



**SUBJECT: Integrated Mobility Plan final report**

**TO: Community Planning, Regulation & Mobility Cttee.**

**FROM: Transportation Services Department**

Report Number: TS-07-23

Wards Affected: All

File Numbers: 830-03

Date to Committee: October 31, 2023

Date to Council: November 14, 2023

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**Recommendation:**

Direct the Director of Transportation Services or designate to file a Notice of Completion for the Master Plan; and

Approve the Preferred Integrated Network identified in Section of 6.4 (Figure 6-7) of the Integrated Mobility Plan, listed as Appendix A in transportation services department report TS-07-23; and

Approve the Policy Framework identified in Section 7.0 of the Integrated Mobility Plan, listed as Appendix A in transportation services department report TS-07-23; and

Approve the Program Framework identified in Section 8.0 of the Integrated Mobility Plan, listed as Appendix A in transportation services department report TS-07-23.

**PURPOSE:**

To present Council with the finalized 2023 Integrated Mobility Plan which contains a strong policy framework that builds upon the mobility policies contained within the Official Plan that position the City to shift to active and sustainable modes of travel that actualizes the 30-year vision for mobility and supports growth. The plan presents a recommendation for enhanced programming that will enhance and transform the way the city delivers mobility services. The plan also sets a framework that will guide future mobility decision-making, and summarizes the capital projects required to implement the Preferred Integrated Network.

## Vision to Focus Alignment:

- Increase economic prosperity and community responsive city growth.
  - Improve integrated city mobility.
  - Support sustainable infrastructure and a resilient environment.
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## Executive Summary:

The **Integrated Mobility Plan (IMP)** is a community-driven action plan that aligns transportation investments over the next 30 years with community goals. The IMP is a combination of progressive policies, active programs and capital projects that will guide how we build and operate a sustainable transportation system for the entire city.

The IMP is the path forward to meeting Council's previous policy commitments including Vision 2040 Strategic Plan, 2018 – 2022 Burlington's Plan: From Vision to Focus, the Official Plan, Climate Action Plan, and others. The IMP sets out three key areas for action:

1. Implement transportation network improvements through capital planning & budget;
2. Policy direction to guide future studies, plans and capital projects to meet the goals of the IMP; and
3. Enhance and develop innovative programs to support the implementation of the plan.

City Council has long-recognized that relying on a car-centric approach where streets are widened to add car capacity is not a feasible solution to traffic congestion issues. Continued reliance on a car-centric approach creates a transportation network that fails to serve other mobility modes, which is evident in our rural and employment areas; does not support the City's growth strategy and perpetuates negative impacts to the natural environment and atmospheric climate by contributing to greenhouse gas levels.

In 2019 Council directed staff to form the basis of the IMP on the fundamental direction that there were to be no new road widenings for the sole purpose of adding car capacity. Instead, the City has chosen to adopt a sustainable and integrated approach to resolve the historic and on-going issues associated with the car-centric planning approach.

Key elements of the integrated network approach include:

- Considering street widenings only to improve conditions for walking, cycling or transit users, or when required to resolve safety concerns.

- Rebalancing the right-of-way on select streets to change the priority afforded to travel modes.
- Extending and constructing new multi-modal corridors within growth areas, where required, to provide multi-modal access to areas of intensification.
- Develop a transit infrastructure network, improve transit service, and reduce transit delays within frequent transit corridors.
- Consider the future conversion of general-purpose traffic lanes, or, in limited circumstances, consider widening existing streets to create dedicated transit corridors.
- Develop a spine network of high-quality cycling facilities designed to serve cyclists of all ages and abilities by building new and improving existing cycling infrastructure.
- Improving the pedestrian environment within employment areas, future intensification areas and rural areas.
- Create new active transportation connections across key barriers such as the QEW and rail lines.

The IMP recommends two groups of capital projects – routine and catalyst. A total of ninety-eight routine projects are recommended, involving the renewal and transportation of existing streets to align with the IMP vision through complete street design and implementation. The capital costs associated with routine projects is estimated at \$204 million (over 30 years). The IMP also recommends future planning of seven catalyst projects which involve construction of new, multi-modal facilities that are required to unlock development in key areas targeted for intensification and are instrumental in achieving the mode share targets set out through the IMP. Budget planning estimates for the seven catalyst projects total a cost of \$315 million including a 40% contingency.

