenue	Dead End	Short	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	196.43	$349,648	$350,000
P35	Dover St	Dewdney Trunk Rd	Acadia St	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	157.84	$454,586	$454,000
P36	Acadia St	Dover Street	220th Street	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	156.90	$451,859	$452,000
P37	220th St	Dewdney Trunk Road	Selkirk Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	283.56	$816,646	$817,000
P38	119th Ave	220th Street	Raymond Park	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	78.31	$372,750	$373,000
P39	119th Ave	220th Street	Raymond Park	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	177.32	$315,631	$316,000
P4	Maple Cres	Lorne Avenue	206th Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	345.80	$615,526	$615,000
P40	119th Ave	Raymond Park	222nd Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	153.63	$442,461	$442,000
P41	220th St	Wicklow Way	Lougheed Highway	Medium	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	60.01	$106,816	$107,000
P42	222nd St	123rd Avenue	222nd Street	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	95.72	$455,626	$456,000
P43	123rd Ave	222nd Street	Hillside Street	Medium	Sidewalk (One Side) L2 – Shifting Curb Required	$2,140	93.17	$199,393	$199,000
P44	123rd Ave	Hillside Street	Dead End	Medium	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	146.05	$259,971	$260,000
P45	122nd Ave	22295 122nd Avenue	223rd Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	56.80	$163,578	$164,000
P46	Hillside St	124th Avenue	123rd Avenue	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	304.00	$1,447,033	$1,447,000
P47	222nd St	Brown Avenue	Dewdney Trunk Road	Medium	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	61.21	$108,952	$109,000
P48	Plaza St	Brown Avenue	Dewdney Trunk Road	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	150.49	$433,404	$433,000
P49	223rd St	Brown Avenue	Dewdney Trunk Road	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	155.66	$448,301	$448,000
P5	Selkirk Ave	225nd Street	Selkirk Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	107.22	$308,789	$309,000
P50	Garden St	Brown Avenue	12043 Garden Street	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	29.01	$83,551	$84,000
P51	Garden St	12043 Garden Street	12025 Garden Street	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	64.92	$309,001	$309,000
P52	Garden St	12025 Garden Street	Dewdney Trunk Road	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	51.76	$149,082	$149,000
P53	North Ave	Haney Bypass	223rd Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	44.76	$79,666	$80,000
P54	North Ave	Haney Bypass	223rd Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	58.40	$168,203	$168,000
P55	North Ave	Haney Bypass	223rd Street	Long	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	27.10	$129,006	$129,000
P56	North Ave	Haney Bypass	223rd Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	43.64	$125,691	$126,000
P57	223rd St	North Avenue	117th Avenue	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	56.38	$162,384	$162,000
P58	223rd St	117th Avenue	St. Anne Avenue	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	110.63	$318,606	$319,000
P59	224th St	St. Anne Avenue	Callaghan Avenue	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	148.78	$428,494	$428,000
P6	206th St	Hammond Community Centre	114th Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	88.86	$255,925	$256,000
P60	Fraser St	North Avenue	Dead End	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	187.33	$539,514	$540,000
P61	225th St	Brickwood Close	116th Avenue	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	115.86	$206,238	$206,000
P62	225th St	Brickwood Park	Haney Bypass	Short	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	104.34	$185,724	$185,000
P64	119th Ave	226th Street	22730 119th Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	223.08	$642,474	$642,000
P65	119th Ave	Parking Access	22730 119th Avenue	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	53.58	$255,053	$255,000
P66	119th Ave	22730 119th Avenue	228th Street	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	157.49	$453,584	$454,000
P67	121st Ave	22477 121st Avenue	22491 121st Avenue	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	21.07	$60,676	$61,000
P68	121st Ave	22491 121st Avenue	227th Street	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	379.12	$1,804,627	$1,805,000
P69	223rd St	126th Avenue	124th Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	336.71	$969,731	$970,000

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 3 - PEDESTRIAN FACILITIES SUMMARY

