Multimodal Transportation Master Plan Amendment

The City of Clarence-Rockland

SEPTEMBER 2025

Clarence-Rockland

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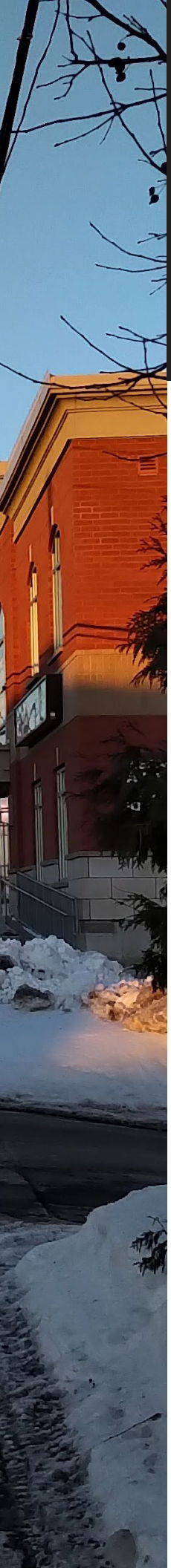

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1.0 Introduction

1.1 Amendment Purpose

This amendment to the 2019 City of Clarence Rockland Multimodal Transportation Master Plan (MMTMP) updates the long-range strategic transportation infrastructure plan for the entirety of Clarence-Rockland based on changes in available transportation options and resident/visitor travel behaviour since the original plan was authored. Like the original, the updated planning addresses new challenges, supports growth, and includes policies to guide transportation and land use decisions.

As related in the 2019 MMTMP, this Amendment is integrated with visioning, environmental planning, and sustainability principles to provide a prioritization framework for implementing coordinated improvements on a City-wide basis. The 2025 MMTMP Amendment continues to expand upon previous planning work conducted for the 2005 Strategic Transportation Plan for the Urban Area of Clarence-Rockland by re-evaluating previously planned improvements, as well as considering and responding to physical and planned changes within the City since that time. The City of Clarence-Rockland outlined general requirements for the original 2019 MMTMP including the following components:

- Evaluate vehicular, truck, transit, and active transportation operations;
- Assess the city's multimodal transportation planning needs for the next 5, 10 and 15 years;
- Develop a complete streets strategy, parking management strategy, and traffic calming policy; and
- Create an Implementation Plan and Financial Assessment.

The purpose of this Amendment is to revise the city-wide transportation plan that not only identifies improvements within the City's urban areas, but also considers opportunities to integrate the City's hamlets and rural areas in a manner that preserves the quality of life and character of the community.

1.2 Using the MMTMP

Like the 2019 MMTMP, the Amendment is meant to be used by transportation stakeholders as both a reference and a guiding document for developing strategies and making investment decisions. It may also be used as a starting point for the development of more detailed transportation-related studies, projects, and initiatives.

The MMTMP and its Amendement have many potential uses and broad applicability.:

- The amended MMTMP empowers the public to actively participate in the development of City transportation initiatives and gaining a better understanding of how mobility choices will improve in the future.
- Elected Officials should use the amended MMTMP to assist in decision making. They can also use it to educate and engage their constituents about transportation-related changes that will impact their neighbourhoods and the City as a whole.
- City staff should use the amended MMTMP as a guide to making clear, balanced, and fiscally prudent decisions on transportation initiatives, infrastructure investments, and program administration. MMTMPs can be used as the basis for implementing a City's Official Plan.
- City engineers, designers and capital delivery programs staff should scope transportation capital programs and plans to implement the amended MMTMP.
- City transportation professionals, planners and health practitioners will be able to use the transportation system performance targets to achieve modal-split aspirations and improve the reliability of travel by balancing the transportation network for all users, regardless of age, ability or income.
- The amended MMTMP can be used to position the City into a "state-of-readiness" for partner-funded transportation initiatives (e.g. Federal, Provincial, Public-Private-Partnerships) as funding becomes available and partners are engaged.
- Prospective investors in the City may use it to make development decisions based on transportation initiatives that result in newly available connections.

1.3 Environmental Assessment (EA) Process

The 2019 MMTMP was developed according to the Municipal Class Environmental Assessment process (October 2000, as amended in 2007, 2011 & 2015) for Master Plans (Approach 1).

The Master Plan approach recognizes that there are benefits to using the EA process when comprehensive plans are undertaken for projects that have a relatively minor impact according to their environmental significance and the effects on the surrounding environment. The strategies of the MMTMP and this Amendment include road and active transportation projects as well as recommendations relating to public transit.

Approach One of the Municipal Class EA process performs Phase One and Phase Two of the EA process including the identification of problems & opportunities, identification and

evaluation alternative solutions to address cited problems, establishment of preferred solutions, and the preparation of a Master Plan document at the conclusion of Phase Two.

Master Plans are typically done at a broad level of assessment thereby requiring more detailed analysis or investigations at the project-specific level in order to fulfill the requirements for specific Schedule B and C projects identified within the Master Plan. Projects categorized as exempt, either due to their scope and scale or the results of a relevant screening process, can be implemented upon approval of the Master Plan. Examples of transportation projects under each schedule of environmental assessment are summarised in **Table 1.2**.

Master Plans should be reviewed every five years to determine the need for a comprehensive formal review and/or update. Potential changes which may trigger the need for a detailed review include:

- Major changes in the original assumptions.
- Major changes to components of the master plan.
- Significant new environmental effects.
- Major changes in proposed timing of projects within the master plan.

Additionally, other changes including significant new health effects, funding opportunities, changes or updates to internal guiding documents (i.e. an Official Plan Update) and changes to external guiding documents should also be considered to trigger a review of the Multimodal Transportation Master Plan.

Table 1.1 Transportation Projects/EA Schedule Association

EA Schedule	Types of Transportation Projects
Exempt	Maintenance, operation, rehabilitation, and other small projects that are limited in scale and have minimal adverse environmental effects (e.g. Snow and de-icing operations, resurfacing, streetscaping, local road construction, reconstruction with no accompanying lane changes, redesignation of painted lanes, lower value sidewalk and bicycle facility construction, transit maintenance and operations)
Eligible for Screening	Exempt or subject to Schedule B or C processes based on the results of a relevant screening process (e.g. construction of large parking lots not associated with a building, construction of a new collector road, reconstruction of certain bridges and underpasses)
Schedule B	Projects with the potential for some adverse environmental effects, which require proponents to complete phases one and two of the planning and design process, including mandatory consultation with Indigenous Communities and directly affected public and relevant review agencies (Construction in environmentally sensitive areas, moderate value sidewalk and bicycle facility construction, small scale new roadway construction or widening, reconstruction of bridges to increase travel lanes)
Schedule C	Projects with the potential for signifcant adverse environmental effects, which require proponents to complete all phases of the planning and documention process, including mandatory consultation with, and review of an enivronmenal study report by Indigenous Communities and directly affected public and relevant review agencies (High value sidewalk and bicycle facility construction, large scale new roadway construction or widening, construction of grade-separated transit facilities)

Source: Amended Municipal Class Environmental Assessment, 2023

1.4 Amendment Structure

This Amendment restructures the 2019 MMTMP in multiple ways. In certain cases, existing conditions assessments have been repeated with more current inputs. In other cases, new methodology has been utilized to draw new insights regarding previously examined topics. Material still applicable to decision making has alternately been retained with minimal editorial changes and/or moved within the structure of the document where warranted. Topics and analyses from the 2019 MMTMP that were not repeated as part of this effort may be referenced within the narrative or completely removed if no longer applicable to future planning conclusions.

This document does not include the major Traffic Calming policy element, which has been revised under a separate scope of work to take the form of a separate standalone document, attached to the 2025 MMTMP Amendement as Appendix A.

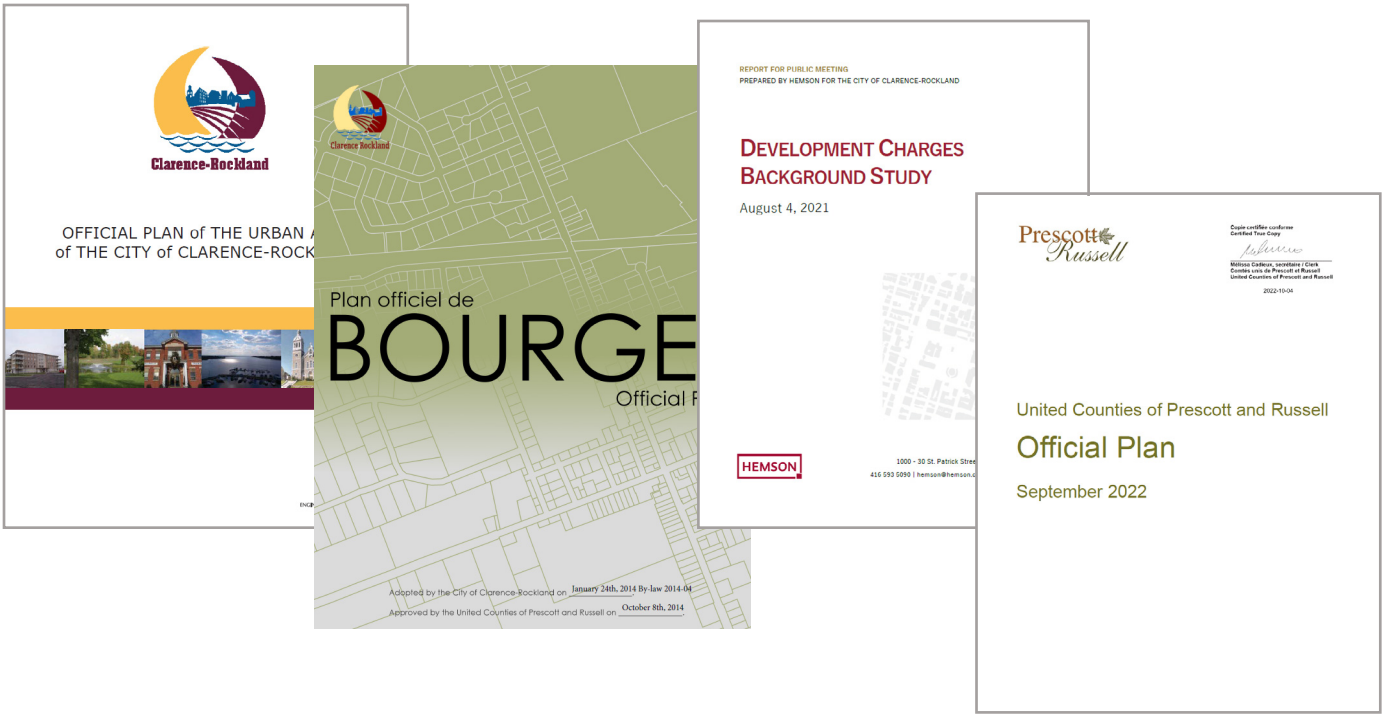
Table 1.2 summarizes the restructuring of the Amendement by listing section topic headers from the 2019 MMTMP, corresponding locations in the Amendement, and the level of modification from data/policy updates to major content changes, retention, and removal.

Table 1.2 Topic Relationships between 2019 MMTMP and 2023 Amendment

2019 MMTMP Section Heading	Corresponding Amendment Section Heading	Action Taken
1.1 Building an Interconnected Network		Removed
1.2 Purpose of the Plan	1.1 Amendment Purpose	Minor Edits
1.3 Using the MMTMP	1.2 Using the MMTMP	Minor Edits
1.4 The Environmental Assessment Process	1.3 The Environmental Assessment Process	Updated
1.5 Engagement	5.0 Engagement	Major Update
1.6 Collaboration with other studies	2.1.4 Ongoing Local Studies	Updated
2.1 The Community	3.1 The Community	Updated
2.2 Multi-Modal Network	3.2 Multimodal Network	Moved
2.2.1 Road Classification	3.2.1 Road Classification	Updated
2.2.2 Commercial Vehicle Network	3.2.2 Commercial Vehicle Network	Moved
2.2.3 Transit Network	3.2.3 Transit Network	Major Update
2.2.4 Active Transportation Network	3.2.4 Active Transportation	Updated
2.3 Travel Characteristics	3.3 Travel Characteristics	Moved
2.3.1 Trip Distribution	3.3.1 Commuter Flows	Updated
2.3.2 Trip Time		Removed
2.3.3 Trip Volumes	3.3.3 Weekday Peak Period Trip Analysis	Major Update
2.3.4 Intersection Operations		Removed
2.4 What we heard		Removed
3.1 Historical and Future Growth	4.1 Historic and Future Growth	Major Update
3.2 Traffic Forecasts & Operations		Removed
3.2.3 Planned Improvements	4.2 Planned Improvements	Updated
3.3 What we heard		Removed
3.4 Needs & Opportunities	6.1 Needs and Opportunities	Major Update
4.1 Planning Context	2.1 Planning Context	Moved
4.1.1 Provincial	2.1.1 Provincial	Updated
4.1.2 County	2.1.2 County	Updated
4.1.3 Local	2.1.3 Local	Updated
4.2 Guiding Themes	2.4 Guiding Themes	Moved
4.2.1 Smart Cities & Open Data	2.4.1 Smart Cities & Open Data	Moved
4.2.2 Mobility as a Service (Maas)	2.4.2 Mobility as a Service (Maas)	Moved
4.2.3 Complete Streets	2.4.3 Complete Streets	Updated
4.2.4 Vision Zero	2.4.4 Vision Zero	Moved
4.3 Strategic Priorities	2.2 Strategic Priorities	Minor Edits
4.4 Vision & Objectives	2.3 Vision Statement, Goals, and Metrics	Major Update
5.1 Active Transportation Evaluation	6.2 Recommended Multimodal Network	Updated
5.1.1 Facility Selection	6.2.2.3 Bicycle Network	Moved
5.1.2 Network Evaluation Criteria	6.2.3 Project Evaluation	Major Update

2019 MMTMP Section Heading	Corresponding Amendment Section Heading	Action Taken
5.2 Recommended Multi-Modal Network	6.2 Recommended Multimodal Network	Minor Edits
5.2.1 Pedestrian Network	6.2.1.1 Pedestrian Network	Major Update
5.2.2 Cycling Network	6.2.1.2 Bicycle Network	Major Update
5.2.3 Transit Network & Service Strategy	6.2.1.3 Transit Network & Service Strategy	Major Update
5.2.4 Vehicular Network	6.2.2 Vehicular Network 6.2.2.1 Physical Modifications	Major Update
5.3 Policies & Strategies	6.3 Policies & Strategies	Updated
5.3.1 Transportation Demand Management	6.3.3 Transportation Demand Management	Condensed
5.3.2 Traffic Calming	6.3.1 Traffic Calming	Major Update
5.3.4 Complete Streets & Road Classification	6.2.2.2 Road Classification Updates 6.3.2 Complete Streets	Major Update
5.3.5 Active Transportation Winter Maintenance Strategy	6.3.4 Active Transportation Winter Maintenance Strategy	Condensed
5.3.7 Downtown Parking Management	6.3.5 Downtown Parking Management	Condensed
5.4 Implementation & Costs	6.4 Implementation	Major Update
5.4.1 The Concept		Removed
5.4.2 Costs of the Plan	6.4.1 Costs of the Plan	Major Update
5.4.3 Funding Mechanisms for Active Transportation		Removed
6.0 Bibliography		Removed
	1.4 Amendment Structure	Addition
	3.3.2 Internal-External Automobile Travel	Major Addition
	3.3.4 Active Transportation Activity Analysis	Major Addition

2.0 Foundations



2.1 Planning Context

The MMTMP is directed by several key Provincial, County and local municipal policies that set a strong foundation to manage growth while building strong, healthy and sustainable communities.

2.1.1 Provincial

#CycleON Action Plan 2.0, 2018: #CycleON is Ontario's 20-year vision to have cycling recognized as a respected and valued mode of transportation within Ontario. The plan and its updates acknowledge Cycling's potential to bringing province-wide benefits in terms of personal and public health, the environment, tourism and traffic congestion. Five strategic directions guide action by the government and partners:

- Design healthy, active and prosperous communities;
- Improve cycling infrastructure;
- Make highways and streets safer;
- Promote awareness and behavioural shifts; and
- Increase cycling tourism opportunities

In 2018, the Ministry of Transportation and the Ministry of Tourism, Culture and Sport released #CycleON Action Plan 2.0, the second installment in the series which contains 38 action items, both new and ongoing, that will continue to advance cycling and cycling safety in Ontario.

Provincial Policy Statement (PPS), 2020: The Province's policies on land use planning and development to enhance the quality of life for all Ontarians require transportation systems that are safe, energy efficient, facilitate the efficient movement of people and goods, and are appropriate to address projected needs. As part of a multimodal transportation system, the Province requires maintenance and improvement of connectivity within and among transportation systems and modes as well as the protection of corridors for future infrastructure and major goods movement facilities.

2.1.2 County

Prescott-Russell Commuter Cycling Plan, 2018: The United Counties undertook development of a Commuter Cycling Plan to guide the implementation of a Counties-wide cycling network over the short, medium and long-term horizons. The Commuter Cycling Plan provides recommendations for a connected commuter cycling network, in addition to a phased implementation strategy, and supportive programs promote and encourage cycling. The plan endeavors to develop a commuter cycling network that serves key commuter and high-frequency destinations, enhance connectivity to commuter cycling networks in adjacent jurisdictions, and estimate capital requirements.

Prescott-Russell Official Plan, 2022: The Official Plan provides guidance and direction for growth, development, and land-use planning within the United Counties of Prescott and Russell for a twenty-year planning period. This includes detailing the policy framework for regulatory tools within the Counties' constituent lower-tier municipalities, which comprises zoning by-laws, plans of subdivision and consents, and municipal budgets and by-laws. The most

recent Official Plan for the United Counties was adopted by County Council in September 2022, and was approved by the provincial Ministry of Municipal Affairs and Housing in July 2023. The Plan provides an updated policy framework and schedules for topics such as resource management, growth management, natural heritage, and infrastructure in issues of Provincial, County, and local interest.

2.1.3 Local

Bourget Official Plan, 2014: The Bourget Official Plan establishes a planning concept, guiding policies, and implementation strategies to direct the growth and development of the Village of Bourget over a twenty-year horizon. It articulates a vision for the Village as a clean, safe, and connected community, and is structured with the goals of ensuring that the Village's growth is sustainable, improving active transportation facilities, creating a vibrant village core, and enhancing recreational opportunities for residents.

Transit Feasibility Study, 2014: As of 2014, no local intra-city transit service operated within the City of Clarence-Rockland; transit service only existed to connect Clarence-Rockland with the City of Ottawa. The Study determined the demand for local transit service and identified the associated operational, financial, and implementation requirements and implications of the City offering such a service. The Study analyzed the City's community profile and conducted a peer review of transit systems in 11 comparable municipalities. Combined with the results of a public engagement campaign and transit service analysis, these informed the Study's short-term recommendation of an on-demand transit pilot project in Clarence-Rockland, as well as longer-term options for the City which would build on the results of the pilot project.

Parks & Recreation Master Plan, 2016: The Parks and Recreation Master Plan sets out a framework of priorities and recommendations intended to guide the provision of parks and recreation services in the City of Clarence-Rockland. The Plan acts as a municipal blueprint of planning, financial, and implementation strategies to fulfill the City's stated goals and objectives of parks and recreation playing an active role in the lives of the City's residents. Highlighting the key relationship between active transportation modes and the success of municipal parks and recreational facilities, the Plan makes recommendations to a horizon year of 2031.

Community Improvement Plan Background Report, 2016: The City of Clarence-Rockland initiated its Community Improvement Plan in order to develop strategies to revitalize the City's commercial core along Laurier Street in Rockland by attracting new businesses and supporting existing ones. The Background Study involves a thorough review of the planning and policy context, as well as existing conditions in the area to help develop the options available to the City to realize the Plan's goals. The Study incorporates a strength, weakness, opportunities, and threats (SWOT) analysis, which highlights the strength of and opportunity presented by the urban fabric of Rockland's commercial core. The Study ultimately proposes a series of municipal grant programs to improve the area, as well as suggests implementation strategies.

Clarence-Rockland Strategic Plan, 2018: The Strategic Plan, which was developed by the City of Clarence-Rockland in 2018, is the culmination of a strategic planning process initiated by the City in 2015 with the goal of defining the City's overarching vision, mission, goals, and objectives. Taking into account the extensive feedback received from over 1,300 community members in an interactive and collaborative stakeholder engagement campaign, the City identified its four Strategic Pillars as Sense of Community, Health and Wellness, Financial Stability, and Environmental Responsibility. The Plan furthermore makes recommendations for implementing and monitoring initiatives which support the City's Strategic Pillars.

Expansion Lands Secondary Plan, 2019: Amendment No. 13 to the Official Plan of the Urban Area of the City of Clarence-Rockland provdes a planning framework to ensure that future development within the Expansion Lands — bounded primarly by David Street, Caron Street, and the Clarence Creek — occurs in an efficient, orderly and sustainable manner. The Expansion Lands were identified for development during the 2015 United Counties of Prescott and Russell (UCPR) Official Plan. The review identified a localized shortage of residential land supply in the City of Clarence-Rockland and resulted in the addition of approximately 133.5 hectares of land to the Rockland Urban Policy Area. Key components of the Secondary Plan include goals, objectives, policies and guidelines that provide direction for applying the policies of the Official Plan at a local scale. Development applications in the Expansion Area will be required to conform with the policies of the Secondary Plan, as well as the City of Clarence-Rockland Official Plan and the United Counties of Prescott and Russell (UCPR) Official Plan.

Official Plan of the Urban Area of the City of Clarence-Rockland, 2021: The Official Plan presents a strategy to direct the future development of the City's urban area (the community of Rockland) over a twenty-year period, and is consistent with the Provincial Policy Statement, the Planning Act, and the United Counties of Prescott & Russell Official Plan. The Plan sets out an overarching land use concept, specific governing policies in matters related to planning, and comprehensive implementation tools, thus aiming to ensure that the future growth of Rockland is sustainable, preserves the quality of life within the community, and reflects the community's existing unique character. It also sets out the City's own priorities with respect to Rockland's growth over a twenty-year period, including transportation facilities, environmental policy,

zoning, parks and open space, heritage, and economic growth and development. The Plan is sensitive to the functional connections between Rockland, other hamlets and municipalities both in the City, the United Counties of Prescott & Russell, and the City of Ottawa.

Development Charges Background Study, 2021: The latest City of Clarence-Rockland Development Charges Background Study is presented as part of a process to lead to the approval of a new development charges by-law in compliance with the provincial Development Charges Act, which allows municipalities in Ontario to recover new development-related capital costs. Facing residential development pressure, and anticipating increased demand on City services, the City wished to continue implementing development charges to fund development-related capital projects so that such development continues to be serviced in a fiscally responsible manner. The Study presents the results of the review to determine the net capital costs attributable to new development that is forecast to occur in the City of Clarence-Rockland between 2021 and 2030. These development-related net capital costs are apportioned to various types of development (residential; non-residential) in a manner that reflects the increase in the need for each service.

2.1.4 Ongoing Local Studies

City initiatives and planning efforts related to the MMTMP that progressed in parallel to, and informed this update included:

- Rockland West Secondary Plan
- St-Jean Street - Poupart Road Municipal Environmental Assessment

2.2 Strategic Priorities

The City of Clarence-Rockland is committed to the provision of municipal services in a sustainable manner to meet the present and future needs of its communities. In 2015 a Strategic Plan to guide the City through to 2021 was created focusing on four strategic pillars including:

- **Sense of Community:** The residents and business in the City are proud of their bilingual culture, their rich heritage, the abundance of natural features in both a rural and urban setting and the extensive number of municipal facilities. It is important that the City acknowledge these traits and provide services that reinforce these community values.
- **Health and Wellness:** The municipality commits to providing services that respond to the continued health and well-being of its residents.
- **Financial Stability:** The City is subject to increasing demands to maintain existing infrastructure and programs as well as position itself for the future. It is, therefore, critical that the municipality ensure that appropriate levels of funding are available to meet community needs and expectations. It is necessary that Council and the administration assesses and implement innovative funding strategies to meet the pressures of funding future requirements.
- **Environmental Responsibility:** Clarence-Rockland has a significant amount of infrastructure that needs to be maintained in an environmentally responsible manner. The City must ensure that timely rehabilitation works are implemented to protect our environment while meeting the needs of the community. It is anticipated that the municipality will continue to grow thus placing further pressures on sound environmental stewardship.

2.3 Vision Statement, Goals, and Metrics

A well-designed multimodal transportation network can be a strong contributor to achieving the local goals that are articulated in prior planning and policy. Quality of design and functionality means establishing a **simple and effective multimodal transportation network** that everyone can understand and use. Understanding why people may react to transportation options in different ways, based on their personal needs and circumstances, helps to create a multimodal network that is intuitive and that reduces the barrier to use - potentially offering new and sustainable ways to travel for many. The creation of a vision is necessary to create a sense of unity and cohesion among expectations for the function of the multimodal transportation network. The MMTMP subsequently articulates the vision by describing that future function in terms of service and infrastructure, finally outlining a plan of achievement.

A vision statement should be attached to goals or objectives whose achievement will in turn realize the overall vision. Likewise, progress toward goals should be measureable to continually make clear to City staff and residents the extent to which the plan has been implemented and what remains to be accomplished and improved.

Engagement performed as part of the 2019 MMTMP development process noted that residents wanted a transportation plan with a vision focused on efficient motor circulation. Resident of rural and hamlet areas surprisingly placed more importance on active transportation and sidewalk safety compared to respondents from Rockland. Sidewalk safety was a consistenly demanded topic as a visioning priority across all City areas and age groups. Residents also identified a desire for active transportation options to be able to periodically leave their car behind as well as make use of other modes for recreation.

The 2025 Amendment to the 2019 Master Plan puts forth a new vision statement better aligned with public desires and City priorities by defining what the transportation system should do rather than what the multimodal transportation should be. The new vision statement is intended to describe an ideal outcome and impact of recommended projects on the transportation network and on the City as a whole. By its nature, it is an inspirational and idealistic declaration.

The goals defined to achieve the vision intersect with each of the City's strategic priorities. Sustainable municipal infrastructure practices, a well-connected active transportation network, and ubiquitous safety enhancements contribute to a sense of community by creating exemplary shared resources that evoke pride and a sense that one is heard and cared for by their own community. The use of these resources directly provide greater opportunities to residents for healthier activity. In the long run, implementations focused on sustainability, public health, and public safety reinforce fiscal responsibility through resilience of that infrastructure as well as by reducing the external costs of negative impacts associated with less costly and/or unsustainable practices. Finally, whether related to questions of materials, infrastructure lifecycle, reusability, reduced transportation emissions and pollution, medical care, or post-injury needs, the three goals uphold the aims of environmental responsibility through quite different, but equally important approaches.

Vision Statement: Clarence-Rockland's transportation system enhances the quality of life of all residents and visitors while supporting the needs of businesses to be successful. The transportation system will enable safe access to and between neighbourhoods and commercial areas, regardless of how someone chooses to travel. The transportation system promotes sustainable communities and supports individuals and families by meeting their social and cultural needs in an inclusive, respectful, responsible and accessible way.

Goals	Metrics
Support sustainable practices through maintenance and delivery of new multimodal infrastructure.	Number of transportation options available to each resident and business.
Promote tourism and healthier communities through maintenance of a well-connected active transportation network.	Increase in the number of connected links in the bicycle- and pedestrian-specific facilities networks, including sidewalks, multi-use trails, bike lanes, and paved shoulders.
Address community concerns regarding traffic safety.	Reductions in traffic safety indicators aiming for zero fatalities or serious injuries due to the implementation of network improvements and enhancements prioritizing safety.

2.4 Guiding Themes

Transportation networks are influenced and shaped by the communities they serve. Their role within the context of a municipality's quality of life can vary widely depending on how the community would like the network to serve them. Clarence-Rockland is a modern municipality that balances its rural charm with urban vitality. It is also a diverse city comprised of several unique communities. The City's transportation and active transportation systems must reflect the City's vision to foster multimodal transportation options that address the needs of people of all ages and abilities.

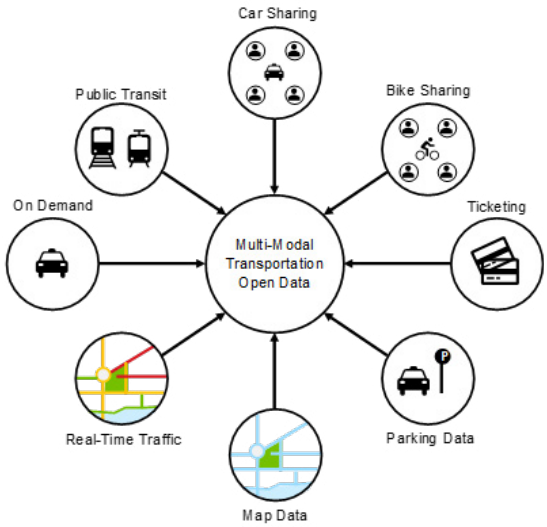
Not every trip can or should be served by alternative modes of transportation, but it must be recognized that private vehicles, transit, and active transportation are part of a larger multimodal mobility network that works together to provide transportation for the community as a cohesive system. To that effect, it is important that the planning of multimodal transportation services acknowledge the City's role in a regional context and provides connections to both local and regional facilities. This must all be done with a delicate balance between a focus on the people that the multimodal transportation network serves and the City's fiscal and environmental responsibilities of maximizing the network's efficiency while reducing the dependence on private automobiles.

2.4.1 Smart Cities & Open Data

In 2018, the City of Clarence-Rockland submitted an application to Infrastructure Canada's Smart Cities Challenge. Municipalities across Canada apply to the Challenge by submitting their vision for improving the lives of their residents through smart cities approaches that leverage innovation, data, and connected technology. Prizes to assist municipalities in achieving their vision are issued to the Challenge's winners. Clarence-Rockland submitted an application that describes the barriers that prevent uptake of active transportation as a travel mode by its residents. Its application articulates an innovative proposal to use smart city sensors and geospatial analysis to expand its active transportation network and encourage its growth as a healthy, connected city.

Smart cities are a new trend gaining traction across Canada and the world, whereby municipalities are starting to leverage Big Data to assist in municipal planning. A smart city is an urban area that uses different types of electronic data collection sensors to supply information which is used to manage assets and resources efficiently. In terms of mobility, traditional methods of data collection use pneumatic tubes or manual counting for automatic traffic recording which are often costly to implement, prone to high maintenance costs, and difficult to leverage for alternative modes of transportation like transit, cycling and walking. As shown schematically in **Figure 2.1**, there are new ways to leverage information and communication technology to optimize the cost-effectiveness of data collection and the efficiency of city operations to promote a dialogue between city planners and the public and to better inform on how the city travels.

Figure 2.1 Data-Leveraged Transportation Optimization



Hundreds of municipalities across Canada are leveraging open data to work with residents and businesses to develop cost-effective solutions to several issues. The expansion of open data, combined with advances in big data analytics, is freeing information that was once trapped inside the dusty pages of overlooked reports, enabling improved decision making, new product and service offerings, and greater accountability. This change comes at a time of heightened focus on data-driven knowledge and evidence-based decision making. Smart City technology and Open Data can help improve transportation-demand forecasting, prioritize transport infrastructure improvements, and synchronize the ways different modes of transportation inter-operate. For example, in Toronto the local transit agency, the Toronto Transit Commission (TTC), was able to avoid having to build their own mobile application to identify next-bus arrival times, by making their real-time vehicle GPS data open through an application programming interface (API). This avoided the need to procure a developer and handle the continual maintenance of a mobile application. This same process has been leveraged in the City of Ottawa for OC Transpo where there's been several mobile applications built using open data.

2.4.2 Mobility as a Service (MaaS)

Mobility as a Service (MaaS) is the integration of various forms of transport services into a single mobility service accessible on demand. To meet a municipality's transportation demand, MaaS facilitates a diverse menu of transport options including public transport, shared mobility programs, taxi, private automobile, or a combination thereof. For residents this approach can offer added value through use of a single application or service to provide access to mobility, with a single payment channel instead of multiple ticketing and payment operations. At its most basic level, MaaS fits within a value proposition by helping residents meet their mobility needs and solve the inconvenient parts of individual journeys as well as the entire system of mobility services. The aim of MaaS is to provide an alternative to the use of the private car that may be as convenient, more sustainable, help to reduce congestion and constraints in transport capacity, and can be even cheaper.

MaaS is a relatively new concept and approach to transportation planning, with elements primarily integrated in a piecemeal fashion in many jurisdictions across North America. The most abundant form of MaaS is via integrated ride-hailing mobility services such as Uber or Lyft and bikeshare services integrated into transit planning or maps applications such as The Transit App or Google Maps.

Cities around the world have managed to fundamentally change the way people search for, consume, and pay for transportation. Since 2016, residents of Finland have been able to use an app called Whim to plan and pay for all modes of public and private transportation within the city – be it by train, taxi, bus, carshare, or bikeshare. Anyone with the app can enter a destination, select his or her preferred mode of travel, or in cases where no single mode covers the door-to-door journey, a combination of modes and be immediately provided with transportation solutions. While there are obvious differences between the City of Clarence-Rockland and places where MaaS has experience widespread adoption, it is important to acknowledge that MaaS can be moulded to create a localized solution that works with the available transportation assets and scale.