The IMP provides the vision of the city's future transportation network and outlines the policy, programs and capital projects required to achieve long-term mobility goals for a 2051 horizon and beyond. The capital and operating budgets are the tools in which Council will set and manage the pace and extent to which the plan is implemented. Approval of future investments recommended through the IMP is to be sought through Council decisions through the annual capital budget/multi-year forecast, and subject to funding prioritization as part of the Multi-year Community Investment Plan (MCIP).

It is imperative that Council considers the IMP in its entirety, as its many components are intended to be mutually supportive. Adoption of some of the recommendations, without others, will incur risk associated with disjointed policies, programs and projects which may undermine each other and will ultimately fail to deliver on the established goals. While the cost to implement the recommended capital projects is substantial, it is

important to note that by approving the IMP, Council is not approving the capital and operating costs. Instead, Council is approving a strategic direction and guiding philosophy for future mobility planning. The IMP sets the vision, the multi-year capital budget process sets the pace of implementation. To help offset the costs of implementing the IMP, staff will explore alternative revenue sources in future budget years such as consideration of future mobility charges, dynamic parking pricing, demand-based curbside pricing strategies, etc. These potential revenue sources will be subject to further study and analysis and brought to Council for future consideration.

It is imperative to note that the city currently lacks a Council-approved Transportation Master Plan. The lack of a strategic transportation master plan puts the City at risk when defending transportation-related decision making, which is increasingly experienced through appeals brought forward to the Ontario Lands Tribunal (OLT). Council's approval of the IMP protects the interests of the City and strengthens staff's ability to defend requests for right-of-way, enhanced pedestrian realms and multi-modal facilities through new development.

Once approved, the IMP will be reviewed and refreshed on a 5-year cycle, incorporating updated population and employment forecasts, refining the strategic transportation demand model, and reporting on actual mode share usage and refining targets, where necessary. The IMP provides valuable guidance and input into the 5-year Transit Business Plan and will complement the transit planning efforts of Burlington Transit.

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## **Background and Discussion:**

The IMP has been identified as a priority action in the City of Burlington's 2018-2022 From Vision to Focus workplan, and has been developed to establish a Council-approved strategic mobility plan that delivers on Focus Area 2 – "Improving Integrated City Mobility".

Like all GTHA municipalities, Burlington is facing significant growth pressures. The Regional Official Plan through the Minister's decision on ROPA 49 distributed population and employment targets of over 265,000 residents and 124,000 jobs by 2051 in accordance with the Growth Plan. Transportation and mobility planning is intertwined with almost every other aspect of community planning and affects the lifestyle of every resident within the city. The IMP recognizes the importance of aligning land use and transportation as the two are inextricably linked.

Previous transportation planning objectives primarily considered land use as a generator of transportation demand, especially vehicle travel. This has typically led to recommending construction of new roads, widening of existing roads, and optimizing

vehicular movement over all other modes. It is more apparent that cities cannot build their way out of congestion. In fact, Council has long acknowledged this by reiterating the underpinning philosophy of the IMP: No new widenings are to be constructed for the sole purpose of increasing auto capacity.

The IMP strategy relies on **rebalancing** the transportation network, adding the required person-movement capacity to support growth by offering additional travel options to existing streets. Thereby, replacing the traditional strategy of creating new capacity through the widening of roads and meeting the city's targeted growth by way of implementing the rebalancing projects identified in this plan.

### **Planning Context and Alignment**

The technical work of the IMP was initiated in 2020 and used the best information available at the time of analysis. The strategic transportation demand model was required to utilize the 2031 Best Planning Estimates (BPE's) with the understanding that Master Plans require a five-year review to update population and employment estimates as new data becomes available.

The Region of Halton Municipal Comprehensive Review (MCR) is being implemented in a phased approach. The first phase of work was implemented through Halton Region's Regional Official Plan Amendment 48 (ROPA 48) and was adopted by Regional Council in July 2021 and approved by the Minister of Municipal Affairs in November 2021.

ROPA 48 implements a regional urban structure hierarchy of strategic growth areas and delineates and establishes intensification targets for Urban Growth Centres and Major Transit Station Areas (MTSA's). The second phase of work was implemented through ROPA 49. It was adopted by Regional Council in June 2022 to implement the results of the Region's Integrated Growth Management Strategy (IGMS), providing direction on how Halton Region will accommodate population and employment growth to 2041.

When ROPA 49 was approved by the Minister of Municipal Affairs and Housing on November 4, 2022, the Minister made several modifications which impact Burlington. The modifications, among other things, include new urban land in Burlington, converts regional employment area designations and extends the planning horizon to 2051.

