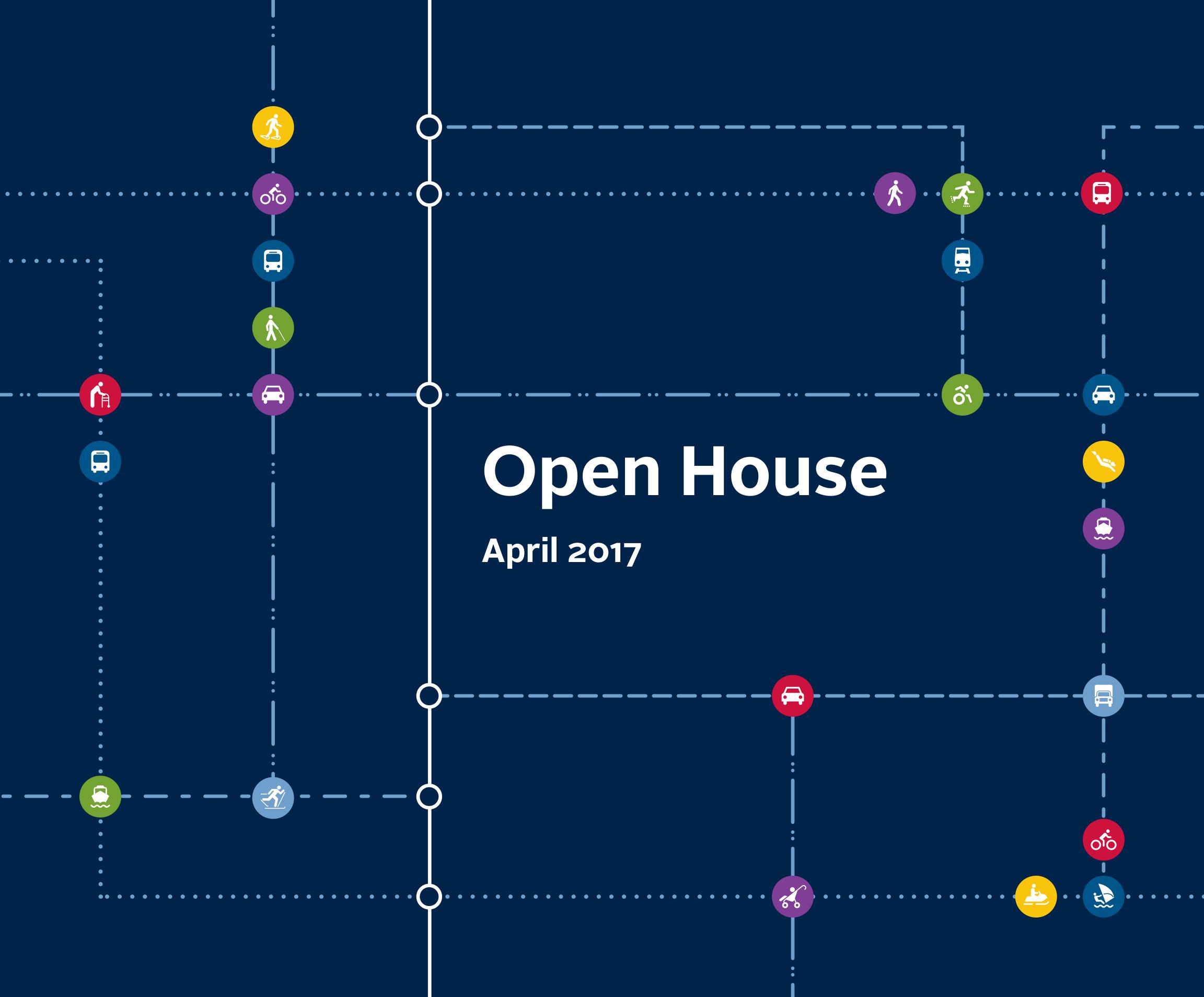


MOBILI Y PLAN

halifax.ca/integratedmobility



- INTRODUCTION

Today's Workshop

WE WANT YOUR FEEDBACK ON THE INTEGRATED MOBILITY PLAN!

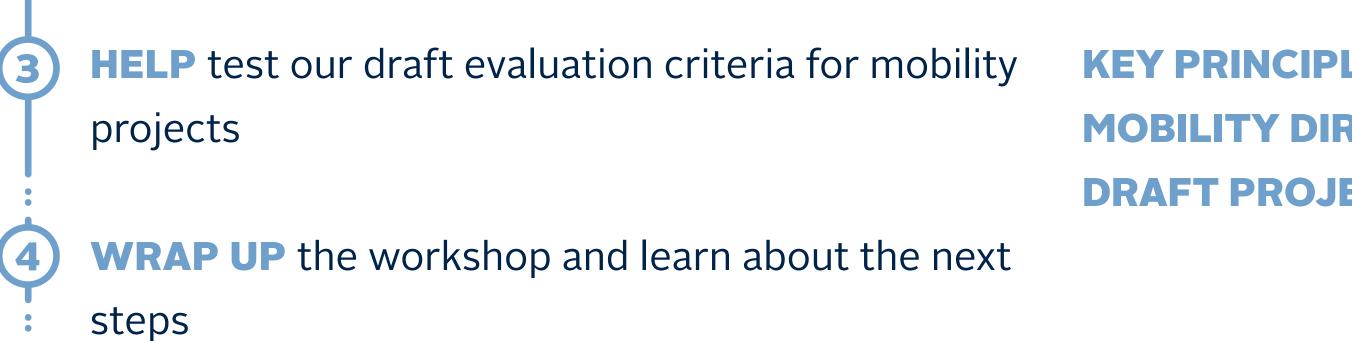
Agenda:

REVIEW the information boards

LISTEN to the introductory presentation

Purpose:

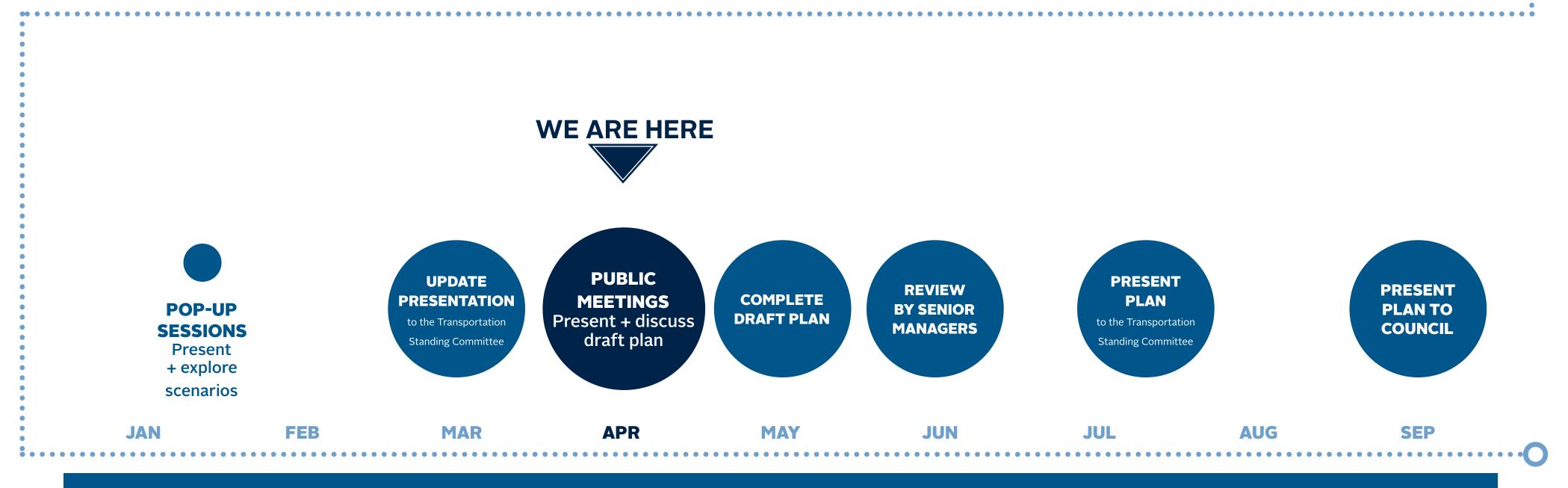
At today's workshop we would like to share information from the draft Integrated Mobility Plan and get your thoughts on:



KEY PRINCIPLES MOBILITY DIRECTIONS & ACTIONS DRAFT PROJECT EVALUATION CRITERIA

PROJECT SCHEDULE





CHECK-IN + FEEDBACK « 2017

halifax.ca/integratedmobility ------





Learn and Confirm

During Phase 1 engagement, we asked how the mobility system in the Halifax region could become more Connected, Healthy, Affordable, and Sustainable.

Phase 2 engagement was designed to gather input on **Complete Streets**, Active Transportation, Transit Priorities, and Transportation Demand **Management** in addition to other components of the mobility network. The key messages that we heard from Phase 2 are summarized on this panel and the next two.



