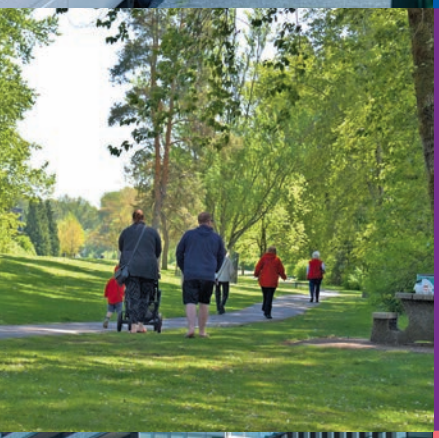


CONNECTING BURNABY

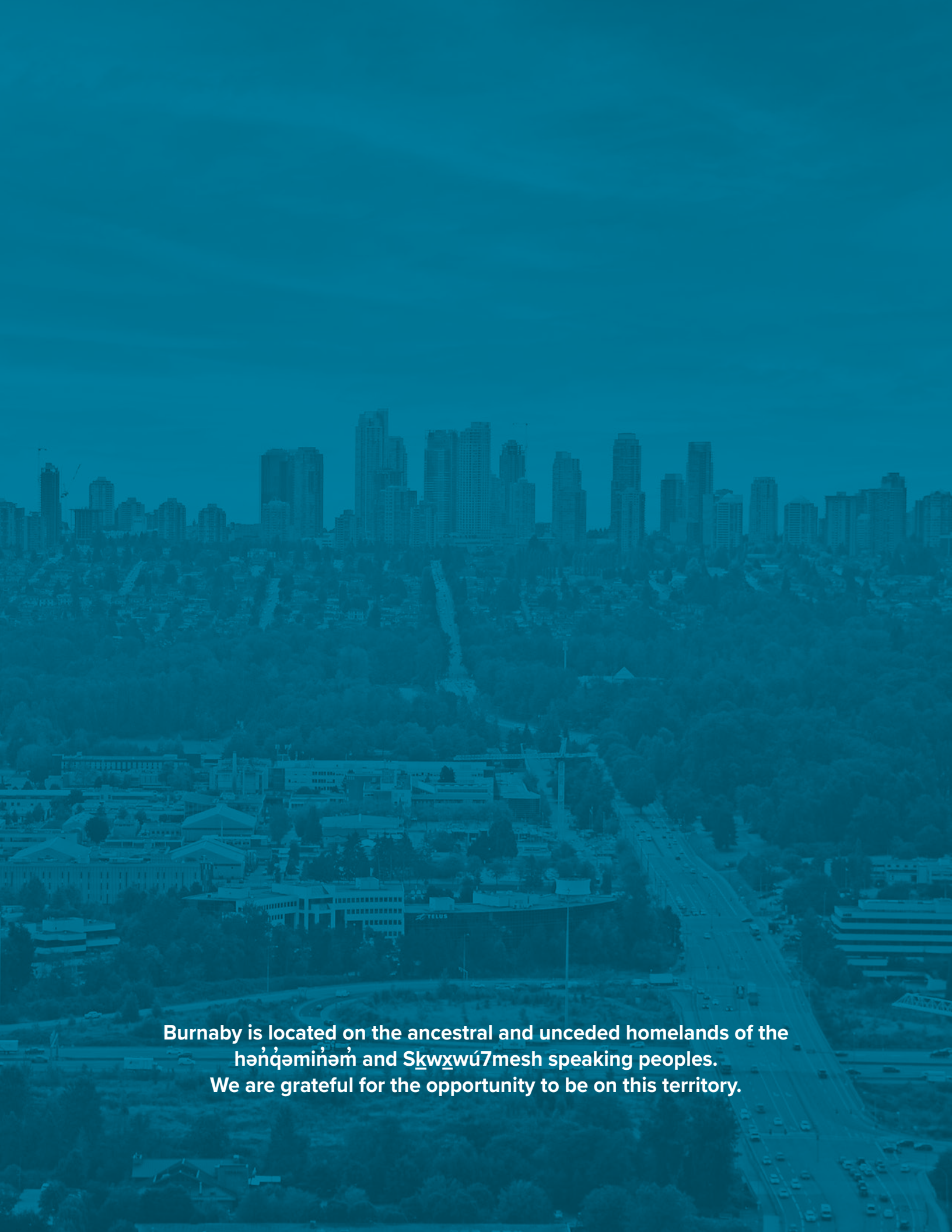
BURNABY TRANSPORTATION PLAN

DRAFT

BURNABY TRANSPORTATION PLAN

THIS IS CLIMATE ACTION

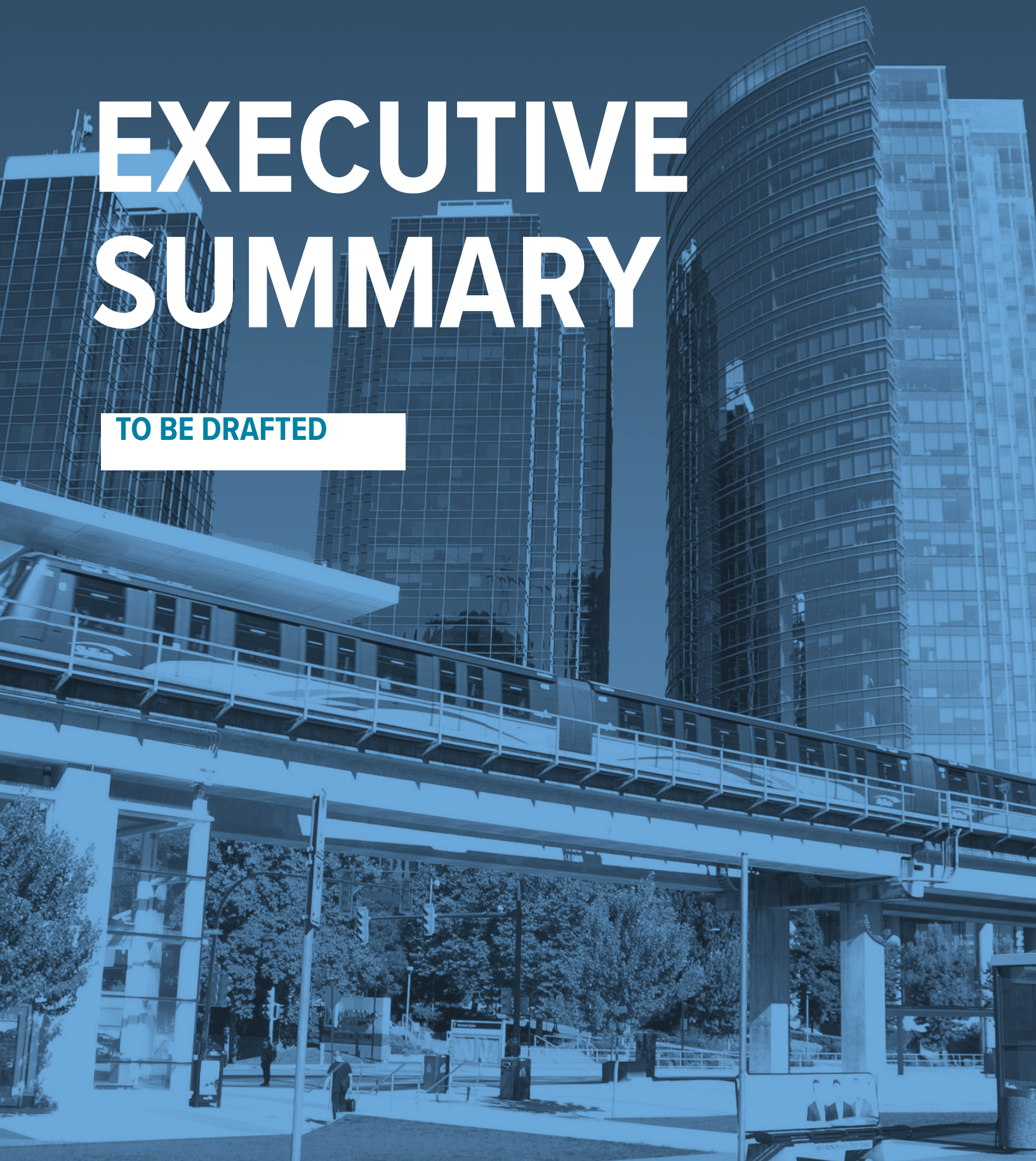
City of Burnaby



Burnaby is located on the ancestral and unceded homelands of the hən̓q̓əmin̓əm̓ and Sḵwx̱wú7mesh speaking peoples.
We are grateful for the opportunity to be on this territory.

EXECUTIVE SUMMARY

TO BE DRAFTED



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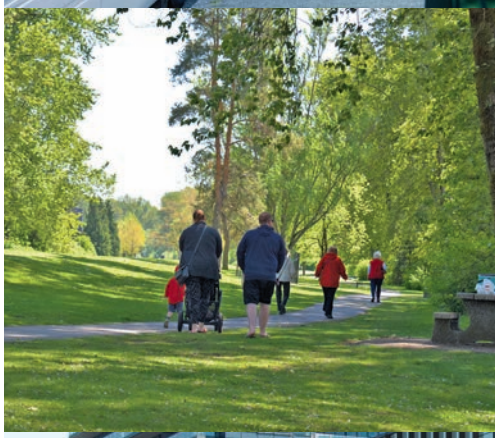
1.0

PLAN CONTEXT

1.1 INTRODUCTION

The updated Burnaby Transportation Plan, “Connecting Burnaby” is a 30-year plan that will guide transportation planning and policy decisions in Burnaby. It incorporates the City’s strategic policy direction (Economic Development Strategy, Environmental Sustainability Strategy, Social Sustainability Strategy, and Corporate Strategic Plan) and overall vision as “a world-class city committed to creating and sustaining the best quality of life for our entire community.” It also incorporates the City’s Climate Action Framework, which sets the roadmap for a cleaner future through building capacity and resilience and emissions reduction.



1.2 PLAN DEVELOPMENT

The Plan was developed over a three-phased process: Throughout each phase the public and stakeholders were engaged extensively in-person (prior to COVID-19), at community events, via on-line presentations and surveys, and social media. The City involved the public and stakeholders in Plan development, gathering input, receiving feedback and sharing results. This Plan is a reflection of the values of the community and its aspirations. It presents opportunities for innovation and "big picture" ideas, while achieving multiple goals and objectives in alignment with the community's values. It presents a holistic approach to transportation, balancing the needs of all road users, communities, and the natural environment.

The Plan is organized in five sections. Plan Context details who the Plan is for and why a new plan is needed. It summarizes other City policy contexts that support the development of a new plan, provides a snapshot of transportation in Burnaby, emerging issues and opportunities, and identifies stakeholders and partners that influence decision-making and future development in the City. The Vision expresses the aspirations of the Plan and the goals and targets it sets out to achieve within the 30-year timeframe. The Foundations discusses the overarching planning policy areas that influence the policies and actions of the Plan. The Big Moves, policies, actions, key performance indicators (KPIs), and networks are organized by Modes: walking and rolling, cycling, public transit, goods movement and driving. These policies and actions outline for decision-makers the "principle of action" to be taken towards achieving the targets. Finally, Implementation provides a framework for translating policies and actions into programs, projects, and other related plans. It measures progress, and provides criteria for evaluating the effectiveness of a policy towards achieving the targets, goals and vision of this Plan.

The Plan was developed over a three-phased process:

Phase 1 – Setting the Stage (July 2017-March 2018)

Phase 2 – Building the Proposals (April 2018-January 2021)

Phase 3 – Developing the Plan (February 2021-August 2021)

HOW TO READ THIS PLAN	
Plan Context	» How to Read this Plan » Stakeholders and Partners » Burnaby Context
Vision	» Vision Statement » Goals » Targets
Foundations	» Land Use Integration » Public Realm & Place-making » Streets are For Everyone » Transportation Demand Management » Behaviour Change (4 Es)
Modes	» Modes » Big Moves » Policies & Actions » Key Performance Indicators » Networks
Implementation	» Decision-making Framework » Performance Indicators » Monitoring and Evaluation

This illustrates the components of the Plan as being organized in a hierarchy, in which each component is connected, building and supporting the decision making process for transportation planning in Burnaby. Each component supports the overall Vision of the Plan and its achievement.

There are two main audiences for whom the Plan is drafted:

WHO	PURPOSE	WHY IS THE PLAN IMPORTANT
Public	To inform the public of the City's transportation vision, goals and targets over the next 30 years, as well as how the City intends to achieve the Plan's vision.	The Plan documents the community's values and transportation priorities.
City staff and Implementation Partners	To guide City staff, partners and consultants in future transportation planning and land use decisions, as well as the prioritization of projects and programs that support Plan implementation.	The Plan sets the transportation priorities of the City; establishes the policy basis for projects and programs; and, supports implementers to identify organizational needs, resources and capacity-building to initiate projects and programs.

1.3 STAKEHOLDERS AND PARTNERS

The Burnaby Transportation System is part of a wider system and community that connects the City to neighbouring municipalities, the broader region, nationally and even globally. As part of the wider system, the City works with partners and stakeholders to coordinate transportation decisions and investments to provide for safe, efficient and reliable movement of people, goods and services, as well as to support shared goals and objectives. Partners and stakeholders include:

Local First Nations	In 2019 Council adopted a policy framework that responds to the Truth and Reconciliation Commission of Canada Calls to Action for Local Government that focuses on reconciliation efforts in Burnaby. The framework encompasses the initiation of government-to-government relationships with the Katzie; Kwantlen; Kwikwetlem; Musequeam; Squamish; and Tsleil-Waututh Nations, and other Nations whose traditional and ancestral territories include Burnaby. Under this framework, the City seeks to improve engagement with local First Nations, establish effective working relationships and advance reconciliation. As the original stewards of the territory known as Burnaby, and as knowledge keepers on land use and environmental protection, local First Nations have a unique status and history in Burnaby. This Plan recognizes local First Nations' traditional knowledge base and the value it brings to future land use and transportation decisions.
Federal Government	The Federal government promotes the region as a "gateway" for the importing and exporting of goods, manages port lands and waterways, and provides funding for supportive road, rail and waterway improvements. It also contributes funding to major transit improvements, such as rapid transit. Car and tuck safety design requirements and rail operations are also a Federal responsibility.
Provincial Government	The Provincial government constructs and operates Highway 1 (Trans-Canada Highway) and short sections of connecting streets at the interchanges. Provincial legislation governs many aspects of mobility, such as vehicle licensing, insurance and rules of the road.
TransLink	The public transit system is maintained and operated by TransLink. TransLink provides some funding to municipalities to improve bike routes and provide public transit amenities. It also covers costs related to the construction and maintenance of the Major Road Network (MRN), which is an agreed-upon network consisting of mostly City streets with four or more travel lanes that connects across the region.
City of Burnaby	Most transportation infrastructure, aside from public transit, is built and maintained by the City. This includes most sidewalks, benches and other street furniture, bike routes, bus shelters, streets, traffic signals, and public spaces. The City also requires land developers and property owners to provide street improvements when properties are developed via rezoning or subdivision. The City is an advocate to other levels of government and partners for public transit and other components of transportation that are not within the City's mandates.
Neighbouring Municipalities	Burnaby borders the municipalities of Vancouver, Port Moody, Coquitlam and New Westminster via Boundary Road, North Road, and 10th Avenue-Holmes Street. Regional networks and connections also traverse through Burnaby, and connecting to our neighbours. The City is a partner to neighbouring municipalities in coordinating and facilitating connections across municipalities at a local and regional scale.
Partner Organizations	In addition to the above, other partners include Metro Vancouver, Vancouver Fraser Port Authority, Fraser Health Authority, Burnaby School District 41, post-secondary institutions, other academic institutions, rail companies, ICBC, the trucking, taxi, and commercial transit providers, transportation related non-profit organizations, local businesses and community associations, and enforcement and emergency service providers. These partner organizations advocate and/or provide input based on their jurisdiction or area of expertise.

1.4 TRANSPORTATION HISTORY

1.4.1 OVERVIEW

For thousands of years, Indigenous peoples used canoe routes and trails to access village sites and resources in present-day Burnaby. By the late 1800s, newcomers were building roads and railways. Burnaby was home to a network of electric railways and streetcars by 1913, which moved people and goods through the community and the region. Some early residents owned automobiles, but most walked to catch the streetcar, or to travel to work, school, and shops. Burnaby grew up around its early transportation network. Places where roads intersected with electric railway lines were the first to develop. After the Second World War, motorized vehicles became the dominant form of transportation. Today, the City is committed to re-developing a multi-modal transportation network. The following section thematically explores the evolution of Burnaby's Transportation System.

The Central Valley Greenway runs alongside the Brunette River in Burnaby, forming an important part of the transportation network. The river has been used for millennia by Indigenous peoples to access their territory and harvest resources. Source: CITY OF BURNABY ARCHIVES (477-753)

1.4.2 TRAILS AND WATERWAYS

For thousands of years, hən̓q̓əmin̓əm̓ and Sḵwx̱wú7mesh ancestors used canoe routes and trails to access village sites and resources in present-day Burnaby.

Since time immemorial, Burnaby has been part of the ancestral homelands of hən̓q̓əmin̓əm̓ and Sḵwx̱wú7mesh speaking peoples. Burnaby's lands produced a wide variety of plants and animals, and its waters were home to fish and seafood. Canoe routes and trails provided access to resources and village sites in present-day Burnaby.

By the 1850s, colonial governments were encouraging non-Indigenous people to become settlers in British Columbia through "pre-emption," which allowed them to receive title to land by clearing trees and building homes. Through pre-emption, land that had previously been used and shared by First Nations became the private property of individuals.

Royal Engineers, sent from Great Britain in 1858, surveyed land to create legal lots for pre-emption, and constructed early roads. Burnaby's North Road, Douglas Road, Kingsway (then the False Creek Trail), and Marine Drive (then McRoberts Trail) were constructed by the Royal Engineers, and most followed the routes of Indigenous trails.

During the early years of settlement, Indigenous people continued to use their traditional canoe routes and pathways to travel through Burnaby to fish, hunt, and collect berries and other food items as they had for millennia.

By the 1920s, hən̓q̓əmin̓əm̓ and Sḵwx̱wú7mesh people had been effectively isolated from their Burnaby resource and heritage sites, many of which were being overrun by expanding farmland and commercial and industrial development. Confined to Indian reserves following the introduction of the *Indian Act*, they had little access to their ancestral lands in Burnaby.

A 1900 photograph shows a dugout canoe in Deer Lake (in the foreground of the image). Burnaby remains part of the unceded territory of həṉqəm̓in̓əm̓ and Sḵwx̱wú7mesh speaking peoples, whose community members remain connected to Burnaby land and resources. CITY OF BURNABY ARCHIVES (477-753)

Douglas Road was an Indigenous trail before it was developed into a road by the Royal Engineers. This photograph shows Douglas Road (now Canada Way) near Rayside Ave., east of Deer Lake Brook in 1895. CITY OF VANCOUVER ARCHIVES (aM54-S4-: Str N7)

1.4.3 RAILS AND STREETCARS

Burnaby's early public transportation network shaped the community's urban development.

Burnaby's first public transportation infrastructure pre-dates incorporation of the municipality. In 1891, an interurban railway line was constructed to connect New Westminster and Vancouver, and ran through Burnaby. The new railway attracted settlers and real estate investors who advocated for the creation of the Municipality of Burnaby in order to construct roads, provide municipal services, and subdivide lands. As a result, Burnaby was incorporated in 1892.

Following incorporation, bylaws were passed to construct roads. Early roads included Edmonds and 6th Street (originally Mary Street). The network of electric railway lines and roads grew rapidly between the 1890s through the 1920s, which was a period of significant growth for Burnaby. Some early residents owned cars, while many walked or used the electric railway system to travel to work, school, and shops.

Places where roadways intersected with the electric railway lines were the first neighbourhoods to develop.

The intersection of Boundary and Hastings was also the location of a stop on the electric railway line. It developed early as a commercial hub. In this 1915 photograph, note the many forms of transportation: a wooden sidewalk on the left of the photograph, a dirt road with streetcar tracks in the centre, and a more substantial wooden boardwalk for pedestrians on the right. CITY OF BURNABY ARCHIVES (204-305)

Some significant ways Burnaby's early transportation network shaped the community's development include:

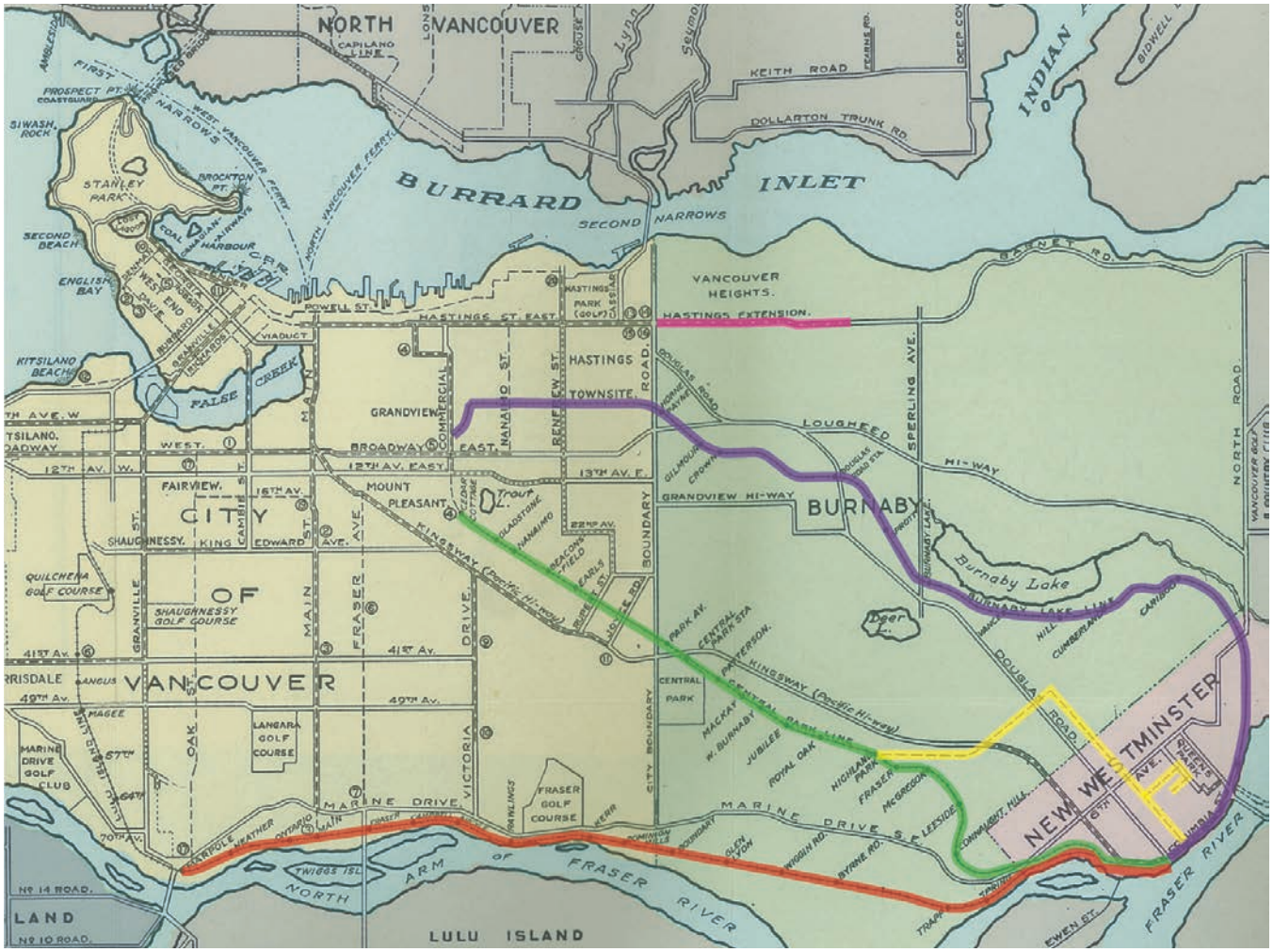
» The intersection of Edmonds and Kingsway was home to an interurban railway station, and became an early commercial centre and home to Burnaby's original municipal hall. It remains an important intersection today in Edmonds Town Centre.

» Commercial corridors developed along Hastings Street and 6th Street in response to streetcar routes, and remain busy commercial areas today.

» The route of the Central Park interurban railway line became the right-of-way for today's Expo Line SkyTrain and BC Parkway, and continues to serve as an important public transportation corridor.

» Between Boundary and Royal Oak, the area between the Central Park electric railway line and Kingsway developed into a busy commercial, industrial, and residential area. This area remains an important commercial area, and includes Metrotown Town Centre, Burnaby's most populated neighbourhood.

Alfred England walking on a wooden sidewalk on Royal Oak Avenue, circa 1915. Alfred commuted to Vancouver aboard the Central Park Interurban railway to his job in the composing room at the Vancouver Province. BURNABY VILLAGE MUSEUM BV020.9.5



1936 map of streetcar and interurban railway routes in Burnaby. WRIGLEY'S GREAT VANCOUVER STREET GUIDE

LEGEND

INTERURBAN LINES

- Burnaby Lake Line
- Central Park Line
- Westminster-Eburne Line

STREETCAR LINES

- Hastings Streetcar Extension
- Highland Park Line

A transfer point at Boundary and Hastings between Vancouver and Burnaby streetcars CITY OF BURNABY ARCHIVES (415-001)

1.4.4 ROADS AND HIGHWAYS

After the Second World War, Burnaby grew rapidly and motor vehicles became the dominant mode of transportation.

By the 1920s, most Burnaby neighbourhoods remained semi-rural, serviced mostly by dirt roads and separated from each other by large patches of brush and second-growth forest. Although Burnaby was home to upscale neighbourhood developments, the municipality was largely a working class suburb. Most Burnaby residents purchased small lots and built modest homes. They planted large gardens to help feed their families, and often traveled to jobs in the larger cities via the electric railway.

Burnaby's development was slow through the 1930s because of the Great Depression. The Lougheed Highway was constructed in 1937 and improvements were made to local roads, largely using the manual labour of relief workers.

Both the economic depression of the 1930s and the Second World War were difficult times for Canadians. After the war ended in 1945, many longed to settle down and enjoy peace and stability. Burnaby's reputation as a safe and family-friendly place to live attracted many new residents. The community's population tripled from 30,328 in 1941 to over 100,000 in 1961.

Many of the new residents purchased homes in suburban housing developments like Willingdon Heights and Brentwood. These new subdivisions boasted full urban services, including water, sewerage, electricity, and homes with modern appliances.

Passenger service on the B.C. Electric Railway lines was phased out between the 1940s and 1950s. Motor vehicles became the dominant form of transportation as suburban housing developments grew and the streetcar and interurban railway lines were closed. By 1956 nearly half the roads in the municipality had been paved. The 1960s brought more automobile traffic, and completion of the Burnaby leg of the Trans-Canada Highway in 1964.

By the time Burnaby's first Transportation Plan was adopted in 1979, it was recognized that alternatives to the automobile were needed. The plan called for a focus on public transportation, shared with improvement to the road network to support movement of motor vehicle traffic through and within Burnaby. The Transportation Plan supported the land use strategy expressed in Burnaby's Town Centre Plans to concentrate density in town centres with access to public transportation and services.

The construction of the SkyTrain ExpoLine in 1986 on the right-of-way of the original interurban railway line was an important step toward re-committing to public transportation. The development of trails, including the BC Parkway (1986) and Central Valley Greenway (2009), were other important steps in re-establishing a multi-modal transportation network connected to the larger region.

By the late 1940s, large subdivisions of modern housing were being built in Burnaby, such as the Willingdon Heights subdivision in North Burnaby. Many residents of these new subdivisions traveled by car. CITY OF BURNABY ARCHIVES (010-032)

The April 20, 1955 edition of The Buzzer announced completion of the phasing out of streetcars in Vancouver. BURNABY VILLAGE MUSEUM BV988.9.2

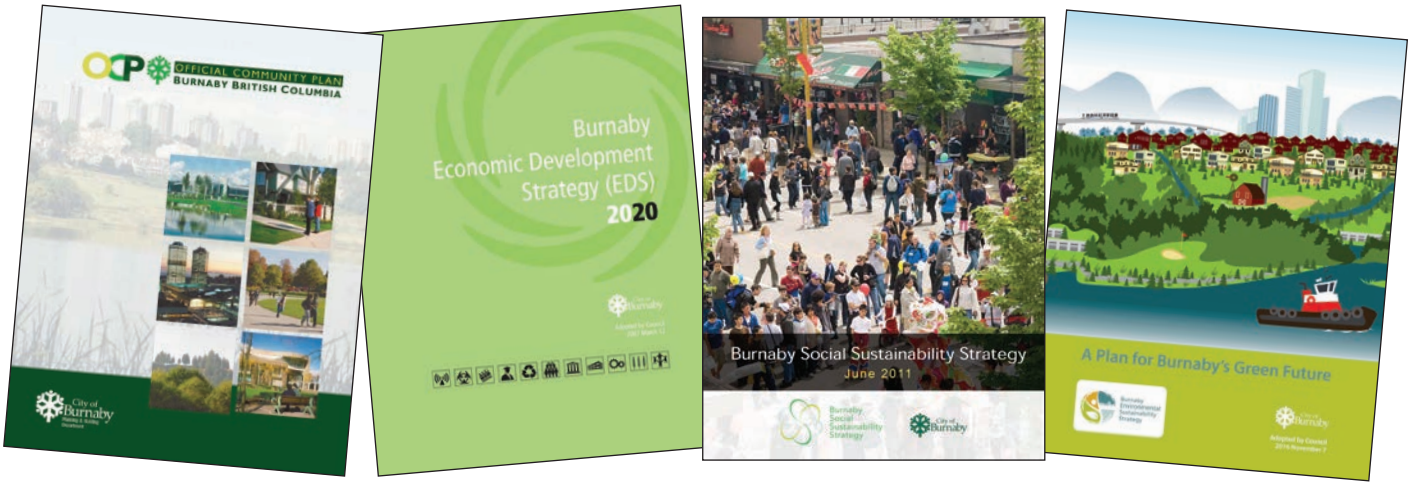
1.5 PRESENT DAY CONTEXT

1.5.1 BURNABY TODAY

Transportation continues to be an essential component of everyday life. It enables people to meet their daily needs, engage with their communities and explore the city and beyond. Transportation is also vital to Burnaby's economy and employment sectors. It supports a diverse range of businesses, institutions and industries and enables safe, reliable and efficient exchange of commerce, goods and services. Transportation also supports access to property and the delivery of essential services, such as emergency response, utilities (water, sewers, electricity and communications), solid waste and recycling and other public works.

Transportation also continues to shape Burnaby's development as a city. The types of transportation investments made influence how the City will continue to manage growth, how communities form and mature over time, and how neighbourhood character and special places are established by groups and individuals. In the same way, transportation is influenced by land use planning and policy decisions. It is guided by the City's overall vision for Burnaby as a world class city committed to creating and sustaining the best quality of life for our entire community, as well as the City's three overarching Sustainability Strategies and Climate Action Framework.

