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Item No. 15.4.2
Halifax Regional Council
February 24, 2026

TO: Mayor Fillmore and Members of Halifax Regional Council

FROM: Councillor Kathryn Morse, Chair, Transportation Standing Committee

DATE: February 9, 2026

SUBJECT: Microtransit Service Plan

ORIGIN

February 9, 2026 meeting of Transportation Standing Committee, Item 13.1.2.

RECOMMENDATION

The Transportation Standing Committee recommends that Halifax Regional Council:

1. approve the Microtransit Service Plan, as attached to the staff report dated February 3, 2026, as a planning framework to guide the growth and development of public transit services in the short term; and,
2. direct the Chief Administrative Officer to prepare for the implementation of microtransit in Lucasville as a Proof of Concept, and bring forward detailed costs and resource requirements associated with this implementation for Regional Council's consideration as part of the 2027/28 budget process.

BACKGROUND

Transportation Standing Committee received a staff recommendation report dated February 3, 2026 and presentation to consider Halifax Transit's Microtransit Service Plan that identifies opportunities and options for implementing on-demand transit service to expand transit in the region.

For further information refer to the attached staff report dated February 3, 2026.

DISCUSSION

Transportation Standing Committee considered the staff report dated February 3, 2026 and approved the recommendation to Halifax Regional Council as outlined in this report.

FINANCIAL IMPLICATIONS

Financial implications are outlined in the attached staff report dated February 3, 2026.

RISK CONSIDERATION

Risk consideration is outlined in the attached staff report dated February 3, 2026.

COMMUNITY ENGAGEMENT

Meetings of the Transportation Standing Committee are open to public attendance and members of the public are invited to address the Standing Committee for up to five (5) minutes during the Public Participation portion of the meeting. Meetings are live webcast on Halifax.ca. The agenda, reports, video, and minutes of the Standing Committee are posted on Halifax.ca.

For further information on Community Engagement refer to the attached staff report dated February 3, 2026.

ENVIRONMENTAL IMPLICATIONS

Environmental implications are outlined in the staff report dated February 3, 2026.

ALTERNATIVES

Alternatives are outlined in the attached staff report dated February 3, 2026.

LEGISLATIVE AUTHORITY

Legislative Authority is outlined in the attached staff report dated February 3, 2026.

Administrative Order One, *Respecting the Procedures of Council*, Schedule 7:

Oversight and Input into Transit's Strategic Plan and Direction

6. The Transportation Standing Committee shall:

- (a) review and oversee policy direction and long term funding approach to promote and encourage Transit alternatives as outlined in the Regional Plan;
- (b) review and oversee specific strategic planning directions related to Transit Services coming from the Regional Plan such as the five year strategic plan, Accessibility Plan and the Ferry Plan; and
- (c) promote and enable positive communication between communities, ridership, and the Council and Transit services to enable and support the Regional Transit service to the communities of the municipality.

ATTACHMENTS

Attachment 1 – Staff recommendation report dated February 3, 2026.

Report Prepared by: Krista Vining, Team Lead, Legislative Assistants, Municipal Clerk's Office 902.223.1046

Item No. 13.1.2
Transportation Standing Committee
February 9, 2026

TO: Chair and Members of Transportation Standing Committee

FROM: Brad Anguish, Acting Chief Administrative Officer

DATE: February 3, 2026

SUBJECT: Microtransit Service Plan

ORIGIN

The June 10, 2025 Halifax Regional Council motion:

MOVED by Deputy Mayor Mancini, seconded by Councillor Cleary

THAT the Halifax Regional Council direct the CAO to:

...6. Develop a Microtransit Service Plan for Regional Council's consideration that prioritizes addressing gaps in rural service.

MOTION PUT AND PASSED.

And

The August 5, 2025 Halifax Regional Council motion:

MOVED by Councillor Hartling and seconded by Councillor Deagle Gammon

THAT Halifax Regional Council direct the Chief Administrative Officer to provide a staff report on the feasibility and cost implications of expanding micro-transit or on demand transit service to include communities outside the Halifax Transit service boundary and lack other rural transit service providers.

MOTION PUT AND PASSED UNANIMOUSLY.

EXECUTIVE SUMMARY

Microtransit, also called on-demand transit, is a technology-enabled, shared-ride transit service that uses dynamic routing, within defined zones, to meet local passenger needs. The *Microtransit Service Plan*, attached to this report, identifies opportunities and options for implementing on-demand transit service to expand transit in the region.

The *Microtransit Service Plan* proposes that service be operated with mid-sized vehicles (van or small bus) with curb-to-curb service that serves to connect residents both within their community and to fixed route bus service. Several priority areas within the unserved region have been identified for Phase 1, which would

serve to bridge significant transportation system gaps while laying a foundation for future expansion. These priority areas include Lucasville, Fall River, Cow Bay/Eastern Passage, and Sambro. Although microtransit is well suited for servicing rural communities, it still represents a significant financial investment relative to the number of residents that benefit, and as such, moving forward with a Proof of Concept stage is recommended for the community of Lucasville only at this time.

RECOMMENDATION

It is recommended that Transportation Standing Committee recommend that Regional Council:

1. approve the *Microtransit Service Plan*, as attached to this report, as a planning framework to guide the growth and development of public transit services in the short term; and,
2. direct the Chief Administrative Officer to prepare for the implementation of microtransit in Lucasville as a Proof of Concept, and bring forward detailed costs and resource requirements associated with this implementation for Regional Council's consideration as part of the 2027/28 budget process.

BACKGROUND

On June 10, 2025, a staff report, *Rural Transit Grant Program Review*, dated May 22, 2025, was before Regional Council for consideration. The objective of the report was to identify gaps in rural transit needs, present the findings of public engagement, and provide recommendations for strategic improvements. One of the recommendations was to develop a microtransit service plan, focused on addressing gaps in rural areas. Further, an additional motion was approved by Regional Council on August 5, 2025 that requested information on the cost and feasibility of microtransit, specifically in the communities not serviced by either Halifax Transit or other rural transit service providers.

The *Strategic Roadmap*, brought forward to the Transportation Standing Committee for consideration on February 9, 2026 as part of a staff report titled Core Service Plan, sets forth the overall vision, goals and principles to continually refine Halifax's transit network and deliver a system that meets the evolving needs of passengers. The *Microtransit Service Plan* is the second module of the *Strategic Roadmap* that has been developed.

DISCUSSION

Microtransit, also called on-demand transit, is a technology-enabled, shared-ride transit service that uses dynamic routing, within defined zones, to meet local passenger needs. The *Microtransit Service Plan* identifies opportunities and options for implementing on-demand transit service to expand transit in the region.

The region's wide range of communities creates unique barriers to expanding transportation options and improving access. Microtransit can deliver on a range of goals and priorities, including those in the following list, aimed to improve community connectivity and deliver transit services which are equitable, passenger focused and sustainable.

- Operating shorter trips based on passenger's trip needs can reduce travel times, and overall costs to deliver transit to communities that have lower population density or are more dispersed.
- Schedules based on ridership demand increases the attractiveness of transit by delivering a service that responds each day to the travel needs of passengers in the community.
- A reduced reliance on fixed routes and bus stops can reduce the distance to the nearest stop and the cost, and complexity, of installing infrastructure to communities without sidewalks.
- The use of smaller vehicles expands the eligibility of areas able to support transit and reduces the cost of purchasing and maintaining the fleet used to deliver this service.

The increased flexibility and responsiveness of microtransit means delivering a service aligned with the needs and characteristics of communities without direct access to transit. Although the Regional Plan limits investment in traditional fixed route transit service within a specified boundary, this flexible model provides an opportunity to deliver a new and better suited service outside of that boundary. The ability to extend coverage to these communities improves mobility options, strengthens the connection with, and access to, the wider transit network. Delivering an attractive and sustainable transit service offers greater equity within region and reduces the need to rely on private vehicles.

A defining characteristic of successful microtransit services is that trips are requested, scheduled, and dispatched using a complex booking system made possible with information technology and internet access. Passengers can generally access the system on a web portal, mobile app, or booking hotline. Trip information and updates, including real-time vehicle location and estimated time of arrival, as well as vehicle identification, are provided via the mobile app and text alerts before pick-up. Using advanced software, the vehicle's path and schedule is continually optimized in real time, based on road network conditions (traffic and road closures) and passenger ride requests (new trip requests and cancellations). There are currently at least six major companies with a focus on demand-responsive transit software in the Canadian market which has resulted in more than 40 transit agencies operating microtransit in some or all of their network in 2026.

The *Microtransit Service Plan* proposes that service be operated with mid-sized vehicles (van or small bus) with curb-to-curb service that serves to connect residents both within their community and to fixed route bus service.

Overall, microtransit has continued to evolve over the past ten years from a novel concept into a mainstream strategic tool for Canadian municipalities. However, a microtransit service does require a significant financial investment, particularly when viewed in relation to the number of residents that benefit from the service, and the larger quantitative impact the funds would have if invested in the existing conventional transit network.

Service Areas

Public transit services are available in large portions of the Halifax Regional Municipality in some capacity, provided by Halifax Transit and a series of non-profit rural transit service providers. However, within these communities, there remain gaps where destinations are inaccessible by transit. Moreover, over 1,000 km² of the municipality is currently outside the conventional transit service area and outside the service areas of the rural transit service providers. Due to the size and complexity of this area, and resource limitations, a phased approach is proposed for implementing microtransit.

Several priority areas within the unserved region have been identified for Phase 1, which would serve to bridge significant transportation system gaps while laying a foundation for future expansion. In Phase 2, microtransit is proposed in suburban and urban areas where it is expected to fill a significant need. In Phase 3, microtransit services would be gradually expanded to eventually provide transit throughout the unserved areas and beyond. The Strategic Growth and Infrastructure Priorities Plan will further examine how the municipality is growing and will provide insight into where additional microtransit service will supplement the conventional transit system.

Phase 1: Priority Areas

Five initial priority areas have been identified for the proposed microtransit service. These communities were chosen based not only on lack of current transit options, but on transit propensity, operational feasibility, the ability to connect to fixed route services without significant duplication, the availability of a reliable cellular network, and the ability to create relatively small areas (or zones) that can potentially grow over time. Each region has its own unique challenges, allowing opportunities to learn from different microtransit strategies.

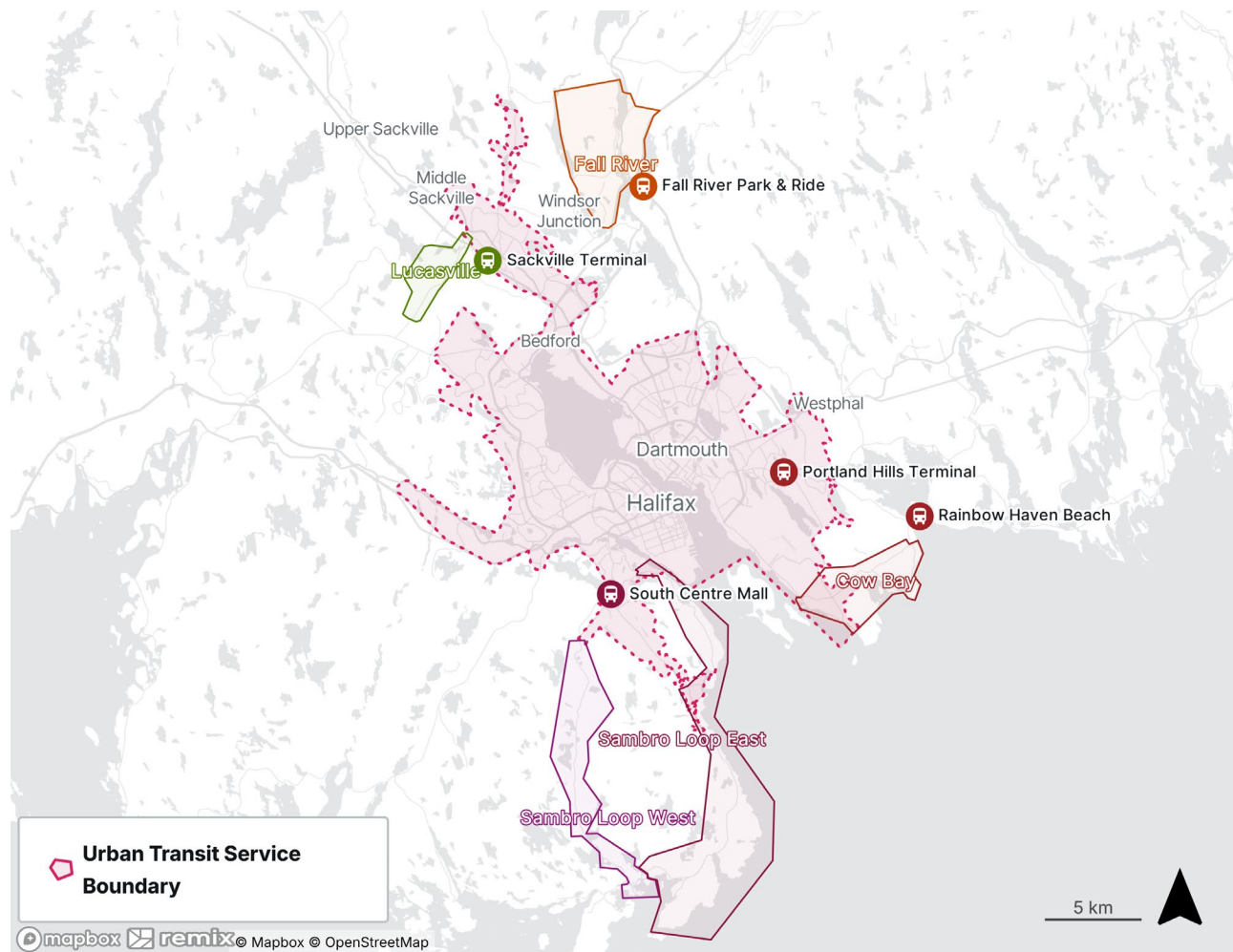


Figure 1: The five priority areas with major locations for transfers between microtransit and the conventional transit system highlighted

- o **Lucasville**

Lucasville is a historic African Nova Scotia community that is proposed as the first area for microtransit implementation. Several factors make Lucasville a compelling area for an initial pilot, including a relatively compact settlement pattern compared to other rural areas, strong community advocacy for transit services that has illustrated high potential usage, and proximity to Sackville Terminal, providing the opportunity for connections to Halifax Transit conventional bus routes. The lack of public transit in the community has been raised as a significant barrier in past and current engagement with the community, including the African Nova Scotia Community Action Planning process that is currently underway. With the potential to be the most cost effective, Lucasville is a strong candidate for microtransit.

The proposed service area for microtransit in Lucasville would encapsulate much of the historic community, including several significant trip generators, with connections to transit hubs at Downsview Mall and Sackville Terminal. Riders would be able to travel curb-to-curb within the service area, or to and from dedicated stops at the aforementioned transit hubs.

- o **Fall River**

Repeated requests for conventional transit service to the community have been made, typically focused on rerouting Regional Express Route 320 Airport/Fall River. The route currently makes a single stop in the community at the Fall River Park & Ride. Implementing microtransit in Fall River

would provide a higher quality of service to riders than a fixed route service, while maintaining efficient service on the Regional Express Route 320 Airport/Fall River, and allowing residents to still connect to the fixed route service at the Park & Ride.

Although the area's population distribution and road network would present challenges beyond what is anticipated in Lucasville, implementing microtransit in Fall River is proposed as it would demonstrate microtransit learnings over a larger area and population while further developing strategies that can be used in other similar environments. In addition, Fall River sets itself apart from most of the other priority areas by having a commercial centre that is expected to generate a significant volume of trips within the zone. A pilot in this community could provide valuable data about the tendency for shorter trips to access goods, services, recreational facilities, or employment, all within the community.

- **Cow Bay and Eastern Passage**

The community of Cow Bay differs from both Lucasville and Fall River in that the closest potential terminal connections are further away and require travelling through other communities. As such, it presents a unique opportunity to apply the microtransit model in a slightly different way, considering Cow Bay and Eastern Passage as one service area.

Proposed microtransit service in this area would allow residents of both Eastern Passage and Cow Bay to travel throughout the service area, providing access to goods and services, recreation, employment opportunities, and bus stops that are primarily in Eastern Passage. This service area will also include Portland Hills Terminal, connecting residents in the region to the conventional transit service. Similar to Lucasville and Fall River, this means that Cow Bay residents, which currently have no transit service, would have the ability to both make short trips within their community, and also to connect into the broader bus network. However, by designing service this way, it also means the Eastern Passage residents, who do have public transit via the Route 6B/C, will be able to use microtransit for shorter trips, or use microtransit to connect to the Portland Hills Terminal. A transit connection between Eastern Passage and Portland Hills Terminal has been one of the most requested new bus routes consistently over many years. Thus, the benefits of this priority area are two-fold, bringing transit to an unserved rural community, and testing the potential of microtransit in a suburban community as an alternative to fixed-route service.

- **Sambro Loop**

The final two priority areas are adjacent zones on the Chebucto peninsula. Previously, Halifax Transit Route 402 Sambro served the area, but the route was discontinued in August 2017 after eight years, due to low ridership. Of the initial microtransit zones proposed, the Sambro Loop is the largest physically, and the most challenging to serve, with several interconnected communities on a large road loop without a major transit facility nearby. Due to the sprawling nature of the Sambro Loop, and limited connections between communities on the east and west sides of the loop, two separate microtransit zones are proposed.

The western zone would run from Sambro to Harrietsfield with a dedicated non-zone stop at the South Centre Mall - the nearest commercial centre and a meeting place for several Halifax Transit routes. The eastern zone would run from Sambro Head to Williams Lake Road also with a single non-zone stop at the South Centre Mall, which would connect service in the two zones. Effectively, together the zones do result in a complete loop, and passengers would be able to travel between them. However, they could also be launched independently and the zones as shown are more reflective of the expected travel demands.

Phase 2: Microtransit Opportunities in Suburban and Urban Areas

Although the *Microtransit Service Plan* is focused on areas not currently serviced by public transit, there are both gaps and opportunities for microtransit that exist within serviced areas as well. Microtransit for access to cultural and historic sites, off-peak service in low-density employment centres, and flexible service to replace conventional routes with low ridership, will be evaluated and extended as resources allow. Although Phase 2 would not be expected to launch first, it could happen partly alongside the priority areas

in Phase 1, and continue concurrent with future expansion in rural areas. However, where it potentially impacts existing conventional bus routes and passengers, and the level of tax collected under the current administrative order, additional public consultation may be required, and specific changes would be brought forward either through a future transit service plan or stand alone initiative for Regional Council's consideration so that the impacts are fully understood.

Phase 3: Regional Expansion

Continued microtransit growth includes implementing services to encompass the remaining areas not served by conventional bus routes. This will mean expanding boundaries of the initial priority areas and potentially working with rural transit service providers to expand microtransit into regions where they operate.

Implementation

Integration with Access-A-Bus: Using a shared fleet for accessible transit and microtransit services is a common trend across North America to lower costs and provide improved service, and is referred to as commingling. Using a vehicle to provide microtransit and accessible transit services at the same time means a larger fleet of vehicles that can be dispatched dynamically based on demand and pick up multiple types of passengers on the same trip. This introduces operational efficiencies, shortens wait times for riders, and increases coverage.

The introduction of commingling with Access-A-Bus service would be a large undertaking, requiring significant change, and it is not planned for the initial rollout of microtransit services. However, it would be beneficial in the medium to long term to provide the two services in-house under one organizational umbrella as commingled service.