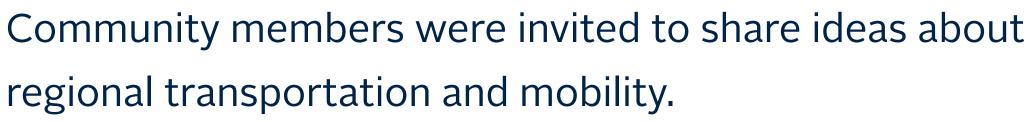


ENGAGEMENT **OVERVIEW**

INFORMATION **COLLECTED FROM PREVIOUS ENGAGEMENT SESSIONS HAS SHAPED THE DIRECTIONS PRESENTED HERE TODAY.**

MOVING FORWARD, YOUR FEEDBACK WILL BE USED **TO CREATE THE FINAL INTEGRATED MOBILITY PLAN**

Community Workshops

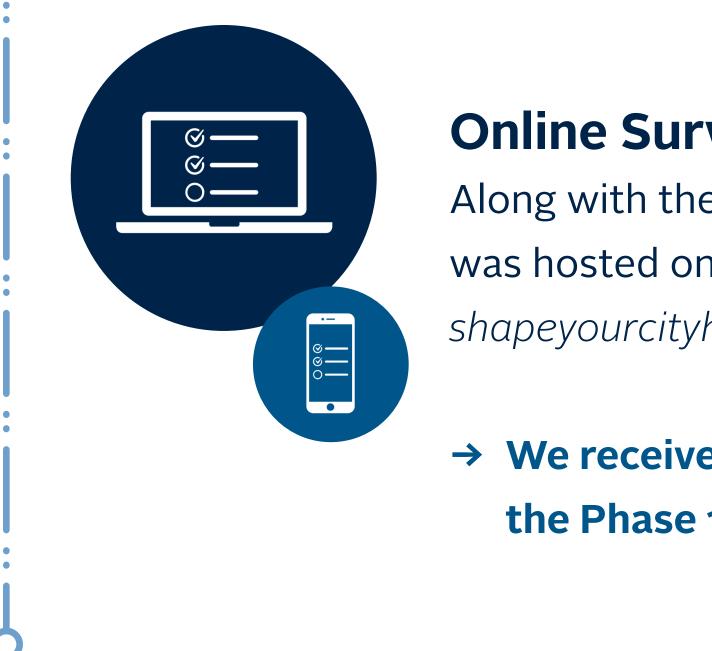


→ Eight two-hour workshops were held in Sept. 2016

at Cole Harbour Place in Cole Harbour, Sunnyside Mall in Bedford, Halifax Exhibition Centre in Prospect, and Alderney Landing in Dartmouth.

→ Eight two-hour workshops were held in Nov. and Dec. 2016 at the Dartmouth Sportsplex, the Italian Cultural Centre on Agricola Street, the Bedford-Hammonds Plains Community Centre, and the Captain William Spry Centre in Spryfield.

→ Over 200 people attended open houses in Phases 1 & 2



halifax.ca/integratedmobility

Online Surveys

Along with the workshops, an online survey was hosted on the project's website: shapeyourcityhalifax.ca/integratedmobility

→ We received over 1800 comments from the Phase 1 & 2 online surveys!

HALIFAX

- INTRODUCTION

What We Heard

COMPLETE STREETS - - -

- → Provide streets for all ages and abilities
- → Complete communities need complete streets
- → Not all streets need to be complete for all modes
- → Increase the priority of pedestrians



TRANSPORTATION DEMAND MANAGEMEN



DEMAND MANAGEMENT

- → Flexible work hours would reduce congestion at rush hour
- → The option to work from home occassionally can reduce commute times and congestion
- → Guaranteed rides home, flexible hours, and ride sharing make it easier to get to work without driving

ACTIVE TRANSPORTATION

- → Improve safety for pedestrians and cyclists
- Provide more and improved pedestrian crossings
- Complete and connect pedestrian and cycling networks
- → Rural communities need sidewalks
- Prioritize pedestrians at signalized intersections
- Build separated bike lanes on main streets and bikeways on quiet streets



ΗΛLIFΛΧ -



TRANSIT

- → Implement Transit Priority Corridors, ensuring they respect the needs of adjacent neighbourhoods and extend into the suburbs
 - » Transit Priority Corridors are streets where the movement of transit vehicles is prioritized
- → Improve bus operations by implementing bus only lanes and bus rapid transit
- → Better connections are needed between suburbs
- Create a network of ferry services and extend ferry hours
- → Improve the speed, frequency, and connectivity of transit service
- → Support for commuter rail in the CN corridor

- INTRODUCTION

What We Heard (Cont'd)

- - LAND USE

- → Consider how parking, access and tolls affect the use, vacancy and vibrancy of the downtowns
- → Plan in advance for transit facilities that can support walkable, mixed use neighbourhoods by setting land aside in growth areas
- → Orient transit around areas of housing and employment density
- → Consider the needs of people living in neighbourhhoods that







GOODS MOVEMENT

- → Move more goods by rail
- → Plan for the best long-term use of the Port Lands
- → Collaborate with the Port Authority to minimize the impact of daily operations on community life
- → Consider commercial traffic and those who work from their car
- → Consider off peak deliveries and pick-ups

ROAD NETWORK

- → Many people need and like to drive cars but also many people choose not to drive
- → Manage traffic congestion to improve the experience of driving



ΗΛLIFΛΧ — ···

- and transit
- → Reduce traffic speeds on certain streets to increase pedestrian and cyclist safety
- → Consider more tolls, such as to the Peninsula or to the Downtowns



PARKING

- → Some people want on-street parking to remain
- Other people would like parking removed from some streets to accommodate other travel modes

- — FOUNDATIONS

Vision

Halifax residents will have a choice of affordable, healthy, sustainable, and connected travel options for moving people and goods through integrated transportation and land use planning.

PILLARS OF AN INTEGRATED MOBILITY PLAN

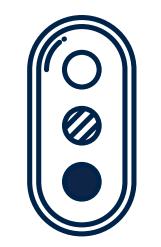


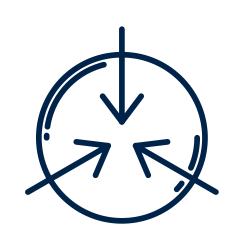
KEY PRINCIPLES

Key principles were developed based on what we heard from the public and best practices.









COMPLETE COMMUNITIES

Cluster complete communities around public transit, employment, shops, and services.

MOVE PEOPLE

Move people and goods, instead of focusing solely on vehicles.

MANAGE CONGESTION

Manage congestion instead of attempting to eliminate it.

INTEGRATE SOLUTIONS

There is no one solution to solve mobility problems.

ΗΛLIFΛΧ

halifax.ca/integratedmobility



Pillars & Principles

Each Key Principle of the plan is interconnected and supports the four pillars of integrated mobility.



COMPLETE COMMUNITIES

MOVE PEOPLE

MANAGE CONGESTION

TEGRATE SOLUTIONS

•••••



Amenities and opportunities are close to where people live or work.

People can walk or bike to work, school and local shops.

Enhanced connections for walking, cycling, and transit can reduce congestion.

Improving connections between modes creates an integrated network.



People can walk or bike to work, school and Ο shops.

HEALTHY

Walking and cycling are great ways to get daily physical activity.

Cars travel slower on busy, vibrant streets which improves pedestrian and cyclist safety.

An integrated system can reduce the stress caused by commuting.

AFFORDABLE

People may be able to live without a car (or own fewer cars) and save money.

Shifting travel patterns can help the Municipality avoid expensive road expansions.

Optimizing existing infrastructure is less expensive than expanding roads.

An integrated system and shared facilities (e.g. car sharing) reduces costly duplication.

Fewer cars lead to lower emissions and require less road infrastructure.

Active transportation and transit use less energy than driving alone.

Optimizing existing infrastructure avoids road construction and

Shared transportation facilities and compact development reduces habitat loss.

SUSTAINABLE

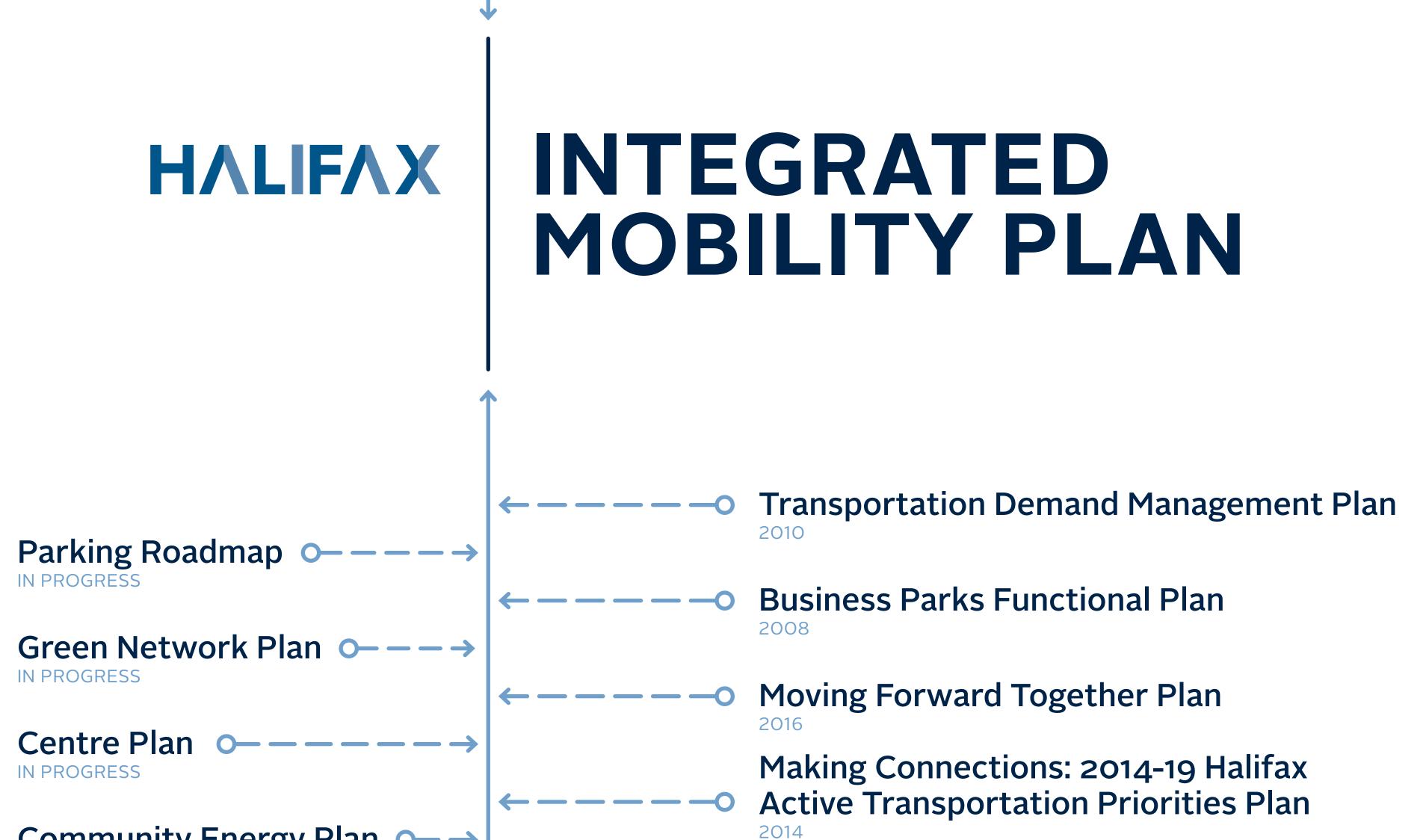
habitat loss.