BURNABY SUSTAINABILITY STRATEGIES	
Official Community Plan (OCP)	As the primary city-wide policy document, the OCP provides the strategic direction, framework and guidance for the orderly management of growth and development in Burnaby. With the overriding goal to preserve and enhance community well-being and livability, it provides for the integration of land use, transportation, the environment, community facilities and services, and social and economic planning into a broad strategy to direct the growth and development of the City.
Burnaby Economic Development Strategy (EDS)	Recognizing the interrelated relationship between social, physical, and economic sustainability, the EDS functions in tandem with the EES and SSS by focusing on ensuring economic sustainability. The strategy sets out a series of action plans that aim to positively influence Burnaby's economic future.
Social Sustainability Strategy (SSS)	To ensure that the city will continue to be a great place to live, work, learn, play and visit, the City of Burnaby has developed a Social Sustainability Strategy. Social Sustainability is about people – individuals and the community working together to meet their needs, realize their potential, and prosper in a healthy environment.
Environmental Sustainability Strategy (ESS)	The Environmental Sustainability Strategy is Burnaby's plan for a "green" future. The Strategy is intended to provide a clear but flexible framework to guide future decisions, and as a foundation on which to develop more detailed policies and programs.
Climate Action Framework	Burnaby's Climate Action Framework sets the roadmap for a cleaner future. The Climate Action Framework is supported over the long term by: » the City's strong and ambitious carbon pollution reduction targets, aligned with regional targets, that commit the City to an energy transition by or before 2050; » implementable Quick Starts, that will be updated as actions are completed and new actions identified; » sustained resourcing for climate action, including in operating and capital budgets; » support from the community - both residents and businesses; and, » strong climate commitments, action and resourcing from senior governments.



1.5.2 PLANNING FOR THE FUTURE

Planning for the future, some of the key factors, emerging opportunities and challenges that influence the Plan are:

Burnaby as a Member of the Metro Vancouver Regional District

As part of the Metro Vancouver region, Burnaby works with Metro Vancouver, TransLink, and other member municipalities to coordinate land use and transportation decisions and support shared goals to promote the livability, health and sustainability of the region. In line with its commitments to the **Regional Growth Strategy**, Burnaby has been accommodating much of its growth within the four Town Centres – Metrotown, Brentwood, Edmonds and Lougheed. To support this growth, increased densities and mixed-use developments have been prioritized around transit stations; pedestrian and cycling networks have been upgraded; transit services has been enhanced; and, the City's road networks have improved. Looking ahead to the future, Burnaby will continue to be an active participant in shaping the region. Key priorities include, increasing emphasis on development around transit stations and rapid transit corridors; supporting regional active transportation networks; participating in strategies to support the economy including the safe, reliable and efficient movement of goods across the City and region; addressing increasing concerns over congestion; and supporting regional goals to reduce green-house gas emissions from transportation.

Land Use and Growth Management

Transportation planning and investments made in transportation infrastructure and programs will play an important role in land use and growth management. In coordination with the above, the City will also be undertaking a review of its Official Community Plan. The review will consider how to manage future growth, meet housing and mobility needs, support the local economy, and protect conservation lands and environmental assets. One of the key priorities will be to review how growing communities outside of the four town centres can be supported by enhanced sustainable transportation options and choices.

Housing Affordability and Transportation

Housing and transportation costs, both of which are often the two largest expenditures for households, are barriers for many. As part of future OCP and Community Plan updates, affordable housing options need to be provided where households have access to sustainable, cost-effective transportation options and choices, particularly transit, and proximity to places of employment and daily needs.

Climate Change

Burnaby's Climate Action Framework sets targets to achieve carbon neutrality by 2050. As the transportation system accounts for approximately 50% of all greenhouse gas (GHG) emissions in Burnaby, future transportation planning decisions will play an important role in achieving the City's climate action targets over the decades to come.

Transportation Demand

The demand for transportation services will continue to increase as the City grows, in order to continue to meet the diverse needs of Burnaby's residents, businesses and employment sectors. There is an emphasis on the provision of sustainable transportation options and choices to meet diverse needs as people seek access to more accessible, safe, reliable, healthy, comfortable and environmentally conscious options and choices.

Health

Active modes of transportation, such as walking, rolling, jogging, cycling, in-line skating and skateboarding, support physical and mental health and well-being. By emphasizing active and sustainable modes of transportation as integral components of a robust transportation system, it helps support the building of happier and healthier communities.

Economic Development

Burnaby's economy is heavily influenced by the transportation system, whether it's the movement of goods to global destinations or delivering to local businesses and residents. Ensuring access to the system, and safe, reliable and efficient movement of goods, services and employees will continue to be important for economic growth and developments. Similarly resiliency within the system to respond to emerging issues and trends, including climate change, changing business processes, new technologies, and sustainable management of finite land and resources will remain significant factors.

Sharing Economy

A growing trend in transportation is a shift towards the "sharing economy", where focus is on a variety of sharing opportunities, such as renting a car or bicycle, as opposed to ownership. Sharing programs, such as car-share, car co-ops, bike-share and the like have added to the spectrum of transportation choices.

Technology

Technology is ever evolving. People have greater access to information needed to plan trips and this changing our travel patterns. Technology is also increasing the availability of transportation options. Technology has made it more feasible and convenient to work across distances and, for some, to work from home. These types of advances in technology have changed how people move in the City and how they connect with each other on a day-to-day basis.

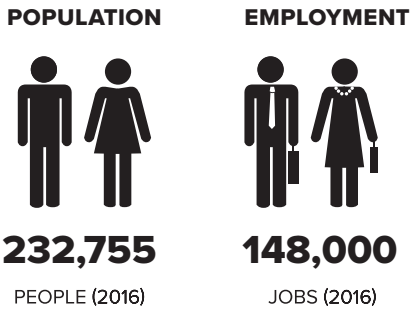
Planning for a Resilient City

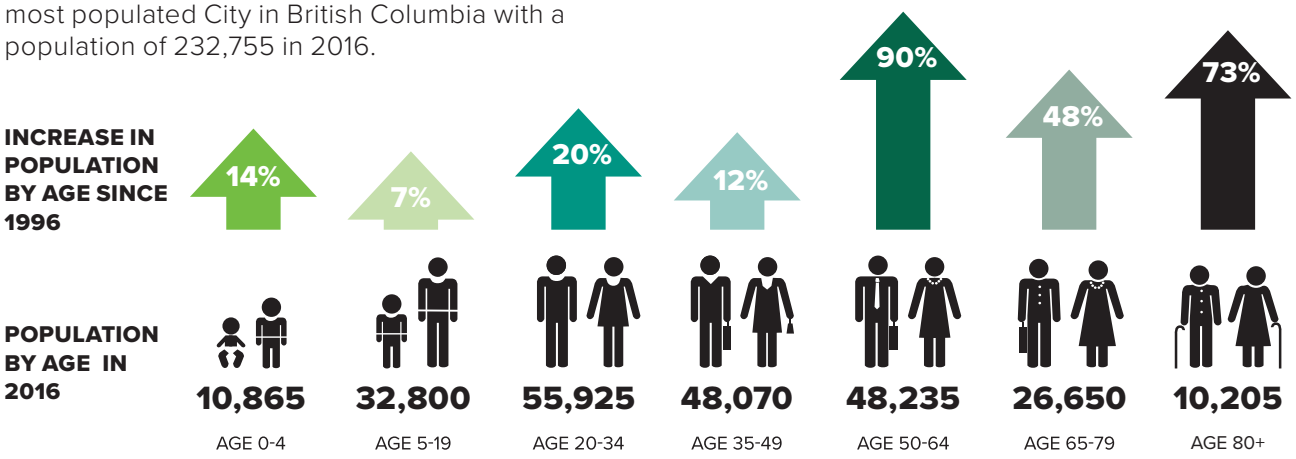
A robust and well-connected transportation system supports the resiliency of the wider urban system to respond better to changes or disturbances across different temporal and spatial scales. This Plan looks to continue to enhance the robustness and connectedness of the transportation system and its networks by enhancing transportation options and choice across all communities and improving its overall connectivity in-and-around and through the City.

1.5.3 TRANSPORTATION KEY FACTS

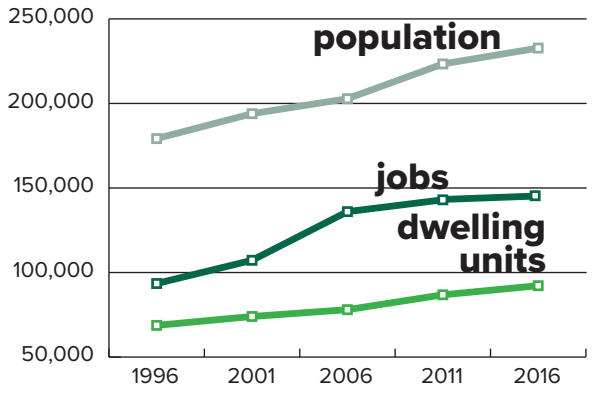
DEMOGRAPHICS

Over the last quarter century, Burnaby has witnessed significant changes in its demographic profile. It has evolved from a rural and suburban community to a significant urban centre that is socially, economically and culturally diverse. While Burnaby occupies just over three percent of the land area of Metro Vancouver, it accounts for about 10 percent of the region's population. It is the third most populated City in British Columbia with a population of 232,755 in 2016.





POPULATION AND JOB GROWTH

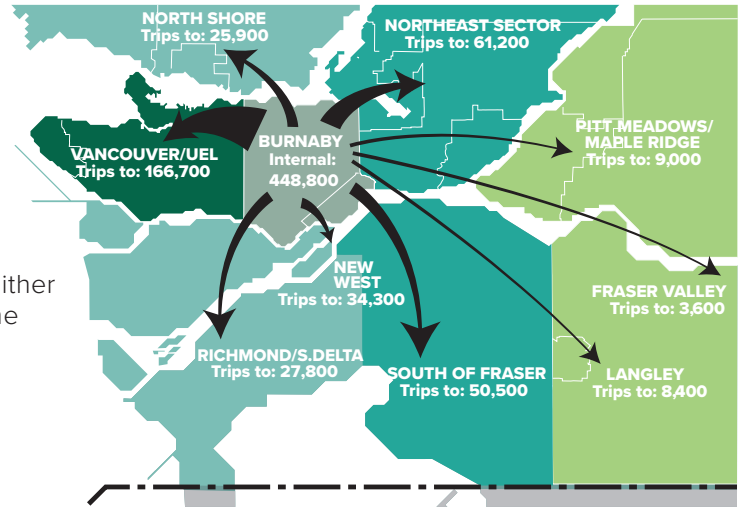


Burnaby's population has increased by 30% since the 1995 Burnaby Transportation Plan was adopted.

DAILY TRIPS

People make about 7.9 million trips in the region every day. Of these, about 2.3 million (20%) are made at least partly within Burnaby. Of the Burnaby trips, approximately 30% are made completely within the city, just over half cross either into or out of Burnaby, and the remaining 19% travel straight through the city.

DAILY TRIPS FROM BURNABY BY ALL MODES

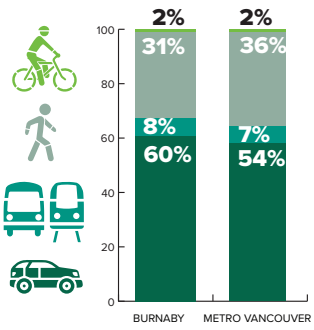


AVERAGE TRIP LENGTH (ALL TRIPS)

8.0 KM BURNABY
8.8 KM METRO VANCOUVER

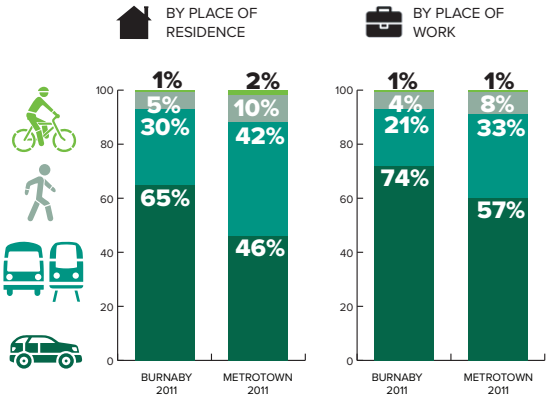
HOW DO PEOPLE IN BURNABY CHOOSE TO GET TO THEIR DESTINATIONS?

GETTING TO SCHOOL: MODES USED FOR GRADE SCHOOL TRIPS (2017 Trip Diary)



In Burnaby, approximately 40% of grade school students get to school by walking, biking, or transit.

JOURNEY TO WORK: MODES USED TO GET TO WORK (2016 Census)

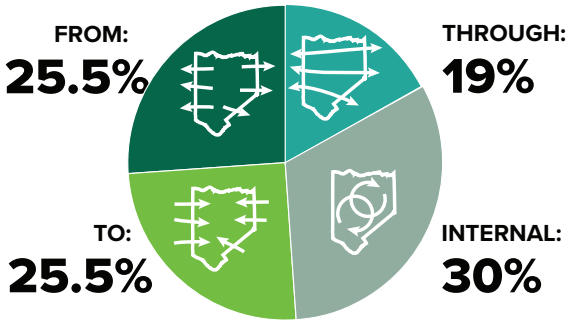


Both employees and residents of Metrotown are more likely to use transit, walk, or bike to work than residents of the City as a whole. Residents of Burnaby are less likely to drive to work if they live in a Town Centre such as Metrotown.

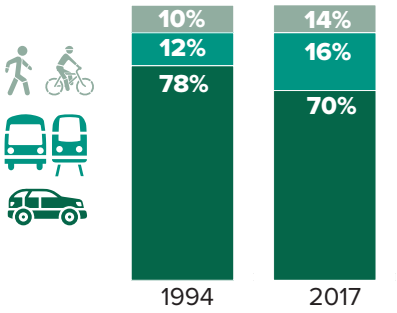
Due to rounding, percentages may not always appear to add up to 100%.

DAILY TRIPS IN BURNABY BY ALL MODES

Thirty percent of trips in Burnaby are taken within the city.

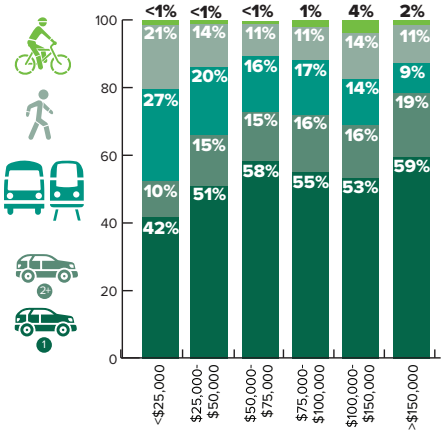


BURNABY / NEW WESTMINSTER ALL-DAY TRAVEL MODE FOR ALL TYPES OF TRIPS



Since 1994, the travel patterns of Burnaby / New Westminster residents have changed. Thirty percent of people are choosing to walk, cycle, or take transit.

MODE SHARE VS. HOUSEHOLD INCOME



Income influences choice of mode. For example, when annual household income is less than $25,000, 27% rely on transit, while 52% use a private auto. When annual income exceeds $150,000, only 9% take transit, while 78% use their cars.

2.0

VISION, GOALS & TARGETS

2.1 VISION

The Burnaby Transportation System will contribute to a vibrant and prosperous community by connecting people, places and goods; providing safe, accessible and sustainable transport options and choices for all people; and, supporting the health and ecology of the environment.

The updated Burnaby Transportation Plan sets out the long-term vision for transportation planning and decision-making in Burnaby over the next 30 years. It envisions connecting people, communities and places to foster an accessible, safe, healthy, green and prosperous community. Central to the vision is the development of a balanced transportation system that is comprised of well-connected multi-modal networks that are integrated within Burnaby's urban fabric. It is a pivotal element of building compact complete communities, place-making and a thriving local economy.

For Burnaby, a balanced transportation system will:

» provide access to transport options and choice;

» emphasize sustainable modes to meet daily needs;

» create opportunities for participation in city life;

» support the local economy through efficient and reliable movement of goods and services;

» encourage health and well-being; and,

» support City climate action initiatives towards emissions reduction.

2.2 GOALS

There are six goals in support of the Plan's vision. The goals are organized thematically as follows and are reoccurring elements throughout the Plan:

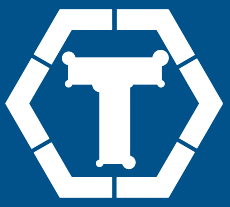
Access to Transport Options and Choice

Safe and Secure Mobility

Healthy Community

Green Mobility

Prosperous Community



Connected Community

2.2.1 ACCESS TO TRANSPORT OPTIONS AND CHOICE

The goal is two-fold: firstly, it is to provide all people access to the transportation system such that they are able to meet basic needs, including housing, employment, food, cultural, health, recreation and education. In this regard, access refers to:

» **Physical Access** – the ability of all people to travel within the system with dignity and relative ease, irrespective of age, abilities, gender, or race. The focus of access in this regard is the quality of the transportation system towards greater equity and inclusion, particularly of historically marginalized groups.

» **System Access** – the functionality of the system and its networks to connect people, places and goods efficiently, reliably and conveniently. The focus of access in this regard is the completeness and physical connectivity of the infrastructure that constitutes the system and its networks.

» **Financial Access** - refers to the affordability of traveling within the transportation system.

There are many facets to access; the objective of this goal is to reduce or eliminate the existing and potential barriers to access, particularly for marginalized groups.

Secondly, in alignment with the vision of the Plan, the goal is to provide transport options and choice, wherein the emphasis on the enhancement of sustainable transport options as a viable choice – walking, rolling, cycling, and taking transit or any combination thereof.

This goal also acknowledges First Nations peoples' access to their traditional territories and historical sites, and their resources. As such, the objective of this goal is to also support their access to both modern and traditional transportation systems and networks, through ongoing dialogue and engagement.

2.2.2 SAFE AND SECURE MOBILITY

The goal is to enable the safe and secure movement of all people, goods and services across all modes of transportation, as well as supporting emergency response. Safety and security is managed through:

» Physical design of the system and its networks;

» Travel at safe speeds;

» Education and behavioural change by users of all modes; and,

» Enforcement of transportation regulations.

Beyond physical safety, the goal is to improve the quality of sustainable modes of transportation through public realm design, street activation, and other urban design principles and best practices so as to enhance people's feeling of comfort and well-being when traveling by these modes. It aims to reduce the frequency and severity of transportation-related crashes; reduce actual and perceived risks of personal safety and security, crime and property damage; and promotes safe and respectful behaviour by all users of the transportation system.

Support for emergency response includes development of a system and network that ensures efficient and reliable emergency response through infrastructure development and emergency vehicle priority measures.

2.2.3 HEALTHY COMMUNITY

The goal is to support the health and well-being of the community by encouraging, enabling and empowering people to choose sustainable or active modes of transportation in order to meet daily needs. Active modes of transportation, which physically engage people in the act of moving, include walking, rolling and cycling. These modes not only enable people to get to and from destinations, they increase people's health and well-being in the process. There is a direct correlation between active transportation and increased fitness levels, and enhanced emotional and mental health through increased opportunities for economic and social exchanges and participation in city life.

Studies have shown that there is a correlation between air pollution and the environmental health of a community. It has been determined that higher levels of air pollution increase risk of respiratory diseases, such as asthma and lung disease. Populations at greater risk include children, seniors, and people with pre-existing respiratory diseases. Given that automobiles are a significant source of air pollution, a mode-shift towards active modes of transportation would have a direct positive impact on reducing levels of air pollution and enhancing overall health of the community.

A healthy transportation system enhances the health of a community by increasing the proportion of active transportation trips and increasing the opportunities to enjoyably connect with others and move around the city.

2.2.4 GREEN MOBILITY

The goal is to direct transportation planning decision-making and infrastructure investments towards sustainable modes of transportation, including but not limited to pedestrian, cycle and transit networks and facilities, but also infrastructure for energy efficient vehicles and goods. This goal is in alignment with other City policies, including the three foundational sustainability strategies (Environmental Sustainability, Social Sustainability, and Economic Development) and Climate Action Framework, which are aimed at reducing greenhouse gas emissions and other impacts of transportation, as well as improving overall environmental health.

A sustainable transportation system aims to reduce the environmental impacts of transportation by increasing the use of sustainable modes, encouraging a switch to low- and zero-emissions vehicles, and reducing the distances driven overall. It also supports resilience and adaptability, increased landscaping and natural systems within the road allowance and creates opportunities to protect and restore First Nations historical sites for future generations.

2.2.5 PROSPEROUS COMMUNITY

The goal is to support a thriving local and regional economy by providing a transportation system that allows seamless connections between modes of transportation; efficient and convenient service to a variety of destinations; and, decreased delays for people and for goods and services movement. The transportation system increases the City's competitiveness in the local and global markets and makes Burnaby a desirable place to live, work, play, learn, and shop.

The goal is also to manage transportation infrastructure in such a way that is not only cost-effective and financially responsible, but equitable across all modes and across the diverse needs of the community.

A thriving, prosperous transportation system increases the options available for goods and services movement and increases their competitiveness, cost-effectiveness and reliability. Investments seek to improve the efficient use of finite road space by increasing choices and access to sustainable modes, prioritizing access for goods and services, as well as the efficient operation and maintenance of infrastructure. It is a transportation system which increases opportunities for sharing (modes, resources, space and infrastructure), and considers opportunities for new technologies and ways of traveling.

2.2.6 CONNECTED COMMUNITY

The goal is to support the development of a connected community by addressing the historic, physical and socio-economic barriers to connectivity within the transportation system. In this regard, this goal is two-fold: physical connection and social connections.

Physical connection addresses the spatial characteristics of a connected community. It encompasses the integration of land use decisions with transportation planning towards the development of compact complete communities. For Burnaby, it also encompasses addressing physical barriers such as topography, landscape features and other transportation infrastructure (i.e. Highway 1 and railway lines), and finding ways to connect across, through or around them.

Social connections are key to building a sense of community. The transportation system facilitates the building of connections by enabling cultural, economic, social and environmental interactions and exchanges to take place. It enables interaction between neighbours, opportunities to conduct business and move goods and services, and the ability to interact with the environment and enjoy moving around the community.

As with the "Access to Transport Options and Choice" goal, this goal acknowledges the need to work with First Nations people on sustainable plans ensuring access to territories and historical sites, and their resources. The objective of this goal is to enable First Nations to be active participants in land use integration and transportation decision-making in Burnaby.

2.3 TARGETS

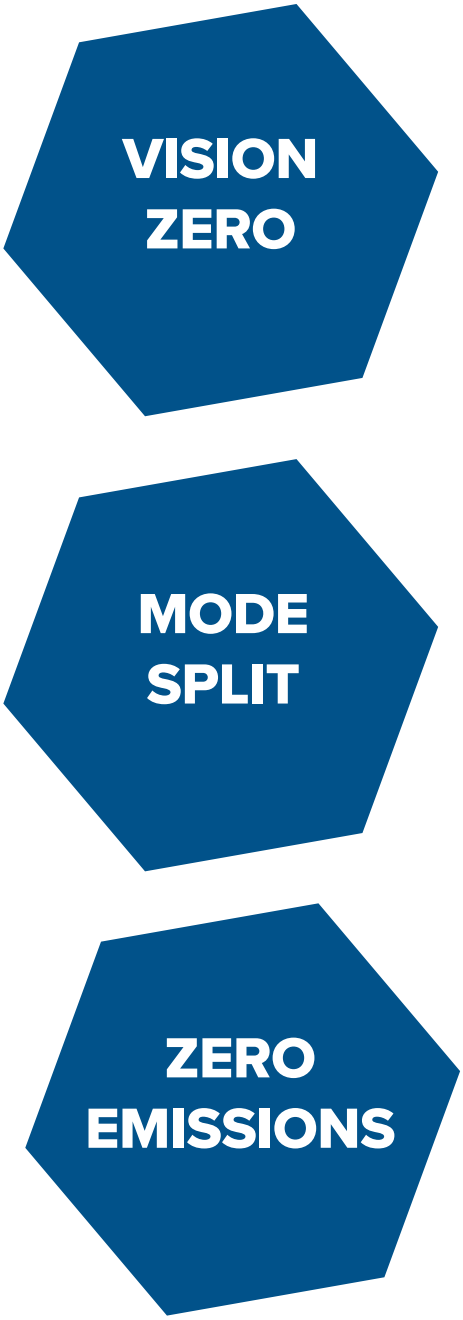
2.3.1 OVERVIEW

The targets are the desired outcomes of this Plan in enhancing the overall safety of Burnaby's transportation system for all users; prioritizing sustainable modes of transport to enable people to have transport choices and options; and, supporting the City's climate action goals and emissions targets. It bridges the Vision and Goals of the Plan and the Big Moves, policies and actions that will propel Burnaby towards achieving them, which are discussed in subsequent sections **Foundations** and **Modes**.

Each target is supported by measurable outcomes that are intended to:

- » enable the City to monitor, measure and evaluate progress over time;
- » support the City's organization and prioritization of policies and actions; and,
- » motivate the City and its communities to change travel behaviour.

The city-wide targets are an indicator of whether or not the policies and actions within the Plan are moving the City in the right direction or whether additional policies and actions are necessary.



The Plan has three city-wide targets as part of the overall Vision of the Plan.

2.3.2 TARGET: VISION ZERO

ZERO *No deaths or serious injuries on Burnaby's transportation network.*

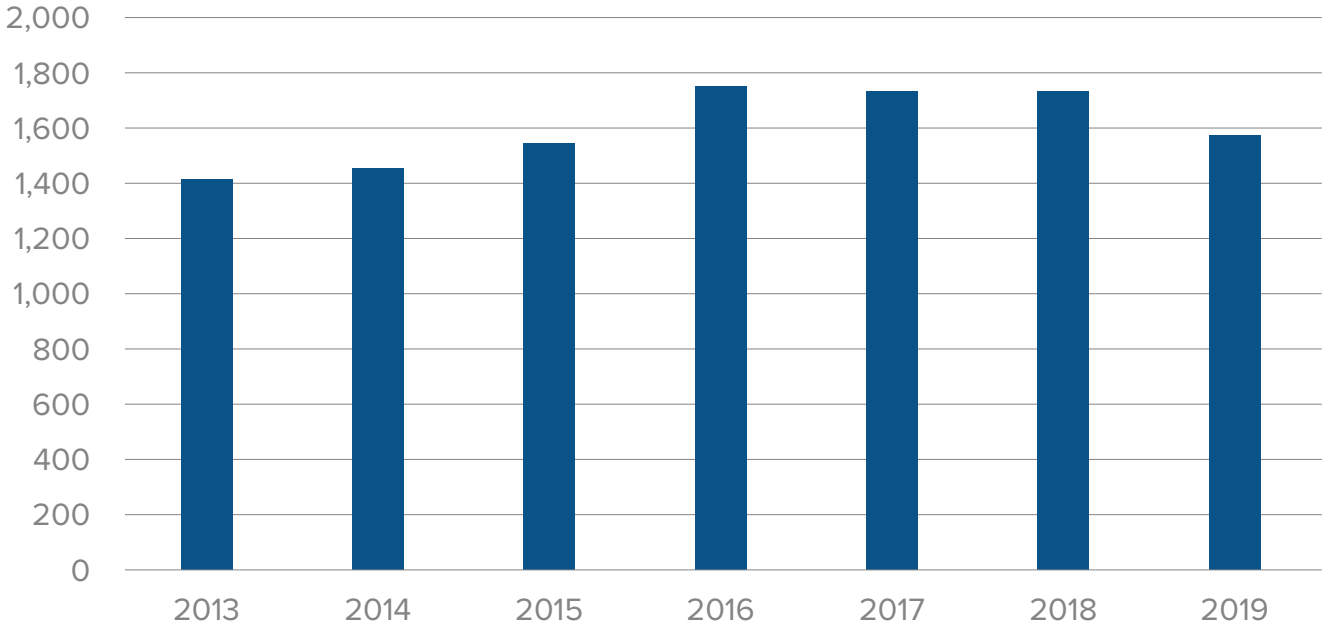
Vision Zero, which was first implemented in Sweden in 1997, is a call to action that states:

No one should be killed or seriously injured while participating in the transportation system.

Since that time, Vision Zero has been implemented by many governments as an approach to road traffic safety. It is underlaid by the belief that all traffic fatalities and serious injuries can be eliminated, while also increasing accessible, safe, healthy and comfortable mobility for all users of the road, through the development of policies and actions directed at safe design of streets and safe travel behaviour by all users.

For Burnaby, the success of policies and actions aimed at enhancing safety of the transportation system would be reflected in a marked downward trend in injury crashes, particularly casualty collisions, and crashes involving pedestrians and cyclists.

Injury Crashes per 100,000 Population



In 2019, Burnaby saw approximately 9,000 crashes per year, of which approximately 4,000 resulted in injury or, occasionally, death. Over the past decade, the number of injury crashes in Burnaby has remained fairly consistent below 2000 crashes per 100,000 population.

2.3.3 TARGET: MODE SPLIT

BY 2030 *½ of all trips will be by public transit and active transportation.*

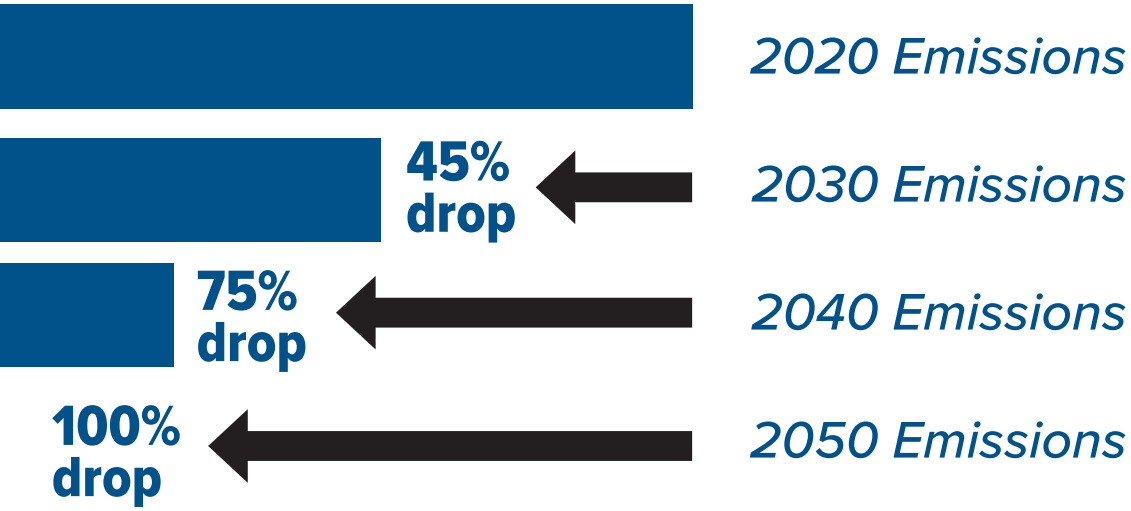
BY 2040 *⅔ of all trips will be by public transit and active transportation.*

BY 2050 *¾ of all trips will be by public transit and active transportation.*

Mode Split is aimed at improving transportation options and choices for all travelers, such that people choose to shift in their travel behaviour by walking, cycling and taking transit more, or any combination thereof. The targets represent the desired shift from driving over time as the Plan is implemented. Policies and actions focus on access and accessibility to sustainable modes; the quality and design of transportation infrastructure such that travel is safe, comfortable and reliable for all users; and, tools and strategies that induce travel behaviour change. Of the sustainable modes, policies and actions aimed at supporting and enhancing access and use of transit is identified as the single-most significant direction towards achieving the desired mode split in Burnaby.

Mode split is a measure of the percentage of travelers using a particular mode of travel. It is measured by calculating the proportion of trips made by walking or rolling, cycling, using public transit, or traveling by private vehicle. It is a good indicator of the quality of choices available as well as the overall land use patterns in the city. It is the most common way to measure travel behaviour and provides a high-level understanding of how people move in and through the city.