Project Code:	Street_Name_Text	Project_From_Street	Project_To_Street	Horizon	Pedestrian Facility Type Code:	Facility Type Cost	Length (m)	Raw Project Cost	Project Cost Rounded to nearest 1000
P7	Westfield Ave	Maple Crescent	207th Street	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	582.97	$1,678,964	$1,678,000
P70	224th St	Alouette River	Abernethy Way	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	329.23	$948,189	$948,000
P71	124th Ave	Keml Place	Edge Street	Medium	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	119.82	$213,272	$214,000
P72	124th Ave	Edge Street	227th Street	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	265.25	$1,262,572	$1,263,000
P74	123rd Ave	227th Street	Fletcher St	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	87.46	$251,897	$252,000
P75	Fletcher St	123rd Avenue	Dewdney Trunk Road	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	676.79	$1,949,148	$1,949,000
P76	228th St	12588 228th Street	12616 228th Street	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	39.55	$188,244	$188,000
P77	228th St	126 B Avenue	Mid-block south of 126 B Avenue	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	68.00	$195,838	$196,000
P78	228th St	125th A Avenue	Abernethy Way	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	83.99	$241,883	$242,000
P79	228th St	Abernethy Way	122 Ave	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	428.81	$763,280	$763,000
P8	Golf Lane	207th Street	Dead End	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	388.29	$1,118,285	$1,119,000
P80	Burnett St	Fuller Avenue	Burnett Street	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	45.64	$131,432	$131,000
P81	Burnett St	Burnett St	Lougheed Highway	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	42.08	$121,193	$121,000
P82	Burnett St	Lougheed Highway	Burnett Street	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	124.39	$358,254	$358,000
P84	117th Ave	Burnett St	230th B Street	Long	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	359.54	$1,035,481	$1,035,000
P85	Cliff Ave	229th Street	230th Street	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	139.77	$248,795	$248,000
P86	118th Ave	230th Street	Stephens Street	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	138.50	$398,883	$399,000
P87	230th St	Dewdney Trunk Road	118th Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	124.16	$357,595	$357,000
P88	230th St	Dewdney Trunk Road	118th Avenue	Medium	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	298.39	$1,420,356	$1,421,000
P89	230th St	Eagle Avenue	Dewdney Trunk Road	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	351.16	$1,011,327	$1,011,000
P9	116th Ave	203rd Street	Waresley Street	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	438.97	$1,264,230	$1,264,000
P90	Stephens St	Dewdney Trunk Road	118th Avenue	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	412.28	$1,187,357	$1,187,000
P91	122nd Ave	222nd Street	22229 122nd Avenue	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	67.83	$195,338	$195,000
P92	Edge St	Brown Avenue	Maple Ridge Square Access	Medium	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	52.24	$150,441	$150,000
P93	Reid Ave	227th Street	228th Street	Medium	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	257.94	$459,126	$459,000
P94	228th St	12616 228th Street	126 B Avenue	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	17.71	$51,001	$51,000
P97	128th Ave	232nd Street	128th Crescent	Short	Sidewalk (One Side) L3 – Existing Space & New Curb	$2,880	452.08	$1,301,981	$1,302,000
P98	235A St	Dogwood Avenue	Cul-de-sac	Long	Sidewalk (One Side) L1 – Existing Space and No Change to Curb	$1,780	207.09	$368,628	$369,000
P99	136th Ave	230th A Street	232nd Street	Short	Sidewalk (Two Sides) L3 – Existing Space & New Curb	$4,760	275.27	$1,310,270	$1,310,000
TOTAL COST								**$81,871,048.76**	

SUMMARY		
Short-term	$	20,726,981.26
Medium-term	$	31,361,598.72
Long-term	$	29,782,468.79
Total	**$**	**81,871,048.76**

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 4 - CYCLING LINEAR INFRASTRUCTURE

Project Code:	Street_Name_Text	Project_From_Street	Project_To_Street	Horizon	Cycling Facility Type Code:	Facility Type Cost	Length (m)	Raw Project Cost	Project Cost Rounded to nearest 1000
C1	Wharf St	Golden Ears Way	Princess Street	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	852.51	$289,855	$ 290,000
C10	Dunn Ave	Maple-Meadows Way	West Street	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	238.35	$1,160,787	$ 1,161,000
C100	136 Ave	McKercher Dr	232 St	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	1036.74	$352,491	$ 352,000
C101	Dewdney Trunk Rd	256th Street	272nd Street	Medium	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	3987.82	$3,509,283	$ 3,509,000
C102	272nd St	Dewdney Trunk Road	River Road	Medium	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	1971.54	$1,734,956	$ 1,734,000
C103	112th Ave	272nd St	276th St	Medium	Shoulder Widening BL (One Side) L2 – Roadway Widening and Delineator	$910	802.06	$729,873	$ 730,000
C104	276 Street	112 Ave	Whonnock Lake	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	648.31	$64,831	$ 65,000