Planning staff are now working to establish a local planning vision for the areas impacted by the Minister's decision on ROPA 49 for consideration by council. This work is necessary to inform a process with the Region and local municipal partners to develop a clearly defined plan for where and when growth is expected to occur in order to coordinate the delivery of significant and critical infrastructure to support that growth.

The IMP utilizes 2031 population and employment forecasts for the purpose of developing the transportation demand model. This created the Preferred Integrated Network as an ***ultimate plan***, representing a series of re-imagined corridors paired with progressive policy. Thereby, enabling programming that supports future mobility needs beyond the 2051 horizon. It is expected that once the details of the local planning vision work are confirmed and implemented, there will be an opportunity to refine and utilize the 2051 forecasts in subsequent updates to the IMP.

At the municipal level, the IMP is one of many growth-related projects that are currently underway.

Alignment of the IMP with other growth-related initiatives is essential to provide a consistent message to Council. To ensure alignment across projects, the IMP included an inter-disciplinary working group, utilized the most current information from other projects, acknowledged the interconnectivity of other corporate projects and has considered challenges that may be faced by the City to achieve its strategic goals and vision. Community Planning staff intend to province an update to Committee and Council on ensuring alignment of growth-related projects and establishing future processes that respond to new information including future technical work.

### **Building on the Official Plan**

Investment in integrated mobility should be used as a tool to help shape the city. The aim is to strengthen strategic areas of intensification, including the MTSA's, while respecting established neighbourhoods and complementing the parks and trail system. The IMP builds upon, and connects policies in the Official Plan to:

- Develop an equitable, integrated, multi-modal mobility system that offers safe, convenient, and efficient movement of people and goods within the city.
- Maximize the capacity of the City's existing transportation infrastructure and re-prioritize decision making to achieve an equitable and integrated, multi-modal transportation system.
- Create urban environments that support multi-modal transportation with an emphasis on pedestrians, cyclists, and public transit, connecting people to places.
- Re-prioritize movement to achieve balanced mobility in places expected to remain low density; and
- Implement context-sensitive design for City streets, roads, and intersections, particularly where constraints such as the natural environment, natural heritage

features, property impacts, and cost require flexibility and creativity in design to achieve an optimal solution that is safe and meets the needs of the community.

The development of the IMP provides an opportunity to shape connected, healthy, sustainable, and vibrant communities and offer mobility choice. The plan has been rooted in eight pillars of integrated mobility that are inspired through the complete communities, environment and sustainability, and multi-modal transportation policies contained within the Official Plan:

1. **Affordability:** Achieving best value for investment, managing infrastructure, promoting economic growth through an efficient mobility network and reallocating capital funding to reflect the City's mobility priorities.
2. **Aligning land use and transportation:** Aligning new development with existing transportation infrastructure to promote the creation of complete and compact communities. Development of progressive policy to support the shift to walking, cycling and transit usage and shaping the landscape of future development through requirements to provide mobility choice.
3. **Connected mobility:** Creation of accessible and diverse mobility options through the adoption of a Complete Streets philosophy that achieves a connected, integrated mobility network across multiple modes, providing choice and equitable access.
4. **Healthy & safe:** Prioritizing design of transportation infrastructure that delivers on safer streets for the most vulnerable users while providing safe, comfortable, and convenient mobility choices.
5. **Innovation and integration:** Recognition that there are no "one-size-fits-all" solutions, and that context-sensitivity is required when developing an integrated mobility network. Success will require studying, assessing, and integrating new and emerging trends and drawing upon inspiration from other communities.
6. **Managing congestion:** Address the growing population by maximizing the capacity of our existing infrastructure, connecting operations across agencies (MTO, Metrolinx, Halton Region), providing real-time responsiveness and implement innovative technologies to better manage congestion.
7. **Moving people efficiently:** Addressing growth and increased travel demands by shifting the focus to moving people, rather than moving vehicles. Aim to increase the connectivity of the mobility network utilizing multiple modes, which will in turn,

improve the reliability of travel times within the city. Proactive management of the right-of-way to protect for future mobility corridors.

8. **Sustainability:** Creation of sustainable mobility networks through development of compact and complete communities. Development of a plan that supports environmentally responsible mobility choices and reduces the reliance on the single-occupant vehicle while addressing the “first and last” mile challenges of public transit.

