Appendix A to TR-02-24

Burlington Study to Explore Fare-Free Transit

Summary Report

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To the attention of:
Burlington Transit
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Executive Summary

This report summarizes the outcome of the City of Burlington Study to Explore Fare-free Transit (the study) to examine the benefits, risks, impacts, implications and fiscal sustainability of providing fare-free transit to all passengers travelling on Burlington Transit.

Key areas of analysis dealt with in the study and summarized in the report are:

- Fiscal impacts and 10-year budget forecasts
- Service and resource impacts
- PRESTO implications
- Funding implications
- Community and sustainability benefits and risks
- Specialized service impacts
- Alternative funding sources
- Benefits and risk to operations and other staff
- Comparison to alternatives to fare-free transit

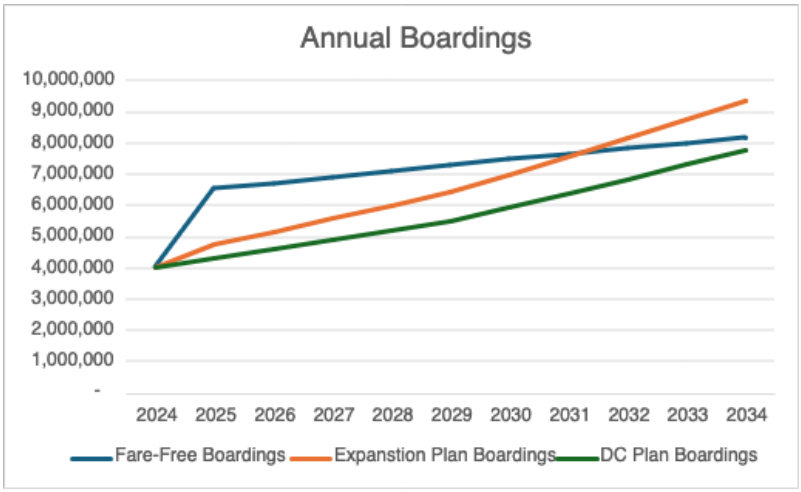
This Executive Summary focuses on the comparison of a fare-free transit program or an investment in transit service (service expansion). The performance of the two plans is demonstrated with financial metrics, and transit use (in boardings) of each plan was compared to the boarding targets established as part of the Development Charges (DC) Update study. The DC Update study established its boarding targets based on the modal share objectives of Burlington's Integrated Mobility Plan.

Key Findings

Ridership Performance

Both a fare-free program and the alternative service expansion plan generate increased transit use that will help Burlington reach the modal share targets. Figure 1 shows the transit performance in terms of boardings for the two alternatives, compared to the boardings targets of the DC analysis.

Figure 1. Annual Boardings Comparison of Fare-free Transit, Service Investment and DC target



Fare-free transit is projected to increase ridership in the short-term; however, benefits may be short-lived and limited unless upfront funding is allocated to align service demand with organizational and service capacity, while maintaining a quality-of-service passengers have come to expect. Without planned investment, the move to fare-free transit could lead to service decline and undermine the growth in ridership of the system.

Financial Performance

Financial projections indicate that the initial net municipal operating costs (the cost of transit to the City) would increase from $22.2 million in 2024 to $37.3 million in 2025 with the introduction of fare-free transit, increasing to more than $53 million by 2034. The increase in net operating costs is primarily due to loss of fare revenue, along with the cost of service increases to mitigate crowding.

For the transit service expansion plan, net municipal operating costs increase more steadily (and controllably) starting at $23.9 million in 2025 and increasing to $40 million in 2029. The overall lower net municipal cost is the result of continuing to collect fares and increasing paid ridership.

Anticipated capital costs of the fare-free program are lower than the service expansion plan, which has higher planned vehicle requirements to drive service.

Table 1 shows a summary of the financial and ridership performance of the two plans.

Table 1. Fare-Free Transit vs. Service Expansion Plan: Key 2029 Metrics

	Fare-Free	Expansion Plan
Ridership	6,200,000	5,469,000
Boardings	7,303,000	6,442,000
Net Municipal Operating Cost	$43,080,000	$33,999,000
Net Municipal Operating Cost per Rider	$5.90	$5.28
Five-year Capital Cost (63% subsidy)	$24,285,000	$30,159,000

Other Benefits

There are a variety of other benefits from both scenarios, and because many of those are related to increased use of transit, both are quite similar. Both will have small but important effects on the number of vehicle trips, kilometres travelled, GHG emissions and modal shift. Because the fare-free program eliminates fares, this financial benefit accrues directly to passengers. This can also have desirable equity benefits for low-income populations. On the other hand, the service expansion plan, with broader service enhancements, benefits all passengers and the community at large, making transit more attractive, and improving community access to employment, services and opportunities.

Performance Risk

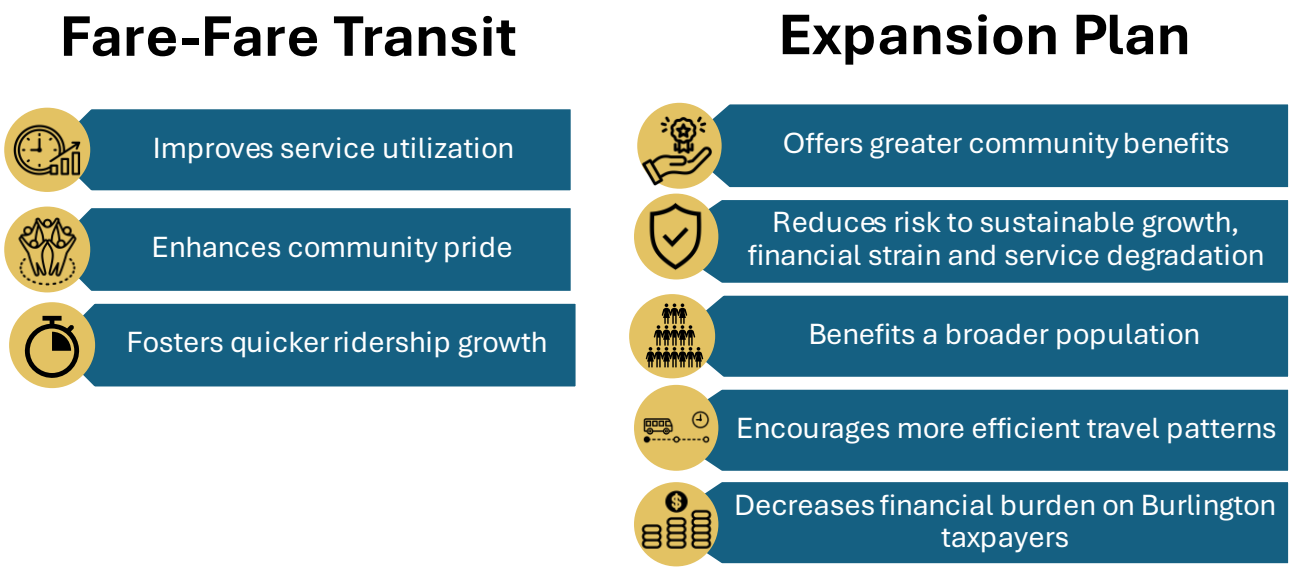
The Study outlines two key risks for fare-free transit not present with the service expansion plan:

1. Service Demand: Actual demand can vary from the projections, particularly with spikes in particular locations and at specific time periods (like outside schools at bell times). Where boardings exceed service capacity, deterioration of the passenger experience is likely and could lead to ridership reductions. In the case of specialized service, trip denials could result in legal challenges. Mitigating this risk also relies on additional staff resources, including supervisors and dispatchers.
2. Financial Viability: Fare-free programs present greater risks for sustaining future investments by removing controllable revenues that are used to offset operational costs to a transit agency. This may limit the ability to effectively respond to demands in the future.

Combined with more cost-effective ridership growth, this suggests that the current expansion plan would yield greater community benefits. Overall, service investments offer a more stable and sustainable

approach to ridership growth and meeting community goals. Figure 2 compares some of the benefits of fare-free transit and the expansion plan. These facets are detailed within the report.

Figure 2. Fare-Free Transit vs. Service Expansion: Benefit Comparison



Summary Report

Summary Report

1 Study Objective

The Burlington Fare-Free Study evaluates the potential benefits and risks of expanding fare-free transit programs to all Burlington Transit passengers. By analyzing the local transit context, examining fare-free models from other regions, and assessing service impacts and costs, the study aims to provide a thorough and comprehensive analysis. The insights presented will enable City Council to make informed decisions that balance sustainability with transit services.

2 Experience Of Other Systems

2.1 Other Fare-Free Initiatives

Historically, fare-free models have been more common in smaller areas with lower fare recovery, with a very limited number of Canadian examples and a relatively higher number of US examples. In the past few years, larger US cities such as Boston, MA, Raleigh, NC and Richmond, VA have adopted this model.