2.4.3 Complete Streets

Complete Streets is an approach to balanced street design that seeks to accommodate everyone, regardless of their age, physical mobility, or socioeconomic status. This approach does not impose a uniform set of standards into cities. Rather, each city must tailor their approach to what works locally, considering contextual factors such as existing right-of-way, climate costs, and travel mode share objectives.

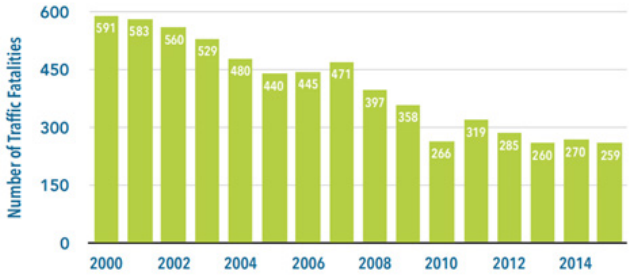
Study and application of Complete Streets concepts in a smaller municipality context has become more frequent. The Complete Streets for Canada online portal published background information in 2016 related to rural complete streets that recaps common issues such as through traffic, vehicular volumes in economic centres, and higher tier jurisdiction over key routes. The need for application of these improvement principles in rural areas is strong. A disproportionate number of pedestrian fatalities occur on rural roads, physical activity associated with alternative transportation modes leads to improved health outcomes, independent mobility or access to a motor vehicle is a foremost equity indicator in areas unserved by transit, and the presence of comfortable accommodations for all forms of transportation add liveliness and economic resilience to historic main streets.

As of early 2024, 102 municipalities across Canada have adopted Complete Streets policy documents, including Ottawa, who in addition to clear guidelines and standards, has integrated Complete Streets principles into case studies and transportation plans.

2.4.4 Vision Zero

Vision Zero is a multi-national road traffic safety project that aims to achieve a transportation network with no fatalities or serious injuries involving road traffic. This approach started in Sweden and was approved by their parliament in October 1997. A core principle of the vision is that "Life and health can never be exchanged for other benefits within society" rather than the more conventional comparison between costs and benefits. Sweden has made tremendous progress in road safety. Between 2000-2015 the number of traffic fatalities in Sweden decreased by over 50% as visualized in **Figure 2.2**.

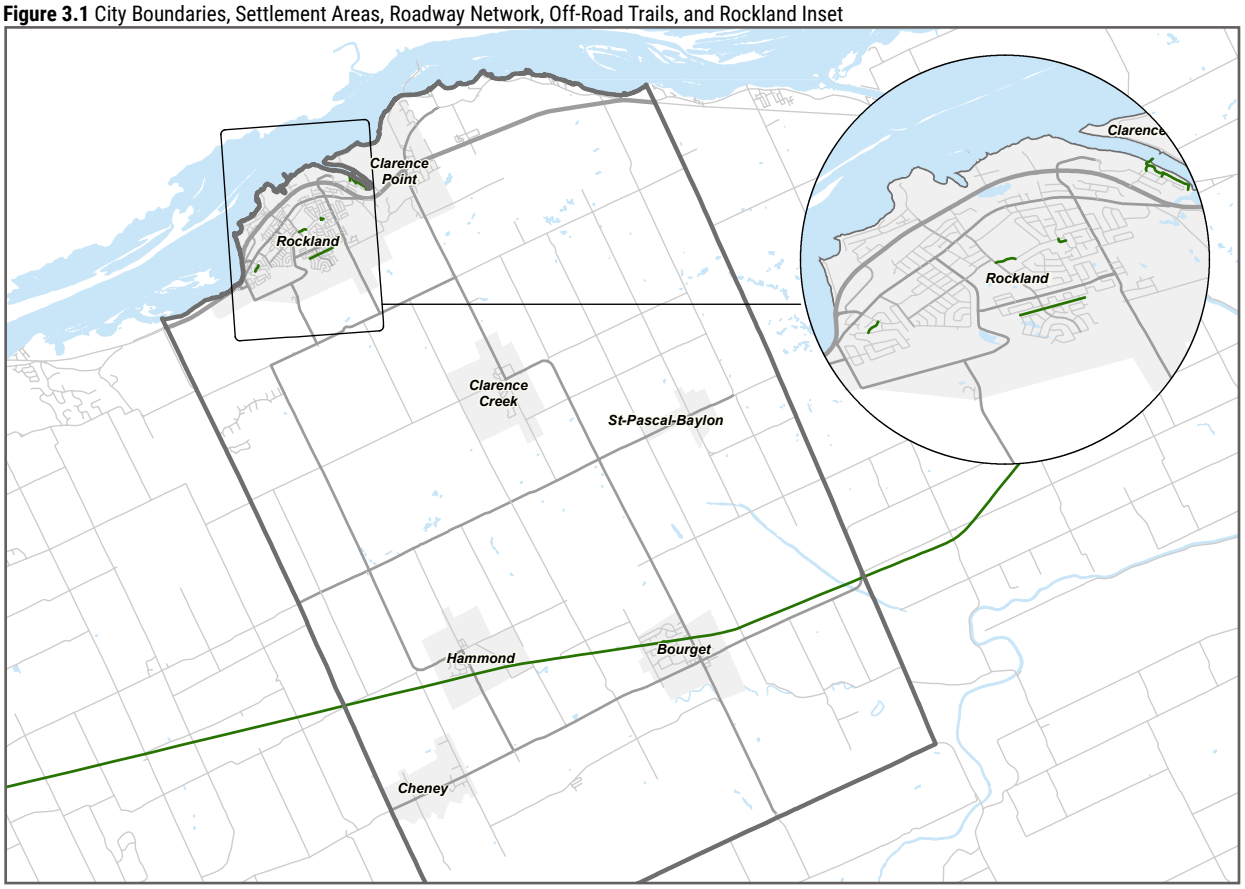
Figure 2.2 Traffic Fatalities in Sweden | 2000-2014



Several municipalities across Canada are beginning to embrace the Vision Zero approach to road safety by implementing road safety plans and actions to reduce road-related fatalities and protect vulnerable road users. In 2015, Edmonton became the first major Canadian City to officially adopt Vision Zero with the City of Toronto soon following suit in 2017. Vision Zero is now a fully recognized policy approach toward planning for road safety. The City of Ottawa's Road Safety Action Plan 2020-2024 represents its second safety plan using Vision Zero principles.

3.0 Current Condiions

Figure 3.1 City Boundaries, Settlement Areas, Roadway Network, Off-Road Trails, and Rockland Inset



3.1 The Community

A multimodal transportation network must be planned according to the local geography and demographics to best address and recommend solutions tailored for the local context. Understanding the correlation between shifting age groups or changing land uses is imperative in understanding why the city moves in a particular way as well as understanding where residents and businesses will need to go in the future. The Master Plan Amendment process represents a unique opportunity to observe trends related to transportation as they evolve.

The City of Clarence-Rockland continues its steady population growth. From 23,185 to 24,512 to 26,505 over the last three census, Clarence-Rockland is the largest municipality within the United Counties of Prescott Russell (UCPR), comprising over a quarter of its total population (95,639). Clarence-Rockland's position in the nothwestern-most corner of UCPR, which extends as far east as the border with Québec, places it at the eastern edge of the Ottawa-Gatineau Census Metropolitan Area, a region with nearly 1,500,000 inhabitants. The population centre of the City, Rockland (population 13,625), is located approximately 38 kilometres east of Downtown Ottawa.

Other primary settlement areas in Clarence-Rockland are located in the communities of Bourget (pop. 1,175), Clarence Point, Clarence Creek, Hammond, Cheney, and St-Pascal-Baylon. **Figure 3.1** shows the spatial distribution of these communities within the larger City. Approximately 59% of Clarence-Rockland residents identify French as their first official language spoken, one of the highest proportions in a Canadian municipality outside of the province of Québec.

Far and away, the fastest growing age cohort in Clarence-Rockland is made up of residents over 65 years of age. This group grew over 30% between 2016 and 2021 through in-migration and aging, and is now also the largest cohort displayed in **Figure 3.2**. In just five years, the 55- to 64-year-old age group grew by 13% while those aged 45 to 54, the largest adult set in 2016, shrank by 11%. This aging trend is also reflected in the median age, which grew from 42.2 to 43.2 years since 2016, outpacing the nation median of 41.6 years. Those 14 years of age and younger still comprise the second largest bracket, and the demographic shape of the community is expected to change somewhat as this group becomes working-age, though 15- to 24-year-olds make up the smallest group of residents.

The overall population density is 89.1 people per square kilometre, an increase from 82.3 in 2016. The City's major population centre, Rockland, accounts for over half of the City's population and is primarily a residential community supporting a centralized commercial core along Laurier Street, with other commercial uses along County Road 17.

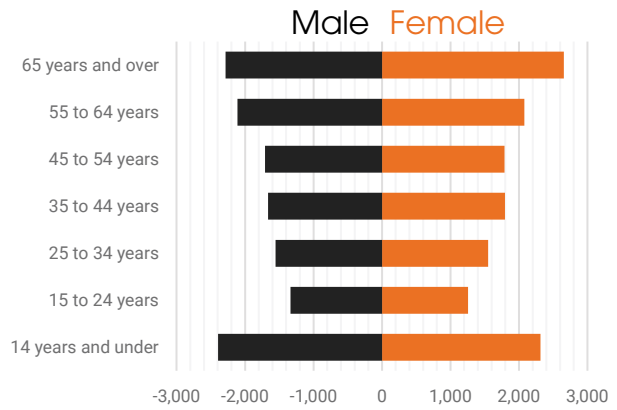
The development of Rockland initially centered along Laurier Street. However, over the past 25 years, Rockland has grown beyond this central area as shown in **Figure 3.3**. Newer residential developments have progressed southward away from Laurier Street, while newer retail developments have materialized at the western extent of the urban area near the intersection of Richelieu Street and Carmen Bergeron Street as well as along Chamberland Street close to the intersection with County Road 17. Laurier Street remains as the backbone of the community, with City Hall, Canada Post, government offices, and a mix of retail and service businesses located along the functional main street. Simon Park, the City's recreational centre, and its public library are also in close proximity to Laurier Street. The City continues to prioritize the revitalization of the commercial core area per its latest Community Improvement Plan.

The City's second largest urban community, Bourget, centers around the intersection of County Road 2 (Russell Road) and County Road 8 (Champlain Street) as shown in **Figure 3.4**. Bourget is primarily a residential community with a healthy village core.

While Clarence-Rockland in the midst of its biggest building boom since the 1980s, the ten-year period from which the plurality of residential units were constructed, the overwhelming majority of building inventory in the City's urban communities are lower-density. Only 20% of the current housing supply takes the form of higher-density housing types, as shown in **Table 3.1**, yet this represents a relative increase since 2011 as duplexes, rowhouses, and apartments made up fully 32% of residential units constructed between 2011 and 2016. Of the 10,095 households identified in the 2021 Census, approximately 82% are owner-occupied. The average household size in Clarence-Rockland is 2.6 persons.

Clarence-Rockland is home to many whose employment is centred in the National Capital Region (NCR). This relationship is reflected in the employment distribution of the City's residents, as illustrated in **Table 3.2**. The distribution is similar to that of the NCR in general, with a high proportion of workers employed in the business, finance, education, law, government, sales, service, and health sectors. A significant percentage of the population is also employed in the trades and transportation sectors.

Figure 3.2 Population Pyramid 2021



Source: Statistics Canada - Community Profile, 2021

Table 3.1 Historical Household Construction by Period

Period	Singles/ Semis	Duplex	Rows	Apts.	Total
Pre-1961	930	80	10	135	1,155
1961-1970	365	55	30	90	540
1971-1980	1,060	120	10	105	1,295
1981-1990	1,685	90	75	155	2,005
1991-2000	1,215	50	80	105	1,450
2001-2005	765	10	50	130	955
2006-2010	805	15	90	120	1,030
2011-2016	615	15	105	170	905
Total	7,440	435	450	1,010	9,335
	79.7%	4.7%	4.8%	10.8%	

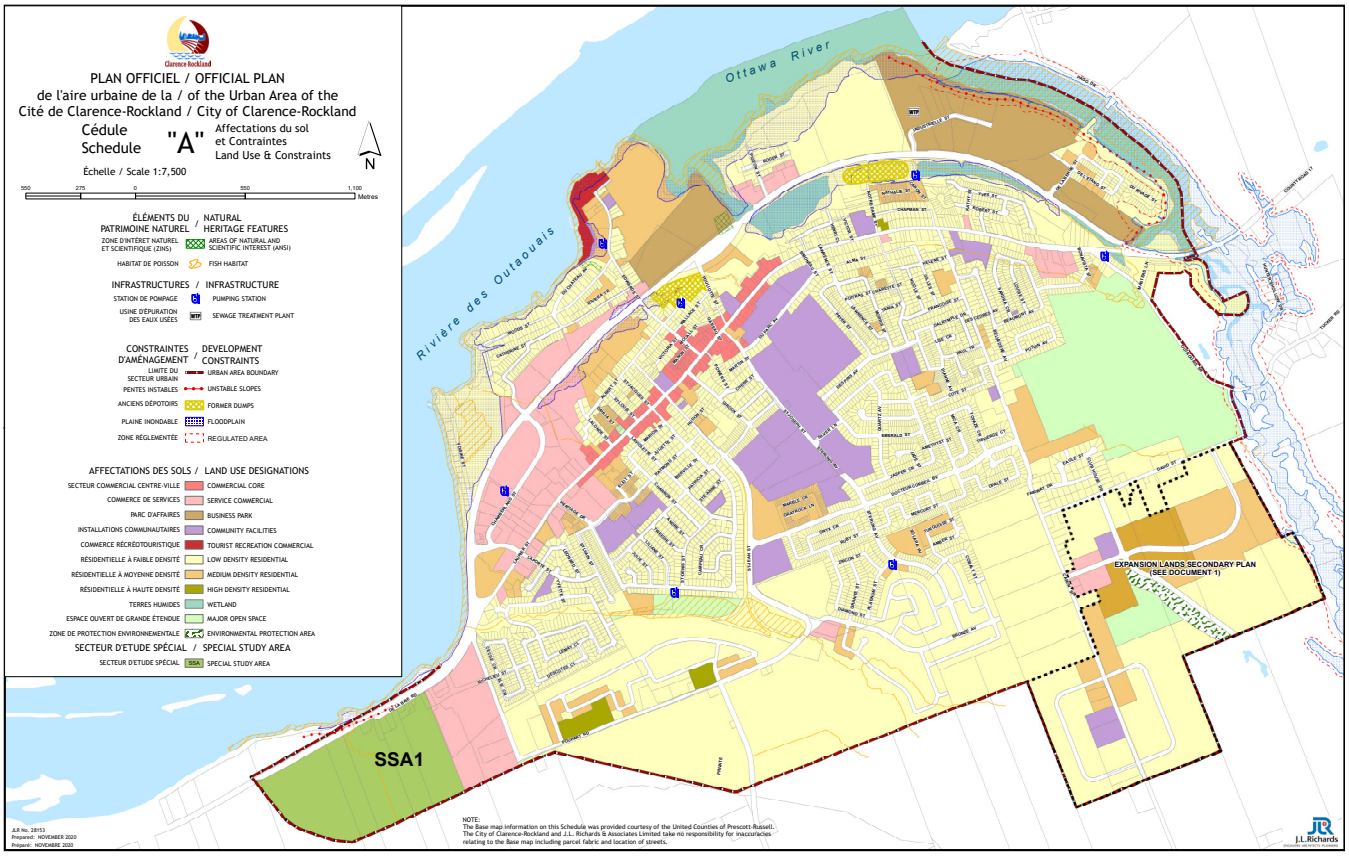
Source: Development Charges Background Study, 2021

Table 3.2 Municipal Occupation Split

Occupation	Employment	% Total
0 Legislative and Senior Management Occupations	170	1%
1 Business, Finance, and Administration Occupations	2,930	21%
2 Natural and Applied Sciences and Related Occupations	1,035	7%
3 Health Occupations	895	6%
4 Education, Law and Social, Community and Government Services	2,110	15%
5 Art, Culture, Recreation, and Sport Occupations	310	2%
6 Sales and Service Occupations	2,690	19%
7 Trades, Transport and Equipment Operators and Related Occupations	3,060	22%
8 Natural Resources, Agriculture, and Related Production Occupations	285	2%
9 Manufacturing and Utilities	180	1%
Not Applicable	190	1%
Total	**13,875**	

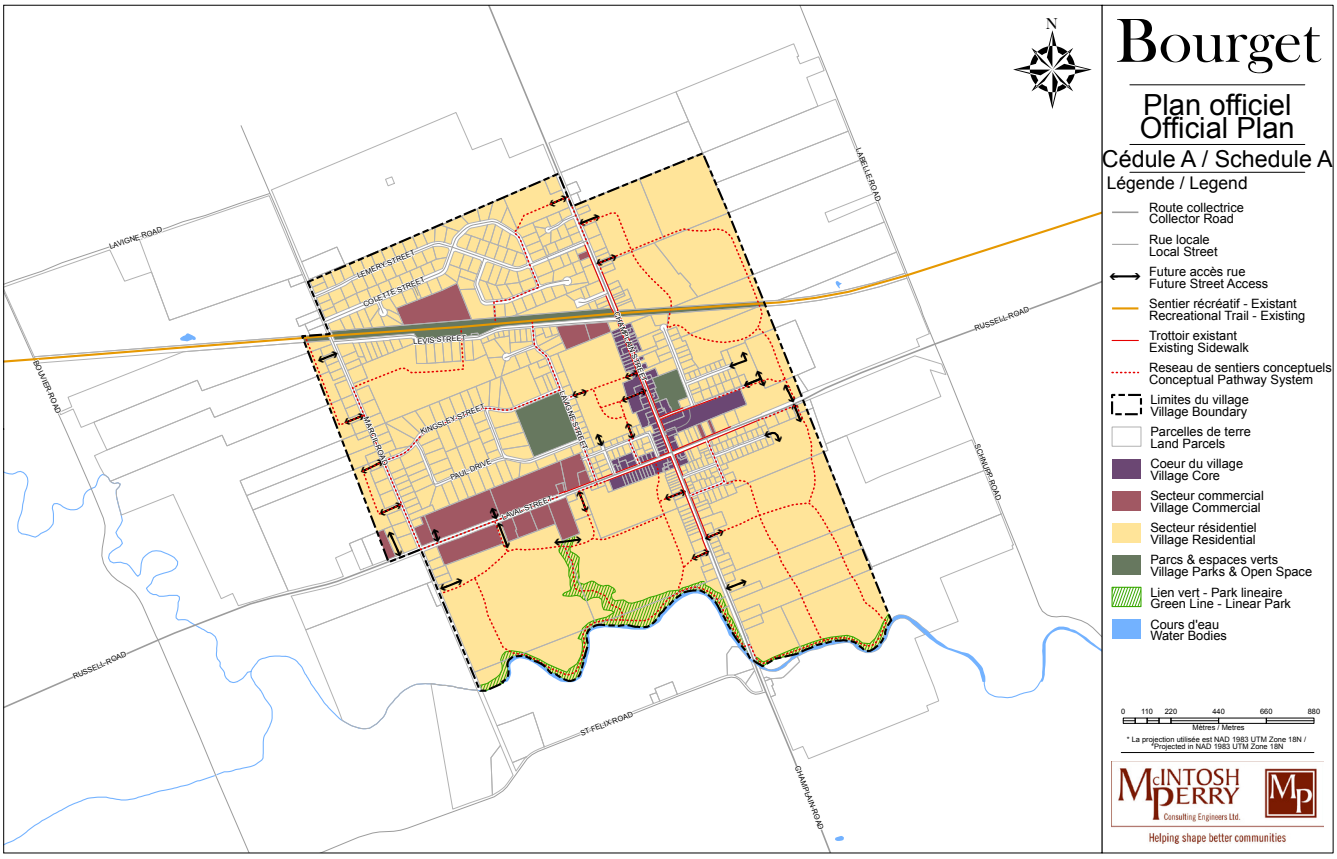
Source: Statistics Canada - Community Profile, 2021

Figure 3.3 Existing Land Use in Rockland



Source: Official Plan of the Urban Area of the City of Clarence-Rockland, 2021

Figure 3.4 Existing Land Use in Bourget



Source: Bourget Official Plan, 2014

3.2 Multimodal Network

3.2.1 Road Classification

The City of Clarence-Rockland's 2021 Official Plan update based changes to the City's road classification system on the 2019 MMTMP. The transportation infrastructure network consists of several different road types, all adhering to complete streets principles, which are intended to serve and meet different objectives. The city's road classification system is visualized in **Figure 3.5** and consists of the following:

- **Arterial Roads:** Dedicated to long-distance connections between neighbouring municipalities and designed to handle large volumes of traffic at higher speeds. Because of this, Arterials should have off-road active transportation facilities such as multi-use paths or cycle tracks to provide active transportation access where needed. All Arterial Roads within Clarence-Rockland are under the jurisdiction of the United Counties of Prescott and Russell, including entrance permits, signage, building form and location, and land use. Limited access control is provided to and from arterial roads for land service and access. Arterial roads within the City have been designed to accommodate approximately 20,000 vehicles per day, have uninterrupted flow, have a design speed between – 70 - 90 km/h, accommodate all vehicles including trucks, and connect with other arterials and collector roads.

- **Rural Arterial:** Rural Arterial roadways are similar to Arterial roadways in the sense that they should be dedicated to long-distance connections between neighbouring municipalities, but also should connect to rural areas and hamlets within Clarence-Rockland. They should be designed to primarily handle vehicular and commercial vehicle traffic at higher speeds. In a rural context, with lower expected traffic volumes, but higher expected traffic speeds, active transportation facilities should be provided as paved shoulders with protected buffers.

- **Main Street:** Dedicated to placemaking to accommodate a high demand for movement as well as a destination and activity centre within the same road space. These streets balance pass-through vehicular operations, with destination-based needs such on-street parking, pedestrian, cyclist, and transit stops. Because of this, Main Streets should have dedicated on-street cycling facilities with a preference for protected facilities such as flex bollard bike lanes, or cycle tracks, but can allow the use of painted bike lanes where space constraints prohibit using better facilities.

- **Collector Roads:** The City of Clarence-Rockland distinguishes between Major and Minor Collector Roads. Major Collector Roads are intended to service major commercial areas internal to Rockland as well as connect to Arterial and Rural Arterial Roadways. Minor Collector Roads are intended to service major neighbourhood nodes such as schools and community centres as well as provide a link to the broader Major collector roadway system. Collector roads serving residential areas are designed to accommodate approximately 8,000 vehicles per day. Collector roads serving industrial and commercial areas have been designed to accommodate approximately 1,000 – 12,000 vehicles per day. Street lighting, sidewalks on either side and a bicycle path on one side shall be provided along each type of Collector Road due to the expected higher volumes of traffic that will use these roadways. Collector roads will have an "interrupted flow" characteristic, will have a design speed between 50 – 60 km/h, and will accommodate a wide range of vehicle types including: passenger, service, industrial and commercial vehicles. Where needed on-street parking may also be accommodated, however, generally Major Collectors would not have on-street parking. On-street parking may be accommodated along Minor Collectors depending on the available space.

- **Local Roads:** For roads classified as local within the City, traffic movements are considered secondary, and the primary function of these roads are to facilitate local access to communities. Local roads servicing residential areas have been designed to accommodate approximately 1,000 vehicles per day, and local roads serving commercial areas have been designed to accommodate approximately 3,000 vehicles per day. Due to the low volumes of traffic that travel along Local Streets strategically located streets may accommodate pedestrian sidewalks on one or both sides of the street as well as signed bicycle routes to connect to the broader dedicated cycling system. Local roads have the flow characteristic of interrupted flow, have a design speed between 30 – 50 km/h, and accommodate passenger and service vehicles of all types. Local roads will connect with public lanes, other local roads, and collector roads. Transit services are generally avoided on local roads. On-street parking may be accommodated depending on the available space and need.

- **Private Roads:** Not maintained by the City of Clarence-Rockland, the primary function of private roads and public laneways is to provide access to condominium properties. These roads will connect with public lanes and local roads. Transit services are not permitted on this road classification. There are some parking restrictions. The minimum spacing of intersections on private roads and public laneways is as needed.

Figure 3.5 Clarence-Rockland Road Classification per 2021 Official Plan Consolidation

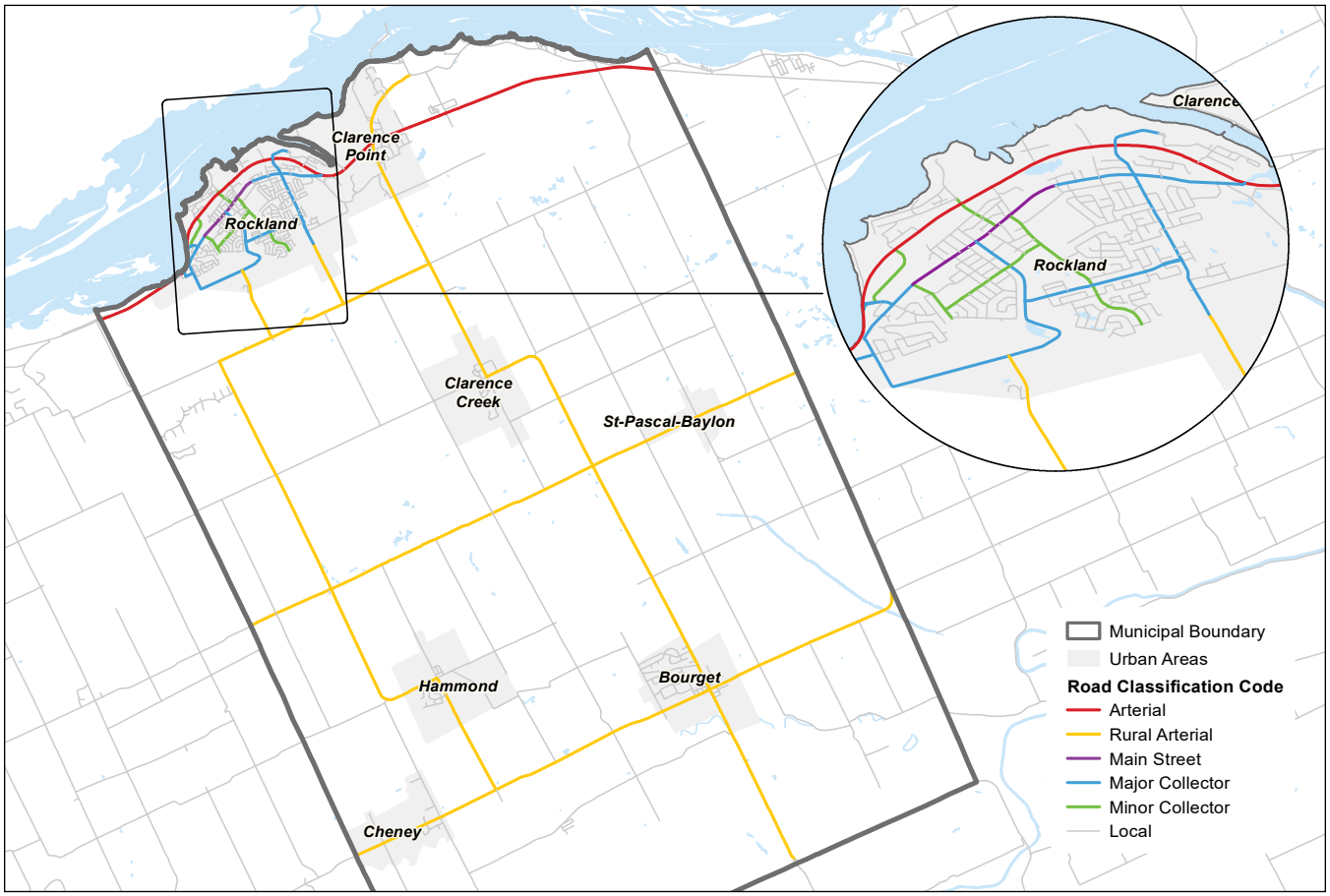
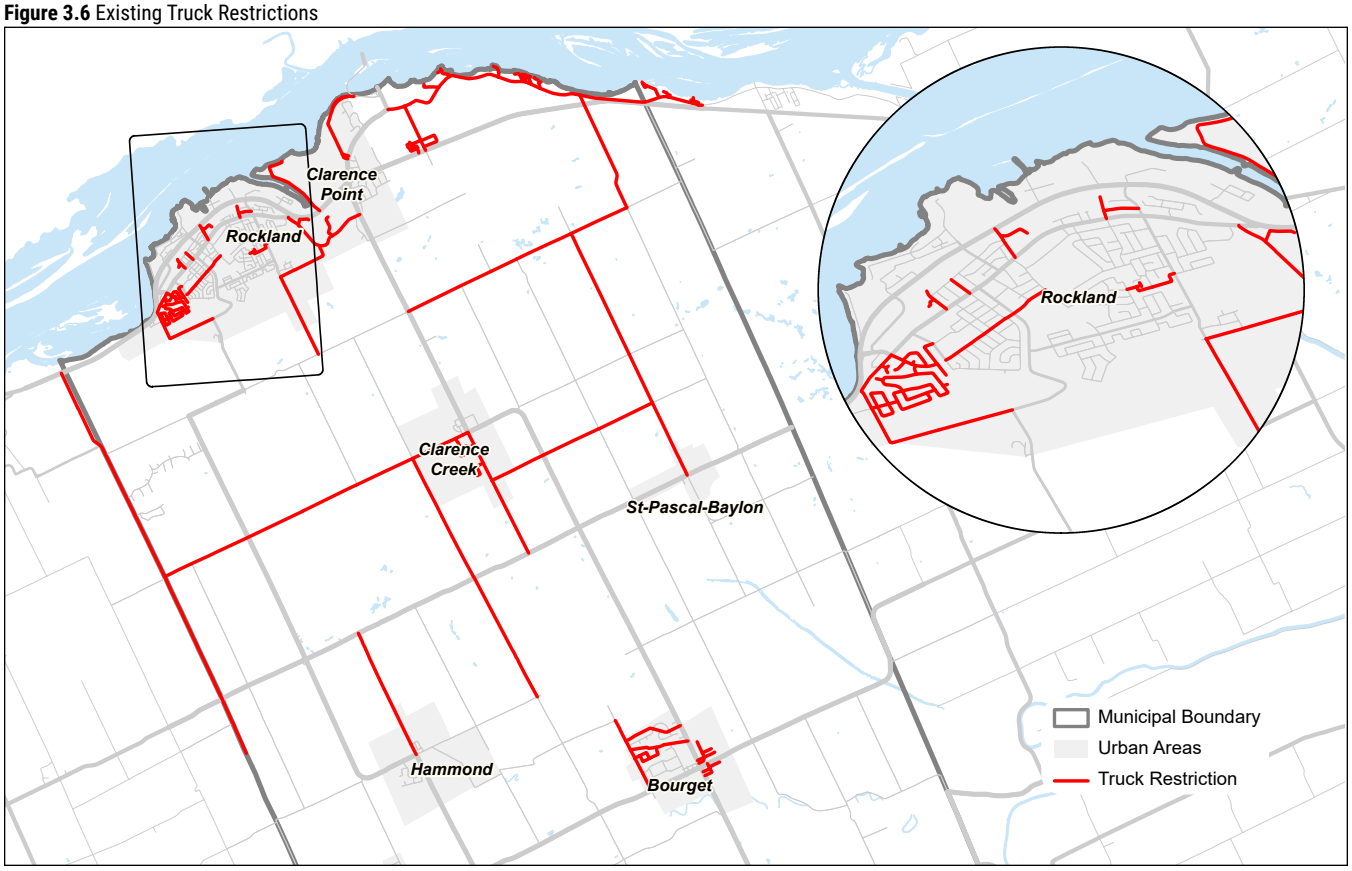


Figure 3.6 Existing Truck Restrictions



3.2.2 Commercial Vehicle Network

Commercial vehicles comprise an important component of the multimodal transportation network particularly with regards to employment and economic activity, however they also present several concerns regarding wear and tear on infrastructure and safety. Clarence-Rockland's road network generally allows trucks along arterial roadways with restrictions on certain collector and local roadways as shown in **Figure 3.6**. These restrictions generally allow for the movement of trucks through the city via high-volume corridors.

While the City of Clarence-Rockland currently does not have an oversized load permit system, the United Counties of Prescott & Russell have a permit requirement for oversized loads that exceed the dimensions and/or weight prescribed in the Highway Traffic Act on County Roads. This permit costs $200 and requires a private escort to lead and follow vehicles. Oversize loads put physical strain on roadway infrastructure and require routes that can physically accommodate such loads.

