

Draft Mobility Strategy



January 2022

This draft Mobility Strategy is provided for public feedback before finalizing in Spring 2022



Our streets have
many purposes
for residents,
businesses, and
visitors.





This is our strategy
to create healthy
streets that work
for everyone.

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1: The Introduction (pp. 6-15) summarizes the opportunities and challenges that exist to create a healthier city with a transportation system that works for everyone. It also describes the work undertaken to date to develop this Draft Mobility Strategy.

2: The Vision and Goals (pp. 16-21) outlines a shared vision for the future of mobility in the city, with four supporting goals and how we propose to monitor our progress. It describes the proposed future transportation system and what is needed to achieve a safe, sustainable, vibrant, and connected network of streets that provides a high quality experience for everyone.

3: The Strategies and Actions (pp. 22-67) presents 11 strategies, along with supporting actions that we can take to achieve our vision and goals for mobility in the city. It also introduces a new way for all of us to think about our streets – one that puts people first.

4: Implementation (pp. 68-69) describes how we will implement the final version of this strategy, including how the City will set priorities, and involve the public in our decision-making, build partnerships, and make the best use of resources.

5. The Glossary (p. 70) defines the mobility-related terms that we use throughout this draft.

We want to hear from you!

The ideas and feedback we receive will inform a final version of this Draft Mobility Strategy that staff will present to City Council for approval in early 2022.

The 2-minute read: Only have a few minutes to participate? Skip to page 22 for a summary of the strategies.

The 20-minute read: Take a look at pages 25, 35, and 45, which outline actions at a glance.

The in depth read: Keep going! You'll get a full picture of the challenges and opportunities, as well as the vision, goals, strategies, and actions.



1. Introduction

What is the Draft Mobility Strategy?

This Draft Mobility Strategy proposes a new blueprint for a modern, well-balanced transportation system in the City of North Vancouver that provides real mobility choices, creates great and inclusive places, and supports climate action.

The needs and demands on our City's streets and transportation system today are rapidly evolving and becoming increasingly complex. The actions and strategies included in the Draft Mobility Strategy are proposed to guide transportation planning and policy decisions over the next ten years towards ensuring our streets can work better for everyone.



Our proposed approach:

Puts people first:

Everyone who lives or works in our community will be able to prosper, no matter who they are or how they move around the city.

Supports a thriving economy:

Our streets will support efficient goods movement, foster more foot traffic for local businesses, and make it easier for businesses to attract and retain workers.

Recommends actions tailored for our City:

Our city, along with the region, is growing in population and employment. More people, jobs, services, uses, and activities are creating new demands on our streets. This strategy takes proven best practices from places that face similar challenges and opportunities and tailors these for our City's context.

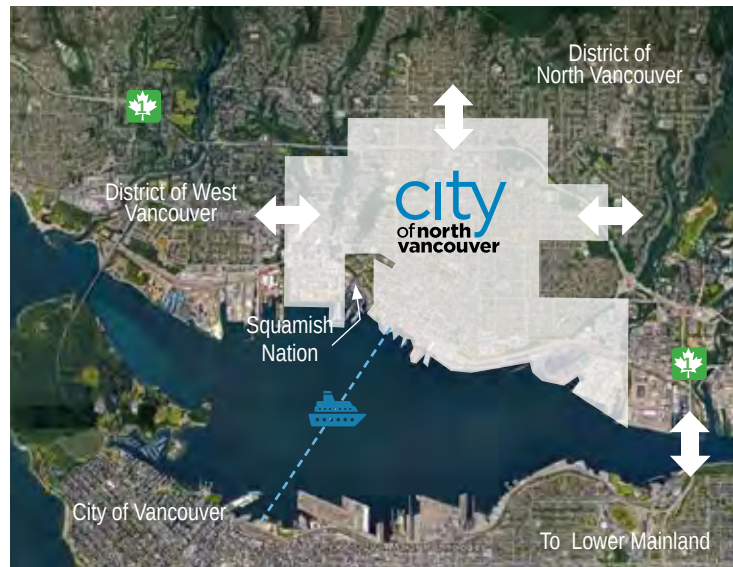
Prepares for the future of travel:

The ways we travel and the options we have available continue to evolve. This strategy is about creating the enabling conditions to provide a variety of travel options for people in the city that are high-quality, affordable, and sustainable.

The Draft Mobility Strategy was developed by taking a comprehensive assessment of our City's and regional mobility needs, challenges and opportunities and aims to reflect the values and priorities that we heard from the public and stakeholders during the spring of 2021. **Now we want to hear from you again** as we work towards a final Mobility Strategy!

Mobility and transportation in the city today

The City is the urban core of the North Shore. Our streets help get people to school and work, support businesses, provide a place for people to gather, and connect us with the rest of the region.



How residents move today

3-4

trips we make each day

Including going to work or class, dropping our kids at school, or running errands.¹

70%

of trips stay local

Most of our trips are shorter trips that stay on the North Shore.²

70%

of trips are by vehicle

Driving trips have decreased by 3% in the last decade even as our population has grown.¹

15 km

average distance driven / day

Though driving trips have decreased, we are driving longer distances—2 km more than a decade ago.²

30%

of trips are sustainable

Trips that include walking and rolling, cycling, or taking transit have increased about 3% in our City over the last decade.¹

8,000 km

average distance driven / person

The average distance we drive each year is roughly the same as driving to Toronto and back.²

¹ 2017 TransLink Regional Trip Diary

² 2019 North Shore Transportation Survey

The context of our streets

Our mobility network

Our network of streets, sidewalks, mobility lanes, public trails, and bus lanes stretches over 550 km, enough to stretch from North Vancouver to Vernon. That's about 20% of all space in the City. About 80% of that space is dedicated to vehicles and nearly a third of that is dedicated to parking. We don't have much space to expand the road network, so we must make the best use of what we have.

A shared responsibility

Multiple agencies, levels of government, and service providers are responsible for making our transportation system work. The City is responsible for streets and sidewalks. The Province is responsible for highways. TransLink takes care of providing our bus and SeaBus service. Modo and Evo operate car-share services. Uber and Lyft offer ride-hailing services. Lime is piloting an e-bike share system. Public and private partnerships will continue to be valuable to provide transportation services to meet a wide range of needs, even if technologies and companies change over the lifespan of this Strategy.

Building on our recent success

We have accomplished a lot in the last decade. We have expanded our sidewalk and cycling network which has contributed to increases in the amount of walking and rolling trips. We have worked with TransLink and other partners to introduce more reliable transit services which has increased the amount of people who take transit. Our municipality has one of the highest sustainable mode shares (walking, rolling, and transit) in the region and this is an important trend to continue as the city and region continue to grow.



Our city and our streets are changing

We are in the middle of a growing & changing region:

Metro Vancouver is one of the fastest growing regions in Canada. In the last decade, the North Shore has added nearly 10,000 jobs but only 7,000 residents, which means more people are commuting between the North Shore and other parts of the region every day. Many people choose to drive (70 percent of trips in the City)³ because transit is perceived to not be as convenient or efficient, and walking and rolling infrastructure is not sufficiently attractive and comfortable.

Our mobility options are growing:

New technologies and services are providing new travel options and challenges. E-bikes, ride-hailing, car-sharing, and rapid transit are all changing how we move around. Our smartphones provide us with real-time data at our fingertips, but are also linked to distracted driving incidents. The rise of e-commerce and online shopping means more trucks and delivery vehicles than ever before. Automated vehicles are also on the horizon. Technology can create improved efficiency, but can also create more pressures on our streets, and in some cases, be a detriment to our safety.

Our mobility choices impact the environment & our climate:

Emissions from motorized vehicles generate carbon pollution, impact storm water management, add to the urban heat island effect, and impact our air quality. Our use of vehicles accounts for about 57% of our city's total carbon emissions.⁴ We need to provide better options for sustainable travel in order to collectively reduce our emissions.

The demands on our streets are becoming increasingly complex:

Our streets are places where we travel, connect, dine, rest, shop, and exercise. They support goods delivery and help our businesses, industries, and economy prosper. Our streets are places where we celebrate, meet with others, and conduct business. This wide range of demands on our streets makes planning and allocating space for different uses more challenging without proper guidelines.

³ 2017 TransLink Regional Trip Diary

⁴ Climate and Environment Strategy Phase 1 Discussion Guide, October 2021

What have we heard so far?

In spring 2021, City staff engaged with the public and over thirty stakeholder groups, including partners, community associations, and neighbouring jurisdictions. Our focus was to receive feedback on the Mobility Strategy's preliminary set of goals and strategies, as well as to hear and learn about the range of experiences people and businesses have with using our streets and transportation system.

Eighty percent of public respondents felt that the draft vision and goals introduced in the initial framework for this Strategy reflected what was important to them, and all stakeholder groups we met with saw their own strategic direction being reflected through one or more of the Mobility Strategy goals. Through this engagement, several themes rose to the top in terms of opportunities, challenges, and values.

Increased traffic is making us feel frustrated, less safe, and is hurting our economy. Being stuck in traffic makes it difficult to plan our day, increases our stress, and can result in wasted productivity. Congestion is spilling onto our local streets, making people feel less safe, and it has significant impacts on businesses attracting and retaining staff throughout the North Shore.

We want to use our vehicles less. Many residents wish to walk and cycle more. Our community recognizes the negative impacts that vehicle travel has, including safety impacts for people walking and rolling (vulnerable travellers), the environmental impacts of emitting greenhouse gas emissions, and congestion that negatively impacts our wellbeing and the prosperity of our businesses.

Mobility needs to be affordable and accessible. Recent progress has been made on providing accessible and affordable mobility options, such as the introduction of RapidBus across the North Shore. However, our transportation system can become even more equitable. We need to continue to invest in solutions that will facilitate affordable and accessible transportation options for everyone.

The prosperity of neighbourhoods and businesses depend on our streets. Our business community and residents recognize the importance of our streets, not only as a mobility system that facilitates the movement of people and goods, but as places for a range of alternate uses that can contribute to local economic development, neighbourhood activation, and place-making.

I am interested in driving less, but it's not always easy or convenient for me to walk, cycle, or take transit so I need to drive.

It's becoming increasingly frustrating to move around the City, especially using a vehicle. Congestion seems to happen almost daily – even on weekends.

Cars are travelling too fast, especially on local residential streets, which makes me less inclined to let my kids walk or bike to school.

Truck and traffic noise is getting louder. Noisier streets are increasing my stress and making it difficult for me to enjoy being outside.

Finding parking or a loading space close to my destination can sometimes be very difficult.

I am having trouble hiring or retaining employees because of long and unreliable commutes.

How will the Draft Mobility Strategy benefit all travellers?

For people who are driving:

All we need is a small drop in vehicle trips during peak hours to reduce congestion and create more reliable travel conditions (which we saw at the onset of the COVID-19 pandemic in 2020). In order to do this, we need to create improved conditions for more people to consider non-vehicle travel. Nearly one-third of vehicle trips in the city are less than five kilometres in length, a distance that many people could travel by walking or rolling.⁵ Enabling the shift to walking, rolling, and transit is the best action that the City can take to improve driving conditions on the North Shore. For people who need to drive, this strategy makes it easier for people to adopt electric vehicles and car-sharing as options.

For moving goods:

The recent increase in urban deliveries has made it more difficult to find space to deliver and receive goods. We will take steps to establish a modernized network where goods movement and the economy are prioritized while limiting local neighbourhood impacts. This will include improvements to the efficiency and safety of goods movement through more dedicated delivery spaces on our busiest streets, and developing solutions to right-size deliveries in our dense urban areas. Efficient deliveries benefit residents, businesses, and the economy by decreasing congestion and freeing up space for all travellers.



For people who are walking and rolling:

The city already has high rates of walking and rolling (23 percent of trips)⁵, in part due to many residents living in close proximity to shops, services, and amenities. We plan to improve our sidewalk infrastructure, introduce more amenities like places to rest, weather protection, secure bicycle parking, and improved wayfinding, and increase place-making and public realm activation to make it more enjoyable to spend time on our streets. We will also continue with expanding the Mobility Lane Network and use quick-build materials to increase our delivery efficiency. This Strategy has the benefit of cleaner air and lower emissions for everyone.