- **Short Term – The Proof-of-Concept Stage**

Although many regions have piloted or launched microtransit services, each application varies based on the communities served. As such, during an initial pilot, the microtransit service model will need to be validated for our region. This work will constitute the Proof-of-Concept Stage which will demonstrate the potential for expansion in other communities, with the end of this phase marked by a report. Further direction will be required from Regional Council before proceeding to the next phase.

The Proof-of-Concept stage can be limited to launching service in one zone (Lucasville), or up to five zones to include any combination of the the priority areas, depending upon available resources.

- **Medium Term – The Building Stage**

This stage is when major scaling of the microtransit service would occur. Any remaining priority areas not included as part of the Proof-of-Concept Stage would have service introduced at this time. Microtransit could also be rolled out in urban or suburban areas and also gradually expand to encapsulate the remainder of the unserved regions, as well as potentially some areas currently serviced by rural transit service providers. Commingling with Access-A-Bus is proposed to be explored in this stage.

The Building Stage will be complete when microtransit growth has slowed considerably, and the majority of expected coverage is in place.

- **Long Term – Operational Stage**

Once most of the planned implementation has occurred, microtransit will enter the Operational Stage. Similar to other transit services, such as ferry, Access-A-Bus, or conventional bus, this stage is focused on maintaining ongoing operations of the service with the available resources. However, performance metrics and feedback will continue to be evaluated, and service changes, improvements, or policies, may be brought forward for Regional Council's consideration.

Service Delivery Options

There are many vendors in the market offering the technology needed for microtransit to be successful. Some of these vendors go beyond technology and offer a full suite of service delivery options. These turnkey solutions can include assistance in service design, responsibility for vehicle sourcing, service operations, driver recruitment and onboarding, dispatch, and customer service.

In Halifax, the intent for microtransit is to eventually have a service that is commingled with Access-A-Bus and provided by Halifax Transit to create efficiencies and offer an improved service for both microtransit and Access-A-Bus passengers. As such, the potential value in a turnkey model of support from a vendor is in the short term, allowing for a faster launch of service, and more flexibility in the Proof-of-Concept Stage.

Implementation could be achieved by relying on a vendor-led turnkey solution. The benefits of this option are a result of vendors having established resources, such as call centres, vehicles, and recruitment staff. These resources make microtransit services easier to ramp up and ramp down due to more flexibility in characteristics such as vehicle numbers, staff numbers, and hours of operation. This would be especially useful while beginning the Proof-of-Concept stage, allowing service to launch and be adjusted as needed in a portion of the time without a large capital investment. It is estimated that with an accelerated vendor supported implementation, a roll-out of microtransit in the first pilot area could begin three to six months after the vendor is selected. In the first year of service, operating costs could be expected to be 50% of annual costs to reflect a mid-year launch.

The turnkey solution reduces initial municipal capital burden, implementation time, and internal operational risk, but it potentially increases vendor dependency with less operational oversight and potential change management issues. To allow commingling with Access-A-Bus, Halifax Transit would plan to eventually shift to an internally provided service. A turnkey solution would still require municipal staff resources in both the form of a project team to liaise with the vendor and plan and launch the service, and ongoing support.

In an in-house implementation approach, a vendor would be used for technology related services with minimal other support. Halifax Transit would undertake a project to launch the service using internal resources. Here the implementation will also be dependent on fleet acquisition, hiring drivers, procuring vehicle storage space, and ensuring support staff (ie. call takers) are in place. The timelines related to implementation are dependent on the both the purchase of capital assets (fleet), and staff capacity, and service could be expected to launch two to four years following the project initiation. Funding would be required in years one and two primarily for project management, with capital and operating costs ramping up after year two. This model of implementation would be more manageable from a staff capacity perspective if the Proof-of-Concept Stage is limited to the Lucasville community. However, if all five priority areas are planned to have microtransit service launch in the first stage, additional dedicated resources would be required and capacity through multiple municipal business units may be a significant challenge.

The key benefit of the in-house model is that it gives full operational ownership and long-term asset retention to the municipality. However, it also includes significant work and planning, which could lead to delays of other municipal priorities. This large effort could also yield limited benefits if the Proof-of-Concept Stage results in limited application of the service model.

To allow for the gradual introduction of service that minimizes impact on the organization, a Proof on Concept in the community of Lucasville only is proposed as a first step. Should Regional Council provide direction to proceed with microtransit service in one or any combination of the other, listed priority areas (Fall River, Cow Bay/Eastern Passage, Sambro Loop East, and Sambro Loop West), details of the additional costs and resource requirements could be brought forward for consideration as part of the 2027/28 budget process.

FINANCIAL IMPLICATIONS

The approval of the *Microtransit Service Plan* has no immediate financial impacts, or financial impacts in 2026/27.

However, the recommendations contained in the *Microtransit Service Plan* contain significant unfunded capital and operating pressures that cannot be accommodated within the current budgets, and no funding has been allocated in any future budgets to date. Should Regional Council provide direction to proceed with implementation, detailed costs and resource requirements could be brought forward as part of a future budget year.

These figures are not accounted for in the existing 10-year capital plan. Adding new amounts into the existing plan will result in the requirement to prioritize the existing plan.

Microtransit costs are directly related to the number of service hours provided. The operating cost per hour is expected to be greater than \$100 per hour of service, and best estimates reflect the same costs whether a turnkey or in-house solution is used. In addition, capital costs, estimated at over \$650,000 for launching in one community, or over \$2.4M for all five priority areas, would be required initially with an in-house implementation, although they could be postponed with a turnkey solution.

	Net Annual Operating Costs Turnkey or In- house	Start Up Capital Costs Only Applicable to In-house	Total Operating and Capital Turnkey	Total Operating and Capital In-house
Lucasville	\$1,675,000	\$650,000	\$1,675,000	\$2,325,000
Average Tax Bill Increase	\$6.25	\$2.43	\$6.25	\$8.68

These operating costs reflect annual costs; the first year of service would be adjusted to reflect the service launching mid-year. The total Capital and Operating would reflect the Year-1 start-up costs for each area. The current recommendation is to start with Lucasville as an ongoing Proof of Concept with the intent of returning to council with information obtained. Recommendations on expansions into further areas will follow in future reports.

The projected increase in revenue from fares for the service is expected to be very low, due to low overall passenger volumes, and the anticipated number of passengers who may already be purchasing fares for the conventional transit network, although the community of Lucasville is anticipated to have the greatest revenue offset than any other rural community. As an integrated part of the Halifax Transit network, it is proposed that fares for microtransit be consistent with the premium fares currently charged for Regional express routes, allowing for the full suite of fare products, and the ability to transfer between services to be available for passenger convenience.

Preliminary analysis suggests the proposed microtransit service may not fully align with the User Fee Policy, as it primarily benefits specific individuals and access can be restricted, conditions that typically require full cost recovery. While the phase 1 roll out may offer some broader community value, particularly related to cultural or heritage stewardship in the proposed area, any subsidy must be clearly justified under the policy's defined criteria. With HRM currently undertaking a comprehensive review of the revenue catalogue, the microtransit fee structure will require further assessment to ensure policy alignment. A full report on the Phase 1 rollout will be brought back to Council and will clearly identify the policy-based rationale for any proposed subsidy, as the current pricing may not meet the criteria for subsidization under the User Fee Policy. Any introduction of microtransit in suburban and urban areas, whether as new ways to access cultural and historic sites, provide off -peak service in low-density employment centres, or to replace conventional routes with more flexible service, would be subject to the same hourly cost as in microtransit zones and will be evaluated separately in the future.

Currently, a local transit tax rate is collected for properties within 1 km of a conventional bus stop. The launch of microtransit service would result in neighbourhoods with potentially high levels of public transit access that do not contribute to the local transit tax. Regional Council has the ability to review and consider changes to the taxation policy, however, there would be benefit to proceeding with the Proof of Concept stage in advance of any taxation changes, to ensure a common understanding of the level of service being offered and potential benefits or challenges.

These service enhancements will require additional tax revenue and/or adjustments to other municipal service levels. Based on the information available at the time of writing this report, the estimated increase to the average residential tax bill for 2027/28 could exceed 9%, before including any of the costs outlined above.

RISK CONSIDERATION

Risk related to service delivery, financial resources, and public perception were considered.

The type of risks are expected to vary based on the service delivery model, and would include greater financial risks for an in-house solution, whereas a turnkey solution would include risks related to staff relations.

COMMUNITY ENGAGEMENT

A comprehensive community engagement plan was undertaken to inform the May 22, 2025 report that was a precursor to this work. This included workshops, in-person interviews, outreach events, surveys, and collaboration with rural transit service providers.

Since that time, a rural transit advisory group has been developed, with participation from the existing rural transit service providers and Link Nova Scotia. Called REACT (Rural Engagement and Advisory Committee for Transit), this group has been engaged on the development of this report.

Additional public and stakeholder engagement occurred in September and October of 2025 as part of developing the Strategic Roadmap, which confirmed interest in microtransit and new rural transit solutions.

Should the recommendations in the *Microtransit Service Plan* be approved, ongoing collaboration with communities identified as priority areas is key to the success of the service model.

ENVIRONMENTAL IMPLICATIONS

It is anticipated that the *Microtransit Service Plan* will increase transit ridership, potentially reducing private vehicle usage. This would result in a reduction of greenhouse gas emissions and positive environmental implications.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, S.N.S. 2008, c. 39

7A The purposes of the municipality are to

- (a) provide good government;
- (b) provide services, facilities, and other things that, in the opinion of the Council, are necessary or desirable for all or part of the municipality; and
- (c) develop and maintain safe and viable communities

69 (1) The Municipality may provide a public transportation service by

- (a) the purchase of vehicles or vessels and operation of the service.
- (b) providing financial assistance to a person who will undertake to provide the service; or
- (c) a combination of these methods.

79A (1) Subject to subsections (2) to (4), the municipality may only spend money for municipal purposes if

- (a) the expenditure is included in the municipality's operating budget or capital budget or is otherwise authorized by the municipality;
- (b) the expenditure is in respect of an emergency under the Emergency Management Act; or
- (c) the expenditure is legally required to be paid.

(2) The Municipality may expend money provided for in an operating budget or capital budget for a purpose other than that set out in the operating budget or capital budget for that fiscal year if the expenditure does not affect the total of the amounts estimated for the operating budget and the capital budget.

ALTERNATIVES

1. The Transportation Standing Committee could choose not to approve the *Microtransit Service Plan*.
2. The Transportation Standing Committee could request modifications to the *Microtransit Service Plan*.
3. The Transportation Standing Committee could choose to approve additional locations as part of the Proof of Concept stage. The following table illustrates the estimated net annual operating costs and start up capital costs for service to the five priority areas.

	Net Annual Operating Costs (Turnkey or In-house)	Start Up Capital Costs (Only Applicable to In-house)	Total Operating and Capital (Turnkey)	Total Operating and Capital (In-house)
Lucasville	\$1,675,000	\$650,000	\$1,675,000	\$2,325,000
Fall River	\$725,000	\$425,000	\$725,000	\$1,150,000
Cow Bay and Eastern Passage	\$1,675,000	\$650,000	\$1,675,000	\$2,325,000
Sambro West	\$550,000	\$215,000	\$550,000	\$765,000
Sambro East	\$1,120,000	\$425,000	\$1,120,000	\$1,545,000
Total	\$5,745,000	\$2,365,000	\$5,745,000	\$8,110,000

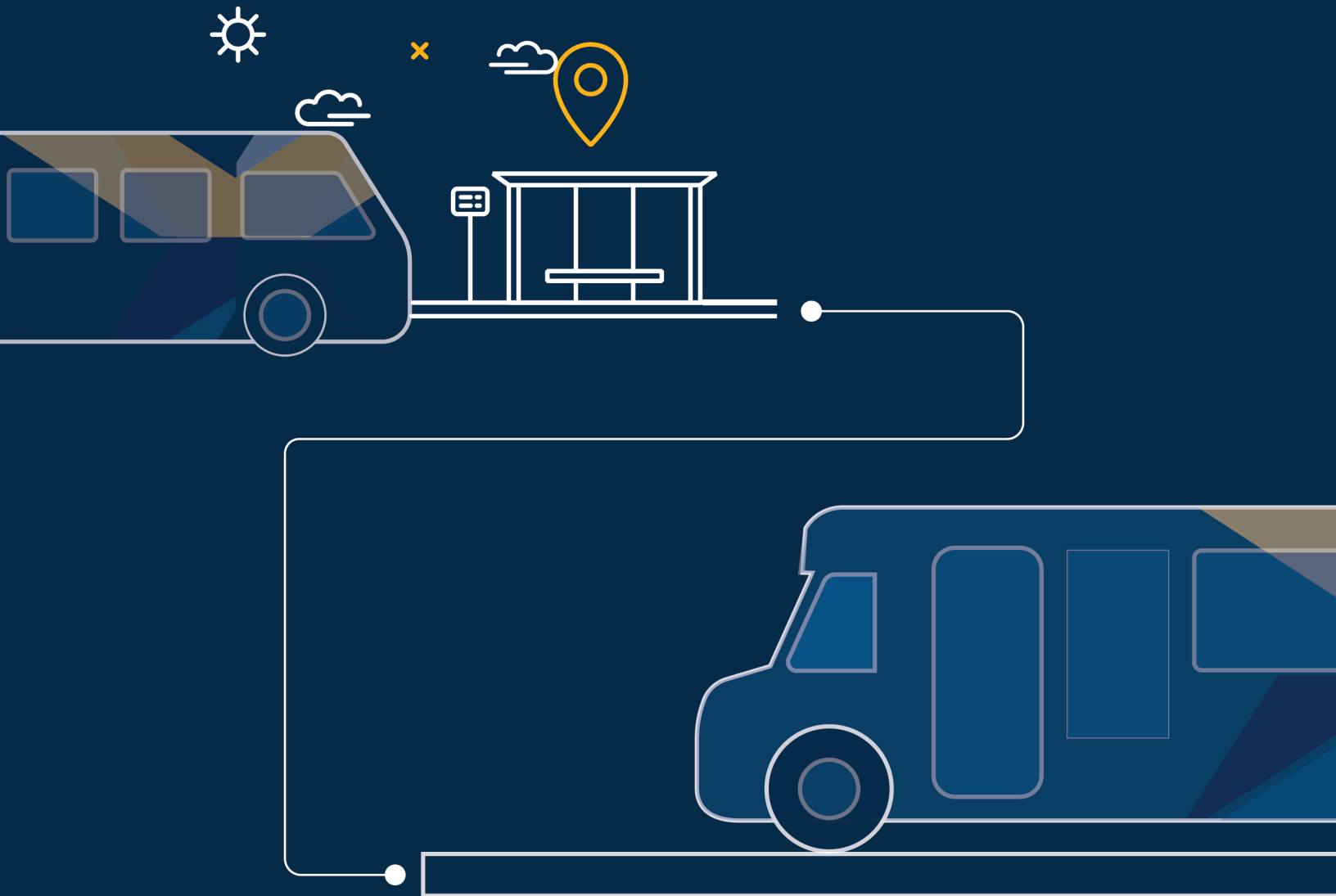
The additional operating pressures for all locations listed above are estimated to add another 0.7% to the average tax bill for the Proof of Concept for the 5 locations totalling an estimated \$5.8M in additional annual operating expenses.

ATTACHMENTS

Attachment A: *Microtransit Service Plan*

JANUARY 2026

MICROTRANSIT SERVICE PLAN



HALIFAX



Contents

Section 1

A new service model for the Municipality

Section 2

Designing an effective microtransit service

Section 3

Expanding service coverage and improving regional connections

Section 4

Refining the approach through application

Section 5

Funding the service

Section 6

Measuring success

Section 1
A new service model for the Municipality

The Halifax Transit Microtransit Service Plan identifies opportunities and options for implementing on-demand transit service to expand transit in our region.



Microtransit, also called on-demand transit, is a technology-enabled, shared-ride transit service that uses dynamic routing, within defined zones, to meet local passenger needs

Providing equitable, efficient, and sustainable public transportation across a municipality as geographically diverse as Halifax is a significant challenge. The region’s wide range of communities creates unique barriers to expanding transportation options and improving access.

Urban and suburban communities typically have characteristics, such as higher population densities, established sidewalk networks, and connected road systems, that support conventional transit services. In contrast, communities outside the current transit service area are much more varied in character. Their distinctive blend of open and natural spaces and scattered development patterns creates challenges to providing conventional transit service in these communities. Greater distances between destinations lead to longer travel times and higher operating costs, while lower ridership levels result in a substantially higher cost per passenger trip.

Alternative models to conventional transit service do exist in the region. Non-profit community-based transportation providers currently provide door-to-door transit service in four service areas within the municipality, however, many communities still lack access to any form of transit. The Microtransit Service Plan explores opportunities and options for implementing a new service model for the municipality. Using microtransit as a solution to extend transit access to underserved communities in alignment with the Strategic Roadmap.

Planning context and strategic framework

Halifax is a rapidly growing and changing region with a transportation network that needs to adapt alongside these developments. While most regional growth has occurred in the urban and suburban communities where fixed-route transit operates, a large number of people live in communities without any transit access. Implementing an alternative service model would provide an opportunity to extend service to historically underserved communities.



The most recent transit plan informing service changes for Halifax Transit was the Moving Forward Together Plan (MFTP), endorsed by Regional Council in 2016. This plan introduced a hierarchy of service types, each with their own characteristics designed to work in an integrated way, targeting improvements to the overall attractiveness of the Halifax Transit network, the experience for existing users while making transit more competitive with private vehicles. These improvements, along with the population growth in our region, has led to ridership increases and shifting travel patterns with passengers moving in new ways and at different times across the network.

Delivering attractive and accessible transit services in line with regional transportation goals is challenging due to the impacts from increased demand and longer travel times. More adaptive transit planning and operations are needed to maintain service quality and reliability.



Strategic Roadmap

The Strategic Roadmap outlines a shift away from developing a single multi-year plan to an ongoing process, where modules are prepared and adapted over the course of three years. This form of transit planning also aligns with transformative initiatives like the Rapid Transit Strategy, which will improve community connectivity across the region and explore opportunities to implement new service models and fill existing gaps in coverage. The flexibility enabled by the Strategic Roadmap also supports a commitment to enhancing engagement and collaborating with customers and community partners.



Halifax Transit Mission Statement: "Working together to provide a safe, reliable and sustainable transit system for all."



The Strategic Roadmap defines the overall vision, goals and principles that will refine Halifax's transit network and deliver services that meet the evolving needs of passengers.

Three regional mobility goals, which build on our Mission Statement will provide direction for Halifax Transit when implementing each of the Strategic Roadmap's eleven modules. These modules form a comprehensive strategy to deliver a responsive, reliable, accessible and passenger-focused transit system that puts transit at the heart of regional mobility.



Be **inclusive** and improve mobility options for present and future passengers.



Focus on the **safety and reliability** of transit to provide a better customer experience.



Prioritize **sustainability**, which includes building healthy communities, reducing emissions, using funding efficiently, and developing services and models that are successful over the long term.

Moving forward principles

The Moving Forward Principles have been guiding the planning and operation of conventional transit services since 2015, by helping focus resources, ensuring services are efficient and recognizing the need for ongoing improvements.