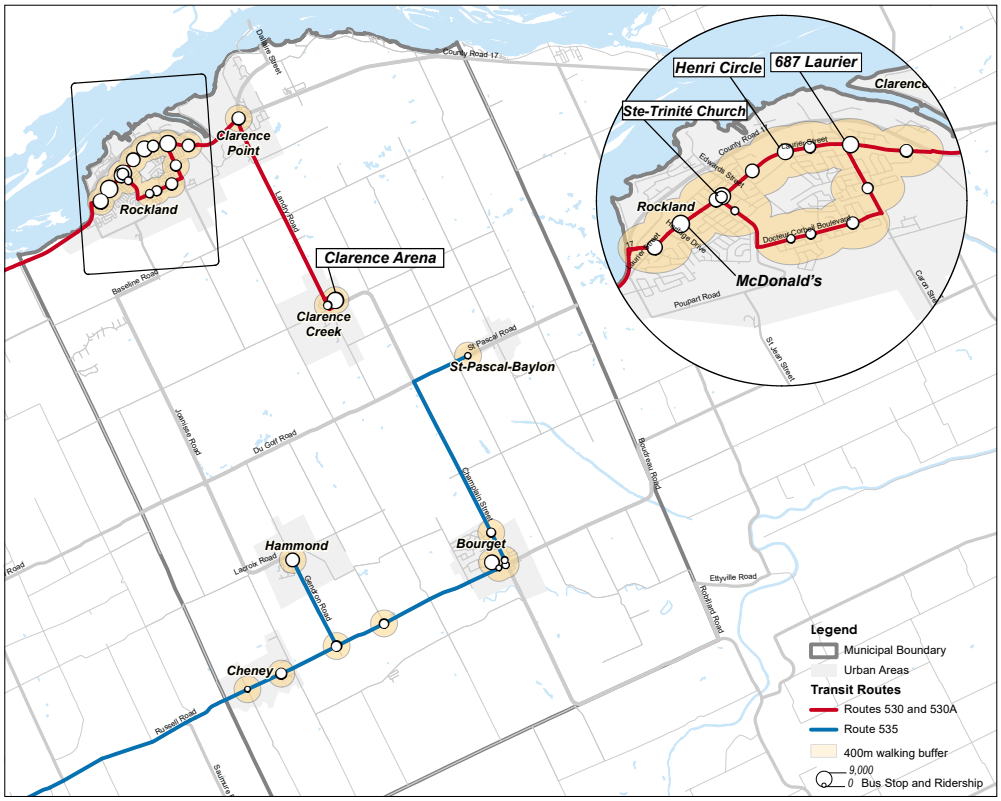
3.2.3 Transit Service

The City of Clarence-Rockland introduced a commuter transit service to the City of Ottawa in 2003, later expanded to two routes. The CR Transpo service was partially subsidized by the City and run by a private bus company, Leduc Bus Lines. The service was suspended due to a combination of pandemic restrictions and low demand. As of 2023, no date for a return to service has been set.

Route 530 provided service from Clarence Creek, Clarence Point and Rockland to stops in Ottawa along Highway 174 and Downtown, as well as one stop in Gatineau running between 8 and 11 times per day, depending on the time of year (see **Figure 3.7**). The second route, Route 535, served the communities of St. Pascal-Baylon, Hammond, Cheney and Bourget, providing commuter connections to Downtown Ottawa and one stop in Gatineau. Route 535 operated two to three times per day depending upon the time of year. Neither route provided an internal connection between Rockland and the southern settlement areas, which limited the usefulness of the transit service to external commuter travel between Clarence-Rockland and Ottawa-Gatineau. While operating, the bulk of fixed-route ridership was based at stops along Laurier Street and at the Clarence Arena in Clarence Creek, many of which were Park-and-Ride stops.

The United Counties of Prescott and Russell also previously operated a now permanently suspended intermunicipal transit service. PR Transpo was a pilot project launched by the Counties in 2018 with financial support from the Community Transportation Grant Program. The pilot, launched to determine the feasibility of rural area service, initially took the form of traditional fixed-route service, but was transitioned to an on-demand format in June 2021 before suspension of service at the end of December 2022. Prescott-Russell retains its non-emergency medical transportation service, offered in partnership with Carefor Health & Community Services.

Figure 3.7 Former CR Transpo Routes with Stops and Walking Buffers



3.2.4 Active Transportation

The urban form and layout of the road network within Rockland follows a suburban form with smaller pockets of a grid network, particularly closer to Laurier Street. The impacts of this form of road network creates large circuitous blocks that often require pedestrians to walk further to access activity centres. This can be seen in the wire diagram depicted in **Figure 3.8** that shows large blocks south of Laurier Street that are often a result of schools and their associated sport facilities and yards. Large gaps also exist between County Road 17 and Laurier Street that separate residential and commerical/recreation areas.

Figure 3.8 Rockland Road Network Wire Diagram

The existing pedestrian network is comprised of a mixture of sidewalks and multi-use trails primarily focused on providing links between schools and local residential neighbourhoods. Pedestrian sidewalks are only found within Clarence-Rockland's urbanized areas, the majority of which are found within Rockland as shown in **Figure 3.9**.

Most sidewalk pathways create a connected network with crossing points via signalized intersections, all-way stops, and mid-block crossings along major roadways. Mutli-use trails or connecting paths within Rockland, generally of short length, close some of the connectivity gaps described above. While the number of crosswalks has increased since 2019, crosswalks at most major intersections are faded, compromising pedestrian visbility and leaving the management of pedestrian-vehicle conflict solely to traffic control devices.

Clarence-Rockland's wider cycling network is primarily comprised of paved shoulders and the Prescott-Russell Multi-Use Trail, which passes through the Hammond and Bourget settlement areas. Sections of multi-use paths also exist in Rockland, most notably along Caron Street through Rockland East and a newly constructed pathway along St. Jean Street. Smaller sections of painted bicycle lanes have been implemented on Docteur Corbeil Boulevard, Saint Joseph Street, and Chamberland Street as shown in **Figure 3.10**. The previously mentioned short connecting paths play a key role shortening cycling distance as lower-stress streets connect to higher order bicycle facilities.

The 2018 Commuter Cycling Plan for the United Counties of Prescott & Russell identified county roads within Clarence-Rockland envisioned to have paved shoulders added to the roadway at the next reconstruction. Most have since been implemented and reflected in **Figure 3.10** with the exception of a small stretch of Champlain Road (County Road 8) south of the Village of Bourget, a section of Russell Road (County Road 2) east of Johnston Road, and Joanisse Road (County Road 21) from Baseline Road south to the existing paved shoulders beginning 1.5 km north of Lacroix Road. The new paved shoulders provide internal cycling connections within between the settlement areas, as well as connect to the broader county and Ottawa cycling networks.

Figure 3.9 Existing Pedestrian Facilities in Settlement Areas

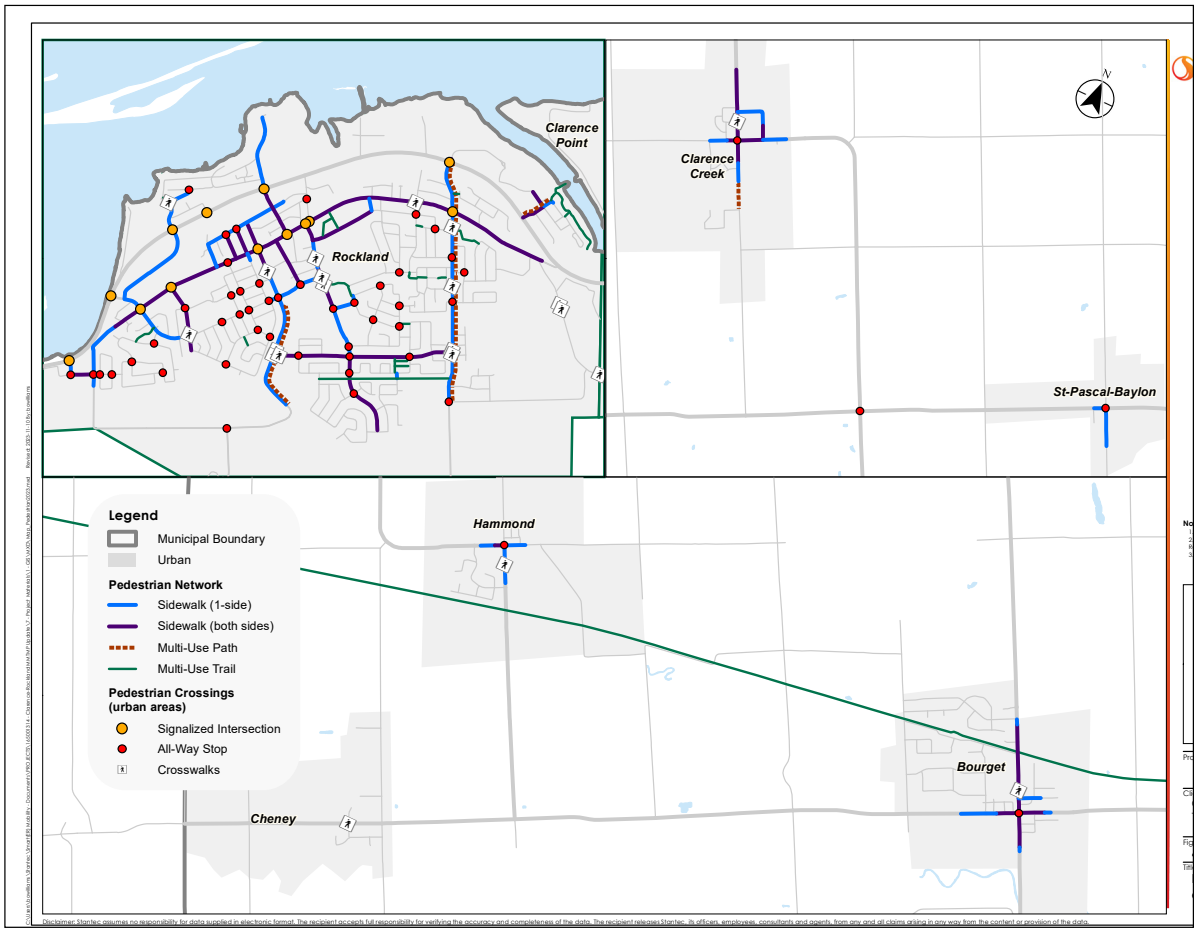
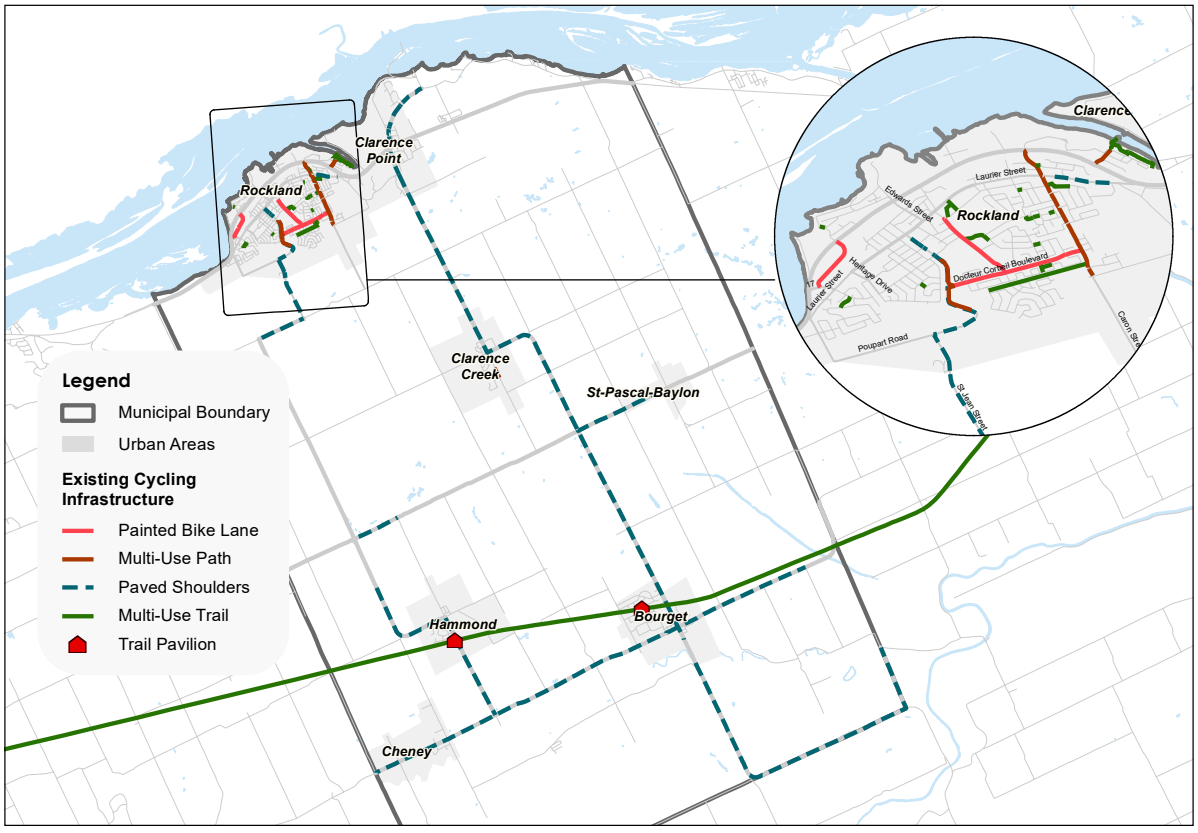


Figure 3.10 Existing Clarence-Rockland Cycling Network



3.3 Travel Characteristics

3.3.1 Commuter Flows

Clarence-Rockland is part of the Ottawa-Gatineau Census Metropolitan Area. As a result, a large percentage of the City's labour force commute to the National Capital Region for employment. While physical office locations in Ottawa and Gatineau still accounted for more than half of outbound commuter trips in 2021, the pandemic has affected lasting change to the traditional office employment arrangement. Nearly 3,000 fewer Clarence-Rockland residents commuted from the City in 2021 compared to 2016, a 39% reduction during that time frame that implies a great increase in telework opportunity.

Table 3.3 Geographic Distribution of Census employment to/from Clarence-Rockland

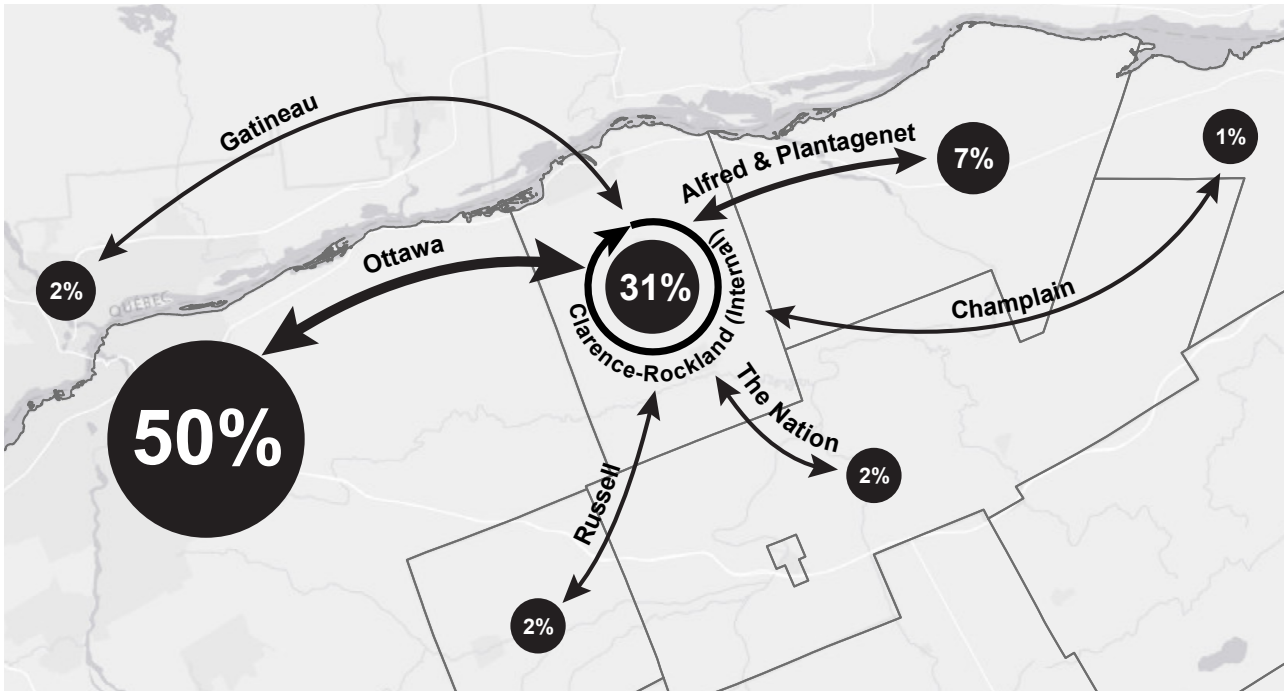
Municipality	C-R Residents employed	%	Change (2016-2021)	External Residents employed in C-R	%	Change (2016-2021)
Internal	2,655	37%	20	2655	65%	20
Ottawa	3,820	53%	(2,685)	570	14%	(50)
Gatineau	135	2%	(295)	45	1%	(40)
Alfred & Plantagenet	145	2%	10	450	11%	(195)
Russell	90	1%	(30)	45	1%	10
Hawkesbury	75	1%	10	40	1%	(10)
Champlain	60	1%	(15)	60	1%	15
The Nation	55	1%	(40)	150	4%	35
Other	230	3%	75	75	2%	35
Total	**7,265**		**(2,950)**	**4,090**		**(180)**

Source: Statistics Canada - Commuter Flows, 2021

In 2021, Clarence-Rockland was a commuting destination for approximately 1,400 people who live in surrounding areas to work in the City. This figure is also lower compared to 2016 data though represents a much smaller reduction percentage (4%). **Table 3.3** details the geographic distribution of the external population who work in Clarence-Rockland as well as the geographic distribution of where Clarence-Rockland residents work.

While still generally considered a bedroom community for Ottawa-Gatineau, that distinction is diminishing as the percentage of Clarence-Rockland residents physically working in those two municipalities has dropped from 68% to 55% in five years. Local residents make up a large majority of employees for local jobs compared to residents of nearby townships, highlighting that there is still a stronger employment pull out of Clarence-Rockland than into

Figure 3.11 Aggregated 2021 Census Commuter Flows to and from Clarence-Rockland



Clarence-Rockland. However, those living and working in Clarence-Rockland comprise the fastest growing commuter flow within the City, suggesting that internal circulation makes up a greater share of local vehicular traffic than in the past.

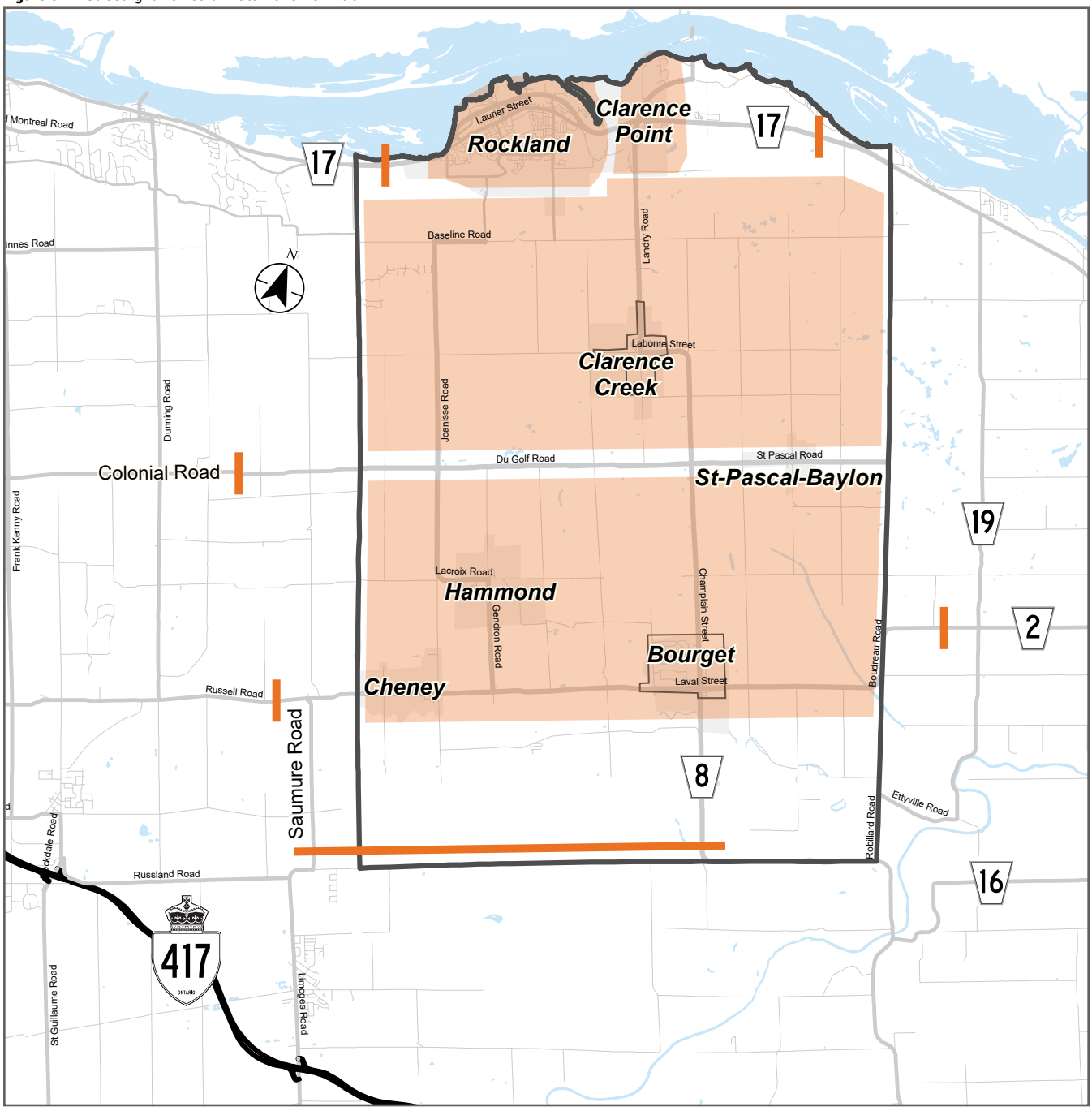
The aggregated commuter flows, including the distribution of where local residents work, and the distribution of where external residents who work in Clarence-Rockland come from, identifies an overall commuting trend where 52% of work-related trips are going to/from Ottawa-Gatineau, 31% live and work within Clarence-Rockland, and 17% of work-related commuter flows are associated with other surrounding areas as visualized in **Figure 3.11**.

3.3.2 Internal-External Automobile Travel

StreetLight Data representing all vehicle trips originating, ending, or passing through Clarence-Rockland strengthen the idea that an increasing amount of vehicular traffic both begins and ends its trip within the City as opposed to simply leaving Clarence-Rockland in the morning and returning during the evening hours.

StreetLight is a big data aggregation service geared toward transportation. Their analytic engine synthesizes hundreds of geolocation and observed data sources into travel patterns. The StreetLight user interface allows

Figure 3.12 Streetlight Vehicular Data Zone Definition



transportation planners to define zones in order to analyze traffic patterns circulating within and passing between each area, Additionally, virtual gates or traffic counters may be placed across select roadways to determine traffic counts, but with the added benefit of origin and destination information for trips passing through the gate.

Table 3.4 Average Daily Vehicle Trips within Clarence-Rockland

	Destination Zone/Gate						
Origin Zone	**Rockland**	**Clarence Point**	**Clarence Creek**	**Rural Clarence**	**Bourget**	**Rural Bourget**	**Total**
Rockland	15,713	846	275	754	463	876	**18,927**
Clarence Point	744	208	27	25	13	41	**1,058**
Clarence Creek	268	25	67	68	30	115	**573**
Rural Clarence Creek	765	27	61	339	45	97	**1,334**
Bourget	448	9	30	44	456	341	**1,328**
Rural Bourget	865	28	108	103	312	1,614	**3,030**
Total	**18,803**	**1,143**	**568**	**1,333**	**1,319**	**3,084**	**26,250**

Source: Streetlight Origin-Destination Data - September 1, 2021 to April 30, 2022

The definition of zones and gates to study general traffic patterns in Clarence-Rockland can be seen in **Figure 3.12**. A major single zone covering the population centre of Rockland was established, along with zones solely housing the settlement areas of Bourget, Clarence Creek, and Clarence Point. Additionally two larger zones were defined to capture acitivty originating in rural areas of the City. Gates were strategically placed to capture the majority of likely traffic in and out of Clarence-Rockland. Gates on Highway 17 capture the majority of east-west traffic entering and leaving the City while supplemental gates are placed on Colonial Road and Russell Road west of the City and on County Road 2 in the east. A large gate was drawn across the southern boundary of Clarence-Rockland that accounts for traffic headed to and from Highway 417 along County Road 8 and Saumure/ Limoges Road.

StreetLight Data yields interesting insights into circulation patterns within Clarence-Rockland. Trips between zones within the City make up more than 45 percent of the nearly 57,000 average daily trips originating in a defined zone or entering the City through a defined gate. **Table 3.4** tabulates the distribution of trips between defined City zones. More than half of this subset are trips originating and ending within the Rockland population centre. Overall, Rockland generates nearly three-quarters of all intra-city vehicle trips. Rockland is also the greatest attractor of trips originating in the Clarence Point, Clarence Creek settlement, and Clarence Creek rural zones.

The Rural Bourget zone, which includes the Hammond and Cheney settlement areas, but not the Village of Bourget itself generates the second largest — approximately 12% — amount of local trips, most again staying within that zone.

Nearly 13,000 trips destined for defined zones within Clarence-Rockland enter the City through a defined gate on an average day, the distribution of which is described in **Table 3.5**. Rockland is the destination of two-thirds of these trips, the vast majority of which utilize Highway 17 to access the City centre. Further, just under half of all externally-generated trips enter Clarence-Rockland via Highway 17 on the west side of Rockland, indicating that the majority of this traffic type remains inextricably linked to the Ottawa population and activity centre. Those coming from outside of Clarence-Rockland destined for Bourget or its surroundings most often make use of Russell Road.

Table 3.5 Average Daily Vehicle Trips originating outside and terminating in Clarence-Rockland

	Destination Zone/Gate						
Origin Zone	**Rockland**	**Clarence Point**	**Clarence Creek**	**Rural Clarence**	**Bourget**	**Rural Bourget**	**Total**
Highway 17 Eastbound	5,699	327	39	117	11	54	**6,247**
Colonial Rd Eastbound	175	25	63	165	85	729	**1,242**
Russell Road EB	60	5	7	45	503	935	**1,555**
Southern Access NB	176	46	21	69	126	73	**511**
County Rd 2 Westbound	31	1	14	12	213	215	**486**
Highway 17 Westbound	2,430	217	67	72	4	22	**2,812**
Total	**8,571**	**621**	**211**	**480**	**942**	**2,028**	**12,853**

Source: Streetlight Origin-Destination Data - September 1, 2021 to April 30, 2022

Table 3.6 Average Daily Vehicle Trips originating within and leaving Clarence-Rockland

	Destination Zone/Gate						
Origin Zone	**Highway 17 Westbound**	**Colonial Rd Westbound**	**Russell Rd Westbound**	**Southern Access SB**	**County Rd 2 Eastbound**	**Highway 17 Eastbound**	**Total**
Rockland	5,454	176	39	259	51	2,675	**8,654**
Clarence Point	336	35	3	48	3	220	**646**
Clarence Creek	49	38	6	20	19	76	**208**
Rural Clarence Creek	106	176	26	30	11	65	**414**
Bourget	12	42	480	146	274	2	**956**
Rural Bourget	41	576	998	62	227	24	**1,928**
Total	**5,998**	**1,043**	**1,552**	**565**	**585**	**3,063**	**12,806**

Source: Streetlight Origin-Destination Data - September 1, 2021 to April 30, 2022

Across the City, comparatively few trips coming to Clarence-Rockland from the outside utilize the wide Southern Access gate intended to capture traffic from any of three interchanges of Highway 417. Likewise, few trips entering the City do so from County Road 2. This indicates that the directness of Highway 17 to Clarence-Rockland from Hawkesbury and points east sufficiently overshadows travel speeds realized via the expressway and other routes.

A similar number of trips originate within the defined zones of Clarence-Rockland that leave the City via one of the defined gates as catalogued in **Table 3.6**. Once again, Rockland generates the supermajority of this class of trip and a similar proportion exits the City via Highway 17 west of the population centre, reinforcing the primary link to the National Capital Region. More than half of trips that originate in Bourget and the surrounding rural areas south of Chemin du Golf that leave Clarence-Rockland each day utilize Russell Road.

Only five percent of daily trips originating within and leaving Clarence-Rockland are generated by the mostly rural area between Rockland and Bourget centered on Clarence Creek.

Trips beginning in Clarence-Rockland destined for locales to the south and east make up less than one-third of all trips leaving the City. Of these trips, County Road 17 eastbound is the dominant route taken.

StreetLight's Top Routes feature analyzes vehicle volume along all roadways originating from a defined set of zones. **Figure 3.14** visualizes route choice of vehicular trips originating in the Rockland and Clarence Point evaluation zones. The graphics reinforce the emphasis on Highway 17 West as a critical transportation link for residents of Clarence-Rockland.

Trips originating, but not remaining within the rural area south of Rockland, including the Clarence Creek settlement area are displayed in **Figure 3.15**. While the diagram makes clear that Rockland and Ottawa are the destinations of most trips generated in this area, hundreds of trips per day from Clarence Creek and surrounding area make their way south along Champlain Road and west along Chemin du Golf.

Figure 3.14 All-Day Trips by Segment Originating in Rockland and Clarence Point

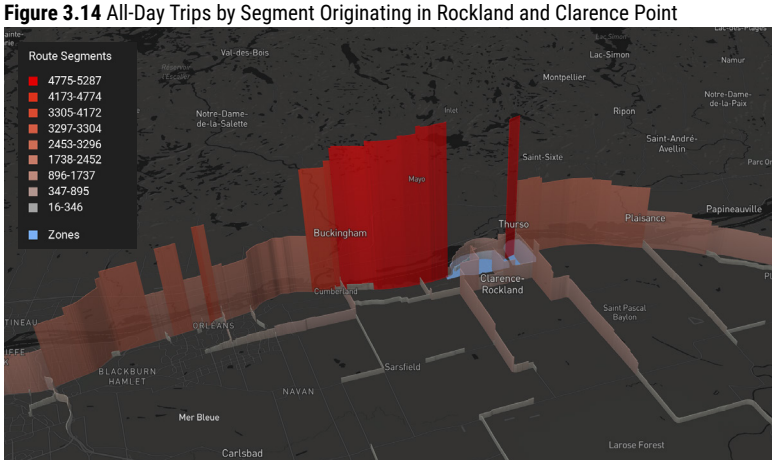
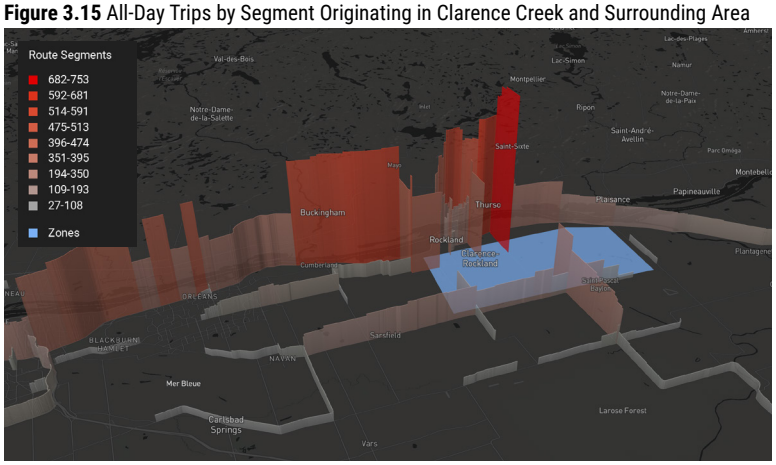
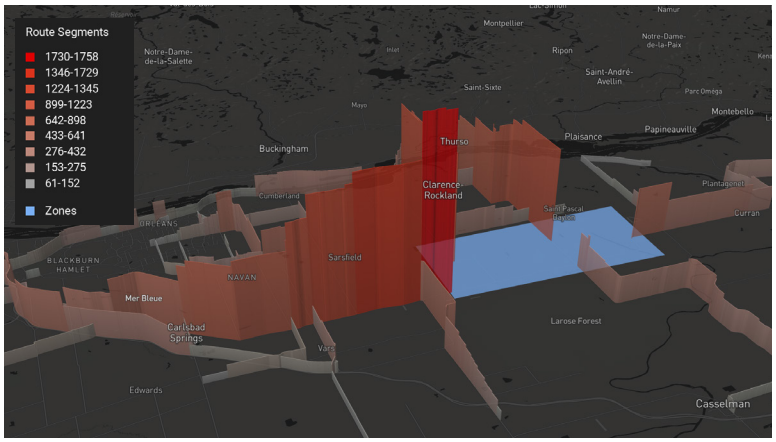


Figure 3.15 All-Day Trips by Segment Originating in Clarence Creek and Surrounding Area



Source: Streetlight Top Route Analysis - September 1, 2021 to April 30, 2022

Figure 3.16 All-Day Trips by Segment Originating in Bourget and Surrounding Area



Source: Streetlight Top Route Analysis - September 1, 2021 to April 30, 2022

Finally, a look at the southern area of the City, the Village of Bourget and surrounding rural areas to the north, west, and east in **Figure 3.16** reveals a significantly different pattern for accessing the National Capital Region. As previously observed in numeric terms in **Table 3.6**, travelers leaving from these areas exceedingly utilise Russell Road to reach Highway 417 and destinations to the west, including Ottawa. The trip volume starting in Bourget and its surroundings that travels west of the City each day is roughly equivalent to one-third of that carried by HIghway 17 west from Rockland.