Walking and Rolling

When we talk about walking and rolling, we are referring to walking, using a mobility device (e.g., wheelchair), biking, skating, taking a scooter, or using a micromobility device (e.g., e-bike share).

For people who are taking transit:

Transit has high people-moving capacity and can carry up to 50 people in the same amount of space as two vehicles. Increasing transit priority measures on the Frequent Transit Network is needed, as these routes are within walking distance for more than 75 percent of City residents.⁶ This will be paired with advocating for a North Shore-wide initiative for a rapid transit connection across the Burrard Inlet. These efforts to shift people to use transit will not only benefit transit users, but also drivers and goods movement by removing vehicle trips from our streets.

For emergency responders:

Increased traffic makes it challenging for our emergency responders to quickly travel where they need to go. We will continue to work closely with emergency responders on implementing signal pre-emption on key corridors for emergency vehicles, and improve street safety measures so that there are fewer incidents on our streets in the first place.

⁵ 2019 North Shore Transportation Survey

⁶ CNV internal analysis, 2021

We cannot build our way out of congestion

Our dependence on personal vehicle travel for most of our trips results in greenhouse gas emissions, air pollution, road-related deaths, decreased physical and mental wellbeing, and decreased productivity in congested traffic.

Vehicles are, and will continue to be, an essential part of moving people and goods on the North Shore and across the region. Increased traffic is a challenge that we need to tackle, but building more lanes in the city will not solve the issue. There is limited ability to expand the road network due to our dense built form and complex topography. Even if we could, adding road space usually makes traffic worse than it originally was after only a few years: this is called induced demand.

Nearly one-third of vehicle trips in the City are under five kilometres in length, suggesting there is a significant opportunity for us to take more trips by walking, rolling, or transit. This Draft Mobility Strategy proposes steps to create a shift that recognizes the automobile as just one choice amongst a wide range of travel options.

The City and our partner agencies are working on improving transit and active transportation infrastructure, while also exploring travel demand management initiatives at a regional level, such as the application of mobility pricing in a way that is equitable and reduces congestion. Taking steps to reduce the amount of vehicles from the road by building compact, transit-oriented neighbourhoods and providing compelling alternative ways to travel is the most effective way the flow of traffic on our streets can be improved.



2. The Vision & Goals

The Vision

“Healthy streets that work for everyone”

This proposed vision for the City of North Vancouver’s mobility future recognizes that city streets are under pressure, are becoming more dynamic, and serve more than just one function. Along with being used by cars, they facilitate the movement of transit, goods, and people walking and rolling. Beyond their transportation function, our streets are critical elements of our environmental, cultural, economic, and public utility infrastructure. They also serve as collective spaces for relaxation, socializing, shopping, exercise, and more. The vision is a commitment to enabling the many demands of our streets in ways that support our overall health and wellbeing. This vision is supported by four goals.



The Goals



1. Our streets will help our city prosper and be a vibrant place

A healthy city is one where streets and sidewalks hum with economic and social activity, where people meet and shop and enjoy the beautiful city we live in, side by side with efficient goods delivery. Our goal is to use our streets to improve our collective prosperity, health, and happiness.



2. Our streets will support real and accessible choices for how we move around

The [City's Official Community Plan](#) (2014) prioritizes the development of a multimodal transportation system. This means creating a more integrated, reliable network that recognizes we all move throughout the city in different ways, and that our streets should support greater access to a range of mobility options.



3. Our streets will be safe and comfortable

In 2016, the City adopted a goal of achieving zero fatalities and serious injuries on city streets. Safe streets are foundational to creating a healthy, people-oriented city.



4. Our streets will reduce our impact on climate change and the environment

More than half of our community's greenhouse gas emissions (GHG) come from burning fossil fuels to power vehicles. This contributes to climate change and air pollution. In 2019, the City adopted a GHG reduction target of net zero emissions by 2050. The decisions we make about our transportation system will shape our ability to meet this commitment.

How we will monitor our progress

The City will measure progress toward these goals to evaluate where we are succeeding and where we are falling short. Once the final Mobility Strategy is approved and actions are implemented, we expect to see the following changes:

1. **A year-over-year decrease in the number of collisions that result in serious injury or death.**
2. **A year-over-year decrease in the amount of greenhouse gas emissions generated by travel**
3. **An year-over-year increase in the number of trips made by sustainable modes and a decrease in the number of trips made by vehicles.**

The City will work to create the conditions that will enable us to meet our goals, but we can't do it alone. All of us have a role to play in achieving the vision and goals in this strategy.

How does the Draft Mobility Strategy relate to and support other City plans?

The City of North Vancouver is currently developing four major strategies to guide our next decade of planning and decision-making in key areas: mobility, climate and the environment, community well-being, and the economy. When complete, these strategies will provide modernized guidance to support advancing the broader goals and ambitions of the [City's Official Community Plan](#). The Mobility Strategy supports, and is supported by, each of these Strategies through aligned goals, and coordinated actions.



The Climate and Environment Strategy will be the City's first comprehensive strategy to help us become a resilient and sustainable City where everyone thrives. This strategy will identify actions to cut carbon pollution from buildings, transportation and materials to achieve our climate targets, and improve the health, connectivity and biodiversity of our natural areas across the City.



The Community Wellbeing Strategy will provide direction through policies, programs, and projects for social, economic, environmental, health, cultural, and political conditions that are essential for individuals and communities to flourish and fulfill their potential.



The Economic Strategy will provide a five-year framework to balance economic, social, and environmental objectives with specific actions that are integrated with other City plans and strategies. The overarching goal is to support community prosperity based on an inclusive, sustainable and resilient economy that provide opportunities for the growth of local business.



3. The Strategies & Actions

The strategies below represent the key steps our City proposes to take to help realize our vision for healthy streets that work for everyone. Each of the strategies contribute to multiple goals. Each strategy includes a range of specific actions, policies, and programs that we will aim to deliver over the next 10 years.

Make it easier for everyone to choose sustainable and affordable options for the trips we take.

Strategies

1. Make walking and rolling the easiest choice for more of our shorter distance trips.
2. Make transit the easiest choice for more of our medium and longer distance trips.
3. Make shared and zero-emission vehicles the easiest choice when we need to use a car.
4. Encourage people to make sustainable travel choices.

Improve our mobility experience through the design of our streets and neighbourhoods.

Strategies

5. Improve the safety and comfort of vulnerable road users.
6. Rebalance the space along our curbs to meet a wide range of needs.
7. Reclaim more street space for people and nature.
8. Support sustainable mobility through how we grow and develop.

Improve reliability for people and goods to move around our city and region.

Strategies

9. Keep urban freight, deliveries, and emergency vehicles moving.
10. Strengthen our connections within the city, and across the North Shore and Metro Vancouver.
11. Optimize our mobility system through proactive management, operation, and access to information.

To make it easier to follow along and understand why we are proposing certain actions, we have added two types of callout boxes called **Concept Callouts** and **Recent Progress**. Look for these to learn more!

Concept Callout

Recent Progress



Our streets have different roles

Each street in our city has a different set of uses and functions that merits specific design considerations. In order to better communicate how we plan and design our streets, a set of street types has been developed that establishes typical transportation functions, land use context, and design objectives. These street types are introduced here and expanded upon on pages 52-66.

Main Streets

are the main activity spines of the city for shopping, services, and amenities.

City Connector Streets

provide access across the city and to regional networks.

Neighbourhood Connector Streets

connect Local Streets to the broader network.

Local Streets

are low-volume, low-speed streets in residential neighbourhoods.

Shared Streets

are curbless streets that prioritize pedestrians and vibrancy.

Service Streets

provide access to service and industrial areas in the city.

These street types are intended to provide guidance on how we plan and design our streets, and how we communicate these intentions with the broader community. These street types are mentioned several times throughout the strategies and actions in the next section of the Draft Mobility Strategy to indicate prioritization, or where certain actions are expected to occur.





Make it easier for everyone to choose sustainable and affordable options for the trips we take.

Currently, using a vehicle is usually the most efficient way to get from one place to another, particularly for longer distance trips. As our city and the region grow in population, our streets are becoming increasingly congested, making vehicle travel less competitive and reliable. The best thing the City can do to maintain reliability on our streets is to provide safe, convenient, and sustainable options.



Strategies and actions at a glance

1. Make walking and rolling the easiest choice for more of our shorter distance trips.

- A. Deliver a complete, accessible, and high-quality pedestrian network.
- B. Deliver an all ages and abilities Mobility Lane Network that connects all our neighbourhoods and key destinations.
- C. Make our walking and rolling networks easier to navigate.
- D. Provide abundant amenities that increase the enjoyment of walking and rolling.
- E. Improve access to micromobility for everyone.

2. Make transit the easiest choice for more of our medium and longer distance trips.

- A. Create enabling conditions for enhanced transit service and coverage across the city.
- B. Support an inclusive transit system that is easy to understand, and accommodates people of all abilities.
- C. Create enabling conditions for mobility hubs to provide seamless connections between transit and other modes.

3. Make shared and zero-emission vehicles the easiest choice when we need to use a car.

- A. Support easier access to car-sharing and carpooling services.
- B. Support the transition to zero-emission vehicles.

4. Encourage people to make sustainable travel choices.

- A. Expand educational programs for walking and rolling.
- B. Collaborate with employers to increase sustainable commuting and reduce trips.
- C. Expand delivery of youth-oriented programs that support safe and active travel to school.
- D. Continue education and outreach programs for improving neighbourhood-wide and independent sustainable travel.

Strategy 1: Make walking and rolling the easiest choice for more of our shorter distance trips.

Today, about 11 percent of vehicle trips in the City are under 1.5 km in distance and 29 percent are under five km – distances that could be easily travelled by walking or rolling, by many people. Walking and rolling provide a wealth of social and economic benefits that will improve individual wellbeing along with more foot traffic for our local businesses.

Actions

1A. Deliver a complete, accessible, and high-quality pedestrian network.

- i Provide a complete sidewalk network on both sides of the street of all streets within a reasonable walking distance (typically 400 metres) of all key pedestrian areas and destinations like schools, community centres and frequent transit corridors. Prioritize improving the quality of existing narrow sidewalks along and within a reasonable walking distance of the City's Main Streets.
- ii Increase the connectivity of the city's pedestrian network by delivering and encouraging more mid-block pathways in redevelopments and improving connections over ravines, creeks, and through parks, where environmentally appropriate.
- iii Prioritize universal design and accessibility standards when designing or redesigning all streets, sidewalks, connections, and pathways.

1B. Deliver a AAA Mobility Lane Network that connects all our neighbourhoods and key destinations.

- i Complete the priority corridors for All Ages and Abilities (AAA) mobility lanes and identify new phases for network expansion on a regular basis as corridors are delivered.
- ii Ensure all new mobility lane infrastructure is designed to meet AAA standards.
- iii Upgrade existing mobility lane infrastructure to meet AAA standards, prioritizing investments on corridors with high use and the greatest potential for risk reduction.
- iv Make better use of low-cost, quick-build solutions, such as using temporary delineator posts to separate mobility lanes from vehicle traffic, and observing these temporary solutions in advance of upgrading to fully developed infrastructure.

1C. Make our walking and rolling networks easier to navigate.

- i Deploy a user-friendly mobility wayfinding system at key locations across the city, and provide this in an open format to encourage third-party development of wayfinding solutions. Coordinate with North Shore governments to ensure sub-regional alignment.
- ii Require the provision of direct, unobstructed, and protected routes for people walking or rolling, as part of the permitting process for construction and development, special events, and public works.

1D. Provide abundant amenities that increase the enjoyment of walking and rolling.

- i Expand amenities such as benches, secure bicycle parking, weather protection, and washroom facilities, and create an inventory and prioritization schedule with community input.
- ii Provide more trees on all streets, and achieve a double row of trees wherever feasible.
- iii Deliver a network of public micromobility charging stations, prioritizing delivery on Main Streets and Shared Streets.
- iv Ensure public micromobility parking spaces are designed to accommodate e-bikes and cargo bikes, especially along Main Streets and Shared Streets.

1E. Improve access to micromobility for everyone.