 $H\Lambda LIF\Lambda X - - \cdot$ halifax.ca/integratedmobility — – — – —

Integrating Plans, Policies & Initiatives

The Integrated Mobility Plan builds on and connects various plans and design initiatives. To improve the transportation network we have to think about not only streets and sidewalks, but about our communities and the people in them.





Community Energy Plan O→ IN PROGRESS

Road Network Priorities Plan

Want to learn more about these plans? VISIT OUR REFERENCE LIBRARY TABLE

halifax.ca/integratedmobility — - — - — HALIFAX — -

FOUNDATIONS

Key Deliverables

The Integrated Mobility Plan includes five key deliverables.

A clear **process for making decisions** and setting priorities

A **staged plan** to develop affordable mobility



Strategies to shift more trips to active transportation and transit 5 to achieve the 2031 modal choice targets of the Regional Plan

→ By 2031, 30% of all commuting trips will be made by walking, cycling, or public transit.

Baseline **performance measures** to monitor success over time

Introduce early actions 5

The policies of the Integrated Mobility Plan are organized into eight topic areas: land use, complete streets, transportation demand management, active transportation, transit, goods movement, road network,



and **parking**.

The boards that follow introduce the goals and directions that have been drafted for these topic areas.



 $H\Lambda LIF\Lambda X - - \cdot$ halifax.ca/integratedmobility



Land Use

Land use and the transportation network influence each other and must be planned in an integrated manner to help shape Regional growth and encourage compact, mixed-use development in strategic locations.

---O GOAL

Minimize the need to extend municipal infrastructure, and increase transit, walking and cycling trips by integrating the transportation network with community design and density.



Station Area Plans

Station Area Plans provide local planning guidance for areas within walking distance of bus terminals, ferry stops, or railway stations to facilitate Transit Oriented Development.

Transit Oriented Development

Transit Oriented Development incorporates higher residential densities, shops, services and employment uses with human-scale, sidewalk-oriented building design in areas within walking distance to transit facilities, terminals and stations.

DIRECTIONS

- → Mix land uses and increase density in strategic locations so residents can meet their daily needs without using a car.
- → Locate housing and jobs within walking distance of transit stations.
- → Locate transit facilities to maximize the potential for walkable, higher density, mixed use development.
- → Avoid road expansions that would encourage dispersed development.
- → Curb sprawling development caused by road expansion through land use controls.
- → Reserve industrial land in areas with direct rail or marine

access.

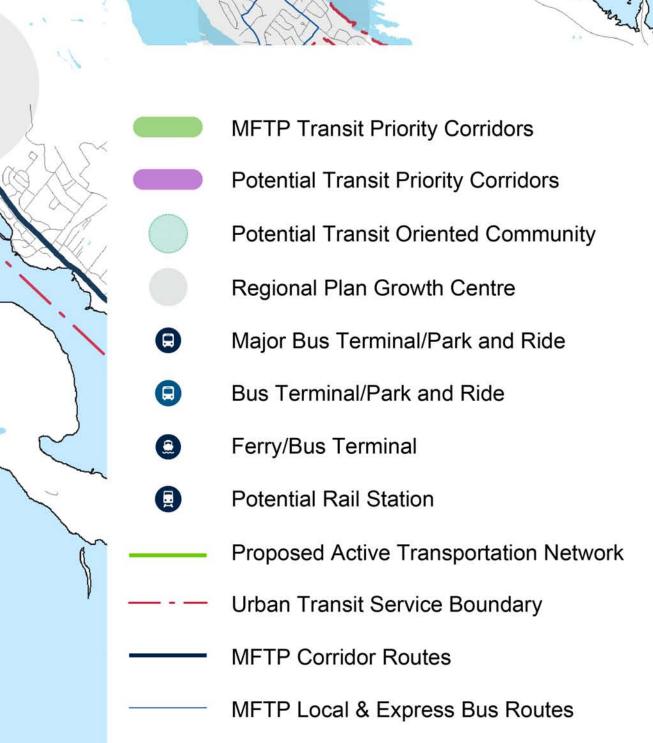
ACTIONS

- → Zone neighbourhoods around transit terminals to allow more units and uses in return for high quality community design.
- → Prepare Station Area Plans to enable Transit Oriented Development at the locations shown on the map.
 - » Allow employment uses as a component of Station Area Plans.
 - Reduce parking requirements for development within Station Area Plans.

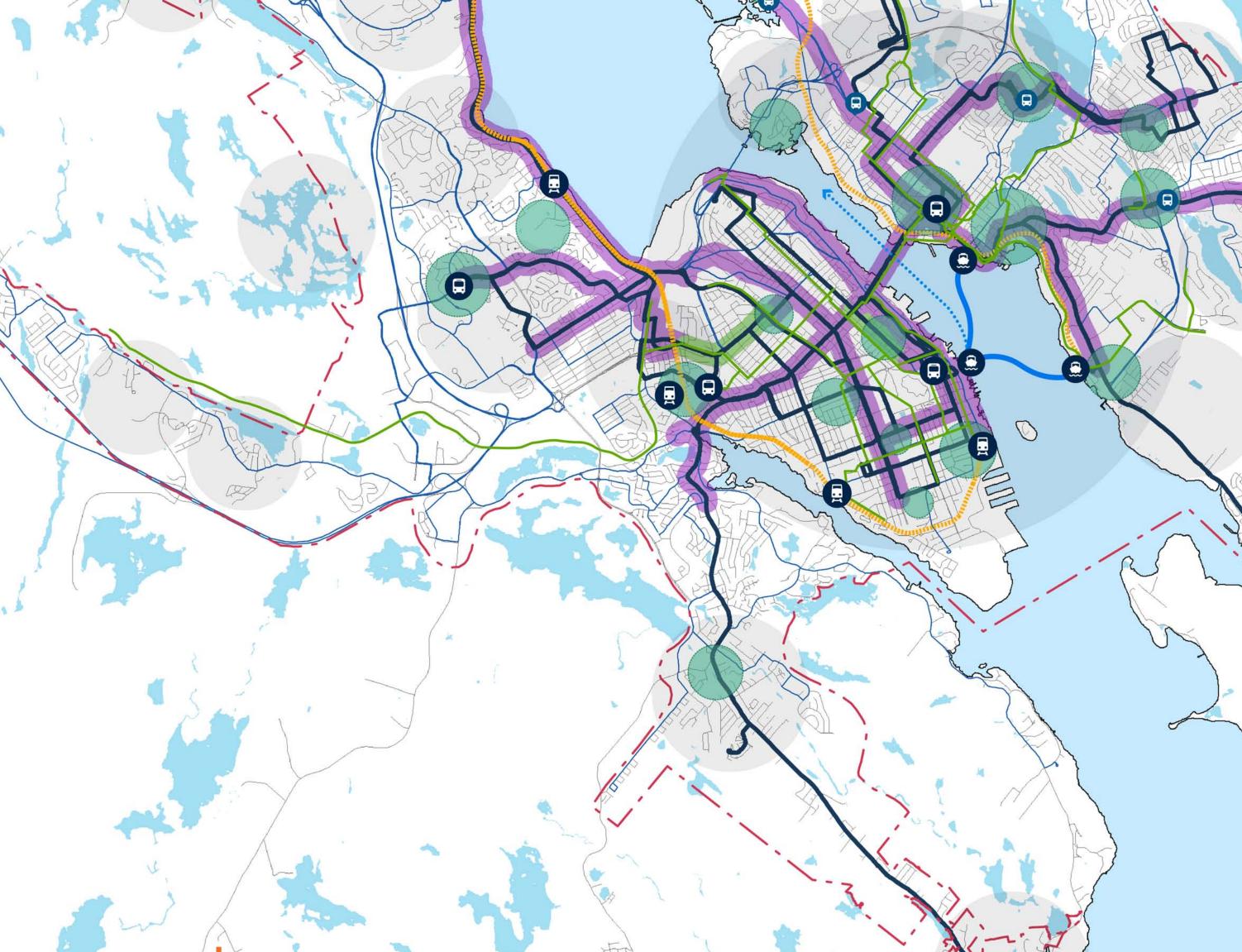


POTENTIAL TRANSIT ORIENTED COMMUNITIES





20 M





Existing and potential transit terminals offer good opportunities to orient walkable, higher-density, mixed-use communities around transit. Station Area Plans can help transform vacant or obsolete land near terminals into Transit Oriented Development, with attractive, pedestrian-supportive design and a mix of shops, services, and jobs close to the terminal. This helps take pressure off nearby established residential areas, which can also benefit from good pedestrian and cycling connections as well as local bus service, where appropriate.