Figure 3.17 Weekday AM Peak Period Trip Volumes Generated by All Zones

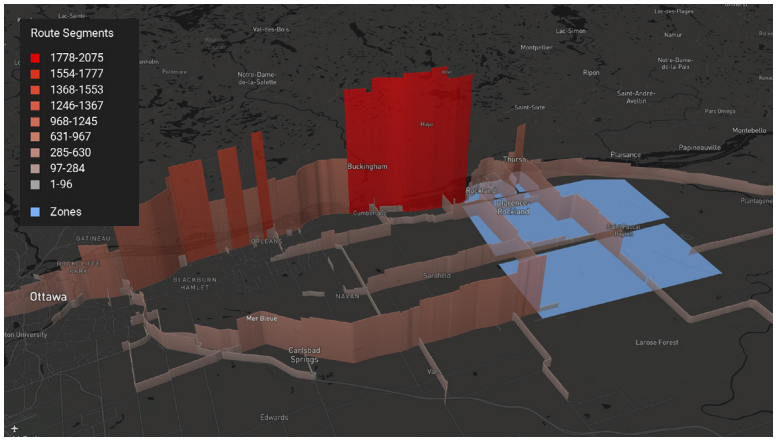
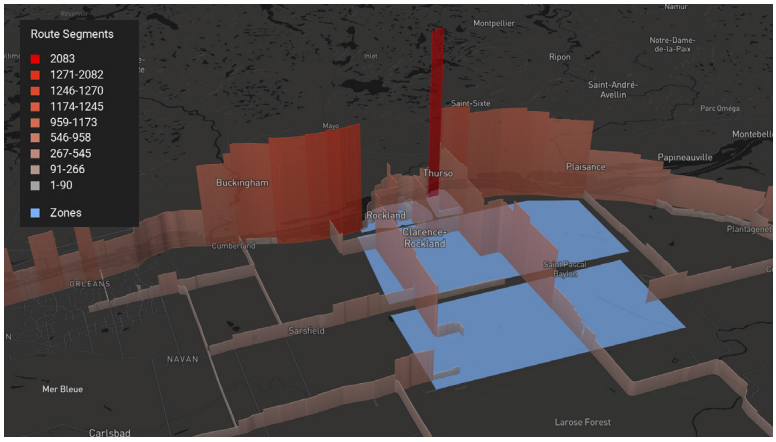


Figure 3.18 Weekday PM Peak Period Trip Volumes Generated by All Zones



Source: Streetlight Top Route Analysis - September 1, 2021 to April 30, 2022

3.3.3 Weekday Peak Period Trip Analysis

Figures 3.17 and **3.18** show the peak period volumes during the AM (6 a.m. to 10 a.m.) and PM (3 p.m. to 7 p.m.) for major corridors within Clarence-Rockland. Aligning with trip distribution data, large volumes of traffic use County Road 17 and Russell Road to travel between the National Capital Region and Clarence-Rockland, as well as service pass-through trip demand from places east of Clarence-Rockland, such as other municipalities within the United Counties of Prescott & Russell. During the PM peak hour specifically, trips beginning in Clarence-Rockland are equally likely to travel east on County Road 17 toward Alfred and Plantagenet as travel west toward Ottawa. This is consistent with commuter flow data from Statistics Canada. There is also some notable traffic volume that utilizes the north-south corridors of Joanisse Road and Champlain Road connecting the City's settlement areas.

Calibrated peak hour volumes on County Road 17 west of Carmen Bergeron Street are substantial with peak directional volumes fluctuating between 778-954 vehicles an hour, suggesting that post-pandemic travel volumes have not yet completely risen to levels experienced prior to 2020. Typically, when a roadway's peak volumes begin reaching between 800-1,000 vehicles an hour the roadway is monitored for the potential need for widening. This, however, is contingent on operations along the corridor. A summary of traffic volumes at key locations, as determined via StreetLight Data at defined data gates, are summarised in **Table 3.8**.

3.3.4 Active Transportation Activity Analysis

It is also important to understand the amount of daily non-motorized transportation activity in the community. While travel distances are certain to be shorter on foot or by bike as opposed to by car, resulting in less inter-zone travel, the amount of alternate mode transportation defines level of need for those users as well as an inclination toward transit use. The investigation into active transportation modes required a redefintion of analysis zones (**Figure 3.19**) focused on the more densely populated areas at the north end of the City. Rockland was separated into two zones for this purpose, divided by the major neighbourhood breaks created by the cluster of schools, community centres, and their associated fields and natural areas.

As expected the vast majority of active transportation trips are short and remain within their zones of origin. Roughly 12,000 pedestrian trips are made within Rockland and Clarence Point on an average day. When considering this total, and comparing it to the roughly 16,000 intrazone vehicular trips, it is important to remember that vehicle trips also begin and end with pedestrian trips. Of the nearly 7,800 trips originating in the Rockland West zone, 93% also terminate within that zone with the remainder terminating in Rockland East. Likewise, 84% of more than 3,800 pedestrian trips starting in the Rockland East zone stay within that zone. Pedestrian volumes are relatively low in the Clarence Point settlement area — approximately 425 daily. Nearly all remain within that analysis zone.

Individual travels classified as cycling trips by StreetLight exhibit a greater propensity to cross between zones as the use of a bicycle generally increases range by a factor of four compared to pedestrian trips of the same time duration. The destination zones of bicycle trips originating in the western zone of Rockland are split 76%-24% between trips that do not leave the zone and those that terminate in Rockland East. That distribution drops to 56%-44% for bicycle trips beginning and ending in Rockland East versus those that end in Rockland West.

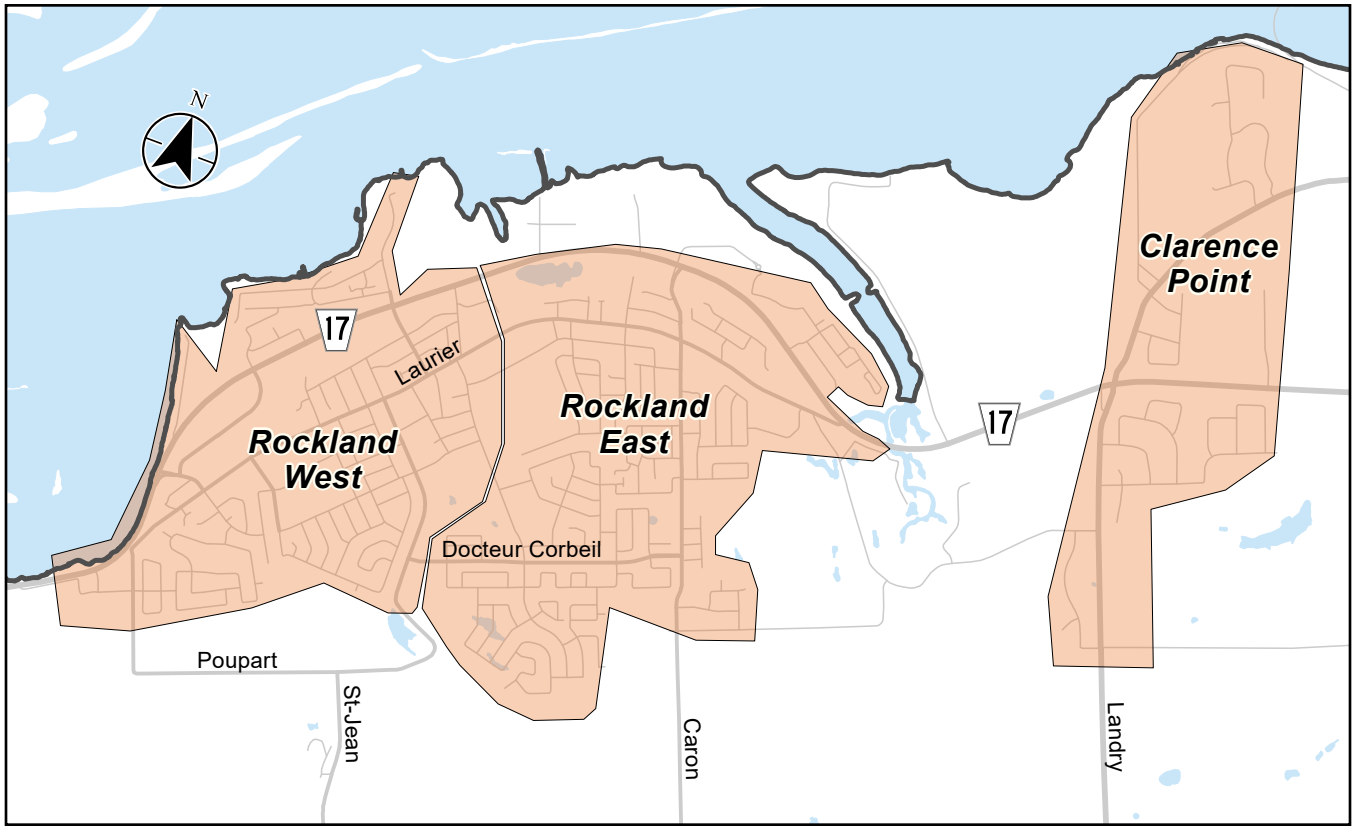
Table 3.8 Weekday AM and PM Peak Hour Roadway Volumes by Direction

Location	Direction	Peak Volume	
		AM	PM
County Road 17 West of Carmen Bergeron Street	Eastbound	310	954
	Westbound	778	482
Colonial Road West of Lafleur Road	Eastbound	44	312
	Westbound	209	123
Russell Road West of Samure Road	Eastbound	63	366
	Westbound	339	119
Saumure Road + County Road 8 North of southern City limit	Northbound	64	79
	Southbound	39	86
County Road 2 West of County Road 19	Eastbound	34	123
	Westbound	107	54
County Road 17 West of Rollin Road	Eastbound	133	538
	Westbound	383	320

Source: Streetlight Origin-Destination Data - September 1, 2021 to April 30, 2022

The Active Transportation data demonstrates a significant level of non-motorized transportation activity in the Rockland urbanized area. Trip distribution levels indicate that commercial services located in the western half of Rockland act as an attractor for local trips and that localized on-demand transit services could supplement this activity, especially in winter months.

Figure 3.19 Streetlight Bicycle and Pedestrian Zone Definition



4.0 Future Conditions

4.1 Historic and Future Growth

In the ten-year period between 2011 and 2021, Clarence-Rockland experienced an annual population growth rate of 1.3% adding approximately 3,300 new residents and accounting for roughly one-third of all growth in the United Counties of Prescott & Russell (UCPR). One of the main reasons for this growth is likely the City's proximity to the National Capital Region, attracting people that prefer a suburban or rural residential setting at a fraction of the cost but still within a reasonable travel distance to the employment opportunities in the NCR. **Table 4.1** shows the historic growth in population in Clarence-Rockland and the surrounding regions.

Table 4.1 Historical Population Growth | 2011-2021

Jurisdiction	2011	2016	2021	Annual Growth (%)
Clarence-Rockland	23,185	24,512	26,505	1.3%
UCPR	85,381	89,333	95,639	1.1%
Ottawa-Gatineau	1,254,919	1,323,783	1,488,307	1.7%

Source: Statistics Canada - Community Profile, 2011, 2016, 2021

The majority of population growth within Clarence-Rockland has been focused in the urban settlement of Rockland which saw an increase of over 2,500 people between 2011 and 2021, accounting for over three-quarters of all population growth in the City during this period as shown in **Table 4.2**.

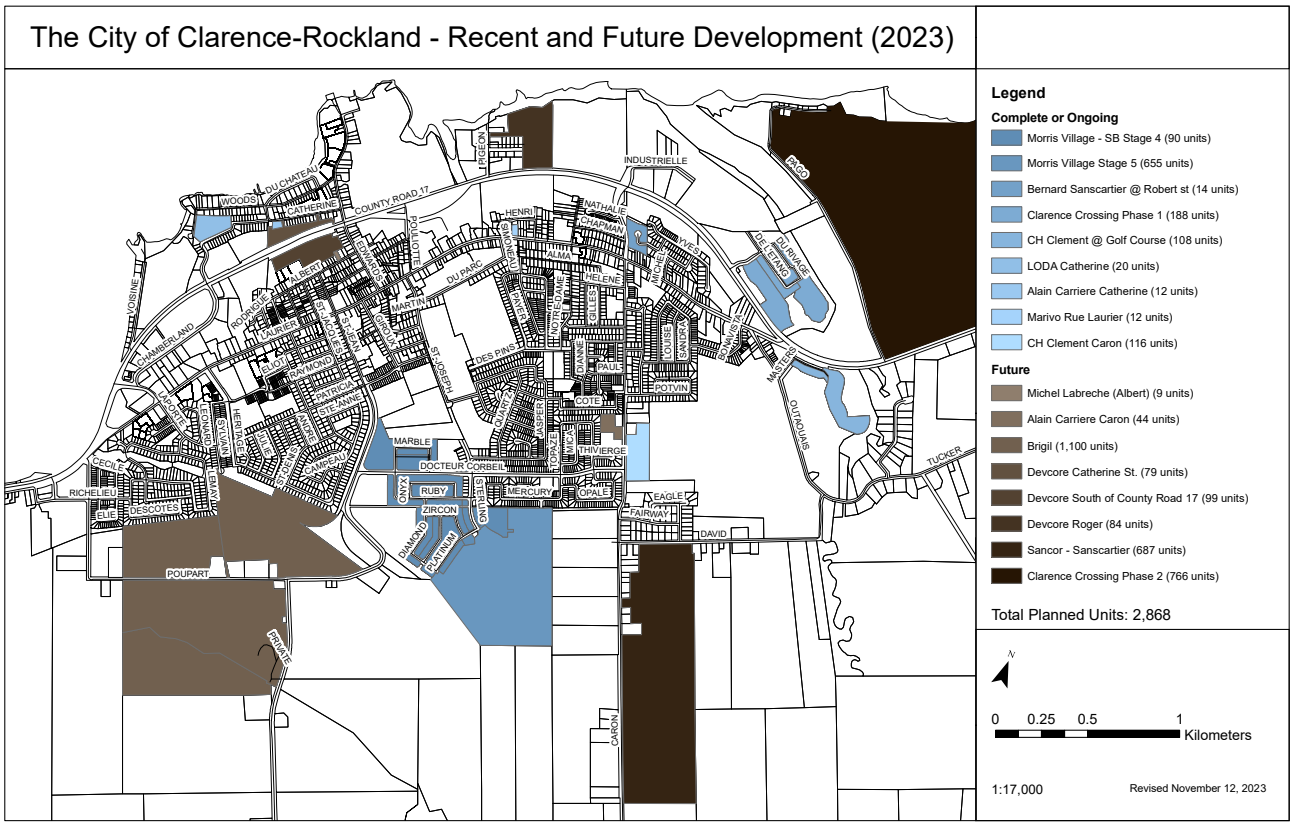
Table 4.2 Historical Population Growth in Clarence-Rockland | 2011-2021

Community	2011	2016	2021	Difference
Rockland	11,099	12,302	13,625	2,526
Bourget	1,080	1,169	1,175	95
Other Areas	11,006	11,041	11,705	699
Total	**23,185**	**24,512**	**26,505**	**3,320**

Source: Statistics Canada - Community Profile, 2011, 2016, 2021

Per the recently updated County Growth Management Strategy, Clarence-Rockland is forecast to experience a 21.6% increase in population over 2021 levels by the year 2036, which would correspond to a total population of approximately 32,230. The prediction of 5,725 additional residents is tempered compared to the forecasts included in

Figure 4.1 Planned and Ongoing Developments in Rockland



Source: City of Clarence-Rockland On-going development 2018 to beyond 2020

the 2019 MMTMP, which saw the City exceeding that resident count by 2031.

In the four years since the release of the MMTMP, many envisioned developments have been constructed, some remain in the pipeline, and other new projects have been added to the anticipated unit count. Over 2,000 units have been constructed or are nearing completion as shown in shades of blue in Figure 4.1. This added population is indicative of strains on the current transportation system that have already been realized over a short period. Several very large development projects remain on the horizon, shaded in brown on the map, totaling over 2,800 additional units that will place further demands on the future transportation system.

Per the recently updated County Growth Management Strategy, most of the growth (73%) in the City is planned to be accommodated through low-rise singles, semis and rowhouses. However, apartments, which can be integrated into mixed-use development, are also anticipated to be a large contributor to the growth of housing units as summarized in **Table 4.3**. Mixed-use developments present an opportunity to bring a mixture of land uses and development types together to promote higher densities, transit-oriented, active transportation, as well as live/work opportunities.

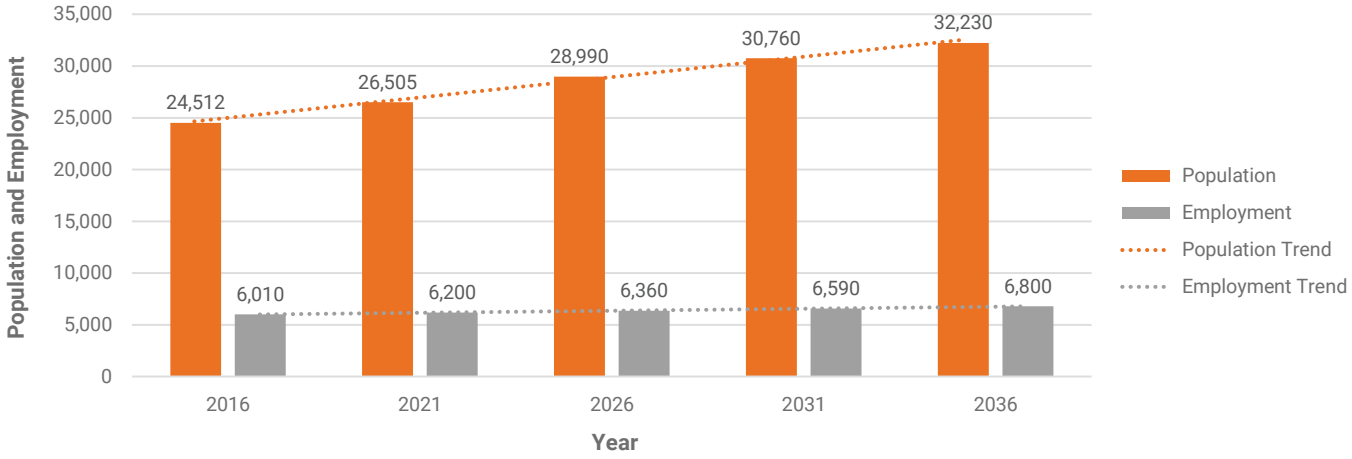
Despite notable growth in population, employment located within the City is expected to grow at a significantly lower rate as visualized in **Figure 4.2** Clarence-Rockland is expected to add approximately 600 new jobs over existing levels by 2036. According to updated poulation, housing, and employment projections for the City of Ottawa, over 100,000 new employment opportunities are expected to be created during that same time frame. If realized, the increased employment pull of the NCR will further the two-way co-dependence of Clarence-Rockland residents seeking to fill those positions and those hired seeking lower-priced housing within commuting distance of Ottawa.

Table 4.3 Forecasted Housing Development in Clarence-Rockland | 2021-2036

	Singles & Semis	Rows	Apts	Total
2021-2026	580	160	280	**1,020**
2026-2031	490	160	220	**870**
2031-2036	380	150	200	**730**
Total	**1450**	**470**	**700**	**2,620**
	55%	**18%**	**27%**	

Source: United Counties of Prescott & Russell - Growth Management Strategy Update, 2022

Figure 4.2 Projected Population & Employment forecasts in Clarence-Rockland by 2036



Source: Statistics Canada - Community Profile, 2016, 2021 | United Counties of Prescott & Russell - Growth Management Strategy Update, 2022

4.2 Planned Network Improvements

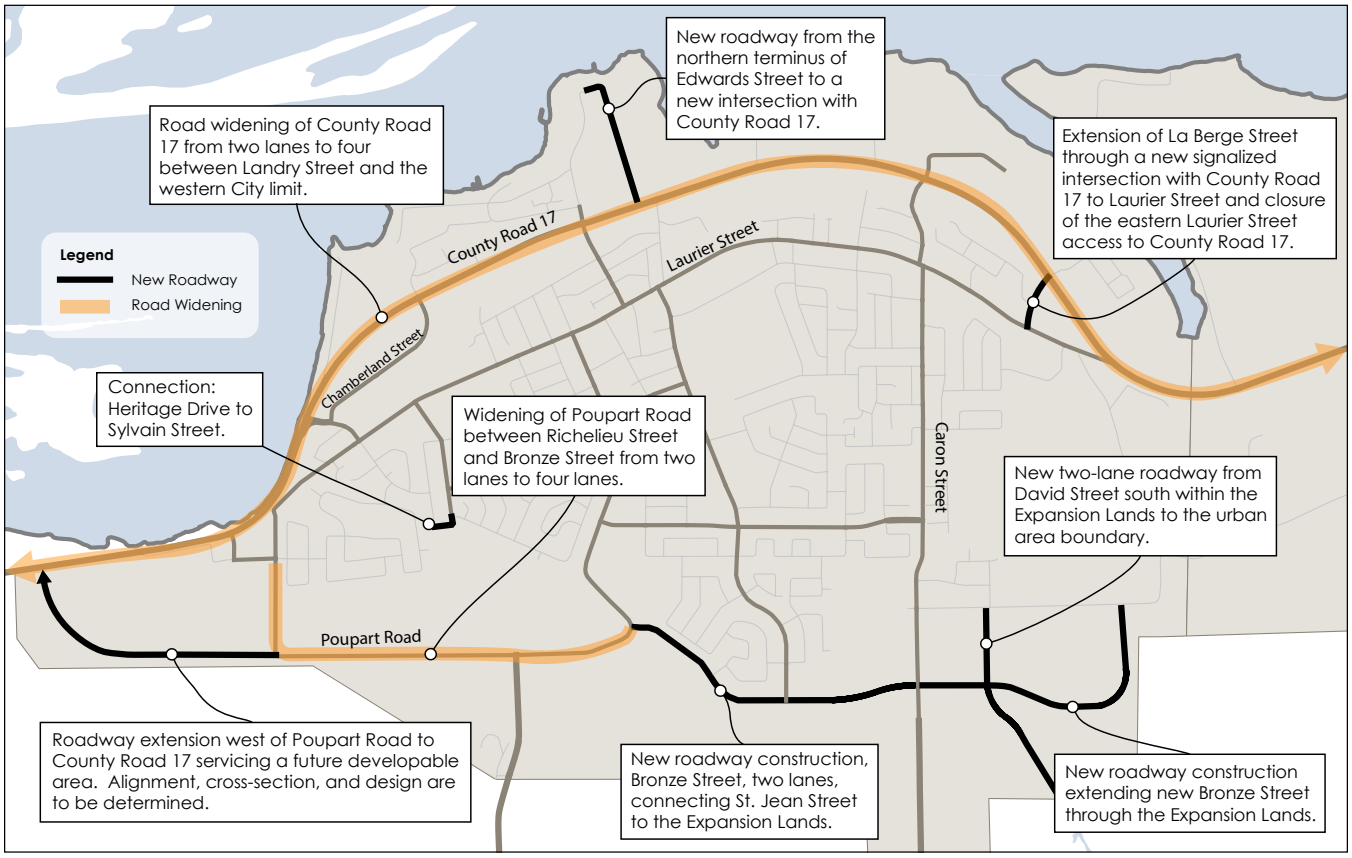
Previously planned transportation improvements from environmental asssessments, secondary plans, and transportation impact studies consolidated in the latest version of the official plan are anticipated to address many of the operational impacts that are identified in the "Do Nothing" scenario including:

- Road widening of County Road 17 from two lanes to four between Landry Street and the western City limit. This will include a multi-use path on the south side of the roadway within the Urban Area as well as paved shoulders east and west of Rockland.

- New roadway construction, Bronze Street, two lanes, connecting St. Jean Street to the Expansion Lands through the Morris Village development. Will include a multiuse pathway on the north side of the roadway and a pedestrian sidewalk on the south side.
- Widening of Poupart Road between Richelieu Street and Bronze Street from two lanes to four lanes. Will include a multi-use pathway on the north side of the roadway.
- New roadway construction connecting Heritage Drive to Sylvain Street at the current southern terminus of each.
- New roadway construction from the northern terminus of Edwards Street to the southeast to a new intersection with County Road 17.
- New roadway construction including sidewalks and painted bike lanes that extends La Berge Street through a new signalized intersection with County Road 17 to Laurier Street. The eastern access to County Road 17 would be closed. Existing stop-control would be replaced with a signalized intersection.
- New roadway construction extending the Morris Village Bronze Street through the Expansion Lands with sidewalks and on-street bicycle lanes between Caron Street and David Street.
- New two-lane roadway construction from David Street south within the Expansion Lands to the urban area boundary.
- Roadway extension west of Poupart Road to County Road 17 servicing a future developable area. Alignment, cross-section, and design are to be determined, but should provide for active transportation users.
- New roundabout intersection control at the intersections of Poupart Road/St. Jean Street, Poupart Road/New West Roadway, and St. Jean Street/Docteur Corbeil Boulevard.
- Intersection control upgrade at Richelieu Street and Poupart Road from existing stop control to a signalized intersection.

Right-of-way creation and modifications are spatially visualized in **Figure 4.6**.

Figure 4.6 Summary of Previously Planned Improvements



Source: Official Plan of the Urban Area of the City of Clarence-Rockland

5.0 Engagement

5.1 Consultation

A consultation program was developed as part of the Master Planning Process, in alignment with Approach #1 of the Municipal Class Environmental Assessment (MCEA), as outlined in Appendix 4 of the October 2000 version (amended in 2007, 2011, 2015, and 2023). This program ensures that the Multimodal Transportation Master Plan Amendment effectively addresses Phases 1 and 2 of the MCEA process. The consultation process engaged a variety of stakeholders, including local residents, municipal staff, and relevant agencies, ensuring that all perspectives were considered. This collaborative approach helps to inform decision-making and align transportation planning with the needs and priorities of the community.

5.1.1 Notice of Study Commencement and Public Meeting

The Notice of Study Commencement and Public Meeting for the Transportation Master Plan was issued via e-mail to agencies, interested persons and groups, and First Nations on February 7, 2025. Advertisements were published in the ***Vision*** newspaper on February 19, 2025 and February 24, 2025. The City also posted the notice on the project website (https://www.clarence-rockland.com/en/hotel-de-ville/transportation-master-plan.aspx#Transportation-Master-Plan-2025) on February 5, 2025. The notice announced the study and its MCEA approach, provided the dates and times for the two public meetings, and informed stakeholders, First Nations, and the public about the purpose and format of the meetings. It also included a link to additional information, including study team member contact information, at the project website.

A copy of the Notice of Study Commencement and Public Meeting and the notification email is included within **Appendix C**.

Table 5.1 Consultation Notification

Distribution Method	Date of Distribution
E-mail electronic copy to study mailing list	February 7, 2025 and February 25, 2025
Published on City website	February 5, 2025
Published locally (Vision newspaper)	February 19, 2025 and February 24, 2025

5.2 Public Meetings

As part of the consultation program, two public meetings were planned. The public meetings aimed to present the study process and gather feedback on its goals and objectives. Discussion covered existing travel conditions and community characteristics, sought community input on transportation infrastructure in the City, shared suggestions from the project team, and outlined the next steps in the master planning process.

5.2.1 Online Meeting

City staff and the study team hosted a live virtual public meeting, attended by seven (7) participants on March 5, 2025. A question and answer period took place at the end of the meeting where interested individuals could pose written or verbal questions to the technical project team. Additionally, participants were directed to comment forms on the City's website where interested persons could submit their input and feedback whether related to challenges and opportunities identified for the MMTMP, evaluation criteria, proposed solutions, or general comments. Online public meeting participants were also encouraged to submit comments, either using the online comment forms, or by email, by March 26, 2025.

5.2.2 In-Person Meeting

City staff also held an in-person public meeting on March 6, 2025 at 1535 Avenue du Parc in Rockland. Nine (9) participants attended and engaged with staff and the project team as they reviewed printed English and French versions of the public meeting displays. Comment forms were printed and available at the in-person public meeting and could be submitted to the project team. Interested individuals were encouraged to contact the project team outside of the meeting via e-mail to ask questions and/or share any ideas with respect to the study. Public meeting participants were also encouraged to submit their comments by March 26, 2025.

5.3 Participation

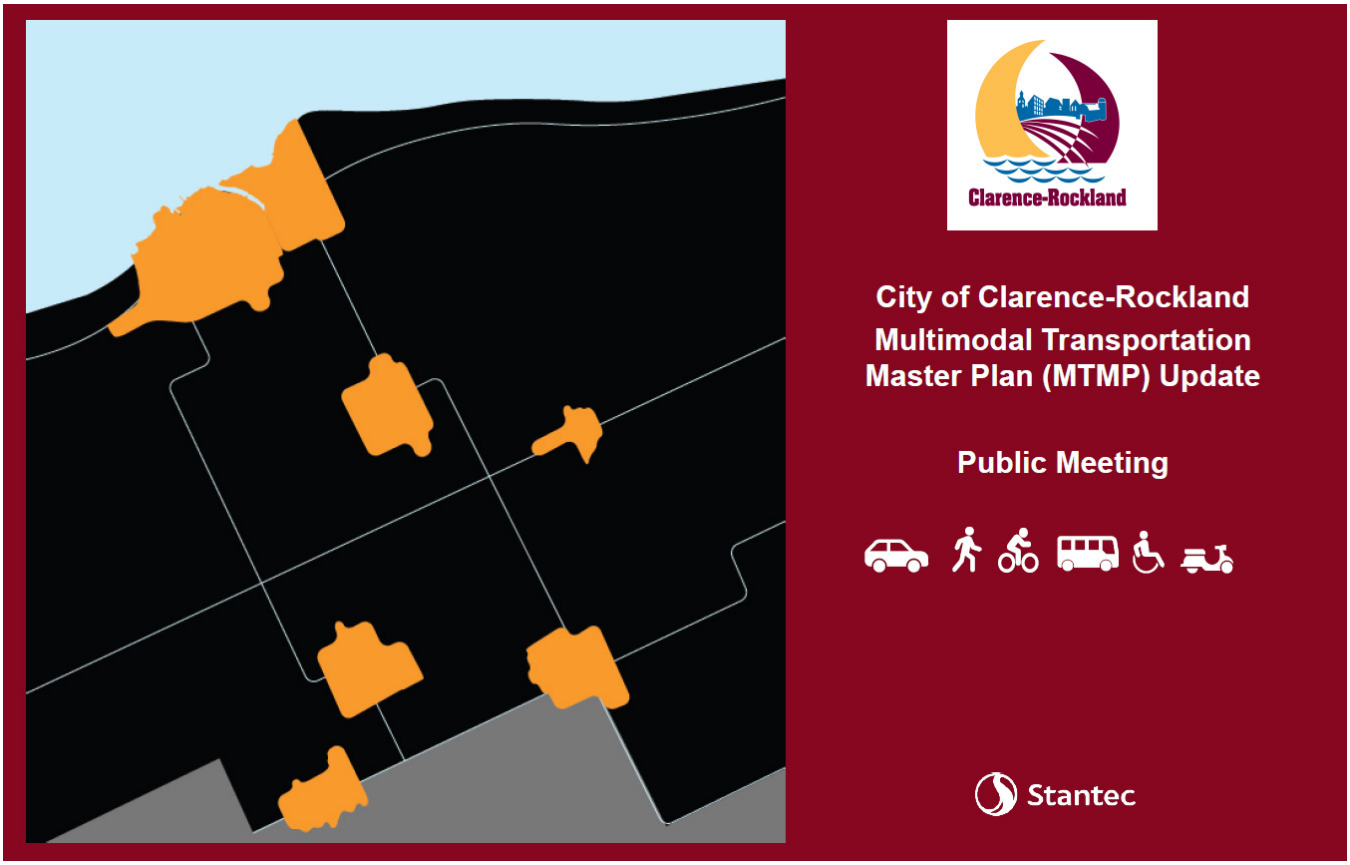
The study team received two (2) completed comment forms. Comments submitted via email and discussion at the online public meeting identified the following themes:

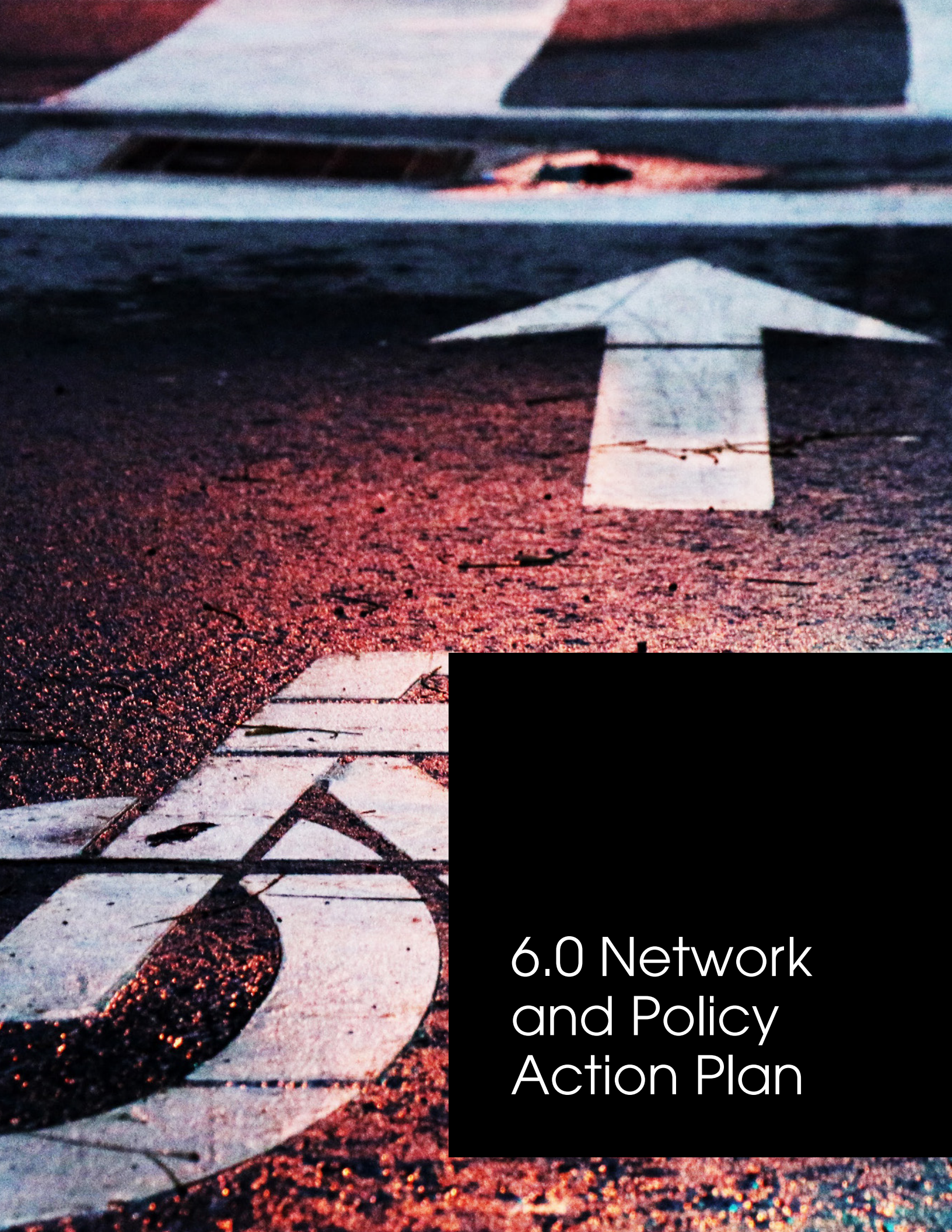
- A need for passing lanes and carpool lots along roadways near Bourget
- Safety concerns related to a need to add lanes to County Road 17
- Request for additional and connected multi-use paths

Appendix C contains a summary table of all received comments.