C105	272nd St	Dewdney Trunk Road	River Road	Medium	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	3251.09	$2,860,961	$ 2,860,000
C106	River Rd	272nd Street	Lougheed Highway	Medium	Shoulder Widening BL (One Side) L2 – Roadway Widening and Delineator	$910	856.84	$779,729	$ 780,000
C107	Jackson Rd / 100 Ave / 268 St	102 Ave / Jackson Rd	272 St	Medium	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	5711.08	$5,025,753	$ 5,027,000
C108	Lougheed Hwy	240th Street	Stave River	Medium	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	10075.60	$8,866,529	$ 8,867,000
C11	200 St / West St	Maple Meadows Way	West Street	Medium	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	300.10	$1,461,472	$ 1,462,000
C110	Pathway	Ashley Cres	West St	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	139.14	$338,120	$ 338,000
C111	119 Ave / 222 St / Lane	220 St	224 St	Short	Neighbourhood Bikeway L3 – Traffic Calming and Diversion	$520	809.77	$421,082	$ 421,000
C112	Thorne Avenue Pathway	Hammond Rd	203 St	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	181.53	$441,113	$ 441,000
C113	Hampton Street alignment	Charlton St	Hampton St cul-de-sac	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	49.42	$120,081	$ 120,000
C114	Lorne Ave	Maple Cres	Melville St	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	111.41	$300,814	$ 301,000
C115	Melville St	Hampton St	Lorne Ave	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	93.01	$226,011	$ 226,000
C116	117 Ave / Holly St	Maple Ridge Hospital	216 St	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	456.51	$155,212	$ 154,000
C117	232 St / Lane	Laneway (119 Ave alignment)	St. Anne Ave	Short	Neighbourhood Bikeway L3 – Traffic Calming and Diversion	$520	736.46	$382,957	$ 383,000
C118	Pathway (109 Ave Alignment)	248 St	249 St	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	207.72	$504,762	$ 505,000
C119	Pathway	112 Ave	248 St	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	319.74	$776,963	$ 777,000
C12	Maple Meadows Way	200th Street	Lougheed Highway	Medium	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	197.23	$589,718	$ 590,000
C122	Pathway (Stonehouse Alignment)	210 St	Westview Secondary	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	66.34	$161,210	$ 161,000
C123	Golf Lane	207th Street	Dead End	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	388.15	$131,971	$ 132,000
C124	118th Ave	Steeves St	210th St	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	89.88	$8,988	$ 9,000
C125	Seaton Pl	Dover Street	220th Street	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	104.41	$10,441	$ 11,000
C126	Dover St	Dead End	Seaton Pl	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	236.18	$23,618	$ 24,000
C127	Hampton St	Hampton Street Trail	Dead End	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	171.74	$58,391	$ 58,000
C128	222nd St	123 Ave	122 Ave	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	95.72	$9,572	$ 10,000
C129	Burnett St	117th Avenue	Lougheed Highway	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	73.55	$219,925	$ 220,000
C13	201 B St / 116 B Ave	Hammond Rd	203 St	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	326.00	$110,839	$ 110,000
C130	122nd Ave	Eagle Ave	234th St	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	49.69	$4,969	$ 5,000
C131	112th Ave	240th St	242 A St	Short	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	426.48	$1,151,487	$ 1,151,000
C132	New Path	Lockwood Street	C82	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	197.55	$697,353	$ 697,000
C133	102nd Ave	244th St	Jackson Rd	Short	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	334.10	$294,008	$ 294,000
C134	Path (parallel to Golden Ears Way)	Kingston Street	Wharf Street	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	902.58	$2,193,266	$ 2,193,000
C135	110 Ave	249 St	Lockwood St	Medium	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	111.37	$393,119	$ 393,000
C136	248th St	McClure Dr	108 Ave	Long	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	127.72	$450,860	$ 451,000
C137	248th St	North of 110 Ave	Dead End	Long	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	172.40	$418,928	$ 419,000
C138	Hammond Rd	West St	201 B St	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	200.07	$706,264	$ 706,000
C139	248th St	106 B Ave	Jackson Rd	Medium	Protected Bi-directional (One Side) L1 - Existing Space and No Change to Curb	$2,720	100.13	$272,351	$ 272,000
C14	Lorne Ave	Maple Crescent	Dartford Street	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	351.33	$948,591	$ 949,000
C140	122nd Ave	203rd St	20485 122 Ave	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	225.72	$796,778	$ 797,000
C141	214th St	123rd Ave	121st Ave	Medium	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	377.10	$1,331,174	$ 1,332,000
C142	214th St / Glenwood Ave	121st Ave	Glenwood Elementary	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	148.91	$361,851	$ 362,000
C143	122nd Ave	223rd St	224th Street	Short	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	177.20	$478,453	$ 479,000