### **Informative Background Studies**

The IMP is rooted in, and aligned with, several strategic background studies that have influenced the development of key recommendations of the plan:

- Climate Action Plan (April 2020)
- Burlington Transit Five-Year Business Plan 2020-2024 (November 2020)
- City of Burlington Cycling Plan (March 2021)
- Electric Mobility Strategy for Burlington (September 2022)
- Rural Active Transportation Plan (November 2022)

The plan integrates the recommended network elements of the individual mode plans and incorporates key directions of the Transit Five-Year Business Plan to develop the integrated network plan. The resulting integrated network plan supersedes past “stand alone” mode plans with the intent that previous individual mode plans and studies will be sunset after approval of the IMP. The transit network plan and supporting policy framework will be referenced when preparing the next iteration of the Transit Five-Year Business Plan and updated accordingly through the work of Burlington Transit.

### **Integrated Mobility: Vision, Values and Goals**

The IMP represents an innovative approach to integrated and strategic transportation master planning. The plan reflects the needs of the community and was developed with collaboration from residents, businesses, agencies, and local partners. The Vision, Values and Goals (VVG) framework is derived from existing strategic directions and has been used to align all subsequent decision making to the City’s core values. The **vision** statement that underpins the planning philosophy of the IMP is defined as:



*Mobility in Burlington will be **safe, accessible, sustainable, balanced, and liveable.***

The vision statement reflects the community's **values** – top priorities and core beliefs:

1. **Safe:** Movement of people and goods in Burlington will be safe for users of all modes. Special attention will be paid to ensuring the safety of vulnerable users. We will not accept transportation-related death and serious injury as a normal part of our daily lives; our mobility network will be designed to minimize risk of transportation-related death and injury from occurring on our streets.
2. **Accessible:** Movement through the city will be accessible to people of all ages and abilities. There will be no infrastructure or service gaps in the network, so each traveler can make a comfortable trip from point A to point B when they require, by their mode of choice.
3. **Sustainable:** The mobility network will prioritize efforts to encourage walking, cycling, transit and other non-auto modes and city-wide transportation demand management efforts will make micro-mobility modes more accessible for people with reduced mobility. By doing this, we will emphasize the health of our communities, improve the vibrancy of the city, and move toward our collective goal of reducing GHG-emissions.
4. **Balanced:** We will re-balance the mobility network through reallocation of the right-of-way in a way that provides safe facilities for active and sustainable modes.
5. **Liveable:** Our streets will be designed to fit within their surroundings, complementing the character of surrounding neighbourhoods and communities.

The values were further refined to six aspirational **goals** that actualize the vision for integrated mobility:

1. Burlington will adopt a Vision Zero approach to street design and operations, eliminating transportation-related deaths and serious injury (Safe).
2. Burlington's mobility network will be accessible and reliable for all users regardless of factors such as age, ability, income, or familiarity with the city (Accessible and Balanced).

3. Burlington will provide high-quality travel options to move people and goods wherever and whenever, while maintaining a high quality of life for the community (Accessible and Balanced).
4. Burlington will eliminate transportation-related carbon emissions (Sustainable and Balanced).
5. Burlington's streets will support the intended roles of the communities they run through and help them to become vibrant and prosperous (Livable).
6. Burlington will actively plan for the transportation challenges of tomorrow while delivering great service today (Accessible, Sustainable and Balanced).

## **Deliverables**

The resulting IMP includes nine key deliverables:

1. **Neighbourhood Mode Share Profile:** The IMP adopts a sustainable approach that is mode-share driven. Emphasis is placed upon the potential to shift trips away from auto usage and toward sustainable modes, compared to the traditional corridor-capacity driven approach where road widenings are triggered when volume to capacity thresholds are met, thereby increasing auto capacity, and inducing demand. The resultant mode share profile has been refined based on several inputs including typology and land use and has assigned neighbourhood-level mode share targets for the 2051 horizon.
2. **Transportation Demand Model:** Development of a strategic transportation demand forecasting model that estimates PM peak hour transportation demands, assign demands to travel modes using the mode share profile, and assigns resulting auto demands to the street network. The travel demand model will continue to be used as a tool in strategic mobility planning and informs GHG emission analysis.
3. **Preferred Integrated Network:** The resulting integrated network plan rebalances the right-of-way on existing streets, extends multi-modal corridors, enhances transit through the creation of future dedicated transit corridors and greatly improves the cycling and pedestrian environment. The preferred integrated network also recommends four new multi-modal corridors, and three active transportation corridors. These are considered "catalyst projects," that will facilitate significant growth and deliver multi-modal access to key areas of future intensification.
4. **Mobility Policies:** Development of a strong policy framework for mode-specific policies that build upon the Official Plan and position the city to shift more trips to active and sustainable modes, actualizing the vision for mobility.