· — · · halifax.ca/integratedmobility — · · — · · — HALIFAX —



Complete Streets

Some streets function as important places, some as transportation links, and many as both. The directions below represent a shift in how the Municipality designs streets to ensure all modes and street functions are considered when streets are built or upgraded.

··-O GOAL

Meet the needs of all ages, abilities, and modes in the design of streets.

DIRECTIONS

- → Prioritize walking, bicycling, and transit when allocating road
 right-of-way space.
- → Prioritize the reduction of
 serious injuries and fatalities on
 our streets, taking a "Towards
 Zero" (zero injuries & fatalities)
 approach.
- → Enhance street planning and design processes.
- → Ensure maintenance practices
 reflect the needs of all users

ACTIONS

- → Adopt Complete Streets Guiding Principles to inform the design and maintenance of the transportation network.
- → Develop and implement the Strategic Road Safety Plan with targets, policies, and action plans to guide the Municipality and its road safety partners in creating safer streets.
- → Ensure planning, design, and engineering of streets aligns with progressive best practices.
- → Developit a strategy to measure and evaluate the effectiveness of Complete Streets.
- → Update the way transportation needs are studied to incorporate all modes and land-use factors, e.g., Multi-Modal Level of Service, Traffic
- and can handle a range of street infrastructure types.
- → Be innovative through design.



Impact Studies.

- Ensure urban forestry, streetscaping, placemaking, and the Green
 Network Plan inform street design.
- → Expand the street classification system to reflect all travel modes, street functions, and land uses.
- → Develop or update the vision and design for strategic corridors (e.g., Herring Cove Road, Bedford Highway, Wyse Road).
- → Engage the public and stakeholders when redesigning streets.

halifax.ca/integratedmobility — ·· — ·· — HALIFAX



Transportation Demand Management

Transportation Demand Management is about reducing peak hour congestion by providing people with a choice in how, when, and if they commute to work.



Reduce demand on the road network, especially during peak periods, by supporting alternative commuting modes and flexible work times and locations.



DID YOU KNOW?

If 1 in 10 commuters carpooled, worked from home, or started work an hour earlier or later we could reduce peak hour congestion by up to 30%

DIRECTIONS

- → Work with community and industry partners to facilitate flexible work locations and hours.
- → Expand the SmartTrip program to include capacity building programs to get more young adults using sustainable transportation modes.
- → Consider partnerships to promote and provide alternatives to car ownership, including bike & car shares, and ride sharing services.

ACTIONS

- → Work with local employers to introduce a flexible work practice pilot program. Measure the benefits of the program and any challenges encountered, and use this as a case study to inform the development of a broader flexible work program.
- → Develop relationships with school boards and



universities to promote active transportation and transit with students.

→ Explore options to place car share vehicles in more locations, including outside the Regional Centre.

halifax.ca/integratedmobility ••

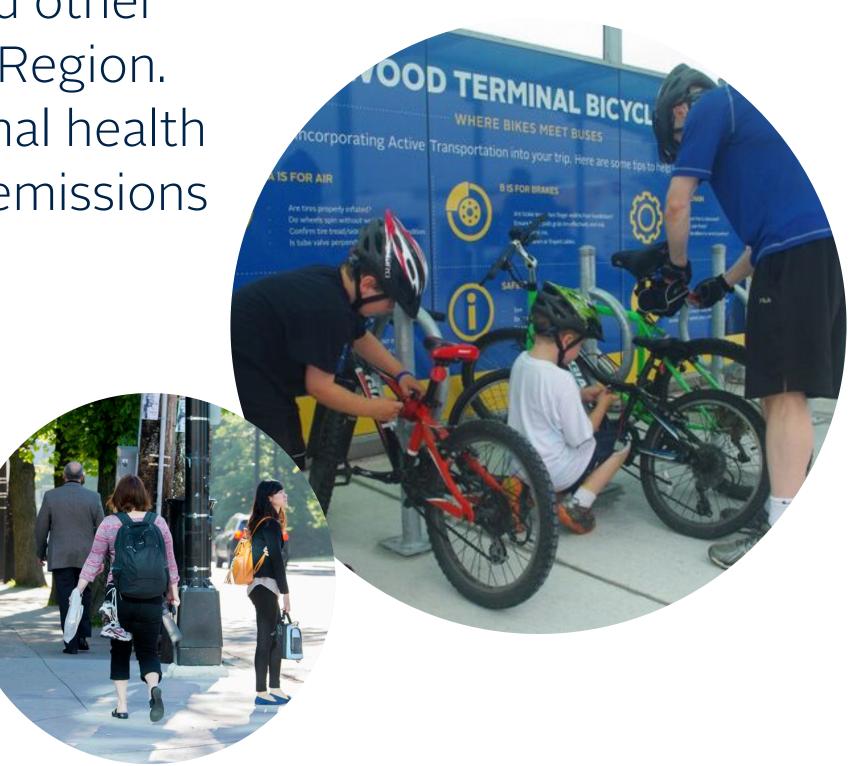


Active Transportation

Active transportation includes walking, bicycling and other 'human powered' ways to move around the Halifax Region. Encouraging active transportation promotes personal health and recreation, helps manage congestion, reduces emissions and supports efficient land use.

O GOAL

Attract more residents to active modes by building complete and connected networks for walking and bicycling that support the needs of



urban, suburban, and rural communities.

DIRECTIONS

- → Make it easier and safer to walk throughout the Halifax Region.
- → Speed-up the implementation of the Regional Centre's Bicycle Network.
- → Connect communities across the Region by implementing the planning, design and construction of the Active Transportation Greenway Network.
- → Continue to make active transportation connections within communities outside the Regional Centre.

ACTIONS

Deliver the following infrastructure projects:

- Priority Sidewalk Connections (Herring Cove Road, Dutch Village Road, Windmill Road) by 2020 (next panel).
- As streets are rehabilitated, improve pedestrian safety and comfort through design treatments such as bump outs, widened sidewalks, street trees, traffic calming and benches.
- » A Regional Centre All Ages and Abilities Bicycle Network by 2020 (next panel).
- » Priority Greenway Connections by 2020 (next panel).

Deliver the following program and policy initiatives:

- Revise the selection criteria for new active transportation projects to better respond to equity considerations, demand, future development, coverage and other factors.
- Pursue regulatory and legislative changes to enable best practice bicycle facilities.
- Continue to work with other orders of government to implement the Municipality's active transportation network.
- → Promote active transportation.
- → Monitor and evaluate the impact of walking and bicycling infrastructure projects.
- → Integrate active transportation with other mobility strategies to foster multi-modal trips.
- → Continue to implement the Active Transportation
 Priorities Plan and review in 2022.

- » Prepare a winter maintenance strategy for bicycle facilities.
- » Implement a branding and wayfinding system by 2020.
- » Prepare a marketing and enabling campaign by 2018.
- Complete an information and education strategy by 2018 as new facilities and new facility types are introduced.
- » Complete a comprehensive active transportation monitoring and evaluation strategy by 2018.
- Develop an approach to meet the needs of pedestrians in rural communities.

Prepare for ongoing implementation of Active Transportation Plan beyond 2020:

Delay full review of Active Transpotation Priorities Plan from 2019 to
 2022 to evaluate the 2020 networks.

ΗΛLΙΕΛΧ

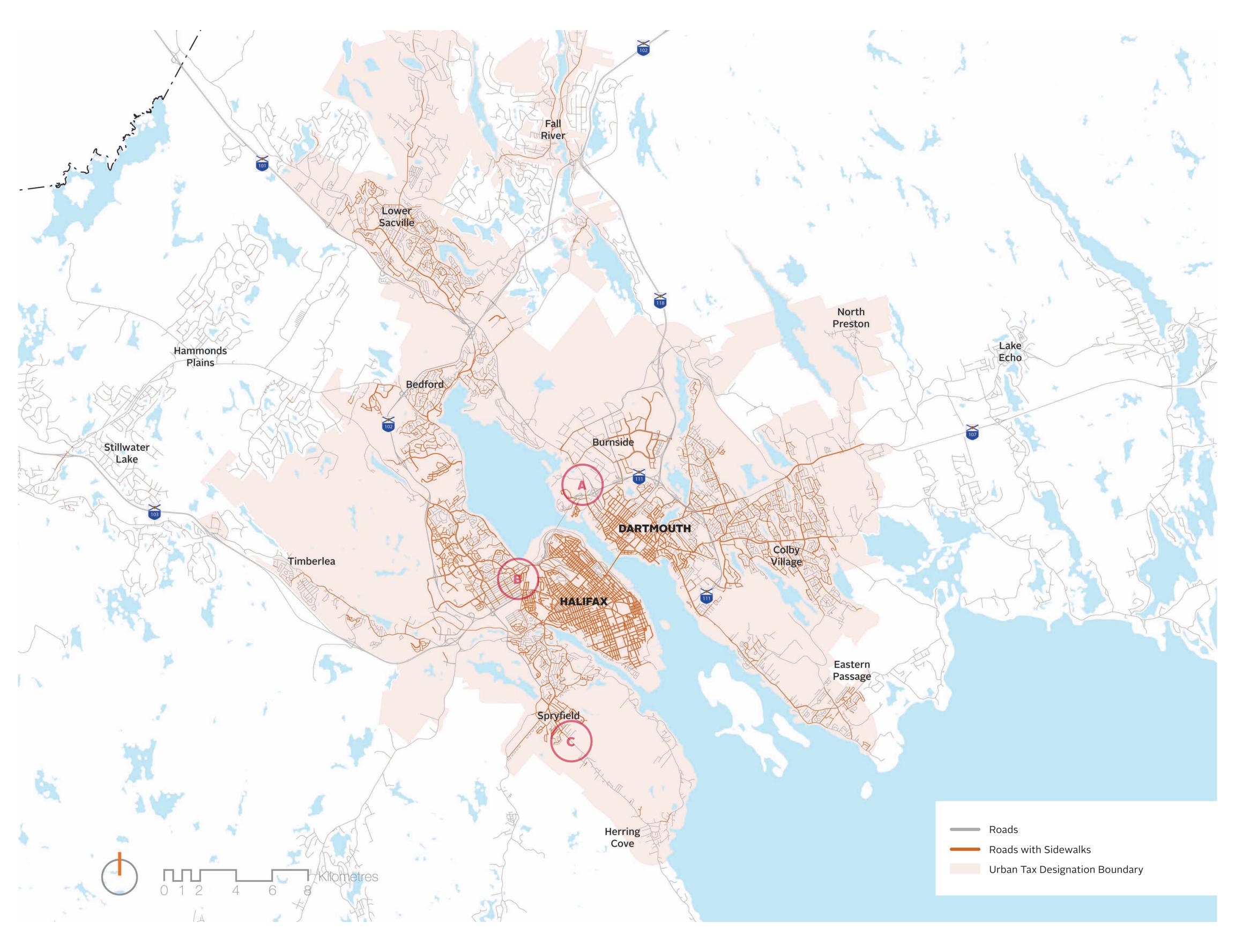
» Complete Bike Share feasibility study by 2021.