- i Work with shared micromobility service providers to ensure there is equitable fleet distribution and prioritization across the City's AAA Mobility Lane Network and close to major destinations.
- ii Ensure affordable access, with incentives developed for people with low incomes or low personal vehicle access.
- iii Work with the Squamish and Tsleil-Waututh Nations to expand shared micromobility services that support travel options for people living on North Shore reserve lands.
- iv Work with shared micromobility service providers to ensure devices do not impede other travellers through application of end-of-trip procedures and education programs
- v Advocate for new incentives and loan programs from senior levels of government to support greater uptake of electric micromobility devices, including e-bikes and other emerging devices.



Recent Progress E-Bike Share Pilot Program

In the summer of 2021, the City and District of North Vancouver implemented a two-year pilot program with Lime to operate an e-bike share system, the first of its kind in the province.

Concept Callout AAA Mobility Lane Network

AAA mobility lanes are facilities that include separated lanes with physical barriers and off-street paths on higher traffic streets, and signed neighbourhood bikeways on local streets with lower traffic volumes and speeds. Today, the City has approximately 15 km of AAA mobility lane infrastructure. In 2019, Council endorsed the [priority corridors for AAA mobility lanes](#) network expansion plan that would increase the total length of these facilities to approximately 25 km.

Strategy 2: Make transit the easiest choice for more of our medium and longer distance trips.

One bus can carry the same number of people that would normally fit into about 50 cars. We currently make 17 percent of our trips by transit. Making transit more accessible, frequent, and reliable will make it easier for more people to use it. This will free up space on our streets and help everyone move more efficiently.

Actions

2A. Create enabling conditions for enhanced transit service and coverage across the city.

- i Work with TransLink to expand and enhance local transit service, ensuring all businesses and residents are within a reasonable walking distance of the Frequent Transit Network. This involves protecting and designing space for fast and reliable transit.
- ii Work with TransLink to plan, design, and implement measures, such as signal priority and bus-only lanes, prioritizing investments at unreliable locations on the Frequent Transit Network.

2B. Support an inclusive transit system that is easy to understand, and accommodates people of all abilities.

- i Ensure all transit passenger facilities are designed to be universally accessible.
- ii Provide consistent digital and physical wayfinding and signage.
- iii Provide high-quality stops on the Frequent Transit Network by working closely with partners to expand the availability of passenger waiting shelters, real-time information, ample bike parking, and washrooms in high ridership and transfer areas.
- iv Advocate for TransLink to accelerate the delivery of key recommendations identified in the Transit Fare Review to improve the equity of the regional transit fare structure, including introducing fares that better reflect distance travelled on all transit modes and additional income-based discounts.

2C. Create enabling conditions for mobility hubs to provide seamless connections between transit and other modes.

- i Create mobility hubs in Lower Lonsdale, Central Lonsdale, and other sites along the Marine-Main corridor. These will include improved transit priority measures, increased availability of car-sharing and ride-hailing options, and plentiful walking and rolling infrastructure.

Concept Callout Mobility Hubs

Mobility hubs are locations where different sustainable transportation modes are integrated seamlessly to help promote connectivity.





Recent Progress R2 Marine Drive RapidBus

In April 2020, Translink launched the Marine Drive RapidBus, which provides a high-capacity, efficient and reliable connection between Park Royal and Phibbs Exchange. RapidBus offers a more efficient experience by providing fewer stops compared to local transit, all-door boarding, and redesigned streets that prioritize transit.

Strategy 3: Make shared and zero-emission vehicles the easiest choice when we need to use a car.

Many of us need to use a vehicle on occasion. Making it easier to access shared and zero-emission vehicles is necessary to lessen our transportation impacts on the environment. The City of North Vancouver has moderately higher uptake of electric vehicles than other mid-sized municipalities in BC. While we reduce our emissions through decreased reliance on polluting vehicles, car-sharing is also important as it provides an affordable option to get around without needing to own a car, which can help to reduce congestion.

Actions

3A. Support easier access to car-sharing and carpooling services.

- i Enable expansion of car-share vehicle fleets by ensuring adequate facilities exist for car-share vehicles, on- and off-street. This will be undertaken with regulations, incentives, and design guidelines.
 - ii Enhance accessibility requirements for car-sharing fleets and work with service providers to increase fleet distribution to ensure effective spatial coverage across all neighbourhoods.
 - iii Promote carpooling services and educate the public on how these services work, so that this option is accessible to those who need it.
 - iv Work with service providers to increase car-share access for families, lower income households, and people with mobility limitations.
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3B. Support the transition to zero-emission vehicles.

- i Encourage a shift to electric vehicles (EVs) in the short-term, while exploring other low-emission transportation technologies such as hydrogen. This includes a shift for personal vehicles, as well as supporting the shift for transit, freight, and car-share vehicles.
 - ii Continue to implement actions from the [City's Electric Vehicle Strategy](#), including improving access to Level 2 and DC fast chargers that are close to community centres and commercial areas.
 - iii Support equitable EV-ready retrofits of multi-family buildings and lower income rental buildings through promotion, education, and top-up rebates.
 - iv Advocate for increased incentives and loan programs from senior levels of government to support greater uptake of EVs, particularly for lower income households.
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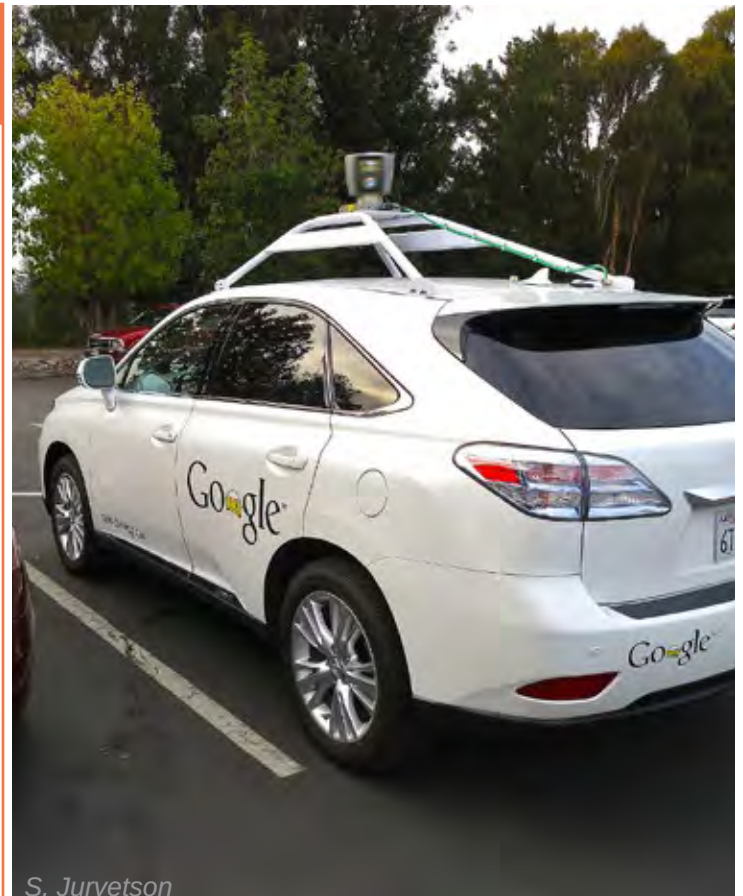
Recent Progress Enabling Electric Vehicle Use

In recent years, the City has encouraged EV ownership by installing charging stations for public use. The City currently provides six Level 2 dual port charging stations and there are four DC fast chargers in the city. The use of these stations has increased exponentially each year, showing demand for more public charging stations.

Concept Callout Future of Automated Travel

Widespread automated vehicle adoption is not anticipated to occur until after the horizon date of this plan (2032). As such, there is not a significant focus on automated travel within the Mobility Strategy. Even though automated vehicles will significantly change how we move around, there are some aspects that will not change.

- The City will continue to prioritize safety and comfort of vulnerable travellers, and design streets in a way that puts people first.
- The City remains committed to moving people in a manner that is space-efficient. Walking, rolling, cycling and transit are all modes that can accommodate many people in a small amount of space compared to that of a private vehicle, whether it is operated by a human or not.



Strategy 4: Encourage people to make sustainable travel choices.

In some cases, providing infrastructure is not enough to help change travel behaviour. Sometimes there is a lack of awareness, or training is needed to help people feel confident with new travel options. To this end, the City will reimagine and expand the range of supportive services that have been shown to increase sustainable travel.

Actions

4A. Expand educational programs for walking and rolling.

- i Reimagine how educational programs are provided to facilitate more active travel, including school safe travel campaigns, individualized trip planning assistance, and promotion of new transit and mobility lane infrastructure.
- ii Create education programs tailored to specific community groups, hosted in a variety of languages.

4B. Collaborate with employers to increase sustainable commuting and reduce trips.

- i Expect employers to provide high-quality end-of-trip facilities for people to comfortably walk and roll to work.
- ii Assist employers to establish corporate travel demand management (TDM) programs to reduce congestion on the network, particularly at peak hours. This may include providing incentives such as subsidized transit passes, and disincentives to driving, such as charging for parking.
- iii Engage major employers to update their policies and practices to encourage more flexible working hours and remote working policies, to reduce overall demand on our roads, particularly at peak hours.
- iv Coordinate with TransLink and municipalities to develop and implement a regional approach to employer TDM programs.

4C. Expand delivery of youth-oriented programs that support safe and active travel to school.

- i Develop and update school travel plans on a regular basis, in coordination with school staff and students.
 - ii Work with schools and surrounding residents and businesses to pilot new pick-up and drop-off protocols that reduce vehicle congestion around schools.
 - iii Enable new programs to support walking and rolling to and from school, especially for younger children.
 - iv Bring youth into the design of transportation improvements around schools, such as by co-designing signage and creating murals to demarcate no-stopping zones.
-

4D. Continue education and outreach programs for improving neighbourhood-wide and independent sustainable travel.

- i Undertake educational campaigns with community groups, and provide tools for enhancing the understanding of conventional transit and HandyDART accessible services.
- ii Establish a sustainable trip planning service for residents that require personalized assistance in planning their transit trips.
- iii Work with neighbourhood community groups to establish programming through GoCNV that promotes sustainable travel and include events, education, prizes, and other activities to enable residents to travel sustainably.



Recent Progress Safe and Active School Travel Program

The City, in partnership with the North Vancouver School District, has worked with nine schools to encourage safe and healthy school travel habits through outreach and improvements to the transportation infrastructure around schools. School Travel Planning Facilitators work directly with administration, students, and families at each school for one to two years to identify barriers to active travel, encourage walking and rolling, and develop maps and an action plan tailored specifically to each school.

Recent Progress GoCNV

GoCNV is a promotional program that encourages CNV residents to use sustainable travel over the summer months. As part of the campaign, there are prizes, events, and other activities to keep residents travelling in a healthier and happier way. In 2019, the Central Lonsdale East community was selected to participate in the GoCNV program. A third of participants reported walking, cycling, and using transit more after the program was completed. This program will be expanded to more neighbourhoods in years to come.



Improve our mobility experience through the design of our streets and neighbourhoods.

We know that the experience people have on our streets influences travel choice. We have heard from the community that more attractive and comfortable infrastructure is required for walking, rolling, and transit. Increasing the number of active and sustainable trips will also benefit people who have to drive, as there will be fewer people competing for the finite amount of space available on our streets. These design-focused strategies will improve the safety and comfort for travelling on our streets, improve the resilience of our network in the face of more extreme weather, and make our streets a more desirable place to spend time.