2016



While the principles and guidelines provide a useful evaluation framework for conventional transit service planning and operation, there are limits to how they support key regional mobility goals. However, by combining these principles with our mission statement and regional mobility goals the Strategic Roadmap offers a broader perspective for network improvement, focusing specifically on three key opportunity areas:

Applying an equity lens to transit planning. This lens adds an intentional focus on route modifications and service adjustments that reflect community needs. An equity lens can also guide engagement strategies, resulting in planning decisions informed by feedback from the residents that are the most reliant on transit.

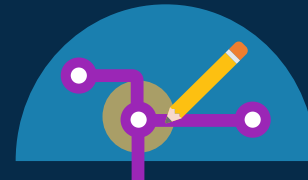
Advancing sustainability goals. Halifax Transit can advance the municipality's goals to decarbonize transportation as outlined in HaliFACT by continuing to build a transit system that reduces reliance on private vehicles, lowering traffic congestion and cutting carbon emissions. Advancing sustainability is also about ensuring that the transit system grows in a way that is financially responsible and transparent.

Providing viable, high-quality mobility alternatives. Providing residents with integrated mobility options makes it easier for them to move around, increases the connectivity between communities and provides more choices to complete day-to-day trips. Integrated mobility also reduces the time and money residents invest in transportation, helping to make living in Halifax more affordable.

The Moving Forward Principles guide planning and investment decisions



1. Increase the proportion of resources allocated towards high ridership services



2. Build a simplified transfer-based system



3. Invest in service quality and reliability



4. Give transit increased priority in the transportation network

2026-2030 Strategic Plan

The **2026-2030 Strategic Plan** lays out the vision, mission and values for Halifax Regional Municipality. One of the Council Priorities identified in this plan is Moving Better, which focuses on the provision of a safe, accessible, efficient, and connected public transit and regional transportation network that promotes environmentally sustainable options and offers residents travel choices that meet their needs.

Seven specific goals were identified to operationalize this vision, the following reflect those which are of most relevance to guide the Microtransit Service Plan.

Strategic Plan Goal	Result
MB-02: Improve the reliability of public transit.	MB-02-R3 Increased Halifax Transit use.
MB-03: Improve access to sustainable transportation modes.	MB-03-R1 Increased accessibility of transportation modes including public transit, Access-A-Bus, micro-transit and other options.
MB-05: Public transit resources and service standards align and grow with the municipality.	MB-05-R1 Public transit service is aligned with areas of greatest demand, and scalable, to maintain and/or expand routes to and within underserved and growing communities. MB-05-R2 Improved focus on public transit in rural areas including increased support for existing models and exploration of new service delivery options.
MB-06: Improve connectivity between and within communities.	MB-06-R1 Improved connection to the public transit and active transportation network within and between communities. MB-06-R2 Improved transportation equity of public transit and active transportation.
MB-07: Develop and enhance the transportation network and infrastructure assets to meet defined service levels.	MB-07-R3 Transportation network and infrastructure asset service levels are maintained to improve customer experience.

Link Nova Scotia's Regional Transportation Plan (RTP)

Link Nova Scotia's **Regional Transportation Plan (RTP)** sets a long-term vision for a safe, efficient and sustainable transportation system across Halifax and surrounding communities, to ensure access to healthcare, employment and education. It recommends the use of On-Demand transit to fill gaps in rural and suburban communities and provide regional connections to higher levels of transit, including the proposed Rapid Transit Network.

Integrated Mobility Plan (IMP)

The **Integrated Mobility Plan (IMP)** aims to create connected, healthy, affordable and sustainable travel options in the following ways:

- Prioritizing the movement of people over vehicles and increasing the share of efficient and sustainable transportation modes for daily trips.
- Ensuring that transportation options are accessible to all residents.
- Creating links between people and communities and strengthening connections within the community.
- Rethinking and redesigning the transportation system by adapting to modern needs and preferences.

The IMP was endorsed by Regional Council in 2017, and an update will be delivered in Spring 2026. This plan identifies actions which inform regional planning and development that strengthen the relationship between transportation and land use decisions aligned with regional sustainability goals. Mode share targets provide an indicator of progress made in responding to these aims. Recognizing that some communities lack access to transit service, the Region Wide targets anticipate a higher reliance on trips made by private vehicles. By identifying opportunities to close gaps in transit coverage and provide additional mobility options, the *Microtransit Service Plan* can support a reduced reliance on private vehicle trips across the region.

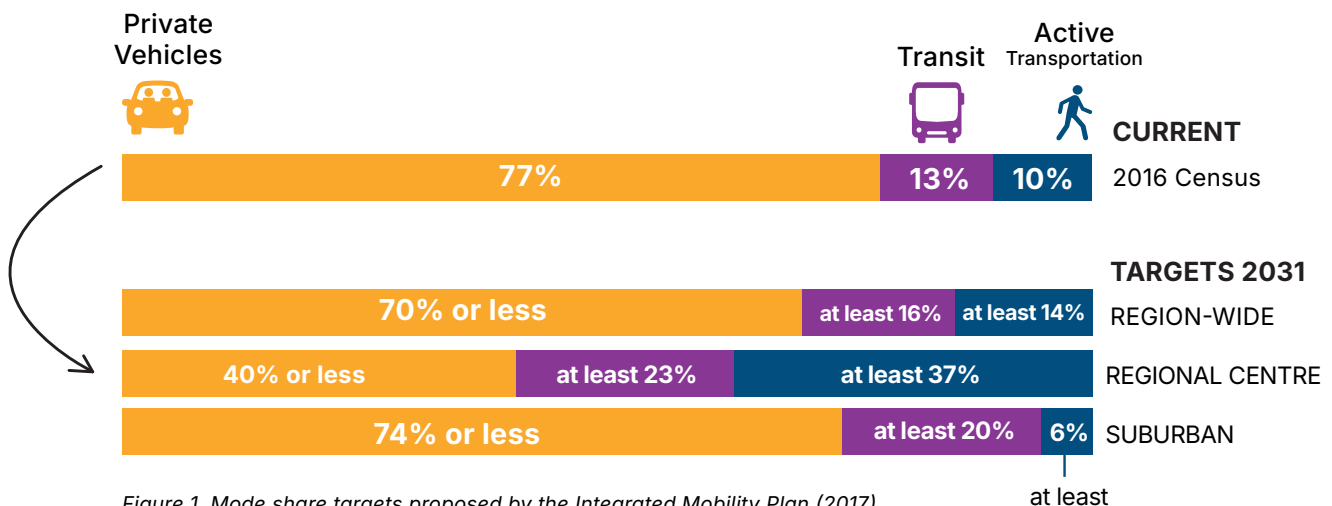


Figure 1. Mode share targets proposed by the Integrated Mobility Plan (2017)



Defining Microtransit

Microtransit, also known as on-demand transit, is a service model that offers greater responsiveness and flexibility than conventional transit. Unlike traditional fixed-route services that follow predetermined paths and schedules, microtransit relies on technology solutions to dynamically adjust routes based on real-time ridership needs. The agility of this system is enabled by operating a fleet of smaller, more nimble vehicles, such as vans or cutaway buses, increasing the viability of providing transit to communities without adequate demand for conventional transit services. Factors that typically do not support conventional transit, but where microtransit may be a viable option include:

- areas with low density or long distances between key destinations
- operational or road network constraints, such as narrow streets, lack of through-connectivity or indirect layouts that are physically difficult for full-size buses to navigate effectively.
- low ridership demand overall or during specific time periods
- disconnected pedestrian networks, such as a lack of sidewalks or through-paths, which create unsafe or excessive walking distances to the nearest stop.

Key features

Technology-Enabled Trips: Trips are requested, scheduled, and dispatched using a complex booking system made possible with information technology and internet access. Passengers can generally access the system on a web portal, mobile app, or booking hotline. Trip information and updates, including real-time vehicle location and estimated time of arrival, as well as vehicle identification, are provided via the mobile app and text alerts before pick-up.

Dynamic Routing and Scheduling: Using advanced software, the vehicle's path and schedule is continually optimized in real time-based on road network conditions (traffic and road closures) and passenger ride requests (new trip requests and cancellations).

Vehicle Size: Vehicles of all sizes including transit buses, shuttles, vans, or sedans can be utilized. Smaller vehicles, such as vans or minibuses, are better suited for lower population densities and unpredictable demand and are often used for this reason.

Flexible Stops: Vehicles can stop at fixed-route stops, curbside stops, or offer door-to-door service, when picking up or dropping off passengers, depending on the service model.

Service Zone: Microtransit typically operates within a defined service area and provides a connection to the wider transit network. Passengers travelling within the service area can do so on a single ride, whereas travel outside the service area requires transferring to a different service.

While the system handles this complex coordination behind the scenes, the process for the passenger is straightforward.



1. Book

- Create your account
- Select your pick-up and drop-off location
- Confirm your route and ride details



2. Pay

- Add payment option to your account
- Pay your transit fare



3. Pick-up

- Track your ride in real-time through the app or online
- Be ready at the pick-up location when your vehicle arrives



4. Ride

- Ride to your destination
- Vehicle may pick up additional riders along the way

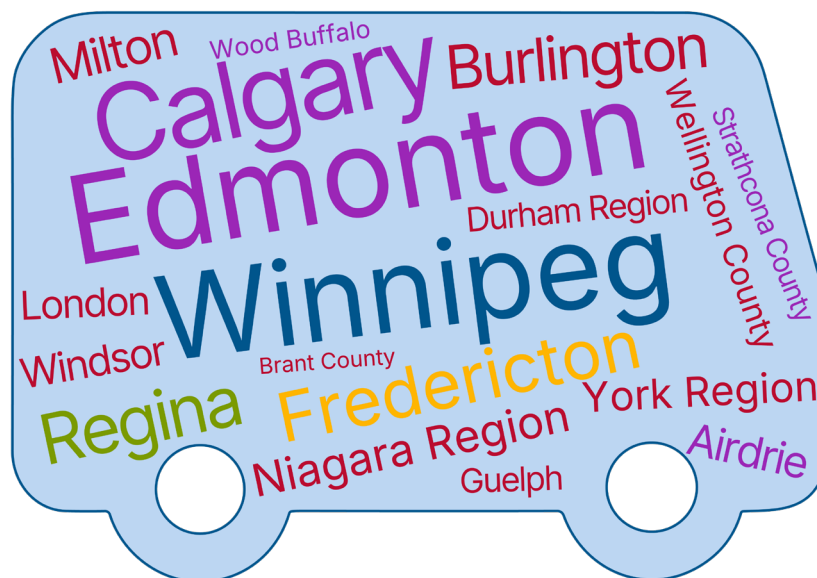
An evolving solution

Long before microtransit was established as a model, Canada had an established network of dial-a-ride or dial-a-bus services. These models, dating back to the 1970s, served as a pre-cursor to many of the specialized transit models in operation across the country, including Access-a-Bus. Several municipalities, such as St. Albert, Alberta, operated early iterations of dial-a-ride where passengers used direct-to-driver booking, calling a specific vehicle within a designated window to request a trip.

As the industry matured, these decentralized models moved toward centralized booking and dispatching, consistent with the models used in Halifax's Access-a-Bus service and the rural transit services operating across the province. This transition allowed transit agencies to better coordinate trips, improve safety, and manage entire fleets from a single central hub, though the process remained largely manual, relying on phone operators and paper schedules to organize daily manifests.

In 2015, this model started to transition from paratransit to the conventional transit space with Milton Transit piloting the use of a dynamic routing software to connect commuters to the GO Station. This shift from a manual booking process to one driven by technology was the key element that proved that demand-responsive services could operate on a larger scale serving the broader public.

Microtransit has continued to evolve over the past ten years from a novel concept into a mainstream strategic tool for Canadian municipalities. There currently at least six major companies with a focus on demand-responsive transit software in the Canadian market which has resulted in more than 40 transit agencies operating microtransit in some or all of their network in 2026. The figure below shows just a few of the municipalities who have adopted microtransit, showcasing the variety in the size of the communities this model is able to support.



How microtransit transit differs from other service models

A combination of operational, physical, and technological factors results in a service model that stands out in the transit system. By using demand-responsive technology, this shared service operates differently from traditional offerings, like conventional, rural, or paratransit, that have typically made up the transit network.

Type	Description	Service Area	Provider
Conventional Transit Service	Buses and ferries follow fixed routes with fixed schedules, picking up and dropping passengers off at designated stops.	Urban and suburban Areas	Halifax Transit
Rural Transit	<p>Customized door-to-door trips are provided to residents living in rural parts of the municipality. The pick-up and drop-off location and time of each trip is requested by the passenger. These services typically operate using vans or SUVs, some of which are equipped with accessibility features to accommodate wheelchair users unable to transfer and persons with limited mobility.</p> <p>Trips must be booked 24 to 48 hours in advance. Booking and scheduling has historically been handled manually by a dispatcher. Any changes to trips must be made with a dispatcher via the service hotline within service hours.</p>	Rural Areas	BayRides, East Hants Community Rider, MusGo Rider Eastern Shore, MusGo Rider Valley-Sheet Harbour
Paratransit	<p>Customized door-to-door trips are provided to passengers, with the pick-up and drop-off location and time requested by the passenger. Service is typically provided with mid-size accessible vehicles designed to support multiple mobility devices.</p> <p>Paratransit service is only available for transit users who face barriers to accessing the conventional transit system due to physical or cognitive disabilities. Paratransit users must register to use the service.</p> <p>Trips are booked via a service hotline and are typically booked between 24 hours and a week in advance.</p>	Urban and Suburban Areas	Halifax Transit Access-A-Bus

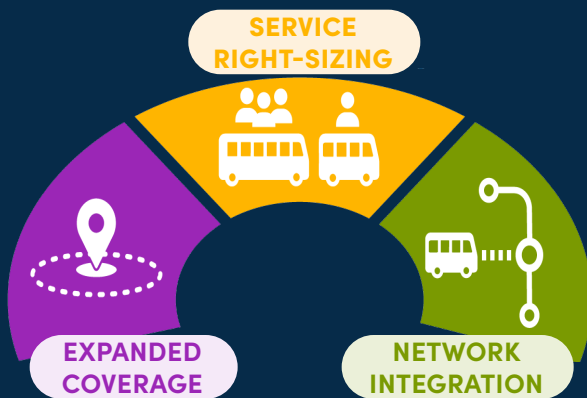
As the table illustrates, microtransit doesn't compete with existing models; it fits seamlessly into the existing transit network. While conventional transit handles the heavy lifting within urban and suburban areas, and rural transit provides essential long-distance links in some rural areas, a significant geographic gap exists in the areas between these services. Microtransit can effectively serve these in-between zones where indirect street networks and moderate population densities aren't suitable for fixed-route service.

Microtransit aligns with policy and regional priorities

Microtransit can deliver on a range of goals and priorities aimed to improve community connectivity and deliver transit services which are equitable, passenger focused and sustainable.

Providing transit that works best for the communities being served: Operating fixed-route services within low density communities often results in a poor-quality service with reduced operations, long wait times, and accessible bus stops. The flexibility and responsiveness of microtransit make it well suited for areas where fixed-route transit would be too challenging or costly to operate.

Applying an equity lens to transit service planning: Extending the network through microtransit provides opportunities to improve service for historically underserved communities. Improved coverage in areas without transit access can mean increased mobility options for more communities, reducing barriers to employment, healthcare, and other services.



Microtransit service models can fill a critical void in the broader transportation network by bridging the gap between micro-mobility and fixed-route services. It provides a viable solution where distances are too great for walking or cycling, but demand is not yet high enough to support a permanent conventional bus route. The increased flexibility and responsiveness of microtransit means delivering a service aligned with the needs and characteristics of communities without direct access to transit, many of which are not suitable for conventional transit service.

Network Integration: Microtransit services can be designed to connect passengers into the local fixed-route transit system, opening up transfer options to more destinations.

Operational efficiencies: Because microtransit routes and schedules respond dynamically to passenger trip requests, only the resources necessary to meet demand in the community are required. This ensures resources are not wasted on empty buses in low-density areas. By operating shorter trips —to either local destinations or to connect with the fixed-route network—the service can be efficient and reliable. Using smaller vehicles reduces fleet purchasing and maintenance costs and typically shortens the time needed to introduce new vehicles when compared to standard size buses.

Improvements to accessible service offerings: On-demand services can provide a more personalized trip, closer to home and other key destinations compared to conventional services. With a fleet of accessible vehicles, microtransit is an option for most passengers that cannot use fixed-route services, allowing for easy integration with paratransit services. This provides more options for paratransit clients, creating efficiencies, and reducing booking times.

Advancing sustainability goals: Halifax Transit can advance the municipality's goals to decarbonize transportation as outlined in HalifACT by continuing to build a transit system that reduces reliance on private vehicles, lowering traffic congestion and cutting carbon emissions. Advancing sustainability is also about ensuring the transit system grows in a way that is financially responsible and transparent.

Section 2

Designing an Effective Microtransit Service

Objective: To deliver microtransit service/s that advance regional transportation goals aligned with our regional mobility goals and principles.

Microtransit can deliver on a range of goals and priorities aimed to improve regional connectivity and provide transit services which are equitable, passenger focused and sustainable. By following a proven planning process, a microtransit service model can meet community needs, advance regional mobility goals, and align with municipal principles and guidelines.

The On-Demand Transit Toolkit, prepared by the Canadian Urban Transit Association in 2022, provides four key questions to guide the planning of a microtransit service model that is attractive and accessible for passengers.

1. What are the objectives of the service?
2. What will be the service delivery model?
3. What market is being served by the new service?
4. What is the size of the service area?

The increased flexibility and responsiveness of microtransit provides opportunities to extend coverage to areas not suited to conventional services. Closing gaps in transit coverage will improve equity in our communities by increasing access to high quality and safe mobility options. Delivering an attractive and sustainable transit service offers greater equity within the region and reduces the need to rely on private vehicles for daily trips.

To achieve this, the most appropriate gaps to fill in the transportation network must be identified. The following characteristics may make an area appropriate for microtransit:

- **Identified Service Gaps:** The area is unserved by both fixed-route and rural transit services.
- **Low Population Density and/or Unpredictable Demand:** The demand in the area is too dispersed or inconsistent to meet the following minimum ridership guidelines for fixed-route transit.

- **Road Network Barriers:** The road network's physical layout poses obstacles to large vehicle navigation, including narrow streets, sharp corners, dead ends without safe turnarounds, and steep inclines.
- **Pedestrian Access Challenges:** The area's physical layout discourages walking to conventional bus stops.
- **First-Mile/Last-Mile Potential:** The area is close to existing transit hubs, where microtransit can serve as an effective way to make connections with the larger transit network.
- **Cultural Significance:** Service to the area would directly support the Culture and Heritage Priorities Plan's objective of enriching community life and promoting regional inclusion, linking historically underserved communities to key social, civic, and cultural activity centres.

The other three questions serve as a guide to accounting for supply, demand, and quality of service when planning a microtransit service. The table below outlines the key themes and decision categories that must be addressed for each of these remaining questions, and the following sections outline the recommendations for each. Operating model and service monitoring are discussed further in **Sections 4.4 and 6.5**.

Design Question	Focus Area	Design Decisions
What market is being served?	Demographics: What customer groups is microtransit designed to serve?	Technology: Determining the balance between app-based booking and call-center support.
	Trip Purpose: What kind of trips is the service designed to accommodate?	Service Model: Deciding between Origin-to-Hub (First/Last Mile), Origin-to-Destination (Point-to-Point), or other flexible models. Stop Location: Balancing convenience and universal accessibility with efficiency. Hours of Service: Establishing the days of the week and hours of operation to match trip needs.