halifax.ca/integratedmobility -

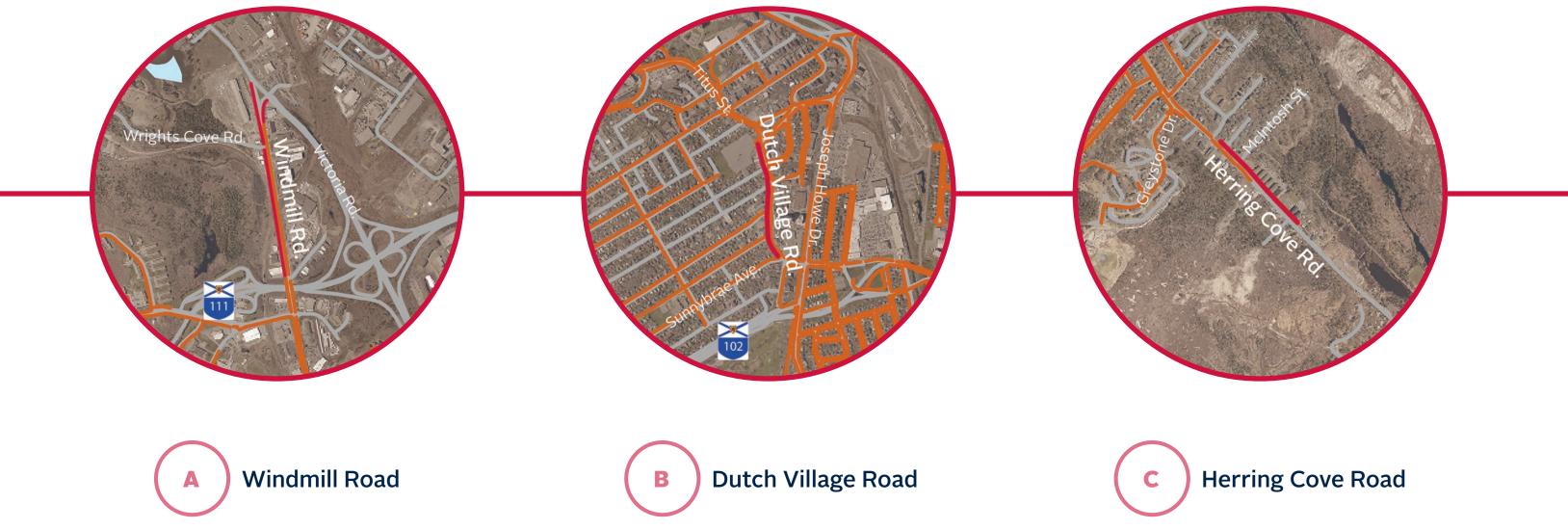
Ο

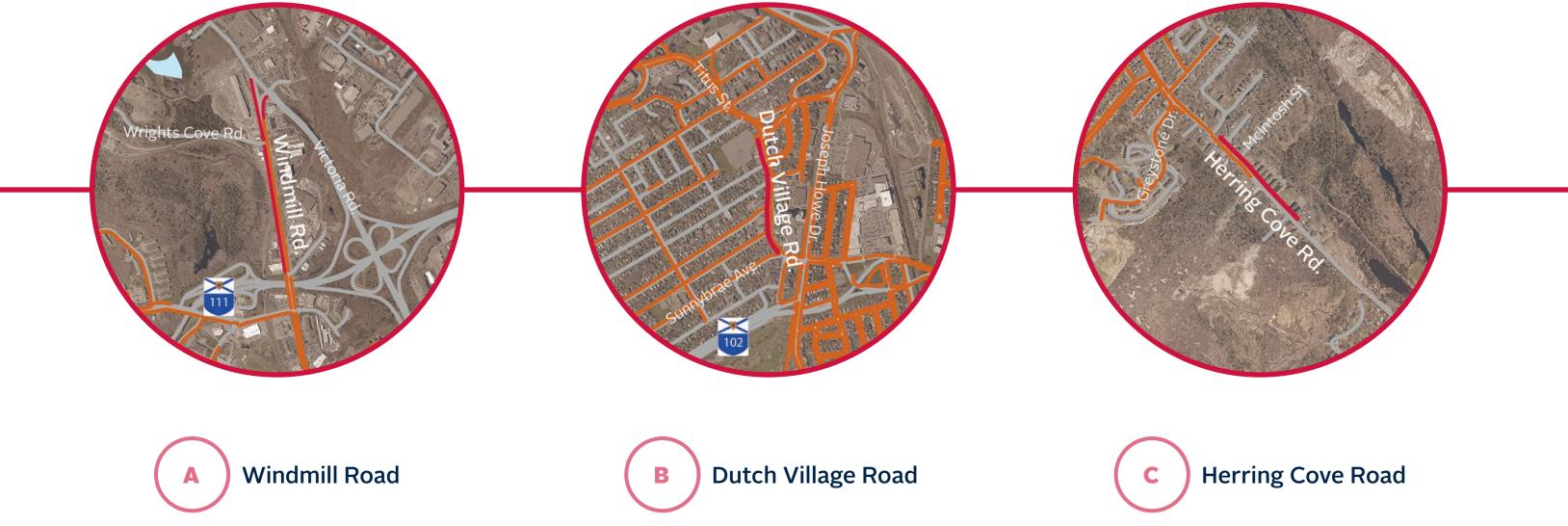


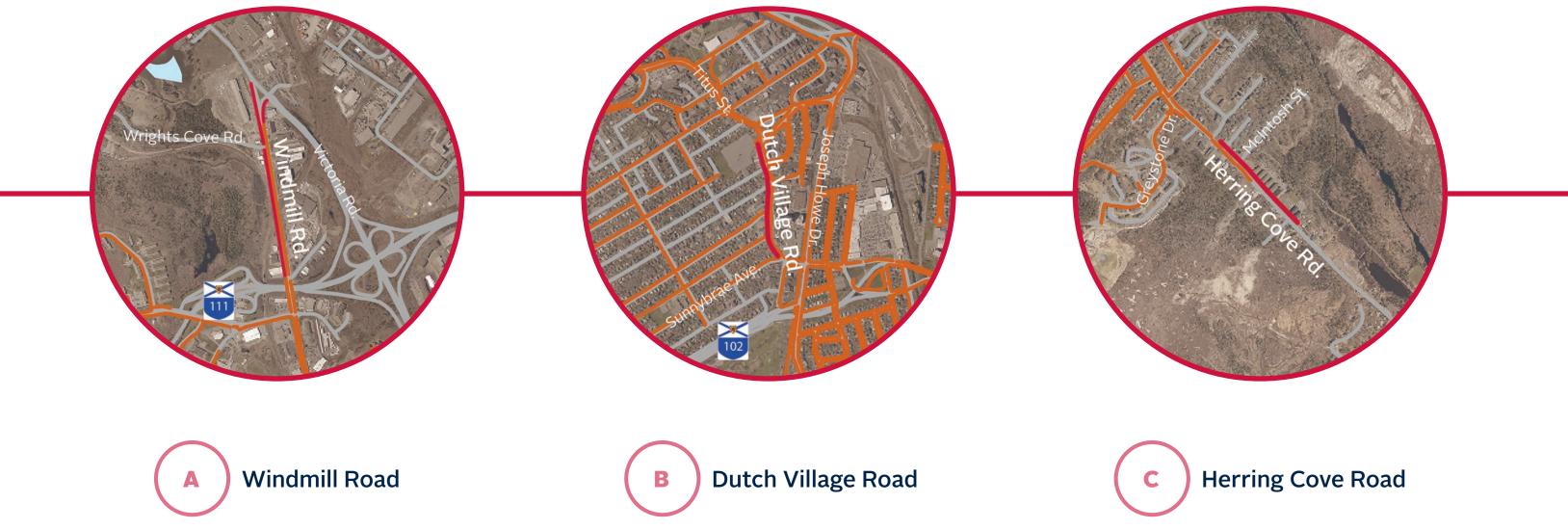
WALKING: EXISTING SIDEWALKS



WALKING: PROPOSED NEW MAJOR CONNECTIONS





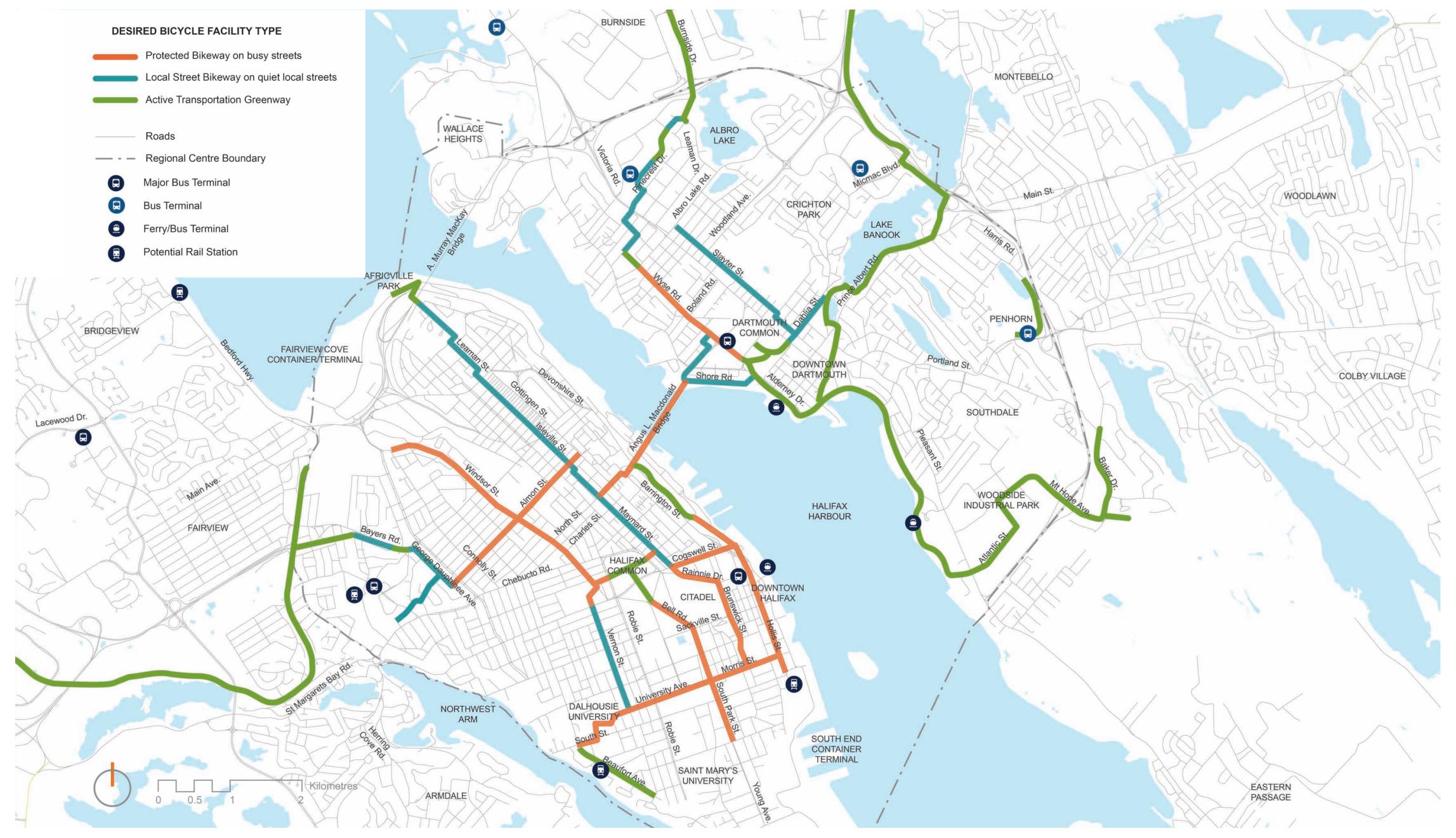


Note: In addition to these major connections, the regular sidewalk program will continue to make minor additions to the sidewalk network in conjunction with road resurfacing projects.

ΗΛLΙ**Γ**ΛΧ —··· halifax.ca/integratedmobility - •• -

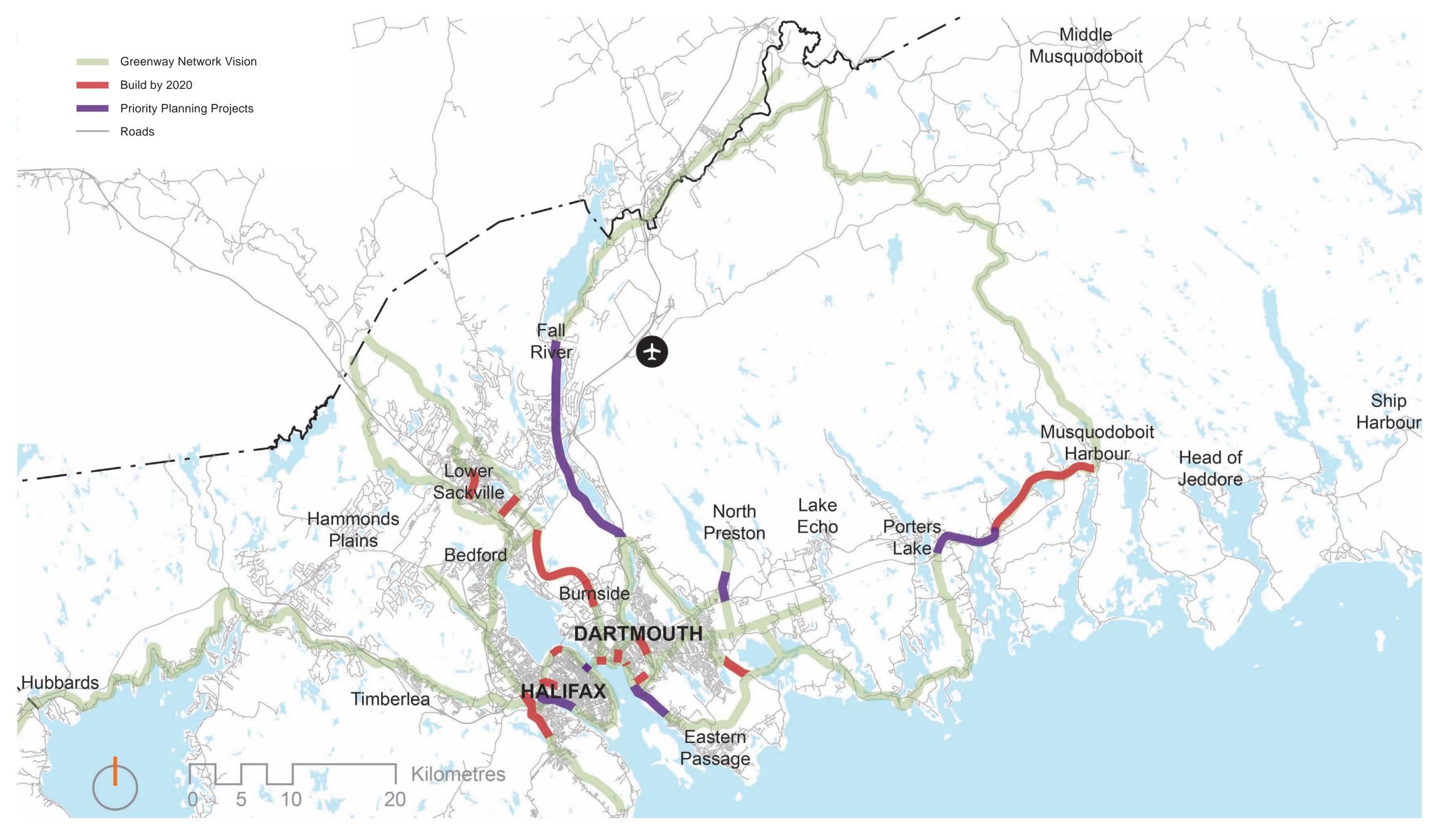


ALL AGES & ABILITIES BICYCLE ROUTES PROPOSED 2020 NETWORK HALIFAX PENINSULA AND DARTMOUTH REGIONAL CENTRE



Note: Opportunities and constraints identified during the planning and design process may require the use of different bicycle facility types for certain segments of the network and/or implementation of alternate corridors.

PRIORITY GREENWAY CONNECTIONS MAP



·· halifax.ca/integratedmobility ----- ·· --- HALIFAX ---- ··



Transit

Transit service in Halifax is provided by buses and ferries but, in the future, it could include other options such as commuter rail, a larger network of ferries, or bus rapid transit.

--O GOAL

Maximize dedicated rights-of-way for transit vehicles.

DIRECTIONS

- → Implement a Bus Rapid Transit System with dedicated bus lanes.
- → Reallocate road space for cars and parking to transit.
- → Approve the Transit Priority Corridor Network.
- → Plan transit corridors and terminals as focal points for compact development.
- → Continue to investigate rail service on both sides of Halifax Harbour.

ACTIONS

- - - - - - - - -

- → Conduct a Bus Rapid Transit feasibility study that includes a functional design and implementation plan.
- → Continue to implement small transit priority measures where opportunities exist to move transit more efficiently through traffic.
- → Deliver a detailed design of transit priority
 corridors along Bayers Road, Gottingen Street,
 Young Street, and Robie Street.
- → Complete a commuter rail capacity study for

Transit Priority Measures

Transit Priority Measures are tools to improve the reliability of transit and reduce the average travel time of transit vehicles. These tools include prioritized traffic signals, queue jumps, bus lanes, and separated transit corridors. the Bedford corridor, and review and update rail transit concepts for Dartmouth.