Strategies and actions at a glance

- | | |
|--|--|
| 5. Improve the safety and comfort of vulnerable road users. | <ul style="list-style-type: none">A. Minimize the potential for conflict where different street users come together.B. Manage travel speeds and access to improve neighbourhood safety and livability.C. Support enforcement that reduces dangerous conduct and prioritizes protection for vulnerable road users.D. Make it easier for everyone to be seen while travelling. |
| <hr/> | |
| 6. Rebalance the space along our curbs to meet a wide range of needs. | <ul style="list-style-type: none">A. Review curb space use across the city to better meet the needs of street users.B. Ensure there are sufficient loading zones, pick-up and drop-off zones, and accessible parking spots in high-demand locations. |
| <hr/> | |
| 7. Reclaim more street space for people and nature. | <ul style="list-style-type: none">A. Foster vibrant public spaces and streets.B. Provide more street trees.C. Make our streets and public spaces rain-friendly.D. Reduce vehicle noise and vibrations. |
| <hr/> | |
| 8. Support sustainable mobility through how we grow and develop. | <ul style="list-style-type: none">A. Use land use and development to support shorter trips and sustainable mobility choices.B. Require most developments to provide Travel Demand Management (TDM) options for residents and/or employees.C. Reduce the amount of vehicle parking that developers are required to provide in new buildings and increase the amount of parking for sustainable modes.D. Set clear mobility expectations from new developments. |

Strategy 5: Improve the safety and comfort of vulnerable road users.

Every year, there are an average of ten collisions on City streets that result in a serious injury or fatality. In recent years, people walking or rolling (vulnerable road users) have accounted for nearly all of the serious injuries and fatalities on City streets.

Actions

5A. Minimize the potential for conflict where different street users come together.

- i Increase the separation of different users at our busiest intersections, particularly for the protection of vulnerable road users.
 - ii Expand the use of measures like pedestrian- and cyclist-activated signals, dedicated and protected turning signal phases, centreline medians, “no right turn on red” restrictions, one-way streets, and advanced pedestrian and cyclist crossing phases at intersections that have high volumes of people using different transportation modes.
-

5B. Manage travel speeds and access to improve neighbourhood safety and livability.

- i Create a network of 30 km/h streets that includes all Local Streets and Shared Streets, and streets around schools, parks, and community centres.
 - ii Decrease speed limits on other street types, to be determined on a case-by-case basis.
 - iii Complement speed reductions with design interventions and access limitations. This may include medians, pinch points, speed humps, roundabouts, diagonal diverters, and curb bulges.
-

5C. Support enforcement that reduces dangerous conduct and prioritizes protection for vulnerable road users.

- i Update City bylaws to ensure the safety needs of our most vulnerable road users are prioritized.
 - ii Continue to work with the North Vancouver RCMP to identify locations for enforcement at high-risk intersections and corridors.
 - iii Work with the Province and North Vancouver RCMP to implement electronic enforcement to deter speeding, red light running and other dangerous behaviour at high-risk intersections and corridors.
 - iv Support the North Vancouver RCMP to reduce distracted drivers through education and enforcement.
-

5D. Make it easier for everyone to be seen while travelling.

- i Improve street and pathway light levels with prioritization at poorly lit intersections.
 - ii Increase visibility of travel lanes, medians, crosswalks, and signage under all conditions by applying retroreflective tape and paint.
-



Recent Progress Ridgeway Slow Speed Zone

In 2020, the City implemented a 30 km/h slow speed zone for the Ridgeway neighbourhood, bounded by St. Georges Avenue, East 13th Street, Grand Boulevard East, and East Keith Road. Data collected has shown the speed limit change has reduced travel speeds in the neighbourhood by nearly 5%. The slow speed zone increases the safety and comfort of families and other vulnerable road users in the neighbourhood, while having limited impacts on vehicle travel time. Frontage improvements and intersection adjustments have been undertaken with temporary delineators, along with student-led street art from Ridgeway Elementary School at nearby intersections.



Concept Callout Reduced Speed Limits

Speed is a fundamental factor in the severity of a crash or collision. A person walking or rolling that is hit by a car travelling at 50 km/h has a 10% chance of survival. The same person hit by a car travelling at 30 km/h has a 90% chance of survival. The faster a person is travelling, the less time they have to react to avoid a collision, and the more severe any resulting injuries will be.

Strategy 6: Rebalance the space along our curbs to meet a wide range of needs.

Over 90 percent of the City’s curb space is dedicated to parking. This leaves less room for a growing number of other uses, including transit, delivery vehicles, bikes and scooters, ride-hailing and taxis, all of which need a safe space to pull over. Tailoring our street design to prioritize a range of functions will create a more complete mobility network that enhances safety, efficiency, and comfort for all modes.

Actions

6A. Review curb space use across the city to better meet the needs of street users.

- i Undertake a review of the [City’s Resident Exempt Parking Program](#), and work with residents and businesses to develop a more comprehensive approach to vehicle permitting that meets the needs of street users, manages spillover concerns associated with off-street reductions, and better reflects the high value of street space. This may include changes to permit costs and eligibility criteria, expansion of permit areas, or transitioning to an area-wide on-street parking model.
 - ii Work with businesses to introduce pricing of on-street short-term parking spaces, to manage turnover and support better use of available off-street spaces.
 - iii Work with residents and businesses to develop neighbourhood curb space plans to outline appropriate measures, regulations, and designs to better meet access and parking needs.
-

6B. Ensure there are sufficient loading zones, pick-up and drop-off zones, and accessible parking spots in high-demand locations.

- i Ensure at least one dedicated loading zone is available on both sides of the street on every block in the city.
 - ii Explore options for an urban delivery program that tracks loading zone use to determine supply on high-demand corridors.
 - iii Coordinate with ride-hailing companies and users to identify the effectiveness of existing pick-up and drop-off zones, and where adjustments may be needed on Main Streets and City Connector Streets.
 - iv Work with community members to undertake a review of accessible parking spot locations to determine underserved areas.
-



Strategy 7: Reclaim more street space for people and nature.

Streets are part of our public space network. Green street elements bring life to the street, capture carbon, reduce heat island effects, and provide storm water management functions. Creating a better sense of place on our streets will help improve connections to our neighbours and communities.

Actions

7A. Foster vibrant public spaces and streets.

- i Create concept designs for key streets in alignment with street types that will allow Council to provide direction for future right-of-way acquisition through development.
- ii Review opportunities to increase the number of plazas and parklets on our Main Streets, City Connector Streets, and Shared Streets. This may include expanding the City's [Living Lane](#) initiative for laneways that receive limited vehicle use.
- iii Work with the business community to extend the longevity of the City's temporary patio program.
- iv Expand the amount of local and First Nations art, with priority on our Main Streets and Shared Streets.
- v Expand activation and place-making on Local Streets with more pocket parks, benches, and street art.

7B. Provide more street trees.

- i Prioritize planting in underserved areas that have fewer street trees through the City's Street Tree Program. Main Streets and City Connector Streets will also be prioritized with anticipated high activity levels of walking and rolling.
- ii Provide a double row of street trees where space allows.

7C. Make our streets and public spaces rain-friendly.

- i Develop weather protection guidelines to facilitate appropriately wide, continuous, and well-designed awnings and canopies on our Main Streets.
- ii Improve the permeability of our streets for rainwater management.
- iii Expand the application of bioswales and rain gardens in areas where we reallocate space on our curbs.
- iv Work with the Squamish and Tsleil-Waututh Nations to emphasize ethnobotany and prioritize local flora in parklets and rain gardens.

7D. Reduce vehicle noise and vibrations.

- i Accelerate the transition to zero-emission vehicles which have lower noise volumes.
- ii Support specifications for goods movement and transit vehicles that reduce noise and vibrations.
- iii Incorporate transportation noise impacts into development review processes to ensure setbacks and materials mitigate noise.
- iv Establish speed limits and employ traffic calming measures to reduce noise and increase safety.
- v Investigate the application of sound barriers on goods movement corridors.



Strategy 8: Support sustainable mobility through how we grow and develop.

As our city continues to grow over the next decade, new developments can help residents and employees access more travel options and programs that make it easier to move around in ways that limit negative impacts on our streets.

Actions

8A. Use land use and development to support shorter trips and sustainable mobility choices.

- i Prioritize and encourage a dense and diverse mix of housing types, jobs, services, and amenities in areas well-served by frequent transit.
 - ii Enable the concept of building a 15-minute city, where there is easy access to jobs and services, and a range of housing types of different sizes and levels of affordability.
 - iii Encourage local major trip generators to be situated adjacent to the Frequent Transit Network.
 - iv Design buildings to contribute to a public realm that feels safe and supports sustainable mobility choices.
-

8B. Require most developments to provide Travel Demand Management (TDM) options for residents and/or employees.

- i Introduce a new program that right-sizes the amount and type of TDM measures required by developers based on location, type, and size of development.
-

8C. Reduce the amount of vehicle parking that developers are required to provide in new buildings and increase the amount of parking for sustainable modes.

- i Reduce minimum vehicle parking supply standards in close proximity to the Frequent Transit Network.
 - ii Establish vehicle parking maximums for multi-unit residential buildings.
 - iii Increase the minimum requirements for bicycle parking, and require more horizontal bicycle parking and charging points to accommodate the increased popularity of cargo bicycles and e-bikes.
 - iv Review possibilities for shared vehicle parking among complementary uses, where appropriate.
-

8D. Set clear mobility expectations from new developments.

- i Develop improved guidance on mobility-related improvements that need to be accommodated through new development using street types as a guide.
- ii Update the City's Development Cost Charges program to incorporate key projects that can be used for a wider range of mobility improvements, and ensure this is reviewed regularly to align with evolving needs.
- iii Ensure financial contributions for transportation generated through new developments are directed to the highest and best use for sustainable transportation outcomes.



Concept Callout Overbuilding our Parking Supply

Parking supply exceeds demand for apartment buildings across the region, including in the City of North Vancouver.⁷ This adds a significant cost to residents, is environmentally impactful, and incentivizes people to own vehicles. Decreasing parking minimums improves the choice and flexibility in how businesses and residents use their properties to meet parking needs, will improve affordability through decreased parking costs, and moves us towards creating a vibrant and walkable city that is envisioned through this Draft Mobility Strategy.

⁷ Metro Vancouver Regional Parking Study, 2018

Concept Callout Travel Demand Management Measures

As more people and jobs come to the region, there is a need to ensure that many travel options exist. Our existing road network has limited capacity for more vehicle trips. TDM options can include provision of on-site car-share vehicles and parking spaces, subsidized transit passes, subsidies for bicycles, and individualized trip planning services.



Improve the reliability for people and goods to move around our city and region.

As our region continues to grow in population, efficient movement will be challenged as more trips take place. However, there are many ways that we can improve the transportation system's reliability. These include maintaining assets in a state of good repair, addressing the sources of unpredictability, and providing tools that share information with system users so people can make informed decisions for all trips.



Strategies and actions at a glance

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|---|---|
| 9. Keep urban freight, deliveries, and emergency vehicles moving. | <ul style="list-style-type: none">A. Support local and regional goods movement.B. Promote and enable low- or zero-emission deliveries.C. Maintain and improve key emergency response routes. |
| <hr/> | |
| 10. Strengthen our connections within the city, and across the North Shore and Metro Vancouver region. | <ul style="list-style-type: none">A. Create enabling conditions for rapid transit expansion on the North Shore, and across the Burrard Inlet.B. Support and deliver initiatives that increase the reliability of our street network.C. Coordinate closely with the District of North Vancouver and the Squamish Nation on all boundary-adjacent mobility infrastructure and projects. |
| <hr/> | |
| 11. Optimize our mobility system through proactive management, operation and access to information. | <ul style="list-style-type: none">A. Develop better experience-focused service standards.B. Deploy frequent surveys and apply technology to monitor and inform predictive planning and maintenance prioritiesC. Work with TransLink and other partners to create a mobility management system to optimize signals, curbside regulations, and real-time traveller information. |

Strategy 9: Keep urban freight, deliveries, and emergency vehicles moving.

The ability to have goods delivered quickly and reliably is an essential component of our economy and city living. The rise in online shopping and more dynamic supply chains has seen Canada Post parcel delivery double between 2012 and 2019.⁸ The increase in parcel delivery, along with population and employment increases are making it more difficult for efficient goods movement. This also creates difficult conditions for emergency vehicles to efficiently respond to incidents.

Actions

9A. Support local and regional goods movement.

- i Protect a network of goods movement corridors in partnership with TransLink, Port of Vancouver, other North Shore municipalities, and First Nations.
- ii Protect and enhance rail rights-of-way and access points to navigable waterways in order to preserve their potential for goods movement, as specified in the Regional Growth Strategy and Regional Transportation Strategy.
- iii Explore opportunities to implement goods movement priority measures that do not increase general purpose traffic or impact the reliability of active transportation or transit.
- iv Reimagine the City's goods movement network so it meets the modern needs of the regional economic gateway and businesses in the city, while minimizing impacts on surrounding neighbourhoods.