2.3.4 TARGET: ZERO EMISSIONS

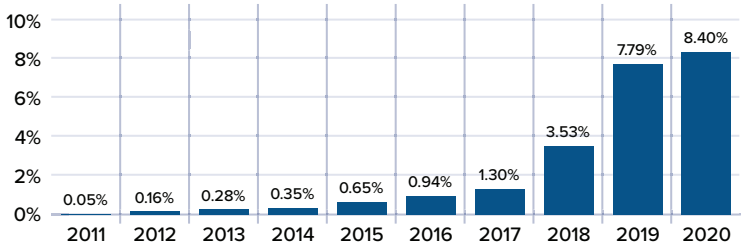


According to information in the 2010 Community Energy and Emissions Plan (CEEP), the City of Burnaby had one of the lowest emission rates per person in the province (4.3 tonnes per person), which is below the BC average (5 tonnes per person).

Zero Emissions is aimed at reducing emissions from transportation, and achieving a target of zero emissions by 2050. Greenhouse gases come from a variety of sources including buildings, transportation, waste systems and industry. In Burnaby, almost half of our greenhouse gas (GHG) emissions come from transportation activities. In order to achieve the City's Climate Emergency target of zero emissions from all sources by 2050, it is critically important to reduce emissions from transportation by moving away from the use of fossil fuels, particularly gasoline and diesel.

In tandem with policies and actions aimed at Mode Split, policies and actions for this target focus on the coordination of transportation and land use decisions to enable people to reduce overall travel distances to meet daily needs; support for green technology and business processes across all industries; and, continuing City investments in restorative measures for the environment, such as increasing greenspace and green infrastructure.

Proportion of new zero emissions vehicles (ZEV) registrations in BC



Source Statistics Canada

Over the past decade, there has been a significant growth in production of and purchases of zero emissions vehicles (ZEV). Recently, the electric vehicle incentives offered by senior levels of government have resulted in a significant increase in the percentage of new vehicle registrations which are zero emissions.

3.0 FOUNDATIONS

3.1 OVERVIEW

People's access to transportation, their transport choices and travel behaviours are influenced by a range of factors that relate to aspects of transportation planning, but are broader in scope in that they relate to other aspects of planning such as land use, housing, and public realm design. The influence of these factors spans all modes of transport and the type of transportation networks and systems developed within a community. They also impact issues around economic growth and development, equity, health and social well-being, safety and security, sustainability and other community priorities. It is within this context that this section presents five planning policy areas that are foundational to the Plan.

The planning policy areas are:

3.2 Land Use Integration

3.3 Public Realm & Place-Making

3.4 Streets are For Everyone

3.5 Transportation Demand Management (TDM)

3.6 Behaviour Change: 4Es
(Educate, Encourage, Enable and Empower)

Each sub-section is organized to provide an overview of the planning policy area and how it impacts transportation planning. The sub-section is followed by a series of policy directions that are to be advanced as separate future policies and work programs, which will support the achievement of the vision, goals, targets, policies and actions of this Plan, as well as other City policies and priorities.

3.2 LAND USE INTEGRATION

Land use and transportation are highly connected, in which one influences the other. Both land use and transportation decisions influence how growth is managed within a community. They influence how people access and meet basic needs, and interact with each other, their community and the surrounding natural environment. Many transportation challenges can be addressed through better coordination with land use planning and decision-making. This also presents an opportunity to better balance the economic, health, cultural and social needs of a community, as well as that of the natural environment, in a way that manages urban growth and allocation of transportation investments and resources in a manner that is efficient, equitable, and sustainable.

Foundational to this Plan is the concept and planning approach of **Land Use Integration**. Compact, complete communities that are supported by a balanced transportation system present an opportunity to reduce urban sprawl and strain on resources; reduce travel distances required to meet daily needs; and, provide convenient transport options and choices instead of driving.

The key components of a compact, complete community are:

- Densification around transit hubs and stations;
- Diverse mix of housing, employment and land uses to meet daily needs;
- Connectivity via multi-modal network; and,
- Place-making that is sensitive to community and land use context and respectful of First Nations archaeological, historical and cultural sites and inclusive public realm design.

The development of compact, mixed-use communities around transit hubs and stations is an essential component of *Land Use Integration*, and for Burnaby. It is perhaps the single-most significant move towards achieving the City's mode shift targets. As the act of taking transit is multi-modal in that transit users typically walk or cycle to a transit hub or station, successful communities that enable increased transit ridership also need to be supported by a highly walkable pedestrian-oriented environment with good cycle network connections.

The 15-minute city reshapes the standard notion of how many North American cities have been developed. The concept is grounded in the idea that one's human needs are located within a travel distance of 15-minutes. In the City of Burnaby, approximately 94% of all residents live within 15 minutes of a commercial/shopping centre (Commerical Zoned District).

This model of compact complete communities developed around transit hubs and stations already forms an integral part of Burnaby's land use framework, in which most of the City's growth and development is being directed towards the four Town Centres – Downtown Metrotown, Brentwood, Edmonds and Lougheed. The Town Centres provide for the highest densities, broadest mix of land uses and range of housing choices to meet the needs of citizens, all of which are supported by a range of commercial amenities, entertainment, parks and open space, and a comprehensive transportation network that supports sustainable transportation options and choices that are accessible, convenient, comfortable and safe. At a smaller scale, Burnaby's 11 Urban Village communities also aim to achieve this model of development.

The policy direction for ***Land Use Integration*** is two-fold: first, it directs the coordination of land use and transportation planning beyond the Town Centres. It focuses on supporting a higher level of land use and transportation planning coordination within Urban Villages, Community Plan areas and Frequent Transit Network corridors to support land uses, housing choice, densities and urban development patterns, by design and function, that positively impact travel behavior by making it easier and more convenient to choose sustainable modes of transportation. In short, the best way to achieve transportation goals is a good land use plan, and the best way to achieve land use goals is a good transportation plan. Potential future corridor study areas are anticipated to be a part of broader studies within the context of a Burnaby Official Community Plan (OCP) or Community Plan review process.

The second component of this policy direction focuses on the development of multi-modal networks that are accessible, comfortable, efficient, enjoyable and safe. It emphasizes the need for a higher level of integration and ease of connection between modal transfers, such as transfers between cycling and transit – all of which requires land or space within the road allowance to accommodate the necessary modal infrastructure. The policy direction in this regard seeks to examine what are the land-based conditions needed to support multi-modal connections, ranging from prioritizing modes within multi-modal corridors, determining space needs for facilities, technology, and partnerships with stakeholders, such as TransLink, to facilitate implementation processes. To support this body of work and other policies and actions contained within this Plan, this section presents a series of policy directions that need to be undertaken.

The Lougheed Town Center Core Area Master Plan is an example of transit-orient development (TOD) in Burnaby. Development of this community focuses on maximizing access to transit through land use management which encourages increased density around transit hubs.

POLICY DIRECTIONS

I. Update the Burnaby Official Community Plan to encompass policies that support the vision, goals, targets, and policies of the Burnaby Transportation Plan and its implementation at a City-wide, Community Plan and Master Plan scale in consultation with First Nations.

II. Investigate the feasibility of developing multi-modal hubs or points of interconnection between sustainable modes of transportation (walking and rolling, cycling, transit, and car-share) that facilitate transfers between modes in an accessible, safe and comfortable way and act as an interface between the built environment and transportation network.

III. Support the region's goal of directing growth and development within Urban Centres and Frequent Transit Development Areas (FTDAs) by continuing to direct a dense and diverse mix of housing types, jobs, services and amenities within Burnaby's four Town Centres, Community Plan areas and Urban Villages, all of which are supported by TransLink's Frequent Transit Network (FTN).

IV. Support affordable residential development along or near the Frequent Transit Network to help reduce the combined cost of housing and transportation, working with First Nations, BC Housing, and housing providers.

3.3 PUBLIC REALM AND PLACE-MAKING

The public realm consists of all publically-accessible areas and spaces that enable people to socially interact and engage with each other. It encompasses many areas and spaces that form an integral part of the transportation system and its networks including: streets and street frontages, lanes, plazas, squares, parks and open space, trails and other various rights-of-way, as well as civic and institutional spaces and facilities that provide public access, such as SkyTrain stations, bus exchanges and transit hubs.

The physical characteristics of the public realm, its components, the activities that occur within the space and at its periphery and how it interfaces with the transportation system, contribute to people's experience moving through or being within a space. These components also contribute to place-making, the creation of memorable public spaces that are highly valued and special public spaces. Within this Plan, the incorporation of **Public Realm and Place-making** in the design of transportation networks and facilities is identified as an important influencing factor in how people will choose to travel through and in-and-around Burnaby, as well as use the variety of public and social spaces that form part of the network.

For Burnaby, Public Realm and Place-making encompasses the following:

Special Places

Public spaces of cultural, historic, and environmental significance, particularly for Indigenous peoples, are an important component of place-making within the public realm. Specialness of place can be articulated through visual cues (i.e. design, public art, and signage) that provide acknowledgment of space and its significance to the community. Also, specialness of place can be celebrated through the use of public spaces for community celebrations, festivals and events. It is important that place-making is authentic and reached in a collaborative way with local First Nations, in recognition that Burnaby sits on their unceded, traditional and ancestral territories, and the community as a whole.

Sustainable Spaces

Street infrastructure and amenities can function in such a way that protects, restores or mimics natural cycles (i.e. rainwater management amenities); uses native plant species in landscape design; and, minimizes negative impacts on the natural environment throughout its life cycle-process. It also ensures that maintenance and operations of infrastructure and amenities are economic, easy to maintain and durable.

Modal Integration

The integration of two or more forms or modes of transportation to complete a journey is a critical factor in the way people choose to travel to meet their daily needs. It increases the accessibility of a city by making it easier to combine and switch between modes. While modal integration encompasses physical, informational and financial (or fare paid) integration, the focus here is on the design elements that enable physical integration or interface between modes at key locations, such as at transit nodes. Enhancement of the public realm to support multi-modal transport includes but is not limited to the back of curb, but also between the curbs.

Accessible, Safe and Inclusive Streets and Public Spaces

Streets and public spaces such as plazas, squares, and other similar destinations should be for all people, irrespective of age and ability, gender, income, culture and race. This guiding principle encompasses designing safe streets through the application of universal design principles: accessible, participatory, comfortable, ecological, multi-sensory, walkable and predictable. It removes barriers to access and promotes equitable use and enjoyment of streets and public spaces.

Public Realm Design Guidelines for All Public Streets

Currently, Burnaby has a public realm design standard for Town Centre Streets, which is typically being achieved across the four Town Centres, Downtown Metrotown, Brentwood, Edmonds and Lougheed, through the rezoning development process. These standards have served to enhance the Town Centres as walkable, pedestrian-oriented communities where people want to live, work, learn, shop and play. The establishment of public realm design guidelines for all streets within Burnaby would support the vision and goals of the Plan, as well as align with a broad range of Council policies and objectives, including the City's three *Sustainability Strategies* and recently adopted *Climate Action Framework*.

The following policy directions support public realm and place-making as well as the goals and strategies contained within this Plan.

POLICY DIRECTIONS

I. Establish public realm design guidelines for all public streets that support the vision, goals, and targets of the Plan, as well as the concepts described in this section.

II. Ensure a high quality public realm standard is applied through the Community Plan and Master Plan processes.

III. Investigate and implement opportunities for the temporary and permanent conversion of surplus road or on-street parking spaces for creative uses such as street programming including but not limited to parklettes and mini-plazas, community gardens, restaurant patio extensions, sidewalk extensions, bicycle parking extensions, and spaces for food and entertainment and other special events (e.g. food truck, retail kiosk and street performances).

IV. Support multi-modal integration by providing easy, safe and convenient linkages between modes of transportation.

V. Engage with local First Nations to identify Special Places and develop a program to ensure safe access to and use of these places are inclusive and respectful of local First Nations traditions, beliefs and uses of the space.

3.4 STREETS ARE FOR EVERYONE

Our streets and rights-of-way serve as more than places for cars. Lougheed Highway serves as an example of how streets can be used by a variety of users and functions.

As discussed in Section 1.3, Burnaby's road network is built upon the historic network of paths, trails and migratory routes which provided local First Nations peoples access to resources, settlements and places of cultural, economic, social and community significance. Early European settlers would later adopt and adapt much of this network as they arrived and settled in the Lower Mainland. It enabled mobility across the land, to travel and broaden connections, exchanges and relationships across greater distances. The modern road network continues to be the predominant form of access and mobility within the City and across the region. It enables people to:

- access basic needs (i.e. housing, food, employment, health, culture, education and resources);
- exchange goods, services and ideas;
- engage in leisure, recreation and social activities;
- receive property services – water, sewers, energy and communications; and,
- access essential services and emergency response.

It also enables the transport of oil and gas resources via pipelines to reach ports and terminals that lead to local and global markets. This planning policy area focuses on the above-ground characteristics and function of the network, as the majority of people, goods and modes move above ground.

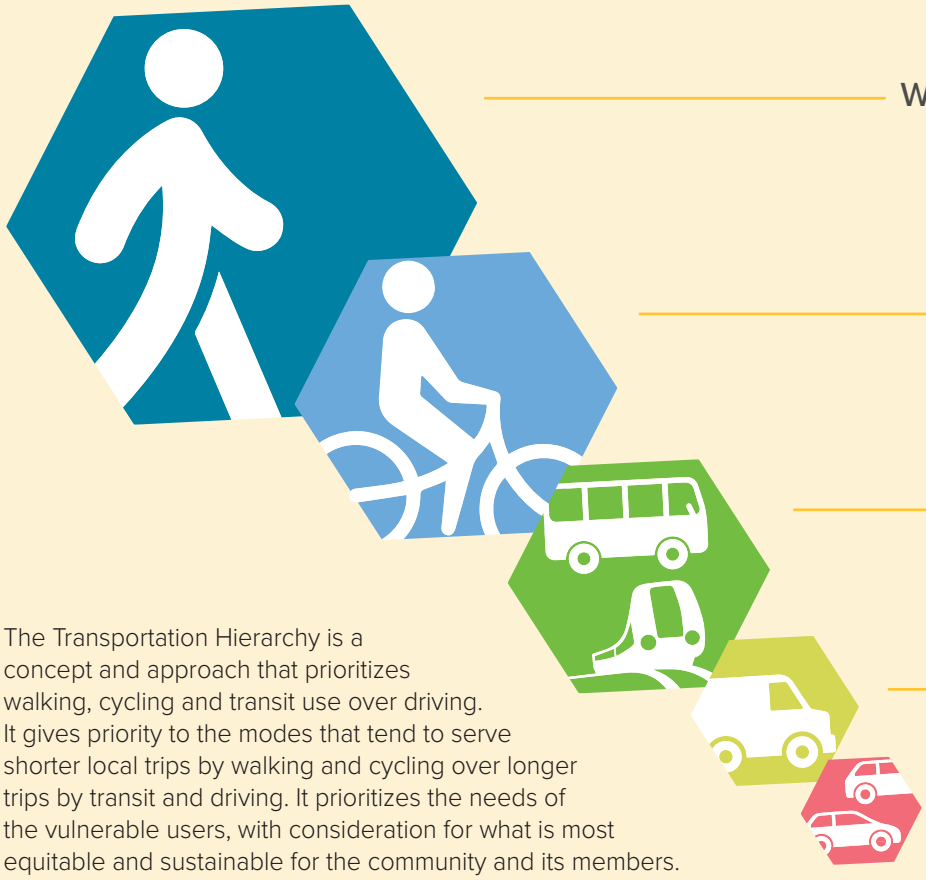
Since the advent of the automobile, use of the street has been predominantly framed within the context of driving; its design, emphasizing the needs of people traveling by car. In actuality, people use the street for diverse purposes, whether it is sitting outside of a local coffee shop to meet a friend, walking the dog to a nearby park, cycling to complete an errand, taking transit to catch a show downtown, or driving when necessary. How people use streets has also evolved as communities become denser, more urban and more mature; as innovation, technology, and new business processes emerge; and, as individual, group or community circumstances and conditions change.

Streets are for Everyone, as a foundational planning policy, views the street as a multi-functional space that serves many users and modes of transport. It requires streets to be planned, designed, operated and maintained to enable accessible, comfortable, convenient and safe access and mobility for all users, irrespective of their selected mode of travel. Streets as multi-functional spaces that are for all users, not just drivers, means accommodating space within the road allowance for:

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

The provision of streets that are accessible, comfortable, convenient and safe for all users raises a spatial dimension as to how space is apportioned between the various street functions and modes within the road allowance. It introduces the application of an equity lens to transportation planning and use of a transportation hierarchy approach when prioritizing the modes across the entire system.

Prioritising Sustainable Transport



The Transportation Hierarchy is a concept and approach that prioritizes walking, cycling and transit use over driving. It gives priority to the modes that tend to serve shorter local trips by walking and cycling over longer trips by transit and driving. It prioritizes the needs of the vulnerable users, with consideration for what is most equitable and sustainable for the community and its members.

The COVID-19 pandemic has resulted in many Burnaby businesses and communities adapting business practices and the ways in which outdoor social spaces are used in order to comply with Provincial Health regulations. During this time, some streets have been re-purposed as outdoor social spaces, expanded sidewalks, and facilities for curbside pick-up, highlighting the diverse functions of the street to meet people's needs.

Amongst the hierarchy of transportation modes for moving people, the needs of each user group is considered in priority order, with pedestrians as the top priority followed by cyclists, transit users, goods and services movement, and drivers. Pedestrians and cyclists, particularly children and seniors, are considered the most vulnerable road users. The spatial design considerations of street elements such as sidewalks, multi-use paths and cycle tracks and at crossing intersections, must consider their safety and comfort first and foremost. For some multi-modal corridors, it is acknowledged that accommodating all modes and street functions can pose a challenge where the road allowance within a corridor is constrained. In such cases, where two or more of the above noted functions may be competing, compromises and trade-offs may be required. Compromises may include, customized design and specifications of the various road components within the corridor. Trade-offs may include limited accommodation or restriction of one or more functions within the corridor.

As part of the decision making process and prioritization of street functions within the road allowance, context, adjacent land uses, and modal priority within the overall network need to be assessed. The City will also engage with the local First Nations to identify ways in which future improvements can be designed to respect the history of the land and the peoples and honour their roles as the original stewards of the overall network. To support this body of work and other policies and actions contained within this Plan, this section presents a series of policy directions that need to be undertaken.

POLICY DIRECTIONS

I. Develop a criteria for assessing the design of multi-modal corridors to help make trade-offs and decisions where there is not enough space within the road allowance to accommodate everything.

II. Develop a curbside management policy to address emerging technologies and businesses such as ride-hailing, car-share, and just-in-time delivery that seek use of the road allowance for commercial purposes.

III. Apply an equity-based and transportation hierarchy lens when developing design standards for all streets, engaging with local First Nations, stakeholders and the wider community.

IV. Initiate a street activation and beautification program for key corridors within each of the four Town Centres and 11 Community Plan areas, engaging with local First Nations, stakeholders and the wider community.

3.5 TRANSPORTATION DEMAND MANAGEMENT

The range of strategies that influence how, why, when and where people travel are often referred to as ***Transportation Demand Management (TDM)***. These measures can impact how (mode choice), why (trip purpose), when (time of day) and where (local) people travel and are an influencing factor in how Burnaby will achieve the vision, goals and targets of the Plan, particularly its mode-shift targets.

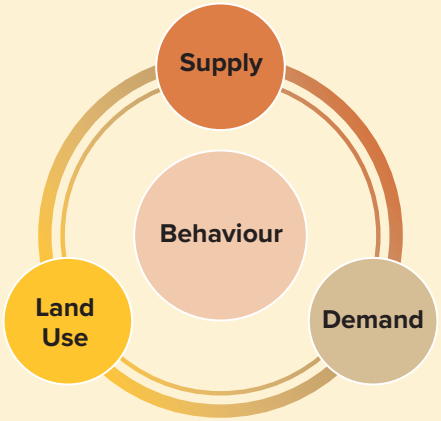
In Burnaby, ***TDM*** is focused on encouraging and maximizing sustainable travel behavior and choice, such as walking and rolling, cycling, transit and shared options, by managing vehicular traffic and parking while enhancing the effectiveness of the transportation system for sustainable modes.

Broadly, TDM strategies fall into three general categories:

- Compact Communities (land use) - land use management that maximizes accessibility and increases sustainable transportation options through land use integration such as Transit-oriented Developments;
- Improved Transport Options (supply) - improvement in transport options to increase modal choices such as new bicycle lanes;
- Motivation (demand) - incentives and disincentives that change travel mode, time, cost or destination.

The first two categories focus primarily on infrastructure and the built form, the latter focuses on behaviour. Enabling strategies complement the construction of physical infrastructure by addressing the factors behind personal travel choices. By providing information, encouragement and incentives/disincentives, the City can assist travelers to better understand and access all their transportation options, thereby optimizing all modes in the system. For example, reducing unnecessary vehicle trips by shifting to other modes, can reduce congestion and improve traffic flow for other users including bus transit, goods and services.

Incentives and disincentives to make specific travel choices more or less attractive can include: education and enabling programming that provides information and instruction, raises awareness, and builds positive attitudes towards specific personal travel choices that reduce the need for auto ownership; managing parking demand and supply to reduce auto dependence, use and ownership; and pricing measures such as transit subsidies, parking charges and mobility/road pricing. Section 3.6 of the Plan, Behaviour Change - 4E's further describes some of the provisions for influencing behavior.

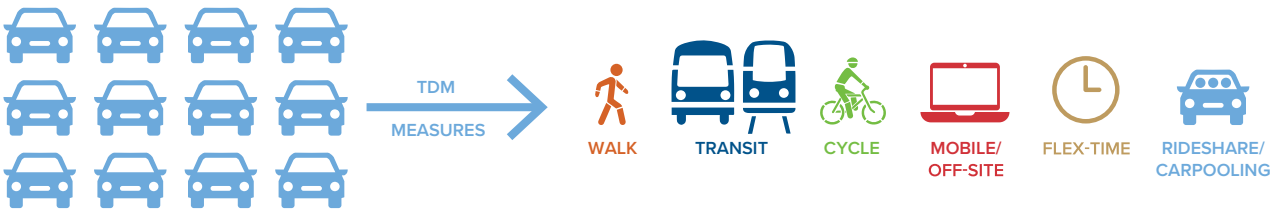


Mobility within the transportation system consists of three parts: transportation supply, transportation demand and land use.

*The **supply** side focuses on the infrastructure and services that travelers use to move about. It includes the modal networks (roads, active transportation networks, and transit system), and on and off-street parking facilities.*

*The **demand** side focuses on people's travel desires and modal opportunities/choices that influence behaviour and modal decisions.*

*The **land use** part includes all the places people travel to and from. These three elements constitute the physical, social and economic factors that influence travel behavior.*



***Transportation Demand Management* is critical to shifting behavior towards our mode shift targets by discouraging private vehicle trips and incentivizing sustainable transportation options.**

» It helps to shape the factors behind personal travel decisions including affordability;

» It facilitates behaviour change by influencing travel choice through strategies that:
  • maximize the convenience, value and attractiveness of sustainable transportation options,
  • dis-incentivize automobile dependence;

» It works in tandem with the other foundational elements of the Plan in creating urban form and land use patterns that are well served and accessible by sustainable transportation options.

TDM is one of the tools in the City's toolbox to meet the broader community goals of the Climate Action Framework and the Transportation Plan, by influencing the daily travel decisions of those within the community. To support this body of work and other policies and actions contained within this Plan, the following policy directions need to be undertaken.

POLICY DIRECTIONS

I. Establish a citywide TDM Strategy and supporting policies that promote sustainable transportation options for all scales of development and land uses, and is sensitive to the potential challenges that social and cultural inequities already impose.

II. Undertake the development of a Comprehensive Parking Framework that in alignment with the Plan Targets, and in support of other policy goals, sets out a strategic direction for the design, management and supply of parking for all modes of mobility, including the reduction in private auto dependency and increased affordability.

III. Support regional TDM initiatives such as mobility pricing to reduce the dependency on and impacts of single occupancy vehicle trips and vehicle kilometres traveled.

IV. Implement a Sustainable Transportation Enablement program that focuses on normalizing non-vehicular travel through programming such as marketing, monitoring and pilot projects, and building capacity within the community to actively promote sustainable modes.

3.6 BEHAVIOUR CHANGE: 4ES (EDUCATE, ENCOURAGE, ENABLE, EMPOWER)

Stakeholder and public engagement is an important component of how the City envisions it will achieve the vision, goals and targets of the Plan and implement its policies and actions. Engagement is seen as an important tool in listening, learning, and addressing transportation issues and concerns; collaborating and working with partners on achieving common goals and objectives; and, changing people's attitudes and behaviour, such that sustainable transportation options are their preferred mode of transport. ***Behaviour Change***, as a planning policy area, focuses on how the City, as an organization, can effect change.

The City plays an important role in engaging with the community to bring about a social change that fully embraces sustainable transportation choices and options through the **Four Types of Engagement (4Es) - Education, Encouragement, Enablement and Empowerment.**

Four Types of Engagement (4Es)

Educate	» Increase awareness of sustainable transportation options » Provide instruction on the safe use of sustainable modes of transportation
Encourage	» Share how transportation choices impact the community and natural environment » Inspire the use of sustainable modes through affirmation of the benefits » Provide incentive programs to promote use of sustainable transportation
Enable	» Develop programs that support people's access to sustainable and active modes of transportation and sustainable access to goods and services.
Empower	» Empower the community to become an active partner in achieving the vision, goals and targets of the Plan.

Work with social planning and seniors' groups to develop resources such as "seniors' best routes" (Age Friendly Walking Routes) to provide programs and information that encourage walking to stay active and engaged in the community.

The Seventh Generations Principle is a long-standing, pre-contact Haudenosaunee philosophy shared across Turtle Island which teaches that we must consider how the decisions we make today will impact the next seven generations. The teaching intends to create sustainability of resources and relationships, not just for those present today, but for those to come.

Empowerment, where the community is an active partner in achieving the vision, goals and targets of the Plan, is the mature stage of engagement and involves collaborating with the community in the design and implementation of policies, programs and projects. These relationships are founded on values of inclusion, cooperation and open dialogue. The required collaboration goes further than providing education and encouragement to change the way people travel. It consists of a two-way dialogue to ensure that the needs of the community are being heard at all stages of the Plan implementation, from the design of pedestrian infrastructure that is accessible for everyone, to creating learn-to-cycle programs that are understandable and user-friendly for everyone. The City will build stronger relationships with and engage with the community to make sure the facilities and programs are usable and beneficial for all people.

The City builds and maintains much of the transportation infrastructure within its boundaries, aside from public transit. Other levels of government, First Nations, as well as various agencies, institutions and stakeholders, also have a role in planning, building and managing the transportation system. The City will build on its partnerships with others to work toward reaching our common goals and targets, by sharing knowledge, resources and physical spaces, as well as by developing new policies, studying network corridors, and evaluating emerging technologies. At the organizational level, engagement involves modeling good corporate leadership. Much has changed since the adoption of the Transportation Plan in 1995.

The City's policy framework has expanded to include the concept of sustainability which is articulated through the three Sustainability Strategies (Economic Development Strategy, Social Sustainability Strategy, and the Environmental Sustainability Strategy). These policy pieces, in conjunction with the OCP, the Housing Strategy and the Climate Action Framework set the stage for the City's future priorities.

Since 2016, the City has also been committed to Truth and Reconciliation, and has taken measures to start building relationships with local First Nations and Indigenous peoples. The City will apply an Indigenous based lens, such as the Seventh Generation Principle, when advancing strategies and policies. With the federal and provincial governments moving to implement the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) as a legal framework for governing, the City will also need to consider how UNDRIP can be a tool for empowerment and relationship-building.

Work with TransLink, Metro Vancouver, and neighbouring municipalities to enhance connections between cities by encouraging a shared approach to wayfinding.

There is a greater focus on health and protection of the natural environment. There is recognition that the City has finite land available for transportation infrastructure, and a realization that congestion cannot be mitigated by building more roads. There needs to be a change in behaviour in order to meet both the targets of the City's Climate Action Framework and those of the Transportation Plan. The City has a role to play as a leader by adopting internal policies and actions that support the Vision Zero, mode split and climate change targets. There need to be changes in how the City operates and manages delivery of services in order to meet the Plan targets. For example, by carefully considering where new facilities and services are located within the city, and how staff travel both to and from work, and during working hours, it can minimize the vehicle kilometres associated with the delivery and use of City services both by staff and customers.

It is critically important to be accountable to the community by monitoring and evaluating how well the infrastructure and supporting programs are working towards achieving the targets of the Plan. By regularly reporting on successes, the City will encourage further participation in the process of behaviour change. To support this body of work and other policies and actions contained within this Plan, this section presents a series of policy directions that need to be undertaken.

Work with schools to develop resources, such as the "best routes to school" for walking and cycling.

Develop a robust public education materials and resources on the City's web page which highlight the benefits of choosing sustainable modes of transportation.

Work with partners and adjacent municipalities to implement a public bike share program that is integrated between cities. It could also include e-bikes and other shared mobility devices.

Work with the RCMP, ICBC and community to foster increased awareness of safety around vulnerable road users.

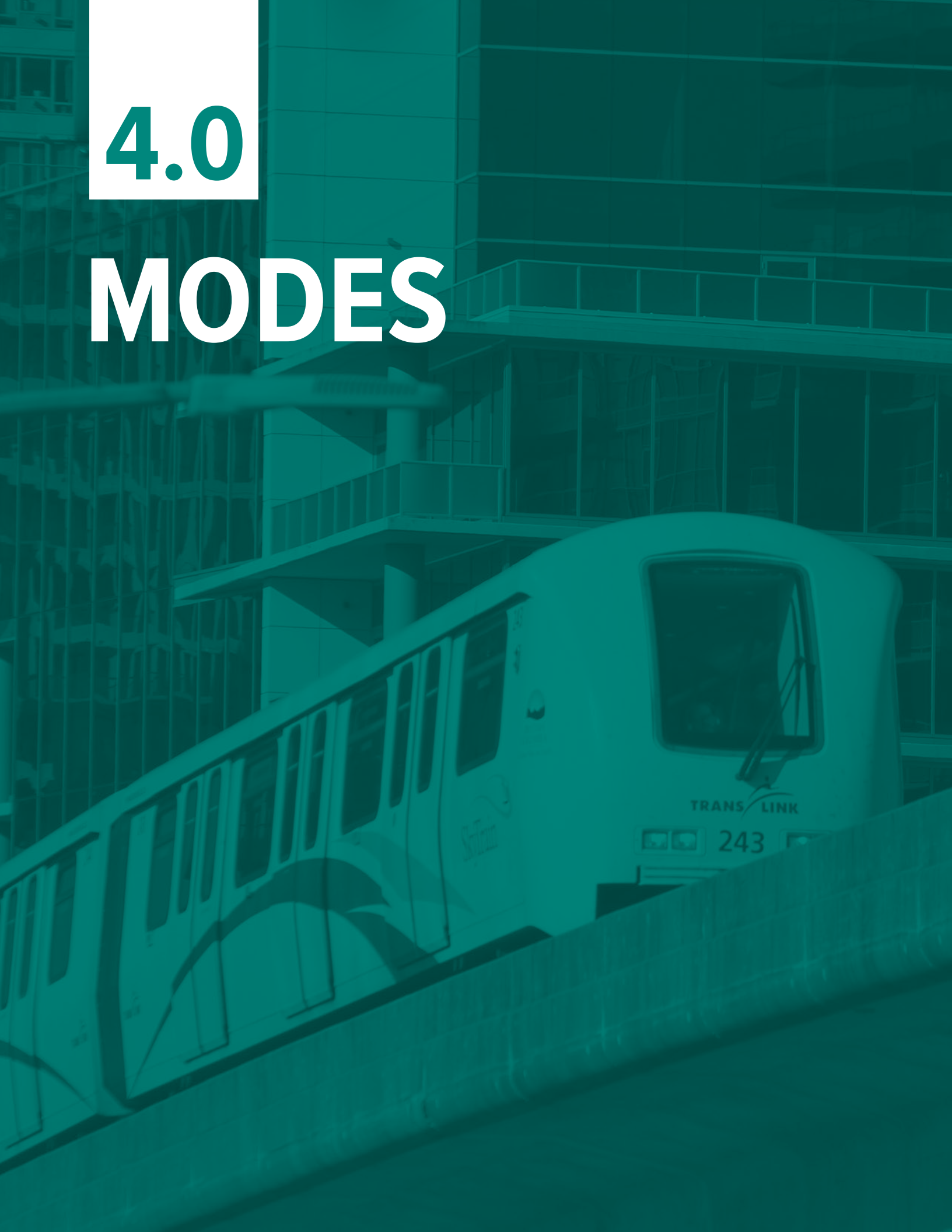
POLICY DIRECTION

I. Develop a City-wide strategy for engaging with the community to educate, enable, encourage and empower people to choose more sustainable modes of transportation in order to meet the goals and targets of the Transportation Plan.