5. **Enhanced Programming:** The IMP recommends the creation of six mobility programs that will build upon and, in some cases, enhance current service delivery in a way that supports the City's pursuit of the IMP goals and successful implementation of the plan. The recommended programs are a collection of smaller projects and action-items that are intended to transform the way Transportation Services delivers strategic mobility planning and operations.
6. **Priority Setting Framework:** Accommodating mobility needs of the present and future will require trade-offs and acknowledgement that priorities will shift. Investments in active transportation and higher order transit will have to accompany population growth. Furthermore, the introduction of transit signal priority measures and eventual bus rapid transit may require the removal of on-street parking and a reduction in auto capacity. Recognizing that mobility needs are evolving, the IMP utilizes a novel approach to prioritize projects recommended through the Preferred Integrated Network, one that reflects the values and goals of the community and the ability of each recommended project to deliver on the vision of the plan.
7. **Capital Project Listing:** The Preferred Integrated Network is presented as a set of capital projects (refer to Appendix B). Corridor-wide projects are broken down into multiple smaller projects to align with changing conditions and to manage project size and the corresponding requirement for future EA planning studies. Project costs were generated, and the resulting capital project list was prioritized using the priority-setting framework discussed above.
8. **Priority Action Items:** The IMP is more than just an infrastructure plan. Progressive policy and enabling programs have been developed to support the implementation of the plan with the intent of forming the basis of future work plans within Transportation Services. The IMP provides a set of immediate (1-5 year) and medium-term (6-10 year) action items that serve as foundational work in achieving the City's mobility vision.
9. **Monitoring Plan:** The plan concludes with a monitoring strategy that relies on more systemic data collection and compilation to report on key performance indicators that will be used to measure progress towards achieving IMP goals year over year. To address this, the plan recommends pursuing collaboration with a Big Data provider and combining data collection efforts with other internal departments such as Burlington Transit and Community Planning.

## Strategy/process/risk

### Highlights of the Plan

The IMP is a community-driven action plan that aligns the City’s future transportation investment over the next 30 years with the values and goals of the community. Key highlights include:

- Mode-share targets developed at the neighbourhood-level to assist in decision making when determining where to direct investment in active transportation infrastructure.
- Development of ideal mode plans that align with 2051 mode share targets, refined to create the recommended Preferred Integrated Network. This represents the framework for future mobility planning to the 2051 horizon.
- Progressive policy directions that establish future actions the City will take to achieve the IMP objectives:

<b>Mode</b>	<b>Overview of Policy Direction</b>
Walking / Pedestrian	<ul style="list-style-type: none"> <li>• Create a complete and connected pedestrian network</li> <li>• Improve pedestrian safety</li> <li>• Build a walkable environment</li> <li>• Enhance the pedestrian experience</li> <li>• Increase pedestrian level-of-service, especially in areas of intensification</li> </ul>
Cycling	<ul style="list-style-type: none"> <li>• Create a complete and connected cycling network</li> <li>• Improve safety and promote cycling</li> <li>• Enhance the cycling experience</li> <li>• Build a cycling network that attracts new cyclists and broadens the community of cycling</li> <li>• Explore micro-mobility and support expansion where feasible</li> <li>• Create attractive cycling connections to transit and expand end-of-trip facilities</li> </ul>
Transit	<ul style="list-style-type: none"> <li>• Build and maintain the Frequent Transit Network (FTN) to provide 15-minute service or better</li> <li>• Stage the implementation of supporting infrastructure elements for the FTN when the need emerges</li> <li>• Enhance the transit passenger experience</li> <li>• Explore on-demand transit and consider future expansion to underserved / rural areas</li> <li>• Increase cross-boundary transit trips</li> </ul>

	<ul style="list-style-type: none"> <li>Promote transit as a reliable and convenient alternative to the auto</li> </ul>
Goods Movement	<ul style="list-style-type: none"> <li>Build and maintain a quality goods movement network</li> <li>Enhance goods movement with trucks</li> <li>Enable efficient goods movement with rail</li> </ul>
Auto	<ul style="list-style-type: none"> <li>Maximize road safety for all users</li> <li>Actively manage congestion</li> <li>Build and maintain a sustainable and integrated road network</li> <li>Protect new and established neighbourhoods from undesirable road impacts</li> <li>Enhance city parking facilities and services</li> <li>Plan for strategic road projects and align with the IMP vision</li> </ul>