9B. Promote and enable low- or zero-emission deliveries.

- i Explore the feasibility of a delivery microhub program that enables right-sized delivery vehicles (including bicycle couriers) for short-distance trips.
- ii Explore the feasibility of a permit system for commercial and delivery vehicles that incentivizes the use of low- or zero-emission vehicles (including bicycle and cargo bike couriers).
- iii Increase the supply of secure delivery lockers so that recipients can opt to pick up packages a short walk away from home or work.

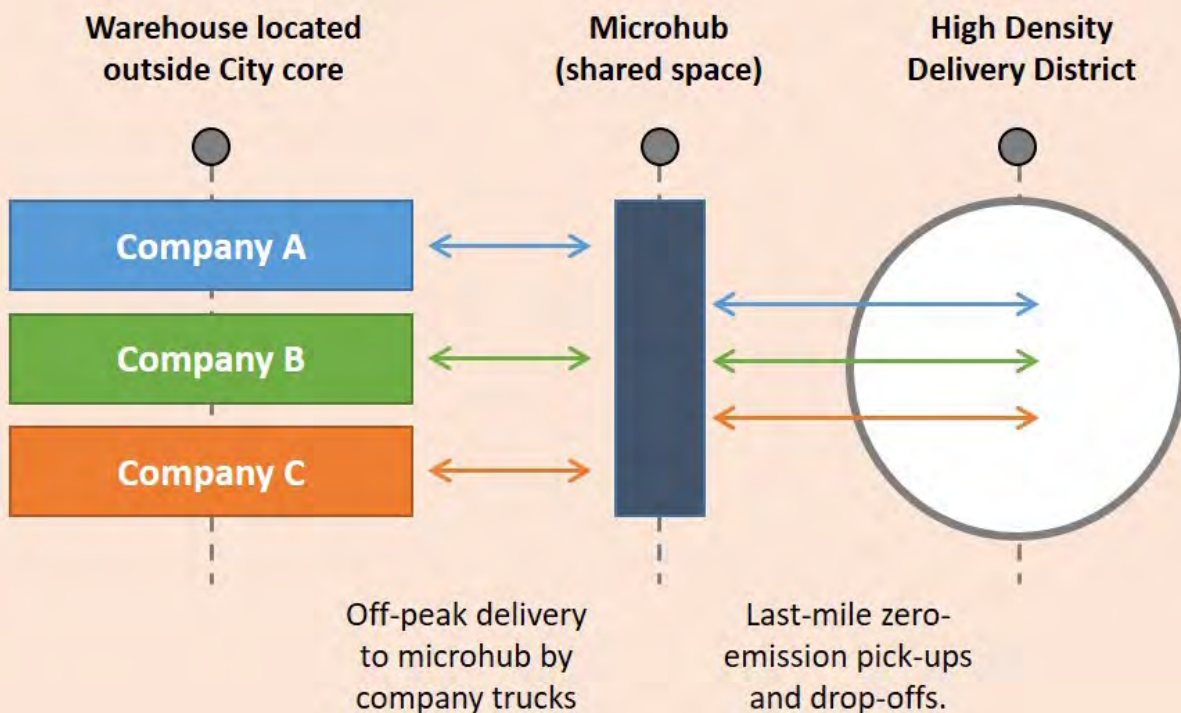
9C. Maintain and improve key emergency response routes.

- i Continue to coordinate with North Vancouver City Fire, the RCMP, and BC Ambulance Service to maintain and improve emergency response routes using heat maps of frequent routing.
- ii Continue to invest in signal pre-emption technology at intersections on Main Streets and City Connector Streets to facilitate efficient emergency response.
- iii Maintain frequent communication with emergency responders on street redesigns to ensure emergency vehicles continue to be prioritized.

⁸ Canada Post

Concept Callout Delivery Microhubs

A delivery microhub is a new form of logistics facility that is particularly effective near final delivery points (e.g., less than five km from a destination). Microhubs provide the opportunity for multi-carrier consolidation and right-sizing to smaller and cleaner modes of transport, such as cargo bicycles or pedestrian couriers. This type of logistics space is particularly beneficial for urban areas where there are higher amounts of vehicle congestion (such as Lower Lonsdale). By consolidating deliveries from multiple carriers and redeploying packages to more efficient and smaller modes, goods are able to be delivered more efficiently, resulting in improved reliability, often at a decreased cost to the delivery provider.



Strategy 10: Strengthen our connections within the city, and across the North Shore and Metro Vancouver region.

In the past decade, the City has added more jobs than residents, meaning more people travel here for work. Our port-oriented industries mean we play a critical role in the region's gateway economy. Making it easier to get to and from our city is good for our livability and economy.

Actions

10A. Create enabling conditions for rapid transit expansion on the North Shore, and across the Burrard Inlet.

- i Continue to work with the Squamish and Tsleil-Waututh Nations, North Shore municipalities, TransLink, and the Province to leverage the recent [Burrard Inlet Rapid Transit study](#) findings and prioritize rapid transit investment to the North Shore.
- ii Continue to work with the Squamish and Tsleil-Waututh Nations, North Shore municipalities, and TransLink to expand frequent transit offerings across the North Shore, particularly by introducing fast and reliable transit along Lonsdale Avenue to connect with Lynn Valley Town Centre.
- iii Align transit-oriented development opportunities with major transit corridors as outlined in [Metro Vancouver's Regional Growth Strategy \(Metro 2050\)](#).

10B. Support and deliver initiatives that increase the reliability of our street network.

- i Prioritize infrastructure projects that provide more connections between destinations for all modes in case one part fails due to an incident.
- ii Pair network improvement projects with traffic calming and access restrictions on Local Streets to prevent shortcutting from longer distance trips.
- iii Work with North Shore municipalities and the Squamish Nation toward implementing a Western Lower Level Route Expansion to increase redundancy of east-west routes.
- iv Support regional travel demand initiatives such as mobility pricing to improve the reliability of our street networks by reducing congestion in a way that is fair and equitable.

10C. Coordinate closely with the District of North Vancouver and the Squamish Nation on all boundary-adjacent mobility infrastructure and projects.

- i Develop an inter-jurisdictional boundary committee that discusses anticipated mobility impacts to respective jurisdictions. This could include maintaining a seamless experience for transit priority, mobility lanes, and sidewalk infrastructure, and reviewing any sizable developments that are expected to have cross-jurisdictional impacts on vehicle traffic.
- ii Coordinate both current and long-range mobility planning with the Squamish Nation to support more seamless connections and service availability between respective jurisdictions.
- iii Maintain strong partnerships with North Shore governments to coordinate efforts on sub-regional transportation decisions.



Recent Progress

BIRT Feasibility Study and Benefits Assessment

Between 2019 and 2021, a feasibility study and benefits assessment were undertaken by North Shore municipalities, First Nations, and additional partners to better understand the impacts of rapid transit across the Burrard Inlet. The first part of this study created a short list of feasible alignments across the inlet, while the benefits assessment analyzed travel time savings, safety benefits, emissions benefits, agglomeration impacts, improved access to housing and jobs, and more. More engagement on technology, alignment, and other important factors will occur once this project is identified in TransLink's regional planning process and investment plan.

Strategy 11: Optimize our mobility system through proactive management, operation and access to information.

The City of North Vancouver's mobility system includes traffic signals, travel lanes, traffic regulations, and different trip options. Small disruptions have the potential to multiply into system-wide issues. Emerging technologies can help us be more proactive to prepare and respond.

Actions

11A. Develop better experience-focused service standards.

- i Create an asset management strategy that defines objectives for mobility services and assets, describes activities required to manage these assets into the future, and identifies a financial plan to resource these activities.
- ii Align our asset management efforts to focus on the user experience, rather than solely focusing on asset condition.
- iii Improve the infrastructure quality for sustainable modes first and pair this with TDM interventions to reduce impacts of new vehicle trips.
- iv Make it easier for people to report maintenance issues through the CityFix portal.
- v Work with partners to ensure maintenance of clean and safe street and sidewalk surfaces.

11B. Deploy frequent surveys and apply technology to monitor and inform predictive planning and maintenance priorities.

- i Create a transportation data management plan that outlines how data is collected, maintained, and shared for all travel modes.
- ii Expand our use of real-time sensors to better understand ongoing street conditions and traffic so the City can make adaptations to signals and lanes in real time, and also prioritize where we undertake maintenance.
- iii Prioritize real-time sensors primarily on Main Streets, City Connector Streets, and known conflict zones where safety issues are an immediate priority.

11C. Work with TransLink and other partners to create a mobility management system to optimize signals, curbside regulations, and real-time traveller information.

- i Investigate the application of off-street public and private parking lot smart sensors that provide real-time information to drivers on the availability of parking.
- ii Create opt-in digital programs that notify street users of current and ongoing construction activities, helping people adjust their routes to avoid delays and congestion.
- iii Provide real-time curb and street data as part of the City's digital wayfinding program. This can encourage third-party providers to use of this data, expanding the reach of City capabilities.



Street Types, Expanded

Our streets are a finite resource. The limited space must balance the needs of all the ways people move around our city, while also achieving the goals in this Draft Mobility Strategy.

Some streets have different needs or functions and merit different design considerations. To account for these needs, we require a new way to think about and categorize our streets. Street types are intended to provide guidance on how we plan projects on our streets, and unite street design with local land use context and community objectives. Eventually, these street types may replace our traditional road classification system (e.g. arterials, collectors, and local roads). For now, they are still important for planning and engineering design considerations.

What street types are meant to accomplish:

- **Develop common language and vision around our streets for future community engagement.** Our streets are not going to change overnight but there will be a shift over the next decade to support us achieving the goals in the Mobility Strategy. These street types will be used as an engagement medium when beginning projects that will transform our streets.
- **Indicate what can be expected for specific street features.** These street types are intended to provide a framework for how we prioritize elements on our streets through the likely (and unlikely) features that are listed for each one.
- **Link adjacent building form and design to our streets.** The City has made concerted efforts to align building designs with the adjacent streetscape. These street types will provide a starting point and add clarity on the look and feel of our streets going forward, allowing for building designs to match these desirable functions.
- **Provide guidance on which streets are appropriate for certain policies and actions.** Street types are frequently referred to in the Mobility Strategy actions above in order to prioritize where policy changes may occur.



The Mobility Strategy establishes six street types that are driven by an overall vision for the intended future state of our streets. They are based on land use context, transportation function, and design objectives.

- **Main Streets** are the core activity spines of the city for shopping, services, and amenities.
- **City Connector Streets** provide access across the city and to regional networks.
- **Neighbourhood Connector Streets** connect Local Streets to the broader network.
- **Local Streets** are low-volume, low-speed streets in residential neighbourhoods.
- **Shared Streets** are curbless streets that prioritize pedestrians and vibrancy.
- **Service Streets** provide access to service and industrial areas in the city.

Each street type is explained in the following pages and includes a description, design and mobility objectives, laneway objectives, and a table indicating what features are likely to be observed. In most cases, likely features are able to be incorporated into our streets with rebalancing of how street and curb space is used today. However, in some cases, there may be a need to expand the street right-of-way to accommodate sought-after features, which will be determined on a case-by-case basis in line with the actions in this Strategy that set clear mobility expectations from new developments.



MAIN STREETS

Main Streets are the core commercial activity spines of the city that provide residents, visitors, and workers with daily essentials and a range of services. These streets often face the greatest challenges in balancing the needs of ‘going to’ and ‘going through’.

Main Streets are active places with pedestrian-oriented shopping, employment, and entertainment, yet must also accommodate the movement of people and the movement of goods. Pick-up and delivery of goods ideally occurs in adjacent laneways, where they exist, creating more space on the street for the movement of people. Main Streets are part of our Frequent Transit Network, with transit movements being prioritized where possible.

The design of these streets encourages slower vehicle speeds and a high-quality public realm to clearly communicate that walking, rolling, and transit access are priorities, while still accommodating goods movement and deliveries. Main Streets are easily identifiable and carry a character of a city centre.