II. Model corporate leadership by hiring an active transportation planner/engineer to lead work with the community and stakeholders to develop programs to enable and encourage a shift to sustainable transportation.

III. Engage with neighbouring cities, First Nations, TransLink and other stakeholders to coordinate policies, programs and infrastructure supports such as wayfinding to encourage sustainable transportation.

4.0 MODES

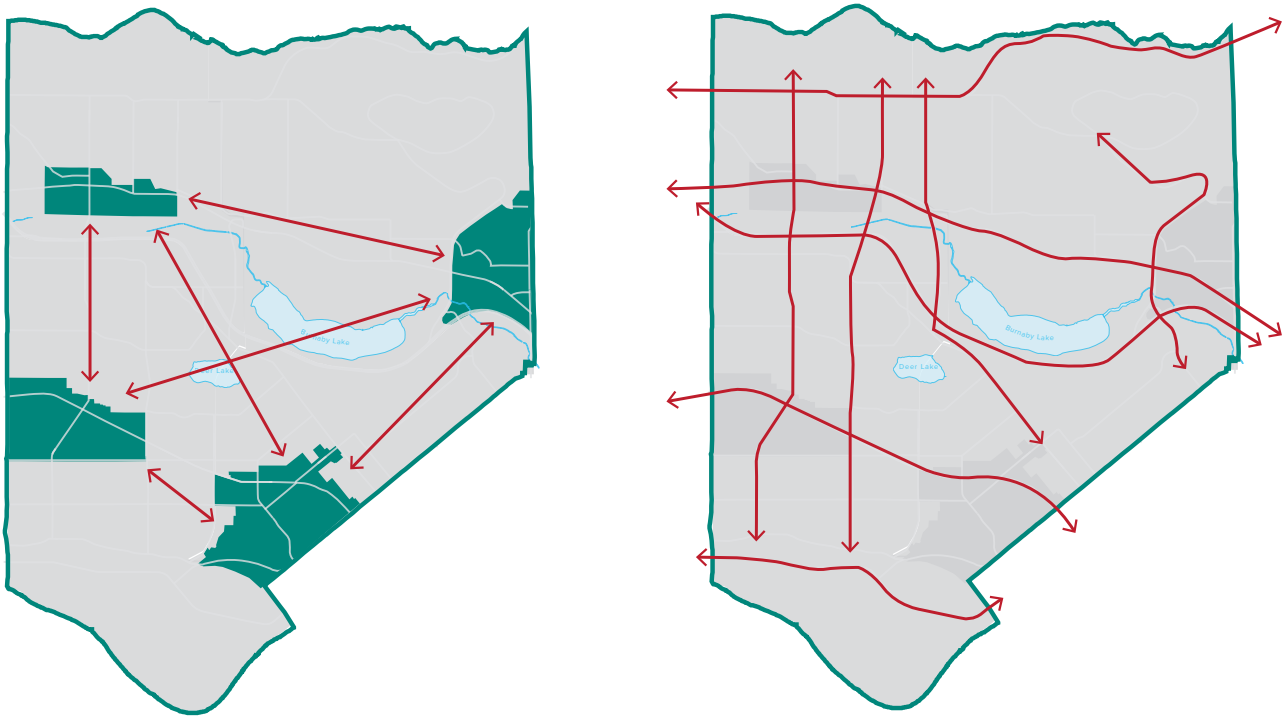


4.1 THE BURNABY TRANSPORTATION SYSTEM

The Burnaby transportation system supports the movement of people, goods and services to, from, within and through the city. It connects Burnaby locally, across the region and globally. People and the local economy rely on safe and reliable access to the system to reach their destinations.

The system is comprised of networks, facilities and infrastructure that include transport via road, rail, transit, water and air. The City works closely with authorities, such as TransLink, senior levels of government and stakeholders to coordinate transportation planning and development with land use decisions. The City is also committed to improving engagement with local First Nations on transportation and land use decisions.

Of the transportation networks and facilities in Burnaby, the City has primary responsibility over the management of the road network, with the exception of Highway 1 – Trans-Canada Highway and several roads that connect to it, which are managed by the Provincial government.



The Burnaby Transportation System enables people to travel and connect to local destinations within Burnaby, between Town Centres, and beyond to the broader region.

4.2 ROAD NETWORK CLASSIFICATION SYSTEM

The Burnaby road network is based upon a road classification system that designates streets into different groups or classes based on their intended function and carrying capacity.

Each classification defines the following:

- function or purpose of the street type, including but not limited to access to properties, movement within a neighbourhood, movement within the city, movement between municipalities, and movement across longer distances (i.e. regional);
- characteristics, including number of lanes, lane widths, and limitations (i.e. restricted parking, access limitations);
- carrying capacity (i.e. volumes of people it carries per day); and,
- regulatory ranges (i.e. speeds of travel).

Streets that are operated in accordance with their designation or intended service function, across all modes of transport, provide for safer and more efficient and reliable travel for all road users. Following such a classification system can also help to reduce the adverse impacts of automobiles, such as congestion within neighbourhoods, by directing higher-volumes and speeds onto higher classification roads, such as arterials.

STREET CLASS	FUNCTION
Major Arterial	Provides mobility for people and goods through the City, between Town Centres and to major destinations. Carries regional, inter-municipal, and intra-municipal trips. Typically 4 -6 travel lanes, turning lanes at major intersections, and may include dedicated lanes for transit and/or trucks to increase people moving and/or goods movement reliability.
Minor Arterial	Provides mobility for people and goods, between major activity centres within the City. Carries both inter-municipal and intra-municipal trips. Typically 4 travel lanes, turning lanes at major intersections and may include dedicated lanes for transit and / or trucks to increase people moving and / or goods movement reliability.
Major Collector	Balances mobility and access as primary functions, providing mobility for people and goods between and through major industrial, commercial, high-density residential and major activity centres. Carries intra-municipal and neighbourhood trips and connect minor collectors and local roads to arterial streets. Typically 2-4 travel lanes, turning lanes at major intersections, and may accommodate parking with a focus on short-term, high turnover uses and occasional driveways.
Minor Collector	Balances mobility and access as primary functions, providing mobility for people and goods within neighbourhoods and connect local roads to other collectors and arterial streets. Typically carry predominantly local trips with two travel lanes, turning lanes at major intersections, and accommodate parking and some driveways.
Local	Provides access for people and goods to individual parcels. Typically have no undivided travel area and accommodate parking and driveways.

TransLink, in partnership with municipalities, plans the region's Major Road Network (MRN). The MRN streets support the safe and efficient movement of people and goods across the region. It includes 675 kilometres of major arterial roads that carry commuter, transit, and truck traffic. MRN roads in Burnaby include all or a part of: Boundary Road, Willingdon Ave, Gilmore Ave, Kensington Ave, Canada Way, Griffiths Ave, Gaglardi Way, North Road, Hastings St, Barnet Hwy, Burnaby Mountain Pkwy, Lougheed Hwy, Kingsway, Imperial St, Southridge, Marine Way, and 10th Ave.

4.3 OVERVIEW OF MODES

The five modes of transport supported by the road network and their companion Big Move are:

Walking & Rolling

Big Move

» By 2030, 80% of the Burnaby pedestrian network will be completed to provide an accessible, safe, and comfortable walking and rolling environment.

Cycling

Big Move

» By 2030, the Phase 1 cycle network will be completed, providing clear consistent and continuous connections between town centres, major destinations and to neighbouring municipalities.

Public Transit

Big Move

» By 2030, the City will install 370 additional bus shelters or bus benches to increase transit passenger comfort.

» By 2025, the City in partnership with TransLink will complete feasibility studies for future rapid transit corridors to inform the upcoming OCP review, and identify necessary land investments to protect specific corridors.

Goods Movement

Big Move

By 2023, the City will establish policies to:

» require multi-family developments to provide secured storage amenities for oversized deliveries and goods requiring cold storage; and,

» require the provision of EV charging infrastructure for fleet vehicles across businesses, industries and institutions.

Driving

Big Move

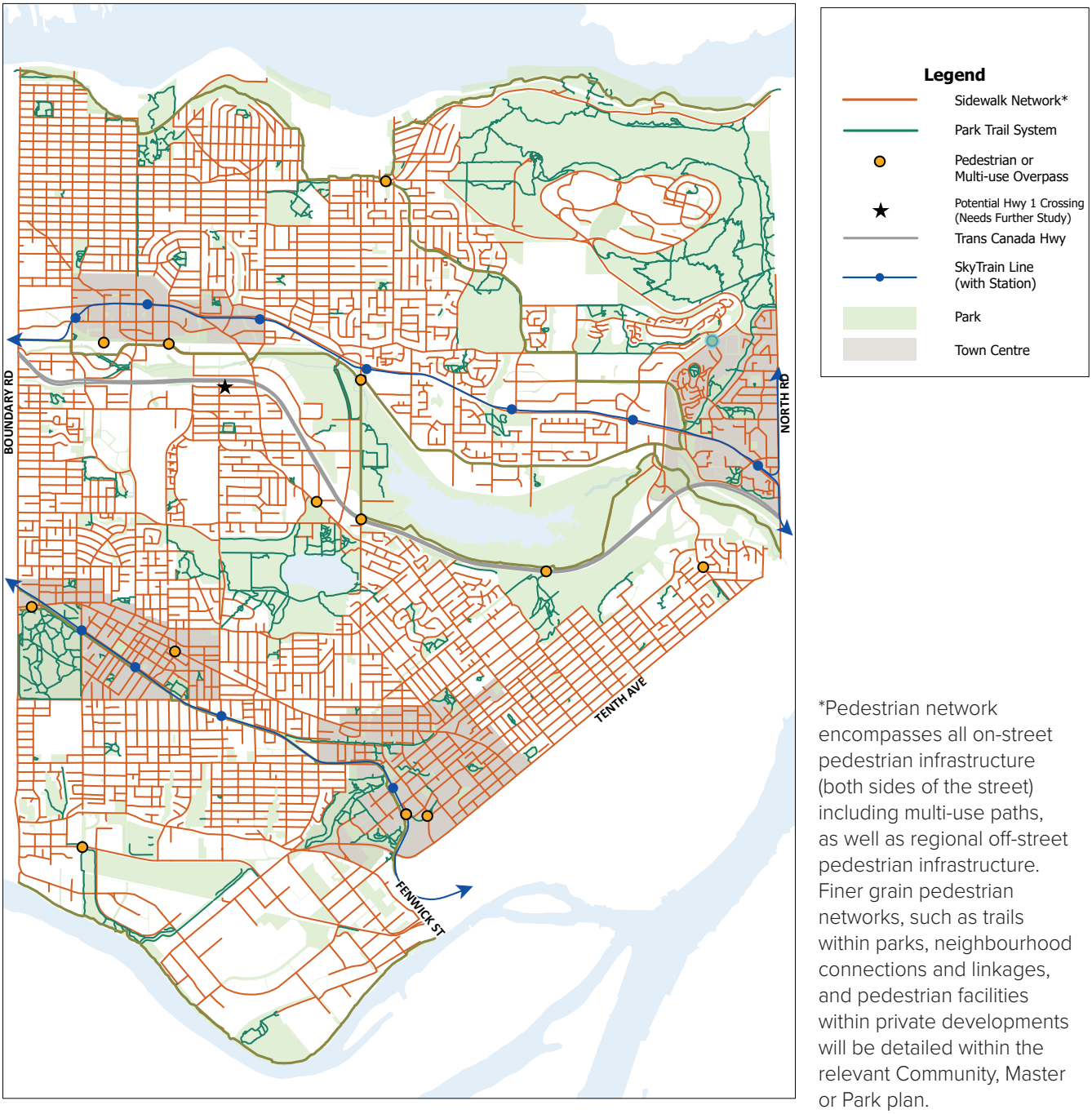
» By 2026, develop and implement a Smart City Plan for Burnaby comprising of sensor technology, real-time data transmission and analytics to improve safety and optimize network performance.

The road network, its function and the modes of transport that make use of the network is a policy focus of this Plan. This section sets the policies and actions that guide and inform transportation planning; the development of new policies and actions; maintenance of existing policies; and, implementation of programs and projects in support of the vision, goals and targets of this Plan. The policies and actions are organized by mode. Each mode is supported by a "Big Move", policies, actions and map illustrating the overall modal network. Each modal section also includes Key Performance Indicators (KPIs) which measure infrastructure and behavioural changes towards meeting the three Targets of the Plan. While the policies and actions articulate the priorities of the Plan, the "Big Move" is identified as the policy within that mode that will have the most impact in support of the three City-wide Targets.

4.4 NETWORK MAPS BY MODES

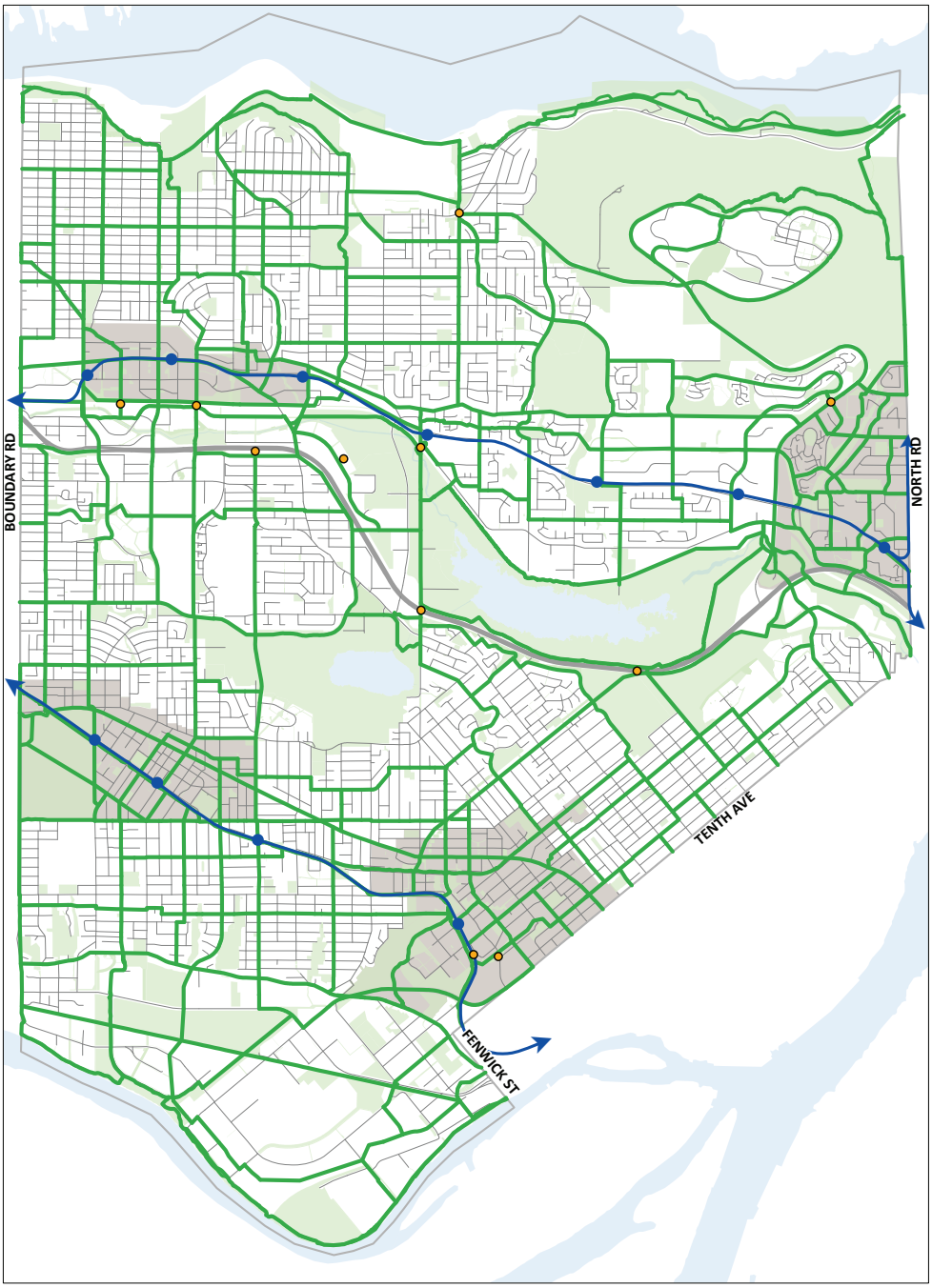
The following are a series of maps that illustrate the 30-year or Long Term Network Plan for each mode:

LONG RANGE BURNABY PEDESTRIAN NETWORK



*Pedestrian network encompasses all on-street pedestrian infrastructure (both sides of the street) including multi-use paths, as well as regional off-street pedestrian infrastructure. Finer grain pedestrian networks, such as trails within parks, neighbourhood connections and linkages, and pedestrian facilities within private developments will be detailed within the relevant Community, Master or Park plan.

LONG RANGE BURNABY CONCEPTUAL CYCLE NETWORK

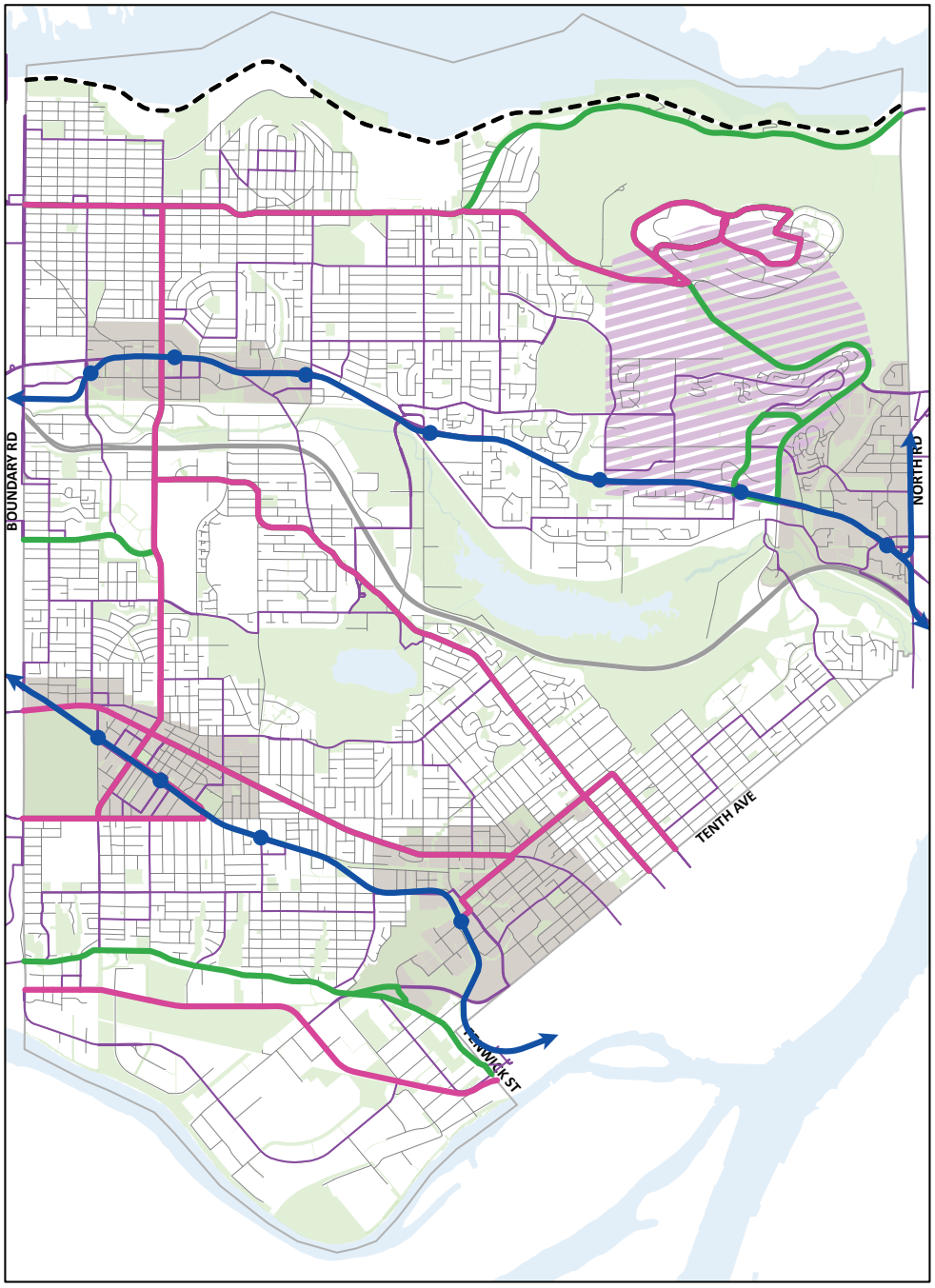


Legend

- Cycling or Multi-use Overpass
- Cycle Network*
- Trans Canada Hwy
- SkyTrain Line (with Station)
- Park
- Town Centre

*This conceptual network is subject to refinement through detailed assessment of preferred routing alignments.

LONG RANGE BURNABY PUBLIC TRANSIT NETWORK



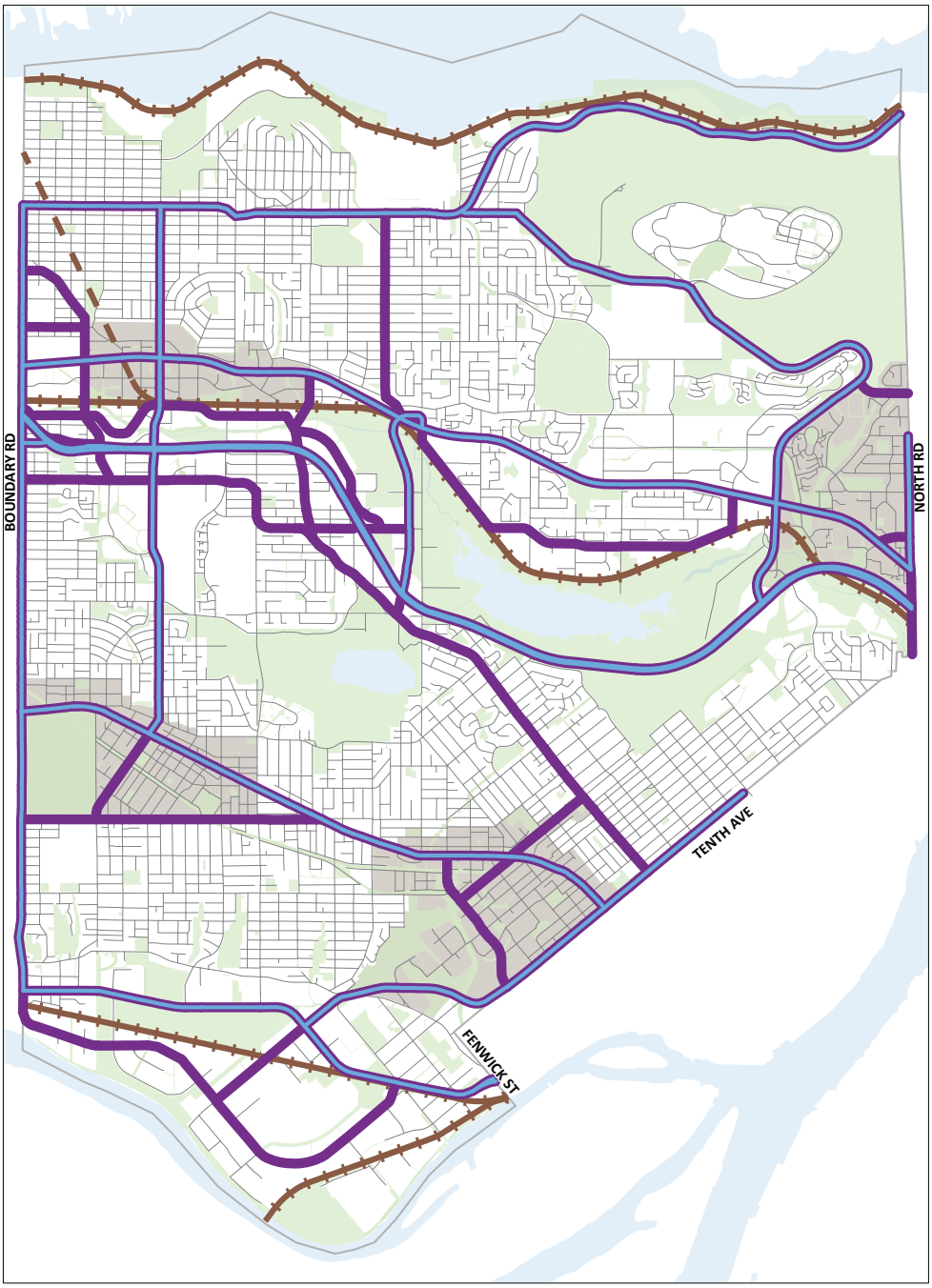
Legend

- Existing bus route
- Frequent Transit Network
- RapidBus or better*
- SkyTrain line (with station)
- West Coast Express
- Gondola study area
- Park
- Town Centre

*subject to Area Transit Plan discussions with TransLink

*This network is subject to refinement through the Area Transport Plan discussions with TransLink. This includes refinement of Marine Drive or Marine Way as a transit corridor, and the outcome of the Gondola Study.

LONG RANGE BURNABY GOODS MOVEMENT NETWORK



Legend

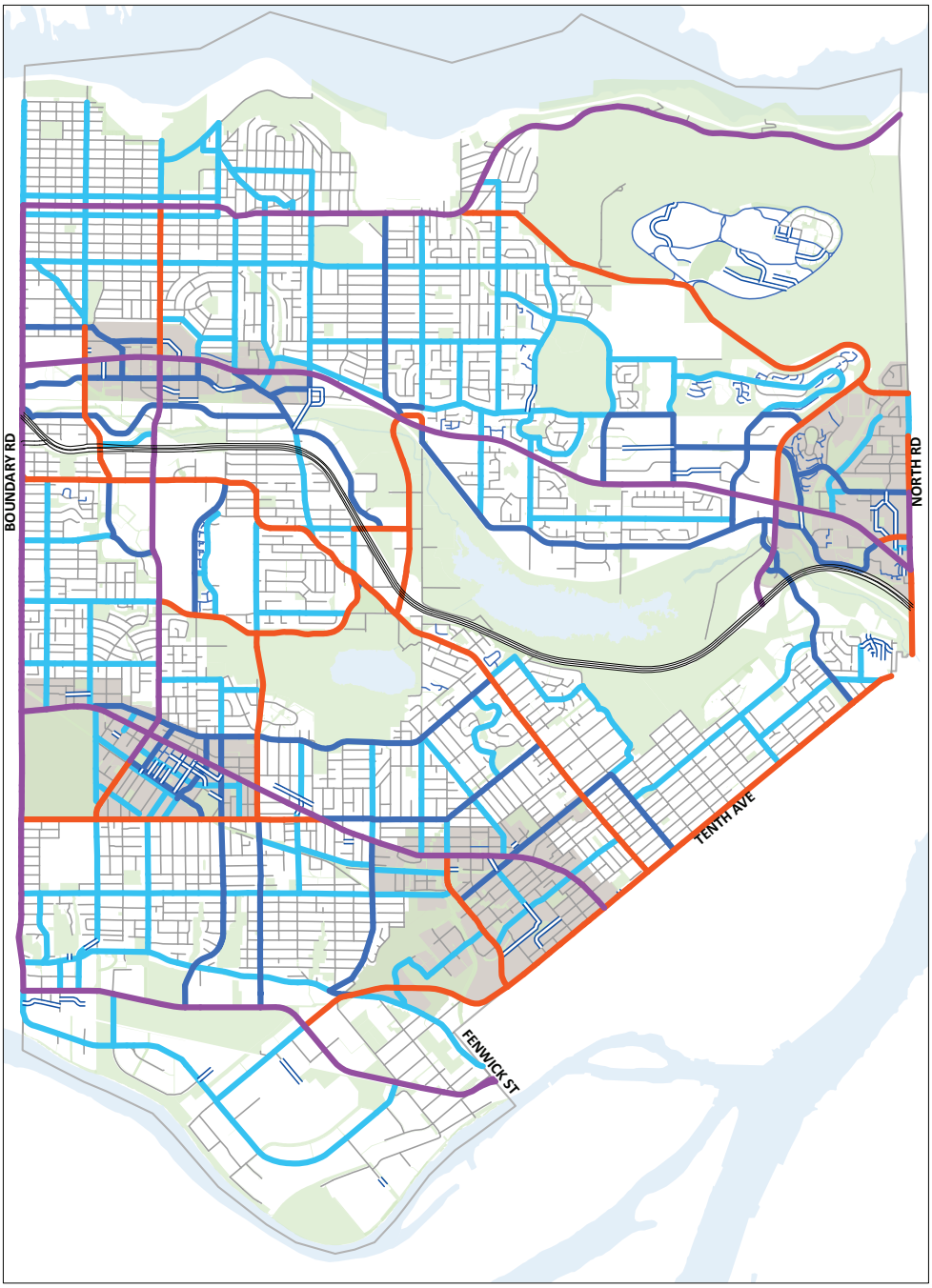
- Long Range Truck Route*
- Hazardous Goods Route
- Railway
- Tunneled Railway
- Park
- Town Centre

*Goods Movement identifies designated truck routes through Burnaby. All routes are designated emergency response service routes.

*Goods Movement identifies designated truck routes through Burnaby. New infrastructure such as Holdom Overpass will result in changes in the network.

** Trucks are permitted to use other streets in the City to access businesses or work sites, but must travel there via the shortest possible route to and from the closest designated truck route.

LONG RANGE BURNABY ROAD CLASSIFICATION NETWORK



*Supplemented by community plans, master plans and other City policies.

**Does not include new roads yet to be planned or constructed through new developments.

4.5 WALKING & ROLLING

BIG MOVE

By 2030, 80% of the Burnaby pedestrian network will be completed to provide an accessible, safe, and comfortable walking and rolling environment.