5.4 Notice of Master Plan

In accordance with the requirements of the Municipal Class Environmental Assessment process, Approach 1, the Multimodal Transportation Master Plan amendment has been completed, which identifies an updated strategic, long-term framework for addressing current and future transportation needs. With the completion of this study, a Notice of Master Plan has been issued, and the MMTMP report is available for public review for a period of 30 calendar days. During this time, stakeholders and members of the public are encouraged to review the document and provide comments or questions related to recommendations and conclusions.





6.0 Network and Policy Action Plan

6.1 Emerging Issues and Opportunities

In planning for the future of the local transportation system as well as immediate capital improvements, the City of Clarence-Rockland's resources are limited. The identified Emerging Issues and Opportunities are intended to guide capital investment and programmatic activities. The manner in which people access and use the transportation system in any locale has been altered by effects of the recent pandemic. While the City cannot plan for all unforeseen future risks, modifications made today will remain part of the transportation system for many years and must be resilient while providing equitable access and mobility options for all users. The needs and opportunities from the 2019 MMTMP have been reassessed against the 2023 analysis of current and future conditions and recharacterized to inform updated recommendations.

6.1.1 Service of New Development

Land use and transportation are inextricably linked. While land development dictates transportation needs, it is also informed by available transportation infrastructure options. Investment trends as well as municipal land use policy and planning reflect that residential development in Clarence-Rockland is on a trajectory toward greater density, which provides both the need and opportunity to incorporate a complete set of transportation infrastructure into new subdivisions.

Subdivision and site plan design guidelines currently cite the Official Plan with respect to the provision of sidewalks. Additional wording can be considered to incorporate facilities for other transportation modes, most commonly cycling, into non-local streets at the outset of new neighbourhood construction.

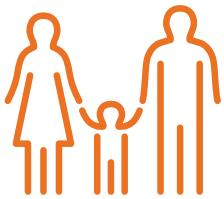
The theme of servicing new land development is an overarching topic that inclusively integrates the potential actions addressing many of the following issues.

6.1.2 Shifting Travel Patterns

Recent commuter flow and vehicular trip data shows that there has been a shift in travel patterns since the creation of the previous MMTMP. The absolute number of residents commuting from the City has decreased at the same time as the proportion of internal versus external commuter trips has significantly changed. Coupled with a realization that nearly half of all vehicular trips stay within the municipal boundary, these findings suggest that a combination of an increased aging population and a greater adoption of telework accelerated by pandemic-era public health requirements have created a new transportation environment that features shorter trips.

Providing suitable infrastructure to match current and future transportation trends is essential to the local multimodal system. An opportunity exists to tailor the system more appropriately to the forecasted increasing older population as well as those travelling locally for shorter distances. As development results in the availability of more services within Clarence-Rockland, a comprehensive set of mobility solutions considering the needs of motorists, pedestrians, cyclists, and potential transit users should be considered to enhance convenience of access while responding to paradigm changes and user preferences.

6.1.3 Neighborhood Internal Active Transportation Connectivity



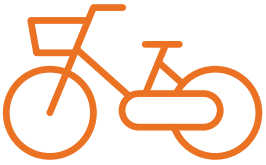
Clarence-Rockland has made recent progress in ensuring that north-south collectors such as St-Jean, St-Joseph/Sterling, and Caron Streets are appointed with active transportation facilities of significant length and a number of crossing enhancements and traffic controls. These facilities however, are generally located along the edges of major neighborhoods and concentrations of community facilities. Additionally, limited pedestrian and bicycle infrastructure in hamlet areas highlights a lack of accessible connections outside of Rockland for active transportation users.

Non-motorized trip data suggests that pedestrian movements within Rockland are largely localized within single residential and commercial areas while cyclists exhibit a desire to cross town, consistent with the expectation of the bicycle as a range extender.

An opportunity exists to add dedicated pedestrian and bicycle infrastructure to encourage internal mobility and connectivity within and across neighbourhoods. East-west multi-use path links within the primary legacy residential areas of Rockland would enhance safety while improving access and promoting greater use of the City's recent investments in a more robust active transportation network.

Similarly, there is an opportunity to prioritize walkability in smaller settlement areas by implementing sidewalks along select facilities throughout new subdivisions to encourage and protect pedestrian movement.

6.1.4 Safe Facilities for Longer Bicycle Trips



Despite recent efforts, the vehicular network continues to dominate as a transportation choice for travelling intermediate distances. Likewise, the network of rural county roads with paved shoulders that accommodate cycling trips outside of Rockland has been greatly expanded, but does not connect to the defined urban area or any of its separated cycling facilities.

An opportunity remains to identify and develop a cycling network that connects trip generators such as community facilities, employment, and residential areas. Within Rockland, a need for an inter-district east-west bicycle corridor persists. Outside of Rockland, enhancement to parts of reletively few roadways can have outsized implications in completing a rural cycling network that provides direct routes to and from all settlement areas.

Facility selection throughout the entire City can be context-specific — based on factors such as vehicular speed, volume, access points, available right-of-way, and surrounding land use.

6.1.5 Making Laurier Street Complete

The City's Official Plan states that the Commercial Core Area, centered on Laurier Street, will continue to be a multi-functional area that serves as a vibrant focal point for the entire City and emphasizes a safe and attractive pedestrian environment. Assessment of the existing facilities network notes that the majority of crosswalk maintenance and/or implementation occurs along this primary corridor.

Laurier Street represents a multi-faceted placemaking opportunity as a potential fully serviced east-west multimodal corridor that enhances safety along the traditional civic and commercial centre of the largest settlement area within the municipality. Bicycle improvements along Laurier would contribute to addressing previously identified issues while connecting recent investments in cycling infrastructure. The addition and upkeep of formal crossings and traffic controls would directly support safety and could also reinforce official City placemaking objectives.

Despite its potential, we acknowledge challenges and constraints related to roadway width. Roadway programming that meets the needs of users of all modes will require trade-offs.

6.1.6 Restoration of Transit Service

As commuter transit service has been indefinitely suspended due to pandemic restrictions and County-operated intermunicipal service ended service in 2022, Clarence-Rockland is no longer served by any form of non-medical public transportation. Additionally, distances between the City's hamlets and its urban area render walking and bicycling as impractical travel modes.

The previous MMTMP presented a transit network and service strategy predicated on the previous level of transit service acting as a baseline for improvements. Based on a 2014 transit feasibility study, those recommendations put forward a on-demand pilot program. Contemporary bicycle data suggests that a Rockland circulator or small on-demand service could meet needs in the community, especially seasonally, though per the earlier idenification of uncertainty among shifting travel patterns, overall transit demand is not fully understood.

There is an opportunity to update the 2014 transit document with a new study and reassess the possibility of on-demand transit within Clarence-Rockland. Due to the discontinuation of transit services, new questions have emerged regarding coverage areas and service types. On-demand transit has the potential to integrate the last mile and first mile as part of a transit trip thanks to its flexible service model with no fixed routes, especially helpful to both younger and older residents who are more likely not to have access to a vehicle.

6.1.7 Formalization of Truck Routes/Restrictions

Large vehicle freight traffic presents concerns related to recurring infrastructure maintenance burden and roadway safety issues for other users on roadways not suited to handle certain vehicle types. The current inventory of truck-restricted roadways however, lacks coherence and selectively includes certain clusters of local streets, but not others.

Revising desired freight routing through Clarence-Rockland offers an opportunity to define preferred truck routes in addition to tabulating the collection of roadways intended to be off-limits to freight vehicles of specific weights and classes.

6.2 Recommended Multimodal Network

This section of the MMTMP Amendment updates the methodology and inclusion decisions for the full set of implementation projects required to achieve the full recommended multimodal transporation network. Updated cost and implementation details follow facility, policy, and strategy recommendations.

Recommended networks support the City's strategic priorities as well as the MMTMP Amendment's vision, goals and metrics. An emphasis remains on the robustness of the network to disruption; whether certain links or entire modes become temporarily unavailable. Connectivity reflects a strong and useful transportation network. By extension, equity is served when connections are created to and through previously unconnected neighbourhoods. Individual projects should contribute to enhanced safety not only for users of the mode it intends to serve, but for all roadway users. The transportation network should allow for convenient access to desired destinations while supporting the integration of newly developed areas within Clarence-Rockland into the greater community.

6.2.1 Active Transportation Network

The City of Clarence-Rockland's Active Transportation network is growing, primarily focused within Rockland. Recomendations of the 2019 MMTMP and this 2024 Amendment attempt to close gaps in that network to provide safe transportation options to residents and visitors that promote ease of access to destinations, support ongoing and future development, and are feasible to implement.

Reassessment of the network and project list of the 2019 MMTMP significantly consolidates the number of active transportation projects from 121 to 75 largely by combining single mode projects such as sidewalks and signed routes into multimodal projects, which directly support neighborhood internal connectivity for all modes. The new recommended network follows citations in the Clarence-Rockland Urban Area Official Plan, the Expansion Lands Secondary Plan, the St-Jean Street / Poupart Road Municipal Environmental Assessment, and the Ottawa Road 174 / County Road 17 Environmental Assessment to augment the expected major active transportation network. Projects derived from these sources are retained in the revised phasing, cost, and evaluation table in **Appendix B**.

Development of the recommended network for this amendment first required an assessment of projects listed in the 2019 MMTMP. Projects completed or superceded since that date were removed. The remaining candidate corridor network was re-evaluated for compatibility with the emerging issues and opportunities identified in Section 6.1. Unnamed projects related to presently unrealized development were also removed due to uncertainty regarding exact locations of future network expansions.

6.2.1.1 Pedestrian Network

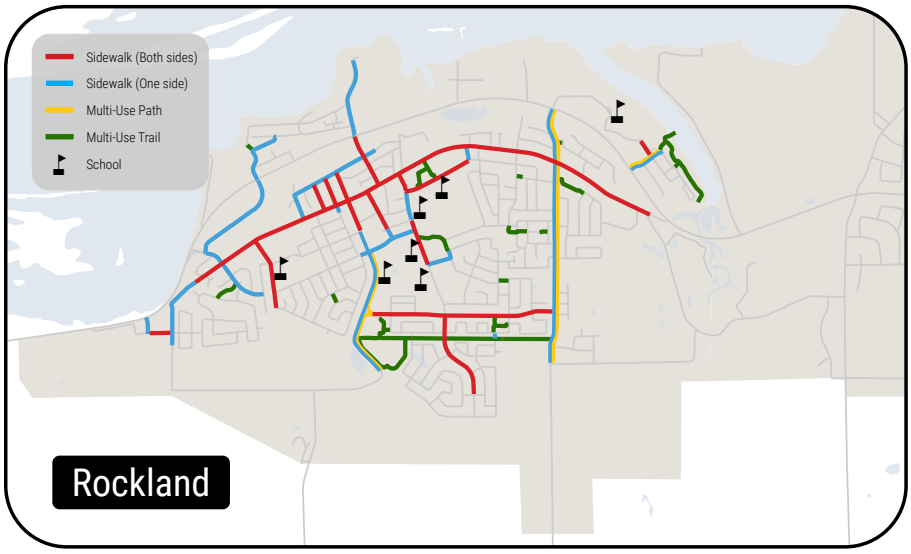
The recommended pedestrian network not only provides separate and safer paths for those traveling on foot, but it can also provide a vital first/last mile link between other complementary modes of transportation. Pedestrian connections are vital to supporting and encouraging use of a future transit service by providing safe and clear access to bus stops. Similarly, sidewalks support local retail and neighbourhood trips, even when automobiles are used to make final endpoint connections to destinations. Nowhere is this more prevalent than along Laurier Street where the sidewalks support and provide a connection to retail, or along Patricia Street where sidewalks provide a key connection to various schools.

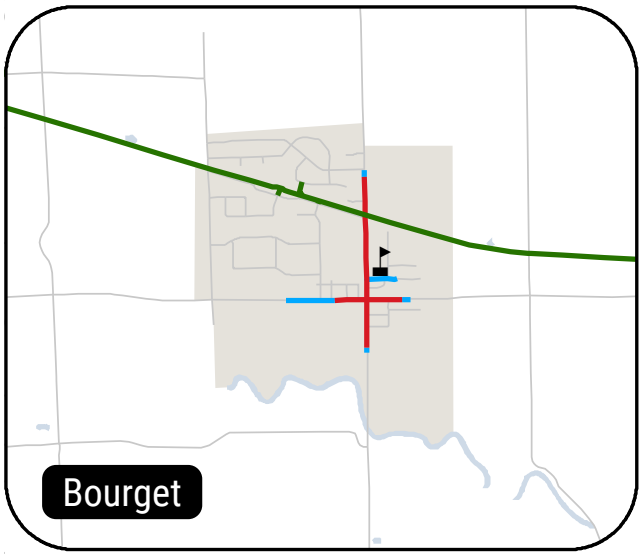
The existing pedestrian network is primarily focused on the Rockland urban area. The recommended network provides

Table 6.1 Aggregated Existing and Future Pedestrian Network Connectivity

Pedestrian Facility	km Existing	km Proposed	Total	Existing Connected Links	Future Connected Links	Change
SIdewalks	38.0	16.7	54.7	42	97	**+55**
Multi-Use Paths	3.5	28.7	32.2	6	61	**+55**
Multi-Use Trails	19.9	5.8	25.7	10	36	**+26**
Total	**61.4**	**51.2**	**112.6**	**58**	**194**	**+136**

Figure 6.1 Existing Pedestrian Network



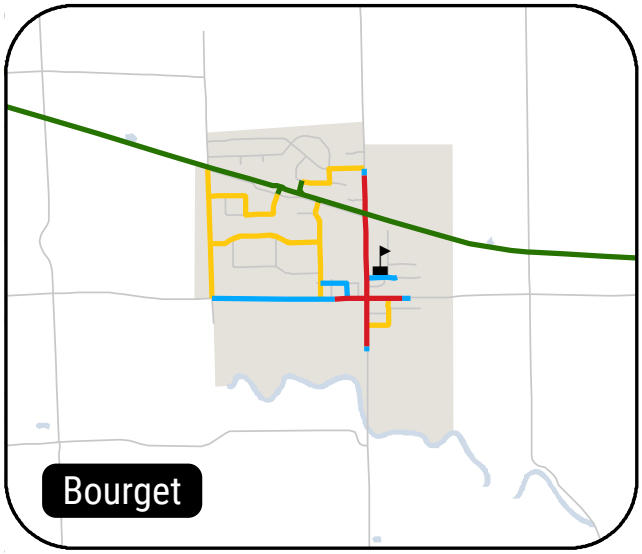


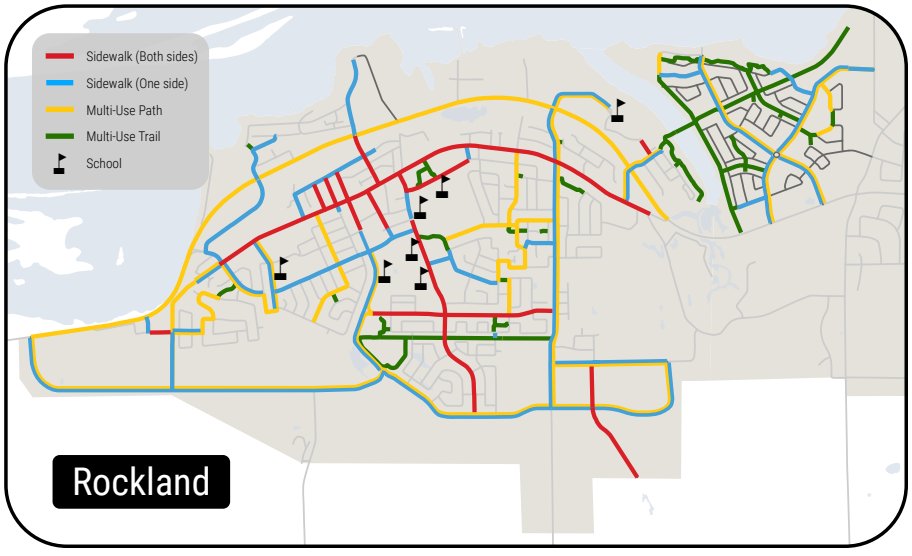
a connected network of walking routes that addresses community connectivity needs. The new network intensifies from within and expands outward to provide connections to schools and other community centres as visualized in **Figure 6.1** and **Figure 6.2**. The new network simplifies and limits the conceptual pathway system proposed in the Bourget Official Plan to links along existing rights-of-way that connect communities to each other as well as to the Prescott-Russell Recreational Trail.

Considering typical amenable walking distances, the network was designed to fill network gaps, particularly within neighbourhoods, and to connect residential areas with retail, community facilities, schools, parks, and the wider transportation network around the periphery of the settlement areas. A connected link is defined as one that connects to two other pedestrian facilities of any type. The revised recommended pedestrian network adds 50.8 kilometres of separated facilities, an increase of 84 percent, but realizes two and a half times the connectivity due to strategic selection of facility locations as summarised in **Table 6.1**.

Rather than retrofit sidewalks on both sides of local streets along with the inclusion of an on-street bicycle improvement, the revised network and project list put forward in this amendment makes greater use of the multi-use path within Rockland and Bourget neighborhoods. Multi-use paths are flexible active transportation infrastructure that serve both pedestrians and cyclists. Compared to a 1.8

Figure 6.2 Recommended 2034 Pedestrian Network





metre wide sidewalk, the suggested 3.0 metre width provides a higher level of comfort and better facilitates passing for groups of pedestrians and those who require greater protection from traffic, often called Designing for All Ages and Abilities (AAA). In addition to a reduction in the number of discrete projects recommended, the implementation of an asphalt multi-use path versus two concrete sidewalks and in-roadway bicycle accommodations results in a capital cost savings of 50% or greater, dependent on the original preferred bicycle facility.

A detailed line-by-line summary of each individual improvement along with their associated costs and associated evaluation scores are provided in **Appendix B** to this amendment.

6.2.1.2 Cycling Network

The recommended cycling network generally focuses on similar objectives and needs as the pedestrian network, including a focus on improving safety, accessibility, creating connections to key trip generators, and integrating the network with other modes of transportation. Non-recreational cycling is typically best suited for 2-5 km trips whereas most walking is typically done for distances of 1.5 km or less. Cycling is complimentary to shorter trips and performs a role in the transportation system between that of walking and other modes.

The updated recommended cycling network comprises a mixture of dedicated and shared cycling infrastructure culminating in a city-wide network of roughly 160 km of facilities. Cycling routes and facility types that are recommended to be added incrementally through the 2034 horizon year are visualized in **Figure 6.3** and **Figure 6.4.**

The targeted nature of the connectivity-focused recommendations increase the length of cycling infrastructure by 94 percent over the existing network, resulting in over eleven times the number of connected transportation links for cyclists.

Recommendations for paved shoulders along rural roads, which leverage planned improvements at the County level, comprise the bulk of added route length. These facilities provide connections between each of Clarence-Rockland's settlement areas and create a more dynamic integration with the Prescott-Russell Recreational Trail.

Within Rockland a network of cycling infrastructure is planned to support existing and new neighbourhoods. The backbone of the system consists of multi-use paths and painted bike lanes along existing, under construction, and proposed arterial and collector roads to provide high-quality connections between neighborhoods and destinations across the urban area. Within existing residential areas in Rockland and Bourget, a more finely grained multi-use path network is planned to align with important pedestrian corridors. These interior networks provide a flexible solution to providing access to the spines of the longer-distance network while addressing combined needs.

A detailed line-by-line summary of each individual improvement along with their associated costs and associated evaluation scores are provided in **Appendix B** to this amendment.

Bicycle Facility Selection

Research shows that one of the most effective measures for improving overall cyclist safety within a road network is increasing the number of cyclists using the system. However, in order to encourage cyclists of different ages and abilities to participate, a variety of bicycle facilities with different degrees of separation between motorists and cyclists must be available. Separation of cyclists and motor vehicles becomes increasingly more important as traffic

Table 6.2 Aggregated Existing and Future Bicycle Network Connectivity

Pedestrian Facility	Route km Existing	Route km Added	Total	Existing Connected Links	Future Connected Links	Change
Painted Bicycle Lane	3.2	6.6	9.8	3	22	**+19**
Protected Bicycle Lane	N/A	1.0	1.0	N/A	4	**+4**
Multi-Use Paths	3.5	28.7	32.2	4	62	**+58**
Multi-Use Trails	19.9	5.8	24.7	6	32	**+26**
Signed Route	N/A	0.6	0.6	N/A	3	**+3**
Paved Shoulders	56.8	35.1	91.9	3	23	**+20**
Total	**83.4**	**77.8**	**161.2**	**16**	**146**	**+130**

Figure 6.3 Existing Cycling Network

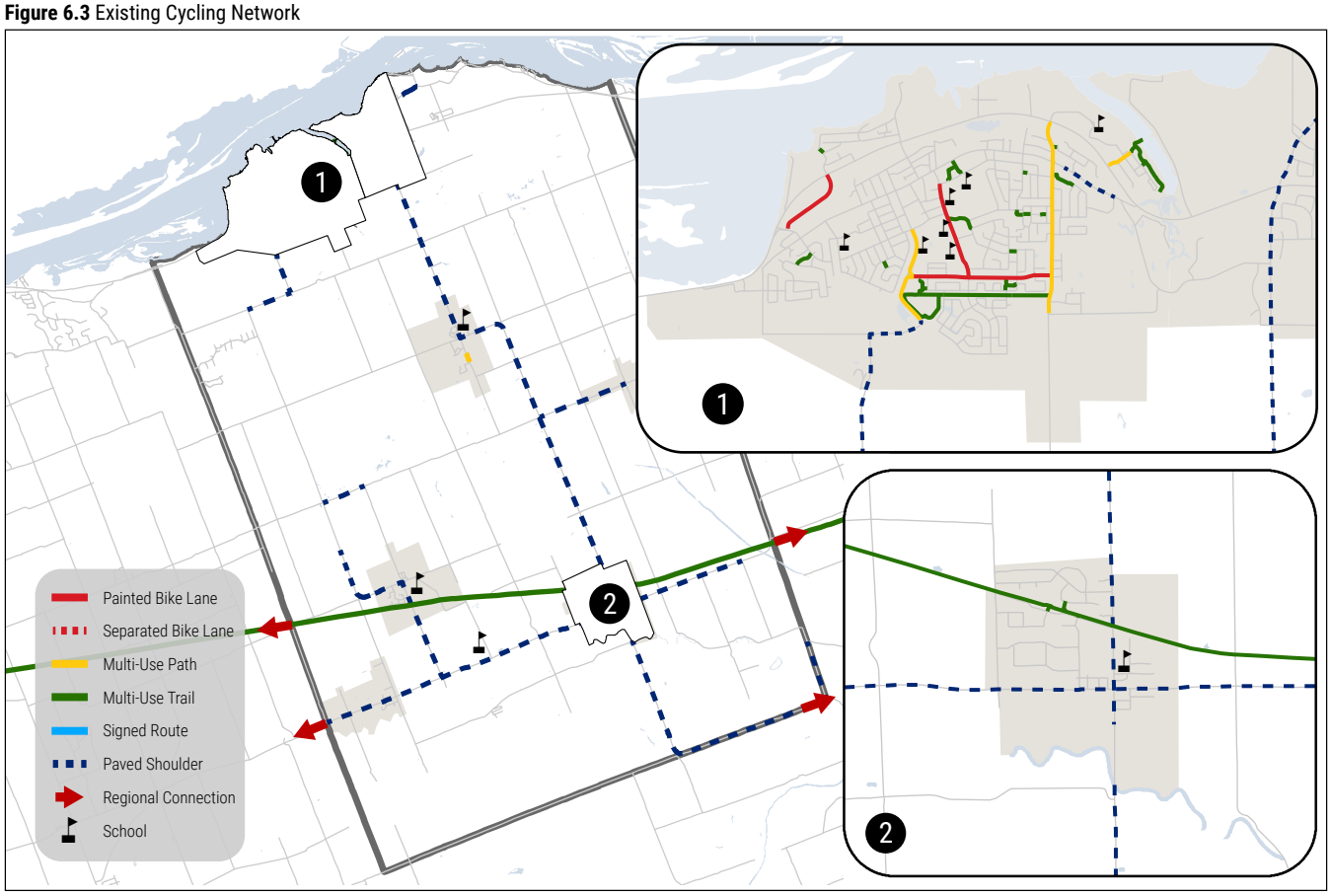
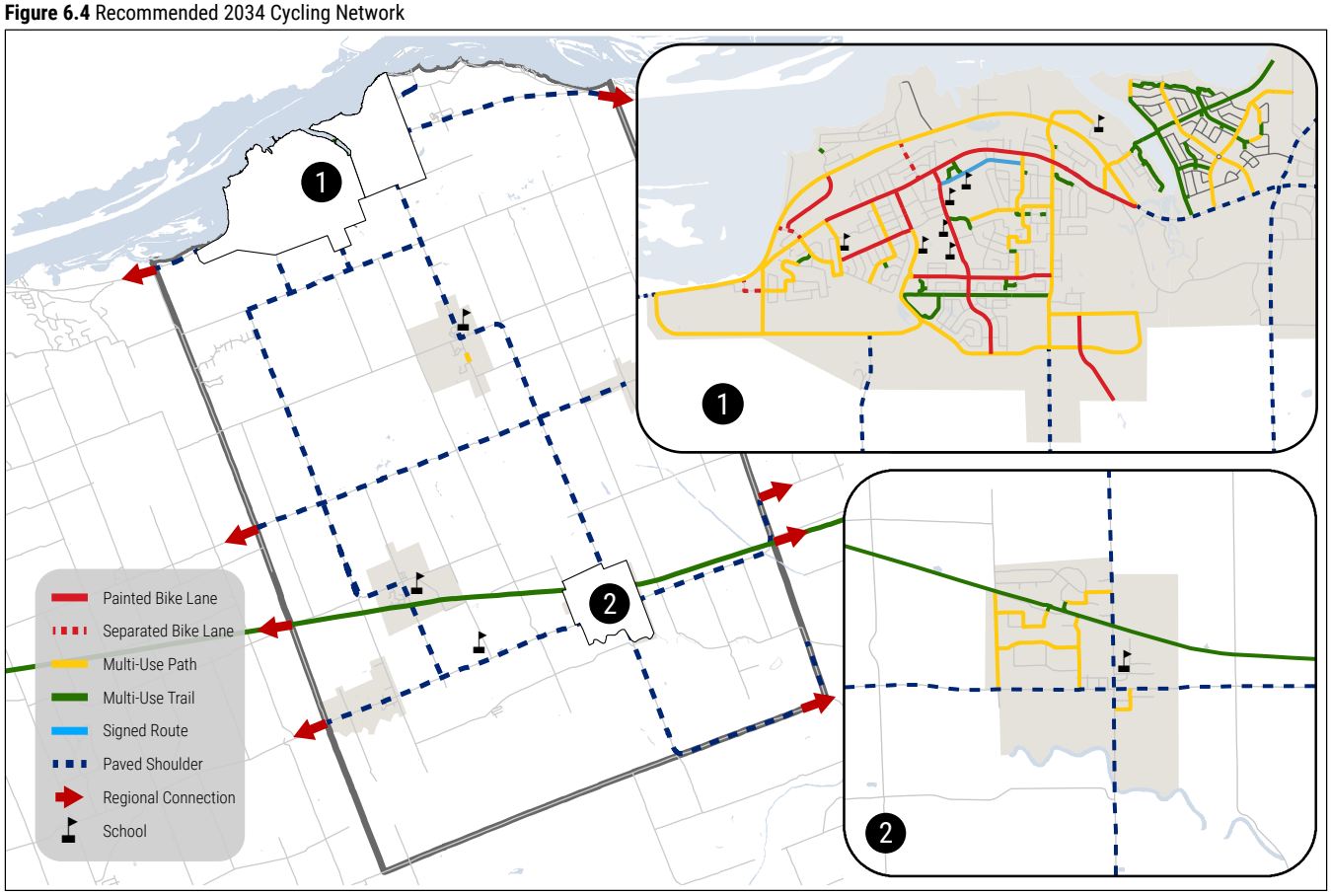


Figure 6.4 Recommended 2034 Cycling Network



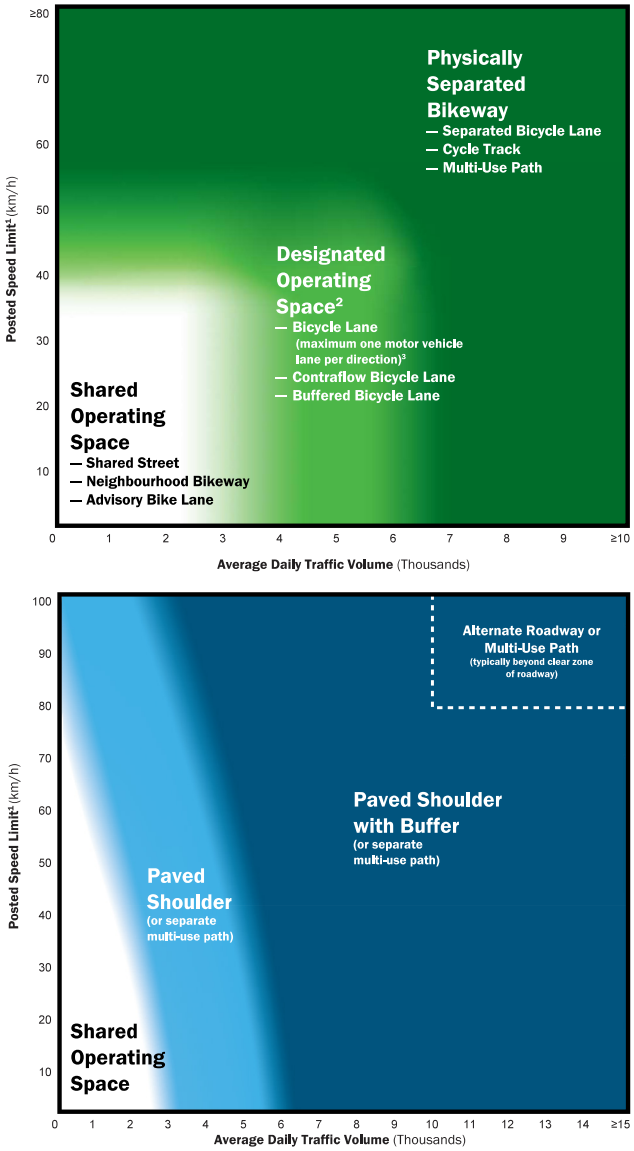
volumes and operating speeds increase, and on corridors with a high propensity for conflicts.