→ Conduct a feasibility study for ferry service connecting North Dartmouth and Halifax.

Bus Rapid Transit

Bus Rapid Transit is fast, reliable bus service that is facilitated by transit priority measures.

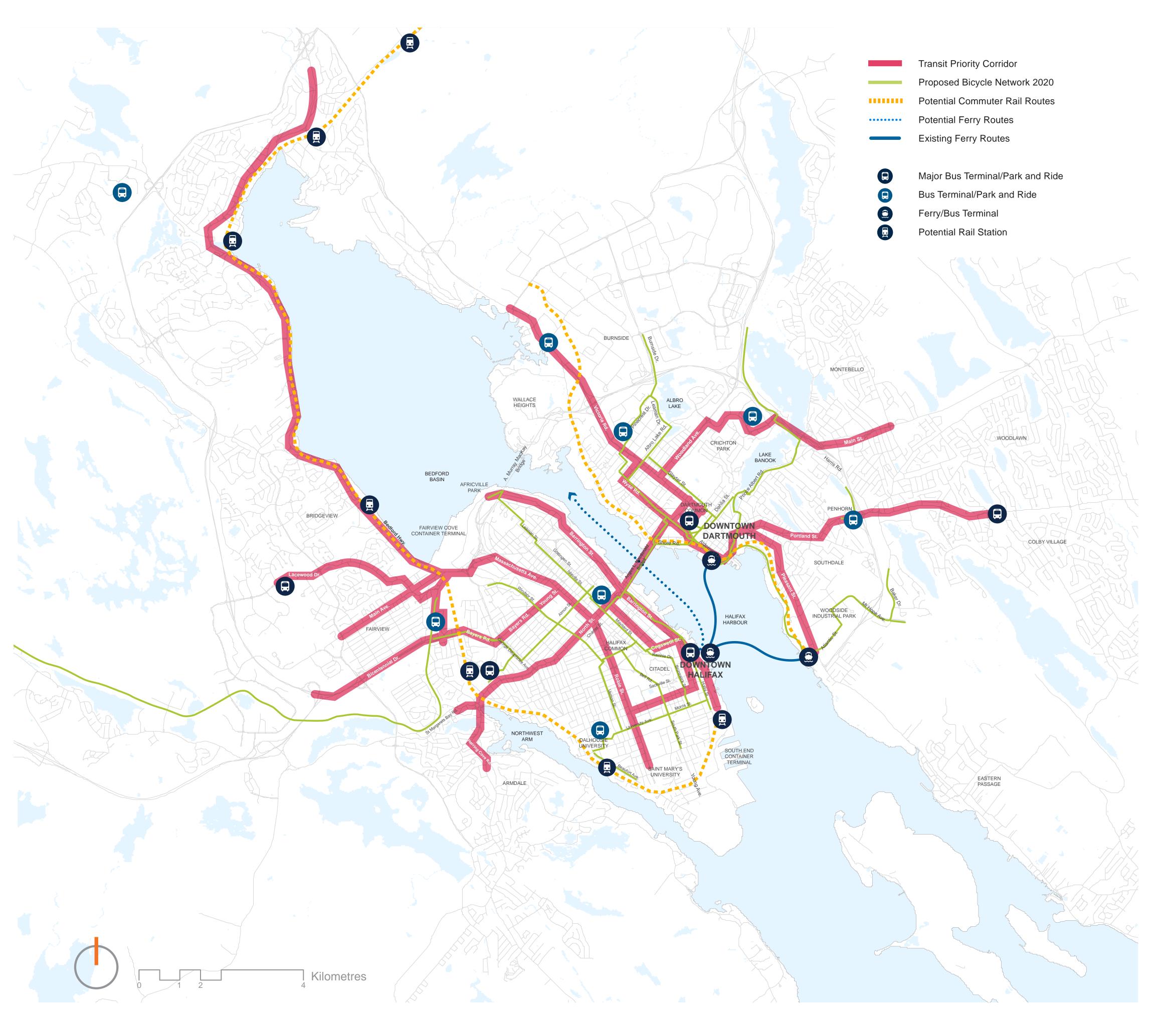
halifax.ca/integratedmobility



BOLD IS AN AT



TRANSIT PRIORITY CORRIDORS



Map: Locations to Prioritize Transit

The map above shows locations where measures to reduce delays to buses should be considered, because traffic congestion and high transit usage co-exist along these streets.

There is no 'one-size-fits-all' approach for transit priority corridors, with different methods appropriate in different locations.

To prioritize transit:

- Modify traffic signals to let buses pass through more quickly
- Provide "queue jumps" to let buses bypass congestion
- Source Section Sect

··· — ·· halifax.ca/integratedmobility — ·· — ·· — HALIFAX — ·· -



Goods Movement

The transportation system moves both people and goods. We must consider how to move goods within the region more effectively and with fewer impacts.

···· O GOAL

Maintain the efficiency and safety of moving goods into, out of, and within the Region, while minimizing the impact on communities



and the environment.

DIRECTIONS

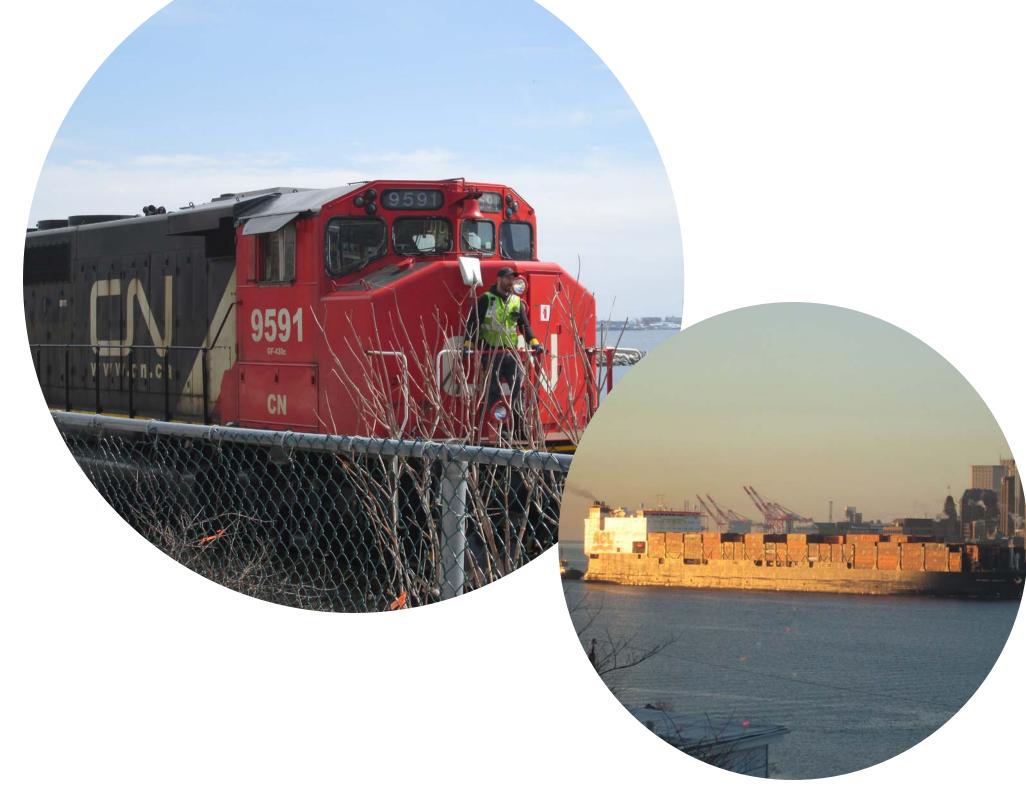
- → Work with the transportation industry

 (port, airport, rail and truck operators, and
 terminals) to manage the goods movement
 network and develop short and long term
 solutions.
- → Measure and monitor goods movement.
- → Integrate goods movement and local
 deliveries with municipal planning and design.

FUTURE CONSIDERATIONS & IDEAS

- → The upcoming port master plan
- → A truck corridor along the rail cut
- → Shuttling containers within the region by rail
- → A cross-harbour truck ferry





-·· halifax.ca/integratedmobility ---··- HALIFAX ---··-



Road Network

While other choices are becoming more convenient and popular, driving is still the most common method for people to move around the Halifax Region.

-O GOAL

Accommodate the trips that need to be made through driving, while encouraging a shift towards more sustainable modes.



DIRECTIONS

- → Focus on the capacity to move people,
 recognizing that there are more efficient,
 affordable, and sustainable ways to travel than
 single occupant cars.
- → Provide a choice of integrated travel modes and develop multi-modal level of service guidelines.
- → Manage congestion instead of trying to eliminate it.
- → New roads should work for all modes of travel.



- → Transform the Municipal Design Guidelines (the "Red Book") to incorporate best practices in transportation design, particularly for complete streets, intersections, roundabouts, and roadway design.
 - The Roads and Streets section of the Red Book has not undergone major revisions since it was first approved by Council in 2000.

They may represent an opportunity to support the transit network by prioritizing buses and other high occupancy vehicles in parallel corridors.

- → Evaluate all proposed road corridor proposals using the four pillars of this plan.
- → Implement multidisciplinary road safety strategies to maximize the safety and security off all people on the road, including cyclists and pedestrians. Improved data collection and analysis is vital to the success of these programs.
- → Develop and expand the data collection and monitoring programs and include Geographic Information Systems.