Research highlights various operational and financial impacts. Ridership often grows more than expected when comparing to standard modeling from fare changes. This growth is highly contingent on various factors, including fare structures, demographics, municipal form, and industry conditions; for example, youth (13 – 19 years of age) tend to correlate with higher ridership growth rates, as evidenced through the growth in youth ridership during the paid weekday periods.

The research also illuminates that, without adequate planning and resources, fare-free systems can result in overcrowding, decline in comfort, reduced reliability, increased passenger conflicts, which in turn can lead to reduced ridership. Thus, recent implementations have focused on better support and more effective planning for capacity and service.

Operationally, fare-free systems improve service efficiency by filling spare capacity but many face challenges such as increased overcrowding of passengers and loss of ridership data. Oakville Transit for example, experienced increased midday crowding at high schools when introducing free transit for students. Table 2 depicts some of the key characteristics of selected fare-free systems.

Table 2. Details of Fare-Free Transit Experiences

Location	First Fare-Free Year	Service Area Pop. (,000)	Annual Ridership (,000)	Ridership Increase	Average Fare (CDN $)	Pop. over 65[1]	Pop. 18 and Under[3]	Low-income Pop.[3]	R/C Ratio (%)
Burlington, ON	N/A	197	3,400	N/A	1.65	21%	19.7%	6.7%	27.0
Olympia, WA	2020	185	4,737	20%[2]	1.33	19%	19%	13%	9.0
Missoula, MT	2015	70	923	70%[3]	0.40	17%	18%	9%	7.2
Lawrence, KS	2023	95	765	49%[4]	0.48	12%	16%	19%	3.4
Richmond, VA	2020	450	8,126	15%[5]	N/A	14.6%	25.7%	17.1%	N/A
Orangeville ON	2023	20[6]	79	102%[7]	1.04	13%	25%[8]	6%	11.0
Oakville, ON (Youth only)	2023	225	2,131	200% (Youth)	2.16	6%	25%[9]	5.6%	20.0

From these examples, passenger feedback points to a need for improved service frequency and capacity which can be hindered by funding challenges and staffing shortages. Without the increased service and capacity, over-crowding leads to a poor passenger experience. Demographics play a key role in shaping the impact of fare-free transit. Research shows that low-income groups and youth are more likely to drive higher ridership, while an aging population tends to be associated with slower growth.

[1] Data was derived from the Census reported closest to year of fare-free implementation
[2] In the first month of fare-free implementation, compared to the previous year
[3] Within 3 years of fare-free implementation
[4] Year-to-date ridership in 2023 compared to 2022
[5] Ridership two-years from implementation
[6] Ontario Urban Transit Fact Book 2021 Operating Data
[7] Quarter 2 of the fare-free implementation year vs. previous year
[8] Population 19 and under
[9] All ages for trips made between 9:00 a.m. and 3:00 p.m.

2.2 Relevance to Burlington Transit

There are several key points applicable to the Burlington context that can be garnered from the experience of other systems.

Financial Performance - In North American fare-free transit programs, a typical revenue-to-cost ratio (prior to fare reduction) is 20% or less. In Orangeville, this revenue-to-cost ratio was approximately 11 percent prior to going fare-free. Orangeville's transit system is very small in comparison to Burlington, where they operate three (3) routes and service a population of around 30,167 (2021 Census of Population).

In Burlington, fare-free programs for seniors, youth, and low-income residents have already increased ridership. Burlington Transit's revenue-to-cost ratio is 27 percent in 2023. Prior to the aforementioned fare-free transit programs, Burlington Transit revenue-to-cost ratio was reported at 32 percent in 2018. This revenue-to-cost ratio indicates a higher reliance on fare revenue. In 2024, Burlington Transit's total budgeted fare revenue is $6.9 million and is trending higher since 2023 with increased fare paying ridership.

Demographics - Burlington's fare-free context includes an aging population (21 percent compared to the national average of 19 percent), higher incomes, and a smaller youth demographic. These factors suggest that the potential for significant ridership growth from fare-free may be less pronounced in Burlington compared to other locations. Through a Fare-Free Transit survey completed by the City, about 56 percent of respondents supported the idea of fare-free transit, but respondents also noted very little dissatisfaction with the current fare. When asked to suggest what the current fare should be, only 15 percent mentioned free fares - much lower support for fare-free than when asked about the concept generally.

3 Financial Analysis

The financial analysis of the study focuses on a 5-year forecast for both operating and capital costs, with a 10-year projected outlook. This analysis highlights increases in operating costs for additional services required to relieve crowding, and capital costs for the associated vehicle requirements. Furthermore, net municipal operating costs are significantly affected by the loss of revenue.

3.1 Methodology Overview

3.1.1 Analysis Assumptions

To model the financial impacts of fare-free transit, several assumptions were made.

- Halton Region's "Best Planning Estimates" from October 2023 were used for overall population, with local Burlington estimates of planning projects and spatial distribution.
- Year 1 of the implementation would be 2025, based on the 2024 budget base for costs, revenue and ridership.
- Inflation increases were added annually based on International Monetary Fund (IMF) estimates.
- The analysis assumes no PRESTO usage for fare-free transit and that PRESTO costs would still be incurred until the contract ends in 2027.
- Gas tax eligibility would be unaffected.
- Capital expenditures were derived from the current capital budget and adjusted for the revised number of new vehicles required for fare-free transit. All other capital expenditures were unchanged.

More detail of the PRESTO implications and Gas Tax calculations are included in Section 5.

3.1.2 Analysis Considerations

- Additional service costs are derived from necessary investments to maintain Burlington's transit service objectives, considering ridership growth and changes resulting from fare-free transit, as well as demographic growth, shifts in urban form, and inflation.
- These costs include addressing existing issues that could hinder fare-free implementation, such as crowding and administrative and operations capacity.

3.2 Operating Costs

With the additional service required to remediate overcrowding, and the associated operations and administrative costs, total operating costs are projected to increase to $47 million by 2029 and more than $58 million by 2034. Fare-free transit creates small fare collection cost-savings, primarily from the elimination of PRESTO fees.

Net municipal operating costs were calculated to incorporate the impact of the revenue loss from fare-free transit. This revenue loss is almost $7 million in the first year, based on 2024 revenues. Other revenue sources, from charters and advertising, would continue to offset operating costs.

Gas tax revenue is projected to increase on the additional ridership as well as population gains, and add approximately $760,000 in the first year, increasing marginally each year after. More information on the gas tax calculation is included in Section 5.

In aggregate, the net municipal cost for Burlington is projected to increase from about $22.2 million in 2024 to $37.3 million in the first year of fare-free transit and to more than $43 million in 2029, increasing to $53 million by 2034.

Following the initial surge in operating costs in 2025 to maintain service quality, operating expenses are projected to grow more modestly over the 10-year budget period. The operational costs of specialized transit are projected to grow at a greater proportional rate than those of conventional transit but will still be much less than conventional transit increases.

A risk contingency of five percent of year-over-year cost increase in 2025 has been provided to account for the financial uncertainty associated with fare-free transit. Section 9 provides further details regarding the associated risks. Five percent was selected based risk contingency practices in infrastructure development.

Table 3 illustrates the key annual financial factors 2024 to 2029 and for 2034.

Table 3. 2024 Approved Operating Budget, 5-Year Operating Budget and 2034 Forecast

	2024	2025	2026	2027	2028	2029	2034
Conventional	$29,268	$37,230	$38,641	$40,131	$41,691	$43,346	$52,422
Specialized	$2,614	$3,387	$3,533	$3,693	$3,869	$4,064	$5,103
Risk Contingency	$-	$437	$445	$453	$462	$471	$517
Gross Total	$31,882	$41,054	$42,619	$44,277	$46,022	$47,881	$58,042
Operating Revenue	($6,895)	($183)	($124)	($920)	($937)	($955)	($1,050)
Gas Tax Funding	($2,726)	($3,489)	($3,575)	($3,664)	($3,754)	($3,845)	($4,308)
Net Municipal Operating Cost	$22,261	$37,382	$38,920	$39,693	$41,330	$43,080	$53,734

The net municipal operating cost per passenger is projected to increase slightly with the implementation of fare-free transit, rising from $5.54 in 2024 to an average of about $6.00 over the next five years. The net municipal operating cost per capita is expected to increase sharply between 2024 and 2025 before gradually declining over the following decade. Table 4 presents key financial operating metrics.

Table 4. Key Financial Operating Metrics

	2024	2025	2026	2027	2028	2029	2034
Net Municipal Operating Cost per Boarding	$ 5.50	$ 5.65	$ 5.79	$ 5.74	$ 5.82	$ 5.90	$ 5.75
Net Municipal Operating Cost per Capita	$ 106.13	$ 173.39	$ 175.63	$ 174.26	$ 176.52	$ 179.01	$ 194.60

3.3 Capital Budget

Fare-free transit will require additional vehicles for both conventional and specialized transit. The unit cost of each new and replacement vehicle will be slightly lower than typical values because fare collection equipment will not be required.