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 4 - CYCLING LINEAR INFRASTRUCTURE

Project Code:	Street_Name_Text	Project_From_Street	Project_To_Street	Horizon	Cycling Facility Type Code:	Facility Type Cost	Length (m)	Raw Project Cost	Project Cost Rounded to nearest 1000
C15	Dartford St / 114 Ave / 207 St	Lorne Ave	Westfield Ave	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	296.12	$100,681	$ 101,000
C16	207th St	117th Avenue	Westfield Avenue	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	444.56	$2,165,001	$ 2,165,000
C17	207th St	Dewdney Trunk Road	Thorne Avenue	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	375.26	$1,827,519	$ 1,827,000
C18	207th St	Dewdney Trunk Road	Thorne Avenue	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	254.01	$1,237,032	$ 1,237,000
C19	206th St	123rd Avenue	Dewdney Trunk Road	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	638.44	$2,253,688	$ 2,254,000
C2	Princess St	Hampton Street	Wharf Street	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	374.10	$127,195	$ 127,000
C20	122nd Ave	203rd St	206th St	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	472.80	$160,752	$ 161,000
C21	209 St / 115 Ave / Steeves St	Golf Lane	River Rd	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	270.24	$91,883	$ 92,000
C22	Steeves St	118th Avenue	River Road	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	473.93	$1,151,655	$ 1,152,000
C23	210th St	123rd Avenue	Lougheed Highway	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	333.46	$997,055	$ 998,000
C24	210th St	123rd Avenue	Lougheed Highway	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	322.28	$963,630	$ 964,000
C25	210th St	123rd Avenue	Lougheed Highway	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	319.51	$776,419	$ 777,000
C26	Ridge Meadows Lane	Laity Street	117 Ave	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	314.06	$847,954	$ 848,000
C27	220th St	Seaton Pl	Lougheed Hwy	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	307.74	$104,632	$ 104,000
C28	Dover St	Seaton Pl	Wicklow Way	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	158.39	$15,839	$ 17,000
C29	Dover St	122nd Avenue	Dead End	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	196.36	$19,636	$ 20,000
C3	Hampton St	Kingston Street Trail	Hampton Street Trail	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	442.76	$150,538	$ 151,000
C30	Selkirk Ave	Maple Ridge Baptist Church	224 St	Short	Neighbourhood Bikeway L3 – Traffic Calming and Diversion	$520	440.40	$229,007	$ 229,000
C31	Selkirk Ave	224 St	226 St	Short	Protected Uni-directional (Both Sides) L3 – Existing Space New Drainage, New Curb and Sidewalk	$5,940	392.75	$2,332,916	$ 2,333,000
C32	Selkirk Ave	226 St	227 St	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	164.37	$16,437	$ 16,000
C33	222nd St	Church Avenue	Selkirk Avenue	Short	Protected Bi-directional (One Side) L1 - Existing Space and No Change to Curb	$2,720	288.50	$784,732	$ 785,000
C34	222nd St	122 Ave	Dewdney Trunk Rd	Short	Protected Bi-directional (One Side) L1 - Existing Space and No Change to Curb	$2,720	406.11	$1,104,609	$ 1,103,000
C35	123 Ave / Hillside St	222 St	124 Ave	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	397.17	$135,039	$ 135,000
C36	224th St	Callaghan Ave	Dead End	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	98.34	$33,434	$ 33,000
C37	224th St	Selkirk Ave	Callaghan Ave	Medium	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	479.54	$2,335,373	$ 2,334,000
C38	224th St	Abernethy Way	116th Avenue	Long	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	303.02	$1,475,709	$ 1,475,000
C39	224th St	Abernethy Way	116th Avenue	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	136.12	$662,909	$ 663,000
C4	Kingston St (alignment)	113rd B Avenue	Hampton Street	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	668.14	$1,623,583	$ 1,623,000
C40	224th St	Abernethy Way	116th Avenue	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	681.36	$3,318,229	$ 3,318,000
C41	224th St	Abernethy Way	116th Avenue	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	400.31	$1,949,490	$ 1,950,000
C42	Edge St / McIntosh Ave / 226 St	Brown Ave	Selkirk Ave	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	500.32	$170,109	$ 171,000
C43	227th St	Lougheed Hwy	Holyrood Avenue	Medium	Protected Uni-directional (Both Sides) L1 - Existing Space and No Change to Curb	$3,750	540.76	$2,027,864	$ 2,028,000
C44	227th St	Dewdney Trunk Rd	Lougheed Hwy	Short	Protected Uni-directional (Both Sides) L1 - Existing Space and No Change to Curb	$3,750	380.37	$1,426,405	$ 1,427,000
C45	227th St	122 Ave	Dewdney Trunk Rd	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	498.98	$2,430,039	$ 2,430,000
C46	227th St	Abernethy Way	122 Ave	Short	Protected Uni-directional (Both Sides) L2 – Shifting Curb and Removing Existing Sidewalk	$4,870	476.64	$2,321,221	$ 2,321,000
C47	128 Ave / 227 St	228 St	Abernethy Way	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	892.60	$2,410,013	$ 2,409,000
C48	128th Ave	228 St	230 St	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	388.90	$1,050,026	$ 1,050,000
C49	128th Ave	228th A Street	232nd St	Short	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	410.71	$1,108,920	$ 1,109,000
C5	Golden Ears Way Offramp	Golden Ears Way	113rd B Avenue	Medium	Protected Uni-directional (Both Sides) L3 – Existing Space New Drainage, New Curb and Sidewalk	$5,940	351.52	$2,088,049	$ 2,088,000
C50	116th Ave	Fraser St	225 St	Medium	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	165.32	$494,316	$ 494,000
C51	116th Ave	225 St	227 St	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	404.14	$982,055	$ 982,000
C52	116th Ave	227 St	Burnett St	Medium	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	474.91	$1,419,985	$ 1,420,000
C53	116th Ave	Burnett Street	Lougheed Highway	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	183.16	$445,088	$ 445,000
C54	117th Ave	Burnett St	231 St	Long	Neighbourhood Bikeway L2 – Traffic Calming	$340	458.73	$155,968	$ 156,000
C55	231st St	118th Avenue	117th Avenue	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	155.24	$52,783	$ 53,000

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 4 - CYCLING LINEAR INFRASTRUCTURE