 $H\Lambda LIF\Lambda X$ —

---- KEY TOPICS

Parking

Parking is a valuable resource. The goal of parking management is to ensure spaces are available for the intended users and to manage the number of available parking spaces - it's best to not have too many or too few spaces available at any one time.

-O GOAL

Link parking management with shifting mode choice, while supporting the density objectives of the Centre Plan.



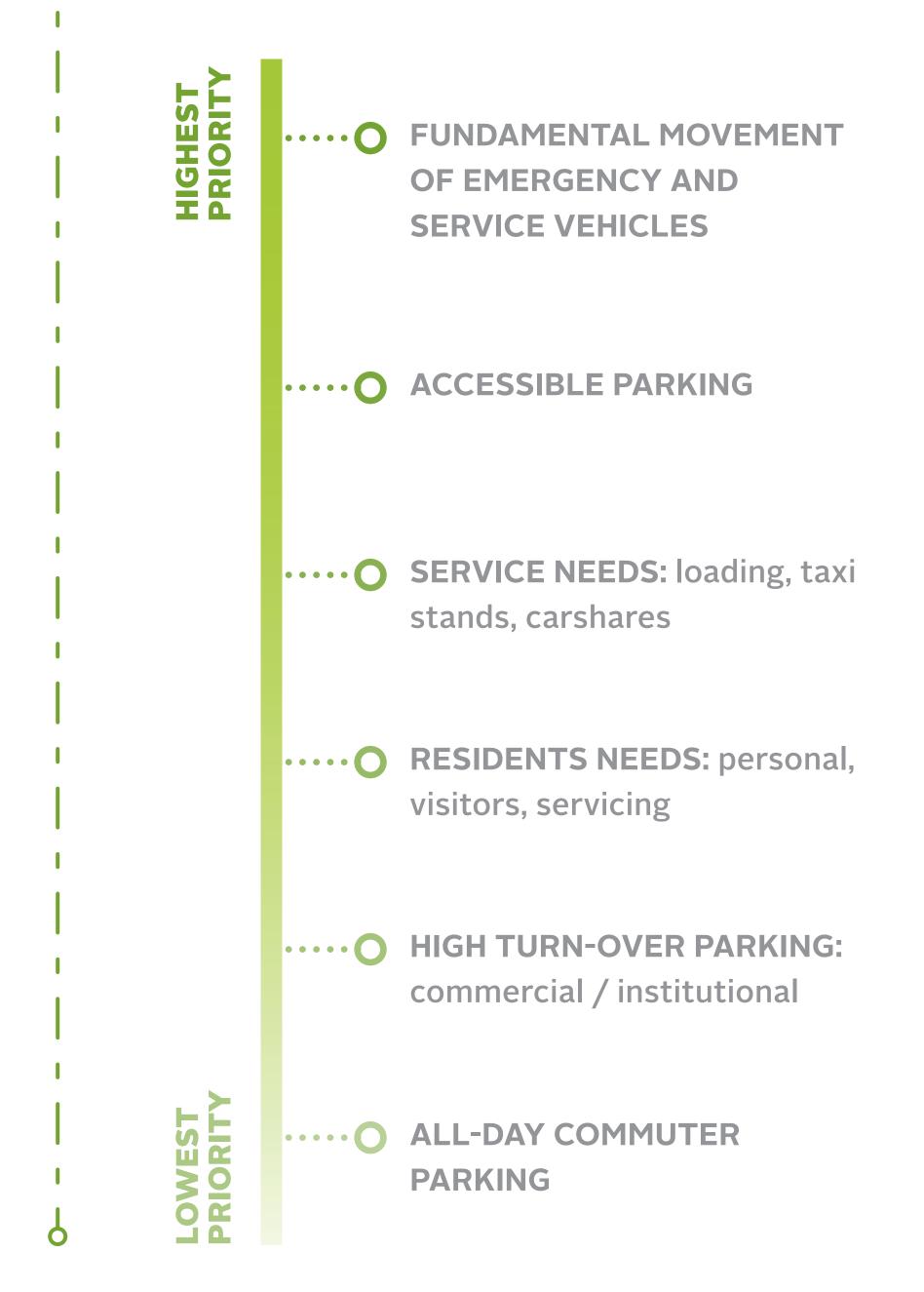
DIRECTIONS

→ Reallocate curb space for active transportation, transit priority routes, and car shares.

ACTIONS

- → Implement parking controls in the Regional
 Centre's residential areas to prevent all-day
 commuter parking from dominating these areas.
- → Develop a curbside parking management policy that establishes the principles and priorities for on-street curb spaces.

CURBSIDE PARKING MANAGEMENT



ΗΛLIFΛΧ

- → Conduct an analysis of parking supply and demand to determine parking needs in commercial and institutional areas.
- → Upgrade parking technology to improve parking management opportunities and to provide a better customer experience.

halifax.ca/integratedmobility

Prioritizing Projects

A key deliverable of the IMP is to establish a clear process for making decisions and setting priorities. To do so, we are developing a model to evaluate mobility projects and prioritize those with the greatest benefits. We'd like your help to test the draft prioritization model!

Use the following questions to help inform the score of the example project:



PILLARS



CONNECTED

Does the project meet the **mobility needs** of all community members, including the most vulnerable?

Does it **improve connections** between locations and areas in the Halifax region?



AFFORDABLE

Does the project make it **easier and cheaper** for people to manage without a personal vehicle?

Is spending cost effective and responsible?



HEALTHY

Does the project support **active living**?

Does it improve the **safety** of all users, especially pedestrians and cyclists?



SUSTAINABLE

Does the project help reduce the environmental footprint of our transportation network?

Does it consider future requirements?

(eg. population growth, economic changes, different demographic needs & preferences)

OTHER IMPACTS

MODE CHOICE

How many **different modes** of transportation are improved by the project?

Are the different modes **integrated** and can they be used in conjunction with one another?

Are pedestrians, cyclists, and transit **prioritized** over vehicles?

EXPERIENCE

Does the project improve the **level of service for** moving people and goods?

Does it enhance the **comfort and enjoyment** of a route and create a sense of place?

Does it help provide **different** experiences? (eg. quiet, social, green, urban)

halifax.ca/integratedmobility — · — · — · — HALIFAX -

Measuring Success

Performance measurement methods and monitoring strategies have been established, which will help ensure the Integrated Mobility Plan's objectives and initiatives are being met.



of the Regional Plan. The Integrated Mobility Plan will build upon these indicators.



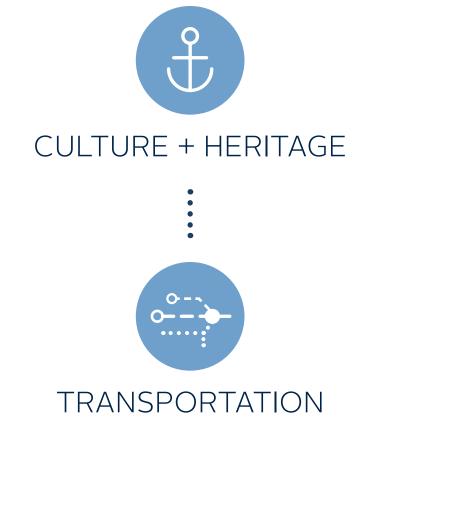
Halifax Regional Municipality will establish baseline information and develop a plan to monitor the Key Performance Indicators. The goal is to collect accurate and consistent data.



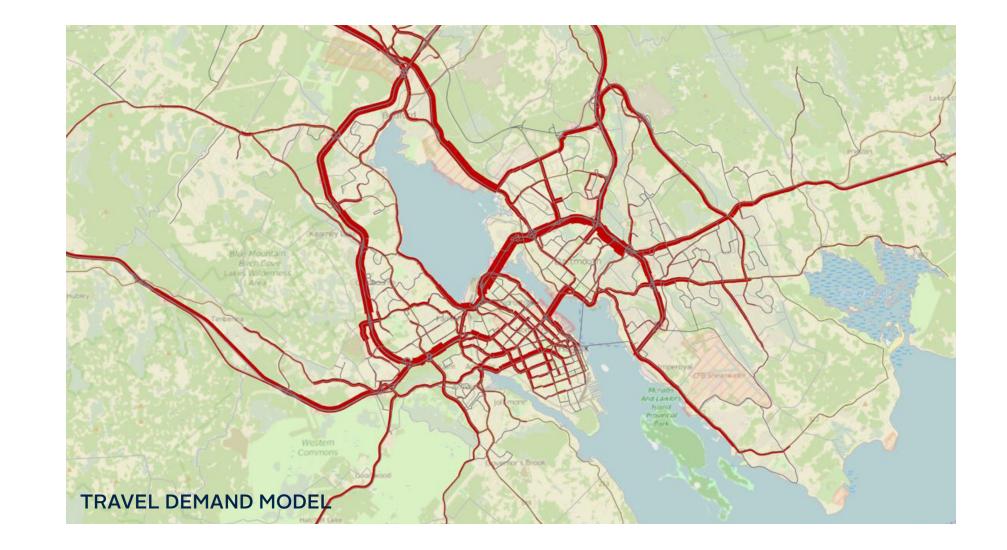
····O TRAVEL DEMAND MODEL

Halifax has developed a travel demand model for the Integrated Mobility Plan. This model will be used to predict and evaluate travel demand patterns across the Halifax region during peak hours.

 \rightarrow The model will be updated with 2016 Census data once it becomes



- available and will use data collected from the Household Travel Activity Survey to be carried out by Dalhousie University.
- → Wirelessly collected real-time data will be used to improve the accuracy of the model.



— ·— ·— ·– halifax.ca/integratedmobility — ·— ·— ·– ΗΛLIFΛX — ·–