<p>What is the size of the service area?</p>	<p>Zone Geometry: What are the bounds of the service area?</p>	<p>Zone Boundaries: Refining the specific borders of the identified area(s).</p> <p>Stop Types: Defining the characteristics of stops and transfer points.</p>
	<p>Demand Density: How many trips are expected?</p>	<p>Booking Trips: Determining when trips can be booked.</p> <p>Fleet: Determining the size, type and accessibility of the fleet.</p>
<p>What will be the service delivery model?</p>	<p>Pricing & Payment: How much does the service cost and how is revenue collected?</p>	<p>Fare Structure: Determining pricing logic (Flat fare, Distance-based, or Zone-based) and transfer rules.</p> <p>Payment Technology: Deciding if the system accepts cash, online payment, transit passes, etc.</p>
	<p>Integrated Service: How will microtransit interact with existing service models?</p>	<p>Commingled Service: Deciding if all passengers utilize the same vehicles to increase efficiency, including those who qualify for paratransit.</p> <p>Transfer Policies: Defining rules for guaranteed connections to fixed-route networks.</p>
	<p>Operational Structure: Who employs the drivers and manages daily operations?</p>	<p>Operating Model: Defining the employment model (In-house vs. Contracted/Turnkey)</p> <p>Service Monitoring: Determining how to identify if the service is operating successfully</p>

What Market is Being Served?

Technology

Microtransit has been fundamentally enabled by advancements in digital technology. The emergence of information technologies, such as smart phones, cellular data connectivity, and global positioning systems (GPS) has spurred rapid evolution of passenger transport systems.

Several ways technology has enabled microtransit include:

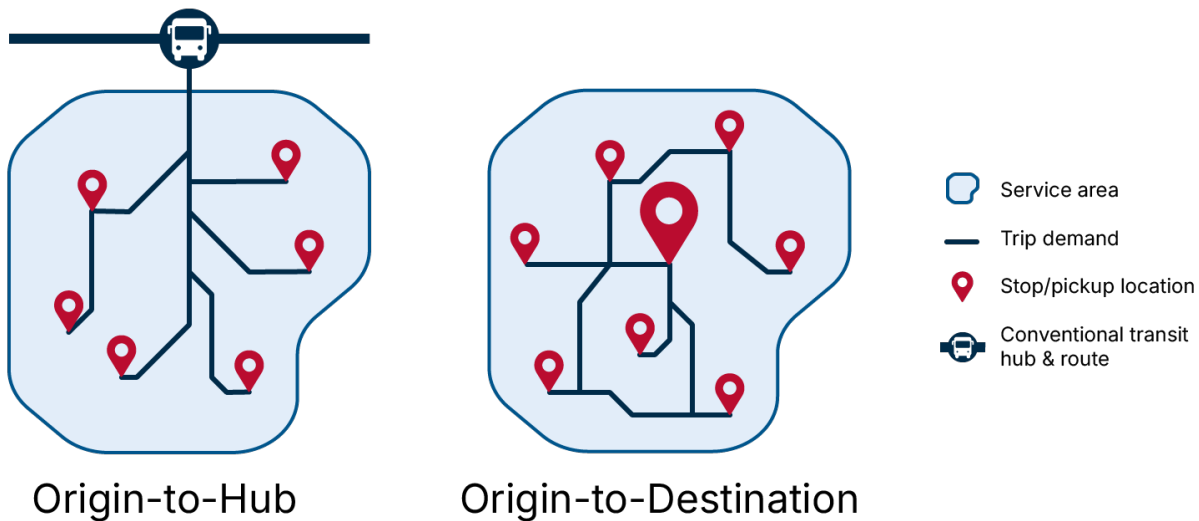
- **Smart phones and mobile apps:** This enables riders to request trips in real time using on-demand booking, user-friendly interfaces for notifications, and accessibility features with multilingual supports.
- **GPS, real-time data, and vehicle telematics:** Through these options, vehicles can be tracked by riders and deviate in real-time to pick up and drop off passengers efficiently. Additionally, transit agencies can track on-time performance, productivity, and vehicle utilization.
- **Integrated payments and fare technology:** Riders can make mobile payments using the platform where they've booked their trip, reducing cash handling and the associated administrative and operating costs.
- **Advanced algorithms and artificial intelligence:** This will help to facilitate dynamic routing and match multiple riders into shared trips. Additionally, based on historical data, demand prediction and continuous optimization of travel time can be improved.
- **Cloud computing and data analytics:** This technology offers opportunities for advanced analysis and evidence-based refinement of the microtransit system based on live data. It enables automated KPI reports at regular intervals which can be used to adjust service as needed.
- **Rider communication and engagement tools:** Riders can receive notifications for pickup times, delays, and vehicle arrivals. This also enables feedback through in-app surveys and ratings for transparency and customer satisfaction. These technologies can be flexible to provide a microtransit system designed to best engage with the local community.

The system proposed in this plan will depend on securing a technology solution from a well-established vendor to provide an efficient and high-quality microtransit service.

Service Model

When implementing microtransit there are two typical models for delivering service:

- **Origin-to-Hub (First-Mile/Last-Mile):** Microtransit provides mobility to customers in lower-demand areas to/from the nearest transit hub. This provides first-mile/last-mile connectivity to the rest of the transit network, with the majority of a passenger's overall journey taken on fixed-route transit along a transit corridor. The connecting hub allows customers to complete their trips from a safe, accessible transfer point and connect to multiple routes.
- **Origin-to-Destination:** Microtransit vehicles provide a one-seat ride to connect any origin with any destination in the service area. This means that transfers to a fixed-route service are not required. This model is typically implemented in larger low-density geographic areas where there is no fixed-route service or in smaller geographic areas where a transfer would impose a significant deviation for most passengers.



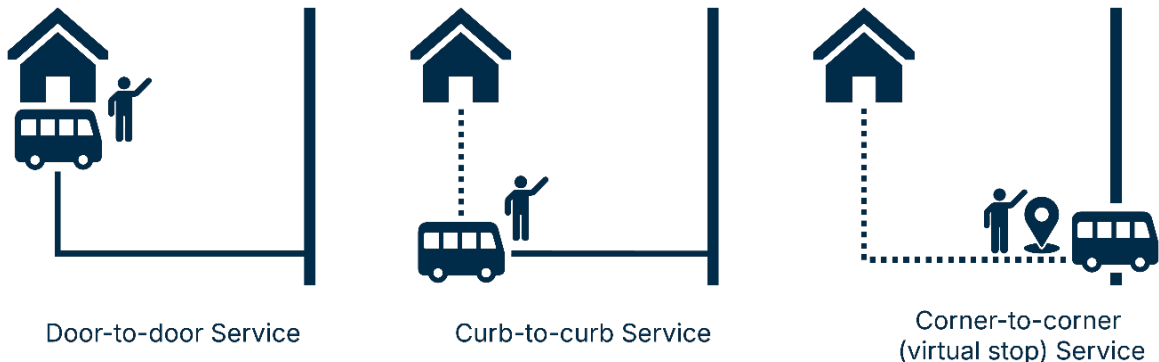
There are a diverse range of communities in the municipality well suited for microtransit, including those in close proximity to the existing transit network, and some that have multiple major destinations within the community. Primarily residential areas that rely on travel to larger hubs to access services would also benefit from increased access.

To meet the needs of the communities, and to learn and trial different service types, a combination of these two models is proposed.

Stop Locations

A key part of designing a microtransit service is determining where passengers will board and disembark the vehicles. Many approaches are possible, but most can be categorized in three ways:

- **Door-to-door service:** The vehicle picks up and drops off the passenger directly at the building entrance of their specified origin and destination. In some cases, it can include the driver assisting the passenger to their door if necessary. This model provides the highest level of convenience, but is generally reserved for paratransit services, as it is the least efficient for pooling riders and optimizing routes.
- **Curb-to-curb service:** The vehicle picks up and drops off the passenger alongside a curb or at the base of a driveway, outside the specified origin and destination. This approach minimizes time spent navigating driveways or complex parking areas, reducing passenger delays and improving service reliability while maintaining high passenger convenience.
- **Corner-to-corner service:** The software directs the passenger to walk or roll a short, predefined distance (e.g., to the nearest intersection or another designated point) for pickup and drop-off. This maximizes routing efficiency and passenger pooling by keeping vehicles on main corridors but requires passengers to travel a short distance at either end of the trip. This is commonly known as a “virtual stop”, some of which may also include signage.



Since Halifax Transit plans to operate microtransit in areas with limited pedestrian infrastructure and/or low demand (which limits the potential for trip grouping), curb-to-curb service is the most appropriate solution. This approach prioritizes equitable access, passenger safety, and convenience in low-density settings, while still maintaining routing

efficiency. However, virtual stops and/or marked stops can be used at strategic locations (e.g., hospital, grocery store, or community centre) to enhance the passenger experience by simplifying wayfinding, and centralizing access. This allows passengers at large venues or in dense community pockets with frequent trip requests to congregate at a single, recognizable location, ensuring more predictable pickups and encouraging trip grouping.

This differs from the existing door-to-door service model of Access-A-Bus, as even customers with accessibility needs would receive the same curb-to-curb service as other passengers when using microtransit. This approach reduces boarding times and increases the number of accommodated trips as a result, while providing a level of service for passengers aligned with accessibility regulations in Ontario (Accessibility for Ontarians with Disabilities Act), given no equivalent regulations governing paratransit services are currently available in Nova Scotia. By providing a single service model for all passengers, it simplifies service provision and still accommodates most passengers, including those with disabilities.

Hours of Service

The hours of service for microtransit will be driven by demand and scaled according to specific community needs and available resources. This approach ensures that service is prioritized when and where it is most needed, supporting reliable connections to the broader transit network and aligning with the regional mobility goal of sustainability. Service is expected to span daytime periods on weekdays with possible service during evenings and weekends. Where several microtransit zones are planned, variation in service hours among them is expected depending on local travel patterns.

What is the Size of the Service Area?

Zone Boundaries

Like conventional transit, microtransit services are designed based around the communities they serve. Unlike a fixed bus route that follows a set path and schedule, a microtransit zone is a flexible, designated area, or zone, where vehicles provide service based on a defined set of standards. This is very similar to how conventional transit routes are structured; just as a fixed-route is defined by its type (e.g. local vs. express), span (e.g. peak-only vs. all-day), and frequency, a microtransit zone is defined by its service model (e.g. curb-to-curb vs. curb-to-hub), operating hours, and target wait times.

These zones are typically defined based on a combination of the geography and service goals of a given area. For example, microtransit service may be provided in a subdivision because it is difficult to serve with conventional transit due to a limited street network (only one entrance). While a microtransit zone could be created that is limited strictly to that subdivision, the goal of providing first-mile/last-mile connectivity would require the zone boundary to be extended to a fixed-route stop. In this scenario, geography dictates the zone's shape, while the connectivity goal dictates its extent.

In more rural areas, microtransit zones tend to have a similar goal of providing first-mile/last-mile service, with fewer geographic constraints, and limited points of connection to the broader network. While this would suggest that large zones could be defined, this is not considered the best approach, because service standards are tied to the zones' size. Since microtransit service allows passengers to request a trip between any two points within a zone boundary, larger zones often result in significant deadheading (time without a passenger in the vehicle) to travel between passengers. Therefore, to limit the distance travelled by a microtransit vehicle, reducing deadheading and managing the reliability of the service for the ride, it is recommended that smaller zones be created.

These zone boundaries are an important factor of the user experience of microtransit. To make the service area intuitive, zone boundaries should be defined where possible by natural geographic barriers (rivers, lakes, coastline, forested areas), rail lines and/or highways. When boundaries must be placed within the street network, intersections should be used to define the limit. Utilizing these recognizable physical landmarks makes it easier for the public to understand exactly where the service is available and where it ends.

Microtransit is designed to complement the existing services, therefore zones should be selected to allow for connectivity to the fixed-routes without substantially duplicating their service. However, while duplication must be limited, connections between services of any type should prioritize the passenger experience and support efficient trip chaining. Therefore, a degree of service duplication is considered acceptable if it is possible to connect the passenger to fixed-route service and a key destination simultaneously. These locations are called Transit Hubs.

For this plan, relatively small microtransit zones that connect communities to fixed route service are being proposed in the initial stages of implementation to allow for a focus on reliability while gaining experience with the service model.

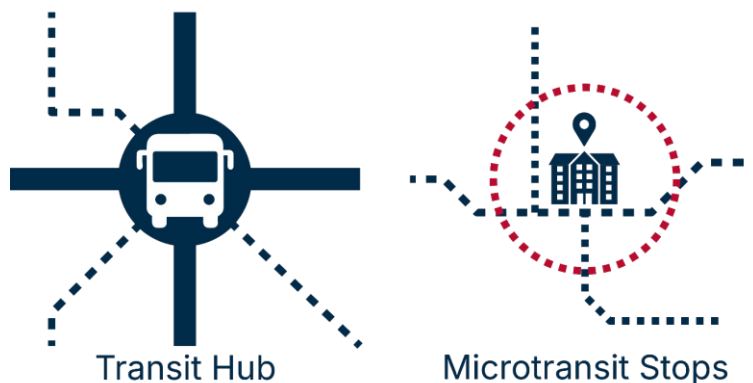
Stop Types

Transit Hubs

Transit hubs are a safe, accessible place, typically found at major destinations or where multiple routes intersect, and located near the area intended to be serviced by microtransit. To maintain system efficiency, microtransit should not substantially duplicate fixed-route service; vehicles should only operate along fixed-route corridors for the minimum distance required to reach the nearest logical hub.

The chosen hub should be easy to reach from nearby locations by pedestrians, cyclists, and mobility devices. It should be located near pathways, sidewalks, or main corridors for convenient access. Since microtransit vehicles typically have a longer dwell time than fixed-route vehicles, there should be sufficient space to accommodate these vehicles without impeding fixed-route or traffic operations. Terminals and Park & Rides are examples of larger transit hubs that can be used; however, a microtransit hub does not require all the features of these facilities.

Amenities at microtransit hubs may differ based on the site's conditions; however, they should align with the features of an enhanced stop. All microtransit hubs must therefore be accessible and provide passengers with shelter. Other features may include additional seating, passenger information, and waste receptacles.



Microtransit Stops

While most trips will happen curbside at the requested pick-up or drop-off location, or at transit hubs, there may be some areas where it is appropriate to add microtransit stops. As noted, virtual stops and/or marked stops can be used at strategic locations to enhance the passenger experience by simplifying wayfinding and centralizing access. These types of stops should be reserved for large venues or locations in dense community pockets where there may be frequent trip requests within a small area, or multiple access points to a single location.

Some examples include multi-building apartment complexes, university or hospital campuses, shopping malls, and large parks. By encouraging passengers to congregate at a single, recognizable location, trips can be grouped more effectively, and drivers can more easily identify passengers waiting for the service. This can reduce the number of individual stops a vehicle must make within a small area, thereby decreasing the overall boarding times and improving the pace of the route for all passengers.

Trip Booking Policies

The booking window is the period during which a passenger can schedule a microtransit trip. The window is measured from the desired departure time.

There are three key characteristics of a booking window:

- How far in advance a trip can be booked
- How close to the trip can a booking be made
- How long can a passenger expect to wait if they are booking at the desired departure time.

Booking windows can be roughly categorized, based on these characteristics, into **same-day**, **advanced** and **real-time** booking types, as outlined below:

Booking Type	Benefits	Risks	Example
<p>Advanced Bookings: Passengers can book their trips in advance up to the day before they make their trip; anywhere from one day to more than two weeks in advance</p>	<p>Supports riders who need to plan ahead (appointments, work schedules).</p> <p>Reduces uncertainty for customers who require predictable travel.</p>	<p>Passengers who need a trip on the same day must find an alternative.</p> <p>High number of missed or cancelled trips.</p>	<p>Halifax Transit Access-A-Bus: Passengers can book a trip up to seven days in advance but generally must request trips at least 24 hours prior to the desired trip time.</p> <p>This model is typical of paratransit services.</p>

<p>Same-day Bookings:</p> <p>Passengers book their trip on the same day of travel with the option to book all trips for the day at once or add in trips as they are needed. Typically, a short advanced-notice period (usually between 15 and 30 minutes) is in place, ensuring the driver can collect the passenger within established service standards.</p>	<p>Helps agencies maintain service reliability and operational capacity because bookings are close to the actual trip, reducing the number of cancellations and missed trips.</p> <p>Provides greater flexibility to passengers in booking trips as things arise.</p>	<p>Reduced convenience for regular passengers as they are required to make bookings each day.</p> <p>Early morning trips can be harder to book.</p>	<p>Durham Region Transit: Passengers could request a trip beginning at midnight the day before the planned trip.</p> <p>Durham has opened this window more recently to allow for advance bookings (up to 3 days prior to travel) including same day bookings.</p>
<p>Real-time or Immediate Bookings:</p> <p>Passengers book their trip when they need to take it, with no ability to schedule ahead.</p>	<p>Supports passengers who need to make trips at times they cannot plan for in advance, such as the time when a connecting route will arrive at a terminal, or the length of time an errand will take.</p> <p>Improves operational efficiency because scheduling matches real-time demand.</p> <p>Trip availability is not reduced by advanced bookings that are changed or cancelled as the travel time nears.</p>	<p>Not feasible in large rural zones, where long travel distances may mean long wait times.</p> <p>Less convenient for passengers who use the service to make regular trips and are able to plan ahead.</p> <p>Passengers must book early morning trips very early, or a policy must put in place to allow for advance booking of very specific trips.</p>	<p>Calgary Transit: Passengers request trips for the next available time and can expect a trip less than 60 minutes from the booking time.</p>

The decision on which model to use as well as the times and windows associated with each option, has potential impacts on **passenger experience** and **system operations**, including the number of vehicles and drivers needed to deliver the service.

The industry is generally trending toward accepting real-time bookings; it is proposed that this approach also be taken in Halifax. This provides the highest level of flexibility for passengers, aligning with modern mobility needs. It is, however, expected that some micromobility zones will be larger as service moves into the more rural parts of the municipality. Therefore, it is recommended that the window for advanced bookings be longer than one hour.

Fleet

Microtransit can be provided by vehicles ranging from compact cars to full-size buses. Most service providers typically use a mix of cars, accessible vans, and smaller style buses, allowing them to match demand for any given trip.

Halifax Transit proposes operating a fleet of primarily mid-size vehicles that can accommodate mobility devices. Although there are currently no accessibility regulations in Nova Scotia that would prevent the use of cars, to be more inclusive, ensure passenger comfort, and reduce any operating inefficiencies, non-accessible vehicles are not under consideration.



Source: City of Corner Brook

What Will the Service Delivery Model Be?

Fare Structure

Halifax Transit’s fare structure is currently made up of two price tiers: one for conventional bus, ferry and Access-A-Bus services, and another for Regional Express routes. The higher fare was created to reflect the premium level of service and extra travel distance required to rural areas.