The identification and selection of a specific cycling facility type is directly influenced by roadway:

- Vehicular Speed;
- Vehicular Volume;
- Vehicular Access Point Count and Location; and
- On-street Parking Availability

The level of separation between cyclists and motorists ranges from shared travel lanes with no separation to off-road multi-use pathways outside of the roadway right-of-way. Intermediate alternatives vary from bicycle lanes with a painted buffer or physical barrier to in-boulevard bicycle facilities within the right-of-way.

Figure 6.5 Cycling Facility Selection Nomograph



Source: Ontario Traffic Manual Book 18

A direct comparison of the relative safety of various bicycle facilities is not limited to the degree of separation from vehicular travel lanes. A bicycle facility with greater separation may appear 'safer,' but may result in more conflicts at intersections and driveways, especially if the cyclist becomes less visible to the motorist due to the separation. The overarching selection of a cycling facility type follows a 3-step process:

Step 1: Facility Pre-Selection: Pre-select an appropriate facility type based on vehicular volume and speed using the context-appropriate nomograph from the Ontario Traffic Manual Book 18 as shown in **Figure 6.5**.

Step 2: Consider corridor specific characteristics: Consider design characteristics such as visibility of cyclists, number of driveways, and whether on-street parking is provided.

Step 3: Justify Decision and Identify Design Enhancements: Document the rationale.

Six common in-right-of-way bicycle facility types providing varying degrees of traffic separation are summarized in **Table 6.3** along with their associated geometric requirements. These facility types are grouped and further described on the following pages.

Table 6.3 Desired and Minimum Standards for Cycling Facilities

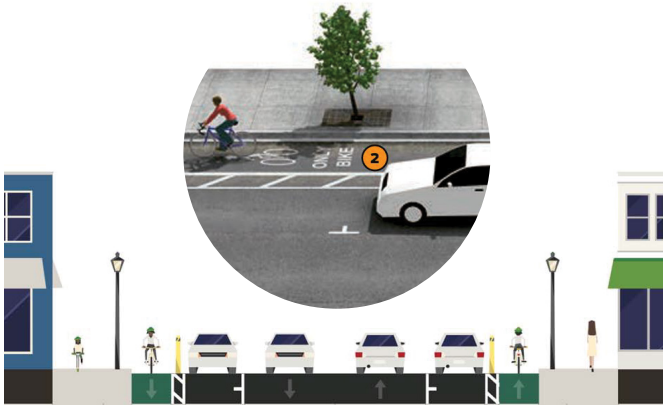
Facility	Desired Width	Minimum Width
Painted Bicycle Lane	▸ 1.8m lane ▸ 1.0m buffer	▸ 1.5m lane ▸ 0.6m buffer
Separated Bicycle Lane	▸ 1.8m lane ▸ 1.0m buffer	▸ 1.5m lane ▸ 0.3m buffer
Raised Two-Way Cycle Tracks	▸ 3.5 — 4.0m travel area	▸ 3.0m travel area ▸ 0.3m curb
Multi-Use Path	▸ 3.5m — 4.0m travel area ▸ 1.5 — 2.5m buffer	▸ 3.0m travel area ▸ 0.6m buffer
Paved Shoulder	▸ 1.5 — 2.0m shoulder	▸ 1.2m shoulder
Signed Route	▸ 3.0 — 4.0m shared lane	▸ 2.7m shared lane

Source: Ontario Traffic Manual Book 18

Bicycle Lanes

Painted Bicycle Lanes:

Painted bike lanes are appropriate to service areas with high trip generation, but that feature lower traffic volumes and fewer roadway conflicts such as parked vehicles or pick-up & drop-off activity. Lanes are directly painted on the roadway and accompanied by associated on-pavement and mounted signage. According to the Ontario Traffic Manual, Book 18, the opening of vehicle doors and alighting passengers both pose a significant threat to the safety of people riding bikes, and as such, facility design should guide people riding bikes to travel outside of the door zone.



Separated Bike Lanes:

Bicycle lanes separated from adjacent motor vehicle lanes by a horizontal buffer plus vertical elements such as flex bollards or a barrier are meant for roadways with a large number of trip generators, high volumes of traffic and on-street parking to provide an additional layer of safety for cyclists. The added lateral and physical separation provides most cyclists with a more comfortable riding environment and mitigates the potential for door strikes from parked or stopped vehicles.

Shared Cycling Facilities

Paved Shoulders:

Paved Shoulders are meant for rural areas with low cycling volumes. The shoulder is paved to allow for cyclists to travel separated from traffic when the shoulder is not being used for other purposes. Paved shoulders provide an opportunity to connect Rockland with rural areas and hamlets for cyclists.

Signed Routes:

Signed routes are shared roadway facilities recommended on low-volume roadways that have been optimized for bicycle travel and either connect to higher-order cycling facilities or create a low-stress route for cyclists parallel to a heavily travel vehicular route. Pavement markings and signage alert motorists to share the lane.

Physically Separated Bikeways

Cycle Tracks:

A cycle track is a physically separated bikeway that is horizontally and vertically separated from the travelled portion of the roadway by a curb and buffer to provide a much safer cycling environment along roadways with high motor vehicle speeds and volumes. Cycle tracks are designated exclusively for use by people riding bikes, often travel parallel to a sidewalk, and can carry one-way or two-way bicycle traffic.

Multi-Use Paths:

Multi-use paths are shared pathways that can be used by pedestrians and cyclists that are horizontally and vertically separated from traffic by a curb and planting strip or tree lawn. Multi-use paths are suitable for roadways with moderate-to-high motor vehicle speeds and volumes, allow for two-way movement, and are often also used as mid-block connections within and between parks and recreational areas.

6.2.1.3 Transit Network & Service Strategy

The suspension of commuter and countywide on-demand transit services as summarized in **Section 3.2.3** of this document has created a need for a new baseline assessment of the viability of transit in Clarence-Rockland. A 2014 study of the feasibility of enhanced transit across the City formed the backbone of transit network recommendations in the 2019 MMTMP. Recommendations of prior studies intended to complement the existing transit system as understood at those points in time.

The Transit Feasibility study stated that a fixed route service was not recommended for the City in the short-term, given the anticipated low demand and high costs. However, an on-demand transit service was recommended as a pilot project to further evaluate the demand for transit, to confirm resident support for the service, and to test service design and delivery options. Long-term recommendations encouraged a reevaluation of the infeasibility of local fixed route service as the socio-economics and physical distribution of developed destinations evolves.

A new transit feasibility study should be conducted that seeks to establish a new appropriate service type, optimal physical coverage area(s), meaningful extermal connections, mutual reinforcement of the active transportation network, and fundamental operational considerations.

Viable Service Type and Coverage Area

An updated examination of the viability of public transportation services in Clarence-Rockland should validate the understanding of ridership generators, attractors, and intermediate travel patterns within the City to determine suitable service coverage, and by extension, service type. Observed travel demand data suggests transit demand for the following dominant movements:

- **Classic commutes to/from Ottawa**
- **Cross-district trips within Rockland**
- **Connections between settlement areas**

Assumptions regarding demand and operational costs steer initial discussion of potential local services toward on-demand delivery models.

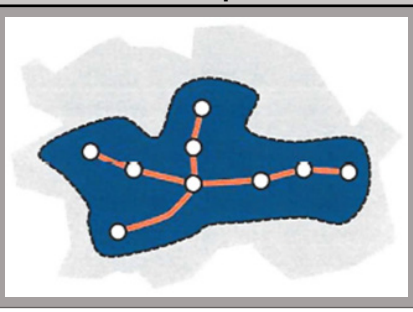
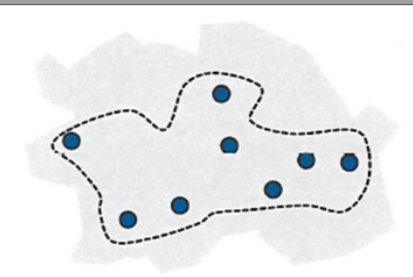
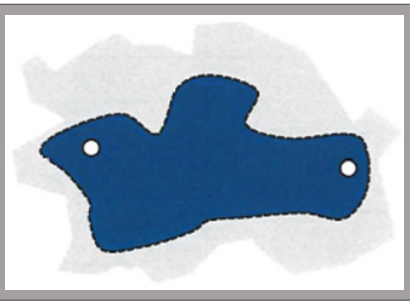
Flexible transit services comprise a family of transit services that have some combination of flexible routing and scheduling. They are typically implemented in areas where the travel demand is less than what is required to sustain a form of fixed route transit. Three potential Flexible route options that are typically used include:

- Route Deviation;
- Point Deviation; and
- Zone Route.

Each service model makes use of dispatching technology to offer a demand-responsive service. The origin, destination and routing of trips depends on the travel needs of passengers. The delivery methods rely on dynamic scheduling, which requires hands-on management of the complex logistical process of receiving calls, organizing rides, verifying fare payment, and dispatching vehicles via flexible mobility service software.

The success of similar systems across Canada stems from the lower capital costs required to implement the service in relation to lower anticipated ridership.

Table 6.4 Flexible Transit Route Options

Flexible Route Type	Example
Route Deviation: A defined path and schedule is used to define a service area, but the vehicle(s) may serve requests for a pick-up or drop-off within a specified zone around the path. The deviation-zone may or may not be strictly bounded	
Point Deviation: Service is provided within a defined zone with a set of specific stops, but the path between the stops is unspecified and the vehicle will serve locations within the zone on request.	
Zone Route: A primarily demand-responsive service that has set departure and arrival times at its end points. The Zone Route is effective when there is not a defined corridor to travel, but a specific origin or destination exists with an area.	

External Links

As the City of Ottawa's O-Train East extension project nears completion, reaching Trim Road, the expansions presents an opportunity to reimagine commuter transit service for residents of Clarence-Rockland. The Confederation Line's eastern-most station will sit 12 kilometres from Clarence-Rockland's western boundary and less than 16 kilometres from the centre of Rockland. New transit service can integrate into the OC Transpo network via shuttle service rather than long-haul coach bus, potentially allowing for increase frequencies and service spans compared to typical peak period commuter service.

Active Transportation Integration

The local active transportation network supports transit usage. If local transit service is reinstated in the future, it will be important to integrate transit services with key multimodal connections. Establishmentof one or more mobility hubs at strategic locations creates an opportunity to efficiently leverage a mixture of transit rider, pedestrian, cyclist, and motorist amenities and shared mobility options to encourage balance in the City's transportation system.

Service Standards and Contracting

As Clarence-Rockland considers commencing a new project to study the feasibility of reintroducing transit service, the City should include operational aspects of providing service in its scope of work. An updated study should recommend a business model to prepare decision makers to take greater control over the design and delivery of local transit services.

Clarence-Rockland should investigate a performance-based contracting strategy among other evaluated options with the continual goal in mind of providing the highest possible quality of service delivered in a fiscally responsible manner. Operational achievement standards establish expectations within the relationship between the City of Clarence-Rockland and its service contractor. Future study should analyze the likelihood that a chosen service model can follow through on high standards related to reliability, on-time performance, customer feedback, roadway safety, and fleet durability per the terms of any financial agreement.

Related to both service standards and performance-based contracting, detailed study should also cover elements required to provide a robust customer experience from vehicle cleanliness to ride booking technology to the customer service interface. The guidance included in a transit feasibility study update should be adequately comprehensive for Clarence-Rockland to successfully plan, operate, and maintain a future transit service.

6.2.2 Vehicular Network

The recommended vehicular network comprises a mixture of new roadways, extensions, widenings, intersection improvements, and classification updates to realize multimodal connections between existing neighbourhoods and to accommodate new growth within Rockland.

6.2.2.1 Physical Modifications

The Municipal Environmental Assessment for the St-Jean Street/Poupart Road corridor is in the process of selecting detailed preferred alternatives for improvements previously identified in the Morris Village Traffic Impact Study. These include the widening of roadway sections as well as the inclusion of mutiple roundabout intersections to accommodate an influx of new residential property that is planned adjacent to the corridor. Future network effects of growth along Poupart Road will require the creation of a new major corridor linking it to County Road 17 at the western edge of the current urban area boundary.

Clarence-Rockland should continue to anticipate the widening of County Road 17 between the western municipal boundary and Landry Road. While the corridor is outside of City control under the jurisdiction of the United Counties of Prescott & Russell, an Environmental Assessment for the corridor was completed in 2016 that solidified this recommendation.

This amendment retains recommendations to complete several local street extensions listed in the Official Plan such as the linking of Heritage Drive to Sylvain Street.

The 2019 MMTMP recommended closure of Laurier Street at its eastern intersection with County Road 17, citing difficulties for eastbound right-turning vehicles onto Laurier Street as well as challenging sightlines for vehicles exiting Laurier Street onto County Road 17. The overall recommendation would extend La Berge Street to meet Laurier Street at a point further west. This amendment suggests a reassessment of that closure while retaining plans for the La Berge Street extension and a reconfigured, likely signalized, intersection with County Road 17. A hybrid approach preserves network connectivity to the east while mitigating stated safety concerns and providing direct access to Rockland's core for existing and future residential properties north of the busy arterial roadway.

Additionally, the 2019 MMTMP assessed the following intersections as candidates for traffic control enhancements:

- Richelieu Street at Carmen Bergeron Street and at Poupart Road. The existing intersections are four-way stops, which may require signalization in the future to accommodate additional traffic
- Baseline Road at Caron Street and at Landry Street. The existing intersections are two-way stops that may require enhancements in the future to accommodate higher volumes of left turns.

Figure 6.6 Recommended Road Network Improvements

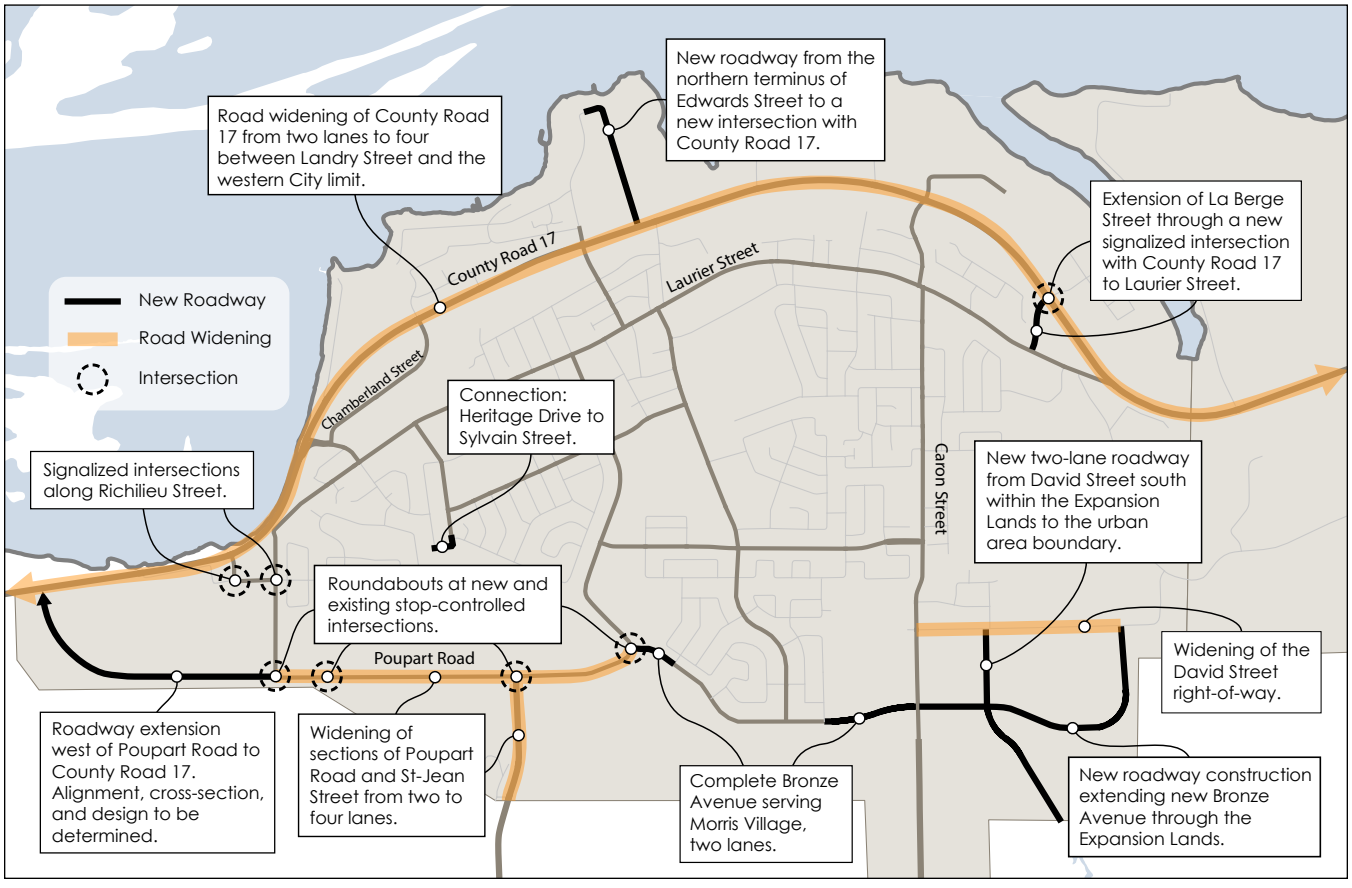


Figure 6.6 visualizes the complete set of recommended roadway modifications summarized in **Table 6.5.** A detailed line-by-line summary of each individual improvement along with their associated costs and associated evaluation scores are provided in **Appendix B** to this amendment. Any proposed cross-sections or modifications to County roads are subject to the review and approval of the United Counties of Prescott and Russell.

Given the potential development of lands south of current urban area boundary — beyond the timeframe of this current TMP update and Official Plan — the City of Clarence-Rockland is encouraged to consider within future master plans and development studies the need and justification for a major collector roadway. This roadway, connecting the St-Jean Corridor and Caron Street, would serve to provide additional east-west connectivity for vehicular traffic beyond the 20-year planning time frame.

Table 6.5 Vehicular Network Modification Recommendations

Improvement	Description
County Road 17 Widening	Road widening from two lanes to four between Trim Road in Ottawa and Landry Street in Clarence-Rockland based on the Environmental Assessment recommendation. This will include a multi-use path on the south side of the roadway, as well as paved shoulders east and west of Clarence-Rockland.
Poupart Road / St. Jean Street Roundabouts	Per the St-Jean Street - Poupart Side Road Municipal Environmental Assessment, new roundabouts at the new Bronze Avenue, the intersection of St-Jean Street and Poupart Road, , the entrance to the future Stewart Village development, and the future intersection with the New West Roadway.
Poupart Road Widening	Per the St-Jean Street - Poupart Side Road Municipal Environmental Assessment, road widening from two lanes to four between St-Jean Street and the roundabout at the New East-West Roadway. Will include a multi-use pathway on the north side and a sidewalk on the south side of the roadway.
St-Jean Street Widening	Per the St-Jean Street - Poupart Side Road Municipal Environmental Assessment, road widening from two lanes to four between Poupart Road and the new Bronze Avenue as well as south to the urban area boundary from the new roundabout at Poupart Road.
New Bronze Avenue Completion	New Roadway Construction completing Bronze Avenue in the vicinity of Morris Village. Will include a multi-use pathway on the north side of the roadway and a pedestrian sidewalk on the south side.
Sterling Avenue Extension	Extension of Sterling Avenue with painted bike lanes and sidewalks on both sides of the road.
Bronze Avenue Extension	Extension of the Morris Village East-West Roadway with a two-lane cross-section between Caron Street and David Street in the Expansion Lands. Will include sidewalks and on-street bike lanes.
Expansion Lands Street 'B'	New two-lane roadway to service the new expansion lands area. Will have sidewalks and on-street bike lanes on both sides of the road between David Street and the urban area boundary.
David Street	Per the Expansion Lands Secondary Plan, the David Street right-of-way shall be expanded to a width of 26 metres between Caron Street and the Bronze Avenue extension. Will include a sidewalk on one side and a multi-use path on the opposite side.
Edwards Street Extension	Extension of Edwards Street to loop to County Road 17.
Heritage Drive Loop	Connection of Heritage Drive to Sylvain Street.
La Berge Street Extension	Extension of La Berge Street from County Road 17 to Laurier Street. Will include sidewalks and painted bike lanes on both sides.
New West Roadway	New Major Collector roadway between County Road 17 and Poupart Road to service a future developable area. Alignment, cross-section, and Design still needs to be determined based on potential development that is still to be determined. This roadway should include provisions of active transportation including pedestrian and cycling facilities.

6.2.2.2 Road Classification Updates

The 2019 MMTMP defined a new road classification framework to incorporate appropriate design parameters for active transportation and transit. An April 2021 Office Consolidation of the Official Plan of the City's urban area directly incorporates this framework. Language directly drawn from the master plan provides typology descriptions of most roadways within the framework in Sections 7.2 through 7.5 of the new Official Plan while Schedule B1 spatially illustrates the assignments in map form.

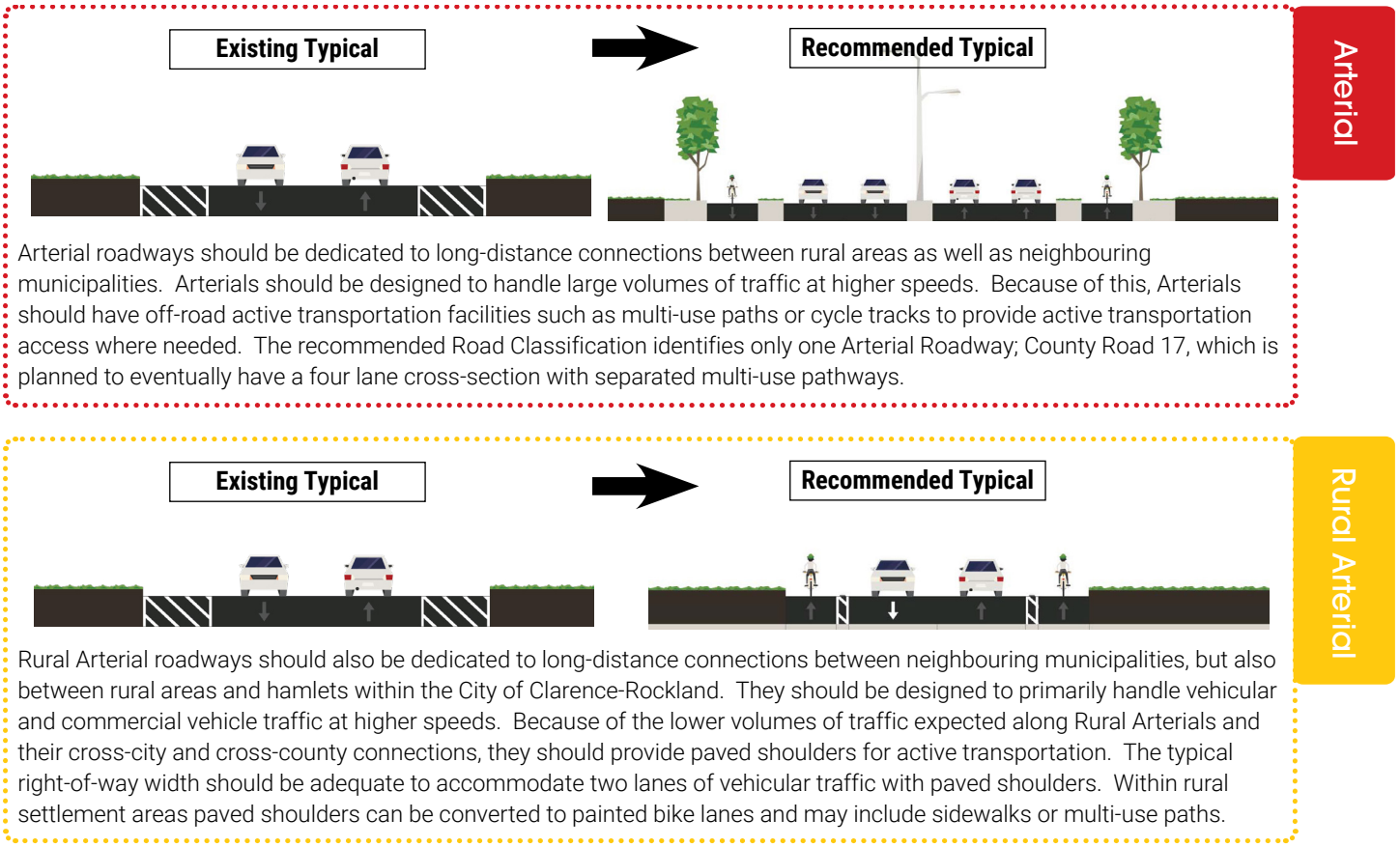
The following is a brief description retained from the original MMTMP of each classification type and the function it serves within a system developed to inform the City's planning outcomes, investment decisions, and future function of the street network:

- **Arterial Roadways:** Dedicated to the quick and efficient movement of goods and people over long distances.
- **Rural Arterial Roadways:** Similar to Arterial Roadways but are designed to rural cross-sections and speeds.
- **Main Streets:** These streets should balance pass-through vehicular operations, with destination-based needs such as on-street parking, pedestrian, cyclist, and transit mobility.
- **Major Collector Roadways:** Provide safe, reliable and efficient movement between neighbourhoods and strategic centres.
- **Minor Collector Roadways:** Service major nodes such as schools and community centres as well as provide a link to the broader roadway system.
- **Local Streets:** Facilitates local access to communities and private properties.

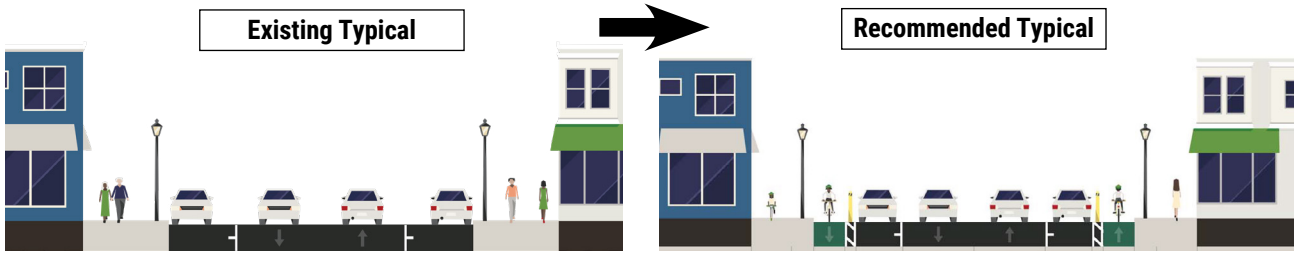
Despite its inclusion in Schedule B1 of the Official Plan of the Urban Area of the City of Clarence-Rockland, language pertaining to the Rural Arterial typology, which is described in the retained comparison of existing and recommended roadway cross-sections below, is not included in the latest official plan. Likewise, Schedule D of the 2022 adopted and approved Official Plan of the United Counties of Prescott and Russell applies its own classification scheme to all roadways within its boundaries. The defintion and assignment of roaday types do not match those used by Clarence-Rockland.

Table 6.6 and **Figure 6.8** summarize recommended road classification revisions. **Figure 6.7** compares the cross-sections of common existing roadway forms with complete street examples, retaining language currently included in Clarence-Rockland's Offiical Plan. City staff may choose to delay re-designation of roadways to allow previously programmed capital plans to proceed in the short-term.

Figure 6.7 Typical Existing and Recommended Roadway Cross-Sections



Main Street

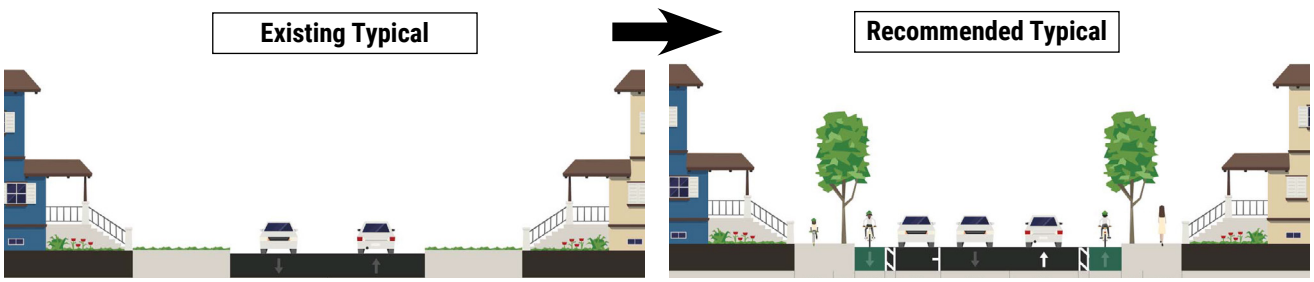


Main Streets should be dedicated to placemaking to accommodate a high demand for movement while serving a destination and activity centre along the roadway. These streets should balance pass-through vehicular operations, with destination-based needs such on-street parking, pedestrian, cyclist, and transit mobility. Because of this, Main Streets should feature dedicated cycling facilities with a preference for protected facilities such as flex bollard bike lanes, or cycle tracks, but may allow the use of painted bike lanes where space constraints dictate. Main Streets should include pedestrian sidewalks on both sides of the road. Recommended road classification assigments identify only one Main Street; Laurier Street.

Major Collector

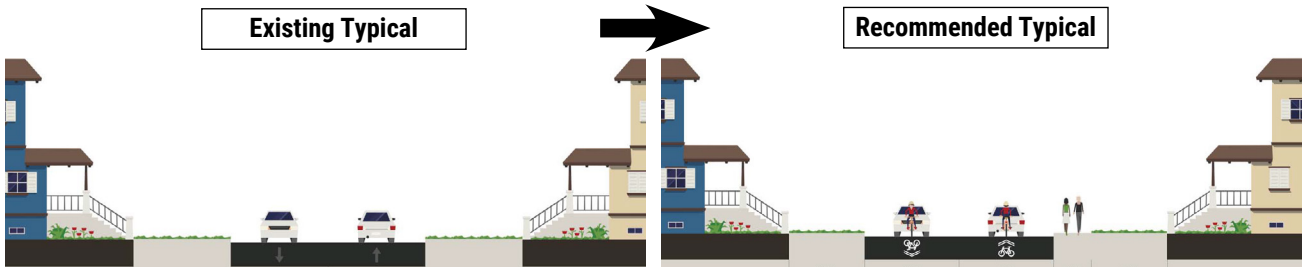
Major Collector roadways should service major commercial areas internal to Rockland as well as connect to Arterial and Rural Arterial Roadways. They should accommodate pedestrian sidewalks on both sides of the street as well as dedicated bike lanes due to the expected higher volumes of vehicular traffic. In areas where cycling demand is anticipated to be low, there may be opportunities to simultaneously accommodate pedestrians and cyclists through the implementation of multi-use paths. While not common, on-street parking may also be included where required.

Minor Collector



Minor Collector roadways should service major neighbourhood nodes such as schools and community centres as well as provide a link to the broader Major collector roadway system. They should accommodate pedestrian sidewalks on both sides of the street as well as painted bike lanes. On-street parking may be accommodated depending on the available space.

Local Street

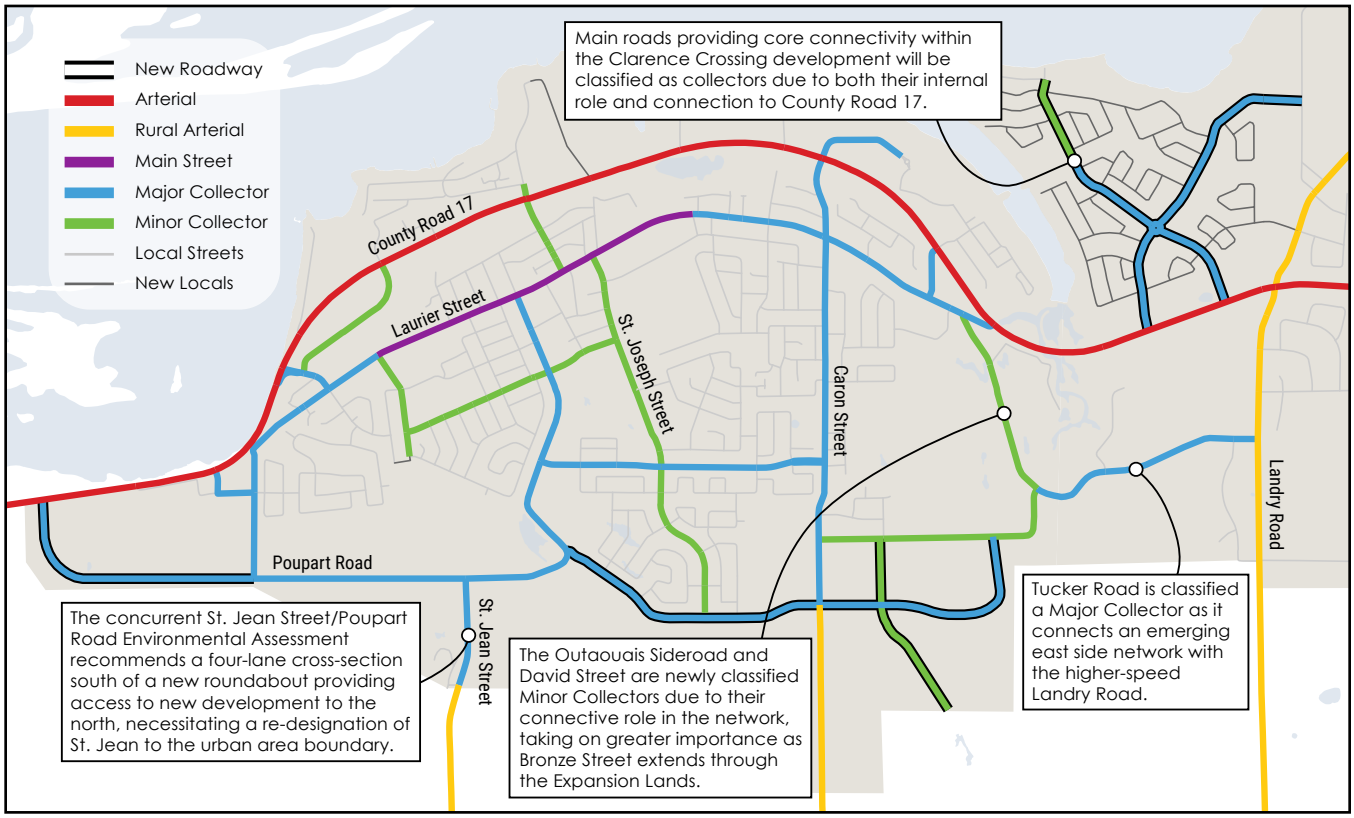


Local Streets facilitate access to communities. As low volumes of traffic generally travel along Local Streets, separated pedestrian facilities are not strictly required. However, the addition of pedestrian sidewalks on one or both sides of the street or a multi-use path can help to close strategic gaps in the larger protected active transportation network. On-street parking may be accommodated depending on the available space and need.