Everyone is a pedestrian at some point in their journey, as all trips begin and end with walking or rolling. It is an activity in which most of the population can participate. It is a great form of exercise, which can improve physical health and mental well-being. It is the greenest and most space-efficient mode of travel and enables the widest variety and flexibility of routes. It is also the most cost-effective way to travel. Encouraging more people to walk and roll can contribute to the vitality of a community through increased interaction with others, as well as improve the feeling of natural surveillance and community interaction.

A key emphasis of the Plan is the development of pedestrian-oriented neighbourhoods and communities. It prioritizes:

» completion of the pedestrian network, providing direct routes between origins and destinations,

» enhancement of the quality of the pedestrian public realm and experience; and,

» maintenance of existing facilities in good condition and state of repair.

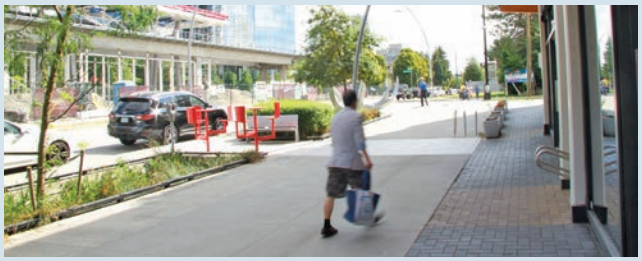
In this, Burnaby is striving to build accessible, safe and comfortable sidewalks on both sides of the street with at-grade crossings, wherever possible. Burnaby is also striving to provide pedestrian infrastructure and amenities that facilitate equity and choice, enhance the environment, and encourage place-making and community-building.

Completion of the pedestrian network - sidewalks on both sides of the street, will be prioritized along key pedestrian corridors, in Town Centres, Urban Villages, and around transit, schools, seniors' housing, seniors' centres, recreation centres, and other key destinations where there is the greatest opportunity to increase the number of people choosing to walk.

Pedestrian infrastructure and amenities include features that make walking and rolling easier and more convenient, comfortable, enjoyable, and safe:

» Walking surfaces: sidewalks, walkways, bridges, multi-use paths, and park trails

» Crossings: crosswalks, intersection curb ramps, and signals



» Amenities: lighting, signage, waste and recycling receptacles, seating, trees and landscaping.

4.5.1 POLICY

Complete and Enhance the City's Pedestrian Network

This policy is aimed at providing a high quality pedestrian network in Burnaby by improving coverage and establishing a consistent design standard for all areas of Burnaby. It also focuses on filling in the gaps, removing barriers, and improving connectivity for pedestrians.

Actions

- Prioritize pedestrian infrastructure and amenity investments along key pedestrian corridors and in Town Centres, Urban Villages, and around local destinations such as SkyTrain and rapid transit stations and bus stops, schools, seniors' housing, seniors' centres, and civic facilities.
- Undertake a complete inventory of all walking facilities in the City, including park trails, structures such as overpasses and neighbourhood linkages in order to identify gaps in the network.
- Promote the value of sidewalks and their provision through the City's Local Area Service Program (LASP).
- Conduct walking and accessibility audits along the pedestrian network to identify and address missing, substandard, or insufficient infrastructure (such as sidewalks and crossings) in the pedestrian network.
- Ensure new developments provide sufficient internal and external pedestrian connections to promote walking, including connections beyond the development's frontage where logical.

4.5.2 POLICY

Provide Safe Pedestrian Sidewalks and Facilities

This policy is aimed at providing safe pedestrian sidewalks and facilities to encourage and enable walking and rolling. This includes providing lighting, clear and direct routes, separation from vehicles, safe crossings, and reducing vehicular speeds where appropriate. It also includes working with Burnaby's communities to promote pedestrian safety.

Actions

- Prioritize and improve pedestrian safety and accessibility at intersections.
- Conduct a city-wide Pedestrian Safety Study to identify issues and trends related to walking safety, along with an action plan to address safety issues.
- Prioritize the maintenance of sidewalks to ensure safe and accessible facilities for pedestrians.
- Undertake safety and accessibility audits with community members to help identify deficiencies in the pedestrian network.
- Support education about pedestrian safety, for example the Safe Routes to Schools program.

4.5.3 POLICY

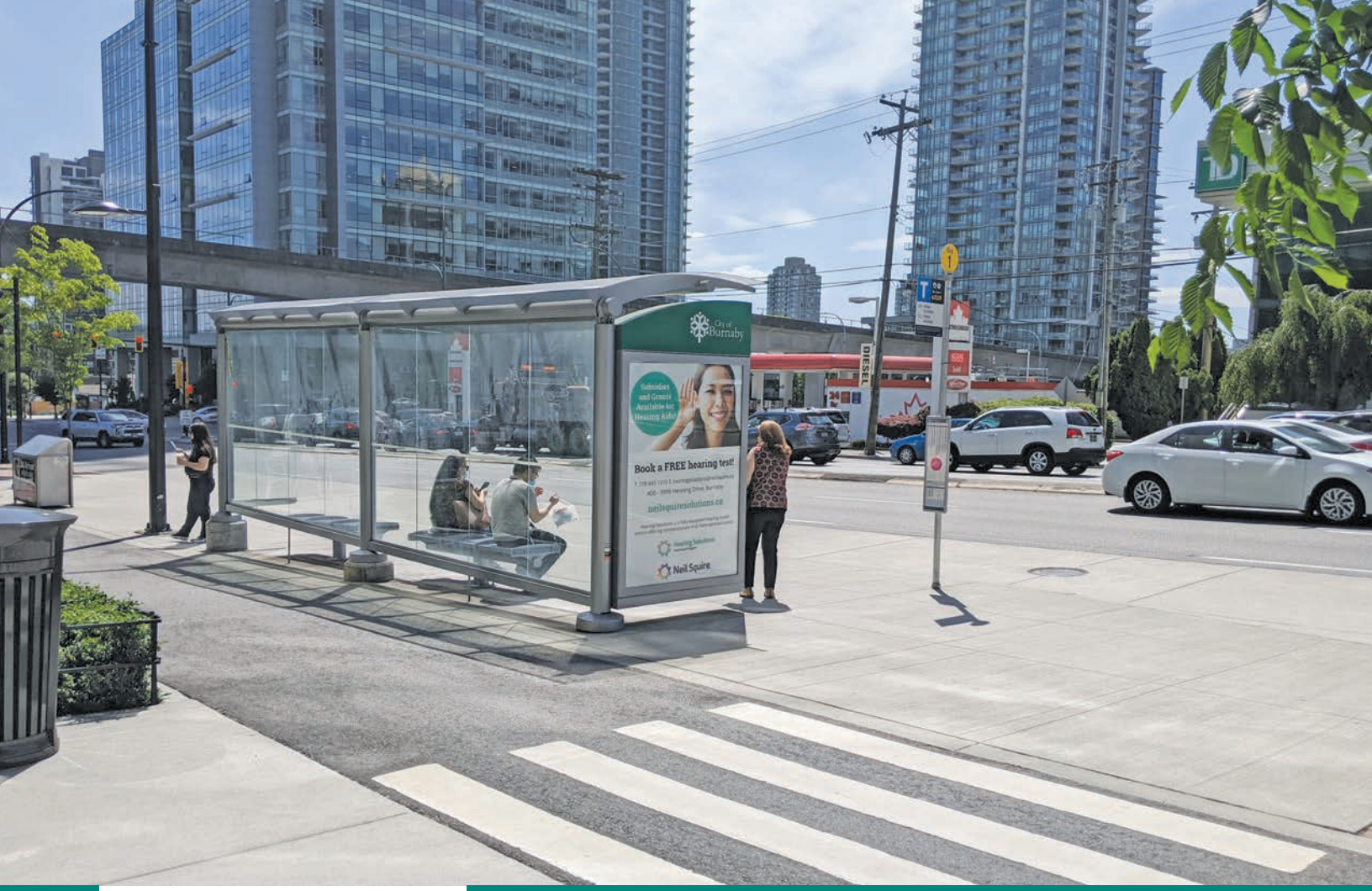
Apply Universal Design Guidelines to Pedestrian Infrastructure Design

The application of universal design guidelines to sidewalk and pedestrian infrastructure design ensures that accessibility is achieved for all people. It also requires that alternative, accessible pedestrian facilities are provided when regular routes are blocked during construction.

Actions

» Incorporate universal design guidelines when designing or redesigning streets. This includes:
- aligning curb ramps at intersections;
- considering the needs of the cognitively, visually and hearing impaired;
- removing sidewalk obstructions;
- selecting surface materials and finishes for the comfort of various mobility device users; and
- engaging with the accessibility community to provide input on all new pedestrian facilities and street designs.

» Provide accessible pedestrian detours for longer duration sidewalk interruptions.



4.5.4 POLICY

Improve the Quality and Maintenance of Pedestrian Infrastructure and Amenities

This policy is aimed at enhancing the pedestrian public realm by providing high quality infrastructure and amenities as well as prioritizing the maintenance of those facilities. It recognizes the benefits of walking, including health and happiness, social engagement and inclusion, safety and security, economic vitality, and benefits to the natural environment. By providing a comfortable, enjoyable and safe walking environment, the benefits multiply and so do the number of pedestrians.

Actions

» Provide high-quality pedestrian amenities such as lighting, benches, weather protection, public washrooms, public art, drinking fountains, waste and recycling receptacles, and opportunities for social gathering at appropriate locations throughout the City.

» Improve landscaping and trees along streets to enhance the beauty of the street, provide shelter from the elements, improve environmental quality, increase pedestrian enjoyment, and serve as a buffer from vehicles.

» Ensure budgets are in place to maintain landscaping, pedestrian infrastructure and amenities in a good state.

4.5.5 POLICY

Promote and Support Programs that Increase Walking in the City

This policy is aimed at influencing people's travel behaviour by employing the 4Es (educate, encourage, enable and empower), as well as enforcing safe and respectful behaviour.

Actions

- Develop self-guided walking routes/tours for different neighbourhoods or areas throughout the City, and consider providing interactive and informative wayfinding signage and markers.
- Work with user groups, including seniors and school-aged children, to provide programs and information that encourage safe walking to stay active and engaged in the community.
- Develop public information materials to communicate how the City implements, manages, and maintains the pedestrian network.
- Support community initiatives, events, and other programs that encourage walking.

4.5.6 KEY PERFORMANCE INDICATORS

The three primary Key Performance Indicators for this mode which measure infrastructure and behavioral changes towards meeting the three Targets of the Plan are:

» The percentage of the sidewalk network completed (sidewalks on both sides of the street).

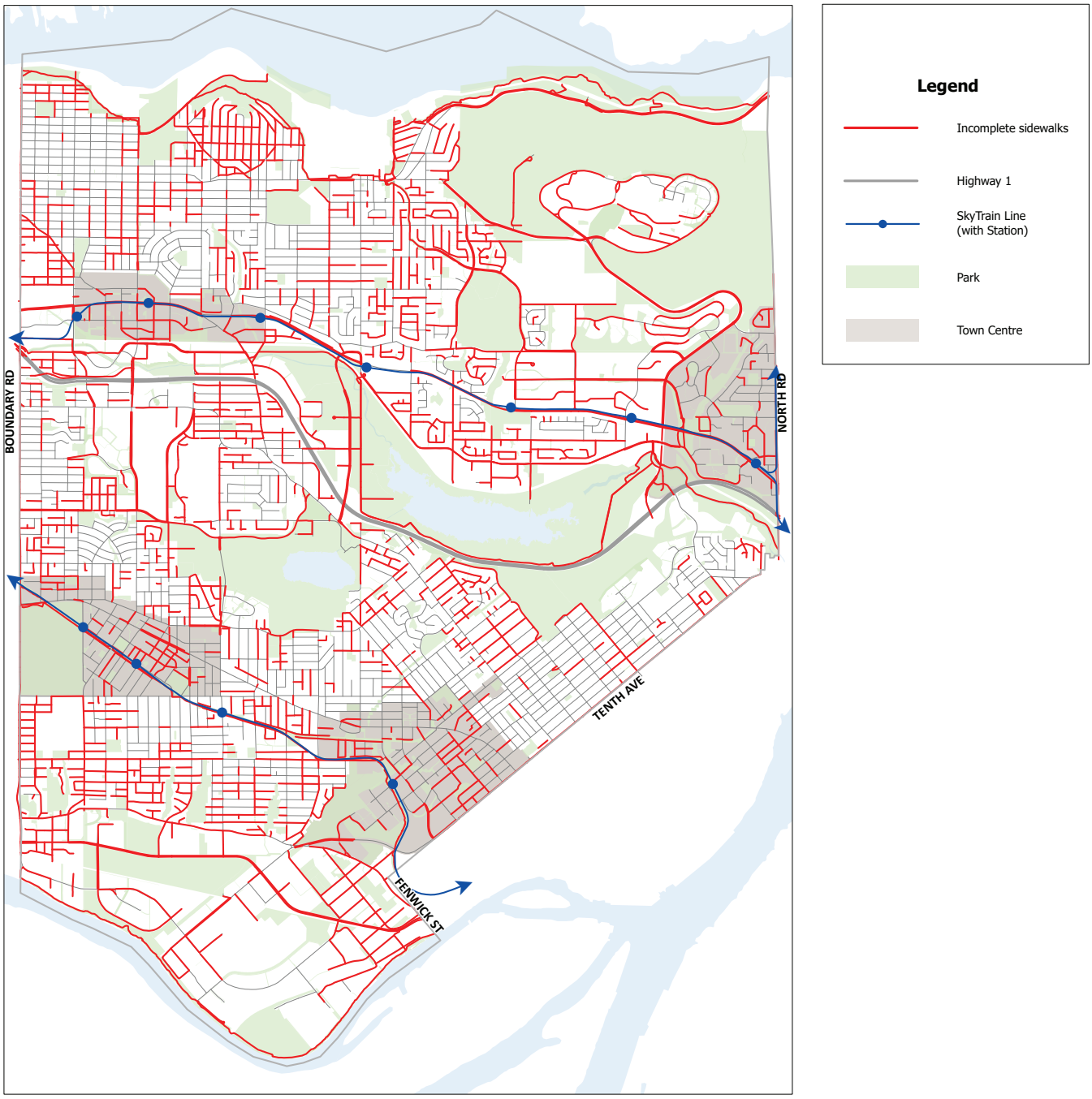
» The number of crashes in the City resulting in injury to pedestrians.

» The number of activities or events organized that support walking and rolling in the City.

4.5.7 PRIORITY NETWORK MAP

The following map illustrates the pedestrian network in Town Centres, Urban Villages, and around transit, schools, seniors' housing, seniors' centres, recreation centres, and other key destinations where there is the greatest opportunity to increase the number of people choosing to walk.

BURNABY SIDEWALK IMPROVEMENT PRIORITY AREAS



4.6 CYCLING

BIG MOVE

By 2030, the Phase 1 cycle network will be completed, providing clear consistent and continuous connections between town centres, major destinations and to neighbouring municipalities.

Cycling can be a convenient, comfortable and safe transportation choice for short- and medium-distance trips. It is a great form of exercise which can improve both physical health and mental well-being. It is an environmentally friendly form of transportation which produces no emissions and requires less than half of the energy needed to walk the same distance. It is relatively inexpensive in terms of personal costs, and is more efficient over longer distances than walking allows. Cycling can also contribute to the local community by encouraging the use of community destinations and amenities, and having more people cycling increases the feeling of safety through natural surveillance and community interaction. Also, having more people cycling increases their visibility which can result in a safer environment for cycling through increased driver awareness.

Burnaby's existing cycle network is comprised of local and regional cycling network. It encompasses the following types of facilities and networks:

- **Urban Trails** – multi-use paths that are shared by people that are walking and rolling, and recreational and commuter cyclists. Urban trails are separated from vehicular traffic and typically asphalt in material. In Burnaby, there are two types of urban trails: multi-use paths that are intended for shorter local trips and greenway corridors that connect to wider destinations across the City and into neighbouring municipalities;
- **Bikeways** – on-street cycle routes that are signed. Bikeways are usually on quieter residential streets;
- **Cycle Tracks** – paved bicycle paths that are physically separated from traffic and pedestrians, marked and signed.
- **Shoulder Bike Lanes** – paved shoulders on busier roads typically marked with pavement bicycle stencils indicating that space is designated for cyclists; and,
- **Major Bikeway Network (MBN)** – the region's Major Bikeway Network (MBN) consists of a cohesive, well-connected network of major bikeways, linking urban centres and regionally-significant destinations in a direct way, with routes that serve both longer-distance commuting and recreational trips. The MBN is conceptual in some locations and lines represent desire lines or corridors with ultimate alignments to be determined through implementation. In Burnaby, the interim MBN is expected to include the following corridors: Frances Union Bikeway, Central Valley Greenway, Midtown Bikeway, BC Parkway, Sea to River Bikeway, Lakes Bikeway, Southeast Bikeway and Marine Way.
- **Regional Greenway Network (RGN)** – the region's shared network of recreational multi-use paths for cycling and walking that connect residents, large parks, protected natural areas and communities to support regional liveability.

Bicycling facilities can be provided in various contexts, with both on-street and off-street applications. These can range from unseparated (operating in mixed traffic conditions) to fully separated facilities. Irrespective of whether cycle facilities are on-street or off-street, the City is striving to develop a network that is designed for **All Ages and Abilities (AAA)**. In this, the aim is to provide a network this is attractive, comfortable and safe for people of all ages and abilities, such as children and seniors, and new cyclists. The intent is to develop a network of routes that will provide a wide spectrum of the population the option to cycle by providing a range of context appropriate facilities.

In Burnaby, cycling facilities will be designed to create an AAA bicycling environment based on the street context, with the preferred forms including: Bike Path, Protected Bike Lane, Neighbourhood Street Bikeway, and in certain conditions Multi-Use Paths. The Appendix provides a table that further describes each of the above

A complementary component of an AAA cycle network, is the provision of a high quality public realm that supports bicycle infrastructure and amenities, such as end-of-trip facilities, bicycle parking, air pump stations, and wayfinding signage, is an important component of encouraging people to cycle more.

It is acknowledged that Burnaby's topography, with steep hills and physical barriers such as Burnaby Lake and Deer Lake, add distance, time and generally make it harder to move around by bicycle. While electric bikes, as well as other advances in technology, are making it easier to travel in and around Burnaby, new and creative solutions still need to be explored to make it easier to cycle along steeper sections of the cycle network. Cycling is a viable choice for people of a range of ages, abilities and fitness levels. It is also becoming easier to incorporate cycling as part of multi-modal travel through bike-share programs, and accommodation of bikes on transit.

The policies in this section focus on access and mobility of the cycling network. The Big Move is to complete Phase 1 of the cycle network by 2030 - providing clear, consistent, comfortable and continuous connections between town centres, major destinations and to neighbouring municipalities. Completion of Phase 1 will encourage an increase in cycling for both mobility and leisure activities. Other policies focus on enhancing the overall comfort and safety of the network for all users; providing of a high quality public realm that support cycling infrastructure and amenities; making improvements to maintenance; and promoting cycling as a healthy, environmentally friendly, cost effective way of getting around in the City.

4.6.1 POLICY

Expand and Enchance the Cycle Network

The aim of this policy is to expand and enhance the cycle network to enable people to reach major destinations in and around Burnaby, or connect to routes that lead to further destinations. This includes, providing a cohesive and legible network with routes that are direct, low-stress, and comfortable for everyone. The network should also provide convenient access to important destinations like schools, community centres, libraries, transit stations, employment areas, and shopping areas. In addition to the Big Move, the cycle network will include a series of well-spaced routes throughout the City that support Burnaby's communities, and local-serving networks in Town Centre areas as per the established Town Centre standards.

Actions

- Connect neighbourhoods by establishing a grid network throughout the City.
- Continue to develop AAA bicycle networks within each of the four Town Centres to support local cycle trips.
- Work with partners to address major barriers, such as Highway 1, railways, watercourses, major intersections, and other barriers for cyclists.
- Continue to work with adjacent municipalities, TransLink, Metro Vancouver, and Ministry of Transportation and Infrastructure to provide seamless connections across municipal boundaries and to support the development of the regional Major Bikeway Network and Regional Greenway Network.
- Improve cycling connections to trails and pathways within and around parks and conservation areas in the City.
- Review the quality of all existing cycle routes in the City and develop a prioritized list of improvements.

4.6.2 POLICY

Ensure Existing and New Cycling Routes Feel Comfortable and Safe for People of All Ages and Abilities

The aim of this policy is to provide an AAA cycle network throughout Burnaby. Building cycling infrastructure that feels comfortable and safe for people of all ages and abilities will increase the appeal of cycling to a wider mix of people and relieve concerns about safety and comfort.

Actions

- In alignment with the Big Move, design and build an AAA Phase 1 cycle network.
- Establish a public realm design standard for all City streets that encompasses AAA cycle facilities where appropriate.
- Conduct a city-wide cycling safety study to identify issues and trends related to cycling safety along with an action plan to address safety issues.
- Upgrade existing cycling routes to reflect best practices for cycle infrastructure design to ensure that they are comfortable for people of all ages and abilities.
- Explore creative opportunities and solutions to reduce grades on steeper sections of the cycle network.
- Develop guidelines for when and how pedestrians and cyclists should be separated on off-street paths.
- Provide for safe intersections for cyclists through design, cycle priority measures such as dedicated signal phasing, and markings to communicate direction, conflict zones, and bike boxes.
- Develop, implement, promote, and support programs to improve safety and reduce conflicts between cyclists and other mode users.

4.6.3 POLICY

Maintain Existing Cycling Facilities in a Good State of Repair

The aim of this policy is to implement a program that ensures that cycling facilities are in a good state of repair and fully operational year-round. People who are cycling are particularly vulnerable to hazards such as uneven paving, potholes, tree roots, pooling water, broken glass, snow, ice, and other debris that can be found on cycling facilities and streets. It is also important to provide suitable alternatives when cycling routes are blocked due to nearby construction. Regular maintenance helps keep the routes free of hazards, which improves comfort, safety, and the user experience.

Actions

- Create and implement inspection, maintenance, and cleaning guidelines for cycling routes in the City, including protocols for snow and ice removal.
- Develop a tool for residents to report maintenance issues.
- Design new facilities to ensure they are suitable for year-round use, including sufficient width for snow clearing equipment and providing lighting.
- Provide safe detour routes for cyclists during construction activities.

4.6.4 POLICY

Provide High-quality Bike Parking and End-of-trip Facilities at All Major Destinations

The aim of this policy is to provide high quality cycle infrastructure and amenities at all major destinations. Depending on the destination, cycle infrastructure and amenities include but are not limited to short- and long-term bike parking, end of trip facilities, bike repair stations, wayfinding signage and kiosks, and water fountains. With the increasing popularity of electric bikes, there is a need for more secure parking facilities and charging infrastructure.

Actions

- Continue to require convenient and secure short- and long-term bicycle parking, and high quality end-of-trip facilities in new developments, civic facilities and other high demand locations.
- Work with businesses and others to provide convenient, secure, short-term bike parking facilities for customers and visitors. Provide adequate parking for bikes, including non-standard bicycles such as cargo bikes and bicycles with trailers at high demand locations where appropriate.
- Encourage the provision of bike valet services at public events to facilitate cycling.
- Implement pilot project(s) to open a publicly available bike maintenance facility with an air pump and tools for bike repairs, on high-demand cycle route(s), and e-bike charging stations.

4.6.5 POLICY

Promote and Support Programs that Increase Cycling in the City

The aim of this policy is to promote and support programs that encourage and enable increased cycling in the City.

Actions

- Expand the City's existing support of cycling-related educational opportunities to empower people of all ages and abilities to feel safe and confident cycling.
- Support school programs that promote cycling to and from school and other activities.
- Support community initiatives and marketing programs such as *Bike to Work Week*, *Bike to School*, *Bike to Shop*, *Bike the Night* and other programs that encourage cycling.
- Install bike counters with read-out boards on priority or key routes.
- Work with partners to support programs that reduce bicycle theft such as bait bike and bike registration programs
- Encourage cycling by City staff for both commuting and conducting City business through measures such as providing electric pool bikes, improved end-of-trip facilities, bike parking, and other incentives or provisions.
- Continue to work with community partners and stakeholders on initiatives to promote and encourage cycling.
- Explore the feasibility of a public bike share program.

4.6.6 KEY PERFORMANCE INDICATORS

The three primary Key Performance Indicators for this mode which measure infrastructure and behavioral changes towards meeting the three Targets of the Plan are:

» The number of kilometres of AAA cycling infrastructure completed.

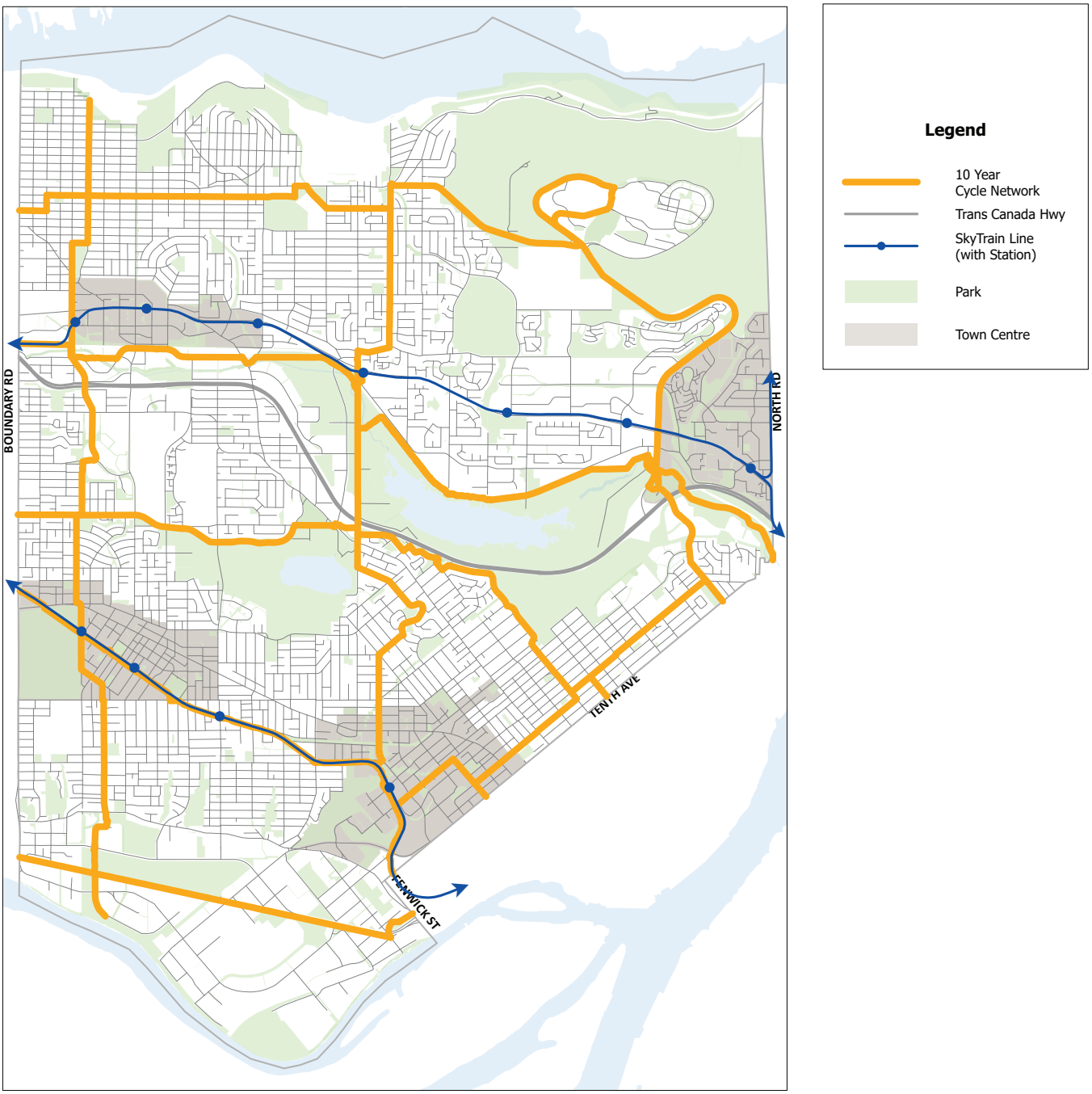
» The number of crashes in the City resulting in serious injury to cyclists.

» The number of cyclists using key cycling routes within the City.

4.6.7 PRIORITY NETWORK MAP

The following map illustrates the Phase 1 Cycle Network to be completed by 2030.

CONCEPTUAL PHASE 1 (10 YEAR) BURNABY CYCLE NETWORK



4.7 PUBLIC TRANSIT

BIG MOVE

- *By 2030, the City will install 370 additional bus shelters or bus benches to increase transit passenger comfort.*
- *By 2025, the City in partnership with TransLink will complete feasibility studies for future rapid transit corridors to inform the upcoming OCP review, and identify necessary land investments to protect specific corridors.*

Public transit is an essential component of Burnaby's transportation system and urban fabric. It is a basic mobility service that enables people to access employment, school, community services, shopping, entertainment and recreational opportunities, and other daily needs. Public transit also supports the development of compact complete communities through transit-oriented development. Burnaby's communities are generally well-served by transit, with the four Town Centres having the most comprehensive access to transit options.

Public transit services in Burnaby include:

- **SkyTrain** – Burnaby is served by two SkyTrain lines, Expo Line (1985) and Millennium Line (2002). There is a combined total of 11 Burnaby stations along the two lines, connecting our neighbourhoods and communities to each other and the broader region. In 2016, the Millennium Line was expanded to encompass the Evergreen Extension, further extending Burnaby's reach and connection to neighbouring municipalities to the east;
- **Bus** – Burnaby is served by a comprehensive network of conventional buses, electric trolleys, community shuttles and 912 bus stops that enable people to travel across the city and to neighbouring municipalities; and,
- **HandyDART** – TransLink's paratransit system provides access and mobility to people that are unable to safely navigate conventional public transit without assistance.

Public transit is a sustainable form of transportation that is accessible, efficient, safe and reliable that benefits Burnaby's communities, businesses and employment sectors.

$8,900/year

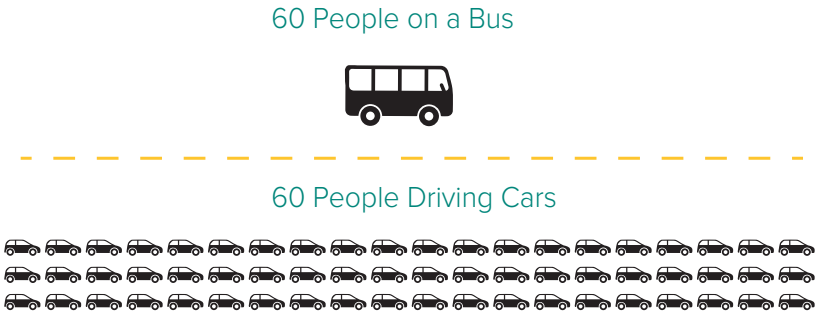
*Cost estimate is based on CAA Data and is representative of owning or leasing a vehicle for 5 years.

VS

$2,124/year

*Based on 2021 3-zone Translink Monthly Pass cost.