DESIGN AND MOBILITY OBJECTIVES

- Encourage maximum vehicle speeds of 40 km/h and accommodate 10,000 to 15,000 vehicles per day.
- Make transit easily accessible and the most intuitive choice of vehicle travel.
- Prioritize pedestrian movement through a comfortable public realm with wide frontages that allows for lingering and non-linear movement.
- Accommodate reliable goods movement and transit through provision of multiple lanes and sufficient curb space access.

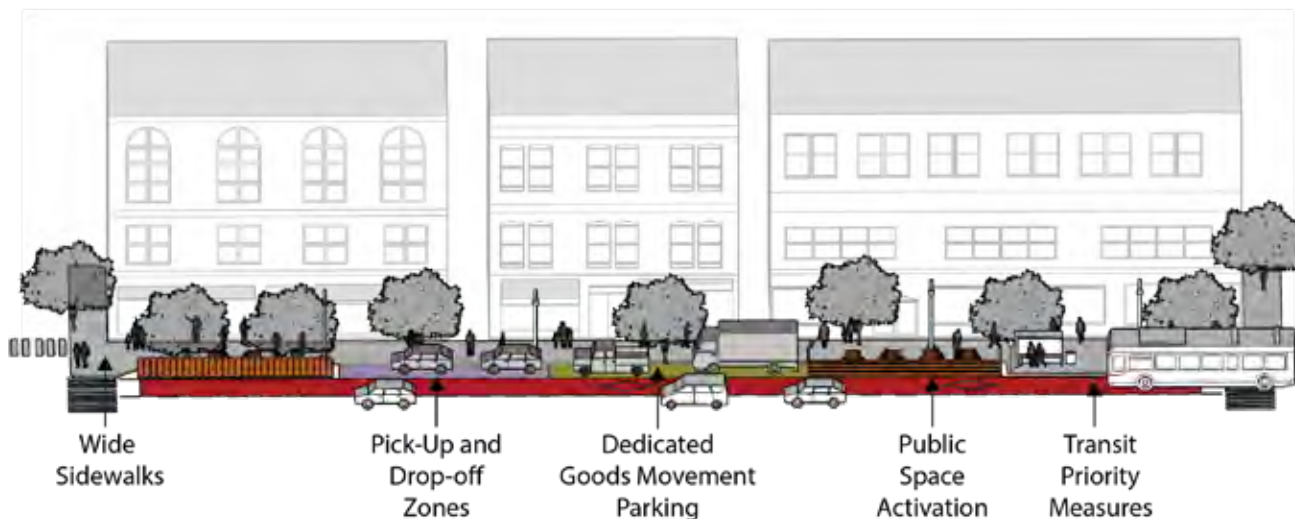
LANEWAY OBJECTIVES

- Support local vehicle access and storage, and allow Main Streets themselves to make space for sustainable modes, to pick up and drop off people, and for greening through street trees and rain gardens.
- Provide space for waste collection and loading/unloading access for businesses.
- Enhance activation through parklets, pocket plazas, and patios in locations that do not interfere with other objectives. Accommodate reliable goods movement and transit through provision of multiple lanes and sufficient curb space access.

ADJACENT LAND USE

- Primarily high-density, mixed-use built form with retail, commercial, office, and residential uses.

KEY FEATURES



Street Features	Likely	Possible	Unlikely
Travel Choice and Access			
Wide sidewalks	✓		
Street furnishings (e.g., benches, planter boxes)	✓		
Bicycle and micromobility parking	✓		
Accessible parking for people with disabilities	✓		
Short-term on-street vehicle parking		✓	
Long-term on-street vehicle parking			✓
Transit priority measures (e.g., bus-only lanes)	✓		
Ride-hail and taxi zones	✓		
Wider travel lanes for transit and freight vehicles			✓
Signalized intersections	✓		
Safety and Comfort			
Protected or off-street AAA mobility lanes	✓		
Neighbourhood bikeways			✓
Sidewalk corner bulges	✓		
Sidewalk mid-block bump outs		✓	
Traffic calming measures			✓
Lower speed limits	✓		
Climate Change and the Environment			
Single row of street trees			✓
Double row of street trees	✓		
Bioswales and rain gardens	✓		
Prosperity and Vibrancy			
On-street short-term delivery load zones	✓		
Laneway short-term delivery load zones	✓		
Parklets, patios and plazas	✓		
Unique surface treatments (e.g., printed asphalt)		✓	
Space for events and activation	✓		



CITY CONNECTOR STREETS

City Connector Streets move higher volumes of people and goods throughout the City and connect to the regional transportation system, including Highway 1 and major streets in the District of North Vancouver. Space-efficient modes like walking, rolling, and transit help move the most people in the least amount of space. Many City Connector Streets are part of our Frequent Transit Network.

These streets safely accommodate the needs of larger vehicles while prioritizing pedestrian safety along and across the corridors. AAA mobility lanes will also be likely features found on City Connector Streets, allowing network connectivity for wheeled users.

DESIGN AND MOBILITY OBJECTIVES

- Encourage maximum vehicle speeds of 50 km/h and accommodate 10,000 to 15,000 vehicles per day.
- Support public spaces, landscaping, and other elements that contribute to a more pedestrian-friendly experience.
- Maintain critical connectivity for travelling through the city for all modes.
- Prioritize space-efficient travel modes (transit, walking, and cycling), especially during peak travel periods.

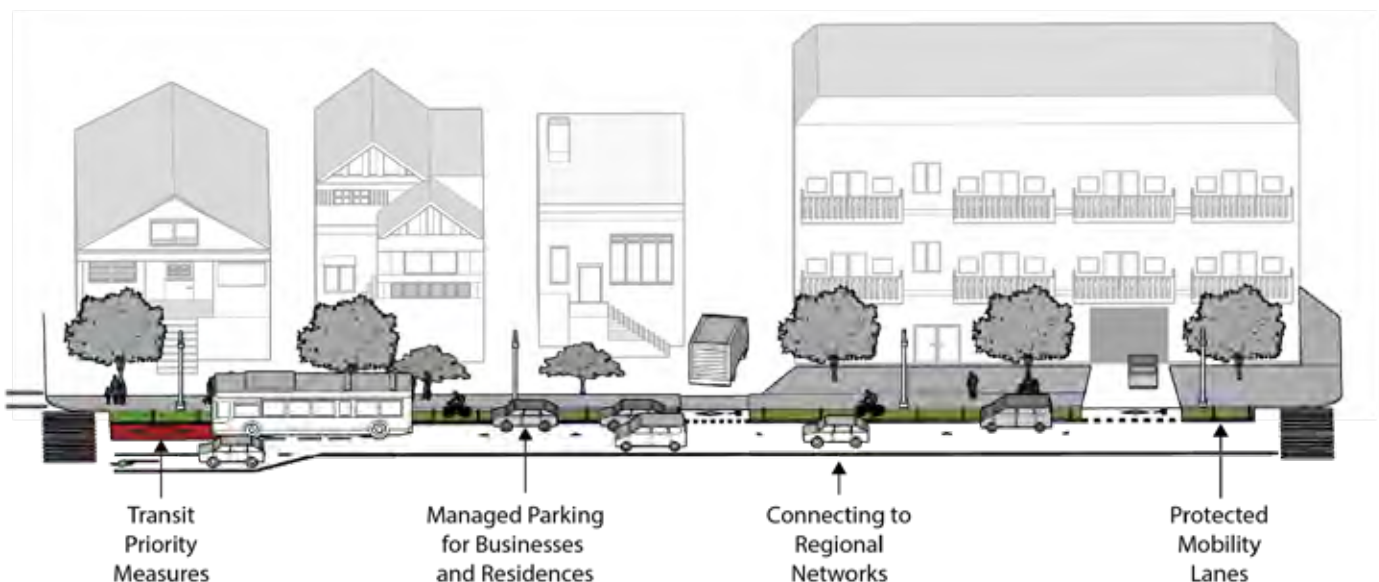
LANEWAY OBJECTIVES

- Support local vehicle access and storage, and allow City Connector Streets themselves to make space for sustainable modes, to pick up and drop off people, and for greening through street trees and rain gardens.
- Provide space for waste collection and loading/unloading access for businesses.
- Enhance activation through parklets, pocket plazas, and patios in locations that do not interfere with other objectives.

ADJACENT LAND USE

- No specific adjacent land use. City Connector Streets include a mix of uses across the city.

KEY FEATURES



Street Features	Likely	Possible	Unlikely
Travel Choice and Access			
Wide sidewalks		✓	
Street furnishings (e.g., benches, planter boxes)	✓		
Bicycle and micromobility parking	✓		
Accessible parking for people with disabilities	✓		
Short-term on-street vehicle parking		✓	
Long-term on-street vehicle parking		✓	
Transit priority measures (e.g., bus-only lanes)	✓		
Ride-hail and taxi zones		✓	
Wider travel lanes freight vehicles	✓		
Signalized intersections	✓		
Safety and Comfort			
Protected or off-street AAA mobility lanes	✓		
Neighbourhood bikeways			✓
Sidewalk corner bulges	✓		
Sidewalk mid-block bump outs			✓
Traffic calming measures			✓
Lower speed limits		✓	
Climate Change and the Environment			
Single row of street trees		✓	
Double row of street trees		✓	
Bioswales and rain gardens	✓		
Prosperity and Vibrancy			
On-street short-term delivery load zones	✓		
Laneway short-term delivery load zones	✓		
Parklets, patios and plazas		✓	
Unique surface treatments (e.g., printed asphalt)			✓
Space for events and activation			✓



NEIGHBOURHOOD CONNECTOR STREETS

Neighbourhood Connector Streets support transitions from Main Streets and City Connector Streets into residential areas. They provide necessary through movements in neighbourhoods while balancing the safety and access needs of neighbourhood residents.

Neighbourhood Connector Streets are designed to encourage slower traffic speeds and minimize the number of travel lanes in order to enhance pedestrian and cyclist safety. These streets generally have limited or no transit service. They will align with the mobility lane infrastructure included in the AAA Mobility Lane Network. Neighbourhood Connector Streets provide pedestrian-scale streetscape features, and walkways and bikeways protected from vehicle traffic.

DESIGN AND MOBILITY OBJECTIVES

- Encourage maximum vehicle speeds of 40 km/h and accommodate 5,000 to 10,000 vehicles per day.
- Support public spaces, landscaping, and other elements that contribute to a more pedestrian-friendly experience.
- Prioritize low-stress walking and rolling connections and accommodate multimodal through-movements.
- Connect neighbourhoods to community destinations and provide access to residences.

LANEWAY OBJECTIVES

- Support local vehicle access and storage, and allow Neighbourhood Connector Streets themselves to make space for sustainable modes, and for greening through street trees and rain gardens.
- Provide space for waste collection and loading/unloading access for businesses.
- Enhance activation through parklets and pocket plazas in locations that do not interfere with other objectives.

ADJACENT LAND USE

- Primarily low- to medium-density residential, with some mixed-use commercial and retail services.

KEY FEATURES



Street Features	Likely	Possible	Unlikely
Travel Choice and Access			
Wide sidewalks		✓	
Street furnishings (e.g., benches, planter boxes)		✓	
Bicycle and micromobility parking	✓		
Accessible parking for people with disabilities		✓	
Short-term on-street vehicle parking	✓		
Long-term on-street vehicle parking		✓	
Transit priority measures (e.g., bus-only lanes)			✓
Ride-hail and taxi zones			✓
Wider travel lanes for transit and freight vehicles			✓
Signalized intersections		✓	
Safety and Comfort			
Protected or off-street AAA mobility lanes		✓	
Neighbourhood bikeways		✓	
Sidewalk corner bulges	✓		
Sidewalk mid-block bump outs		✓	
Traffic calming measures		✓	
Lower speed limits		✓	
Climate Change and the Environment			
Single row of street trees			✓
Double row of street trees	✓		
Bioswales and rain gardens	✓		
Prosperity and Vibrancy			
On-street short-term delivery load zones	✓		
Laneway short-term delivery load zones	✓		
Parklets, patios and plazas		✓	
Unique surface treatments (e.g., printed asphalt)			✓
Space for events and activation			✓



LOCAL STREETS

Local Streets are low-speed, low-volume streets that provide access to residences and community destinations such as parks, schools, and gathering spaces. Local Streets are found in lower-density residential areas and prioritize safety, local access, and longer-term vehicle storage for neighbourhood residents. They invite residents to use the streets as common gathering places.