- Six strategic mobility programs that represent a collection of actions that support the City's pursuit of the IMP goals:

Program	Overview
Strategic Transportation Planning	Enhancement of existing Transportation Planning portfolio to shift emphasis to designing the future mobility network to align with the Vision and Goals of the IMP. Responsibilities to include developing a Complete Streets Design Guide and maintaining integrated strategies and networks for all modes. Aligning network planning with design guidelines and policies. Monitoring and reporting on progress toward achieving the IMP goals. Partnering with external agencies to manage strategic transportation planning issues.
Transportation Demand Management (TDM)	Development of a city-wide TDM program that focuses on initiatives that aim to reduce traffic, particularly in the commuter peak hours. New program that develops and administers tools to manage demand for all transportation modes, targeting factors like cost and convenience. The program will prepare and maintain the city-wide TDM strategy and action plan, prepare a micro-mobility strategy and foster relationships with local businesses.
Strategic Parking Management	Enhancement of the existing Parking Services portfolio to include a shift to strategic parking management. Develop measures and tools to proactively manage parking supply and demand for all modes. Foster public-private partnerships to expand parking supply within intensification areas and develop a city-wide parking plan for non-auto modes to support the targeted shift in mode share. Prioritize the development of a flex-zone / curbside use guideline to maximize efficiency of the curb and better utilize the right-of-way.

Active Transportation	Enhancement of the existing Active Transportation program to place emphasis on <b>planning</b> , design, and implementation of active transportation projects outside of the priority networks and creation of a data collection program to inform decision making and support monitoring of mode shares.
Transportation System Management (TSM)	Enhancement of Transportation Systems Management program to plan and implement measures to optimize vehicle flows in key corridors and at intersections. Execution of operational initiatives aimed at aligning the existing transportation network with long-range mobility objectives and harnessing new and emerging technology solutions to maximize efficiency of existing lane capacity.
Vision Zero	Development of a formalized road safety program for the City of Burlington. Develop, design, and implement strategies, tools, and measures to eliminate fatal and injury collisions and protect vulnerable road users to achieve Vision Zero.

- Dedicated action plan for Rural Burlington that recognizes the need for increased access and mobility for our rural residents, while respecting the unique character of our rural roads and communities.
- Capital project listing for future implementation of the Preferred Integrated Network.

## Implementation

The IMP is a combination of capital projects, progressive policies and enabling programs that, when applied together, will make mobility in Burlington safe, accessible, sustainable, balanced, and liveable. Successful implementation of this plan resides foremost with Council’s commitment to approving the IMP. Staff must champion the vision of the IMP and the inter-disciplinary staff team that contributed to the development of the plan must continue to work together to ensure that the vision for mobility is advanced through on-going coordination of strategic initiatives, capital projects, operations, and maintenance activities.

The implementation of a network plan that achieves the vision for integrated mobility within the city will require significant investment of funding and time. Integrated mobility enhancement projects will need to be prioritized based on the current infrastructure need and risk, but also consider the project’s ability to achieve an equitable and integrated, multi-modal transportation system.

The costing of the plan recommendations was a joint effort undertaken by both city staff and Dillon Consulting. The cycling facility recommendations were costed by internal staff, and the first step involved organizing the IMP recommendations into their

associated road classifications. The recommendations were then grouped according to their active transportation facility type (protected, buffered lanes, local bikeways, and roadway widening in rural areas). Lastly, the degree of obstructions and utility relocations were assessed. Based on these criteria, ten distinct cross sections were created for the cycling facilities. The IMP recommendations that overlapped with the City's capital program were costed and the estimates were then used to populate the unit costs for the ten different cross sections and applied across the remaining cycling facility recommendations. These estimates were based on a conceptual plan and factors may change during detailed design that could affect the facility type and overall cost of the project. Land acquisition was not considered during the costing of the IMP.

An enhanced pedestrian realm was also recommended within the IMP and the consultant provided a unit rate of \$2.5 million per km for construction. This estimate was used to cost the enhanced pedestrian realm recommendations. The plan also includes seven catalyst projects that include construction of new multi-modal corridors, roadway extensions, over/underpasses, and dedicated active transportation bridges across key barriers. Dillion Consulting prepared budget planning estimates for these catalyst projects to support the IMP, this can be found in Appendix B.