The capital budget outlined below reflects the forecast from the City's 2024 budget, excluding revenue vehicle costs, which have been calculated based on asset requirements determined by the fare-free service. The required new vehicles shown in Table 5 are necessary solely to alleviate crowding and not to enhance service otherwise.

There is uncertainty regarding ongoing provincial capital funding under the revised federal Permanent Transit Fund. For the basic funding stream, which allocates federal contributions at 40 percent based on service area population and total ridership, provincial participation is not required as it was under the previous ICIP program. If provincial funding is unavailable, Burlington would need to cover 60 percent of capital costs. Consequently, both scenarios are included in the capital budget presented in Table 5.

Table 5. 5-Year Capital Budget

	2024	2025	2026	2027	2028	2029
New Conventional Vehicles	6	6	2	0	2	0
New specialized Vehicles	-	6	0	0	1	0
With Federal / Provincial Funding						
Conventional (,000)	$ 4,956	$ 7,185	$ 1,820	$ 1,794	$ 2,918	$1,862
Specialized (,000)	$ 498	$ 915	$ 882	$ 449	$ 539	$ 467
Total (,000)	$ 5,454	$ 8,100	$ 2,702	$ 2,243	$ 3,457	$ 2,329
With Federal Funding only – No Provincial Funding						
Conventional (,000)	$ 4,956	$ 13,521	$ 3,186	$ 3,179	$5,394	$ 3,384
Specialized (,000)	$ 498	$ 1,505	$ 882	$ 449	$ 638	$ 467
Total (,000)	$ 5,454	$ 15,026	$ 4,068	$ 3,628	$ 6,032	$ 3,851

4 Service And Resources Impacts

This section explores the conventional service impacts, resources and assets required with an implementation of fare-free transit. Impacts specific to specialized transit are included in Section 9.

4.1 Methodology Overview

4.1.1 Analysis Assumptions

To project the ridership and service impacts of fare-free transit. The following assumptions were made.

- Only passenger groups currently excluded from fare-free programs would increase their transit use, including high school students (daytime), and adults not benefitting from the One Fare free transfer program. This excludes children 12 years of age or younger, high school students (evening and weekend), all seniors, and adults transferring to or from GO Transit.
- Transit service must increase to accommodate the additional demand caused by fare-free. These increases also enhance service during periods where crowding is not present that cause an increase in transit use during those periods. For example, if crowding is projected for a trip at 12 pm on Route 2, an additional bus would be added to the Route over a longer period, which increases the Route's frequency and drives ridership growth over the longer period. The impacts of these increases were assumed to benefit all riders, including those currently riding fare-free.
- Year 1 of the implementation is 2025, based on the 2024 budget
- Halton Region's "Best Planning Estimates" from October 2023 were used for overall population, with local Burlington estimates of planning projects and spatial distribution.
- Where calculations of boardings based on ridership, or vice versa were required, a transfer rate of 18 percent was used, as in the DC Study. This means that 100 trips equate to 118 boardings

4.1.2 Analysis Considerations

- Increase in trips and boardings were modelled in detail from industry research.
- Service requirements were evaluated against Burlington Transit current transit service design standards.
- The performance of the fare-free program (in terms of ridership) was evaluated against the targets established as part of the Development Charges study. That analysis determined the level of service required to attract and accommodate sufficient transit ridership to meet the modal share targets established in the Integrated Mobility Plan and align with population growth.

4.2 Transit Ridership

Demand projection is a crucial part of the impact analysis, as further assessments of service, staffing, and operational effects depend on expected ridership. The methodology draws from past Burlington experiences, the experience of neighbouring municipalities and includes regression analysis of fare-free transit systems, considering variables like low-income and senior populations, alongside industry research on passenger responses to fare changes. Ridership was projected at user group, time period, and spatial levels. The full expansion of fare-free transit is expected to drive a 33 percent growth in boardings in the first year of implementation. Total year-over-year boardings would increase beyond that due to necessary service increases, demographic shifts and urban development. Service details are found in Section 4.3. Enhanced service levels will be essential to accommodate the fare-free demand on the system during peak hours; without them, frequent overcrowding could degrade the passenger experience and ultimately limit ridership and the effectiveness of the fare-free initiative.

Not all passenger groups and time periods will grow at the same rate. The greatest growth rate is anticipated among youth (13 – 19 years of age) during weekday daytime hours, which is projected to increase by 100 percent. If focussed on locations like high schools during bell times, this could lead to demand exceeding current service capacity and result in other operational issues as seen in other municipalities who have implemented fare-free transit for students.

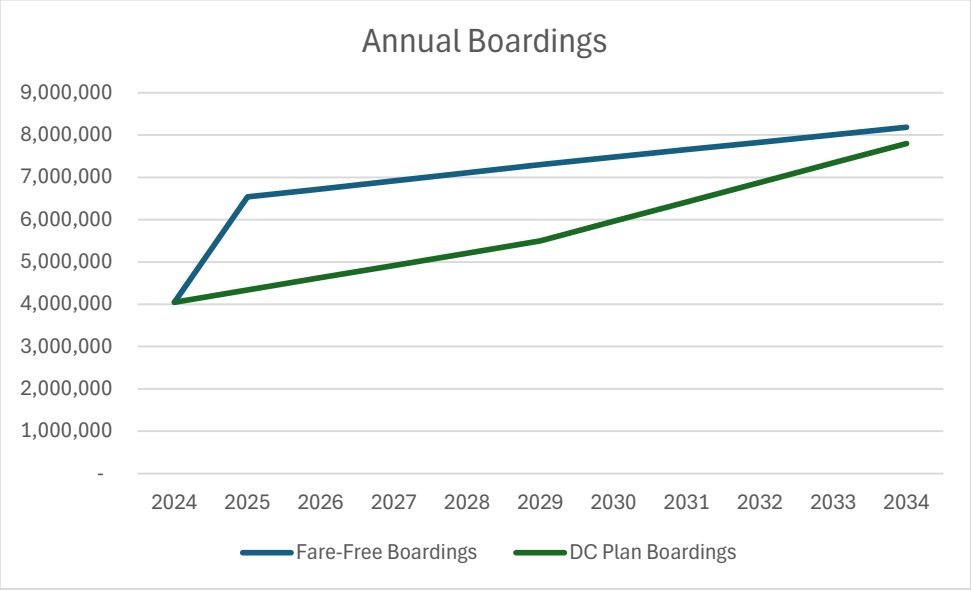
While ridership growth is expected to be significant in individual demographic markets, the overall impact is less than what might be expected in other communities. This is because fare-free transit would likely benefit only 50 percent of passengers due to Burlington's demographics. Currently, about 15 percent of passengers already use fare-free services and 35 percent of passengers with regional connections would likely not see fare changes. Section 7 provides further details on the regional impacts. Table 6 shows a summary of the projected boardings and ridership from fare-free.

Table 6. Projected Ridership and Boardings - Fare-Free

	2024	2025	2026	2027	2028	2029	2034
Projected Ridership	3,467		5,554	5,710	5,870	6,033	6,200
Projected Boardings	4,046	6,542	6,725	6,914	7,106	7,303	8,183
Boardings per Service Hour	19.57	28.06	28.62	29.19	29.76	30.33	

Figure 3 illustrates projected annual boardings with fare-free and those from the DC calculations associated with the IMP mode share target. Note that the extrapolation of these lines beyond 2034 indicates that in the late 2030s, the fare-free projection will begin to fall short of the DC targets, and additional investment will be likely be required to maintain progress.

Figure 3. Projected Annual Boardings vs. DC Boardings Target



4.3 Service

To assess the service impacts of fare-free transit, average trips were modeled to keep passenger loads at or below the recommended Burlington Transit planning limit of 40 passengers per vehicle. Extra buses were added for trips exceeding this capacity throughout the time periods where crowding occurred. Service impacts were also adjusted for expected ridership growth due to the service increases.

Overcapacity trips are anticipated to occur mainly during weekday peak periods and also on Saturdays on Route 1. Notable crowding is also projected near high schools at midday, driven by anticipated high ridership growth in this passenger segment. A minimum 14 percent increase in service hours is projected to be necessary before implementing fare-free transit to maintain service efficiency and prevent overcrowding. Given the risk of underestimating ridership and its impact on service quality, it would be prudent to include a contingency for service and related resources, since the requirements may be focussed in specific areas, which could amplify the impacts (such as school routes).

Currently, Burlington invests less in service compared to peer communities, with a revenue hour per capita rate of 1.0, compared to a peer average of 1.44. Fare-fare would raise Burlington's revenue hour per capita to 1.1, still below the peer average and this might limit the opportunity for future increases.