Project Code:	Street_Name_Text	Project_From_Street	Project_To_Street	Horizon	Cycling Facility Type Code:	Facility Type Cost	Length (m)	Raw Project Cost	Project Cost Rounded to nearest 1000
C56	118th Ave	231st St	232nd St	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	205.75	$615,186	$ 615,000
C57	118 Ave / 234 A St	West of Hawthorne St	Cottonwood Dr	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	397.17	$135,039	$ 136,000
C58	Cottonwood Dr	Dewdney Trunk Road	234th A Street	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	354.25	$1,059,195	$ 1,059,000
C59	119 Ave / 236 B St / 118 Ave	Cottonwood Dr	240 St	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	1214.97	$413,090	$ 414,000
C6	Maple Cres	113rd B Avenue	113rd Avenue	Medium	Neighbourhood Bikeway L2 – Traffic Calming	$340	184.10	$62,595	$ 63,000
C60	228th St	Purdey Avenue	Dewdney Trunk Road	Medium	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	74.56	$222,938	$ 223,000
C61	Purdey Ave / Gee St / Eagle Ave / 122 Ave	228 St	232 St	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	1083.39	$368,354	$ 368,000
C62	122nd Ave Alignment	232 St	122 Ave	Short	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	215.55	$523,796	$ 524,000
C63	122 Ave / 234 St	Glenhurst St	Dewdney Trunk Rd	Short	Neighbourhood Bikeway L2 – Traffic Calming	$340	501.54	$170,524	$ 171,000
C64	238B St	Dewdney Trunk Road	118th Avenue	Medium	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	404.42	$1,209,216	$ 1,209,000
C65	Creekside St	118th Avenue	116 Ave	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	453.57	$45,357	$ 46,000
C66	Creekside St	116 Ave	114 A Ave	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	404.73	$40,473	$ 41,000
C67	Creekside St	114 A Ave	Kanaka Way	Long	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	660.56	$1,975,071	$ 1,975,000
C68	Kanaka Way	Gilker Hill Road	240 St	Short	Protected Bi-directional (One Side) L1 - Existing Space and No Change to Curb	$2,720	1032.94	$2,809,596	$ 2,810,000
C69	112th Ave	242 A St	244 St	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	322.81	$965,198	$ 966,000
C7	Maple Cres	113rd B Avenue	113rd Avenue	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	314.33	$939,833	$ 940,000
C70	112th Ave	244 St	246 St	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	636.92	$2,248,328	$ 2,248,000
C71	112th Ave	246 St	West of Lockwood St	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	620.11	$2,189,002	$ 2,189,000
C72	112th Trail	112th Ave	252nd St	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	735.10	$1,786,299	$ 1,786,000
C73	252nd St	112th Avenue	Bosonworth Avenue	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	219.97	$593,906	$ 594,000
C74	112th Ave	West of Lockwood St	252nd St	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	594.46	$2,098,437	$ 2,098,000
C75	Bosonworth Ave	252nd Street	Palmer Rolph Street	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	835.79	$2,256,644	$ 2,256,000
C76	Bosonworth Ave	252nd Street	Palmer Rolph Street	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	128.91	$12,891	$ 13,000
C77	Louise Poole Memorial Trail	Bosonworth Ave	Palmer Rolph Street	Medium	MUP (one side) L1 – Existing Space and No Change to Curb	$2,430	231.74	$563,137	$ 563,000
C78	112 St / 260 St	Palmer Rolph St	Grant Ave	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	854.00	$85,400	$ 85,000
C79	Grant Ave / Hayes Trail	260 St	108 Ave	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	985.88	$98,588	$ 99,000
C8	Hammond Rd	West Street	113rd B Avenue	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	443.31	$1,564,889	$ 1,565,000
C80	108th Ave	Hayes Trail	272nd St	Medium	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	1509.57	$150,957	$ 151,000
C81	Lockwood St	112nd Avenue	110th Avenue	Medium	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	402.04	$1,419,198	$ 1,419,000
C82	New Path	112nd Avenue	110th Avenue	Medium	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	460.65	$1,626,106	$ 1,626,000
C83	249 St	108 Ave	110 Ave	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	374.14	$1,010,168	$ 1,010,000
C84	108th Ave	108th Avenue	249th Street	Medium	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	208.41	$562,715	$ 563,000
C85	104th Ave	240th St	Jackson Rd	Short	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	1263.34	$3,411,017	$ 3,410,000
C86	Jackson Rd	Dead End	104th Avenue	Medium	Protected Bi-directional (One Side) L1 - Existing Space and No Change to Curb	$2,720	603.35	$1,641,110	$ 1,641,000
C87	248th St	McClure Dr	106 B Ave	Long	Protected Bi-directional (One Side) L1 - Existing Space and No Change to Curb	$2,720	101.73	$276,703	$ 277,000
C88	248th St	108 Ave	North of 110 Ave	Long	MUP (one side) L2 – Existing Space and New Curb Required	$2,700	431.76	$1,165,759	$ 1,165,000
C89	Jackson Rd	104th Avenue	102 Avenue	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	482.71	$48,271	$ 48,000
C9	West St	Dunn Ave	Hammond Rd	Short	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	234.02	$699,713	$ 700,000
C90	102nd Ave	240 St	244 St	Short	Neighbourhood Bikeway L1 – Signage & Pavement Markings	$100	799.32	$79,932	$ 80,000
C91	Lougheed Hwy	Kanaka Way	Jim Robson Way	Medium	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	1423.06	$4,254,944	$ 4,255,000
C92	Lougheed Hwy	Jim Robson Way	240th Street	Medium	MUP (one side) L3 – Shifting Curb and Removing Existing Sidewalk	$2,990	1604.37	$4,797,065	$ 4,797,000
C93	124th Ave	244th Street	Hinch Trail	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	223.42	$788,669	$ 789,000
C94	Fern Cres	240th Street	240th Street	Medium	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	189.48	$668,868	$ 669,000
C95	132 Ave / 210 St	Neaves Rd	128 Ave	Medium	Shoulder Widening BL (One Side) L2 – Roadway Widening and Delineator	$910	1227.95	$1,117,430	$ 1,118,000
C96	216th St	136th Avenue	128th Avenue	Medium	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	1601.11	$1,408,976	$ 1,409,000
C98	224th St	136th Avenue	132nd	Short	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	822.64	$723,925	$ 724,000

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 4 - CYCLING LINEAR INFRASTRUCTURE