Key Benefits of Public Transit Include:



Key Concepts Include:

- space-efficient
- environmental benefits (reduced emissions)
- affordable way to move large numbers of people
- reduced traffic congestion
- supports walking and cycling by extending the distances that a person can travel

TransLink is responsible for the region's transit planning and service delivery. While the City does not own or operate the transit system, it is responsible for transit-supportive measures such as shelters and amenities at bus stops, can make land use decisions that support transit, and can protect corridors and sites for future transit improvements. The City can also work with TransLink and advocate to higher levels of government to build or provide higher capacity transit service.

Public Transit has the greatest potential to achieve the three city-wide Targets of the Plan. Encouraging and enabling more people to use public transit reduces the number of vehicles on the road, which leads to safer roads and reduced emissions.

The policies in this section focus on supporting TransLink's goals and objectives to expand and enhance transit service. There are two Big Moves for this mode – the first relates to how the City can enhance transit user comfort by providing bus benches and shelters; and, the second relates to the identification and protection of future rapid transit corridors.

Other policies focus on what the City can do to enhance amenities and accessibility to make public transit more attractive and desirable by:

- laying out a framework for the City to work with TransLink to explore and plan for new higher-order transit facilities;
- supporting transit priority measures to increase the reliability and competitiveness of buses; and,
- providing transit supportive measures to make transit more comfortable, accessible and improve the perception of personal safety and security at transit stations and bus stops.

4.7.1 POLICY

Work with TransLink to Provide New and Enhanced Transit Service

The aim of this policy is to highlight and commit to further collaboration between the City and TransLink to provide greater mobility choice and encourage increased ridership by providing new and enhanced transit services.

Actions

» Work with TransLink to connect Burnaby's four Town Centres (Metrotown, Edmonds, Lougheed, and Brentwood), SFU, and BCIT to each other by rapid transit.

» Protect and design for future transit corridors, potential stop/station locations, and the land uses and densities required to support higher-order transit as a part of the Official Community Plan, community plans, and infrastructure projects.

» Work with TransLink to identify and implement improvements to local bus service in under-served areas.

4.7.2 POLICY

Implement Transit Priority Measures to Improve Reliability and Speed of Buses

The aim of this policy is to reduce the impact of congestion on the reliability and speed of buses through the provision of transit priority measures to make bus travel more efficient and attractive. Transit priority measures may include dedicated bus lanes, transit priority signals, bus queue jumper lanes, transit-only links, and other technologies and infrastructure.

Actions

» Work with TransLink to implement transit priority measures to improve reliability and speed of buses , with particular emphasis on the corridors identified on the map.

» Work with TransLink to identify opportunities for other service upgrades or infrastructure through TransLink's Area Transport Plan process or other initiatives.

» Continue to prioritize the maintenance of transit streets, including snow removal, to minimize delays for buses.

4.7.3 POLICY

Provide Transit-Supportive Amenities to Increase Ridership

The aim of this policy is to increase transit ridership through the provision of transit-supportive amenities which make waiting for the bus or train more comfortable and inviting. Transit-supportive amenities include shelters, benches, lighting, Wi-Fi access, enhanced wayfinding maps, real-time transit information (eg. signs displaying the actual arrival time of the next bus or train), and other measures to make taking transit more comfortable, predictable and enjoyable.

Actions

» Work with TransLink to advance amenities at transit facilities within Burnaby.

» Continue to improve bus stops across the City with an emphasis on increasing comfort and convenience by providing more amenities such as real-time transit information, benches, shelters, and lighting.

» Support green initiatives, such as TransLink's efforts to convert the bus fleet to electric buses, by supporting electrical charging facilities at SkyTrain stations and other transit hubs.

» Work with TransLink to provide washrooms, and retail outlets for the convenience of transit passengers.

» Work with TransLink to integrate other modes seamlessly with transit stops and stations.

4.7.4 POLICY

Improve the Safety, Security and Comfort of Public Transit

The aim of this policy is to increase the feeling of personal safety and security for people taking transit by providing better lighting and security, and encouraging increased staffing levels, the provision of amenities and commercial uses close to transit stops.

Actions

» Support SkyTrain station and major transit hub upgrades and other measures that increase passenger safety and security. This may include lighting, wayfinding information, cameras, security features such as call buttons, and more.

» Work with TransLink to:
- improve safety and security around bus stops and transit hubs, with special consideration for vulnerable and marginalized users;
- promote safe and respectful behavior from all transit users;
- provide easy connections and comfortable waiting areas throughout the network; and
- apply safety principles and approaches in the design of transit stations, bus stops, and other facilities.

4.7.5 POLICY

Make Public Transit Universally Accessible to All People

The aim of this policy is to make the pubiic transit more accessible for everyone. It focuses on locational, physical and financial access.

Actions

» Continue to work with TransLink to provide barrier-free access to the conventional transit system that accommodates users of all abilities.

» In recognition that every transit trip starts and ends as either a pedestrian or cycling trip, complete the sidewalk and cycling network near transit.

» Support the provision of paratransit options to provide access and mobility to people that are unable to safely navigate conventional public transit without assistance, such as HandyDART.

» Support the provision of on-demand and micro-transit service, such as community shuttles, in neighbourhoods where walking and cycling to conventional transit is limited.

» Advocate for a more equitable fare structure, such as one that is more responsive to the distance traveled and reduced or free transit travel for children and youth.

» Advocate for programs, grants, and other policies that help to mitigate financial barriers to transit use.

4.7.6 POLICY

Promote and Advocate for Increased Transit Use and Ridership

The aim of this policy is to support increased transit use and ridership amongst Burnaby's communities through education, encouragement, enablement and empowerment.

Actions

» Require all new developments that include a Transportation Demand Management program to provide a communications package to inform the recipients of the program, outline the sustainable transportation options and choices available to them, how to access and use these options, including transit subsidy programs. The developer or strata will be required to report to the City, on an annual basis, the usage of the program for up to 5 years.

» Work with schools, youth centres and other community groups to educate, encourage enable and empower children and youths to comfortably and safely access, use and navigate the transit system.

» Support local businesses and major employment centres to establish transit programs to encourage, enable and empower employees to take transit to and from work.

4.7.7 KEY PERFORMANCE INDICATORS

The three primary Key Performance Indicators for this mode which measure infrastructure and behavioral changes towards meeting the three Targets of the Plan are:

» The number of new transit supportive amenities installed in the City (bus shelters and benches).

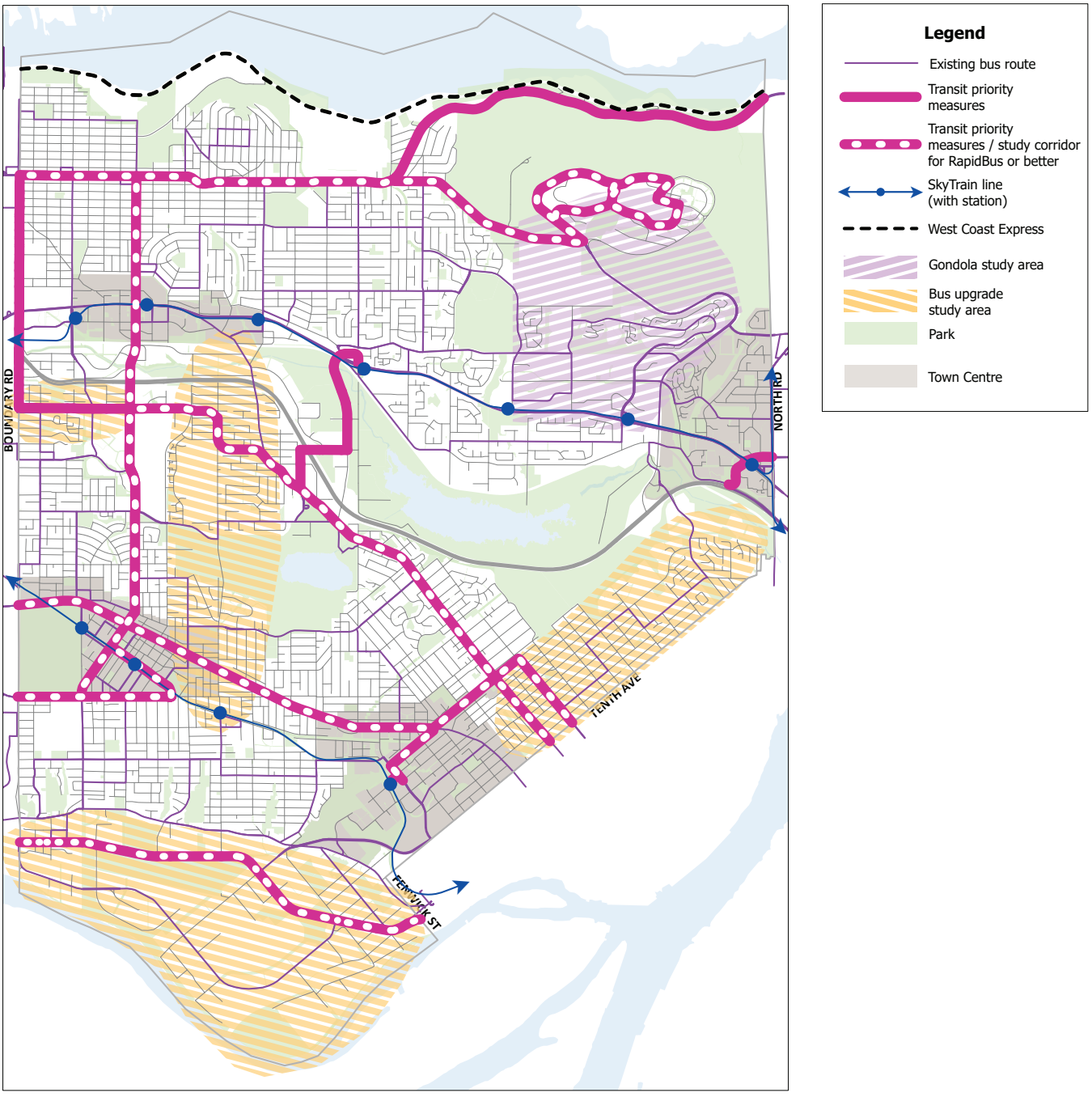
» Transit boardings at bus stops or transit stations in Burnaby relative to the population of the City.

» The number of crimes committed in the vicinity of transit stations and hubs.

4.7.8 PRIORITY NETWORK MAP

The following map illustrates the study areas and corridors for which the City of Burnaby will explore enhanced transit service through Translink's Area Transport Plan process.

BURNABY PUBLIC TRANSIT NETWORK PRIORITY



4.8 GOODS MOVEMENT

BIG MOVE

By 2023, the City will establish policies to:

- *require multi-family developments to provide secured storage amenities for oversized deliveries and goods requiring cold storage; and,*
- *require the provision of EV charging infrastructure for fleet vehicles across businesses, industries and institutions.*

Metro Vancouver is a major port in the Asia-Pacific Gateway, enabling regional and international movement of goods to and from the west coast of Canada and overseas. Many goods en route, also referred to as freight, pass through Burnaby via roads, rail, pipelines, or water. The safe, reliable and efficient movement of freight, goods for local consumption and business and commercial services is essential for Burnaby's economy and livability. People need access to food, clothing, furniture, and thousands of other products readily available at an affordable price. Likewise, manufacturers and service providers require access to materials, resources and workers to support the design, production, sales, and delivery of these goods and services. As the City continues to grow, it will be important to maintain the efficient movement of people, goods, and services, whether it's for local businesses and residents or en route to global destinations.

Goods Movement, as a mode, focuses on the transport of freight, local goods, and business and commercial services in the following ways:

By Road	At both the local and regional level, the majority of goods movement is by truck. Private sector companies choose vehicles which maximize the cost efficiency of each trip - ranging from semi-trailer trucks, to smaller single-unit trucks, to delivery vans, to bicycle couriers - based on customer needs, the size and weight of their load, the road network and loading constraints. Trucks and delivery vehicles often compete with other vehicles on congested roadways, resulting in potential safety issues, impacts on air quality, and increased travel time for all. When roads are inefficient or unreliable, the cost of goods movement goes up; this additional cost is typically passed on to consumers.
By Rail	There are three railway service providers in Burnaby: Canadian National Railway, Canadian Pacific Railway, and Burlington Northern Santa Fe Railway. These railways carry a total of about 40-50 trains per day through Burnaby. The trains carry a variety of goods including containers and bulk commodities (coal, grain, chemicals, fertilizers, and forest and petroleum products). The Federal Government regulates movement by rail. However, the City can work with other agencies and levels of government to manage the impacts of rail traffic including congestion and safety at at-grade crossings.
By Water	On Burrard Inlet and the Fraser River, freight moves in vessels ranging from barges to ocean-going ships, or floats directly on the water in log booms. Vancouver Fraser Port Authority manages the federal lands and waters that make up the Port of Vancouver.

There are many factors that can impact the efficiency and reliability of goods movement within and through Burnaby, including external factors such as the cost of fuel, regional mobility, pricing changes in the supply chain or other events, and internal factors, such as road construction along a major corridor. Emerging technologies and the pace of changing business processes are also factors that impact the mode. Green technology and e-commerce, such as online shopping and food delivery companies, are changing the way people purchase and receive products and services. The future of goods movement may also encompass increasing automation in delivery and movement by air, such as delivery bots and drones. With all these various factors contributing to the efficiency and reliability of goods movement, the policies and actions need to be flexible and responsive to scale, pace and scope of changing needs.

Mobility Pricing

Mobility pricing refers to a range of fees or charges levied for the use of transportation services. Examples that we already pay include car insurance, bike sharing fees, parking fees, fuel taxes and transit fares. It aims to coordinate some of the ways we pay for transportation services to make it easier for all users to get around. As a form of transportation demand management mobility pricing uses pricing signals to manage and reduce traffic congestion, air pollution and greenhouse gas emissions, noise, and other pollutants associated with road travel, and encourages use of different modes of transportation. At a regional level, road usage charges are an effective tool to address regional congestion and to support Goods Movement within in the regional and local economy by supporting the reliability and efficiency of the mode.

In addition to goods and services movement, emergency services are of vital importance to Burnaby. Like goods movement, these services are impacted by delays related to congestion and road construction. Supporting the mobility and access of emergency services including police, fire, ambulance, and other emergency providers is an important component of the transportation system.

The Big Move for goods movement focuses on two aspects of the mode: access to goods and services, and the greening of fleet vehicles responsible for the delivery of goods and services across all business, industry and institutional sectors. Other policies in this section focus on what the City can do to:

» support local and regional goods mobility;

» improve operations for local good mobility; and

» support emergency services mobility in the City.

4.8.1 POLICY

Work With Partners and Stakeholders to Support Goods Movement in the Region

The aim of this policy is to continue to support the regional goods movement network through Burnaby.

Actions

» Support the goals of TransLink's Regional Goods Movement Strategy to strive for:
  - More efficient and reliable goods movement,
  - Cleaner, safer, and quieter goods movement;

» Support grade separation of roads from railways, where possible, to improve safety and reduce delay for all;

» Preserve rail corridors in the City for transportation purposes;

» Work with the Province, TransLink, and neighbouring municipalities to harmonize truck permitting, regulations and routing;

» Support improved wayfinding for goods movement vehicles such as:
  - a commercial Vehicle Route Planner to provide up to date, timely route and wayfinding information for goods movement in the region,
  - providing dynamic messaging signs on major truck routes indicating estimated travel times and delays;

» Support the implementation of regional mobility pricing to improve the efficiency of goods and services movement

4.8.2 POLICY

Support Improvements to Goods Movement Business Processes and Practices

This aim of this policy is to support improvements to goods movement business processes and practices, as well as mitigate and/or eliminate impacts on communities such as noise, vibration, and emissions.

Actions

- Support the use of lower-impact vehicles in the delivery of goods and products, such as smaller electric vehicles, cargo bikes, and other new technologies.
- Study and review new technologies for goods movement as they arise to determine suitability for use in the City.
- Support local production, distribution centres and urban hubs to minimize distances that goods and services need to travel between supporting businesses.
- Review opportunities for new forms of goods movement distribution in town centres and urban villages, including trans-loading, urban consolidation and distribution centres.

4.8.3 POLICY

Continue to Investigate Operational Opportunities to Improve the Efficiency and Reliability of Goods Movement

The aim of this policy is to improve the efficiency and reliability of goods movement operations. It recognizes that the growth in on-line shopping is resulting in increasing consumer demand for express deliveries and has potential to increase congestion due to individual goods delivery to individual addresses. The City will continue to maintain the truck and hazardous goods network, and investigate ways to improve the efficiency and reliability of goods movement.

Actions

- Maintain the designated truck and hazardous goods routes in a good state of repair.
- Encourage opportunities to consolidate deliveries based on destination (rather than by delivery carrier) to avoid unnecessary additional trips and congestion to the same locations.
- Require the provision of sufficient off-street loading space to avoid impacts to the street network from loading activities, including loading for courier companies.
- Explore opportunities to permit and encourage businesses to implement more flexible freight delivery hours in a way that does not negatively impact community livability.
- Where feasible, require goods and services delivery to take access from laneways, or underground.

4.8.4 POLICY

Consider Management in Making Transportation Decisions

This aim of this policy is the continued collaboration between the City and emergency services providers to ensure that those services are able to reach their destinations quickly and efficiently.

Actions

- Work with emergency service providers to reduce their travel response time to incidents.
- Continue to consider emergency vehicle access in street designs, traffic calming plans, and street closure plans (permanent and temporary).
- Continue to work with emergency service providers to designate primary emergency response routes or street types where certain traffic calming measures will not be implemented.
- Provide and maintain an inventory of current traffic calming measures, road closures, and other detours (permanent or temporary) for emergency service providers. Consider using an online or mobile application tool to share this information.

4.8.5 KEY PERFORMANCE INDICATORS

The three primary Key Performance Indicators for this mode which measure infrastructure and behavioral changes towards meeting the three Targets of the Plan are:

» The percentage of new multi-family residential developments that have on-site cold storage facilities.

» Travel time on key truck routes

» The number of businesses, industries and institutions with EV charging on-site for fleet vehicles.

4.9 DRIVING

BIG MOVE

By 2026, develop and implement a Smart City Plan for Burnaby comprising of sensor technology, real-time data transmission and analytics to improve safety and optimize network performance.

While the emphasis of this Plan is on sustainable modes of transport, it is recognized that driving will continue to be an available mode for people, when needed. The Big Move for this mode is focused on the development of a digital data collection system or Smart City Plan that will assist the City in improving the safety of the mode in relation to the overall uses of the road network, as well as mitigating and/or eliminating the mode's impacts on Burnaby's communities, including land use impacts, traffic congestion, noise and emissions.

Other policies for the *Driving* mode focus on the organization and design of the road network to meet the following objectives:

- Manage and allocate space and usage of the road network for all users, with priority given to the sustainable modes of travel in the following order: walking and rolling, cycling, transit, goods movement and the private automobile;
- Improve safety for drivers and all users of the road;
- Manage parking to balance the needs of all users of the road with that of businesses and residents; and,
- Support policies aimed at reducing the number of vehicle trips and total number of kilometres driven each day on Burnaby streets.

PEOPLE MOVING CAPACITIES

PRIVATE MOTOR VEHICLES
600 - 1,600 PER HOUR

MIXED TRAFFIC WITH FREQUENT BUSES
1,000 - 2,800 PER HOUR

TWO-WAY PROTECTED BIKEWAY
7,500 PER HOUR

DEDICATED TRANSIT LINES
4,000 - 8,000 PER HOUR

SIDEWALK
9,000 PER HOUR

ON-STREET TRANSITWAY, BUS OR RAIL
10,000 - 25,000 PER HOUR

Source: National Association of City Transportation Officials

4.9.1 POLICY

Reorganize the Road Right-of-Way to Maximize People Moving Capacity Along Key Corridors That Connect People Between Town Centres and Major Destinations

The aim of this policy is to reallocate and redesign space within the road right-of-way to improve the overall people-moving capacity of major corridors.

Actions

- Determine the People-Moving Capacity of major corridors and reallocate space to prioritize the modes with the greatest people-moving capacity.
- Develop updated typical cross-sections for all road classifications that consider both modal emphasis as well as mobility and access needs.
- Complete corridor studies and prepare geometric designs for key roads in the City to identify appropriate accommodations for each of the modes within the right-of-way.
- Work with TransLink to manage the Major Road Network (MRN) with the aim to retain or improve its people moving capacity.

4.9.2 POLICY

Reduce Severe Collisions and Improve the Safety of All Users of the Road Network

The aim of this policy is to use a Vision Zero approach to improving safety for all road users. The approach recognizes that safety is dependent on both safe streets and the behaviour of those using the street:

» **Safe Streets** – refers to the designing, building, maintaining, and operating of safe streets.

» **Safe Users** – refers to limiting or preventing unsafe or risk-taking behaviours such as speeding, failing to yield at intersections, distracted or impaired driving, and other behaviours through enforcement, education, and engagement.

The City will prioritize the safety of vulnerable street users, such as pedestrians and people cycling, by working with partners to identify appropriate steps or proactive measures to improve safety for everyone.

Actions

» Identify and track collision hot spots, including locations with high frequencies of serious collisions and fatalities, and develop a program to improve safety for all street users at these locations.

» Implement measures to enhance safety at intersections. This may include an upgrade of traffic controls or changes to the roadway design.

» Support enforcement practices that prioritize and protect the safety of vulnerable street users. Increase enforcement to limit behaviors that impact safety, such as speeding, illegal turns, blocking intersections, and illegal parking and stopping.

» Review and advocate for lower speed limits where appropriate.

» Implement traffic calming measures in residential neighbourhoods where appropriate, to improve safety on local residential streets, such as locations close to schools or with higher volumes of cyclists and other vulnerable users.

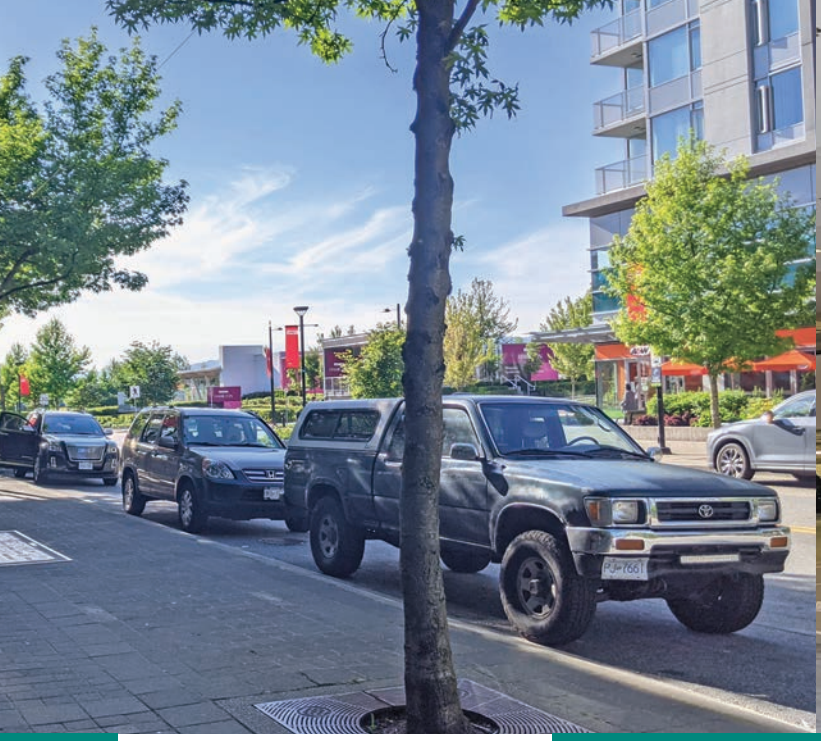
4.9.3 POLICY

Support and Incorporate Transportation Demand Management Measures

The aim of this policy is to use transportation demand management measures to actively encourage and enforce a reduction in unnecessary vehicle trips.

Actions

- Develop and implement Transportation Demand Management (TDM) measures across the City.
- Support TransLink's TDM programs at schools, daycares, and workplaces.
- Advocate for and support a regional mobility pricing strategy as a TDM measure to reduce congestion, improve travel times, reduce emissions, and generate revenue to be directed towards improvements in sustainable transportation modes.
- Encourage or support campaigns that promote the use of car-pooling, car-sharing, and the use of transit and active transportation.
- Support an automobile insurance fee structure that rewards people for driving less.



4.9.4 POLICY

Manage Parking to Reduce Auto Ownership and Dependence

The aim of this policy is to provide for the right supply of well-planned, designed, and appropriately priced parking to support the needs of people and businesses without contributing to continued auto-ownership and dependence, and while minimizing impacts to local neighbourhoods. Parking is typically grouped into two categories:

» On-street parking: Parking that is located on public streets within the road right-of-way. It is typically used for shorter periods of time and has more restrictions (hours of use and cost) as it is often in high demand. It is regulated through the Burnaby Street and Traffic Bylaw and the Parking Meter and Electric Vehicle Charging Meter Bylaw.

» Off-street parking: Parking that is located anywhere but on the street, such as parking lots, parkades, garages, or driveways. It is typically used for longer periods of time, and is usually privately owned. It is regulated through the Burnaby Zoning Bylaw.

Actions

Actions for On-street Parking:

» Manage parking spaces to reduce dependence on single occupant vehicles and vehicle ownership.

» In high demand commercial areas, use pricing and a time-based strategy at parking meters to prioritize short-term customer parking.

» Make investments in technology to help manage parking where it is needed.

» Work with partners to create and encourage the use of technology to make it easier to find and access available parking, such as real-time parking apps.

Actions for Off-street Parking:

» Review off-street parking requirements in the Zoning Bylaw to:

- Reduce or remove minimum parking supply standards and set maximums, where appropriate.
- Review possibilities for shared parking between complementary uses where appropriate.
- Review and modify bylaws, policy, and other regulations to make the space currently used for parking more flexible and adaptable to future needs and uses.

4.9.5 POLICY

Actively Support the Provision of Infrastructure that Enables the Use of Sustainable Vehicles

The aim of this policy is to support the City's Zero-Emissions target by supporting the supply of infrastructure needed to encourage a transition to more sustainable fuels. The City will support the supply of infrastructure, such as electric charging stations, and other non-carbon re-fueling technology that makes the transition faster and easier.

Actions

- Require electric vehicle charging infrastructure in new commercial, institutional, mixed-use and residential developments.
- Provide electric vehicle charging infrastructure at all public facilities, such as recreation centres, libraries, and other public buildings by 2030.
- Determine appropriate locations across the City for public on-street electric vehicle charging infrastructure.
- Convert the City's fleet to zero-emission vehicles where possible.

4.9.6 POLICY

Significantly Increase Opportunities for Car-sharing in the City

The aim of this policy is to encourage and support the provision of car-share as an alternative method of travel when transit, cycling, and walking and rolling are not feasible. Car-sharing is a system where registered members can rent a vehicle for a short period of time from a company with a fleet of communal vehicles. Members typically pay a yearly or monthly fee to cover some of the fixed costs, but most usage costs are paid on a per-kilometer and/or per-hour basis.

Members of car-share programs typically benefit from cost savings compared to owning or leasing a vehicle. They have the convenience of using a vehicle when necessary, without the costs of full-time ownership (maintenance, insurance, fuel, and parking).

Actions

» Encourage and support the provision of car-share services in the City.

» Support the provision of car-share vehicles at major destinations.

» Facilitate convenient parking locations for car-share vehicles on both public and private property.

4.9.7 POLICY

Continue to Manage Existing and Investigate New Transportation Services

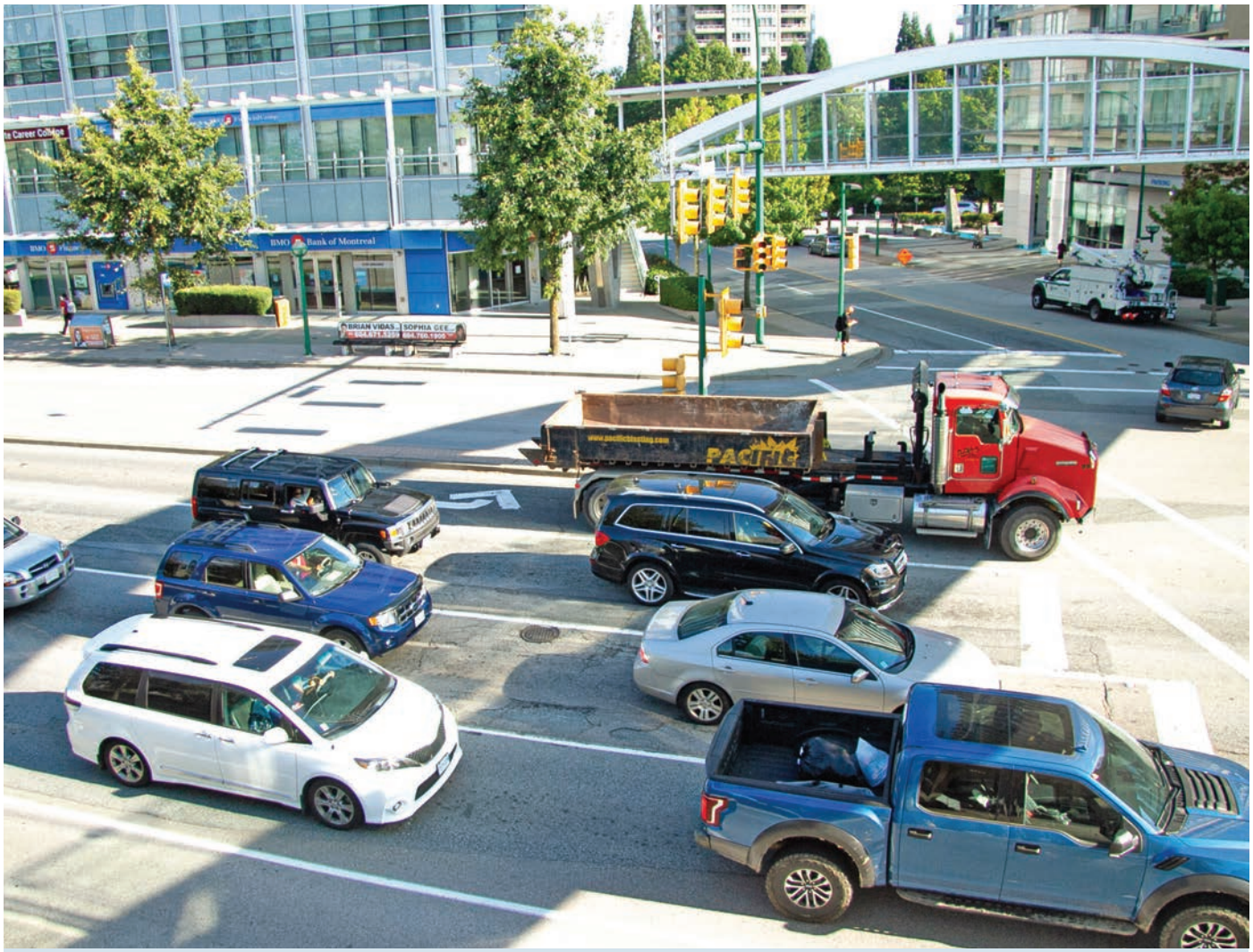
The aim of this policy is to continue to manage and review other transportation services such as taxis, ride-hailing, and private transit vehicles providing an alternative when walking, cycling, public transit, or other options are not available or viable. While these services can provide choices, they can also cause more vehicle trips and congestion, increased competition for curbside loading spaces, and other conflicts. Increased use of these services could also result in a decline in active transportation and public transit trips, which would not support the City's mobility goals and targets. The City will manage and review these services as they evolve with other partners, to ensure they align with the City's mobility goals and targets.