Conventional Bus, Ferry, Access-A-Bus	Adult (18-64)	Senior (65+) Youth (13-17)	Child (0-12)
Cash	\$3	\$2.25	Free

Additional payment for transfer to Regional Express

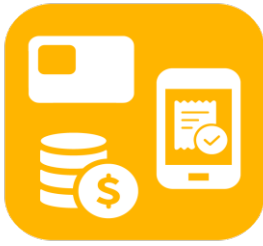
Regional Express (Routes 320, 330, 370)	Adult (18-64)	Senior (65+) Youth (13-17)	Child (0-12)
Cash	\$4.75	\$3.25	Free
Top up with: <ul style="list-style-type: none"> • 1 Ticket • Transfer • Monthly Pass 	\$1.50	\$1	Free

Figure: Existing Halifax Transit fare structure

Options for microtransit fares could include creating a new fare category or creating zone-based or distance-based fares. However, for simplicity it is proposed that one of the existing price tiers be adopted for microtransit. Either could justifiably be adopted; however, this proposal assumes the higher fare will be charged. This reflects the longer travel distance required, and convenience of curb-to-curb service. While the existing fare policy could be easily applied, further consideration will be needed for the transfer policy, as travel times could require longer transfer windows.

As a Halifax Transit service, the full suite of fare programs offering discounted or free fares for students, seniors, low-income residents and other groups, would also be available for the microtransit service, to ensure passengers could transfer from one service to another.





On board fare technology in microtransit vehicles must support the use of all fare types currently offered on board conventional vehicles.

Transfer Policies

Since the microtransit model operates trips only within zones, and the zones are intentionally designed to reduce duplication with conventional services, passengers will be required to transfer to a different vehicle should their trip extend beyond the bounds of the zone. This includes passengers who are transferring to conventional bus service, or who are eligible for Access-a-Bus.

The policy for required fares when transferring should be consistent with the policy for other Halifax Transit services. Passengers can request a transfer from the operator on the vehicle they are departing and present it to the vehicle they are entering as fare payment. Where passengers are moving from a lower cost service to a higher cost service they will be required to provide a fare top up.

Integration with Access-A-Bus

Using a shared fleet for accessible transit and microtransit services is a common trend across North America to lower costs and provide improved service, and is referred to as commingling. Using a vehicle to provide microtransit and accessible transit services at the same time means a larger fleet of vehicles that can be dispatched dynamically based on demand and pick up multiple types of passengers on one trip. This introduces operational efficiencies, shortening wait times for riders, and increasing coverage.

Paratransit services are provided by Halifax Transit under the name Access-A-Bus. This system has established policy and operating procedures that will be evaluated in an operational review as part of the *Strategic Roadmap*. This system also has embedded technology components that may not be optimal to support commingling at this time. As such, the introduction of commingling would be a significant change, and it is not planned for the initial rollout of microtransit services.

Instead, initial microtransit services are planned to be a universally accessible part of a broader family of services. This means most passengers can use the same service regardless of mobility needs. However, it would be beneficial in the medium to long term to provide both services internally under one umbrella as a commingled service.

In 2021, Winnipeg Transit began integrating accessible transit with microtransit along with the broader bus network in building a more accessible, flexible, efficient, and connected transit system for the riders. The goal was to make public transit easier to use for more people – whether they rely on accessible services, live in low-density areas, or need flexible routing outside peak fixed-route service times- while using resources more effectively than the rigid fixed-route buses alone.

The initiative included the launch of a new booking system and was widely successful, reducing the number of rides rejected from over 3,000 annually to less than 40 annually. The average wait time to book a trip was reduced by over two-thirds, from 19 minutes to 4 minutes.



Source: Winnipeg Transit

Section 3

Expanding service coverage and improving regional connections

Public transit services are available in large portions of the Halifax Regional Municipality in some capacity, provided by Halifax Transit and a series of non-profit rural transit service providers. However, within these communities, there remain gaps where destinations are inaccessible by transit. Moreover, over 1,000 km² of the municipality is currently outside the conventional transit service area and outside the service areas of the rural transit service providers. Communities in this area have no public transit options and can be both too dispersed for conventional transit to be cost-effective, and/or too dense to qualify for the provincial subsidies that support rural transit services.

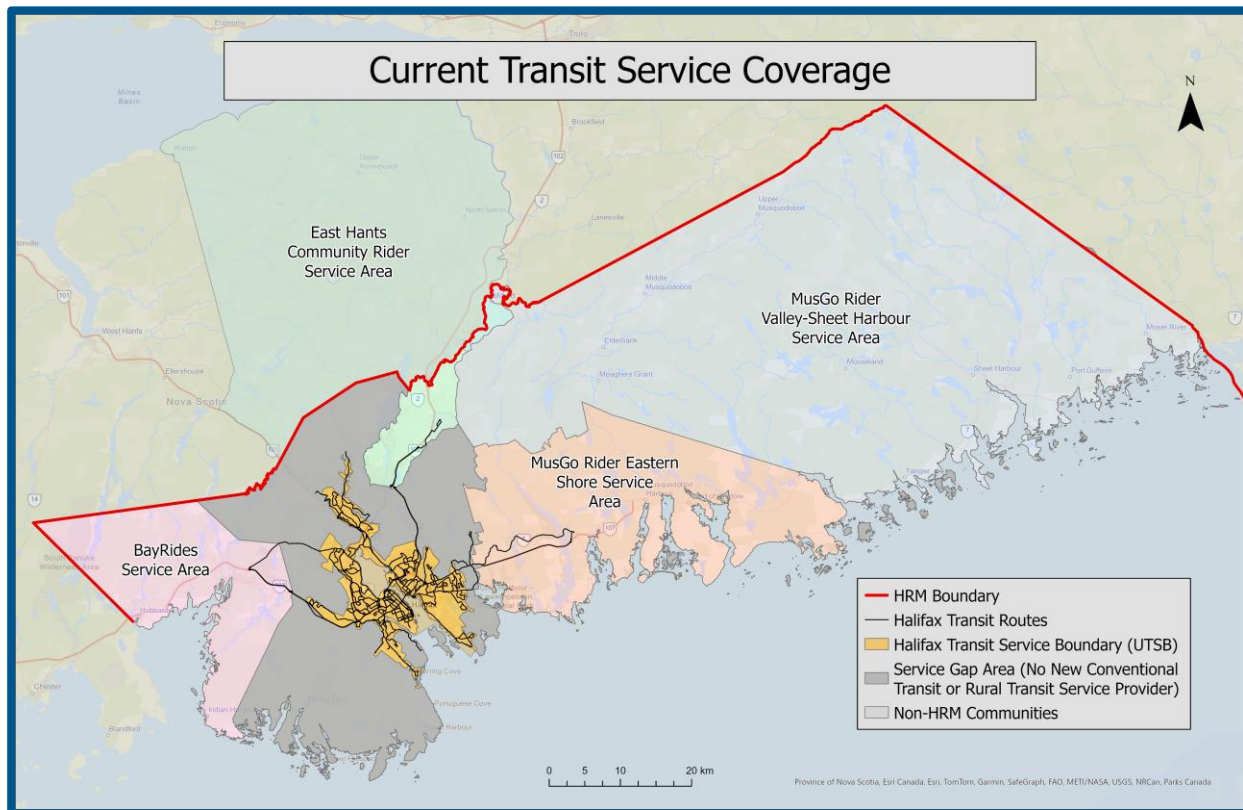


Figure: Transit Coverage in the Region

The unserved area encircles the conventional transit service boundary and is made up of many diverse communities of varying density and travel patterns, some of which are more well suited to microtransit than others. Due to the size and complexity of this area, and resource limitations, a phased approach is proposed for implementing microtransit. The proposed phases are as follows:

- In Phase 1, priority areas identified within the unserved region will be targeted for microtransit implementation.
- In Phase 2, microtransit is proposed in suburban and urban areas where it is expected to fill an unmet need or right-size service to a neighbourhood.
- In Phase 3, microtransit services would be gradually expanded to potentially provide transit throughout the unserved areas and beyond.

Phase 1: Priority Areas

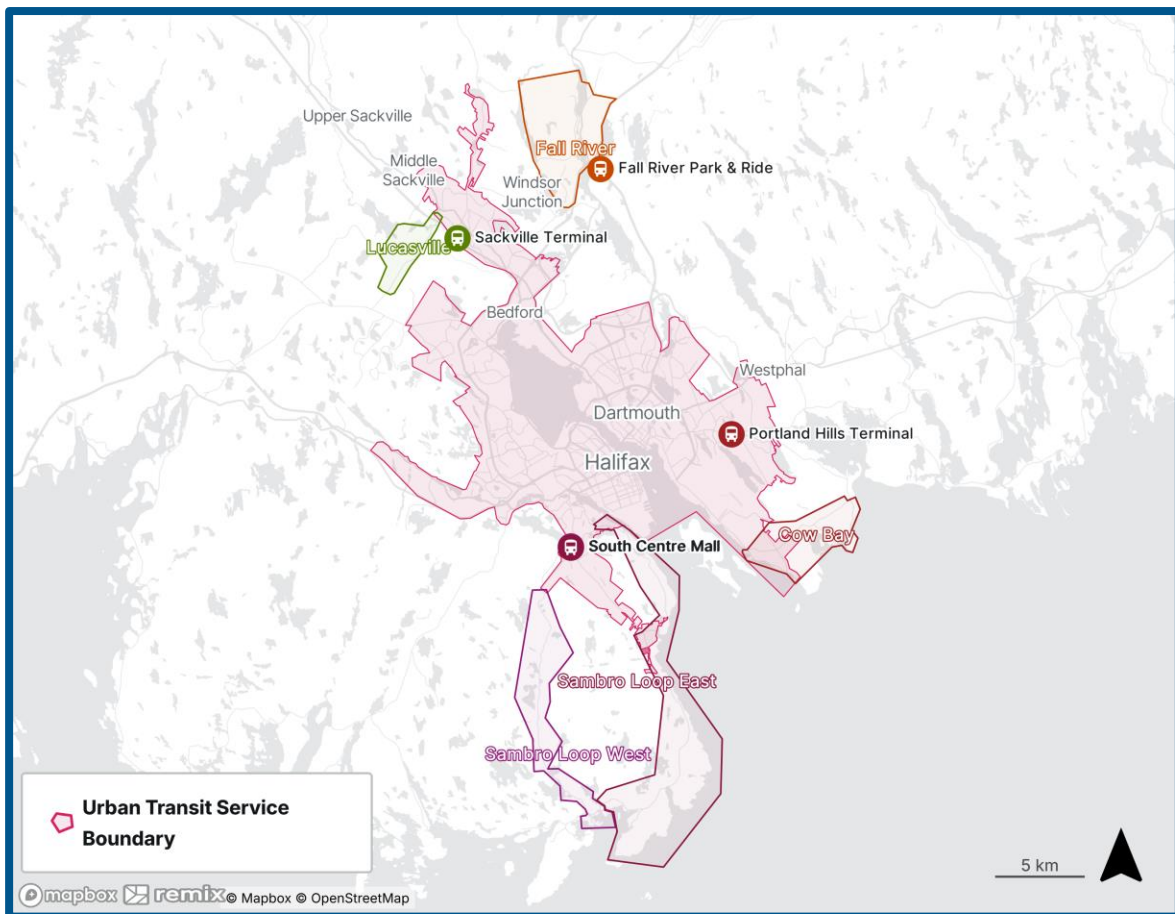


Figure: The five priority areas with major locations for transfers between microtransit and the conventional transit system highlighted

Several initial priority areas have been identified for the proposed microtransit service. These communities were chosen based on lack of current available transit services, local transit propensity, and operational feasibility. Each region has its own unique challenges, allowing opportunities to learn from different microtransit strategies to optimize the effectiveness of the service when planning future expansion.

The areas selected represent a significant portion of the population currently unserved by either Halifax Transit or an existing rural transit service provider. Service can be implemented region-by-region to take advantage of the flexible nature of microtransit when scaling up operations and adjusting to new environments.

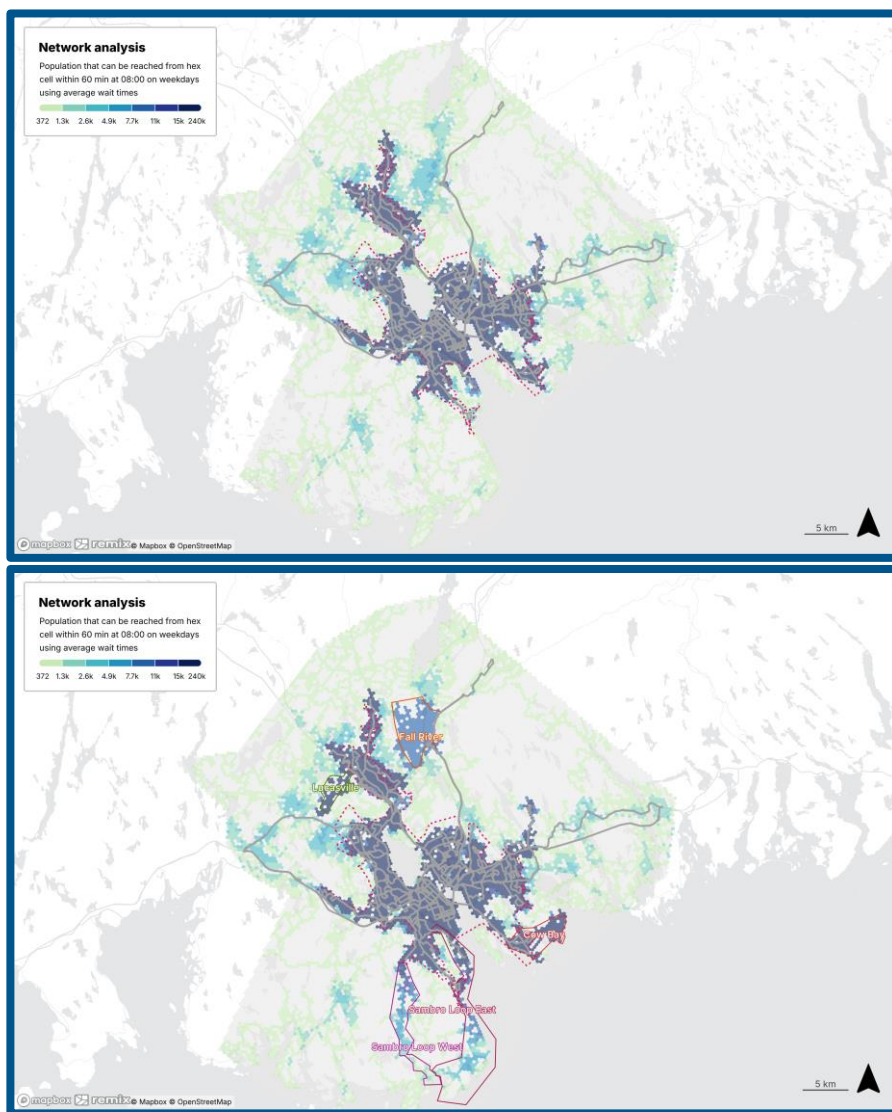


Figure: Map showing the increase in transit coverage as a result of adding microtransit zones.

Lucasville

Lucasville, originally known as Lucas Settlement, is a historic African Nova Scotia community that is proposed as the first area for microtransit implementation. Despite having an established population of over 1,000 residents, the community lacks access to any form of public transit. Residents are currently several kilometers from the nearest transit stops with inadequate pedestrian and cycling infrastructure connecting to them.

Several factors make Lucasville a compelling area for an initial pilot, including:

- A relatively compact settlement pattern compared to other rural areas
- Strong community advocacy for transit services, suggesting sufficient demand and appropriate travel patterns to support microtransit
- Resident demographics such as age and income levels suggest a relatively high level of transit propensity
- Growing suburbanization in and around the area, with many housing units being built or proposed for future development
- Proximity to Sackville Terminal, providing the opportunity for connections to Halifax Transit conventional bus routes

With the potential to be the most cost effective and most likely rural area for microtransit to succeed, Lucasville is a strong candidate for microtransit.

The proposed service area for microtransit in Lucasville would encapsulate much of the historic community, including several significant trip generators, with connections to transit hubs at Downsview Mall and Sackville Terminal. Riders would be able to travel curb-to-curb within the service area, or to and from dedicated stops at hubs. Areas surrounding Sackville Terminal and Downsview Mall are not recommended for curb-to-curb service currently due to the existence of conventional transit in the area. Travel is primarily expected to be between households in Lucasville and the stops outside the zone for employment, shopping, and connection to the wider transit network. However, some travel to activity centres inside the zone, like centres of worship and recreational facilities, is also expected.

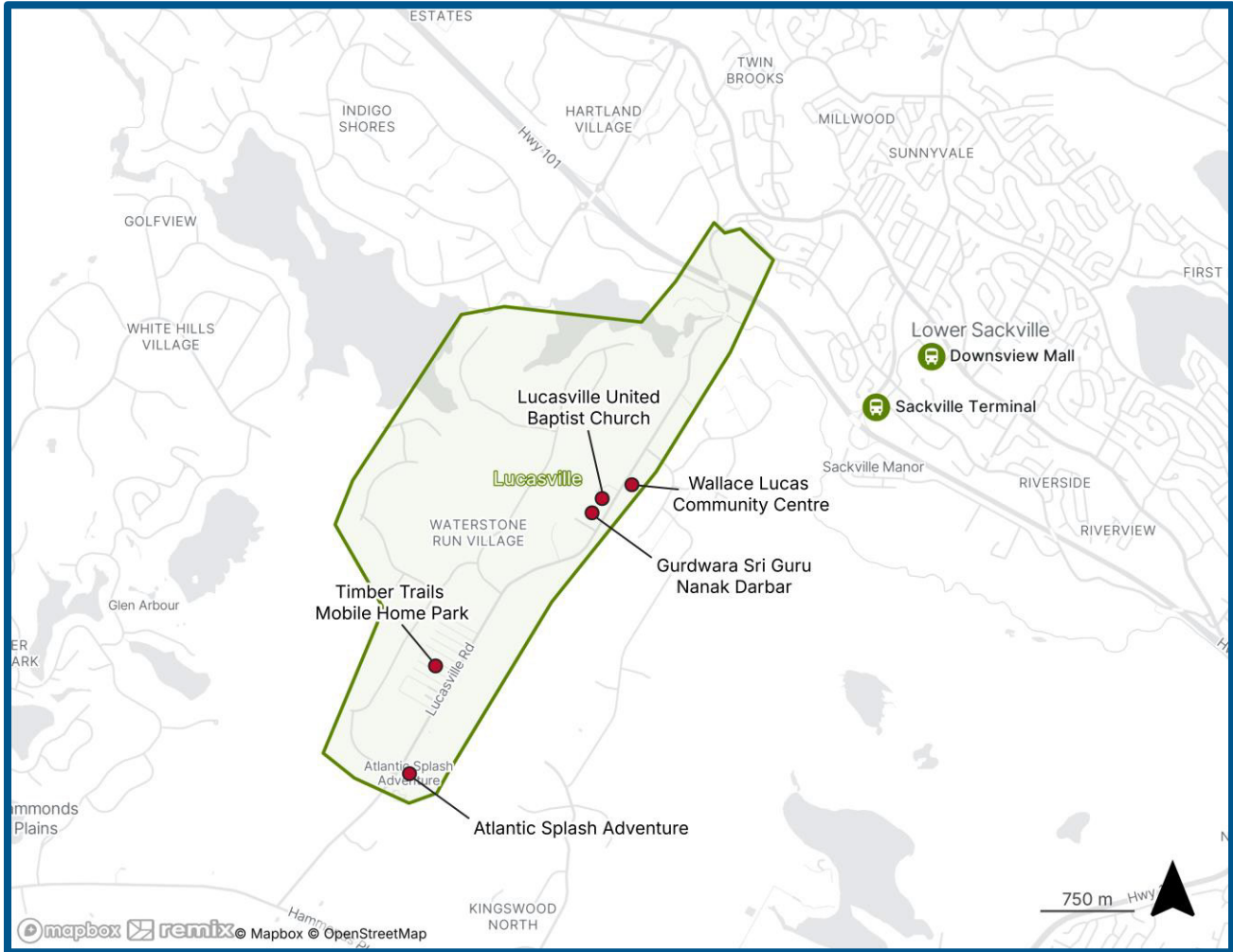


Figure: The proposed Lucasville microtransit zone

The proposed Lucasville zone is well-suited for microtransit operations, with an amenable road network, a population that is significant but not potentially overwhelming, and a compact footprint. As such, it is expected the service would face minimal geographic obstacles, attract a significant number of riders, and be manageable with a modest vehicle fleet. While the zone could be expanded in the future, the current proposal provides a strong setting for the municipality to familiarize itself with microtransit operations and build the necessary competencies for operating microtransit in more challenging environments.