Fare-free transit is expected to improve service efficiency, with boardings per vehicle hour increasing from 20 in 2024 to 28 in 2025. However, crowding may lead to increased conflict, driven by changes in passenger behavior due to a decreased sense of value and a potential increase in problem passengers, all of which can create additional challenges for staff. Effective planning and service deployment can mitigate these risks. Furthermore, fare-free expansion can enhance operations by allowing operators to focus more on passenger service and eliminating fare-related conflicts.

4.4 Resources and Assets Required

To successfully implement fare-free transit, Burlington will need to enhance its operational resources:

1. **Vehicles:** Additional vehicles are required to support service hours as shown in Table 5.
2. **Operations staff and resources:** Additional operations staff will be necessary alongside the increase in service hours and vehicles. Current staffing levels need to be raised to the current levels identified in the Burlington Transit 5-Year Business Plan. Several positions, such as supervisors, are currently below the target complement necessary to provide desired service levels. Moreover, to effectively address the risk of conflict, additional supervisors are needed. In some cities where free transit for students has been implemented, additional supervisors were deployed in response to fare-free youth implementation, to manage passenger behaviour in addition to expanding service capacity. With these adjustments, operating expenses are expected to increase from $13.8 million in 2023 to $18.9 million in 2025.
3. **Maintenance and Fuel:** Increased costs for maintenance and fuel are anticipated due to more crowded buses, which raise marginal costs. Maintenance staffing is currently below planned levels, impacting vehicle maintenance and operational efficiency, and staffing will need to be adjusted to mitigate these operational risks. Maintenance and fuel costs are projected to increase from $6.7 million in 2023 to $12.8 million in 2025, including the allowance for increased maintenance costs associated with higher boarding levels.
4. **Administrative Capacity:** Prior to fare-free expansion, existing issues must be addressed to prevent service quality degradation. This includes increasing administrative spending to align with industry standards. In 2022, Burlington's administrative spending was $9 per revenue

service hour, significantly lower than the $27 spent by peer agencies. These increases will be crucial in managing the changes that fare-free transit will bring. Current hiring and retention challenges pose a major constraint and must be resolved before fare-free implementation, potentially requiring a multi-year hiring process and more staffing and time directed to human resources. Implementing change and conflict management strategies is also vital, as demonstrated by other transit agencies that have implemented fare-free programs. Administrative costs are expected to increase from $1.9 million in 2023 to $2.7 million in 2025.

5. **Travel Training and Change and Conflict Management:** Additional training and education resources would be beneficial for designing, developing and delivering travel training programs, which have been particularly effective in youth fare-free experiences. Implementing change and conflict management strategies is also vital, as demonstrated by other fare-free initiatives.

5 Presto Impacts

5.1 Analysis Assumptions

For this analysis, the following assumptions were made:

- PRESTO would remain in use through the end of 2027, when the current contract ends.
- PRESTO fees and charges would remain the same as under the existing contract until then.
- On-going PRESTO fees after the end of the contract would be zero.

5.2 PRESTO and One-Fare Assessment

In 2006, the City of Burlington entered into the Provincial Gas Tax Agreement. As part of that agreement, a specific requirement was made for GTA municipalities to participate in the GTA Farecard Project (PRESTO). Since 2006, PRESTO has been the electronic fare payment collection system for Burlington Transit.

PRESTO is an electronic fare collection system that seamlessly links 11 transit agencies and their fare policies, making it even easier for people to travel across the Greater Toronto, Hamilton and Ottawa areas. PRESTO promotes seamless passenger travel across multiple transit agencies by tapping a physical or digital card at stations and on buses.

The PRESTO contract was reviewed by the City's Corporation Counsel. Further conversation would be required with Metrolinx and PRESTO if fare-free transit is implemented. The PRESTO system provides

transit agencies with detailed information about transit ridership regarding transit trends and patterns. It is also used to establish ridership for provincial gas tax allocations.

To utilize PRESTO in a fare-free environment, a new contract would need to be negotiated with PRESTO as this would extend beyond the current Core Services Agreement and would include a revised terms and fee for use.

5.2.1 Presto Costs

Under the existing contract, PRESTO operating fees are a percentage of the revenue collected. Burlington Transit is also responsible for the capital costs of the on-board fare collection equipment, including farebox, PRESTO validators, and operator control unit, as part of the operating agreement.

5.2.1.1 Operating Considerations

The PRESTO system is used to collect fares and applies discounts (including 100 percent fare-free for children, youth time of day and seniors) on Burlington Transit; about eight percent of revenue comes from passengers using cash and HSR paper transfers. Tapping a PRESTO card identifies the rider, applies transit agency policies and records transaction details, which enables back-office processing such as adjusting GO Transit fares when transferring from Burlington Transit to GO Transit under the One Fare program (see below).

Passengers eligible for a fare-free program *are* required to tap their PRESTO card to identify their eligibility. With fare-free transit for all riders, it will be no longer necessary to use PRESTO.

5.2.1.2 Data Collection Considerations

PRESTO is an asset for data collection, providing comprehensive information on boardings and transfers between routes and systems. Without PRESTO, this data would be lost, impacting both short-term and long-term planning processes. While some data can be replaced by the existing Automatic Passenger Counter (APC) system, enhancing data queries and analysis will require additional staffing resources. Also, since APC cannot track transfers or passenger classification, periodic random on-board surveys will be necessary for accurate data collection. Both manual processes will require additional staff effort (likely new resources) to accommodate an effective systematic collection and analysis process.

5.2.2 Metrolinx GO One Fare Program

Metrolinx, in partnership with the Province and local transit agencies, is working to implement fare integration across many of Ontario's transit networks. In 2024 Ontario introduced the One Fare Program allowing single fares between TTC and its neighbouring transit agencies in Peel, York and Durham, aligning these transfer policies with those of the other agencies throughout the GTHA. At the same time the province integrated the GO Co-fare program under the One Fare banner. This program allows transit passengers to pay a single fare when transferring between GO and a local transit service, including Burlington Transit.

To take advantage of the program, transit passengers must use a PRESTO card, credit, debit, or PRESTO in Google and Apple Wallet to pay their fares. For passengers transferring to or from GO services, a 100 percent refund of Burlington Transit fare is issued. Transfers remain valid for two hours from the start of a Burlington Transit trip and three hours from the start of a GO Transit journey. It is estimated that 92 percent of Burlington Transit passengers use PRESTO and benefit from this program.

Metrolinx subsidizes local transit agencies for the lost revenue from this program. Metrolinx refunds Burlington Transit (City of Burlington) the equivalent of the base fare ($2.75) for the number of free transfers provided to and from GO Transit.

Metrolinx also reduces a passenger's GO fare to travel to the GO service by the amount of the base fare ($2.75) paid. This effectively makes the Burlington Transit trip to GO Transit free for connecting customers.

Based on the review completed, the total benefit of the fare subsidy paid to Burlington Transit by Metrolinx averages $700,000 per year and is trending higher in 2024. With fare-free transit analysis, this revenue is assumed to be zero. While the DC Study analysis projects significant increases in transfers to GO over the next 10 to 15 years, no additional revenue would be received from Metrolinx with a fare-free policy.

The result is the subsidy Burlington is currently paid by Metrolinx would be shifted to the City and an equal amount currently absorbed by Metrolinx would be paid by Burlington GO Transit users.

6 Gas Tax Implications

Provincial gas tax funding is derived from a 2-cents per litre share of the provincial gas tax, historically providing about $350M in annual transit funding to municipalities across Ontario. Funds are allocated to

municipalities each year based on the previous year's ridership and Statistics Canada Census population. As a result, gas tax allocation for a municipality only increases when population or ridership growth exceeds the provincial average. Population estimates are based on projections from 5-year census data. Population estimates have not yet been updated from the 2016 to 2021 base. In addition, during the pandemic, the provincial funding pool was frozen despite the actual tax revenue declining with reduced gasoline sales. It is not known when the province will update the population numbers in the calculations, though the advent of the Permanent Transit Fund in 2026, which will use a similar formula, is a potential prospect.

For this analysis, the following assumptions were made:

- Gas tax eligibility would not be affected by fare-free transit, since required data can be collected through other means. As they are in many municipalities, the gas tax total fund will increase from the current amount starting in 2025 based on inflation only with no change to overall allocation formula, post-COVID corrections, or per litre allocations.
- Provincial population base estimates will be updated to 2021 census figures in 2026, with projection estimates for annual population allocation; Burlington population estimates are based on Best Planning Estimates sourced from Halton Region Planning.
- Estimates of annual ridership will be updated annually from 2025; Burlington Transit's allocation will be based on model projections from this assignment.
- Annual growth in province-wide transit boardings will be 3.5 percent.