Actions

» Review licensing requirements for transportation services such as taxis, ride-hailing and private transit vehicles to ensure that they align with the objectives of the Transportation Plan. For example, reduced fees for low- or zero-emission vehicles, and for vehicles that accommodate accessible mobility devices.

» Support cross-jurisdictional licenses for taxi operators and other people-moving services to better serve inter-municipal travel.

4.9.8 KEY PERFORMANCE INDICATORS



The three primary Key Performance Indicators for this mode which measure infrastructure and behavioral changes towards meeting the three Targets of the Plan are:

» Travel time variance on key corridors (as a measure of reliability of network operations).

» Vehicle ownership (passenger vehicles per household) and fuel type of those vehicles.

» Crash rate per population.

5.0

IMPLEMENTATION FRAMEWORK

5.1 OVERVIEW

The Plan sets out the transportation priorities for the City over the next 30 years and establishes the policy basis for projects and programs, as well as the implementation structure required to identify organizational needs, resources, and capacity-building required to accomplish its intent.

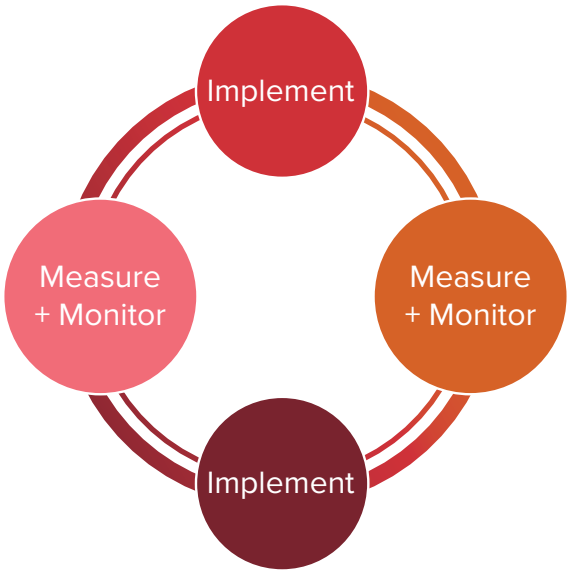
Achieving the vision and targets of the Transportation Plan will require investment of time and resources, building on the City's commitments and leadership. Appropriate investments will result in the creation of a vibrant and vital community, connected by a safe, accessible and sustainable transportation system, in the pursuit of a prosperous community and a healthy environment.

The Transportation Plan is intended to be a starting point for coordinating the various policies and investments required to advance the vision and targets. As a living document, the Plan will be revisited regularly (i.e. annual reporting), to track progress, and account for future changes that cannot be anticipated today. It provides the framework to guide transportation planning in the City, for the lifespan of the Plan, and includes implementation of specific policies and actions targeted at achieving the Plan.

Closely connected to the implementation approach is the requirement for a robust monitoring strategy that enables measuring progress towards the vision, goals and targets of the Plan. Establishing metrics and indicators will support the City's work program in the following ways:

- measure and evaluate progress;
- aid with prioritization and refinement of initiatives and work programs;
- direct resourcing requirements; and,
- respond to opportunities and challenges from emerging technologies and advancements in transportation mobility;

In this way, the monitoring strategy will enable the City to measure both the progress of implementing the Plan and its outcomes.



The implementation and monitoring cycle provides a feedback loop whereby the lessons learnt from previous applications inform and guide future implementation.

5.2 IMPLEMENTATION COMPONENTS

The approach being employed for the realization of this Plan is that of an Implementation Framework which supports the creation of subsequent work programs. The components of this section are:

- Guiding Principles
- Approach
- Delivery Roles and Responsibilities

Further, this section also outlines the complementary elements of data collection, monitoring and evaluation as critical factors to the success of the actions and initiatives arising from the Plan.

5.2.1 GUIDING PRINCIPLES

Recognizing that many of the actions contained within the Plan will occur over a period of time, the framework enables the translation of these actions, and supporting key policy directions into work programs, based on a set of guiding principles. The following six principles were selected in alignment with the City's core values and best practices, and will assist the setting of priorities, identification of needs and directing solutions.

Monitor, Evaluate and Adapt	Monitoring and reviewing affords the opportunity to provide transparent information about implementation progress, enables benefiting from learned experiences, and provides prospects for flexibility in adapting future policies, and actions.
Engage Well	Public engagement is an important tool in facilitating transparent communication on how policies and actions will lead to change, in support of the Plan's goals and targets. The role, timing and form of engagement will vary depending on the type of project, initiative or action under consideration, but will strive for meaningful and effective public participation.
Consider the Cost	The investment of City resources including human and financial capital required to deliver the Plan, must be undertaken in a thoughtful and strategic manner, balancing spending to maximize results. Delivery of infrastructure and policies must also consider the long term cost of operations, maintenance and programming, and the resources and personnel necessary to sustain these investments.
Clear Prioritization	A systematic approach is required to prioritizing which policy, action and infrastructure investment is pursued within resourcing and timing constraints and opportunities. Some of the actions within the Plan will require further study, and prioritizing what gets done first within the context of finite resources, enables the determination of what can be delivered when, and how.
Partnership and Collaboration	Implementation of the Plan will require both internal and external collaborative effort. Cross-departmental initiatives to advance policy objectives and transportation investments are complementary to the City's partnerships with partners and stakeholders. Through these working relationships, Plan goals and targets can be advanced.
Equity Minded	The Plan's implementation needs to ensure that the actions, and policies serve and benefit all community members. Decision-makers and implementers need to establish evidence-based decision-making processes, as opposed to decisions based on socio-cultural conditioned assumptions about the needs of users of the transportation system.

Source: www.cbc.ca/news/canada/british-columbia/vancouver-stanley-park-bike-lane-vote-1.5940549

Piloting and Tactical Urbanism Tools

Temporary, flexible tactical interventions are one set of tools available to the City to test ideas and solutions, and gather feedback that can inform more permanent applications. By piloting projects, the City can advance the Plan's vision of investing in safer, more comfortable spaces and infrastructure for people using low cost, "quick" treatments that can expedite rapid adaptation of the existing transportation network to shifting demands and objectives.

5.2.2 APPROACH

Recognizing that the Plan is a living document which will be revisited regularly, an implementation framework is the basis for advancing and delivering the policies, and actions arising from the Plan. The approach being advanced through this Plan provides a flexible, tiered direction that affords clear guidance for all future implementation actions and work programs, considers the appropriate level of responsibility and autotomy to actors responsible for undertaking works, and identifies resourcing investment required to manage the deployment of the Plan, its vision, goals and target objectives. This flexibility enables the City to be responsive to the pace and scale of emerging circumstances and its coordination with transportation planning and infrastructure investments. This is a key factor in developing resiliency, as it fosters the ability to expand, respond to, extend and provide diverse transportation options both under temporary and permanent installations.

The framework includes two tiers and timescales of implementation as follows:	
Tier One	Actions, initiatives and policy directions related to the Big Moves, Foundations, and high priority corridor multimodal assessments. Strategic actions related to monitoring, reporting and investment are also included in this tier.
Tier Two	Modal policies and actions.

Tier One prioritizes and accelerates work on the Big Moves and Foundational policy foci where near-term action is central to the delivery of the overall Plan. The work arising from Tier One, will also feed a five-year investment strategy and monitoring plan by providing critical input into delivery timeframes and required resources to advance new policies, capital and operational efforts. Tier Two will advance these assessments, focusing on where detailed study is required to address competing modes and street functions whilst drawing on policy direction from the Plan. Tier Two will also include effort in moving forward the additional modal policies and actions.

The Appendix outlines the time frame, and resourcing consideration for implementation of Tier One, which will inform the development and advancement of the Tier Two implementation program.

5.2.3 DELIVERY ROLES AND RESPONSIBILITIES

The responsibility for delivering the vision and actions of the Plan point to the multi-disciplinary nature of transportation and the comprehensive, cross-sectional nature of the Plan itself. In the same manner, Plan implementation will be a collaborative effort with internal and external partners and stakeholders. Clarity on the functional role and responsibility of delivery actors for any given part of the Plan is critical to its overall success. Each initiative, policy and action item requires identification of the roles of project lead, partner and support, both internal and external to the City.

These three functional roles provide the following:	
Lead	Department(s) responsible to initiate and undertake key work to advance the action, project or policy and organize others as needed.
Partner	Department(s) or external organization that will be actively involved in the work being undertaken to advance the action, project or policy.
Support	Department(s) or external organization that will assist or functionally enable the advancement of an action, project and policy.

The Appendix provides a role and responsibility table for Tier One of the Plan's implementation, including actions, and policy directions related to the Big Moves, Foundations and Multimodal Corridor assessments. Strategic actions related to monitoring, evaluation, reporting and investment are also included in this first step, that will enable work program development and scoping for responsible and involved Departments, and staff.

5.3 MONITORING, EVALUATION & INVESTMENT

Realization of this Plan is grounded in complementary strategies for data collection, monitoring, evaluation and investment. Each of these elements is critical in measuring and facilitating the shifts required to achieve the Plan's three city-wide targets, and its policies and actions.

Credit Christopher Porter

5.3.1 PURPOSE & IMPORTANCE OF MONITORING

Effective implementation of the Plan will require ongoing monitoring of the transportation ecosystem's performance, and the resulting impacts of the policies and actions. This will enable measuring both the progress and outcomes of the Plan, and will facilitate adaptation of policies and actions as required, to better meet the intent of the vision, goals and targets, and emerging developments and priorities. Development of metrics or measures, collection of data and the tracking of indicators to evaluate performance are key requirements of a robust strategy. A monitoring strategy will enable the benchmarking of progress, and provide direction to adapt, improve, and refine work programs by adjusting priorities and actions as required to support achievement of the Plan.

5.3.2 INDICATORS & DATA COLLECTION

Metrics or measures help quantify, indicate or assess the status of specific actions. The Appendix provides a list of potential key performance indicators (KPI's) that can be used to measure the success of the Plan. These include the following City-wide target KPI's which align with the Big Moves, and policy area indicators:

BIG MOVE		PERFORMANCE INDICATOR	PERFORMANCE TREND	
Walking	By 2030, 80% of the Burnaby pedestrian network will be completed to provide an accessible, safe, and comfortable walking and rolling environment.	Percent complete and Km of new sidewalk constructed.		Upward trend indicating net increase in pedestrian infrastructure.
Cycling	By 2030, the Phase 1 cycle network will be completed, providing clear consistent and continuous connections between town centres, major destinations and to neighbouring municipalities.	Percent complete and Km of AAA cycling infrastructure completed.		Upward trend indicating net increase in AAA cycling infrastructure.
Transit	By 2030, the City will install 370 additional bus shelters or bus benches to increase transit passenger comfort.	Additional transit supportive amenities installed.		Upward trend indicating increase in transit supportive amenities installed.
Goods Movement	By 2023, the City will establish policies to require multi-family developments to provide secured storage amenities for oversized deliveries and goods requiring cold storage;	The percentage of new multi-family residential developments with on-site cold storage facilities.		Upward trend indicating increase in delivery options for residents.
Driving	By 2026, develop and implement a Smart City Plan for Burnaby comprising of sensor technology, real-time data transmission and analytics to improve safety and optimize network performance.	Travel time variance on key corridors as a measure of network performance.		Downward trend indicating stable and predictable travel times across the network.

The development of the KPI's considered the following criteria:

» Simplicity: data and information should be readily available;
» Meaningful: data should be relevant and point to meaningful outcomes such as progress;
» Reliability: data should be consistently measured over time to give a consistent indication; and
» Affordable: data and analysis require dedicated resources.

In this Plan, metrics such as indicators are proposed to provide quantifiable indications of:

» Absolute progress, such as kilometers of infrastructure built; or
» Trend indication, such as improving, declining or stable performance.

Where possible, data used as KPI and metrics will build on existing information sources and information, and should be supportive of and in alignment with other strategic City directions and policies. This would also enable consistency of reporting out while being fiscally responsible. New data sources, where required in support of the KPI's, will be identified and resources allocated to supplement the monitoring program.

5.3.3 RESOURCING

To support the Big Moves, policies and actions contained within this Plan, as well as other cross-sectional policies and actions, this section presents a series of strategic initiatives that need to be undertaken to address the monitoring and investment requirements. The ambitious directions and actions of the Plan can not be achieved under existing financial or human capital, as such the following strategies will define the additional new resources required to deliver the Plan.

» **Monitoring & Reporting Strategy:**

- Establish a monitoring strategy that includes evaluating Plan actions and initiatives, with a feedback loop to assist in project prioritization and adaptation.
- Measure and report out progress using key metrics and indicators at regular intervals.

» **Investment Strategy:**

- Develop a five year investment plan that specifies the additional new resources required for inclusion in the annual budgeting process for both the capital and operational requirements, to deliver, maintain and advance the investments arising from the Plan. This will include additional resources for new personnel required to facilitate delivery.

GLOSSARY OF TERMS USED IN THE TRANSPORTATION PLAN

Access: the ability and ease through which an individual or group is able to reach transport facilities, infrastructure and services and safely move around using the selected mode of transport.

Accessible: transport facilities, infrastructure and services that are designed or programmed to enable all people safe and comfortable access and use, regardless of physical or cognitive abilities, or socio-economic background.

Active Transportation: any form of human-powered transportation that enables people to get from one place to another. Examples of active transportation include walking, rolling, cycling, wheeling, jogging and running, in-line skating and skateboarding.

All Ages and Abilities (AAA): a design criteria and guidelines for streets with cycle facilities, as established by the National Association of City Transportation Officials (NACTO) within the, "Urban Bikeway Design Guide" publication.

Amenities: features or facilities within the public realm that enhance a person's movement through or experience within the publically accessible space. Examples of amenities include, pedestrian lighting, secure bike parking and end-of-trip facilities, wayfinding, benches and shelters.

Annual Average Daily Traffic (AADT): a measure of the average daily traffic volume on a particular segment of road, averaged over the period of one year. It represents the amount of traffic and is collected annually for various segments of road.

Arterial Road: a classification of road that describes its characteristics, form and function. For more information see Table on page 63.

Big Move: the implementation of a major policy that is identified as having the most potential for impacting the three City-wide targets: Vision Zero, Mode Split and Zero Emissions.

Bike Boxes: A bike box is a designated area at the head of a traffic lane at an intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.

Bike Score: a quantitative measurement of the bikeability of a location. For a given location, a Bike Score is calculated by measuring bike infrastructure (lanes, trails, etc.), hills, destinations and road connectivity, and the number of bike commuters.

Bike-share: a publicly- or privately-run program that makes bikes available for shared-use to individuals on a short term basis for a fee or free-of-charge.

Bus lane: a lane within the road-right-of-way that is dedicated for the movement of bus transit services.

Car-pool: shared use of an automobile by two or more persons to make a trip, when they would otherwise travel separately.

Car-share: a model of automobile rental where people can rent vehicles for short periods of time, often by the hour.

Climate Change: a change in global or regional climate patterns, largely attributed to human activity.

Collector Road: a classification of road that describes its characteristics, form and function. For more information see Table on page 63.

Community Plan Area: A designated local area, typically with a Council-adopted Plan to guide future development, including strategies for land use and development, transportation, infrastructure servicing, and other related issues. Over time, Community Plans and Community Plan Areas may be updated to serve the evolving needs of these communities.

Corridor Study Area: a corridor that has been identified for a higher level of transit service, warranting a higher standard of public realm to integrate the pedestrian, cycling, and transit networks.

Curb cut: a small ramp or slope that is built into the curb of a sidewalk or multi-use path so as to make it easier for people to walk or roll to pass from the sidewalk or multi-use path to the road.

Electric Bicycles/E-Bikes: bicycles with an integrated electric motor to assist propulsion.

Electric vehicles (EVs): a motor vehicle that operates on an electric motor as opposed to an internal-combustion engine.

End-of-trip facilities: designated spaces that support people using active forms of transportation. Facilities often include short-term bicycle parking (outdoor bike racks), change rooms and lockers, long-term bicycle parking (rooms, cages, and bike lockers), and other amenities like pumps.

Frequent Transit Development Area (FTDA): an area identified to accommodate additional concentrated growth in higher density forms of development. Urban design for these areas promotes transit-oriented communities where transit, cycling and walking are the preferred modes of transportation.

Frequent Transit Network (FTN): a network of corridors where transit service runs at least every 15 minutes in both directions throughout the day and into the evening, every day of the week.

Gondola Study Area: an area between Simon Fraser University and the Millennium SkyTrain line that is the subject of a study for the alignment of a future gondola serving SFU and UniverCity.

Greenhouse Gas Emissions (GHGs): gases that cause climate change by creating a "greenhouse effect" in the Earth's atmosphere trapping heat and pollutants. Greenhouse gases include carbon dioxide, methane, and water vapour, as well as some surface-level ozone, nitrous oxides, and fluorinated gases.

HandyDART: TransLink's paratransit system provides access and mobility to people that are unable to safely navigate conventional public transit without assistance.

Hazardous goods truck route: a route which is part of the City's Truck Route system, designated for heavy vehicles carrying specified dangerous goods.

Laneway: a public thoroughfare or way which affords a primary means of access to a lot, at the side or rear lot.

Local Road: a classification of road that describes its characteristics, form and function. For more information see Table on page 63.

Low stress (cycling facilities): a network of bicycle facilities that ensure easy access throughout a city for all cyclists, including those who are not extremely confident.

Major Bikeway Network (MBN): a regional arterial bike lane system that allows for long-haul bike trips between municipalities for both recreation and commuting purposes.

Major Road Network (MRN): a network that connects the provincial highway system with the local road network, and some corridors also serve cyclists and pedestrians. TransLink partners with municipalities to plan the MRN, and contributes funding for its on-going operation, maintenance and rehabilitation.

Micro-mobility: a range of small, human or electric-powered lightweight vehicles with typical operating speeds of less than 25km/hr. Examples include scooters, skateboards, and bicycles.

Mixed-use development: a form of development that includes a mixture of different land uses such as: residential, commercial, institutional, recreational, and public spaces. It generally refers to development where different uses are not only combined on the same site but also within buildings themselves. An example might include residential apartments located above a commercial space on the first floors of a building.

Mode: a specific form of transportation, such as walking and rolling, cycling, taking transit or driving.

Multi-modal: two or more modes of transport. It typically describes the pattern of travel of an individual during a single trip (i.e. walking to transit); characteristics of a corridor or streets that accommodates more than one mode of transport; and/or, a transport hub that enables people to connect and transfer between different modes of transport.

Multi-use paths (MUP): Infrastructure that supports walking, rolling, cycling and other active modes of transport and is physically separated from on-street infrastructure and facilities that support higher speed modes of transport such as motor vehicles and buses.

Neighbourhood connections and linkages: Pathways and walkways intended for use by people walking and cycling which are not part of the road network. For example, paths linking cul-de-sacs to other pedestrian facilities which provide convenient direct access for people using active transportation.

Off-street parking: vehicle parking stalls provided within a property that are privately-owned and maintained

On-street parking: vehicle parking that is on a street and subject to the regulations of the Burnaby Street and Traffic Bylaw.

People-moving capacity: the maximum amount to which a street or other transportation network is designed to carry people.

Performance measure: quantitative and qualitative data and information that is collected, analyzed, evaluated and reported to indicate the performance of a system or component of the transportation system. It can also be used within the context of measuring the performance of specific policies and actions contained within the Plan.

Place-making: a multi-faceted approach to planning, design and management of public places and spaces with the intent of creating special and meaningful places for communities, neighbourhoods, and people.

Public realm: an area that is publicly-accessible, (internally or externally) including streets, squares, parks and open spaces, which enables the public's interaction and connection with each other and their city.

Queue-jumper lane: a dedicated lane within the road right-of-way that allows buses to bypass queuing vehicles at intersections to avoid delays caused by traffic congestion.

Rainwater Management Amenities (RMA): landscape features and street-based infrastructure designed to manage the runoff of rainwater from streets and other impermeable surfaces. The permeable surfaces of RMAs, such as rain gardens and native plantings, acts as a soil filter for water before it ultimately makes its way into streams and rivers.

Rapid transit: higher-order transit that provides higher capacity and operating speed, typically in a dedicated or exclusive right-of-way.

Regional Greenway Network: a network of recreational multi-use paths for walking, rolling, cycling and other active modes of transport that connect communities to large parks and protected natural areas.

Ride-hailing: a transport service, typically via automobile, whereby a user can arrange for pick-up and be driven to their destination for a time and distance-based fee.

Road allowance or road right-of-way: municipally-owned land that is reserved for use as a public road.

Self-driving vehicles/autonomous vehicle: a driverless vehicle that is programmed to operate and navigate from a point of origin to a destination without human intervention.

Sharing Economy: an economic model defined as a peer-to-peer (P2P) based activity of acquiring, providing, or sharing access to goods and services that is often facilitated by a community-based on-line platform.

SkyTrain: a light rapid transit system consisting of fully automated trains on grade-separated tracks running on underground and elevated guideways, allowing consistently high on-time reliability.

Streetscape: all the elements that make up the physical environment of a street and define its character, including: the road, boulevard, sidewalk, building setbacks, height and style. It also includes paving treatments, trees, lighting, pedestrian amenities and street furniture.

Sustainable vehicle: a vehicle using a sustainable fuel source such as electricity derived from hydro- or solar-power.

Through-traffic: vehicles that are traveling on the Burnaby road network, but from a point of origin and to a destination outside of the city limits.

Town Centre: an urban centre, where the highest concentration and mix of office, retail, residential and amenities are located. Town centres are all served by transit. All provide an abundance of higher density housing opportunities. In Burnaby, there are four Town Centres: Metrotown, Brentwood, Lougheed and Edmonds. Metrotown is also the City's downtown.

Town Centre Standards: Enhanced standards for the streetscape and public realm design within the four Town Centres (Metrotown, Brentwood, Lougheed and Edmonds). The standards include enhanced pedestrian and cycling facilities, public art, tree planting, and rainwater management systems.

Traffic Calming: Physical measures implemented on streets to reduce traffic infiltration and/or speed.

Transit-Priority Measures: measures - either physical or operational - to improve the reliability or speed of transit service, particularly in congested areas. Examples include bus activated signals, queue jumper lanes, and dedicated bus-only lanes, as well as exclusive right-of-way options such as SkyTrain corridors.

Truck route: Truck routes are streets and highways designated to accommodate larger trucks. Trucks are also permitted to use other streets in the City in order to access businesses or work sites, but must travel the shortest possible route to and from the closest designated truck route.

Universal Design: the design of buildings, streets, services, transportation systems, and public spaces that are usable by all people, to the greatest extent possible without the need for adaptation or specialized design. This is accomplished by removing barriers for those with mobility, visual and hearing impairments, and accounting for other special needs.

Urban Village: higher density mixed-use areas. The commercial areas within Urban Villages provide a focal point for convenient and close-to-home access to commercial facilities and services.

Vehicle Kilometres Traveled (VKT): the sum of all the kilometres traveled by vehicles (not people) in a specified amount of time.

Walkability/walkable: the extent to which the built environment allows people to walk to get to everyday destinations for work, shopping, education, and recreation and can be affected by street connectivity, mix of land uses, destinations, and pedestrian infrastructure.

Walk score: a measurement of whether an area is good for walking, based on proximity to shops, services, schools and other facilities.

Wayfinding: a system that assists travelers in orienting, navigating, and moving through an environment through the use of architectural and urban design features, visual cues and other measures, such as signage.

APPENDIX

As the City looks to develop a network of facilities that create an **All Ages and Abilities (AAA)** cycling environment, it will focus on building types of comfortable cycling infrastructure that will provide a broad and wide spectrum of the population the option to cycle. This includes the large number of "interested but concerned" cyclists who prefer off-street or separated facilities or quiet or traffic-calmed streets to cycle on.1 Building on the bikeway classification system developed by TransLink and HUB (2019), facilities that fall within the "comfortable for most people" comfort category include the following:

AAA CYCLING INFRASTRUCTURE

	TYPE	DESCRIPTION	SPECIFICATIONS
Separated from Vehicle Traffic	Bike Path	Off Road facility for the exclusive use of people cycling, may be unidirectional or bidirectional. Separate from both motorist and pedestrians, especially at intersections.	Width: Bidirectional 3.0-4.8m, Unidirectional 2.0-3.0m Posted Speed: N/A Volume: N/A
	Protected Bike Lane	Exclusive on-road facility delineated by a vertical barrier element/physical separation from motor vehicles, as well as separation from pedestrians. Can be unidirectional or bidirectional.	Width: Bidirectional 3.0-4.8m, Unidirectional 2.0-3.0m Posted Speed: ≤60 km/h Volume: N/A
	Multi-Use Path (MUP)	Off-road facility that allows for shared use by people cycling and pedestrians.	Width: Bidirectional 3.5-6.0m, Unidirectional 3.0-4.0m Posted Speed: N/A (ie. Outside of road ROW) Volume: N/A
Unseparated from Vehicle Traffic	Neighbourhood Street Bikeway or Shared Road	Bikes and motor vehicles share the roadway, which provides a continuous corridor of suitable operating conditions for people cycling, including limiting exposure to motor vehicle traffic. Can include a variety of roadways including local roads, alleys and service roads.	Width: Parking one side 5.5-7.5m, Parking both sides 8.0-11.0m Posted Speed: ≤30 km/h Volume: ≤1,000 ADT

* Source: AAA Cycling Infrastructure description and specifications adopted from "Benchmarking the State of Cycling in Metro Vancouver, 2019" report as authored by TransLink and HUB.

In Burnaby, cycling facilities will be designed to create an AAA bicycling environment based on the street context, with the preferred forms including: Bike Path, Protected Bike Lane, Neighbourhood Street Bikeway, and in certain conditions and contexts Multi-Use Paths.

Dill, D. and N. McNeil. Revisiting the Four Types of Cyclists.
In Transportation Research Record 2587. TRB, National Research Council, Washington, DC, 2016.

THE ROAD NETWORK ROAD CLASSIFICATION TABLE (Subject to Refinement)

STREET CLASS	FUNCTIONS			FUNCTIONAL DESCRIPTION	NUMBER OF LANES (TOTAL)	TYPICAL ROW REQUIREMENTS (METRES)			
	PRIMARY FUNCTION	CONTEXT DEPENDENT FUNCTIONS	LIMITED OR PROHIBITED FUNCTIONS			TYPICAL (MIDBLOCK)	TYPICAL (AT INTERSECTIONS)	WITH CYCLE PROVISION (MIDBLOCK)	WITH CYCLE PROVISION (INTERSECTION)
Major Arterial	mobility for people and goods	access for people, activation, greening	storage, access for people (via vehicle), access for goods	Provide mobility for people and goods through the City, between Town Centres and to major destinations. Carries regional and inter-municipal trips. Typically 4-6 travel lanes, turning lanes at intersections, and may include dedicated lanes for transit.	Including Rapid Transit TBD 6 4	TBD 29.2 22.6	TBD 33.5 26.9	TBD 32 25.4	TBD 36.3 29.7
Minor Arterial	mobility for people and goods	activation, greening, access for people and goods	storage	Provide mobility for people and goods, between major activity centres within the City. Carries both inter-municipal and intra-municipal trips. Typically 4 travel lanes, turning lanes at intersections and may include dedicated lanes for transit and / or trucks to increase people moving and / or goods movement reliability.	4	22.6	26.9	25.4	29.7
Major Collector	Mobility for people, access for people and goods	activation, greening, mobility for goods	storage	Balance mobility and access as primary functions, providing mobility for people and goods between and through major industrial, commercial, high-density residential and major activity centres. Carries intra-municipal and neighbourhood trips and connect minor collectors and local roads to arterial streets. Typically 2-4 travel lanes, and may accommodate parking with a focus on short-term, high turnover uses and occasional driveways.	4	22.6	22.6	25.4	29.7
Minor Collector	Access for people and goods, mobility for people	activation, greening, storage	mobility for goods	Balance mobility and access as primary functions, providing mobility within neighbourhoods and connect local roads to other collectors and arterial streets. Typically carry predominantly local trips with two travel lanes, and accommodate parking and some driveways.	2	20	20	22.8	22.8
Local	Access for people and goods, greening	activation, greening, mobility for goods	storage	Provide access for people and goods to individual parcels. Typically have on undivided travel area and accommodate parking and driveways.	1	20.1	20.1	20.1	20.1

THE ROAD NETWORK CLASSIFICATION OF ROAD SEGMENTS (Subject to Refinement)

CLASSIFICATION	ROAD	SEGMENT	TYPICAL REQUIRED ROW MID-BLOCK	TYPICAL REQUIRED ROW AT INTERSECTION	RAPID TRANSIT OR TRANSIT PRIORITY ROUTE?
Major Arterial	Boundary Road	1st Avenue to Kingsway	22.6 - 32m	26.9 - 36.3m	Transit Priority Measures
Major Arterial	Boundary Road	Hastings to 1st Avenue	22.6 - 32m	26.9 - 36.3m	Transit Priority Measures
Major Arterial	Boundary Road	Kingsway to Marine	22.6 - 32m	26.9 - 36.3m	
Major Arterial	Gaglardi Way	Lougheed Hwy to Hwy 1	22.6 - 32m	26.9 - 36.3m	
Major Arterial	Hastings Street	Boundary to Willingdon	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Hastings Street	Willingdon to Inlet Drive	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Inlet Drive/Barnet	Hastings Street to Port Moody	22.6 - 32m	26.9 - 36.3m	Transit Priority Measures
Major Arterial	Kingsway	Boundary Road to Royal Oak Avenue	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Kingsway	Royal Oak Avenue to Gilley	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Kingsway	Gilley to Edmonds	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Kingsway	Edmonds to 10th	22.6 - 32m	26.9 - 36.3m	
Major Arterial	Lougheed	Sperling to Gaglardi	22.6 - 32m	26.9 - 36.3m	SkyTrain
Major Arterial	Lougheed Hwy	Gaglardi Way to North Road	22.6 - 32m	26.9 - 36.3m	SkyTrain
Major Arterial	Lougheed Hwy	Boundary Road to Sperling	22.6 - 32m	26.9 - 36.3m	SkyTrain
Major Arterial	Marine Way	Boundary Road to Byrne Road	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Marine Way	Byrne Road to North Fraser Way	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Marine Way	North Fraser Way to Fenwick Street	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	North Road	Cameron Street to Lougheed Hwy	22.6 - 32m	26.9 - 36.3m	SkyTrain
Major Arterial	Willingdon Ave	Kingsway to Central Boulevard	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Willingdon Ave	Lougheed to Canada Way	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Willingdon Ave	Canada Way to Deer Lake Parkway	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Major Arterial	Willingdon Ave	Deer Lake Avenue to Kingsway	22.6 - 32m	26.9 - 36.3m	rapidBus or better
Minor Arterial	Austin Road	Lougheed Hwy to North Road	22.6 - 25.4m	26.9 - 29.7m	Transit Priority Measures
Minor Arterial	Broadway	Gaglardi Way to North Road	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Burnaby Mountain Pkwy	Hastings Street to Gaglardi Way	22.6 - 25.4m	26.9 - 29.7m	rapidBus or better
Minor Arterial	Canada Way	Boundary to Willingdon	22.6 - 25.4m	26.9 - 29.7m	Transit Priority Measures
Minor Arterial	Canada Way	Willingdon to 10th Avenue	22.6 - 25.4m	26.9 - 29.7m	rapidBus or better
Minor Arterial	Deer Lake Pkwy	Willingdon to Canada Way	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Gaglardi Way	Burnaby Mountain Pkwy to Lougheed	22.6 - 25.4m	26.9 - 29.7m	FTN
Minor Arterial	Gilmore Ave	Lougheed Hwy to Canada Way	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Gilmore Ave	1st Avenue - Lougheed Hwy	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Grange Street	Willingdon to Royal Oak	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Griffths Ave	Kingsway to Rumble	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Griffths Ave	Rumble to 14th Avenue	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Griffths Ave	14th Ave to 10th Ave/Southridge	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Imperial Street	Central to Kingsway	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Imperial Street	Boundary to Central	22.6 - 25.4m	26.9 - 29.7m	rapidBus or better
Minor Arterial	Kensington Ave	Sprott Street to Hwy 1 Ramps	22.6 - 25.4m	26.9 - 29.7m	Transit Priority Measures
Minor Arterial	Kensington Ave	Lougheed to Sprott Street	22.6 - 25.4m	26.9 - 29.7m	Transit Priority Measures
Minor Arterial	Kensington Ave	Hwy 1 Ramps to Canada Way	22.6 - 25.4m	26.9 - 29.7m	Transit Priority Measures
Minor Arterial	North Road	Cameron St to Lyndhurst St	22.6 - 25.4m	26.9 - 29.7m	SkyTrain
Minor Arterial	North Road	Lougheed Hwy to Hume Park Access	22.6 - 25.4m	26.9 - 29.7m	SkyTrain
Minor Arterial	Royal Oak Avenue	Deer Lake to Imperial	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Southridge Drive	Marine Way to 20th Street	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Sprott Street	Norland Avenue to Kensington Ave	22.6 - 25.4m	26.9 - 29.7m	Transit Priority Measures
Minor Arterial	Tenth Ave	20th Street to Newcombe Street	22.6 - 25.4m	26.9 - 29.7m	