Table 6.6 Recommended Road Classification Revisions

Roadway	Limits	Previous Classification	Recommended Classification	Justification
St. Jean Street	Between Poupart Road and the urban area boundary	Rural Arterial	Major Collector	▸ Concurrent environmental assessment calls for widening of St. Jean Street south of proposed roundabout
David Street	Between Caron Street and Tucker Road	Local Street	Minor Collector	▸ Formalize connecting role at north end of expansion lands ▸ Accommodate new connections to major collectors
Outaouais Sideroad	Between Laurier Street and David Street	Local Street	Minor Collector	▸ Link major collectors along the eastern edge of the Rockland urban area
Tucker Road	Between Landry Street and David Street	Local Street	Major Collector	▸ Connect collector network to the higher speed Landry Road

Figure 6.8 Recommended Road Classification Revisions



6.2.2.3 Commercial Vehicle Network

Clarence-Rockland's current set of truck restrictions predates many roadway additions and improvements. Many restrictions remain in place that no longer reflect their original intention. The study team was tasked with taking a holistic look at routes throughout the municipality and developing a management scheme that is both permissive — identifying preferred routes — and restrictive.

The resultant freight network identifies permitted truck routes, including certain non-through routes, and makes clear where trucks are prohibited.

The roadway classifcation categories, excluding non-connecting local streets, which are assumed to be truck restricted, are as follows:

- **Truck Permitted Roadways** — arterials, rural arterials, major collectors, and other rural roads that provide multiple eastern, western, and southern connections to and from Clarence-Rockland and its settlement areas. Preferred routes should be defined by standard RB-61 Heavy Trucks Permitted signage.

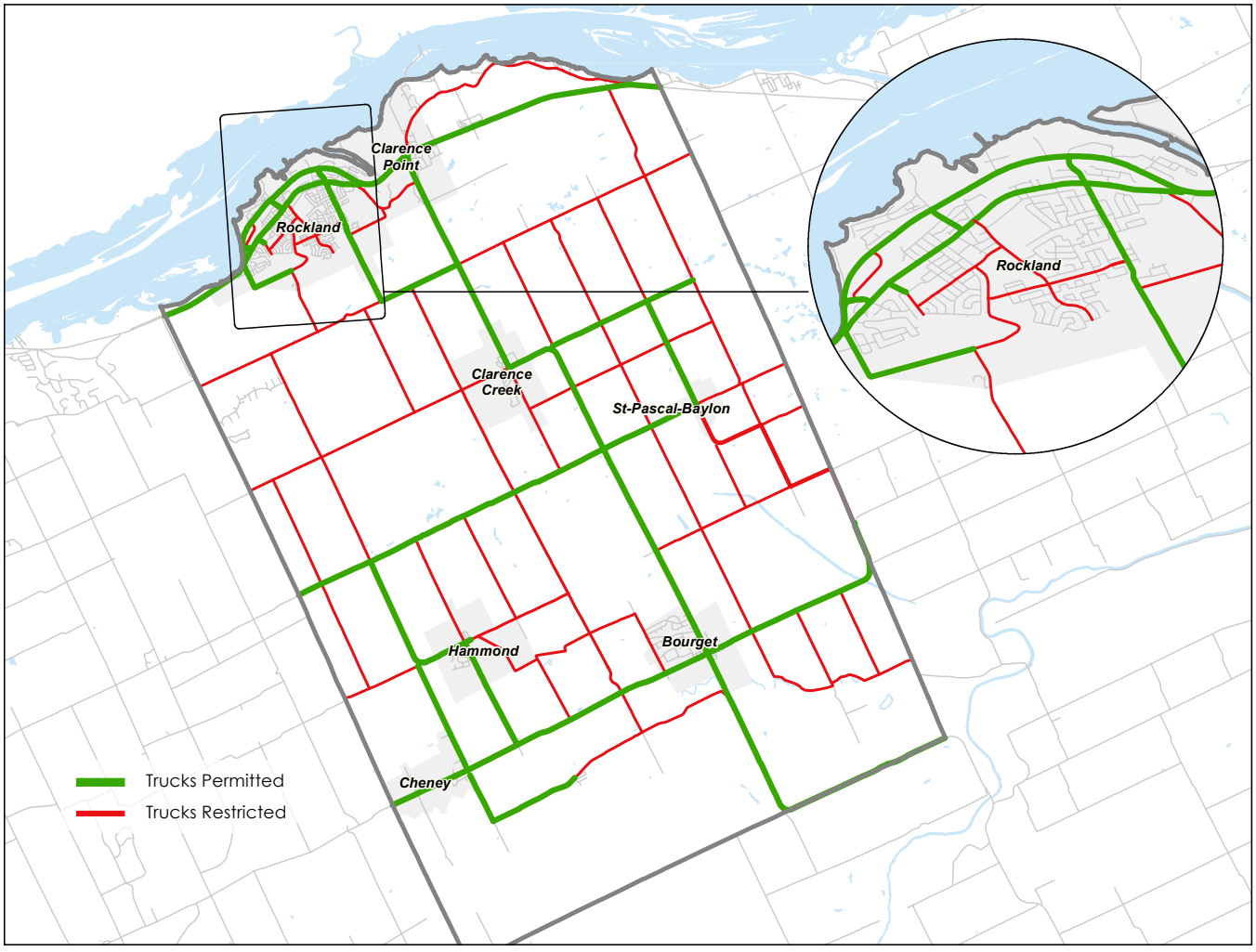
- **Trucks Restricted** — Heavy trucks not permitted. Each segment should be posted with standard RB-62 No Heavy Trucks signage to reinforce understanding of the network.

The recommended freight vehicle network bases decisions to classify roadways as restricted to trucks on a combination of factors including:

- Current restrictions in place;
- The maximum roadway grade along a segment;
- The presence of curves in the roadway that limit lane width and visbility;
- The posted speed of the roadway segment; and
- The roadway surface and load rating — trucks are not permitted on unpaved roads.

The proposed network lifts restrictions along Chemin du Lac between Duquette and Henrie Roads to create an outlet and route to Saint-Pascal-Baylon for permitted traffic on Duquette Road.

Figure 6.9 Recommendation: Preferred Truck Route Network



6.2.3 Project Evaluation

Implementation of a large-scale multimodal transportation plan requires an evaluation process to inform decision makers as they prioritize investments with the potential for the highest impact. The evaluation of transportation improvement projects identified in this amendment follows a consistent and transparent Multiple Account Evaluation approach. The framework is adequately flexible for use in comparing project types of varying scope and complexity.

The project evaluation process defines accounts meant to evaluate the new vision statement established by this TMP, its associated metrics defined in **Section 2.3**, and measures previously established by the 2019 MMTMP. Each evaluated account is an independent variable, which may positively or negatively influence the overall suitability of a recommended project. The careful definition of accounts avoids duplication of considerations in the evaluation process.

The evaluation framework assigns a score to each criterion ranging from one (1) to four (4), which is later aggregated into a composite score. This scale reflects a score that is informed by available data, but does not achieve a purely quantitative measurement and is subject to interpretation. The project score is not necessarily indicative of a project's phasing assignment within the implementation plan nor its ideal commencement date. Decision makers should consider whether staff expertise or other factors supercede traditional determinants of phasing such as project complexity, funding, or duration.

Scores associated with the application of account evaluation are included in a prioritized line-item summary of each recommended project in **Appendix B** of this Amendment.

Table 6.7 Description of Evaluation Criteria

Account	Rationale	Low Score	High Score
Network Resilience	A resilient transportation network is balanced and flexible. It presents multiple viable options to residents and visitors while retaining function if an emergency renders certain options temporarily inaccessible.	The transportation project does not create a new option to complete a trip for any mode	The transportation project creates a new option to complete a trip for all groups of roadway users.
Network Connectivity	Transportation corridors are most useful as part of a connected network that increases the usefulness of each facility and incorporates aspects of equity as underserved areas often feature fewer transportation options.	The transportation project either does not create a new network link or does not connect to another facility of comparable mode.	The transportation project connects two facilities in an existing underserved area.
User Safety	A well designed transportation network mitigates safety risks for all users. While no recommended project is designed unsafely, certain facilities enhance safety for vulnerable road users while reducing overall conflict.	The transportation project does not enhance physical safety for any group of roadway users.	The transportation project enhances physical safety for all groups of roadway users.
Destination Access	Connectivity is not limited to links to other available travel facilities. A transportation network should provide direct access to places that people want to go. Major destinations such as community centres, employment centres, or schools are typical destinations.	The transportation project does not provide access to community destinations or key commercial areas and does not support active school travel.	The transportation project directly links to business districts, community centres, parks, libraries, or arenas and/or facilitates travel to school.
Construction and Feasibility Factors	Construction costs as well as complicating factors such as property ownership and existing conflicting infrastructure highly impact the likelihood of project implementation.	The transportation project costs more than $1M and multiple complex procedural hurdles must be overcome.	The transportation project costs less than $1M with minimal complexity.
Development Support	Higher density new development requires complete accompanying transportation infrastructure to fully benefit new and existing residents. Supporting non-motorized transportation in these areas incrementally preserves capacity of the vehicular network.	The transportation project is not located in or adjacent to a new development and is not funded by development charges.	The transportation project is located in, adjacent to, or connects to a new development and is funded by development charges.

6.3 Policies & Strategies

The 2019 MMTMP, to which this document is an amendment, summarized and outlined policy-driven recommendations for:

- Traffic Calming;
- Complete Streets;
- Transportation Demand Management;
- Active Transportation Winter Maintenance; and
- Downtown Parking Management.

Some of these strategies — such as traffing calming — have been greatly expanded in companion documents while others have seen language adopted by the 2021 Office Consolidation of the City's Official Plan. Updating this section involves relating changes, noting newly adopted official policy, consolidating unchanged text, and reiterating simplified but perpetually valid recommendations.

As previously stated in the MMTMP, recommended infrastructure improvements identified have an interdependent relationship with land-use decisions. The City must address multimodal mobility needs using a unified approach to transportation and land-use planning. The policies set forth in this TMP amendment intend to achieve that aim.

6.3.1 Traffic Calming

The 2019 MMTMP identified an opportunity for the City to develop a traffic calming policy and proceeded to address definitions, problem identification, solution identification, implementation, and potential measures at a high level.

A separate Traffic Calming Toolkit accompanies the 2025 Amendment that guides decision makers through the entire traffic calming project implementation process from initiation to completion including all conditions for project continuation at each of five major steps of the process.

- Project Identification and Initiation
- Project Technical Validation
- Solution Identification, Selection, and Scoping
- Community and Official Project Approval
- Implementation Strategy and Monitoring

The toolkit elaborates greatly on the original library of traffic calming measures by dedicating a page to each containing primary purposes, advantages and disadvantages of each, accompanying signage, material cost per measure, and design and maintenance considerations. Within solution identification, a decision tree is included to identify the best measures for a series of desired conditions.

6.3.2 Complete Streets

Complete Streets are streets that are safe for everyone including people who walk, bicycle, take transit, or drive, and people of All Ages and Abilities (AAA). A Complete Street policy ensures that transportation planners and engineers consistently design and operate the entire street network for all road users, not only motorists. There is no singular design prescription for Complete Streets; each one is unique and responds to the community context. As described in Section 6.2.3.2, a complete street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

An effective Complete Streets policy is comprised of many elements. These elements typically prioritize underserved communities, apply to all project phases, allow few clear exceptions, adopt excellent design guidance, adapt to the needs of the future as well as the present, and measure progress.

Section 7.1 of the latest City Official Plan mentions the over-arching philosophy of Complete Streets, though does not adopt a specific policy. Adoption can empower Clarence-Rockland to coordinate with outside agencies on new project designs, especially on those controlled by a higher tier government, to ensure that major roadway improvement projects serve and enhance safety for residents and visitors on foot or on bike.

Clarence-Rockland should establish Complete Streets guidelines inclusive of a vision statement and a set of guiding principles that commit to revise all related procedures, plans, and regulations in order to accommodate all users of the transportation system on each and every project involving physical corridor improvements.

6.3.3 Transportation Demand Management

Transportation Demand Management (TDM) focuses on understanding how people make their transportation decisions to help manage the demand placed on the transportation network. At its most basic level, TDM is a program of information, incentives and policies to help inform people about the available transportation options, as well as guide land use development to promote the use of sustainable transportation options to mitigate development impacts on the network.

TDM provides tools to help maximize recommended investments for active transportation, transit, and roadway infrastructure identified in this MTMP to encourage sustainable travel choices by supporting alternative options over the convention of frequently driving alone. TDM plays a

vital role in the design of urban environments and its influence on travel choices.

6.3.3.1 Development-Based TDM Measures

The development community has an important role and influence over the urban environment. There is a growing understanding that TDM can be more effectively pursued and implemented when it is incorporated into new developments during the initial planning and design stage, as well as during construction.

Current Subdivision and Site Plan guidance and the updated Site Plan Control By-Law do not have a defined Transportation Demand Management (TDM) process for new developments. As a result, it is difficult to develop a coordinated integration of development with active transportation investment. The City of Clarence-Rockland can incorporate TDM into official policy to leverage development in a way that supports and encourages alternative modes of transportation.

There are several TDM measures that can be leveraged through the development application process that have varying levels of effectiveness depending on the proposed land use and urban context. **Table 5.11** of the 2019 MMTMP provides a matrix of TDM measures with corresponding appropriate land uses and urban contexts that can be required during development site plan applications to encourage consideration of the integration of multimodal transportation into their designs to mitigate impacts on the natual environment and transportation network.

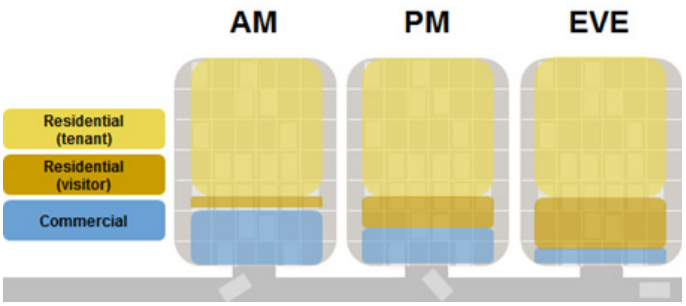
6.3.3.2 Parking-Based Measures

Parking is a key component of transportation demand management directly related to personal automobile use. Historic planning processes determine how much parking to provide at a particular site based on standards codified in municipal zoning by-laws. Oversupply of on-site parking bears external costs including the construction and upkeep costs of physically providing parking spaces, especially when underutilised.

A number of parking-related TDM measures should be part of comprehensive demand management policy. Refer to the 2019 MMTMP for additional detail:

- **Contextual Parking By-Laws** — Opportunities exist to create specific zones where reduced parking requirements are needed to encourage higher-density development oriented toward active transportation.
- **Parking Maximums** — Maximum parking requirements limit the number of parking spaces that may be built, preventing the developer from building more spaces than required, and guiding developers toward projects that are more transit-oriented in nature.
- **Shared Parking** — Shared parking serves multiple land uses that have different peak demand periods with one set of parking spaces that are shared to minimize a district's parking footprint while simultaneously maximizing parking utilization.

Figure 6.10 Shared Parking Functional Diagram



- **Carpool Spaces** — Sites may reserve parking spaces for visitors who share car journeys so that more than one-person travels in a car and prevents the need for others to have to drive themselves.
- **Carshare Spaces** — Language can be included into By-Laws which encourages or requires developers to provide dedicated carshare spaces to private companies that provide access to short-term car rentals.
- **Priced Parking and User Fees** — Charging for vehicle parking can be implemented as a TDM strategy to reduce vehicle traffic in an area by encouraging use of alternative modes of travel. The price of parking also forms part of a parking management strategy to reduce high parking demand in a particular location by responding directly to demand with fee adjustments.
- **Cash-in-Lieu of Parking** — Programs that allow developers to provide fewer on-site parking stalls in exchange for contributing to a fund used to facilitate construction of shared parking facilities, active transportation facilities, and/or streetscape.

6.3.3.3 TDM Recommendations

The City of Clarence-Rockland should develop context-specific TDM policies, including a checklist of applicable TDM measures for new developments based on land use and amendments to zoning and parking by-laws such as maximum and reduced vehicular parking rates for new developments.

6.3.4 Active Transportation Winter Maintenance Strategy

While cycling volumes drastically decrease in the winter months, public engagement performed during the creation of the original MMTMP identified reliability as being one of the top three factors influencing mode choice in Clarence-Rockland. Walking and Cycling are mode choices that can be a year-round option for getting around Clarence-Rockland, particularly for short-distance trips to community centres, schools, or nearby commercial areas.

Figure 6.11 Unmaintained Bicycle Lane along St. Joseph Street

All-seasons maintenance is critically important to provide people with a viable and safe travel option throughout the year. Predictable and consistent maintenance practices have the ability to sustain a higher rate of winter cyclists.

6.3.4.1 Provincial Standards

Provincial Minimum Maintenance Standards for Municipal Highways provide a definition for a bicycle lane which includes a portion of the roadway with marked or buffered lanes, whether for the exclusive or preferential use of cyclists and include specific sections outlining winter maintenance standards for snow accumulation in bicycle lanes. **Table 6.8** compares the new snow accumulation depth standards for bicycle lanes as compared to the existing standards for roadways.

Likewise, Section 16.3 of the provincial standards provides that snow accumulation on sidewalks shall be reduced to less than or equal to eight centimetres within 48 hours of the end of a snow event. The section further provides a standard of a minimum maintained width of one metre.

Additionally, Section 16.5 sets out standards with respect to ice formation on sidewalks, requiring that municipalities monitor weather and "treat the sidewalk if practicable to prevent ice formation or improve traction within 48 hours if the municipality determines that there is a substantial probability of ice forming on a sidewalk, starting from the time that the municipality determines the appropriate time to deploy resources for that purpose." Necessarily, this standard still leaves the municipality with discretion in terms of the deployment of resources during such events.

6.3.4.2 Clarence-Rockland Current Standards

Clarence-Rockland's Winter Control Policy identifies the winter maintenance period being between November 15 and March 31.

The policy states that sidewalks and multi-use pathways will be cleared as soon as practicable after becoming aware that the snow accumulation is greater than 8-15 cm depending on the roadway class. The expected standard is for snow to be cleared between 12 and 24 hours depending on the roadway priority.

Sidewalk snow clearing priority is in the following order:

- School zones;
- Major collectors;
- Minor Collectors; and
- Local Streets.

While there are provisions for sidewalks and multi-use paths there are no explicit provisions for bike lanes.

6.2.4.3 Active Transportation Winter Maintenance Recommendations

Setting maintenance policies, priorities, and service standards is important in order for agencies to avoid inconsistent levels of service across the active transportation network, fragmentation of the network, and/or uncoordinated efforts between off-street and on-street facility maintenance. To have a coherent, continuous winter active transportation network, the maintenance priority for

Table 6.8 Provincial Minimum Winter Maintenance Standards

Class of Highway or Adjacent Highway	Depth	Deployment Time Bicycle Lanes	Deployment Time Roadways
1	2.5 cm	8 hours	4 hours
2	5 cm	12 hours	6 hours
3	8 cm	24 hours	12 hours
4	8 cm	24 hours	16 hours
5	10 cm	24 hours	24 hours

facilities should be based on contiguous routes, independent of road maintenance priority.

Certain on-street cycling facilities such as shared or painted bike lanes can be serviced by existing roadway snow clearing, however additional off-street facilities like sidewalks, and multi-use paths may require additional sidewalk plows to adhere to the City's current winter maintenance standards.

Clarence-Rockland should develop snow maintenance standards for the cycling network, amended to the City's Winter Control Policy, that identify a facility classification system and an associated winter maintenance standard for each to maintain satisfactory facility safety levels. This will require re-evaluation of equipment requirements to service varied infrastructure.

6.3.5 Downtown Parking Management

The existing downtown core of Rockland does not provide any municipally owned surface parking beyond on-street spaces, which are duration regulated during certain times of certain days, not priced. As Rockland continues to grow,, there will likely be additional demand for vehicular parking in the main commercial area. There is currently limited land to build a publicly owned off-street surface lot, which presents constraints for future public parking provision.

We recommend a proactive approach to parking management that starts with the preparation of a parking improvement plan for the Rockland settlement area that inventories on- and off-street parking availability and demand while projecting future demand and identifying opportunities for development that is spatially and temporally compatible with the City's parking supply.

The study associated with such a plan should also consider the following potential issues and management techniques:

- **Demand Priced Parking** — Compare the actual parking occupancy with the desired on/off-street parking occupancy and periodically adjust pricing accordingly.
- **Optimization of Existing Off-Street Facilities** — Use underutilised space such as corners, edges, and undeveloped land to increase the parking supply.
- **Remote Parking** — Use of parking facilities located at the periphery of a business district or other activity centre. Special shuttle buses, or free transit service, may be provided to connect destinations with remote parking facilities, which would allow them to be farther apart than would otherwise be acceptable.
- **Parking Space Sharing and Leasing** — Facilitation of shared parking agreements, leases and/or trade of excess private parking capacity.
- **Transferable Parking Rights** — Flexibility in site plan application to choose between constructing required parking spaces or transferring parking spaces to another development.
- **Unbundled Parking —** Making optional the purchase or rent of accessory parking spaces for new residential or commercial units.
- **Online Information and Wayfinding Signage —** Guide drivers and reduce confusion about parking options, payment, and restrictions. Clearly identify lots that are publicly accessible and discourage noncompliance.
- **Streetscaping and Landscaping —** Improve the pedestrian environment to serve motorists using more distant parking lots as well as those walking as a mode of transportation, which relieves parking demand.
- **Curbside Demand Management** — Designate space along curbs throughout the urban centre to facilitate ridesharing and to govern on-street freight loading activity while preserving other areas for parking needs.
- **Active Transportation Facilities** — Improve walkability to expand the number of parking facilities that serve destinations and increase the feasibility of sharing arrangements, remote parking, and "park once" trips.
- **Emerging Technology** — Determine the role of smart parking management tools in system management.

6.4 Implementation

The Recommended Transportation Improvements and Evaluation Scores table in **Appendix B** consolidates all of the active transportation and roadway physical improvements listed and described in **Sections 6.2.1.1, 6.2.1.2**, and **6.2.2** and includes the following information:

- Improvement Description;
- Project Limits;
- Project Length (in km);
- Phasing (i.e. Short-term, Medium-term, Long-term);
- Construction Cost
- Environmental Assessment Schedule Classification;
- Project Evaluation Scoring

6.4.1 Costs of the Plan

The capital cost of the amended transportation strategy over the next 10 years, inclusive of new road construction, intersection improvements, sidewalks, multi-use paths, off-road trails, and on-street cycling facilities will total approximately $44 million (not including improvements and costs to be incurred by Developers as well as the United Counties). A summary of the costs by timing and responsibility is provided in **Table 6.9**.

Of the total capital costs, over $15.9 million is needed for short-term improvements (<2 years), the great majority associated with improvements to the St-Jean Street/Poupart Road corridor. Nearly $3.8 million will be required in the medium term (2-5 years) while longer term (5-10 years) expenses make up the largest portion of expenses (~$24.3 million), owing generally to the high cost and complexity of creating new corridors through secondary planning areas.

While unit capital costs of the various facility and improvement types have increased significantly in just five years, the plan amendment significantly reduces the bottom line cost of implementation compared to the 2019 MMTMP. This is accomplished partially due to the removal of completed projects, through removal of non-core network projects, and modal consolidation in strategic corridors—a greater reliance on multi-use paths in urbanised areas.

The municipal cost distribution between roadway/intersection and non-motorized projects has shifted compared to the original MMTMP. Bicycle, pedestrian, and multi-use facilities comprise 33 percent of Clarence-Rockland's share of capital expenditures, down from 43 percent in the previous plan. Likewise, projects supporting vehicular travel now constitute 67 percent of estimated costs compared to 57 percent in 2019.

Projects currently characterized as the responsibility of developers are related to the completion of the latest phase of Morris Village. This category is subject to change as a clearer understanding emerges related to future development.

The large long-term budget listed as the responsibility of the United Counties of Prescott & Russell consists primarily of projects related to County Road 17. Widening this facility between Landry Street in the east and the western limit of Clarence-Rockland is the single most expensive project in the plan by an order of magnitude. Note that while the provision of pedestrian and cyclist accommodating on County roads is the financial responsibility of the lower-tier municipality, it is the County's standard practice to rehabilitate County roads to a 9.3-metre width during capital projects. This cross-section includes 1.2-metre-wide paved shoulders, which support active transportation. As the County does not account for the cost of active transportation improvements within road reconstruction projects separately, cost estimates for paved shoulders along County roads in this plan and its appendices have been marked with an asterisk.

Note that larger projects that require additional environmental assessment ahead of implementation (Schedule B, Schedule C) carry further consulting/engineering costs to complete necessary study, planning, and technical documentation. Costs for these professional services can vary greatly depending on the scope of assessment required for any particular project.

Finally, the MMTMP Amendment acknowledges that changes to development plans and development charge assumptions have occurred since the completion of the transportation analysis, project cost estimates, and the finalization of the MMTMP report. Further identification of the applicability, and calculation of the value of development charges must consider interim changes as the underlying assumptions and project scopes may have shifted.

Table 6.9 Estimated Capital Programming Costs by Phase and Jurisdiction

Phasing	Clarence-Rockland	Developer Responsibility	United Counties of Prescott & Russell
	Total Cost	Total Cost	Total Cost
Short-Term (<2 years)	**$15,948,161**	**$2,665,519**	**–**
Cycling	$681,831	$9,697	–
Pedestrian	$969,415	$301,061	–
Multi-Use	$1,064,126	$260,423	–
Roadway	$8,158,976	$2,094,339	–
Intersections	$5,073,812	–	–
Medium-Term (2-5 years)	**$3,797,676**	**$15,783,515**	**$4,183,048**
Cycling	–	–	$4,183,048*
Pedestrian	$1,229,207	$1,806,363	–
Multi-Use	$1,768,469	$4,307,750	–
Roadway	–	$9,669,402	–
Intersections	$800,000	–	–
Long-Term (5-10 years)	**$24,290,756**	**–**	**$45,686,341**
Cycling	$1,040,329	–	$9,153,807*
Pedestrian	$3,424,614	–	–
Multi-Use	$4,285,352	–	$2,365,838
Roadway	$15,140,460	–	$34,166,696
Intersections	$400,000	–	–
Total	**$44,036,593**	**$18,449,034**	**$49,869,389**

NOTE: *All figures in 2024 dollars ($) excluding tax, contingency, design and approvals costs. Preliminary estimate subject to further review at preliminary/detailed design stage.*

Appendices | Clarence-Rockland Multimodal Transportation Master Plan

Appendix

A

Clarence-Rockland Traffic Calming Toolkit

Stantec

Memo

To:	Guillaume Boudrias, Gestionnaire des travaux publics	From:	Stantec Consulting, Ltd
Project/File:	165001315 - Clarence-Rockland Traffic Calming Toolkit	Date:	September 24, 2025

1 Traffic Calming Toolkit

Traffic calming uses physical design or informational measures to reduce the volume or speed of vehicles traveling on a street, thus enhancing safety for all users of a roadway. The purpose of implementing traffic calming measures is typically to encourage safer and more community sensitive or responsible driving by reducing automobile speeds and cut-through traffic within neighbourhoods. These tools generally target traffic behaviour. Design elements typically used for traffic calming can be implemented as part of street reconstruction projects as a component of a self-regulating design, or alongside other design features that also reduce speeds, such as street trees, pedestrian lighting, and landscaping.

1.1 Applicability and Policy

When considering whether to initiate an evaluation that would lead to the implementation of traffic calming measures, the City should first consider whether the roadway characteristics are conducive to traffic calming measures. Considerations for this should include the road classification, location, adjacent land uses, local context, public concern, and adjacent active transportation facilities.

The purpose of traffic calming is to address the variable of the traffic and its impact on the community. Traffic calming should not be used to address what are fundamental safety concerns. Design safety issues recognized through measured means such as safety audits or collision histories need to be prioritized and addressed through direct investment. Where crossings or infrastructure are specifically unsafe, a specific design and capital improvement path should be pursued.

1.1.1 ROAD CLASSIFICATION AND TRAFFIC CALMING SUITABILITY

Physical implementations (vertical, horizontal, obstruction) should only be considered on urban local roads, Main Streets, and minor collector classified roads. Initial traffic calming evaluation should be performed on a neighbourhood scale. Volume or speed changes on one street segment may adversely impact the surrounding streets. Traffic calming installations should not divert traffic to other Local Roads but may divert vehicles to higher order streets. **Table 1** describes all road classifications in Clarence-Rockland through their technical details and intended service objectives. With few exceptions, traffic calming measures in general are only suitable for Local Roads, Main Streets, and Minor Collectors.

Table 1 – Road Classification and Traffic Calming Suitability

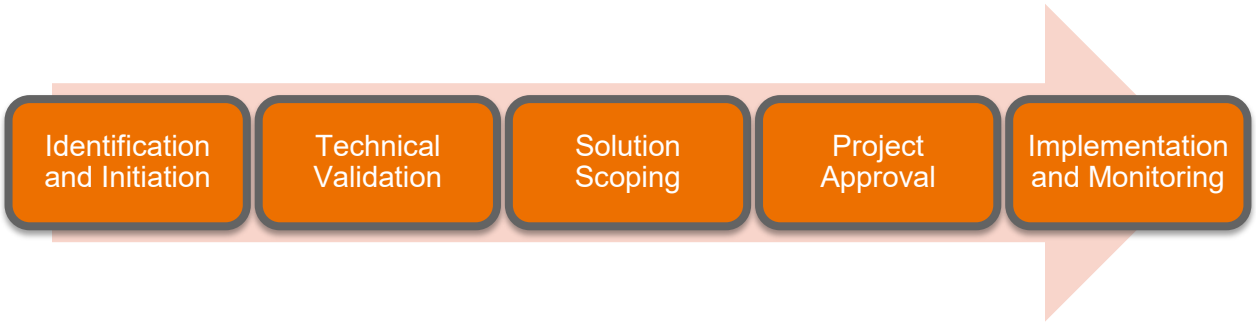
Road Classification	Characteristics	Vehicle Volume	Typical Width (metres)	Design Speed (km/h)	Suitable for Traffic Calming
Arterial Roads	▪ Carry high volumes of traffic at high speeds connecting major traffic generators ▪ Limited access control provided for land service and access ▪ Uninterrupted traffic flow ▪ Designed to accommodate all vehicles including trucks ▪ On-street parking not permitted	Up to 20,000	18-25	70-90	**NO**
Major Collector Roads	▪ Distribute traffic from development areas to the Arterial Road Network ▪ Serve abutting properties; access limited to commercial and medium density residential properties ▪ Interrupted traffic flow ▪ Accommodate passenger, service, industrial, and commercial vehicles	3,000 to 12,000	16-23	50-60	**NO**
Minor Collector Roads	▪ Distribute traffic from the interior of residential neighbourhoods to a Major Collector or Arterial ▪ Serve all abutting properties ▪ Interrupted traffic flow	3,000 to 8,000	12-16	50-60	**YES**

Road Classification	Characteristics	Vehicle Volume	Typical Width (metres)	Design Speed (km/h)	Suitable for Traffic Calming
	▪ Accommodate passenger, service, industrial, and commercial vehicles				
Main Street	▪ Balance pass-through traffic movement with on-street parking, pedestrian, cyclist, and transit needs ▪ Interrupted traffic flow ▪ On-street bicycle facilities ▪ Business-oriented parking restrictions where space allows	6,000-8,000	18-30	40-50	**YES**
Local Roads	▪ Connect with public lanes, other local roads, and collector roads ▪ Traffic movements secondary; provide access to properties ▪ Interrupted traffic flow ▪ Accommodate passenger and service vehicles of all types ▪ No parking restrictions, but typically limited to one side of the street. Some roads too narrow to permit parking	1,000-3,000	9-12	30-50	**YES**

1.2 Policy, Warrants, and Process

As municipalities develop official traffic calming policies, a consistent multi-step process from project initiation to project completion should be followed that incorporates satisfaction of technical criteria, design alternative selection, and community and official approvals. **Figure 1** illustrates major process steps and their order. Note that each step involves conditions that if not met, would disqualify a proposed project from implementation. These conditions and staff responsibilities will be described in the following subsections elaborating on each stage of the project implementation process.