Fall River

Fall River is an exurban community with an estimated population of approximately 6,000. Like Lucasville, this area is near an existing transit facility while not being within safe walking distance. Although Fall River has significantly more residents than

Lucasville, the population is dispersed over a much larger area. This lower population density is compounded by a complex road network with many cul de sacs, making transportation in the area less efficient.

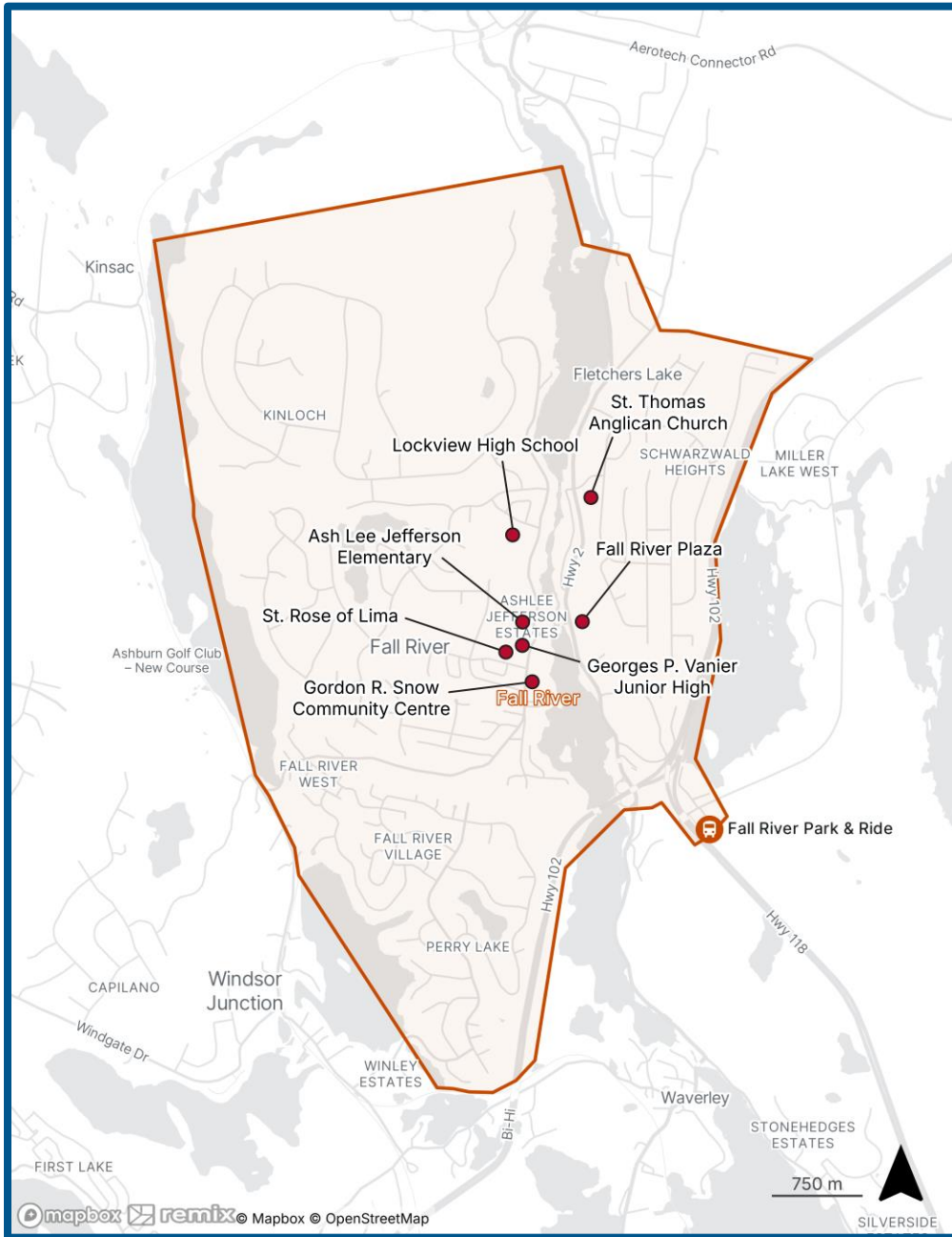


Figure: The proposed Fall River microtransit zone

Due to the dispersed settlement pattern and street network, a conventional bus route would only be able to serve a small number of main roads in Fall River, limiting the potential for increased ridership. However, a smaller microtransit vehicle would be able

to navigate nearly all of Fall River on-demand, extending high quality transit services to more residents.

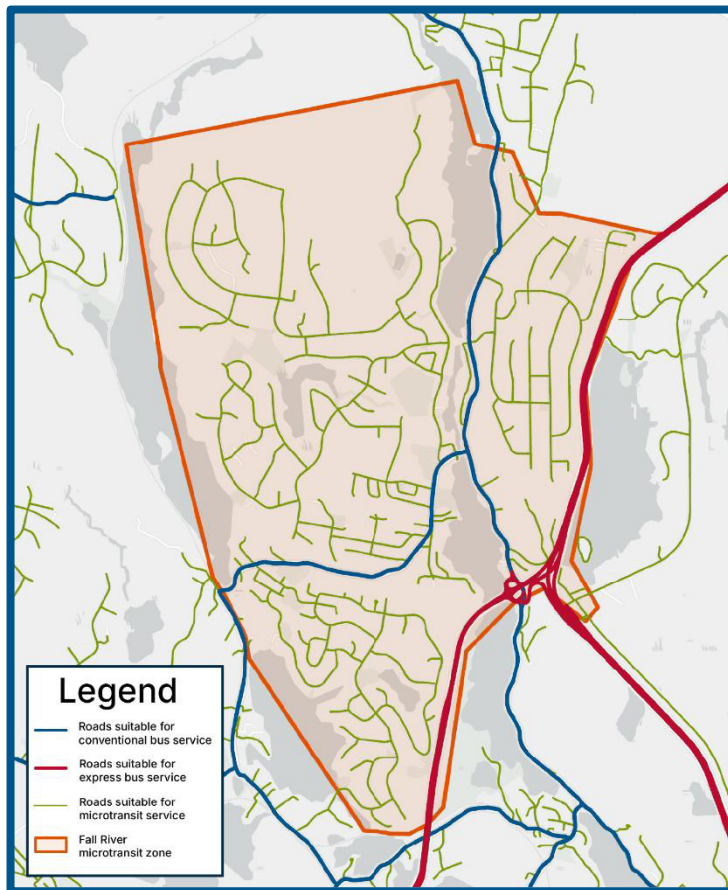


Figure: Suitability of roads for various forms of transit in Fall River

Although the area’s population and road network would present challenges beyond what is anticipated in Lucasville, implementing microtransit in Fall River is proposed as it would demonstrate microtransit learnings over a larger area and population while further developing strategies that can be used in other similar environments. In addition, Fall River sets itself apart from most of the other priority areas by having a commercial centre that is expected to generate a significant volume of trips within the zone. A pilot in this community could provide valuable data about the tendency for shorter trips to access goods, services, recreational facilities, or employment, all within the community.

Cow Bay and Eastern Passage

Cow Bay is a primarily residential area lacking transit service to the northeast region of Eastern Passage. The closest Halifax Transit conventional bus route is Route 6+ Woodside/Eastern Passage/Heritage Hills, with the 6B and 6C branches of the route extending to Eastern Passage and Heritage Hills respectively. This route also links the area with the Bridge Terminal and Woodside Ferry Terminal, providing many transfer opportunities.

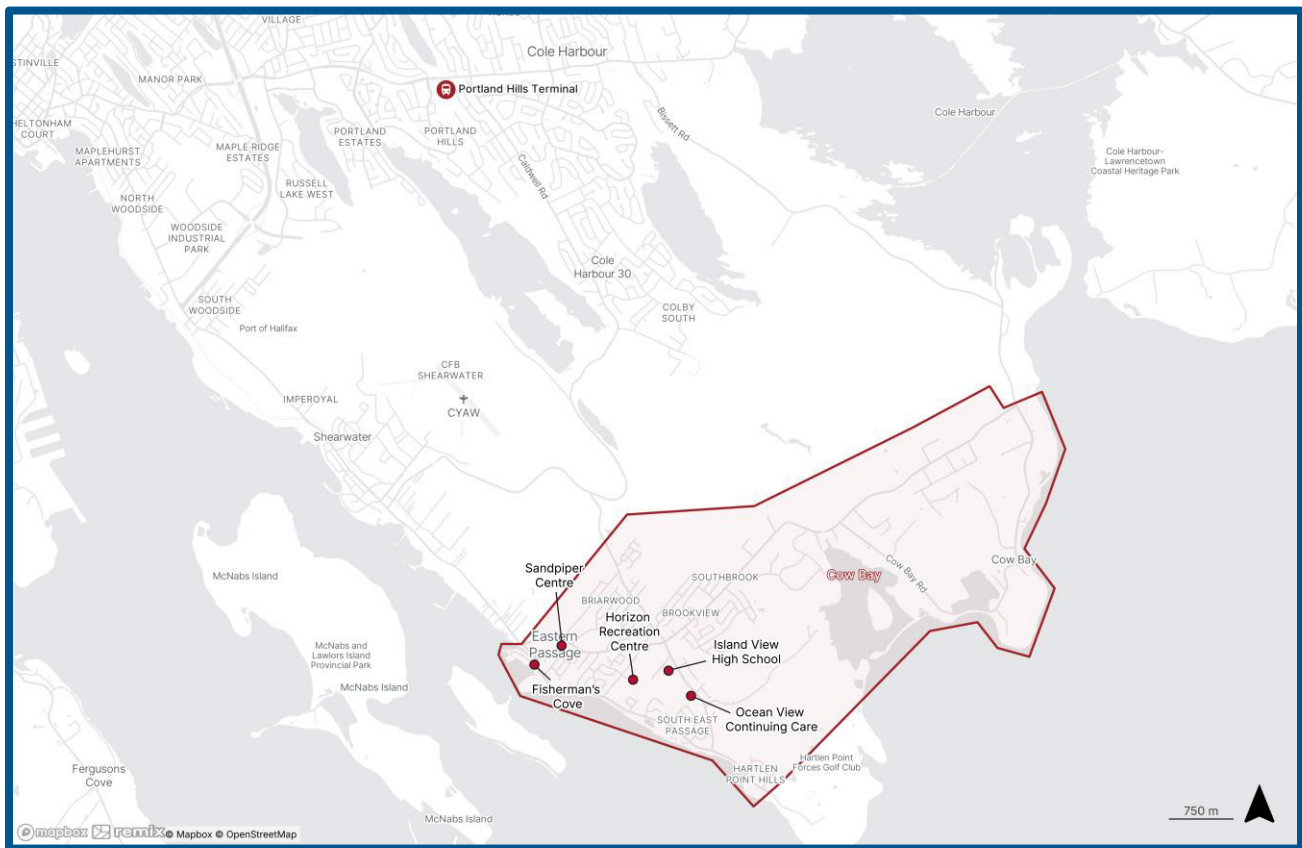


Figure: The proposed Cow Bay – Eastern Passage microtransit zone

The community of Cow Bay differs from both Lucasville and Fall River in that the closest potential terminal connections are further away and require travelling through other communities. As such, it presents a unique opportunity to apply the microtransit model in a slightly different way, considering Cow Bay and Eastern Passage as one service area. As a result, this zone is the most populous of the initial areas planned for microtransit implementation, with an estimated population of over 9,000.

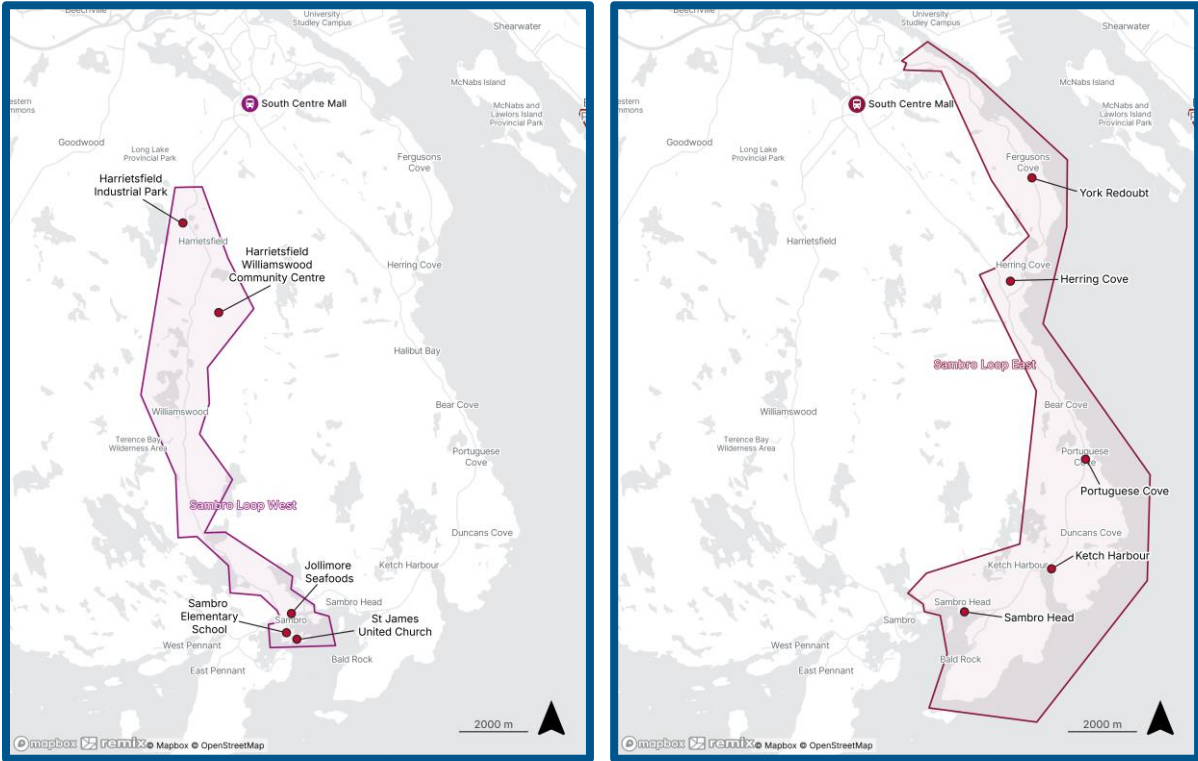
Proposed microtransit service in this area would allow residents of both Eastern Passage and Cow Bay to travel throughout the service area, providing access to goods and

services, recreation, employment opportunities, and bus stops that are primarily in Eastern Passage. This service area will also include Portland Hills Terminal, connecting residents in the region to the conventional transit service. Similar to Lucasville and Fall River, this means that Cow Bay residents, which currently have no transit service, would have the ability to both make short trips within their community, and also to connect into the broader bus network. However, by designing service this way, it also means the Eastern Passage residents, who do have public transit via the Route 6B/C will be able to use microtransit for shorter trips, or use microtransit to connect to the Portland Hills Terminal. A transit connection between Eastern Passage and Portland Hills Terminal has been one of the most requested new bus routes consistently over many years. Thus, the benefits of this priority area are two-fold, bringing transit to an unserved rural community, and testing the potential of microtransit in a suburban community as an alternative to fixed-route service.

Sambro Loop

The final two priority areas are adjacent zones on the Chebucto peninsula. The communities on highways 253, 349, and 306, also known as the Sambro Loop, have a cumulative population of over 4,000 people. Previously, Halifax Transit Route 402 Sambro served the area, but the route was discontinued in August 2017 after eight years, due to low ridership. Various bus routes do still extend to Leiblin Park, Herring Cove, and York Redoubt, which provides some conventional transit service to the region.

Of the initial microtransit zones proposed, the Sambro Loop is the largest physically, and the most challenging to serve, with several interconnected communities on a large road loop without a major transit facility nearby. Due to the sprawling nature of the Sambro Loop, and limited connections between communities on the east and west sides of the loop, two separate microtransit zones are proposed.



Figures: The Sambre Loop West and Sambre Loop East microtransit zones, respectively.

The western zone would run from Sambre to Harrietsfield with a dedicated non-zone stop at the South Centre Mall – the nearest commercial centre and a meeting place for several Halifax Transit routes. The eastern zone would run from Sambre Head to Williams Lake Road also with a single non-zone stop at the South Centre Mall, which would connect service in the two zones. Effectively, together the zones do result in a complete loop, and passengers would be able to travel between them. However, they could also be launched independently, and the zones as shown are more reflective of the expected travel demands.

An important consideration in planning microtransit for the Sambre Loop is that Route 415 Purcells Cove overlaps significantly with the Sambre Loop East zone. This is not ideal because there is the potential the two services will effectively compete for ridership. However, as a rural route, Route 415 Purcells Cove has only eight trips each weekday with no service on Saturdays, Sundays, or holidays, so microtransit has the potential to address gaps, particularly in midday, evening, or weekend periods, and be complementary.



Figure: Routes 25 and 415 in relation to the Sambro Loop East microtransit zone

Extending service to these priority areas in Phase 1 brings the transit network to the front yards of more than 20,000 residents. This significant increase in coverage can be accomplished with only 11 vehicles and 53,000 annual service hours. Despite being such large service areas, with significantly lower densities than fixed route service areas, the

number of service hours per capita only slightly exceeds the municipal average. This is made possible because the service is scaled to the expected demand as opposed to a defined frequency.

Zone	Population	Zone Area (square km)	Pop. Density	Projected Passengers per week	Required Vehicles	Annual Service Hours
Lucasville	1300	7.2	182	250	3	15,500
Fall River	6000	24.9	241	125	2	6,750
Cow Bay and Eastern Passage	9300	16.2	575	250	3	15,500
Sambro West	1100	22.2	50	75	1	5,000
Sambro East	3200	53.3	60	75	2	10,250

Phase 2: Microtransit Opportunities in Suburban and Urban areas

Although the *Microtransit Service Plan* is focused on areas not currently serviced by public transit, there are both gaps and opportunities for microtransit that exist within serviced areas as well. Phase 2 focuses on scaling the microtransit system to fill unmet transportation needs inside urban and suburban areas. Microtransit services providing access to cultural and historic sites, off-peak service in low-density employment centres, and replacing conventional routes with low ridership, will be evaluated and implemented as resources allow. The implementation of phase 2 could begin alongside the priority areas in Phase 1, continuing concurrent with Phase 3. However, if expansion potentially impacts existing conventional bus routes and passengers, additional public consultation may be required, and specific changes would be brought forward either through a future transit service plan or stand-alone initiative for Regional Council’s consideration so the impacts are fully understood.