The implementation strategy focuses on a combination of smaller, stand-alone service improvements, large catalyst projects, and enhancements that are timed with planned "state of good repair" transportation and servicing renewal/replacement work. Stand-alone projects would consist of improvements that can be accomplished quickly, such as signage, markings, and small-scale safety improvements. The implementation of larger-scale network improvements will typically involve reconstruction and conversion of the City's right-of-way to a new integrated and multi-modal standard. For these projects it would be opportunistic for the city to plan and construct recommendations in conjunction with the city's road right-of-way renewal projects. It should be noted that construction of active transportation facilities results in a typical incremental cost of 35%-100% above the traditional "like-for-like" roadway renewal cost.

## **Risk**

The following risk analysis has focused on Council's approval of the IMP as a whole. It is imperative that the plan be considered in its entirety, as its many components are intended to be mutually supportive so that the sum is greater than the parts. Adoption of some of the recommendations (policy, programs, integrated network plan and resulting capital projects), without others, will incur additional risks associated with disjointed policies, programs and projects which may undermine each other and ultimately, fail to deliver on the vision, values, and goals of integrated mobility. While a

Risk Confidence Record (RCR) is contained in Appendix C for further reference, the following summarizes key risks to the success of the IMP.

**What success looks like:**

- *Council-approved Integrated Mobility Plan to guide future mobility planning to the 2051 horizon.*

<b>Key Risk</b>	<b>Likelihood</b>	<b>Mitigation</b>
IMP and supportive policies & programs not approved by Council.	Low	Communicate to Council that the lack of a Council-approved Transportation Master Plan puts the city at risk when defending decision making. Council approval of the IMP protects the interests of the City and strengthens staff's ability to defend requests for right-of-way through development projects.
Funding not available to implement IMP recommended projects as part of 10-year Capital Budget and Forecast.	High	Communicate the potential for lost opportunity to deliver on the IMP if recommended projects are not incorporated within the 10-year Capital Budget and Forecast. Explore alternate funding models and grant opportunities to offset funding gap.
Operating budgets under-funded / under-staffed to deliver on IMP programs.	High	Clearly identify staff and operating budget needs to support IMP programs and include staff resourcing needs in future DEOO submission.
Regional and Provincial facility expansion undermines IMP philosophy and priorities.	Moderate	Steadfast commitment to the goals of the IMP and providing mobility choice to the residents of the city. Continued advocacy for multi-modal transportation solutions at the Regional and Provincial levels, and integration with the municipal network, where feasible. Council advocacy at Regional Council.

**Options Considered**

N/A

**Financial Matters:**

The IMP provides the vision of the City's future transportation network and outlines the policy, programs and capital projects required to achieve our long-term mobility goals. The capital and operating budgets are the tools in which Council will set and manage the pace and extent to which the plan is implemented. For future investments



recommended by the Integrated Mobility Plan, approval is to be sought through Council decisions through the annual capital budget/multi-year forecast, and subject to funding prioritization as part of the Multi-year Community Investment Plan (MCIP).

As the City supports growth in the community, new and expanded capital infrastructure is inevitable. Therefore, it is important to note that as the city plans for, and makes infrastructure investment decisions, the long-term nature of the assets and their associated capital and operating costs must be considered. The City's asset management and financing plan provides a long-term planning horizon, with long term goals and objectives of sustainability, predictability, and stability; that the assets are managed for present and future residents in a fair and sustainable manner.

The most recent update to the asset management financing plan (report F-20-23) proposed an increase in the dedicated infrastructure levy to 2%, with a commitment to re-calibrate based on changing variable and factors, inclusive of asset expansions such as additions from endorsed master plans.

### **Total Financial Impact**

The IMP recommends two groups of capital projects – routine and catalyst. Routine projects involve the renewal / transformation of existing streets to align with the IMP vision through complete streets design and implementation. The capital costs associated with implementation of these projects is estimated at \$204 million (over 30 years), based on the methodology discussed above. In addition to the above, the IMP recognizes seven catalyst projects which involve construction of new, multi-modal facilities that unlock development in key areas of intensification and are instrumental in achieving mode share targets. Dillon Consulting prepared budget planning estimates for the seven catalyst projects, totaling a cost of \$315 million including a 40% contingency.

In December 2023, staff will provide a report to Council on Phase 2 of the Multi-Year Community Investment Plan (MYCIP), outlining capital needs and a preliminary financing strategy to work towards achieving the objectives of the master plans completed to-date (PPMP, Integrated Mobility Plan, Fire Master Plan, Transit Master Plan, etc.) and sets the stage for the prioritization and financing of future master plans. The capital needs defined by the MYCIP will represent future new/expansion of assets or renewed assets that may exceed the current service standard.