Project Code:	Street_Name_Text	Project_From_Street	Project_To_Street	Horizon	Cycling Facility Type Code:	Facility Type Cost	Length (m)	Raw Project Cost	Project Cost Rounded to nearest 1000
C99	136th Ave	Tim's Trail	Foreman Drive	Short	Shoulder Widening BL (One Side) L1 – Roadway Widening	$880	1035.77	$911,476	$ 912,000
C144	Westfield Ave	Maple Crescent	207th Street	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	582.76	$2,057,131	$ 2,057,000
C145	121st Ave	Laity Street	216th Street	Short	MUP (one side) L4 – Space Available & New Curb and Urban Drainage Required	$3,530	664.66	$2,346,239	$ 2,346,000
C146	224th St	132 Ave	Abernethy Way	Short	Shoulder Widening BL (One Side) L2 – Roadway Widening and Delineator	$910	1212.86	$1,103,703	$ 1,103,000
C147	222nd St	Selkirk Ave	Lougheed Highway	Short	Protected Bi-directional (One Side) L3 – Existing Space New Drainage, New Curb and Sidewalk	$3,820	98.79	$377,377	$ 377,000
TOTAL COST								**$147,603,609**	

SUMMARY	
Short-term	$ 70,189,472.24
Medium-term	$ 71,495,139.65
Long-term	$ 5,918,996.69
Total	**$ 147,603,608.59**

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 4 - CYCLING INTERSECTION IMPROVEMENTS

Intersection _ID	Street_Name	Cross_Street	Intersection Project Facility Type:	Horizon	Project Code:	Project Reference	Project Cost:	Comment
23787	123 AVE	210 ST	New RRFB with pushbu	Medium	I9	C25	$ 66,000	
24390	STONEHOUSE AVE	210 ST	New RRFB with pushbu	Medium	I8	C25	$ 66,000	
N/A	206 ST	FAIRVIEW ELEMENTARY SCHOOL PARKING ACCESS	New RRFB with pushbu	Short	I7	C19	$ 66,000	
24428	TYNER AVE	206 ST	New RRFB with pushbu	Short	I6	C20	$ 66,000	
24168	DUNN AVE	WEST ST	New RRFB with pushbu	Short	I5	C10	$ 66,000	
N/A	WEST ST	MAPLE MEADOWS LOOP ACCE	New RRFB with pushbu	Short	I4	C9	$ 66,000	
N/A	WEST ST	HAMMOND RD	New RRFB with pushbu	Short	I3	C9	$ 66,000	
24244	LORNE AVE	206 ST	New RRFB with pushbu	Medium	I2	C14	$ 66,000	
24092	DEWDNEY TRUNK	210 ST	Other	Medium	I12	C23	$ 75,000	Geometric improvements for MUP at existing signal, adding push button actuation
24443	WICKLUND AVE	210 ST	New RRFB with pushbu	Medium	I11	C24	$ 66,000	West Leg of Intersection
24443	WICKLUND AVE	210 ST	New RRFB with pushbu	Medium	I10	C25	$ 66,000	North Leg of Intersection
24563	115 AVE	MAPLE CRES	New RRFB with pushbu	Short	I1	C7	$ 66,000	
23603	116B AVE	203 ST	New RRFB with pushbu	Short	I13	C13	$ 66,000	Install along with 116B neighbourhood bikeway
23750	122 AVE	222 ST	New RRFB with pushbu	Medium	I14	C34	$ 66,000	
39339	COTTONWOOD DR	234A ST	New RRFB with pushbu	Short	I15	C57	$ 66,000	
24560	238 ST	KANAKA WAY	New RRFB with pushbu	Medium	I16	C68	$ 66,000	Consider one or two crossing locations with development of bidirectional cycling connection on Kanaka
35900	KANAKA WAY	237 ST	New RRFB with pushbu	Medium	I17	C68	$ 66,000	Consider one or two crossing locations with development of bidirectional cycling connection on Kanaka
24227	KANAKA WAY	GILKER HILL RD	New RRFB with pushbu	Medium	I18	C68	$ 66,000	Consider warrant for future RRFB as volumes increase
24249	LORNE AVE	MELVILLE ST	New RRFB with pushbu	Medium	I19	C114	$ 66,000	Will likely need 'do not block track signage & improvements to CP tracks
39450	PURDEY AVE	228 ST	New RRFB with pushbu	Short	I20	C61	$ 66,000	
TOTAL COST							**$ 1,329,000.00**	

SUMMARY	
Short-term	$ 594,000.00
Medium-term	$ 735,000.00
Long-term	$ -
Total	**$ 1,329,000.00**

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 6 - NEW ROADWAYS

Action	ProjectID	Corridor	Segment	Description	Horizon	Estimated Corridor Cost	Intersection Improvement Cost	Total Cost	Comment
6.1.3		Golf Lane Local Road Extension	207a Street to 209 Street	Close gap as Local Road	short	$ 455,900	$ -	$ 455,900	
6.1.3		124 Avenue Local Road Extension	124 Ave to 246 St	Complete network as Rural Road	long	$ 2,255,420	$ -	$ 2,255,420	
6.1.3		248 Street Arterial Road Extension	110 Ave to 112 Ave	Complete network as Rural Road	long	$ 5,190,430	$ -	$ 5,190,430	
TOTAL COST								$ 7,901,750.00	

SUMMARY	
Short-term	$ 455,900.00
Medium-term	$ -
Long-term	$ 7,445,850.00
Total	**$ 7,901,750.00**

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - THEME 6 - INTERSECTION IMPROVEMENTS