Cultural and Historic Sites

The municipality is home to numerous cultural and historic sites, several of which could benefit from a microtransit service to provide expanded public access.

The Africville Museum and Africville Park, for instance, are physically isolated from Halifax's main urban area, separated by rail lines, bridge ramps, and streets with no sidewalks, bike lanes, or safe pedestrian access. The nearest bus stop is 1.7 km away, and the area does not meet Halifax Transit's walking distance guidelines. Travel to these locations is highly seasonal, making it unlikely that a permanent conventional bus route to the site would be viable. Seasonal microtransit to these facilities could be piloted to assess the effectiveness of this type of service.

Off-peak Service in Low-density Employment Centres

Some areas only experience the demand needed to support conventional transit during daytime hours. Business and industrial parks in particular experience high demand during peak business hours, but not enough demand to support fixed-route transit into the evening.

Much of Burnside Industrial Park, for instance, is serviced only by Route 64 Burnside, which does not run on weekends or after approximately 8:00 p.m. on weekdays. Although demand in this area lowers significantly in the evening, Phase 2 could see the addition of microtransit service to support employees working later shifts and connecting them to nearby terminals. If evening demand for microtransit becomes high and is structured appropriately, it could eventually evolve into conventional service after time.

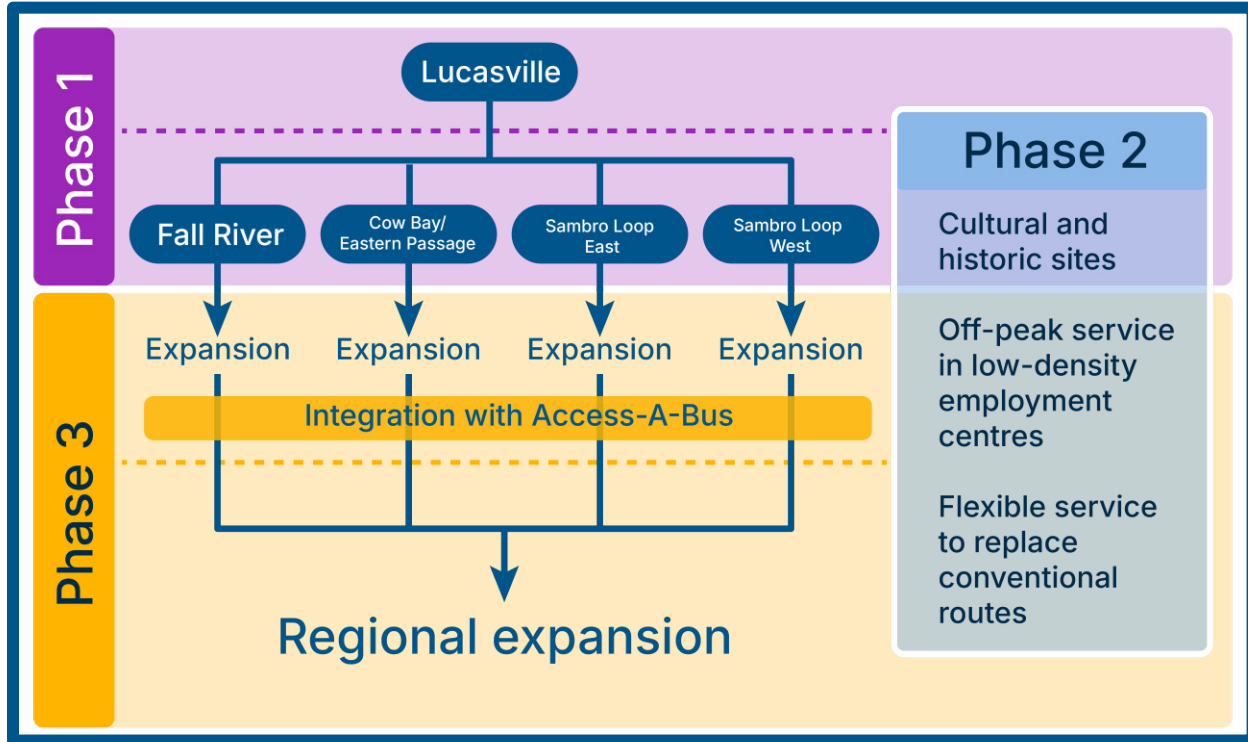
Flexible Service to Replace Conventional Routes

Halifax Transit is under significant pressure to increase transit service across a growing municipality. Many new and developing areas have high population densities and employment opportunities that warrant high levels of transit service. However, all current resources, including buses, are deployed on existing routes.

Smaller vehicles can be added to the fleet more flexibly than conventional buses, meaning once microtransit is scaled up, it could expeditiously replace existing routes that provide important coverage, but have relatively low ridership. Buses previously used for these routes could then be reallocated where higher ridership is expected.

Areas that transition from conventional transit to microtransit may also benefit. Due to the on-demand nature of microtransit, a passenger may see their hourly bus replaced by an on-demand solution that can arrive within 15–20 minutes of a request. Due to the smaller vehicles, microtransit can also service areas that are challenging for a

conventional bus to navigate, such as cul-de-sacs, meaning a wider area can receive service closer to their destination. Many transit agencies across the country are seeing success in transitioning low-ridership suburban bus routes into microtransit services.



Phase 3: Regional Expansion

Continued microtransit growth includes implementing services to encompass the remaining areas not served by conventional bus routes. This will mean expanding boundaries of the initial priority areas and potentially working with rural transit service providers to expand microtransit into regions where they operate.

Expanding Initial Priority Areas

It is proposed at this stage that all priority areas implemented in Phase 1 are expanded to encompass the remaining communities without access to either a rural transit service provider or Halifax Transit conventional bus service. To avoid overwhelming available resources, this expansion should occur gradually, although shorter wait times for acquiring microtransit vehicles and more flexible service allow for quicker growth than conventional transit. The order in which priority areas are expanded will be determined based on community needs, ridership potential, available resources, and travel patterns.

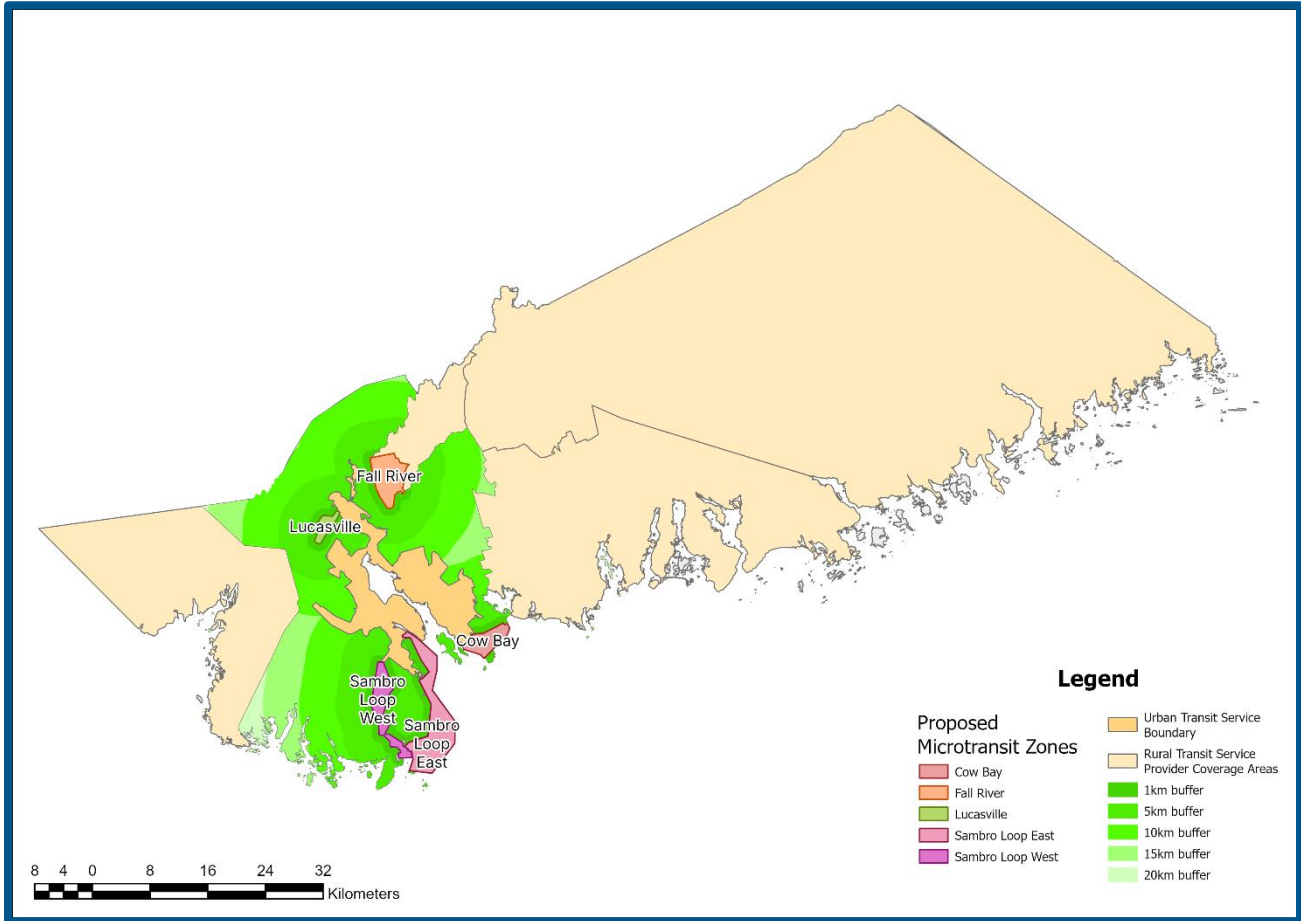


Figure: Initial microtransit zones being expanded to fill in the service gap between Halifax Transit and the rural transit service provider coverage areas

Expanding to All Rural Areas

While a potential microtransit service could be expanded to provide a public transit option to all areas of the municipality, there would be significant resources required due to the large geographic area and costs. Costs per passenger increase as the system expands further from the urban core. Analyzing metrics to determine priority areas will be crucial in establishing and growing the service effectively.

As a proposed microtransit service expands to the edges of areas served by BayRides, East Hants Community Rider, MusGo Rider Eastern Shore, and MusGo Rider Valley-Sheet Harbour, impacts to those existing rural transit service providers must be considered.

The *Microtransit Service Plan* proposes a model that differs significantly from the pre-booked door-to-door service offered by the rural transit service providers, who deliver a personalized community-based service. These non-profits often struggle to meet the

local demand for service and have fares that are generally more expensive for residents than is standard for microtransit. Introducing a microtransit service offered by the municipality could alleviate some pressure on these agencies by focusing on different trip types and providing more options for residents.

As non-profit organizations, there is an increased risk that one or more of the existing rural transit service providers may be forced to discontinue service, due to escalating costs, reduced funding, or staffing challenges. In that instance, there may be immediate pressure to expand municipal services to mitigate any gaps for residents that have come to rely on rural transit providers.

Section 4

Refining the Approach Through Application

The *Microtransit Service Plan* proposes implementation in three stages, as specified in the sections below.

Short Term – The Proof-of-Concept Stage

Although many regions have piloted or launched microtransit services, each application varies based on the communities served. As such, during the initial launch, the microtransit service model will need to be validated for our region. This work will constitute the Proof-of-Concept stage.

Prior to launch, Halifax Transit will work in collaboration with community leaders to determine service hours, stop locations, and ways to communicate with residents about the service. Regular engagement and feedback on the service will occur throughout this stage, with frequent evaluation and service monitoring expected alongside minor adjustments.

This work will demonstrate the potential for expansion in other communities, with the end of this phase marked by a report. Further direction will be required from Regional Council before proceeding to the next phase.

Several potential steps are not recommended until after the proof-of-concept stage. These include:

- **Changes to paratransit/Access-A-Bus service areas:** Although a policy change could expand Access-A-Bus into microtransit zones, this is not recommended during the Proof-of-Concept Stage. This will allow a clearer understanding and evaluation of any barriers to providing an accessible microtransit service. It would also prevent longer-term challenges with equity and customer expectations should the zones be adjusted or modified, which is probable. In addition, it means that this stage is not limited by the ability or resources required to expand Access-A-Bus services.

- **Changes to taxation:** Currently, a local transit tax is collected for properties within 1 km of a conventional bus stop. The launch of microtransit would result in neighbourhoods with a potentially high level of public transit access that do not contribute to the local transit tax. Regional Council could choose to review and consider if any policy changes are warranted. However, this is not recommended until the Proof-of-Concept phase is complete, ensuring there is a common understanding of the level of service being offered and any potential benefits or challenges.

The Proof-of-Concept stage can be limited to launching service in one zone (Lucasville), or up to five zones to include any combination of the priority areas, depending upon available resources.

Medium Term – The Building Stage

This stage is when major scaling of the microtransit service will occur. Any remaining priority areas not included as part of the Proof-of-Concept Stage would have service introduced at this time. Microtransit could also be rolled out in urban or suburban areas. Microtransit zones can gradually expand in the medium term to encapsulate the remainder of the unserved regions, and potentially some areas currently serviced by rural transit service providers.

Commingling with Access-A-Bus is proposed to be explored at this stage. Ideally, paratransit and microtransit services will be integrated under one service model.

The Building Stage could incorporate decisions related to taxation and the provision of microtransit. Where the differences in type and level of service that microtransit offers will be better understood at this stage, any necessary adjustments to the tax scheme could start to be explored.

Due to the amount of changes in service, this period will be marked by frequent updates concerning key microtransit developments. It will also include continued consultation with affected communities to ensure growth and changes align with their desires. The Building Stage will be complete when microtransit growth has slowed considerably, and most of the planned coverage is in place.

Long Term – The Operational Stage

Once most of the planned implementation has occurred, microtransit will enter the Operational Stage. Similar to other transit services, such as ferry, Access-A-Bus, or

conventional bus, this stage is focused on maintaining ongoing operation of the service with the available resources. However, performance metrics and feedback will continue to be evaluated, and service changes, improvements, or policies, may be brought forward for Regional Council’s consideration.

In the Operational Stage, engagement with communities is expected to be more structured with surveys and focus groups. Though, throughout all three phases, the ideal situation is to have community leaders who are interested in the success of the service as partners in engagement efforts.

4.4 Operating Models

There are many vendors in the market offering the technology needed for microtransit. Some of these vendors go beyond technology and offer a full suite of service delivery options. These turnkey solutions can include assistance in service design, responsibility for vehicle sourcing, service operations, driver recruitment, and onboarding, dispatch, and customer service.

Many transit agencies have chosen to partner with vendors to develop and operate microtransit services that meet their needs. This is most often the case during the initial delivery phases, when vendors who have experience in the industry can draw on their resources and knowledge to launch service quickly and can also ramp up service to match demand in a nimbler way than a transit agency working with microtransit for the first time.

The following table illustrates some examples of microtransit in Canada and the method of service delivery.

Service Element	Durham Region Transit	York Region Transit	Fredericton Transit	Lethbridge Transit	RIDE WELL	NRT OnDemand
Service Model	Interstitial service supplements the fixed routes to provide 100% coverage	Interstitial supplement to fixed routes to fixed routes and predefined points of interest (e.g., GO Train stations or retirement homes) FMLM connection to fixed routes (direct rides are provided when fixed routes are not available) or transfer hubs	Fixed-route replacement in peripheral areas with low ridership (the original Routes 18 & 20), connecting to transit hubs	FMLM connection to fixed routes or transfer hub	Regional origin-to-destination service	Point-to-Point and FMLM connection

Service Area	Rural areas and urban areas outside the fixed-route catchment (10-minute walk)	Urban, suburban, or rural areas beyond fixed-route catchment	The original service area of Routes 18 & 20	Low-density residential areas in the city periphery	All of Wellington County	Regional rural & suburban areas of Niagara Region including Niagara-on-the-Lake, Grimsby, Lincoln, West Lincoln, Pelham, Wainfleet, Port Colborne, and Fort Erie
Service Provider	Operated by DRT with software provided by Via Transportation	Operated by YRT with software provided by Via Transportation	Operated by Fredericton Transit with software supported by Via Transportation	Operated by Lethbridge Transit with software provided by TripSpark	Operated by RideCo, operation of accessible vehicles contracted through RideCo to Voyago	Operated by Voyago

Para-transit Co-mingling	Yes	Yes	No	No	Partial; only a portion of the fleet is accessible but all passengers request trips in the same way	Yes
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Table: Comparison of Microtransit Service of Peer Agencies (FMLM refers to First Mile -Last Mile service)

As detailed in **Section 4.2**, in Halifax, the intent for microtransit is to eventually have a service that is commingled with Access-A-Bus and provided by Halifax Transit to create efficiencies and offer an improved service for both microtransit and Access-A-Bus passengers. As such, the potential value in a turnkey or hybrid model of support from a vendor is in the short term, allowing for a faster launch of service, and more flexibility in the Proof-of-Concept stage.

Initial Service Delivery

Two approaches can be pursued for the Proof-of-Concept stage: **Accelerated Implementation**, which leverages a turnkey vendor-led model, or **Standard Implementation**, which focuses on an in-house Halifax Transit-led deployment. Both models deliver similar service outcomes but require significantly different timelines, resource commitments, and financial considerations.

Category	Accelerated Implementation	Standard Implementation
Launch Timeline	One year	Two to four years
Initial Capital Burden	Low (vendor absorbs)	High (municipally funded)
Internal Staffing	Moderate	Significant (call center, drivers, support staff)
Control Over Operations	Moderate	High
Implementation Risk	Lower	Higher
Vendor Dependency	Higher	Lower
Organizational Readiness Requirement	Low–Moderate	High

Table: A comparison of the Accelerated Implementation and Standard Implementation approaches

If microtransit continues past the Proof-of-Concept stage, the overall operating costs of the two models are similar. The significant funding difference is that capital costs are required from the beginning of the Standard Implementation but can be postponed with an Accelerated Implementation.

Accelerated Implementation

An Accelerated Implementation would rely on a vendor-led turn-key solution. The benefits of an Accelerated Implementation come from vendors having established resources, such as call centres, vehicles, and recruitment staff. These resources make microtransit services easier to ramp up and ramp down due to more flexibility in characteristics such as vehicle numbers, staff numbers, and hours of operation. This would be especially useful while beginning the Proof-of-Concept stage, allowing service to launch, be adjusted, or be discontinued if needed, in a portion of the time and without a large capital investment. It is estimated that with the Accelerated Implementation, a roll-out of microtransit in the first pilot area could begin six months after the vendor is selected.

The accelerated model reduces initial HRM capital burden, implementation time, and internal operational risk, but it potentially increases vendor dependency, with less



operational oversight and potential change management issues. To allow commingling with Access-A-Bus, Halifax Transit would plan to eventually bring microtransit services in-house under the same organizational umbrella. Launching a microtransit service with an outside vendor may complicate this process later. While costs are often lower initially (vendors typically charge by hour of usage), if microtransit is brought in house, costs associated with building the organizational infrastructure to operate microtransit with Access-A-Bus will still be realized, only later in the process.

In addition, the Accelerated Implementation would still require municipal staff resources in both the form of a project team to liaise with the vendor and plan and launch the service, and ongoing support, such as Service Supervisors.