Based on these assumptions, Burlington's population-based amount will increase about $400,000 over the five years, and the ridership-based amount by about $700,000 for a total increase of about $1.1 million by 2029. Following the ridership pattern, most of the increase in the ridership amount occurs in the first year. Table 7 shows the details of these calculations along with a projection to 2034; these totals are also included in the financial summary in Table 3.

Table 7. Provincial Dedicated Gas Tax Funding Projections

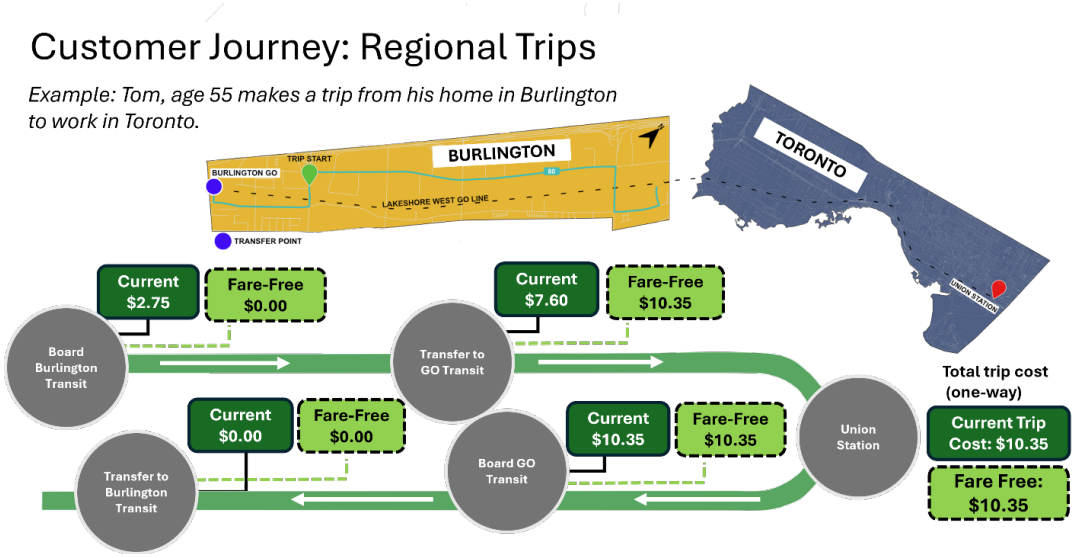
	2024	2025	2026	2027	2028	2029	2034
Population Amount	$1,755,000	$1,924,000	$1,981,000	$2,041,000	$2,102,000	$2,164,000	$2,422,000
Ridership Amount	$966,000	$1,565,000	$1,593,935	$1,622,801	$1,651,803	$1,681,213	$1,662,000
Total Gas Tax Funding	$2,721,000	$3,489,000	$3,575,000	$3,664,000	$3,754,000	$3,845,000	$4,304,000

7 Service Integration Impacts

The regional fare structure and service integration of Burlington Transit with transit agencies across the GTHA complicates the impact of fare-free. The reactions of adjacent transit agencies remain unknown, and the expansion may alter funding dynamics for Burlington Transit regionally. Additionally, Halton Region's Transit Priority Corridor Operationalization Study could impact the fare-free initiative for Burlington.

Due to local transit fare arrangements with Metrolinx, HSR (Hamilton Street Railway), and Oakville Transit, passengers using Burlington Transit to connect to these services would likely see no fare changes. Regional fare integration goals are to eliminate fare barriers created by artificial boundaries and to simplify travel by removing double fare collection. With fare-free transit, these objectives would be met without Metrolinx's use of the One Fare program. As result, Metrolinx would likely charge their full fare in both directions without reimbursing Burlington Transit. Figure 5 illustrates the change in fare payment for a regional trip with GO Transit.

Figure 4. Burlington to/from Toronto Fare Journey Map Before and After

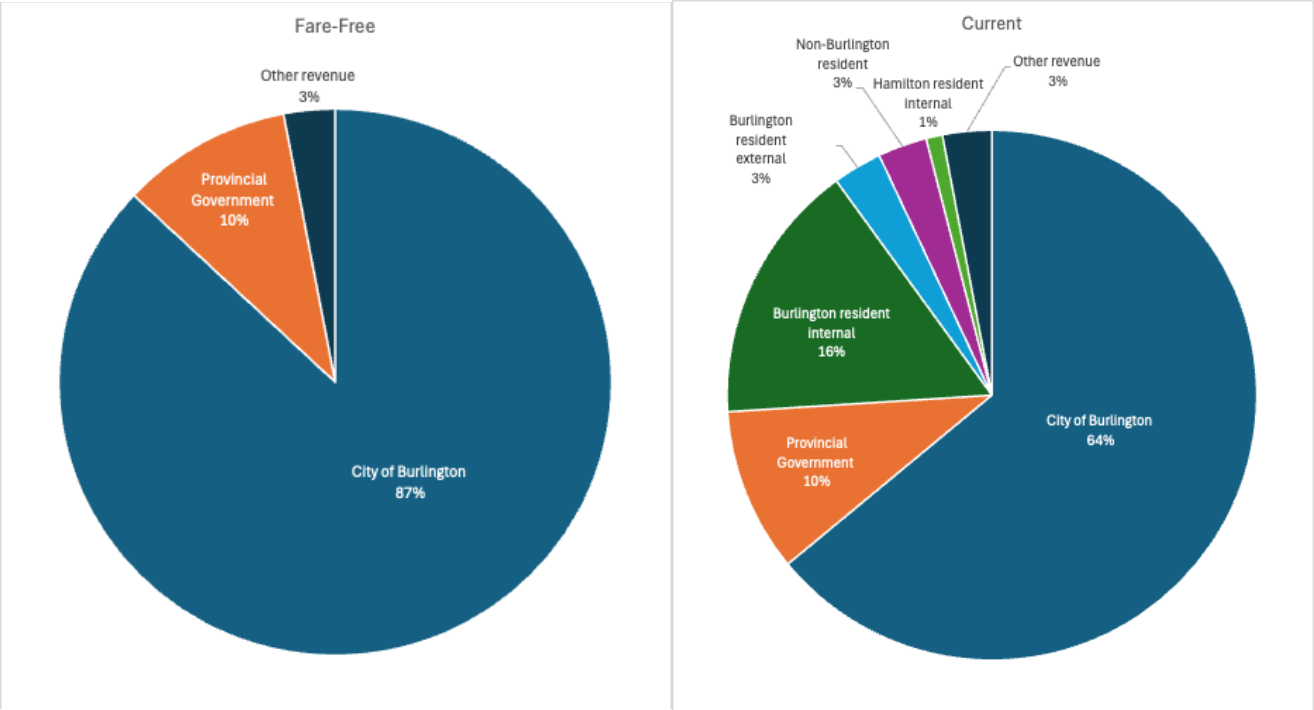


Initially, HSR and Oakville Transit may have little incentive to remove their free transfer if Burlington adopts a fare-free model, as their revenue would remain unchanged. However, if HSR and Oakville Transit maintain their free transfer from Burlington Transit, it would create inequity for passengers traveling between municipalities; for example, an HSR passenger traveling within Hamilton would pay $5.60 with PRESTO, while a round trip to Burlington would cost only $2.80. This disparity may pressure HSR and Oakville Transit to reinstate a return fare and eliminate the free transfer for regional trips. While passengers on these trips would likely see no change in fare, the cost of providing associated services would shift from Metrolinx, HSR, and Oakville Transit to Burlington Transit. A significant implication considering 35 percent of Burlington Transit passengers transfer to/from another agency.

Expanding fare-free shifts the burden onto the City of Burlington to find sources of funding to cover this loss of revenue. Currently, fares from travelers to and from non-Burlington locations cover about seven percent of operating expenses or $1.75 million annually. For example, travel solely within the Hamilton boundary on Route 1 (Plains Rd. and Fairview and downtown Hamilton) accounts for one percent of operating expenses, or $250,000 annually. With fare-free expansion, the cost of Burlington Transit will no longer be subsidized by non-Burlington residents.

Furthermore, the City would need to fund services which will affect Burlington businesses supporting transit access to their businesses/workplaces; while non-Burlington businesses/workplaces will maintain the benefit of employee access via Burlington Transit with no cost implications. Figure 5 illustrates the shift in funding contributions.

Figure 5. Percentage Distribution of Revenue and Funding Contributions for Burlington Transit



Halton Region is conducting a Transit Priority Corridor Operationalization Study, with a draft Phase 1 report already completed. This report outlines three potential scenarios for expanding transit priority corridors and coordinating services, all of which involve amalgamating transit services under a single entity.

The preliminary recommendation to combine transit services could reverse any fare-free decision Burlington makes (and possibly existing programs not shared by the other systems), as fare consistency is typically a feature of regional transit systems. However, any move toward regional transit amalgamation is likely to be long-term and may not impact the immediate planning considerations of this assessment.