Local Streets have more traffic calming and access management measures to dissuade cut-through traffic. Because Local Streets have lower traffic volumes, they can facilitate local street bikeways that still allow for safe and comfortable travel, as part of our broader AAA Mobility Lane Network. Some Local Streets may also have opportunities to be ‘green streets’, where vegetation, street trees, and rain gardens are provided to capture rainwater, cleanse storm water runoff, and create a more calm and restorative streetscape.

DESIGN AND MOBILITY OBJECTIVES

- Encourage maximum vehicle speeds of 30 km/h and accommodate less than 1,000 vehicles per day.
- Design streets that allow people to walk or roll safely and comfortably.
- Decrease vehicle speeds, volumes, and short-cutting.
- Make streets more family-friendly through traffic calming and greening.

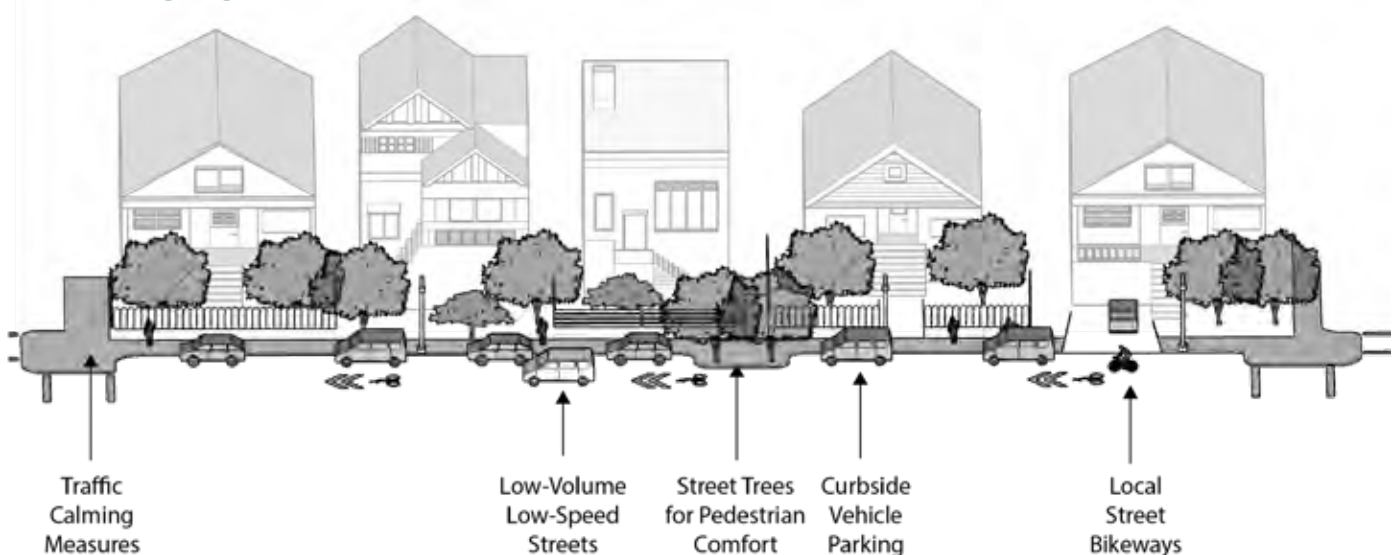
LANEWAY OBJECTIVES

- Support local vehicle access and storage, and allow Local Streets themselves to make space for sustainable modes, and for greening through street trees and rain gardens.
- Provide space for waste collection and loading/unloading access for residences.
- Enhance activation through parklets and pocket plazas in locations that do not interfere with other objectives.

ADJACENT LAND USE

- Primarily low-density residential along with community destinations.

KEY FEATURES



Street Features	Likely	Possible	Unlikely
Travel Choice and Access			
Wide sidewalks		✓	
Street furnishings (e.g., benches, planter boxes)	✓		
Bicycle and micromobility parking		✓	
Accessible parking for people with disabilities		✓	
Short-term on-street vehicle parking	✓		
Long-term on-street vehicle parking	✓		
Transit priority measures (e.g., bus-only lanes)			✓
Ride-hail and taxi zones			✓
Wider travel lanes for transit and freight vehicles			✓
Signalized intersections		✓	
Safety and Comfort			
Protected or off-street AAA mobility lanes			✓
Neighbourhood bikeways	✓		
Sidewalk corner bulges	✓		
Sidewalk mid-block bump outs	✓		
Traffic calming measures	✓		
Lower speed limits	✓		
Climate Change and the Environment			
Single row of street trees			✓
Double row of street trees	✓		
Bioswales and rain gardens	✓		
Prosperity and Vibrancy			
On-street short-term delivery load zones	✓		
Laneway short-term delivery load zones		✓	
Parklets, patios and plazas		✓	
Unique surface treatments (e.g., printed asphalt)			✓
Space for events and activation			✓



SHARED STREETS

Shared Streets are people-first spaces that allow local access for residents, workers, and service and delivery vehicles. They can be permanent or temporary in nature, from piloting short-term closures on other street types, to streets that are permanently spaces for gathering, activations, and excitement.

Through design elements - including street furnishings, traffic calming measures, street art, and unique curbless paving materials - speeds are limited for all travel modes. They provide flexible space for people to play and gather, and offer opportunities for activation and programming to accommodate street fairs, markets, or spillover space during other events in adjacent parks or buildings.

DESIGN AND MOBILITY OBJECTIVES

- Encourage maximum vehicle speeds of 20 km/h and accommodate less than 500 vehicles per day.
- Prioritize pedestrian movements and activation through parklets, pocket plazas, and patios.
- Minimize traffic volumes and speeds through traffic calming and access limitations.

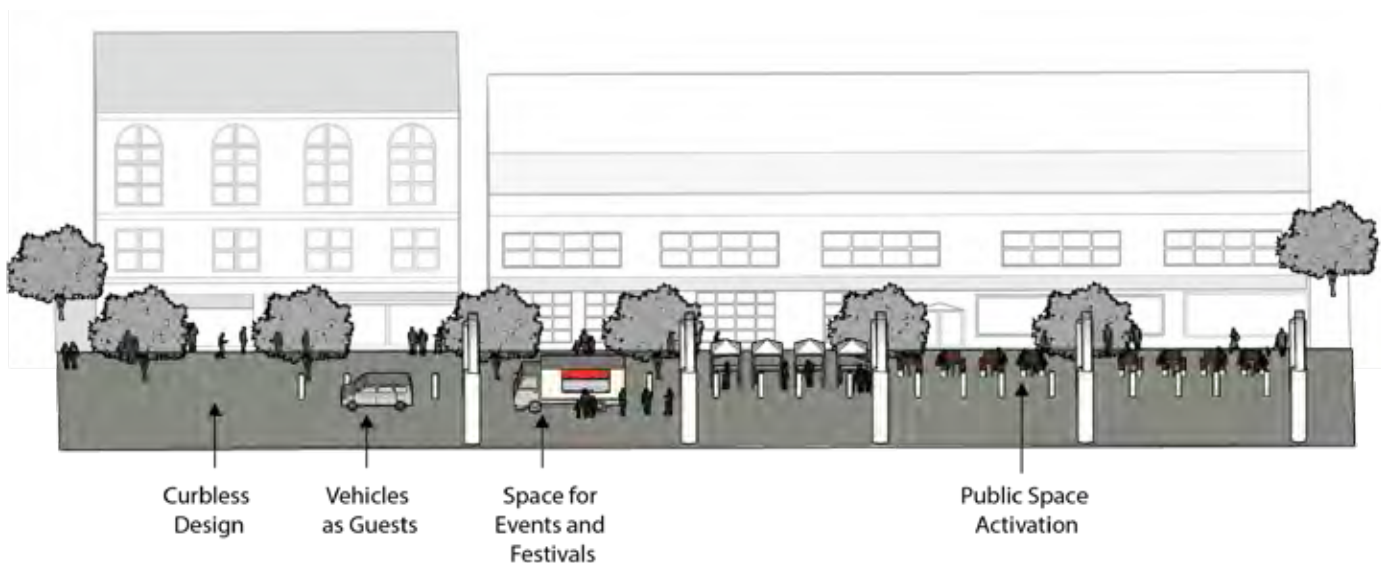
LANEWAY OBJECTIVES

- Where laneways exist, objectives should align with priorities of the Shared Streets themselves.

ADJACENT LAND USE

- Primarily high- to medium-density mixed-use residential, commercial, retail, and entertainment areas.

KEY FEATURES



Street Features	Likely	Possible	Unlikely
Travel Choice and Access			
Wide sidewalks			✓
Street furnishings (e.g., benches, planter boxes)	✓		
Bicycle and micromobility parking	✓		
Accessible parking for people with disabilities		✓	
Short-term on-street vehicle parking			✓
Long-term on-street vehicle parking			✓
Transit priority measures (e.g., bus-only lanes)			✓
Ride-hail and taxi zones		✓	
Wider travel lanes for transit and freight vehicles			✓
Signalized intersections			✓
Safety and Comfort			
Protected or off-street AAA mobility lanes			✓
Neighbourhood bikeways		✓	
Sidewalk corner bulges			✓
Sidewalk mid-block bump outs			✓
Traffic calming measures	✓		
Lower speed limits	✓		
Climate Change and the Environment			
Single row of street trees			✓
Double row of street trees	✓		
Bioswales and rain gardens	✓		
Prosperity and Vibrancy			
On-street short-term delivery load zones	✓		
Laneway short-term delivery load zones		✓	
Parklets, patios and plazas	✓		
Unique surface treatments (e.g., printed asphalt)	✓		
Space for events and activation	✓		



SERVICE STREETS

Service Streets provide access to industrial, commercial, and manufacturing businesses within the city. They are integral to our economic activity and design and maintenance considerations include use by large vehicles, including freight and goods delivery vehicles.

While there may be less walking and rolling along Service Streets, they still serve as through-routes to adjacent land uses or connections between destinations. Sidewalks and mobility lane infrastructure aid in providing predictable movements for these vulnerable users.

DESIGN AND MOBILITY OBJECTIVES

- Encourage maximum vehicle speeds of 40 km/h and accommodate 5,000 – 10,000 vehicles per day.
- Connect workers to jobs and customers to goods and services for all travel modes.
- Decrease conflicts by providing facilities that promote predictable user movements.
- Minimize environmental impacts such as storm water runoff, noise, and vibrations.

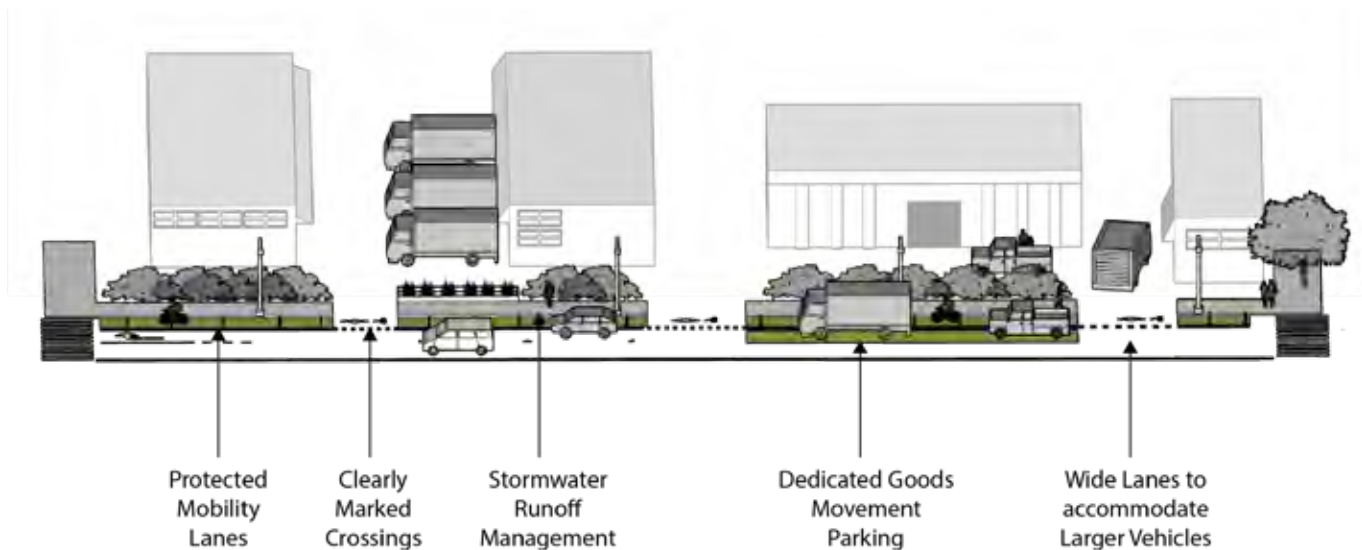
LANEWAY OBJECTIVES

- Where laneways exist, objectives should align with priorities of Service Streets themselves.