CLASSIFICATION	ROAD	SEGMENT	TYPICAL REQUIRED ROW MID-BLOCK	TYPICAL REQUIRED ROW AT INTERSECTION	RAPID TRANSIT OR TRANSIT PRIORITY ROUTE?
Minor Arterial	Tenth Ave	Newcombe Street to Holmes Street	22.6 - 25.4m	26.9 - 29.7m	
Minor Arterial	Willingdon Ave	Hastings to Lougheed Hwy	22.6 - 25.4m	26.9 - 29.7m	rapidBus or better
Minor Arterial	Willingdon Ave	Central Boulevard to Imperial Street	22.6 - 25.4m	26.9 - 29.7m	rapidBus or better
Major Collector	Beaverbrook Drive	Eastlake Drive to Cameron Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Beta Avenue	Lougheed Hwy to Dawson Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Brighton Avenue	Lougheed Hwy to Government Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Broadway	Arden Avenue to Underhill Ave	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Broadway	Kensington Avenue to Sperling Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Broadway	Production Way to Gaglardi Way	22.6 - 25.4m	26.9 - 29.7m	FTN
Major Collector	Broadway/Production Way	Gaglardi Way to Eastlake Drive	22.6 - 25.4m	26.9 - 29.7m	FTN
Major Collector	Cameron Street	Beaverbrook Drive to North Road	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Cariboo Road	Gaglardi Way - Stormont	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Cariboo Road	Gaglardi Way to 16th Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Cariboo Road	Sixteenth Avenue to Tenth Ave	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Cariboo Road	Winston to Stormont	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Cariboo Road	Gaglardi to Stormont	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Central Boulevard	Willingdon Avenue to Imperial Street	22.6 - 25.4m	26.9 - 29.7m	FTN
Major Collector	Dawson Street	Beta Street to Douglas Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Dawson Street	Gilmore Avenue to Beta Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Douglas Road	Gilmore Avenue to Madison Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Douglas Road	Springer Avenue to Delta Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Douglas Road	Still Creek to Norland	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Douglas Road	Goring Street to Dawson Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Eastlake	Lougheed to Government	22.6 - 25.4m	22.6 - 25.4m	
Major Collector	Eastlake Drive	Underhill Ave to Beaverbrook Drive	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Edmonds Street	Griffiths Drive to Kingsway	22.6 - 25.4m	26.9 - 29.7m	FTN and Transit Priority Measures
Major Collector	Edmonds Street	Kingsway to Canada Way	22.6 - 25.4m	26.9 - 29.7m	FTN and Transit Priority Measures
Major Collector	Edmonds Street	Canada Way to Sixth Street	22.6 - 25.4m	26.9 - 29.7m	FTN and Transit Priority Measures
Major Collector	First Ave	Boundary to Gilmore	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Gilley Ave	Kingsway to Rumble	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Gilley Ave	Rumble to Marine Drive	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Gilmore/Sanderson Way	Canada Way to Willingdon	22.6 - 25.4m	26.9 - 29.7m	part FTN
Major Collector	Goring Street	Douglas Road to Holdom Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Government	Bend to Lougheed	22.6 - 25.4m	26.9 - 29.7m	Transit Priority Measures
Major Collector	Government Street	Brighton Avenue to N.Cariboo Road	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Grange Street	Patterson to Willingdon	22.6 - 25.4m	26.9 - 29.7m	FTN
Major Collector	Halifax Street	Douglas Road to Willingdon Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Henning Drive	Boundary Road to Gilmore Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Holdom Ave	Lougheed Hwy to Douglas Road	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Imperial Street	Kingsway to Canada Way	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Kensington Ave	Broadway to Kensington Ave	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Kensington/Broadway	Kensington Ave to Hastings Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Lake City Way	Broadway to Lougheed	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Madison Avenue	Douglas Road to Dawson Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	McKay Avenue	Kingsway to Central Boulevard	22.6 - 25.4m	26.9 - 29.7m	FTN
Major Collector	McMurray	Kingsway to Grange	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	McMurray Avenue	Kingsway to Central Boulevard	22.6 - 25.4m	26.9 - 29.7m	

CLASSIFICATION	ROAD	SEGMENT	TYPICAL REQUIRED ROW MID-BLOCK	TYPICAL REQUIRED ROW AT INTERSECTION	RAPID TRANSIT OR TRANSIT PRIORITY ROUTE?
Major Collector	Myrtle Street / Still Creek Ave	Boundary Road to Willingdon Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Nelson Ave	Marine Way to Marine Drive	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Nelson Ave	Grange Street to Imperial Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Nelson Ave	Imperial to Marine Drive	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Norland Avenue	Douglas Road to Sprott Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Oakland/Burris	Royal Oak Avenue to Canada Way (via Burris)	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Production	Eastlake to Winston	22.6 - 25.4m	26.9 - 29.7m	FTN
Major Collector	Royal Oak Avenue	Imperial Street to Marine Way	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Sixth Street	Edmonds Street to 10th Avenue	22.6 - 25.4m	26.9 - 29.7m	FTN and Transit Priority Measures
Major Collector	Sperling Avenue	Lougheed Highway to Winston Street	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Still Creek Avenue	Douglas Road to Willingdon Avenue	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Still Creek Avenue / Myrtle Street	Boundary Road to Douglas Road	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Underhill Ave	Broadway to Lougheed	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Underhill Avenue	Shelmont Street to Broadway	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Wayburne Drive	Canada Way to Deer Lake Parkway	22.6 - 25.4m	26.9 - 29.7m	
Major Collector	Winston Street	Sperling Avenue to Brighton Avenue	22.6 - 25.4m	26.9 - 29.7m	
Minor Collector	16th Street	14th Ave to Kingsway	20 - 22.8m	20 - 22.8m	
Minor Collector	Armstrong	Cariboo to Cumberland	20 - 22.8m	20 - 22.8m	
Minor Collector	Beresford	Gilley to Griffiths	20 - 22.8m	20 - 22.8m	
Minor Collector	Beresford	Sussex to Dow	20 - 22.8m	20 - 22.8m	
Minor Collector	Buxton Street	Nelson Avenue to Royal Oak Avenue	20 - 22.8m	20 - 22.8m	
Minor Collector	Byrne Road	North Fraser Way to Marine Way	20 - 22.8m	20 - 22.8m	
Minor Collector	Capitol Dr	Pandora to Sea Ave	20 - 22.8m	20 - 22.8m	
Minor Collector	Cliff Avenue	Broadway to Halifax	20 - 22.8m	20 - 22.8m	
Minor Collector	Cliff Avenue	Halifax Street to Broadway	20 - 22.8m	20 - 22.8m	
Minor Collector	Douglas Road	Norland Ave to Canada Way	20 - 22.8m	20 - 22.8m	
Minor Collector	Douglas Road	Still Creek to Canada Way	20 - 22.8m	20 - 22.8m	
Minor Collector	Dow	Beresford to Imperial	20 - 22.8m	20 - 22.8m	
Minor Collector	Edmonds Street	6th Street to 4th Street	20 - 22.8m	20 - 22.8m	
Minor Collector	Empire	Capitol Dr to Howard	20 - 22.8m	20 - 22.8m	
Minor Collector	Gamma	Penzance to Cambridge	20 - 22.8m	20 - 22.8m	
Minor Collector	Garden Grove Dr	Wayburne to Moscrop	20 - 22.8m	20 - 22.8m	
Minor Collector	Greenall Ave	Marine to Marine	20 - 22.8m	20 - 22.8m	
Minor Collector	Greystone Dr/Arden Ave	Burnwood Drive to Broadway	20 - 22.8m	20 - 22.8m	
Minor Collector	Marlborough	Bennett to Imperial	20 - 22.8m	20 - 22.8m	
Minor Collector	Maywood Street	Patterson to Willingdon	20 - 22.8m	20 - 22.8m	
Minor Collector	Maywood Street	Willingdon to Sussex	20 - 22.8m	20 - 22.8m	
Minor Collector	Noel Dr	Sullivan to Still Creek	20 - 22.8m	20 - 22.8m	
Minor Collector	North Fraser Way	Boundary Road to Marine Way	20 - 22.8m	20 - 22.8m	
Minor Collector	Pandora	Capitol Dr to Holdom	20 - 22.8m	20 - 22.8m	
Minor Collector	Patterson - Roseberry	Roseberry alignment from Marine Drive to Marine Way	20 - 22.8m	20 - 22.8m	
Minor Collector	Penzance	Beta to Gamma Ave	20 - 22.8m	20 - 22.8m	
Minor Collector	Phillips	Lougheed to Lawrence	20 - 22.8m	20 - 22.8m	
Minor Collector	Production Way	Eastlake Drive to Broadway	20 - 22.8m	20 - 22.8m	
Minor Collector	Shelmont Street	Graystone Drive to Underhill Avenue	20 - 22.8m	20 - 22.8m	
Minor Collector	Sperling Avenue	Hastings Street to Broadway	20 - 22.8m	20 - 22.8m	
Minor Collector	Village Dr	Wayburne to Garden Grove	20 - 22.8m	20 - 22.8m	

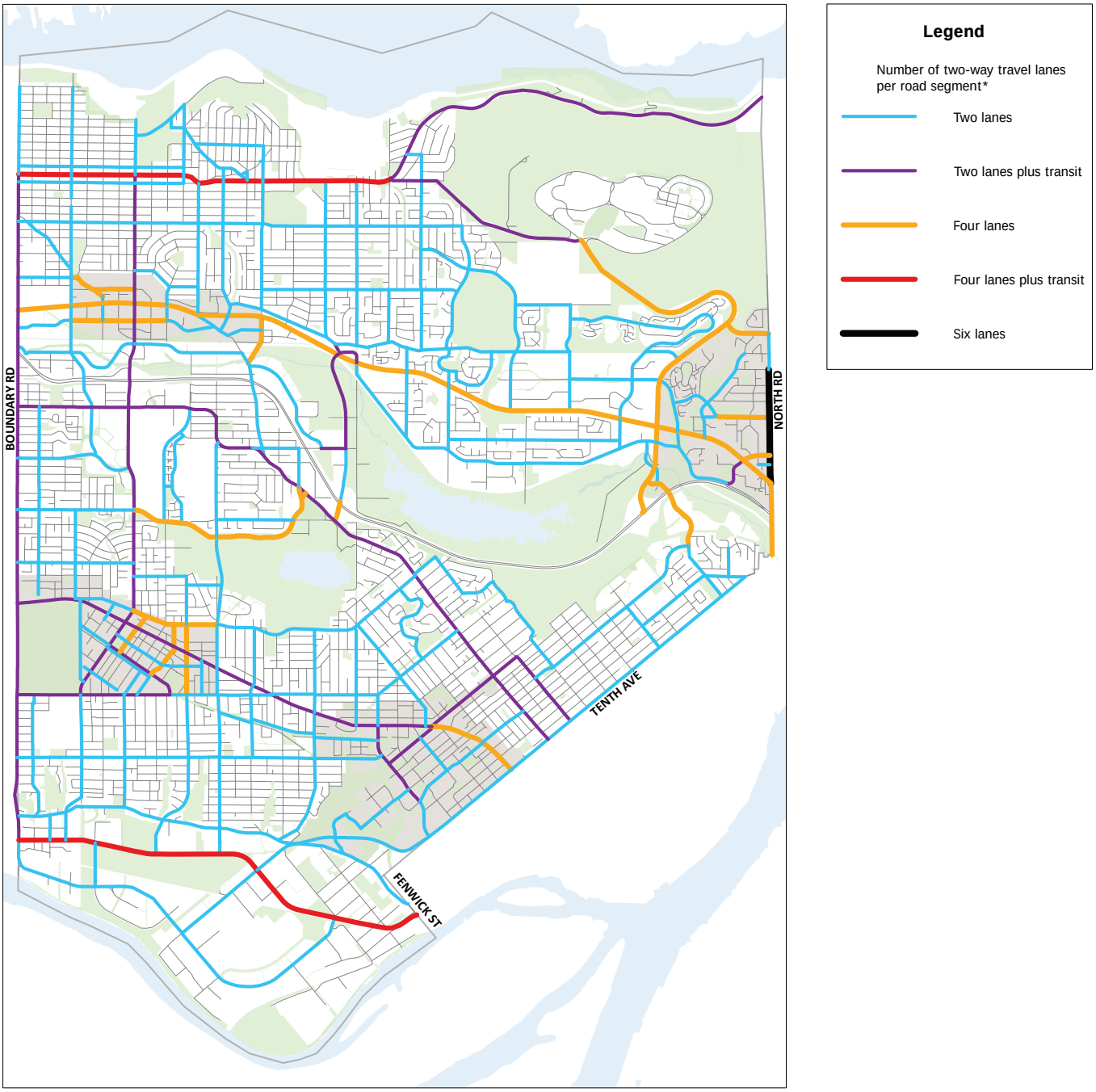
LONG RANGE ROAD NETWORK FORM

The Long Range Road Network Form has been developed in order to meet the long range Mode Split Target laid out in the Plan, which specifies a significant shift away from driving resulting in 75% of trips being made by active transportation and transit.

The number of lanes shown on the map reflect the planned form of the long range road network, subject to the following conditions:

» Full regional mobility pricing in effect

» Significant increase in transit service and utilization within the City and the region – both rapid transit and bus service



TIER ONE IMPLEMENTATION

TOPIC AREA		TIME FRAME			PROJECT TYPE			FINANCIAL		DELIVERY AGENT		
		SHORT TERM	MEDIUM TERM	LONG TERM	POLICY	CAPITAL	OPERATING	OPERATING (PEOPLE + CONSULTANTS)	CAPITAL ($M)	LEAD	PARTNER	SUPPORT
BIG MOVE												
WALKING	By 2030, 80% of the Burnaby pedestrian network will be completed to provide an accessible, safe, and comfortable walking and rolling environment.	✓	✓	✓		✓		✓	✓	Engineering	Planning, Parks & Recreation	Corporate Services (Marketing + Communications)
CYCLING	By 2030, the Phase 1 cycle network will be completed, providing clear consistent and continuous connections between town centres, major destinations and to neighbouring municipalities.	✓	✓	✓		✓	✓	✓	✓	Engineering	Planning, Parks & Recreation	Corporate Services (Marketing + Communications)
TRANSIT	By 2030, the City will install 371 additional bus shelters or bus benches to increase transit passenger comfort.	✓	✓	✓		✓	✓	✓	✓	Engineering		Planning
	By 2025, the City in partnership with TransLink will complete feasibility studies for future rapid transit corridors to inform the upcoming OCP review, and identify necessary land investments to protect specific corridors.	✓			✓			✓	✓	Planning	Engineering	
GOODS MOVEMENT	By 2023, the City will establish policies to require all multi-family developments to provide secured storage amenities for oversized deliveries and goods requiring cold storage	✓			✓			✓		Planning		
	By 2023, the City will establish policies to require the provision of EV charging infrastructure for fleet vehicles across businesses, industries and institutions.	✓			✓			✓		Planning		
DRIVING	By 2026, develop and implement a Smart City Plan for Burnaby comprising of sensor technology, real-time data transmission and analytics to improve safety and optimize network performance.	✓	✓		✓		✓	✓		Engineering	Planning	Information Technology

TOPIC AREA		TIME FRAME			PROJECT TYPE			FINANCIAL		DELIVERY AGENT		
		SHORT TERM	MEDIUM TERM	LONG TERM	POLICY	CAPITAL	OPERATING	OPERATING (PEOPLE + CONSULTANTS)	CAPITAL ($M)	LEAD	PARTNER	SUPPORT
FOUNDATIONS												
LAND USE INTEGRATION	I. Update the **Burnaby Official Community Plan** to encompass policies that support the vision, goals, targets, and policies of the Burnaby Transportation Plan and its implementation at a City-wide, Community Plan and Master Plan scale in consultation with First Nations.	✓			✓			✓		Planning		Engineering
	II. Investigate the feasibility of developing **multi-modal hubs** or points of interconnection between sustainable modes of transportation (walking and rolling, cycling, transit, and car-share) that facilitate transfers between modes in an accessible, safe and comfortable way and acts as an interface between the built environment and transportation network.		✓		✓			✓		Planning		Engineering
	III. Support the region's goal of directing growth and development within **Urban Centres** and **Frequent Transit Development Areas (FTDAs)** by continuing to direct a dense and diverse mix of housing types, jobs, services and amenities within Burnaby's four Town Centres, Community Plan areas and Urban Villages, all of which are supported by TransLink's **Frequent Transit Network (FTN).**	✓			✓			✓		Planning		Engineering
	IV. Support affordable residential development along or near the **Frequent Transit Network** to help reduce the combined cost of housing and transportation, working with First Nations, BC Housing, and housing providers.	✓			✓			✓		Planning		Engineering
PUBLIC REALM & PLACEMAKING	I. Establish **public realm design guidelines** for all public streets that support the vision, goals, and targets of the Plan, as well as the concepts described in this section.	✓				✓		✓		Planning	Engineering	
	II. Ensure a **high quality public realm standard** is applied through the Community Plan and Master Plan processes.	✓	✓			✓		✓		Planning	Engineering	
	III. Investigate and implement opportunities for the temporary and permanent conversion of surplus road or on-street parking spaces for **creative street programming** including but not limited to parklettes and mini-plazas, community gardens, restaurant patio extensions, sidewalk extensions, bicycle parking extensions, and spaces for food and entertainment and other special events (e.g. food truck, retail kiosk and street performances).		✓		✓	✓	✓	✓		Planning, Engineering		License (Bylaw), Parks & Recreation
	IV. Support **multi-modal integration** by providing easy, safe and convenient linkages between modes of transportation.					✓		✓		Planning	Engineering	
	V. Engage with local First Nations to identify **Special Places** and develop a program to ensure that access to and use of these places are accessible, safe, inclusive and respectful of local First Nations traditions, beliefs and uses of the space.					✓	✓	✓		Planning		Parks & Recreation

TOPIC AREA		TIME FRAME			PROJECT TYPE			FINANCIAL		DELIVERY AGENT		
		SHORT TERM	MEDIUM TERM	LONG TERM	POLICY	CAPITAL	OPERATING	OPERATING (PEOPLE + CONSULTANTS)	CAPITAL ($M)	LEAD	PARTNER	SUPPORT
FOUNDATIONS												
STREETS ARE FOR EVERYONE	I. Develop a criteria for assessing the design of **multi-modal corridors** to help make trade-offs and decisions where there is not enough space within the road allowance to accommodate everything.	✓			✓			✓		Planning	Engineering	
	II. Develop a **curbside management policy** to address emerging business processes, technologies and mobility infrastructure (i.e. car-share, bicycle-share and scooter-share) that seek storage and use of the road allowance for commercial purposes.	✓			✓		✓	✓		Planning, Engineering		License (Bylaw)
	III. Apply an equity-based and **transportation hierarchy lens** when developing design standards for all streets, engaging with local First Nations and stakeholders.									Planning		
	Initiate a **street activation** and **beautification program** for key corridors within each of the four Town Centres and 11 Community Plan areas, engaging with local First Nations, stakeholders and the wider community		✓		✓	✓	✓	✓	✓	Planning	Engineering	Corporate Services (Marketing + Communications)
TRANSPORTATION DEMAND MANAGEMENT (TDM)	I. Establish a **citywide TDM Strategy** and supporting policies that promote sustainable transportation options for all scales of development and land uses, and is sensitive to the potential challenges that social and cultural inequities already impose.	✓			✓					Planning		Engineering, Finance
	II. Undertake the development of a **Comprehensive Parking Framework** that in alignment with the *Plan* Targets, and in support of other policy goals, sets out a strategic direction for the design, management and supply of parking for all modes of mobility, including the reduction in private auto dependency and increased affordability.	✓	✓		✓			✓		Planning	Engineering	License (Bylaw)
	III. Support **regional TDM initiatives** aimed to encourage behavior change in support of shared regional targets to reduce the dependency on and impacts of single occupancy vehicle (SOV) trips and vehicle kilometres traveled (VKT).	✓	✓		✓			✓		Planning		
	IV. Implement a **Sustainable Transportation Enablement program** that focuses on normalizing non-vehicular travel through programming such as marketing, monitoring and pilot projects, and building capacity within the community to actively promote sustainable modes.	✓			✓		✓	✓	✓	Planning	Engineering	Engineering, Corporate Services (Marketing + Communications)

TOPIC AREA		TIME FRAME			PROJECT TYPE			FINANCIAL		DELIVERY AGENT		
		SHORT TERM	MEDIUM TERM	LONG TERM	POLICY	CAPITAL	OPERATING	OPERATING (PEOPLE + CONSULTANTS)	CAPITAL ($M)	LEAD	PARTNER	SUPPORT
FOUNDATIONS												
BEHAVIOUR CHANGE: 4 ES	I. **City-wide strategy for engaging** with the community to educate, enable, encourage and empower people to choose more sustainable modes of transportation in order to meet the goals and targets of the Transportation Plan.	✓			✓			✓		Planning	Corporate Services (Climate Action and Energy, Marketing, Communications)	Engineering
	II. **Model corporate leadership** by hiring an active transportation planner/engineer to lead work with the community and stakeholders to develop programs to enable and encourage a shift to sustainable transportation.	✓	✓	✓			✓	✓		Planning, Engineering		Corporate Services (Climate Action + Energy)
	III. **Engage** with neighbouring cities, First Nations, TransLink and other stakeholders to coordinate policies, programs and infrastructure supports such as wayfinding to encourage sustainable transportation.	✓	✓	✓	✓			✓		Planning		
RESOURCING												
MONITORING & REPORTING STRATEGY	I. **Establish a monitoring strategy** that includes evaluating plan actions, with a feedback loop to assist in project prioritization and adaptation. II. **Measure and report out** progress using key metrics and indicators at regular intervals.	✓	✓	✓	✓	✓	✓	✓	✓	Planning	Engineering	Corporate Services (Climate Action + Energy, Marketing, Communications)
INVESTMENT STRATEGY	III. Develop a five year investment plan that specifies the resources required for inclusion in the annual budgeting process for both the **capital and operational requirements to deliver, maintain and advance the investments** arising from the Plan.	✓	✓	✓	✓	✓	✓	✓	✓	Planning	Engineering	Finance
MULTIMODAL CORRIDOR ASSESMENTS												
	Willingdon Corridor	✓	✓		✓			✓	✓	Planning, Engineering		
	Hastings Street/Barnet Hwy	✓	✓		✓			✓	✓	Planning, Engineering		
	Canada Way	✓	✓		✓			✓	✓	Planning, Engineering		
	Boundary Road		✓	✓	✓			✓	✓	Planning, Engineering		
	Kensington Ave		✓	✓	✓			✓	✓	Planning, Engineering		

POTENTIAL KEY PERFORMANCE INDICATORS

For the Transportation Plan, the following potential performance indicators are included for consideration, to the measure the success of the Plan. These include City-wide or Headline target key performance indicators (KPI's) which align with the Big Moves, and policy area indicators. These will be further refined, through the development of the Monitoring Strategy and Investment Plan, in support of the Plan's delivery.

			INDICATOR		PERFORMANCE TREND	DATA SOURCE
WALKING	HEADLINE TARGET	By 2030, 80% of the Burnaby pedestrian network will be completed to provide an accessible, safe, and comfortable walking and rolling environment.	Km of new sidewalk constructured	↗	Upward trend indicating net increase in pedestrian infrastructure.	Engineering (GIS + PM)
	POLICY AREAS INDICATORS	5.3.1.1 Complete And Enhance The City's Pedestrian Network	Km of new sidewalk constructured	↗	Upward trend indicating net increase in pedestrian infrastructure.	Engineering (GIS + PM)
			Percent of network (both sides of a street) completed	↗	Upward trend indicating completion of the pedestrian network.	Engineering (GIS + PM)
		5.3.1.2 Provide Safe Pedestrian Sidewalks And Facilities	Number of crashes in the City resulting in injury to pedestrians	↘	Downward trend indicating improving pedestrian safety.	ICBC Data
		5.3.1.3 Apply Universal Design Guidelines To Pedestrian Infrastructure Design	Percent completion of accessible sidewalks and curb ramps	↗	Upward trend indicating completion of the pedestrian network to accessibilty standards.	Engineering (GIS + PM)
			Number and Percent of curb ramps constructed	↗	Upward trend indicating completion of the pedestrian network to accessibilty standards.	Engineering (GIS + PM)
		5.3.1.4 Improve The Quality And Maintenance Of Pedestrian Infrastructure And Amenities	Number of benches installed across the City	↗	Upward trend indicating net increase in pedestrian amenities.	Engineering (GIS + PM), Parks GIS
		5.3.1.5 Promote And Support Programs That Increase Walking In The City.	Number of activities/events held/ resources distributed/ stakeholders reached.	↗	Upward trend indicating net increase in people reached	Planning
CYCLING	HEADLINE TARGET	By 2030, the Phase 1 cycle network will be completed, providing clear consistent and continuous connections between town centres, major destinations and to neighbouring municipalities.	Km of AAA cycling infrastructure completed	↗	Upward trend indicating net increase in AAA cycling infrastructure.	Engineering (GIS + PM)
	POLICY AREAS INDICATORS	5.3.2.1 Expand And Enhance The Cycle Network	Km of AAA cycling facilities	↗	Upward trend indicating total km of AAA cycling infrastructure.	Engineering (GIS + PM)
			Number of cyclists (using particular routes or all routes with counters) year over year	↗	Upward trend indicating increase in total cyclists.	Engineering (GIS + PM)
		5.3.2.2 Ensure Existing And New Cycling Routes Feel Comfortable And Safe For People Of All Ages And Abilities	The number of crashes in the City resulting in injury to cyclists.	↘	Downward trend indicating improving cyclist safety.	TBD
		5.3.2.3 Maintain Existing Cycling Facilities In A Good State Of Repair	Maintenance performance measures tracking the quantity of maintenance work and the City's responsiveness to maintenance requests.	↗	Upward trend in the amount of maintenance activity and increased responsiveness by Operations.	Engineering (GIS + PM)
		5.3.2.4 Provide High-Quality Bike Parking And End-Of-Trip Facilities At All Major Destinations	Number of benches installed across the City	↗	Upward trend in the amount of quality bike parking across the municipality.	Planning & Engineering
		5.3.2.5 Promote And Support Programs That Increase Cycling In The City	Number of activities/events held/ resources distributed/ stakeholders reached.	↗	Upward trend indicating net increase in people reached.	Planning

			INDICATOR		PERFORMANCE TREND	DATA SOURCE
TRANSIT	HEADLINE TARGET	By 2030, the City will install 371 additional bus shelters or bus benches to increase transit passenger comfort	Additional transit supportive amenities installed	↗	Upward trend indicating increase in transit supportive amenities installed.	Engineering (GIS + PM)
	POLICY AREAS INDICATORS	5.3.3.1 Work With Translink To Provide New And Enhanced Transit Service	Travel time on transit between key origins and destinations	↘	Downward trend indicating improving travel time on transit.	TransLink
		5.3.3.2 Implement Transit Priority Measures To Improve Reliability And Speed Of Buses	Ridership: boarding and alighting statistics	↗	Upward trend indicating increase in transit usage.	TransLink
		5.3.3.3 Provide Transit-Supportive Amenities To Increase Ridership	Number of bus shelters, benches, other bus stop amenities	↗	Upward trend indicating increase in transit supportive amenities installed.	Engineering
		5.3.3.4 Improve The Safety, Security, And Comfort Of Public Transit	Crime statistics at transit hubs	↘	Downward trend indicating improving travel time on transit.	TBD
		5.3.3.5 Make Public Transit Universally Accessible To All People	Number of accessible stops	↗	Upward trend indicating increase in transit accessibility.	Engineering
		5.3.3.6 Promote And Advocate For Increased Transit Use And Ridership	Ridership: boarding and alighting statistics	↗	Upward trend indicating increase in transit usage.	TransLink, Engineering
GOODS MOVEMENT	HEADLINE TARGET	By 2023, the City will establish policies to: » require multi-family developments to provide secured storage amenities for oversized deliveries and goods requiring cold storage; and, » require the provision of EV charging infrastructure for fleet vehicles across businesses, industries and institutions.	The percentage of new multi-family residential developments that have on-site cold storage facilities.	↗	Upward trend indicating increase in on-site cold-storage facilities.	Energov (PPA)
	POLICY AREAS INDICATORS	5.3.4.3 Continue To Investigate Operational Opportunities To Improve The Efficiency And Reliability Of Goods Movement	Travel time on key truck routes	↘	Downward trend indicating improving travel time for goods movement.	TransLink, Google Data
DRIVING	HEADLINE TARGET	By 2026, develop and implement a Smart City Plan for Burnaby comprising of sensor technology, real-time data transmission and analytics to improve safety and optimize network performance.	Travel time variance on key corridors as a measure of network	↘	Downward trend indicating reduced travel time variability indicating route reliability.	TBD
	POLICY AREAS INDICATORS	5.3.5.2 Reduce Severe Collisions And Improve The Safety Of All Users Of The Road Network	Crash rate per population	↘	Downward trend indicating improving pedestrian safety.	ICBC Data
		5.3.5.3 Support And Incorporate Transportation Demand Management Measures	Reduction in vehicle ownership	↘	Downward trend indicating decreasing car ownership.	ICBC Data
		5.3.5.4 Manage Parking To Reduce Auto Ownership And Dependence	Car ownership rates	↘	Downward trend indicating decreasing car ownership.	ICBC Data
		5.3.5.5 Actively Support The Provision Of Infrastructure That Enables The Use Of Sustainable Vehicles	Number of charging stations – on and off street	↗	Upward trend indicating increase in EV charging.	Planning + Engineering
		5.3.5.6 Significantly Increase Opportunities For Car-Sharing In The City	Car share vehicles available in Burnaby	↗	Upward trend indicating increase in car share availability.	External providers

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PARSONS

URBAN SYSTEMS


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