8 Community Benefits and Risks

Fare-free transit may bring notable benefits to the community, alongside some risks. Benefits are primarily linked to increased ridership. Ridership is derived from three sources: more trips taken, a potential shift from personal vehicle travel to public transit, and a transition from walking or cycling to public transit.

The most significant source of ridership gain is likely to come from current passengers taking more trips, which enhances their access to employment, education, and healthcare — particularly benefiting marginalized groups and promoting equity. The per person trip increase is likely to be greater with lower incomes. This increase in total trips per person improves business productivity, mental and physical health, and fosters greater social capital, as low-income riders will no longer have to validate and apply for transit passes.

A shift from personal vehicle travel to public transit can contribute to community benefits. Fare-free models are less effective at reducing personal vehicle use compared to other transit service enhancements. This is because fare-free transit ridership growth comes from increased trips by current passengers and from people substituting walking or biking for short trips. For instance, individuals start to take short trips on transit that could be easily walked, increasing transit costs with minimal value. The diversion of passengers from cycling and walking would also affect active transportation mode share targets within the IMP and reduce the community benefits that those modes provide.

The overall impact of fare-free transit includes a projected replacement of 507,000 car trips by 2029, a small percentage of Burlington’s total trips. This will decrease the amount of GHG emissions, including a projected reduction in Co2 of 560,400kg by 2029, and is a benefit for the environment. Private automobile passengers can reduce expenses related to fuel, parking, maintenance, allowing for greater spending in the local economy.

Theoretically, reducing car trips will lead to less traffic congestion, less green house gas emissions and faster travel times for everyone. Congestion reduction is expected to be minimal particularly considering any through traffic would not be affected by fare-free. Long term, fewer car trips mean lower public and private spending on transportation infrastructure, including the costs of building and maintaining roads and parking, as well as their land use value. Most transit trips involve walking or cycling links, which promotes physical activity.

Additional community benefits include cleaner air from reduced vehicle kilometers traveled and roads can become safer as people switch from cars to transit. Table 8 highlights some of these community benefits and provides rough estimates of their economic impact for the City of Burlington.

Table 8. Sample of Estimated Theoretical Annual Fare-Free Transit Economic Benefits in 2029

Transit Benefit	Description	Estimated Economic Benefit of Fare-Free Transit in 2029
Business productivity gain from enhanced workforce access	Increased employment participation by non-drivers.	$1.00 million
Individual Transportation Savings	Fare-free transit creates cost savings for riders	$17.58 million
Reduction in Road Traffic (Congestion Reduction)	Results in faster travel times for everyone	$0.68 million
Active Travel Health Benefits	Promotes a more active lifestyle for transit passengers i.e. walking to a bus stop	$0.41 million
Enhanced Road Safety	Reductions in collisions from mode shift	$0.28 million
Total		**$19.95 million**

The quantitative number in Table 8 represents only a portion of the total benefits arising from fare-free transit. Other non-quantified benefits supported by fare-free transit include enhancing social capital and sense of community, transportation infrastructure savings, and access to engagement in several key daily activities including employment, education, food and healthcare.

Fare-free transit may be a source of community pride that has helped local communities earn positive recognition and may support City of Burlington's strategic goals and priorities. Public perception can also vary. In many cases, those who do not use transit, may view any increase in taxes that fund the transit system as being "unfair", as was noted in the Fare-Free Transit survey.

9 Benefits and Risks – Transit Sustainability

The consideration of fare-free transit in Burlington presents implications for the sustainability of both the City and Burlington Transit. While there are notable risks associated with this initiative, potential benefits also warrant careful examination.

9.1 Risks

One of the primary concerns is the potential mismatch between service availability and demand. Research on other fare-free experiences indicates that planning and investing in service capacity must occur prior to implementing a fare-free model for it to be effective. If this is not done, service quality is likely to deteriorate, and any immediate increases in ridership may be subdued, potentially leading to decreases over the long term.

An associated risk arises if ridership significantly exceeds expectations, particularly during a specific time period. Although the ridership projection methodology used in this study is robust, there remains a degree of uncertainty due to the limited experience and research on fare-free systems, as well as the complex factors influencing ridership changes. While Burlington Transit does have some service capacity on different routes and at various times, system-wide, Burlington Transit's boardings per vehicle hour are higher than those of most systems that have implemented fare-free transit. A higher number of boardings per vehicle hour heightens the consequences of ridership exceeding projections. This is because the system is running closer to its maximum capacity, making it more likely that any fluctuation in ridership would cause overcrowding, again resulting in degradation of service and loss of ridership.

Fare-free transit also commits the City to a greater extent of ongoing service investment. As service efficiency improves and excess capacity diminishes, additional investment will be necessary more frequently and substantially to accommodate community growth without degrading service quality. Fare-free transit makes it less likely that this continued investment will occur. Research indicates that systems with reduced fare revenues are less likely to expand service in response to increased demand. This is because, with fare revenue, when ridership increases, so do revenues, making it easier to invest. Without fare revenue, there is a risk that appropriate network development does not occur. By removing fare revenue, transit funding becomes less diverse, which could result in less sustainable funding.

Fare-free transit could impact hiring and retention within Burlington Transit. Attracting and maintaining a skilled workforce will be crucial to sustaining service quality. If hiring and retention difficulties persist, it

could necessitate further increases in operational costs or pose risks to service quality and long-term transit sustainability.

9.2 Benefits

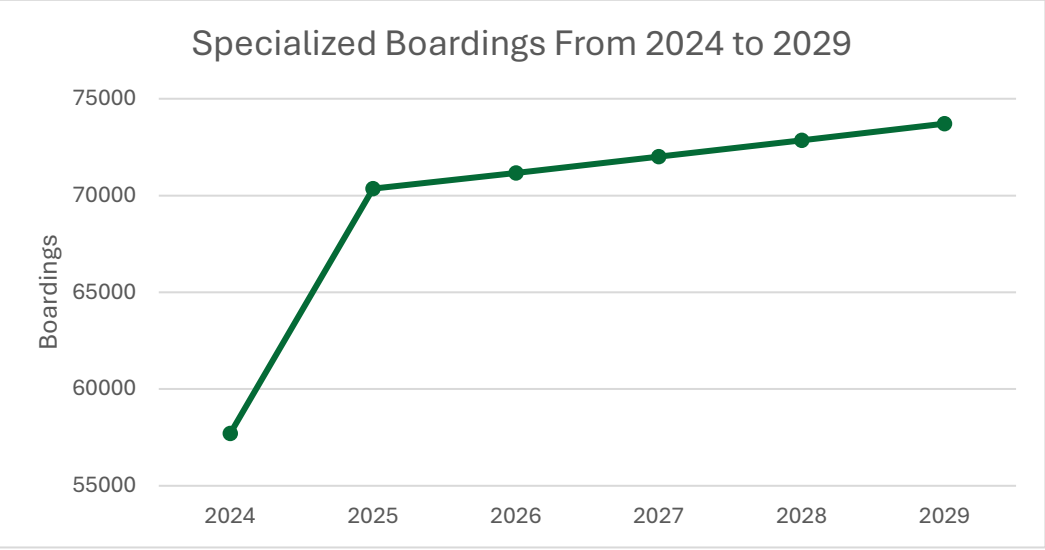
A potential benefit of expanding fare-free transit is the enhancement of future support for transit. Transit passengers are expected to grow significantly and immediately. This, combined with the potential that fare-free transit will foster greater community pride, could lead to increased community-wide support for transit, thereby enhancing its long-term sustainability.

Another benefit is that young passengers are more likely to embrace public transit when it is fare-free Encouraging this demographic to utilize transit services can establish a foundation for sustainable transit use in the long term.

10 Specialized Transit Impacts

Compared to conventional transit, specialized transit ridership growth is expected to be more modest, primarily due to the existing fare-free travel enjoyed by many senior users. Ridership is projected to increase from about 58,000 in 2024 to more than 70,000 in 2025, a 20 percent increase.

Figure 6. Specialized Boardings from 2024 to 2029



The specialized service already operates at full capacity or experiences demand that exceeds capacity during peak times. This will necessitate service increases that align closely with ridership growth to

ensure effective demand management. While conventional transit can accommodate more passengers without immediate expansion, specialized transit must maintain service levels to avoid capacity issues and trip denials. This is essential for compliance with the Accessibility for Ontarians with Disabilities Act (AODA). Additionally, existing service must increase to meet currently unmet demand. The projected ridership would require an increase of six additional vehicles in 2025, a 38 percent increase. Vehicle procurement timelines would delay meeting the ridership increases until late 2026. Expanding fare-free to all passengers before that date could cause a significant increase in trip denials, leading to passenger complaints and possible legal challenges.