ID	INTERSECTION	Improvement type	Project_ Reference	Horizon	Cost Type	Cost	Extended Cost	Comment
24104	232 Street & Dewdney Trunk Road	Corridor signal timing re-coordination; Traffic demand anticipated to decrease because of Abernethy Way extension; safety improvements	I107	short	Intersection Safety Improvement Allowance	$ 100,000	$ 100,000	Short-term safety improvement to intersection. Highest priority on municipal roadways based on critircal collision rate.
24641	West Street/200 Street & Maple Meadows Way	Additional turn lanes	I101	long	New Turn Lane	$ 160,000	$ 160,000	
24355	207 Street & River Road	Additional turn lanes	I102	long	New Turn Lane	$ 160,000	$ 160,000	
24168	West Street & Dunn Avenue	Signal with additional turn lanes or roundabout	I103	short	New Traffic Signal	$ 350,000	$ 510,000	
					New Turn Lane	$ 160,000		
24088	207 Street & Dewdney Trunk Road	Safety improvements	I104	short	Intersection Safety Improvement Allowance	$ 100,000	$ 100,000	Short-term safety improvements to intersection.
24389	Kingston Street & Stewart Crescent	Safety improvements	I105	short	Intersection Safety Improvement Allowance	$ 100,000	$ 100,000	Intersection not included in traffic analysis
40677 & 24243	205 Street & Lorne Avenue & Maple Crescent	Safety improvements	I016	medium	Intersection Safety Improvement Allowance	$ 100,000	$ 100,000	Between number 10 and 15 of top 15 major intersetions with high collision rates and CSI
23533	112 Avenue & Lockwood Street	Safety improvements	I110	short	Intersection Safety Improvement Allowance	$ 100,000	$ 100,000	CIS rating greater than 5; Lowest in low volume group flagged for additional attention; Likely to be addressed through development improvements
43706 & 24371	222 Street & Selkirk Avenue	Safety improvements	I108	short	Intersection Safety Improvement Allowance	$ 100,000	$ 100,000	Short-term safety improvements; Top three minor intersection with high CSI Does not include longer term improvements for cycling corridor
24373	224 Street & Selkirk Avenue	Safety improvements	I109	short	Intersection Safety Improvement Allowance	$ 100,000	$ 100,000	Short-term safety improvements; Does not include longer term improvements for cycling corridor
TOTAL COST							**$ 1,530,000**	

SUMMARY	
Short-term	$ 1,110,000
Medium-term	$ 100,000
Long-term	$ 320,000
Total	**$ 1,530,000**

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - INVESTMENT PROGRAMS SUMMARY

Theme	Strategy	Action	Action Name	Task	Frequency	Horizon	Cost / Year	Short-term		Medium-term		Long-term		Total Cost	Comments
								# of years	total cost	# of years	total cost	# of years	total cost		
3	3.1	3.1.4	Enhance trails and pathways, identifying greenway corridors and formalizing connections between community destinations and creating opportunities to recreate within the City	Partner with regional organizations to improve wayfinding along the Regional Greenway Network and between the Regional Greenway Network and destinations in Maple Ridge	periodic	all	$ 20,000	3	$ 60,000	3	$ 60,000	5	$ 100,000	$ 220,000	Investments in wayfinding as the greenway is built out. Assume largely complete in Short- and Medium- term with smaller upgrades long-term
3	3.2	3.2.1	Implement Universal Design, including accessible curb ramps, detectable warning surfaces, and audible pedestrian signals	Work with TransLink to improve accessibility and connections to West Coast Express stations	ongoing annual	short- and medium-term	$ 50,000	5	$ 250,000	5	$ 250,000	-	$ -	$ 500,000	Assume 10 crossings per year @ $10,000 per crossing, completed in short- and medium- term
3	3.2	3.2.1	Implement Universal Design, including accessible curb ramps, detectable warning surfaces, and audible pedestrian signals	Improve accessibility in the Town Centre and Lougheed Transit Corridor Area	ongoing annual	all	$ 50,000	5	$ 250,000	5	$ 250,000	20	$ 1,000,000	$ 1,500,000	Assume 10 crossings per year @ $10,000 per crossing, completed in short- and medium- term
3	3.2	3.2.2	Provide new crossing opportunities to support a connected pedestrian network where warranted	Assess locations identified through continuation of the City's annual pedestrian crossing assessment program, input from the public, and other studies to identify locations where mid-block crossings are warranted as per criteria established by the Transportation Association of Canada	ongoing annual	all	$ 300,000	10	$ 3,000,000	5	$ 1,500,000	20	$ 6,000,000	$ 10,500,000	Assume six new crossing per year outside of those identified in cycling & pedestrian capital plans
4	4.1	4.1.2	Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient	Create and install bicycle route signage along primary and secondary routes.	ongoing annual	all	$ 5,000	5	$ 25,000	5	$ 25,000	20	$ 100,000	$ 150,000	Largely covered in cycling capital costs. Small allowance for existing route upgrades.
4	4.1	4.1.2	Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient	Partner to install safe, secure parking for bicycles at key destinations, including West Coast Express and Rapid Transit stations, Municipal Hall, libraries, and schools	ongoing annual	all	$ 10,000	5	$ 50,000	5	$ 50,000	10	$ 100,000	$ 200,000	Assume $10,000 of investment per year for short- and medium- term. $10,000 every second year for long-term. $10,000 is approximately 10 to 15 racks or 1 locker.
4	4.1	4.1.2	Implement support facilities such as wayfinding, secure bicycle parking and end-of-trip facilities to make cycling convenient	Seek opportunities to provide cycling amenities throughout the City, including drinking fountains with bottle fill stations and bicycle maintenance stations	ongoing annual	all	$ 10,000	5	$ 50,000	5	$ 50,000	20	$ 200,000	$ 300,000	One installation of water source or bicycle maintenance station per year
5	5.2	5.2.2	Work with TransLink to identify and implement transit priority measures that improve bus speed and reliability along the FTN	Work with TransLink to identify locations where bus priority measures could improve reliability and complete design and planning work to determine the feasibility of improvements at these locations	periodic	all	$ 500,000	2	$ 1,000,000	2	$ 1,000,000	4	$ 2,000,000	$ 4,000,000	Assume 1 location @ $500k w years / 5
5	5.3	5.3.2	Improve bus stop, transit exchange, and West Coast Express passenger amenities, enhancing accessibility of bus stops	Continue to improve amenities at bus stops including benches, shelters and accessibility	ongoing annual	all	$ 80,000	5	$ 400,000	5	$ 400,000	20	$ 1,600,000	$ 2,400,000	2 bus stops per year at @$40k per bus stop