Standard Implementation

In a Standard Implementation, a vendor would be used for technology related services with minimal other support. Halifax Transit would undertake a project to launch the service using internal resources. Here, the implementation will also be fleet acquisition, hiring drivers, procuring vehicle storage space, and ensuring support staff (ie, call taker) are in place.

A Standard Implementation may be manageable with existing resources if the Proof-of-Concept Stage is limited to Lucasville. However, if all five priority areas are planned for microtransit service launch in the first stage, a larger team will be required, capacity may be a significant challenge.

The key benefit of this model is that it gives full operational ownership and long-term asset retention to the municipality. However, it also includes significant work and planning, which could lead to delays in other municipal priorities. This large effort could also yield limited benefits if the Proof-of-Concept Stage results in limited application of the service model in the future.

Section 5

Funding the Service

Microtransit costs are directly related to the number of service hours provided. The cost per hour is expected to range from \$95 – \$115 per hour of service, regardless of the balance of vendor support and internal deployment.

- Under an **accelerated implementation scenario**, most costs would be paid directly to a vendor to deliver the service. The initial cost estimates are valued at \$110 per service hour for the Proof-of-Concept stage but would be lower with a larger implementation due to efficiencies.
- Under a **standard implementation scenario**, funding would be necessary for staff (drivers, call takers, etc.), fuel, vehicle maintenance, software, vehicle storage, and other associated operational costs, averaging \$110 per service hour. In addition, capital costs would be required, estimated at \$650,000 for launching in one community, or \$2.4M for the first five priority areas.

Phase 1 – Priority Areas

The following table illustrates the estimated annual operating costs and startup capital costs for service to the five priority areas. Startup capital costs are not required with a vendor-supported accelerated implementation.

Zone	Net Annual Operating Costs	Start Up Capital Costs
Lucasville	\$ 1,675,000	\$ 650,000
Fall River	\$ 725,000	\$ 425,000
Cow Bay and Eastern Passage	\$ 1,675,000	\$ 650,000
Sambro West	\$ 550,000	\$ 215,000
Sambro East	\$ 1,120,000	\$ 425,000
Total	\$ 5,745,000	\$ 2,365,000

Unlike with conventional fixed route bus service, these costs may fluctuate and shift from one zone to another based on the needs of the community. For example, if service is



underutilized in the evenings in one zone, one of the vehicles may be redeployed into another zone where there is higher demand.

Phase 2 – Microtransit Opportunities in Suburban and Urban Areas

Any introduction of microtransit in suburban and urban areas, whether as new ways to access cultural and historic sites, provide off-peak service in low-density employment centres, or to replace conventional routes with more flexible service, would be subject to the same hourly cost as in microtransit zones. However, there are several key differences to consider relative to costing:

- In many applications, such as evening service in an industrial park, or seasonal service to a museum, the service has a strong potential to align with times of lower demand in microtransit zones, when vehicles are idle. This results in an efficiency, whereby the same resources being used in rural areas during the day can be redeployed to suit another purpose during evening, weekend, or summer periods. This can reduce the need for additional vehicles, and the capital costs associated with them.
- In many areas, transit agencies are using microtransit as a cost saving method in low density suburban neighbourhoods, as fixed route service has higher operating and capital costs. However, although that would reduce the cost for public transit in that neighbourhood, it's unlikely to reduce the overall cost to the municipality, as there would be pressure to use the fixed route resources in a higher ridership community.
- Although these routes would have the same gross cost to operate, they would be expected to have higher ridership per trip, and higher cost recovery, resulting in a reduced net operating cost.

As an example, a microtransit service that operated from 9 pm to 1 am on weekdays in an industrial park could have an annual operating cost between \$120,000 and \$250,000 per year, depending on the level of service (wait times, number of vehicles). A seasonal service to a museum could begin with service one day a week for \$20,000 per year and be expanded or reduced based on demand. Suburban service that replaces fixed route service and operates most of the time could be expected to cost more than \$600,000.

Phase 3 – Regional Expansion

Due to the large number of diverse communities in the municipality, and differing trip patterns and needs in each, it is challenging to estimate the full cost of providing microtransit service in an expanded network. However, order of magnitude estimates include the following:

- Expansion of the initial priority zones to include all areas not currently served by either Halifax Transit or a non-profit rural transit provider is estimated to require an additional 62,000 annual hours of service, with an annual operating cost of \$6.7M.
- Further expansion to all areas not currently served by Halifax Transit is estimated to require an additional 389,000 annual service hours at an additional cost of \$42.5M
- In total, this means that servicing all existing rural areas outside of the conventional transit service boundary with microtransit is estimated to cost \$55M annually.

These numbers could be significantly refined following a successful Proof of Concept stage that confirms service expectations and costs.

Section 6

Measuring Success

Following implementation of the microtransit service, ongoing evaluation will be required to ensure continued alignment with passenger and community needs. Measuring performance against established standards and analyzing service data allows for adjustments or refinements where needed. This data-driven approach ensures alignment with the goal of providing flexible, efficient, and equitable mobility options to strengthen regional and community connectivity.

The performance measures which will be used to provide an evaluation framework have been identified from a review of best practices established by existing microtransit providers across Canada. Additionally, the framework was then validated against the *On-Demand Transit Toolkit (2022)*, developed by the Canadian Urban Transit Association (CUTA) and Metrolinx. This industry-standard resource served as a critical reference for confirming that the selected key performance indicator (KPI) categories aligned with national best practices for monitoring performance.

Service Utilization

Service utilization is a measure of the service right-sizing objective. This metric confirms that resources are allocated efficiently and that microtransit functions as a cost-effective, complementary service.

Two KPIs related to service utilization are total boardings and boardings per vehicle hour. While total boardings can be monitored to identify continued growth, boardings per hour tracks passenger demand relative to the operational resources deployed, allowing zones to be compared and verifying the ongoing feasibility of the service model in each zone. Performance expectations for the boardings per vehicle hour are not uniform across the municipality and are expected to differ based on the operating environment.

Total Boardings

Ultimately, the number of passengers a single vehicle can serve in an hour is determined by two operational characteristics: the average trip length and the ability to share the vehicle. Long trips occupy the vehicle for greater durations and often result in extended deadheads (travel between trips with no passengers in the vehicle), reducing the total

number of trips possible in an hour, while high levels of shared trips, or trip pooling, increase productivity. The type of service provided in a microtransit zone, or the characteristics of the zone itself, can affect both trip length and the ability to pool passengers. These characteristics include:

- **Population Density:** Higher population density creates more opportunities for trip pooling and shorter distances between pickups, as passengers are in close proximity to one another.
- **Availability of Local Amenities:** Zones with local services (e.g. grocery stores, pharmacies, doctors' offices, etc) generate shorter, localized trips, increasing vehicle availability, particularly when those amenities are also near one another. Conversely, areas lacking these amenities require longer trips to regional hubs, naturally reducing the number of passengers that can be served per hour.
- **Road Network:** The presence of a single, prominent road corridor in a service area increases the likelihood of trip sharing compared to areas with a more complex road network, as the shortest routes for multiple trips are likely to overlap when routing options are limited.
- **Trip Purpose and Demand Concentration:** Commuter-heavy zones generate concentrated demand during peak times, facilitating high rates of trip pooling. Conversely, zones where travel is primarily for discretionary purposes (e.g., social, shopping, tourism) experience dispersed demand throughout the day, significantly reducing the potential for passenger grouping.
- **Service Model:** Zones operating origin-to-hub services generally have higher boardings per hour than origin-to-destination services because passengers are destined for the same location generally at a similar time, to connect with the fixed-route services. This provides more opportunity for trip grouping.
- **Service Co-mingling:** Agencies with microtransit services co-mingled with paratransit tend to have lower boardings per vehicle hour because paratransit users generally require longer boarding times, resulting in fewer passengers served in a given hour.

Boardings per Vehicle Hour

To ensure efficient resource allocation while accounting for these variables, a target in the number of boardings per vehicle hour is used to guide strategic adjustments. Canadian transit agencies experience a wide range of boardings per vehicle hour, ranging from 1.2 in Lethbridge to 18.5 in York Region.

This service plan emphasizes that microtransit should primarily be used in areas where fixed-route service is not feasible. In these locations, increasing boardings per vehicle hour demonstrates ever-increasing service efficiency and validates the service's success. However, in areas where fixed-route service could be introduced, it should be considered before microtransit exceeds the ridership guidelines for fixed-route service shown below.

Service Type	AM & PM Peak	Midday & Saturday	Weekday, Evening & Saturday
Corridor routes	25 passengers/hr	15 passengers/hr	10 passengers/hr
Local routes			
Rural routes			
Express and school routes	20 passengers/trip	N/A	N/A
Regional Express routes	15 passengers/trip	N/A	N/A

Figure: Fixed-route service boardings per vehicle hour ridership guidelines

In general, transit agencies expect a much lower threshold when considering fixed-route alternatives, since, as demand rises, maintaining availability requires dispatching additional microtransit vehicles. For example, Lethbridge Transit considers replacing a microtransit zone with a fixed-route service when ridership reaches six to eight boardings per hour. Experience shows that the operating costs of deploying these additional assets often outweigh the costs of operating a single fixed-route vehicle. Consistently exceeding this threshold for at least 3 months indicates that demand has matured sufficiently to justify the deployment of a fixed-route service. Halifax Transit will

begin investigating alternatives when boardings per hour in a zone exceed the lowest fixed-route threshold of 10 boardings per vehicle hour. However, it is important to note that high ridership alone does not guarantee a successful conversion. Travel patterns must also be analyzed to confirm that the demand can be effectively captured by a linear fixed route. If travel patterns do not align, introducing a fixed route may result in lower service utility and reduced ridership, suggesting microtransit may remain the most efficient option.

While high levels of ridership suggest that a microtransit zone has the potential for fixed-route service, a low ridership area may warrant service removal. If a zone consistently falls below the minimum threshold of 2 boardings per vehicle hour, it indicates that the service is failing to meet the Service Right-Sizing objective. At this level of demand, even a flexible microtransit model is too resource-intensive to be justified. Discontinuing the service allows these finite resources to be shifted to areas where the objective of Equitable Coverage can be achieved more effectively, ensuring the most efficient use of the municipal transit budget.

Service Reliability

For microtransit to successfully integrate with the conventional transit system, it must offer a level of predictability, or reliability, that allows passengers to confidently plan connections with scheduled buses or ferries.

Three KPIs related to service reliability are the wait time, trip denial rate and on-time performance. While the wait time and trip denial rate tracks the system's capacity to accept a ride request (availability), on-time performance tracks the dependability of the service after a booking is made (punctuality). Thresholds for each of these KPIs have been established to guide strategic adjustments and are outlined below.

Wait Time

Wait time considers how long after a requested trip a passenger can expect to be picked up. Wait time is defined differently across microtransit software providers, therefore it is important to ensure that the wait time being monitored is the time between the customer's requested pick-up time and the actual pick-up time offered. A different term may be used for this based on the software provider, for example some refer to this as the average negotiated time variance.

When a customer requests a trip, they will be provided with an estimated pick-up time, subject to vehicle availability. If the requested trip time can be accommodated, then the trip will be scheduled; however, all vehicles may be occupied, and the passenger may

be provided a later pick-up time as an alternative. Transit agencies typically define a maximum wait time, and passengers are only provided alternate pick-up times that do not exceed this threshold. If no vehicles are available to accommodate the trip without exceeding the trip time, the passenger will be informed that no trips are available for the requested time and the trip will be considered a trip denial.

A high average wait time indicates that passengers are regularly being asked to delay their schedule or accept inconvenient times to secure a ride, signaling that a zone is approaching saturation before trip denial rates spike. Similarly, a high difference in wait times means the service is unreliable, and the reason for the variability should be investigated.

Peer agencies have different targets for these KPIs and because of the different definitions assigned to wait time, it is often difficult to compare. The goal, however, is to provide transit that would approximate a fixed-route service operating in the same area. For example, in rural areas fixed-routes would generally operate at a 60-minute interval, meaning that if you left your house at any time to catch a bus, you would wait at most 60 minutes for one to pass by. Passengers requesting travel through an on-demand service in the same area should at a minimum have a similar experience. If they request a trip at any time, they should be provided a scheduled trip time within 60 minutes. This is consistent with peer agencies like Edmonton Transit Service (ETS) and Niagara Region Transit (NRT) who also strive to pick up a customer within 60 minutes from the ride request. Moving into more urban areas, this level of service may need to increase to align with the wait times of adjacent fixed-route buses, however Halifax Transit will target offering a pick-up within 60 minutes from the customer's requested time at the onset of the service launch.

Co-mingled services often see a variance in performance between user groups. Unlike trip denial rates, paratransit services generally exhibit shorter wait time than general microtransit trips in these environments. For instance, DRT observed an average variance of 10.8 minutes for paratransit trips, versus 16.7 minutes for general on-demand trips. This suggests that while scheduling complexity affects all users, the operational priorities are often given to specialized trips, which can result in shorter wait time for paratransit users even within a shared system.

Trip Denial Rate

This KPI measures the proportion of trip requests that cannot be fulfilled due to a lack of available vehicles. As highlighted above a trip is denied only if a trip cannot be provided without exceeding the maximum wait time due to all vehicles being at capacity. Peer agencies like York Region Transit (YRT) utilize a target of 20% or fewer denied trips to

define success. Given the rural context of HRM, a target of 25% or below is recommended at the outset. Consistently exceeding this threshold indicates a structural capacity deficit that compromises the ability to connect to the broader network, triggering a review to either add vehicle hours, adjust zone boundaries, or make a change to the service model.

To assist in decision-making, reporting must be zone-specific. While some agencies report reliability as a system-wide average, many peer agencies indicated that they monitor services at the zone level, allowing them to make decisions about services specific to that area. Halifax Transit will employ this more granular approach to pinpoint which areas are facing availability issues and target fleet expansions or zone adjustments accordingly.

Evidence from peer agencies suggests that in co-mingled environments, general on-demand trips often face higher denial rates than paratransit trips; for example, Durham Region Transit (DRT) observed a 29.0% denial rate for on-demand trips, compared to 10.4% for paratransit trips. Therefore, should Halifax Transit look to co-mingle accessible and microtransit services in these areas in the future, it should be expected that paratransit passengers may experience higher denial rates in rural areas than they currently do in urban areas. This approach accepts a different service standard for paratransit than the urban core in exchange for establishing essential mobility in rural areas, ensuring that all residents, regardless of ability, gain access to the transportation network in alignment with the vision of transportation equity.

On-Time Performance

On-time performance tracks service reliability once a trip is scheduled. Agencies generally have a designated window of time during which the customer is picked up. Trips where passengers are picked up within that window are considered on time. For example, both DRT and YRT track on-time performance by measuring the ability of vehicles to arrive within the communicated 15-minute pickup window provided to a rider at the time of booking. This metric can also be applied to a drop-off window to monitor whether passengers can successfully plan their trips. The service relies on dependable arrival times, as late arrivals jeopardize connections to the fixed-route network at transit hubs.

Peer agencies have different targets for what they consider to be an appropriate level of lateness. YRT considers on-time performance of 93% or above to be excellent, while performance below 91% is unacceptable. Meanwhile, DRT pledges to pick up a customer within five minutes after the pick-up window, with a monthly target of 80% of the trips achieving this. While every agency strives to keep all trips on time, they recognize that

some trips will experience unexpected delays that cannot be resolved through planning. Halifax Transit will strive for an on-time performance rate of 85% or higher, consistent with all other conventional services. Falling below this threshold triggers a review of the software to ensure it correctly estimates travel times/or a review of the zones to determine how they can be adjusted to reduce the impact of congestion delays.

Financial Performance

Financial performance measures the efficiency and economic viability of microtransit services. While transit agencies often report financial performance at a system-wide scale, it is appropriate to monitor microtransit at a more granular level to fully understand the financial implications of providing service in each specific area. Tracking performance by zone allows Halifax Transit to distinguish between performing and non-performing areas, enabling evidence-based service adjustments that ensure resources are deployed where they are most effective.

Costs Per Trip

This KPI measures the average direct operating cost per microtransit trip provided, highlighting the balance between supply (total vehicle hours) and demand (passenger trips). A high cost per passenger typically reflects limited travel demand or considerable trips that are not generating revenue (deadheads) between service requests. Conversely, a low cost per trip suggests high vehicle utilization, potentially signaling viability of converting the service to a fixed-route.

Based on peer service data, the direct operating cost per trip of microtransit services varied from \$13.9 (Cochrane Transit) for local in-town service, to \$36.2 (Wellington County's RIDE WELL) for rural service. The cost per trip is affected by the service area size, average trip distance and demand. This is because low demand and long trip distances also mean long deadheads (non-revenue travel time between passenger trips). This service plan limits the trip distance in Phase 1 by limiting the on-demand zones and encouraging transfers onto fixed-route services. Therefore, it can be expected that the cost per trip will be within this range but will likely be on the higher end of the cost spectrum initially due to the expected gradual ridership increases over time.

These costs are usually reported to administration and elected officials for evaluation purposes, without a specific target that the services should strive to reach. Once an operating model and associated costs are known, and fares are confirmed, a target range should be established. Costs higher than this range may indicate insufficient

travel demand that reveals the need to reform the service model, including reducing service hours or co-mingling with paratransit. Again, this metric should be tracked on a zone-specific basis for Halifax Transit to identify zones requiring service adjustments to increase financial efficiency.

Similar to the observations noted above, in a co-mingled service, the cost per trip of paratransit services would be higher than that of microtransit services because of longer passenger boarding time required, which reduces the number of passengers served. For example, while the cost per trip of Milton's microtransit services was \$18.30 in 2021, the cost of paratransit services was \$54.30 in the same year. Should Halifax Transit decide to co-mingle the two services, the average cost per trip will be expected to be higher than the figures for standalone microtransit service noted above.

Customer Satisfaction

While the KPIs outlined above provide a quantitative measure of service performance, understanding the passenger experience is equally vital for assessing the equitable coverage objective. Instead of relying solely on operational data, Halifax Transit should conduct regular qualitative research, including surveys, interviews, or gathering other feedback, to engage with riders about their microtransit experience. At minimum, a regular annual survey will be conducted, but during pilot phases and/or the first five years of service, more frequent information will be gathered. Questions should consider all aspects of the trip's customer experience, from planning and booking the trip to arrival at the destination. This feedback loop allows staff to identify if the service is reducing mobility barriers and enriching community life as intended.

Monitoring and Reporting

The chart below outlines the main key performance measures that will be collected and used to evaluate Halifax Transit's microtransit service against established standards. Ongoing initiatives to gather feedback directly from transit operators and passengers will also be used to measure success and guide service improvements. Recommended targets are tentative but should be re-evaluated and may need to be re-adjusted based on the level of service provided, and communities served.

Metric	Usage	Recommended Target	Reporting Frequency
Boardings per Vehicle Hour	Identify service utilization, feasibility of Microtransit services, and travel demand	Max: 10 boardings per hour Min: 2 boardings per hour	Quarterly
Trip Denial Rate	Measure service utilization, travel demand, service availability, reliability, and network efficiency	Less than 25%	Quarterly
On-time Performance	Measure service reliability and quality	Over 85%	Quarterly
Wait Time/ Average Negotiated Time Variance	Measure service network design efficiency, customer satisfaction, and reliability and consistency in wait times	60 minutes	Quarterly
Cost Recovery	Measure financial efficiency and service feasibility	TBD	Annually
Customer Satisfaction	Identify how satisfied customers are with the microtransit services	TBD	Annually