Funding for the projects identified in the IMP are substantial and will need to be addressed through emergent tools or strategies such as funding partnerships with senior levels of government and/or land developers, along with the development of the MYCIP and through the annual capital budget and forecast.

Capital Projects as recommended by the IMP over the next 30 years, are listed in Appendix B.

### **Source of Funding**

Failure to identify dedicated funding to support the implementation of the stated IMP recommendations will result in the city being unable to align the construction of the active transportation facilities with future road right-of-way renewal projects. Between 2025 and 2029 there is \$45 million in IMP recommendations that overlap with the capital “state of good repair” program for the Roadways asset category (as presented in Appendix D). Staff are utilizing new annual dedicated active transportation funding (\$500,000 approved as part of the 2023 Budget); however, this level of funding is inadequate to support the larger-scale improvements noted above. If utilized as the City’s only source to financially support the IMP recommendations, this would result in a 408-year implementation timeline (not including the catalyst projects).

Alternatively, if funding shifts from “state-of-good repair” to manage the incremental costs associated with IMP recommendations, we will be taking on an increased level of risk across the transportation network. These risks tied to funding new active transportation enhancements with renewal funds will put roadway assets at greater risk of failure and will compromise public safety. Given this risk, and absent sufficient funding, the only other option available is to proceed with necessary “state of good repair” work and not construct the recommended active transportation enhancements. The plan recommendations represent a change in service standards and the community expectation is that renewal of infrastructure will include all identified enhancements. The community anticipates active transportation facilities will be constructed, but without adequate funding the city will be unable to deliver on planned expectations.

### **Other Resource Impacts**

Operations and maintenance of the transportation network will require systematic growth in staff resources, equipment, and materials as the network of protected cycling facilities and enhanced pedestrian realm is expanded. Consultation with Roads, Parks and Forestry staff has generated the following generalized maintenance costs for the new facility types being proposed through the IMP:

<b>Facility Type</b>	<b>Cost per Linear km</b>
Protected Cycling Facility	\$4,541 / km
Sidewalk / Enhanced Pedestrian Realm	\$3,193 / km
New Paved Shoulder	\$2,734 / km
Road widening for Cycling Lane	\$2,734 / km

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## **Climate Implications**

The sustainable, multi-modal approach taken by the IMP aligns with the objectives of Provincial policy including the Growth Plan, 2020 and Provincial Policy Statement, as well as the City's Official Plan, Strategic Plan and Climate Action Plan. This report recommends approval of a long-range mobility plan that supports a critical shift toward sustainable modes of transportation and a reduction in auto mode share. The lens of sustainability and environmental resiliency has been applied throughout the development of the IMP with an emphasis on increasing the person-carrying capacity of our transportation network through the increased use of active transportation and transit to accommodate daily trip making. The recommended integrated network, when implemented, will achieve the goal of reducing auto mode share and associated impacts of greenhouse gas emissions from the transportation sector.

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## **Engagement Matters:**

Community engagement was paramount to the development of a mobility plan that meets the needs of the community, today and in the future. The engagement program was designed to solicit feedback and gather meaningful input from the community, interested and affected parties, and local agencies at key milestones throughout the planning process. Technical input and feedback received through the engagement activities was critical to the success of the plan and considered in the decision-making at each stage. A detailed engagement summary is contained in Appendix E for further reference.

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## **Conclusion:**

The IMP represents an innovative approach to integrated mobility planning and provides a framework for responding to future travel demand associated with intensification. It has been designed to meet the 2015-2040 Strategic Plan goals to enable "people and

goods move through the city more efficiently and safely” and provide “more mobility choice within the city and region through improved public transportation, active transportation and community-responsive growth management to allow more residents to get where they need to go more efficiently.” The plan sets a framework to rebalance the existing transportation network through adding people-carrying capacity by offering additional travel options to existing streets and replacing the traditional strategy of creating new auto capacity through road widenings. From conceptualization to implementation and operation, the IMP provides the city with a strategy for transforming mobility to 2051 and beyond.

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Respectfully submitted,

Kaylan Edgcumbe, C.E.T.  
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### **Appendices:**

- A. Burlington Integrated Mobility Plan (September 2023) (can be accessed at [events.burlington.ca](https://events.burlington.ca))
- B. IMP Capital Project Listing & Estimated Costs
- C. IMP Risk Confidence Records
- D. IMP / Roadway “State of Good Repair” Overlap Projects
- E. Engagement Summary (June 2023)

### **Report Approval:**

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer, and the Executive Director of Legal Services & Corporation Counsel.