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - INVESTMENT PROGRAMS SUMMARY

Theme	Strategy	Action	Action Name	Task	Frequency	Horizon	Cost / Year	Short-term		Medium-term		Long-term		Total Cost	Comments
								# of years	total cost	# of years	total cost	# of years	total cost		
5	5.3	5.3.2	Improve bus stop, transit exchange, and West Coast Express passenger amenities, enhancing accessibility of bus stops	Work with TransLink to implement the recommendations of the ATP concerning amenities around West Coast Express stations (e.g. washrooms, accessible pedestrian connections, improved lighting, cycling connections, bicycle parking, wayfinding).	one time per WCE station	medium-term and long-term	$ 10,000,000	-	$ -	1	$ 10,000,000	1	$ 10,000,000	$ 20,000,000	Assume $10M in upgrades per exchange
6	6.3	6.3.2	Continue the intersection safety program	Continue to use the existing intersection safety program to identify and address new issues arising	ongoing annual	all	$ 100,000	5	$ 500,000	5	$ 500,000	20	$ 2,000,000	$ 3,000,000	
6	6.3	6.3.3	Continue traffic control warrant assessment and investment program	Continue the traffic control warrant assessment and investment program	ongoing annual	all	$ 500,000	2	$ 1,000,000	2	$ 1,000,000	8	$ 4,000,000	$ 6,000,000	Assume two new signals per 5 year period
6	6.3	6.3.4	Consider traffic operational systems improvements	Continue to monitor traffic signal operations and adjust traffic signal phasing for efficiency and safety improvements	ongoing annual	all	$ 30,000	5	$ 150,000	5	$ 150,000	20	$ 600,000	$ 900,000	Largely staff costs; however, small amount to cover occassional upgrades / consulting fees
6	6.4	6.4.1	Continue the existing Traffic Calming Policy approach	Continue to use the existing Traffic Calming Policy and related practices to initiate, assess, prioritize, and plan traffic calming measures, as well as to finance and deliver recommendations	ongoing annual	all	$ 50,000	5	$ 250,000	5	$ 250,000	20	$ 1,000,000	$ 1,500,000	
7	7.1	7.1.1	Continue to install and expand electric charging infrastructure at community facilities	Continue to seek opportunities to install public charging locations, focusing on Level 2 charging stations at community facilities	periodic	short- and medium-term	$ 20,000	2	$ 40,000	2	$ 40,000	8	$ 160,000	$ 240,000	Assume $20,000 per charger, install chargers 2 years / 5.
TOTAL ALLOTMENT									**$ 7,025,000**		**$ 15,525,000**		**$ 28,860,000**	**$ 51,410,000**	

CITY OF MAPLE RIDGE STRATEGIC TRANSPORTATION PLAN
IMPLEMENTATION PLAN DETAILS - INVESTMENT PROGRAMS SUMMARY

Theme	Strategy	Action	Action Name	Task	Frequency	Horizon	Cost / Year	Short-term		Medium-term		Long-term		Total Cost	Comments
								# of years	total cost	# of years	total cost	# of years	total cost		

SUMMARY		
Short-term	$	7,025,000.00
Medium-term	$	15,525,000.00
Long-term	$	28,860,000.00
Total	**$**	**51,410,000.00**

Theme 3

SUMMARY		
Short-term	$	3,560,000.00
Medium-term	$	2,060,000.00
Long-term	$	7,100,000.00
Total	**$**	**12,720,000.00**

Theme 4

SUMMARY		
Short-term	$	125,000.00
Medium-term	$	125,000.00
Long-term	$	400,000.00
Total	**$**	**650,000.00**

Theme 5

SUMMARY		
Short-term	$	1,400,000.00
Medium-term	$	11,400,000.00
Long-term	$	13,600,000.00
Total	**$**	**26,400,000.00**

Theme 6

SUMMARY		
Short-term	$	1,900,000.00
Medium-term	$	1,900,000.00
Long-term	$	7,600,000.00
Total	**$**	**11,400,000.00**

Theme 7

SUMMARY		
Short-term	$	40,000.00
Medium-term	$	40,000.00
Long-term	$	160,000.00
Total	**$**	**240,000.00**