Table 9. Required Service Hours and Vehicles to Meet Projected Ridership Growth

	2024	2025	2026	2027	2028	2029
Specialized						
Service Hours	15,000	19,000	19,500	19,500	20,000	20,000
Vehicles – Total	16	22	22	22	23	23
Expansion		6	0	0	1	0

11 Alternative Funding Sources

Expanding a fare-free transit system in Burlington results in considerable loss in revenue to support operations, which must be recovered from other sources. In the comparator group of agencies with fare-free programs, many are from the US, where agencies have much more diverse revenue sources. These agencies typically have access to a wide variety of federal and state funding programs including formula grants and competitive funding programs, sales taxes, dedicated transit levies, and donor programs (primarily for specialized transit). In Ontario, municipalities are very limited in their funding sources, and almost all rely solely on property taxes and the dedicated gas tax funds to make up operating revenue shortfalls. Even those municipalities that have additional funding options have been prevented by the province in the past from implementing them. Toronto, for example, attempted to introduce tolls on its locally owned highways, but the plan was prohibited by the province.

Burlington Transit's total revenue includes about $800,000 annually from advertising and charter services. More aggressive pursuit of these and other initiatives could increase revenue, but the potential increase is small and could be partially or completely offset by the additional effort and staff resources

required to implement them. Fare revenues are proven to be the most steady and sustainable source of revenue for most transit agencies in Canada.

Other agencies have explored and some successfully implemented programs, which are unrelated to fare-free programs, but can be used to generate additional revenue such as:

- Co-Sharing Partnerships - Partnering with employers and schools could lead to agreements where these entities contribute financially to support the fare-free system. School boards could contribute funds already budgeted for high school passes.
- User Fees and Levies, including sales taxes (US) and parking levies (TransLink). Both Ottawa and Toronto have considered recent reports aimed at introducing paring levies to support transit.
- Securing Sponsorship and Naming Rights – a variation on transit advertising for large system with significant system infrastructure
- Crowdfunding and Community Fundraising - Although unconventional, crowdfunding and community fundraising are used to supplement transit funding, primarily for very small rural systems in the US. Other small systems, including some community systems in Canada, derive an important portion of their funds from donations.

While various alternative revenue sources may be available to help replace lost fare revenue, each presents challenges and uncertainties, with limited revenue prospects, particularly in the Burlington context.

12 Staff Impacts

Implementing fare-free transit in Burlington presents both benefits and risks for operations and staff. On the positive side, the elimination of fares can allow operators to focus more on enhancing passenger service, as they would no longer need to manage fare collection issues or disputes. This shift can improve overall passenger experiences and alleviate the administrative burden associated with fare management, reducing operational costs related to fare collection processes.

There are potential risks, particularly concerning crowding, changes in passenger behavior, and an increase in problem passengers. This could lead to a more dangerous environment for staff and the negation of benefits mentioned above. While the literature indicates that fare-free systems may see an

increase in problem passengers, the actual increase in incidents per boarding is often marginal.[10] Nonetheless, effective planning and deployment of resources can mitigate these risks. For instance, strategies such as deploying supervisors in high-traffic areas —can help manage passenger behavior and enhance safety.

Moreover, larger and more diverse crowds may necessitate additional training for operators and supervisors to effectively manage increased passenger volumes and potential conflicts. This training is crucial for ensuring safety and maintaining service quality amidst changing dynamics. Careful staff planning is essential; insufficient staff would lead to a decline in the quality of the working environment and negatively impacting service delivery.

Operating cost estimates outlined previously include adjustments for administrative and operations expenditures overall. Burlington Transit will need to review specific needs and capacities in supervision, training and such to identify specific hiring requirements. This hiring process in the current environment can create delays in implementation, and it is important to remember the risks of fare-free launch without adequate resources.

13 Alternative To Fare-Free Transit – Service Expansion to Support Service Demand

Evaluating opportunity costs is crucial for assessing the value of fare-free transit. This section develops an alternative service scenario aimed at aligning Burlington Transit with the transit goals of the Integrated Mobility Plan (IMP). The modal shift targets of the IMP are used as a base for the Development Charges Update Study, and detailed in the Development Charges Update Background Study.

The DC transit targets calculate a number of vehicles and related capital expenditure required to achieve the estimated service hours necessary to achieve the boarding targets. The DC study also looks at the development within Burlington which will focus on Major Transit Station Areas, therefore there will be a need for Burlington to align transit service expansion to support service demand. Future development in Burlington will have reduced minimums for parking, therefore supporting additional demand in transit to get around Burlington.

[10] Kirschen, M., Pettine.A., (2023). *Fare-Free Transit Evaluation Framework*. National Academies of Sciences, Engineering, and Medicine

The analysis utilizes the Development Charges Update Study transit analysis to determine service requirements. In the DC background analysis, ridership targets were developed and translated to service increases (vehicle-hours) to identify the capital and operating requirements for the plan.

This analysis reverses the process, taking the projected vehicle and service needs to develop a sample network, then projecting annual ridership from that network. This network and associated ridership estimate were developed for 2029, then pro-rated for the intervening years from 2025, and projected to 2034 based on the DC intermediate targets for 2034.

The transit service network developed for 2029 includes:

- Increased span of service (earlier and later trips) on many routes.
- Frequent transit network (15-minute service or better) throughout the day and 10-minutes or better in peaks on key routes.
- Improved Saturday and Sunday services.

13.1 Analysis Assumptions

For this analysis, the following assumption was made:

- Future revenue was calculated based on average fares, inflated from the 2024 base using the IMF inflation rates.

13.2 Analysis Considerations

Boardings and ridership were calculated based on the route-by-route service improvements and applying industry service elasticity factors. A long-term service elasticity factor of 1.0 was used for 2029 and 2034. Since most of the increases were focussed on key higher ridership routes, the aggregate elasticity factor exceeds 1.0.

Specialized transit is not expected to be affected by the service increases, given that they were applied to existing routes. As a result, specialized transit requirements increase modestly along current planning patterns. However, if future increases are applied to new service areas that increase the requirement for specialized transit coverage, the requirement for additional vehicles and service hours will increase more than projected.

13.3 Ridership

Boardings were calculated based on the route-by-route service improvements and applying industry service elasticity factors. Ridership was calculated by applying the relevant transfer rate. Table 10 shows a summary of the projected annual ridership and boardings.

Table 10. Projected Annual Ridership and Boardings for Service Expansion Plan (,000s)

	2024	2025	2026	2027	2028	2029	2034
Annual Ridership	3,466	4,061	4,413	4,765	5,117	5,469	7,941
Annual Boardings	4,046	4,782	5,197	5,612	6,027	6,442	9,358

13.4 Operating Costs

The service expansion plan allocates four revenue vehicles per year (excluding replacements) which increase revenue-service hours between 13,000 and 14,000 hours per year on average, totaling 66,000 hours by 2029. This would bring the service hours per capita close to 1.2, more in line with the peer group average of 1.44. The expansion numbers align with the current Transit 5 Year Business Plan, which will be updated in 2025.

Future operating costs were calculated on the same basis as the fare-free scenario, with the relevant number of service hours.

Gross operating costs are expected to increase from $31.9 million in 2024 to more than $49 million in 2029. Because revenue from all sources is maintained, net municipal operating municipal budget costs under the service expansion plan are projected to be $34 million in 2029. This is up from an estimated $22.3 million in 2024, compared to a near doubling of net costs from fare-free transit.

Based on the assumptions used to develop the service plan for the intervening years, increases are linear over the 2025 through 2029 period. However, these plans could easily be modified to reflect actual response to the service increases. For this reason, the risk contingency amounts, included in the fare-free operating budget, are not included here. In the service expansion plan, transit service increases are being used to lead and attract ridership growth. If that growth does not meet expectations, service plans can be adjusted to meet demands.

The operational costs of specialized transit are expected to grow at a proportional rate to those of conventional transit but be similar to the costs under the fare-free plan by 2029. Table 11 outlines the 10-year operating cost budget.

Table 11. 10-Year Operating Budget – Expansion Plan

	2024	2025	2026	2027	2028	2029	2034
Conventional Operating Cost	$29,268	$32,812	$35,829	$39,030	$42,409	$45,999	$64,843
Specialized Operating Cost	$2,614	$2,725	$2,985	$3,399	$3,576	$3,913	$5,786
Risk Contingency	-	-	-	-	-	-	-
Gross Operating Cost	$31,882	$35,536	$38,814	$42,299	$45,985	$49,912	$70,629
Operating Revenue	($6,943)	($8,531)	($9,429)	($10,356)	($11,307)	($12,290)	(18,991)
Gas Tax Funding	($2,726)	($3,047)	($3,191)	($3,335)	($3,479)	($3,623)	($4,498)
Net Municipal Operating Cost	**$22,261**	**$23,955**	**$26,191**	**$28,606**	**$31,197**	**$33,999**	**$47,140**

To compare to the fare-free plan impacts, net municipal cost per boarding and per capita were also calculated. The net municipal operating cost per passenger is projected to decline under the expansion plan from $5.50 in 2024 to about $5.28 in 2029. Similar to the fare-free plan, the net municipal operating cost per capita is expected to increase between over the following decade as both service and ridership grows. While following a similar pattern to the fare-free transit plan, the net municipal cost per capita is about 60 percent of the fare-free net cost metric. Table 12 presents key financial operating metrics.