ADJACENT LAND USE

- Primarily low- to medium-density industrial, commercial, and manufacturing areas

KEY FEATURES



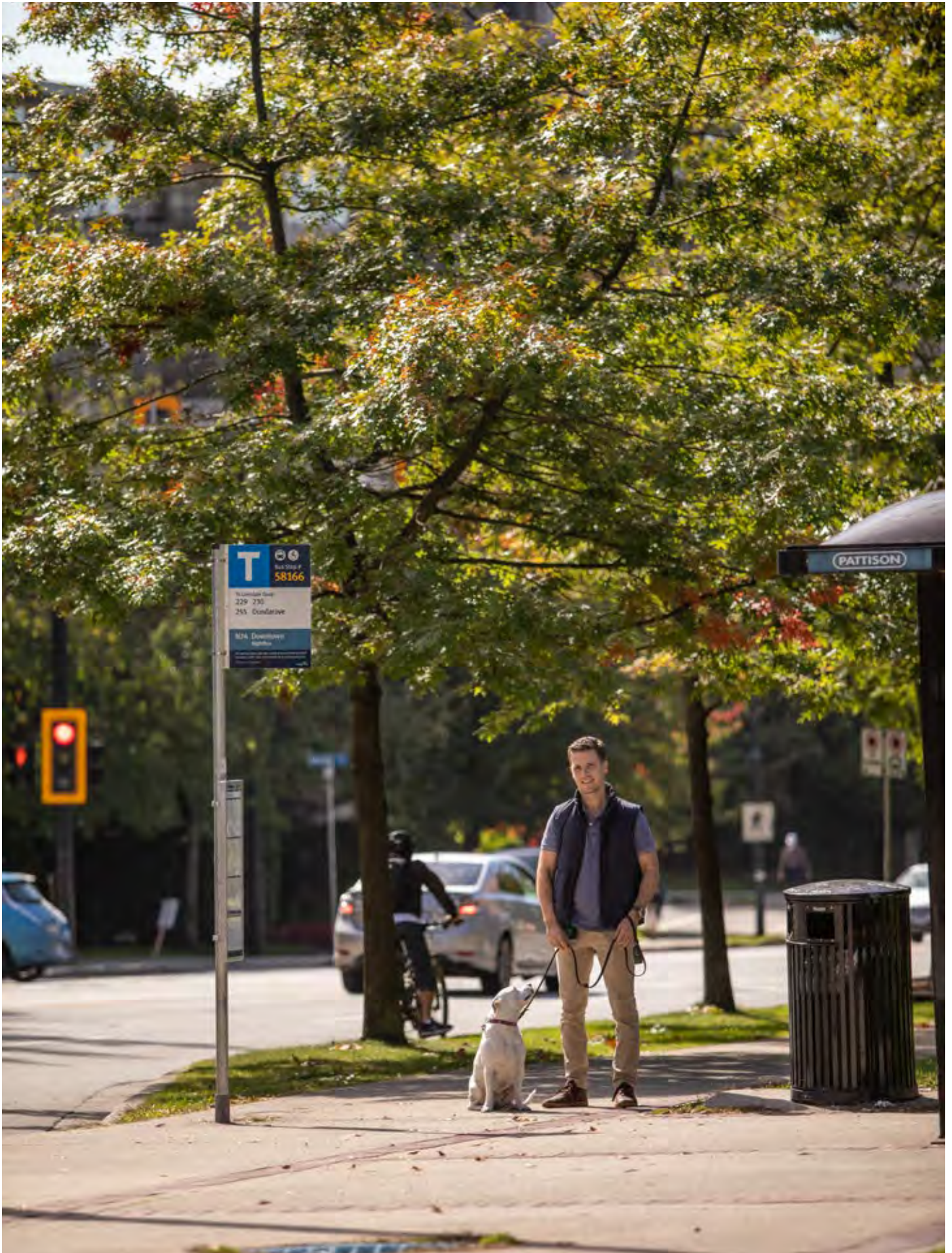
Street Features	Likely	Possible	Unlikely
Travel Choice and Access			
Wide sidewalks		✓	
Street furnishings (e.g., benches, planter boxes)		✓	
Bicycle and micromobility parking	✓		
Accessible parking for people with disabilities	✓		
Short-term vehicle parking		✓	
Long-term vehicle parking			✓
Transit priority measures (e.g., bus-only lanes)		✓	
Ride-hail and taxi zones			✓
Wider travel lanes for transit and freight vehicles	✓		
Signalized intersections	✓		
Safety and Comfort			
Protected or off-street AAA Mobility Lanes	✓		
Neighbourhood bikeways			✓
Sidewalk corner bulges	✓		
Sidewalk mid-block bump outs		✓	
Traffic calming measures			✓
Lower speed limits		✓	
Climate Change and the Environment			
Single row of street trees		✓	
Double row of street trees		✓	
Bioswales and rain gardens	✓		
Prosperity and Vibrancy			
On-street short-term delivery load zones	✓		
Laneway short-term delivery load zones	✓		
Parklets, patios and plazas			✓
Unique surface treatments (e.g., printed asphalt)			✓
Space for events and activation			✓



Street Types Map



This map provides an overview of what street type applies to each of the streets in the City. No street will change overnight; projects will occur over the lifespan of this Mobility Strategy. There will continue to be an emphasis on community engagement for each project that transforms our streets. Each street segment in our city is unique, and street features will differ for every street, even if it falls in the same street type category. Street types will be subject to refinement through other planning efforts (e.g., corridor plans or area plans).



4. Implementation & Next Steps

Implementation

There are many ways to implement the policies, projects, and programs outlined in the Draft Mobility Strategy. Many of the actions in this Strategy are within the City's control to implement through bylaws or by implementing projects that are in our jurisdictions. Other actions may require us to advocate to senior governments, or to coordinate with partners where for regional efforts.

We cannot deliver everything all at once, so we will develop a work plan each year for the next decade that portions out specific components of the Mobility Strategy and prioritizes them for advocacy, partnership, investment, or implementation. These work plans will apply five approaches that will shape how we do business and implement actions and strategies within the Mobility Strategy.

- 1. Continuous Monitoring:** We cannot improve what we don't measure. All policies and projects will be established with a monitoring and measurement program so that we can continually improve. The City will also expand its efforts at proactively collecting data to better understand needs and trends in advance of challenges.
- 2. Pilot, Learn, Adapt:** Planning can go a long way in anticipating outcomes, but we can often learn just as much, if not more, from monitoring on-the-ground outcomes. We will continue to pilot and learn from new approaches, and adapt ideas that are proven to be effective.
- 3. Talk and Engage:** We are developing solutions for residents, visitors, and businesses in the city. We intend to continue to maintain the conversations and engage our stakeholders throughout the ten year horizon of the Mobility Strategy.
- 4. Strong Partnerships:** The City can often be constrained in implementing transportation solutions if they extend beyond municipal boundaries or require regional or provincial input. We have strong relationships with our peer agencies and will continue to build on these relationships as we implement the Draft Mobility Strategy.
- 5. Do More with Less:** Where appropriate, the City will accelerate the delivery of infrastructure through the use of inexpensive alternatives. This pairs well with the piloting approach outlined above and will allow the City to move quickly and use funding wisely.

Shared principles between City Strategies

Five guiding principles have been developed to ensure the City's and community's values are being maintained while developing the four City Strategies (the Mobility Strategy, the Community Wellbeing Strategy, The Climate and Environment Strategy, and the Economic Strategy).

Shared Principles

We need to take actions that improve our collective health: The City will prioritize actions that increase our sense of connection to each other and the natural world, while making it easier to meet daily needs.

We need to take resilient actions: The City will prioritize proven, people-focused actions that increase the likelihood we will achieve our goals, even in dramatically changing circumstances.

We need to take equitable actions: The City will prioritize actions that remove barriers that make it harder for some people to connect to each other and to opportunities than others.

We need to take actions that work towards reconciliation: The City will prioritize actions that address inequities and maintain a mutually respectful relationship between Indigenous and non-Indigenous peoples in the region.

We need to take timely actions: The City will prioritize actions that will allow us to move quickly, recognizing the steps we take today will impact our future.

Next Steps

The Draft Mobility Strategy seeks to create the enabling conditions for residents, businesses, and visitors in our city to make the best choices when it comes to their trips. We look to individuals in the community, along with our stakeholders and partners, to help us create healthy streets that work for everyone.

We want to hear from you! Our online engagement period will be open from **DATE to DATE**. Check **the website** to see how you can get involved. We will also be engaging stakeholder groups and our partners during this period.

We look forward to your feedback. Staff will be reviewing the comments that we receive and integrating the feedback into a final version of this strategy. The final Mobility Strategy will be brought forward for the Mayor and Council's consideration in early 2022.

5. Glossary of Terms

The Draft Mobility Strategy includes the following terms when describing our mobility system.

All Ages and Abilities (AAA) mobility lanes:

These are facilities that are comfortable for users of all ages and abilities. They include separated lanes with physical barriers, off-street paths, and signed neighbourhood bikeways on local streets. They are used by people on bicycles, scooters, skateboards, and a growing number of people-powered and electric-assist modes.

Active transportation: Human-powered travel, such as walking and cycling; it also includes wheelchairs and some power-assisted devices. See *micromobility* and *sustainable modes*.

Car-sharing: A service that provides members with short-term access to a fleet of vehicles for trips within a specific area (e.g., Evo, Modo).

Frequent Transit Network: The network of streets where bus transit service is provided at least every 15 minutes in both directions all day and into the evening, every day of the week.

Microhub: Also known as a **delivery microhub**, microhubs are a type of logistics space where goods and packages are redistributed from larger vehicles (i.e., trucks) to smaller and lower emission vehicles (e.g., cargo bikes) for final delivery.

Micromobility: Travel using small, lightweight vehicles such as e-bikes or e-scooters that can be powered by people or through electric-assist. See *active transportation* and *sustainable modes*.

Mobility hub: A location where different sustainable transportation modes are integrated seamlessly to help promote connectivity.

Mode share: The percentage of trips made by one mode of travel relative to the total number of trips made using all modes.

Mode shift: A change from one travel mode to another.

Ride-hailing: A service that provides users with a vehicle trip that they book using an app (e.g., Uber, Lyft).

Sustainable modes: Forms of travel that result in far fewer greenhouse gas emissions than vehicles powered by natural gas or petroleum products (e.g., cars, vans), such as public transit, zero-emission vehicles, active transportation, and micromobility vehicles. These modes are also economically sustainable.

Transit priority measures: Measures that reduce delays and increase reliability of transit services in congested traffic, such as dedicated lanes, queue jump lanes, and signal priority at busy intersections.

Travel demand management / TDM: Incentives, disincentives, and changes that encourage the use of sustainable modes and discourage private vehicle travel, such as the provision of subsidized transit passes for university students or the dedication of a car-share parking spot in a community to reduce the need for individual car ownership. This also includes managing road space and optimizing efficiency (e.g., time-restricted lanes).

Walking and Rolling: When we talk about walking and rolling, we are referring to walking, using a mobility device (e.g., wheelchair), biking, skating, taking a scooter, or using a micromobility device (e.g., e-bike share).





Working together,
we can create
healthy streets that
work for everyone.