Table 12. Key Financial Operating Metrics – Expansion Plan

	2024	2025	2026	2027	2028	2029	2034
Net Municipal Operating Cost per Boarding	$5.50	$5.01	$5.04	$5.10	$5.18	$5.28	$5.04
Net Municipal Operating Cost per Capita	$106.13	$111.12	$118.19	$125.58	$133.24	$141.27	$170.72

13.5 Capital Budget

The capital budget outlined below reflects the forecast from the 2024 City of Burlington budget, with the planned addition of four revenue service vehicles per year over the five years and beyond. Like the fare-free capital budget, municipal expenditures at both the 27 percent and 60 percent contribution rates are shown.

Table 13. 10-Year Capital Budget – Expansion Plan

	2024	2025	2026	2027	2028	2029	2024-29	2030-2034
Conventional Vehicles		4	4	4	4	4	20	20
Specialized Vehicles		0	0	0	1	1	2	2
With Federal / Provincial funding								
Conventional	$4,954	$6,605	$2,372	$2,928	$3,491	$3,039	$20,448	$21,000
Specialized	$515	$516	$1,158	$432	$432	$432	$3,485	$3,600
Total	$5,469	$7,121	$3,530	$3,360	$3,923	$3,471	$26,874	$24,600
With Federal Funding only – No Provincial Funding								
Conventional	$4,954	$9,250	$4,440	$5,738	$6,711	$6,039	$37,132	$39,000
Specialized	$515	$516	$1,255	$432	$432	$432	$3,582	$3,700
Total	$5,469	$9,766	$5,695	$6,170	$7,143	$6,471	$40,714	$42,700

13.6 Other Considerations

- **DC Transit Targets** – The service expansion plan exceeds the DC targets for transit boardings set for 2034 in terms of modal share at 6.9 percent. More modest investment is not

recommended for planning purposes, but progress to the targets will be monitored each year to inform future planning.

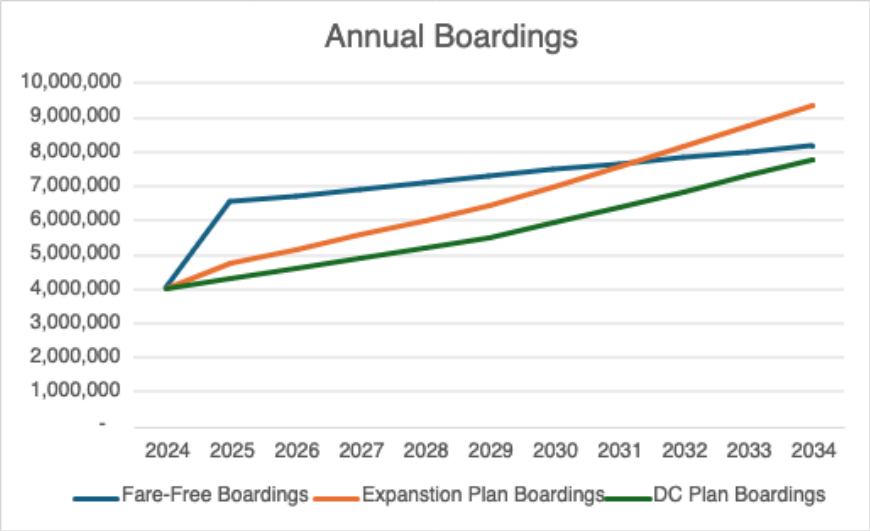
- **Network-wide improvements** – Service investment to improve service frequency, span and coverage can benefit all passengers in all markets and demographics. A service increase on key routes to 15 minutes or better (10 minutes or better peak) improves transit access for all residents, maximizes the economic benefits and justifies the value of the fere system.
- **Targeted Improvements** – Service increases can also be deployed where they can be most effective at any given time. For example, they can be deployed specifically to introduce and increase service around the new Major Transit Station Areas (MTSAs), to maximize transit access to bus and rail stations (and maximize revenue from Metrolinx), to promote use by high school students, to serve employment areas, or residential areas targeted for equity improvements.
- **Higher modal shift** – While the service investment plan meets the IMP targets for ridership in 2029 and 2034, the total ridership gains are less than that of fare-free. However, modal shift from auto modes are approximately 50 percent higher with service improvements than from fare reductions. This means that the associated benefits of GHG emissions, competition with active modes, even theoretical congestion reductions, are higher with service increases resulting in similar ridership gains. This makes the service investment plan more complementary with the other modes and their IMP targets.
- **Improved Sustainability** – Because the investment plan retains the flow of fare revenues, more funding is available to offset the costs of future investments, reducing the financial and political barriers to on-going investment. Also, because transit service investment leads transit ridership in the short-term, it maintains capacity for on-going ridership growth with lower future investment levels. This means that the ridership impacts of investment are lower in the short-term but can outpace a fare-free system in the medium- to long-term.
- **Risks** – with transit service investment, service impacts can be monitored, as they currently are, to ensure the most effective deployment of resources, with periodic changes to maximize the return on investment. This is more flexible than a fare-free network, which is difficult to change, and limits the flexibility for service increases. The risk remains that service increases will not produce the projected ridership gains over time, requiring additional investment or initiatives to increase ridership to maintain DC-projected targets. Further, the higher vehicle requirements of the service expansion results in higher capital costs, which may be further affected by changes in government funding programs.

14 Conclusion

Ridership Performance

Both a fare-free program and the alternative service expansion plan generate increased transit use that will help Burlington reach the modal share targets. The graph below shows the transit performance in terms of boardings for the two alternatives, compared to the boardings targets of the DC analysis.

Figure 7. Annual Boardings for Alternatives Compared to Boarding Targets of the DC Analysis



Fare-free transit is projected to increase ridership in the short-term; however, benefits may be short-lived unless upfront funding is allocated to align service demand with organizational and capacity, while maintaining a quality-of-service passengers have come to expect. Without planned investment, the move to fare-free transit could lead to service decline and undermine the growth in ridership of the system.

Financial Performance

Financial projections indicate that the initial net municipal operating costs (the cost of transit to the City) would increase from $22.2 million in 2024 to $37.3 million in 2025 with the introduction of fare-free transit, increasing to more than $53 million by 2034. The increase in net operating costs is primarily due to loss of fare revenue, along with the cost of service increases to mitigate crowding.

For the alternative service expansion plan, net municipal operating costs increase more steadily (and controllably) starting at $24 million in 2025 and increasing to $34 million in 2029, and $47 million by

2034. The overall lower net municipal cost is the result of continuing to collect fares and increasing paid ridership.

Capital costs of the fare-free program are lower than the service expansion plan, which has higher vehicle requirements to drive service. Table 14 shows a summary of the financial and ridership performance of the two scenarios over 5 years.

Table 14. Fare-Free Transit vs. Service Expansion Plan: Key 2029 Metrics

	Fare-Free	Expansion Plan
Ridership	6,200,000	5,469,000
Boardings	7,303,000	6,442,000
Net Municipal Operating Cost	$43,080,000	$33,999,000
Net Municipal Operating Cost per Rider	$5.90	$5.28
Five-year Capital Cost (63% subsidy)	$24,285,000	$30,159,000

Other Benefits

There are a variety of other benefits from both programs, and because many of those are related to increased use of transit, both are quite similar. Both will have small but important effects on the number of vehicle trips, kilometres travelled, GHG emissions and modal shift. Because the fare-free program eliminates fares, this financial benefit accrues directly to passengers. This can also have desirable equity benefits for low-income populations. On the other hand, the service expansion plan, with broader service enhancements, benefits all passengers and the community at large, making transit more attractive, and improving community access to employment, services and opportunities.

Performance Risk

The study outlines two key risks for fare-free transit not present with the service expansion plan:

1. Service Demand: Actual demand can vary from the projections, particularly with spikes in particular locations and at specific time periods (like outside schools at bell times). Where boardings exceed service capacity, deterioration of the passenger experience is likely and could lead to ridership reductions. In the case of specialized service, trip denials could result in legal challenges. Mitigating this risk also relies on additional staff resources, including supervisors and dispatchers.

2. Financial Viability: Fare-free programs present greater risks for sustaining future investments by removing controllable revenues that are used to offset operational costs to a transit agency. This may limit the ability to effectively respond to demands in the future.

Combined with more cost-effective ridership growth this suggests that the service expansion plan would yield greater community benefits. Overall, service investments offer a more stable and sustainable approach to ridership growth and meeting community goals; and compares some of the benefits of fare-free transit and the expansion plan.