Figure 1 – Traffic Calming Project Implementation Process



1.2.1 PROJECT IDENTIFICATION AND INITIATION

A common first step is petition, or the initiation of consideration for physical traffic calming. The evaluation process may be put in motion by either an elected official, a City staff member, a stakeholder agency (Police, Fire, Emergency Services), or by members the public. Valid public petition most often takes the form of classic written petition, signed by representatives of households, with defined thresholds for acceptance within areas affected by proposed changes. The City of Oakville's Traffic Calming Implementation Process represents a best practice, where initiation by public petition requires a minimum of 60 percent of households within the petition boundaries to be in favour of traffic calming. An advantage to proactive initiation by City government is the outward demonstration that the City actively seeks to improve the quality of life for their residents and will encourage public involvement in the traffic calming process.

Requests for traffic calming implementation should include the following details to assist in determining project priority and to maintain a transparent and well-documented implementation process:

- Roadway of concern;
- Segment of roadway; and
- Problem (Excessive speed, cut-through neighbourhood traffic, unsafe conditions)

The City should immediately pre-screen petitions. If any of the following disqualifying conditions are true, the project would not continue to subsequent steps in the process.

- Arterial or Major Collector Road Classification
- Physical Factors that preclude the installation of calming elements, such as:

  - Steep road grade;
  - Sharp curves or poor sightlines;
  - Insufficient lane or roadway width;
  - Complex intersections;
  - Existing stormwater infrastructure (drainage); and
  - Underground utilities and access points

- Proposed project previously submitted and not conditionally approved within the previous 3 years
- Proposed project previously submitted and failed technical validation within the previous 5 years
- Proposed project located within a current or planned roadway construction project
- Proposed project in a location impacted by an adjacent construction project such that technical validation could not be properly performed

Additionally, City traffic operations may modify the scope of the petition to include adjacent streets if it is determined that the proposed traffic calming would have significant traffic impacts on those streets.

If the project passes all pre-screening criteria, it must receive conditional approval by a City of Clarence-Rockland Planning Committee composed of City staff, and potentially augmented by City Councillors. When approvals are secured, the project may proceed to technical validation.

1.2.2 PROJECT TECHNICAL VALIDATION

Technical validation takes the form of data collection related to roadway configuration, use, and safety factors. If the street where traffic calming is proposed lacks sidewalks, the City may take this opportunity to require, or at least consider, their installation in addition to any traffic calming elements identified in later stages.

The City should visit conditionally approved project sites to collect data and validate conditions related to the following technical aspects:

- **Vehicle Speed**:
  - Assess the 85th percentile speed of vehicular traffic on a street versus its posted speed limit to determine if roadway design unintentionally contributes to habitual speeding. Ideally, the 8th percentile speed should be within 10 km/hr of the posted speed limit.
- **Vehicle Volume/Classification**:
  - Roadway vehicular volume must fall within a range, typically 1,000 to 8,000 vehicles per day to merit a traffic calming installation. The minimum volume requirement may be removed if the prevailing vehicular speed exceeds the posted speed by a larger interval. The City of Leamington included a provision in their Short Term Transportation Action Plan Update stating that if the 85th percentile speed of a roadway is more than 15 km/h over the posted speed limit, there is no minimum volume requirement.

- An abnormal proportion of an unintended type of vehicle present on a certain road classification, typically freight hauling vehicles using lower capacity roadways, may form the basis for intervention.

- **Safety Data**

  - Collision history near a specific intersection or along a roadway segment may warrant a traffic calming application. More specifically collisions involving bicycles or pedestrians, as well as the high-frequency occurrence of near-misses, if possible to be counted, represent high-priority safety issues to be addressed.

- **Geometric Characteristics**:

  - Length of a roadway segment or the distance between traffic control devices along a roadway exceeding a defined threshold may satisfy a technical requirement for traffic calming.

Once a petitioned and conditionally approved project has been validated the traffic calming project should be compared with other validated applications to prioritize those with greater impact for either improved livability or improved safety outcomes. A validated project should stay on an active list of unimplemented priority projects for a determined time period (recommended 5 years) to avoid recurring evaluations of the same issue/location. After this period lapses, the project can be sent back to the first step of the overall process. This process enables identification of solutions that best address street design problems.

1.2.3 SOLUTION IDENTIFICATION, SELECTION, AND SCOPING

Alternate scoping should identify a specific single appropriate traffic calming measure or small set of suitable alternatives to address the primary issues originally identified and subsequently technically validated. Each potential alternative should consider implementation cost as it relates to the scale of the safety concern – an otherwise suitable option that cannot be funded is not a viable solution. Higher cost solutions may be required to satisfy a greater number of validation criteria or more stringent geometric review.

Table 2 below provides a tabular summary of potential physical measures for use in traffic calming applications. The summary highlights the traffic issues for which a calming measure is effective, to what degree, and its appropriateness for different roadway classifications. Within the table, a green plus sign (+) represents high effectiveness, a blue circle (O) moderate effectiveness, and a red minus sign (−) no effectiveness of a given traffic calming measure at accomplishing the objectives listed in each column. In the final three columns, an orange checkmark (✓) denotes that a particular measure is appropriate for the corresponding roadway classification while a red x (×) indicates that the particular measure is not appropriate in that context.

Table 2 – Effectiveness and Appropriate Contexts of Traffic Calming Measures

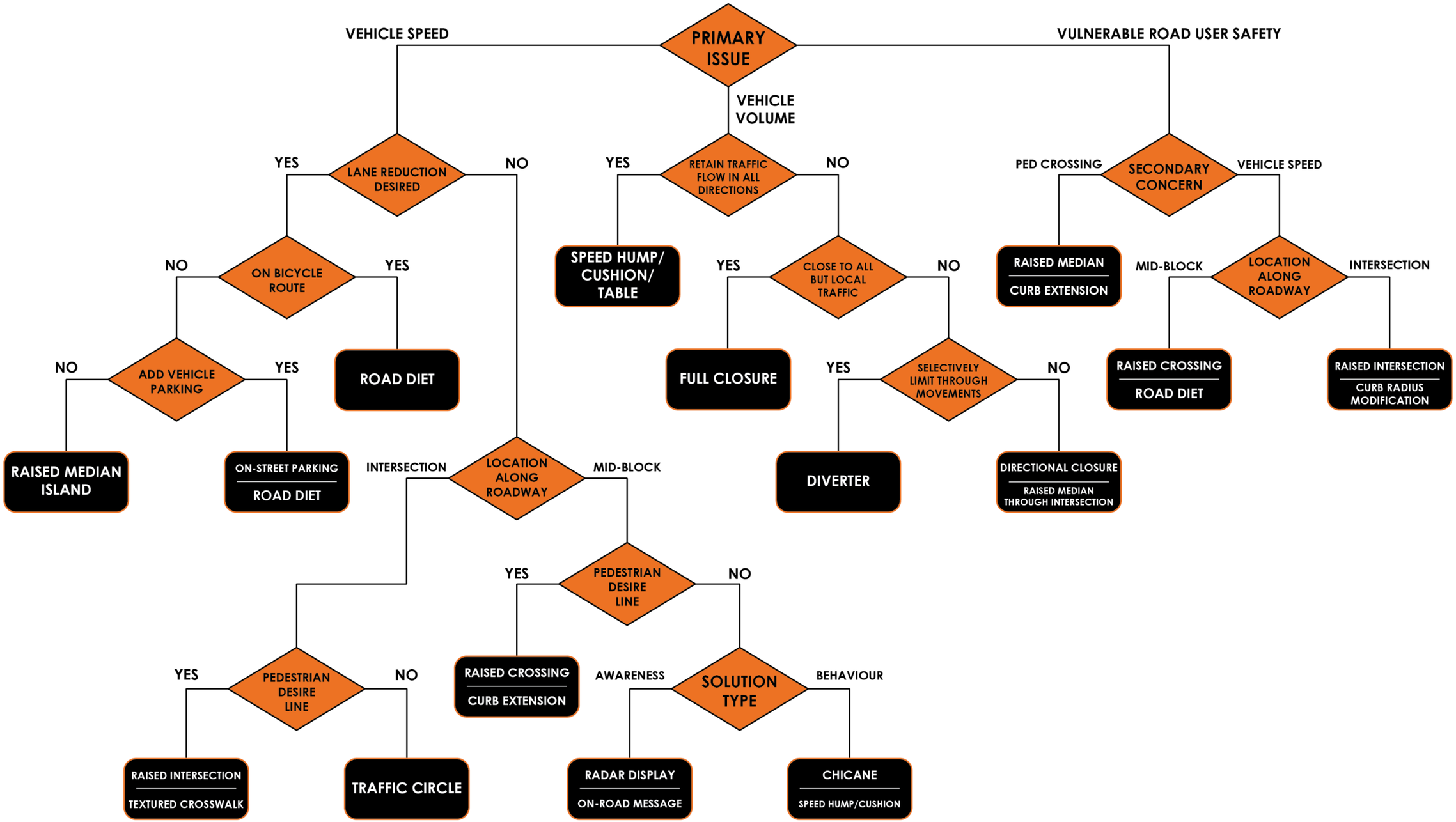
	EFFECTIVENESS			ROAD CLASSIFICATION		
Traffic Calming Measure	**Reduce Speed**	**Reduce Volume**	**User Safety**	**Urban Local Road**	**Main Street**	**Minor Collector**
Vertical Measures						
Speed Hump/Cushion/Table	+	+	O	✓	✓	✓
Raised Crossing	+	O	+	✓	✓	✓
Raised Intersection	+	−	+	✓	✓	✗
Horizontal Measures						
Curb Extension	O	−	+	✓	✓	✓
Curb Radius Modification	+	−	+	✓	✓	✓
Chicane	+	O	O	✓	✓	✗
Road Diet	+	−	+	✓	✓	✓
On-Street Parking	+	−	O	✓	✓	✓

	EFFECTIVENESS			ROAD CLASSIFICATION		
Traffic Calming Measure	**Reduce Speed**	**Reduce Volume**	**User Safety**	**Urban Local Road**	**Main Street**	**Minor Collector**
Raised Median Island	+	−	+	✓	✓	✓
Traffic Circle	+	−	O	✓	✓	✗
Obstruction Measures						
Raised Median Through Intersection	−	O	O	✓	✓	✗
Diverter	O	+	O	✓	✓	✗
Directional Closure	O	+	O	✓	✓	✗
Full Closure	O	+	O	✓	✓	✗
Awareness Measure						
Textured Crosswalk	O	−	O	✓	✓	✓
Bicycle Boulevard	O	−	O	✓	✓	✓
Radar Speed Display Sign	+	−	O	✓	✓	✓

	EFFECTIVENESS			ROAD CLASSIFICATION		
Traffic Calming Measure	Reduce Speed	Reduce Volume	User Safety	Urban Local Road	Main Street	Minor Collector
On-Road Messaging	O	–	O	✓	✓	✓
Traffic Calmed Neighborhood/ Community Safety Zone Signs	O	–	O	✓	✓	✓

Figure 2 applies a decision flow chart approach to choosing one or two appropriate traffic calming measures based on successive aspects of identified issues – primary and secondary areas of concern – and desirable outcomes such as lane reduction, parking provision, or inclusion of bicycle facilities. Once confidently identified as appropriate, with fully understood impact/cost ratios, viable alternatives are submitted to the next step of the project approval process.

Figure 2 – Traffic Calming Element Choice Decision Tree



1.2.4 OFFICIAL PROJECT APPROVAL AND COMMUNITY NOTIFICATION

The project approval step of the implementation process consists of multiple stages. First, viable alternatives identified during scoping will be presented to the City Planning Committee who previously gave conditional approval for technical validation activities. The Committee will select a recommended option if multiple alternatives are presented. Additionally, this group will identify any mitigation that may be required to offset adverse impacts of the preferred alternative.

Once a preferred alternative is chosen, engagement with the affected community begins. City Staff will prepare an online project description, notified to residents through direct mailing. The municipal website should include a comment form or e-mail link for residents to share final refining feedback and gauge general sentiment. City Staff may consider modifying project plans and reintroducing them to the community via a second round of project description publication at the same municipal website location.

The project then proceeds to final design and implementation.

Implementation Strategy & Monitoring

Once a traffic calming solution has been selected/approved, the City should follow a consistent implementation strategy that includes:

- Completion of the Approved Design
- Secure Construction Funding
- Notification of Impacted Users
- Schedules (Bid, Procurement, Implementation)
- Post-installation Monitoring on Target and Nearby Streets

The process for implementing traffic calming measures must also involve public participation to ensure that the implementation strategy addresses stakeholder concerns. The strategy developed should weigh the benefits of the traffic calming measures with any disadvantages that they may pose to nearby residents and business owners.

City staff should plan for a post-installation monitoring period not only to observe technical aspects and inform future recommendations at other locations, but also to receive local feedback on whether perceived issues have been resolved per the initial justification for the traffic calming measure request. If 85th percentile speeds continue to exceed 10 km/hr above the posted speed limit, additional traffic calming measures may be considered.

In addition to conducting before-and-after speed and volume studies, City staff with carry out follow-up assessment 4-6 months after traffic calming implementation to evaluate whether the traffic calming measures have caused significant diversion of traffic to adjacent and parallel streets. The post-implementation studies will be compared with baseline data to identify changes in traffic volume. If a parallel street experiences an increase of more than 15 percent in traffic volume, and the daily volume of the parallel street is 150 vehicles or greater, the City will investigate potential corrective actions to address or mitigate resultant impacts.

2 Traffic Calming Measures

As design elements are the building blocks of street design, a subset of these elements, traffic calming measures, are the building blocks used to retrofit existing streets experiencing volumes or speeds that are not in line with the desired function of streets within the roadway network.

When determining which traffic calming measures should be included in such a toolkit, consideration should be given to whether a measure serves self-enforcing design concepts. Self-enforcing design is rooted in the idea that environmental cues provide the most effective signals to drivers to operate safely, at a travel speed compliant with a community's safety objectives.

Rather than relying on signage and enforcement, a self-enforcing design reflects the character and context of the street. When curb-to-curb distances and lanes widths are wide, and when buildings, trees, and street furnishings are far from the edge of the roadway, a driver naturally drives faster, regardless of the posted speed limit. In this environment, peripheral awareness diminishes. Whereas on a street designed to use the minimum required pavement width, that has trees and other active uses at the street edge, the sense of enclosure instinctively provides drivers a better sense of their travelling speed relative to their surroundings. Driving slower, better perception of other activity along the roadway becomes a reciprocal benefit.

While self-enforcing design typically compels drivers to behave cautiously, a complete street redesign is nearly always impractical. Therefore, traffic calming elements are often the only tools available to a street designer to create streets that do not overly rely on active enforcement.

Grouped according to common applications (vertical, horizontal, obstruction, and awareness), subsequent pages catalogue measures along with clear definitions and detailed guidance on the use, material cost, design, advantages, disadvantages, operations, and maintenance of these useful building blocks. The base material cost provided is limited to a single instance of that design element installed on a 20-25m roadway section with one 3.75m travel lane in each direction. The material cost range reflects contingencies including variation in the size of the installation as well as topography variation.

Speed Hump/Cushion/Table

Raised areas along a roadway which discourage drivers from travelling at high speed. Inexpensive to design and install. Speed cushions have gaps between them to accommodate emergency vehicles. Installations can be temporary or permanent Speed tables are longer flat-topped speed humps.

MEASURE

Vertical

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER MEASURE

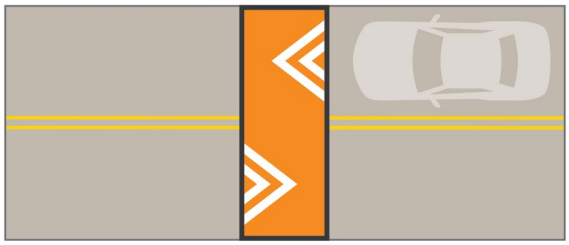
$19,500-$29,250
Milling and asphalt. Total expenditures greater due to costs of labour, signage, pavement markings

ADVANTAGES

- Minimal impact on cyclists
- Self-enforcing
- Speed cushions better accommodate emergency vehicles than speed humps

DISADVANTAGES

- Impact on snow clearing



DESIGN

- Speed humps are eight to ten centimetres high and 3.5 to 4.25 metres wide, with a ramp length of one to two metres.
- Speed tables are flat-topped, with a height of eight to nine centimetres and a length of approximately 6.7 metres.
- Vertical elements should not be placed in line with roadway access points.
- Designs should ensure proper drainage, permit snow removal, and accommodate street sweeping vehicles while not damaging the speed control elements.

OPERATIONS AND MAINTENANCE

- Vertical speed control elements should be accompanied by signage and pavement markings warning approaching drivers.
- Monitor the impact of treatments at the network and neighborhood level prior to and after installation.
- Snow plow operators should be adequately warned and trained.

Raised Crossing

Raised crossings elevate the crosswalk above street level, improving pedestrian visibility, Typically implemented mid-block, raised crossings slow vehicles and increase safety for pedestrians.

MEASURE

Vertical

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER MEASURE

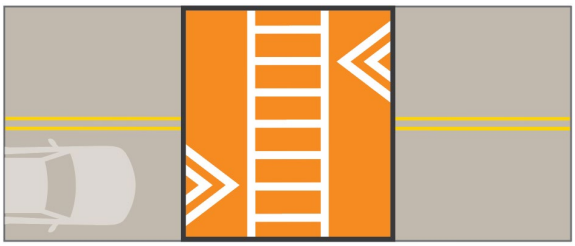
$30,800-$46,200
Excavation, concrete, tactile indicators. Total expenditures greater due to costs of labour, signage, pavement markings

ADVANTAGES

- Improved pedestrian visibility
- Pedestrian area better defined
- Self-enforcing
- Reduce pedestrian-vehicle conflict

DISADVANTAGES

- Can slow down the response time of emergency services and impact the comfort of patients being transported



DESIGN

- Raised crosswalks may be used where vehicle volumes are generally low.
- A raised crosswalk may be required where multi-use trails cross a roadway.
- Signage to alert drivers to the raised crossing must be provided.
- Raised crossings require detectable warnings at the curb line for persons with visual disabilities.
- Transit routes and emergency vehicle routes must be considered when designing approach ramps.
- High-visibility or textured paving materials can be used to enhance the contrast between the raised crossing and the surrounding roadway.
- Designs should ensure proper drainage.

OPERATIONS AND MAINTENANCE

- Installation of raised crossings and intersections may affect snow removal operations. Snow plow operators should be adequately warned and trained.

Raised Intersection

An intersection that is slightly elevated compared to the intersecting roadways. They aim to reduce vehicular speed at crossings by raising the level of the entire intersection to the level of the sidewalk, a similar concept to speed tables, but applied to the entire intersection.

MEASURE

Vertical

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER MEASURE

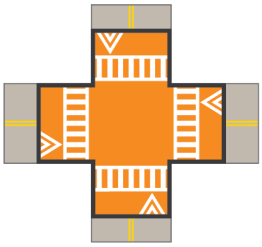
$183,800-$275,700
Excavation, fill, asphalt, concrete, tactile indicators, sod topsoil. Total expenditures greater due to costs of labour, signage, potential relocation of catch basins

ADVANTAGES

- Improved pedestrian visibility
- Pedestrian area better defined
- Self-enforcing
- Reduce pedestrian-vehicle conflict

DISADVANTAGES

- Negative impact on Emergency Services (i.e., Ambulance, Fire, and Police) by slowing down response time and impacting the comfort of patients being transported



DESIGN

- Maintain direct routes across intersections aligning pedestrian desire lines on either side of the sidewalk.
- Signage to indicate the raised intersection to drivers must be provided.
- Raised intersections require detectable warnings at the curb line for persons with visual disabilities.
- Transit routes and emergency vehicle routes must be considered when designing approach ramps.
- High-visibility or textured paving materials can be used to enhance the contrast between the raised intersection and the surrounding roadway.
- Designs should ensure proper drainage.

OPERATIONS AND MAINTENANCE

- Installation of raised crossings and intersections may affect snow removal operations. Snow plow operators should be adequately warned and trained.

Curb Extension

A horizontal extension of a curb into the roadway, resulting in a shorter pedestrian crossing distance. Also referred to as a bump out, curb extensions are most commonly installed at intersections, but may be used at mid-block crossings. Curb extensions are useful in defining and protecting parking lanes.

MEASURE

Horizontal

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

COST PER MEASURE

MATERIAL COST PER MEASURE

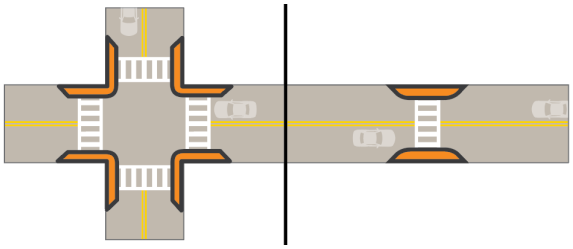
$52,700-$79,050
Excavation, milling, asphalt, concrete sidewalk/curb, tactile indicators, sod, topsoil. Total expenditures greater due to costs of labour, signage, potential relocation of catch basins, potential bollards

ADVANTAGES

- Increase pedestrian visibility
- Opportunity for landscaping

DISADVANTAGES

- May not be compatible with bike lanes
- May require removal of on-street parking spaces



DESIGN

- Bump outs should not narrow any lanes to an unsafe width. One-half metre should remain between the curb and the first travel or bicycle lane.
- Corner or midblock bump outs with crosswalks should be as wide as the crosswalk and extend to the stop bar.
- At corners with turn restrictions, use a bump out to encourage compliance.
- Consider bus turning requirements when proposing bump outs along streets that accommodate transit vehicles.

OPERATIONS AND MAINTENANCE

- Installation of bump outs can be temporary, using bollards and planters.
- Green infrastructure applications associated with bump outs require maintenance plans.
- Special snow removal equipment should not be necessary if bump outs are designed with adequate turn radii.

Curb Radius Modification

A redesign and reconstruction of an intersection corner to create a smaller effective turning radius. Smaller curb radii result in slower turning speeds and greater pedestrian safety and comfort.

MEASURE

Horizontal

PRIMARY PURPOSE

Speed Reduction

MATERIAL COST PER MEASURE

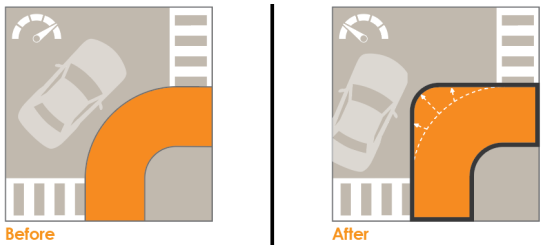
$12,300-$18,450
Excavation, milling, asphalt, concrete sidewalk/curb, sod, topsoil. Total expenditures greater due to costs of labour, potential relocation of catch basins, pavement repair

ADVANTAGES

- Slow right-turning vehicles
- Reduce crossing distance for pedestrian
- An expanded pedestrian area allowing for better pedestrian ramp alignment

DISADVANTAGES

- Where streets intersect at acute angles, tight turn radii may preclude use by certain vehicle types.



DESIGN

- Street designers should use the smallest practical actual corner radius that preserves an effective curb radius appropriate to the design vehicle and the overall objectives of the street.
- Control vehicles that rarely use the street, such as fire trucks, may encroach into oncoming lanes if and when required to slowly navigate a turn.
- Smaller radii should be the default where there is an expectation of high levels of use by persons with disabilities.

OPERATIONS AND MAINTENANCE

- Implementation of modified curb radii may be temporary, using rubber parking bumpers and flexible delineator posts. Winter removal may be considered.
- Special snow removal equipment should not be necessary if radii are designed adequately for the current fleet.

Chicane

Two or more offset curb extensions that are designed to narrow a two-lane roadway to a one-lane roadway for a short distance, considerably slowing traffic speeds. Depending on the level of implementation, Chicanes may significantly increase the amount of public space along a street.

MEASURE

Horizontal

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER FULL PAIR

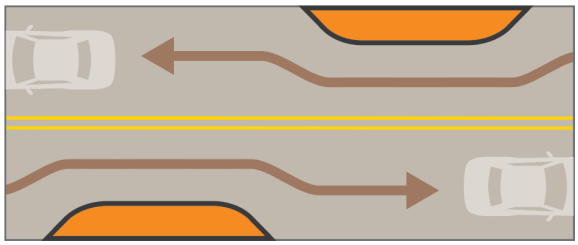
$39,800-$59,700
Excavations, milling, asphalt, concrete sidewalk/curb, sod, topsoil. Total expenditures greater due to costs of labour, signage, potential relocation of catch basins

ADVANTAGES

- Also discourages cut-through traffic.
- Increased public space creates landscaping opportunities.

DISADVANTAGES

- Not recommended on bike routes
- Suggested for roads with moderate traffic volumes. Chicanes have proven to be ineffective on low volume roads and other safety concerns are created when installed on high volume roads.



DESIGN

- Shifts in chicane alignment should be at least one lane in width with deflection angles of at least 45 degrees, with sufficient narrowing of the roadway center to prevent drivers from following a straight path.
- Additional signage may be warranted to alert drivers to the effective bends in the travel lanes.

OPERATIONS AND MAINTENANCE

- Monitor the impact of traffic calming treatments at the network or neighborhood level prior to and after installation.
- Horizontal control measures that allow for and result in added landscaping will require additional maintenance.
- Designs should consider snow removal operations. Visual cues should alert snow plow operators of the change in the roadway.

Road Diet

A reconfiguration of the roadway, typically limited to striping, that typically removes and narrows vehicular travel lanes to accommodate bicycle lanes, two-way left turn lanes, and on-street parking.

MEASURE

Horizontal

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL UNIT COST

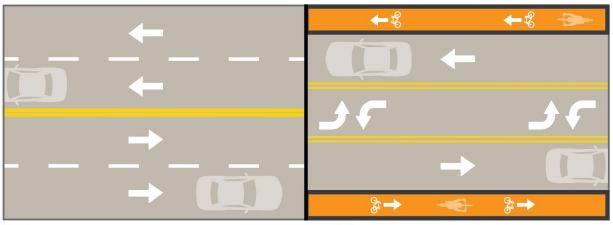
$200-$300 per painted square metre
Material expenditures vary according to length of roadway and lane allocation. Will include associated costs of traffic engineering

ADVANTAGES

- Provides opportunity to provide bicycle lanes, two-way left turn lanes, on-street parking, or other streetscape improvements.
- Discourages speeding while improving sight distances for left-turning vehicles.
- Minimal effect on the vehicular capacity of the roadway.
- General reduction in left-turning crashes.

DISADVANTAGES

- Potential for increase in right-turning vehicle/cyclist conflict.



DESIGN

- The centre turn lane target width is 3.3 metres. Minimum width is 3.0 metres.
- Painted, textured, or raised medians may be incorporated between intersections to provide improved pedestrian crossings, incorporate landscape elements, and reduce travel speeds.
- Bump outs may be added to protect newly designated parking lanes, but care must be taken not to impede any new bicycle lanes created through space reallocation.

OPERATIONS AND MAINTENANCE

- A major street redesign requires reconsideration of signal placement and alignment, signal timing, intersection capacity, and turning movement dynamics at major intersections.
- Post-reconfiguration traffic operations monitoring is required to determine project impact.

On-Street Parking

Restricts the roadway width by allowing automobiles to park along the roadway. When implemented diagonally, the position of the parking spaces are designed to change the perception and function of a street while allowing easier maneuvering and more stalls than parallel parking.

MEASURE

Horizontal

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL UNIT COST

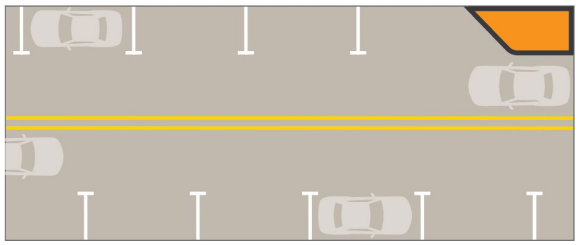
$200-$300 per painted square metre
Material expenditures vary according to length of parking area

ADVANTAGES

- Forces drivers to be more aware of nearby street activity
- Reduces effective pedestrian crossing distance
- Possible reduction in through traffic

DISADVANTAGES

- Perpendicular and angled parking not appropriate on narrower streets or streets with bicycle facilities



DESIGN

- Typically, on-street parking is curbside parking parallel to the curb. Perpendicular or angled parking are also acceptable configurations.
- Parking spaces may be marked with T and L pavement markings at their outside edge or defined with a solid white line.
- Parallel curbside parking spaces should be at least 2.8 metres wide by 6.5 metres long.

OPERATIONS AND MAINTENANCE

- General parking restrictions may be defined depending on roadway and community context.
- Parking lanes require the same snow clearing, sweeping, and other maintenance as travel lanes. Management through temporary restrictions may be required.

Raised Median Island

An curb-lined structure running parallel to, and installed in the center of, a roadway to divide lanes of traffic and further restrict the width of remaining available roadway.

MEASURE

Horizontal

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER MEASURE

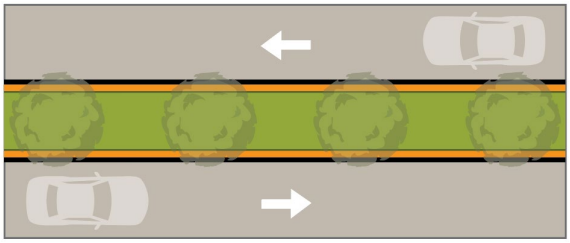
$435-$652.50 per linear metre
Earth excavation, cutting/milling, concrete curb, sod, topsoil. Total expenditures greater due to costs of labour, signage, landscaping, potential removal and repair of pavement

ADVANTAGES

- Reduce pedestrian-vehicle conflict by limiting turning movements
- Safer pedestrian crossing by providing refuge that lessens exposure by dividing crossing distance into two more manageable distances

DISADVANTAGES

- Potential driveway access restriction
- Potential loss of on-street vehicle parking
- Larger right-of-way required



DESIGN

- Striped or painted medians may precede more permanent improvements, providing an opportunity to test travel behavior before making a significant capital investment.
- Raised median design may include landscaping and stormwater control.
- Medians protecting turning lanes or pedestrian refuge areas should be at least 3.0 metres wide. All others should be a minimum of 2.0 metres wide.
- Medians should allow adequate width in adjacent travel lanes as well as turn radii that accommodate service vehicles.

OPERATIONS AND MAINTENANCE

- Medians should be designed with snow removal in mind and can be used for snow storage if necessary, though this may negatively impact planted materials and can block driver sight lines.
- Median construction should facilitate maintenance of plantings and vegetation.

Traffic Circle

Also known as a mini roundabout, a traffic section is an intersection control type. It provides a raised island in the center of the intersection around which traffic circulates. It can be used at existing intersections to replace two-way stop control, all-way stop control, or a traffic signal.

MEASURE

Horizontal

PRIMARY PURPOSE

Speed Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER MEASURE

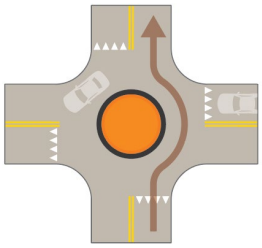
$8,100-$12,150
Excavation, cutting/milling, concrete median, asphalt. Total expenditures greater due to costs of labour, signage, landscaping

ADVANTAGES

- Reduce vehicle-vehicle conflicts at intersections
- Opportunity for landscaping

DISADVANTAGES

- Restricts turning movements by large vehicles
- May increase Emergency Services response time



DESIGN

- The size and location of the central island should allow for all traffic movements typically accommodated by a four-way intersection.
- However, central island physical parameters should ensure vehicle path deflection to encourage proper circulation and reduced speeds.
- Where a bicycle boulevard turns at an intersection featuring a traffic circle, use bicycle-specific wayfinding signage and using pavement (shared-lane) markings to reiterate the bike route direction.

OPERATIONS AND MAINTENANCE

- Shrubs or trees in the traffic circle must be properly maintained to not compromise visibility.
- Like medians, traffic circles can store snow if necessary, but consideration should be given to preservation of plantings and sight obstructions.

Raised Median Through Intersection

An elevated median installed through an intersection, blocking through traffic and left turning movements in certain directions, generally to and from local streets.

MEASURE

Obstruction

PRIMARY PURPOSE

Volume Reduction

ACCOMPANYING SIGNAGE

MATERIAL UNIT COST

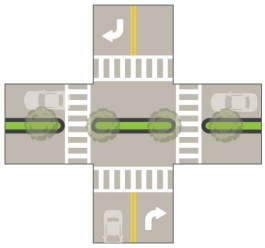
$490-$735 per linear metre
Earth excavation, milling, concrete curb, sod, topsoil. Total expenditures greater due to costs of labour, signage, landscaping, potential removal and repair of pavement

ADVANTAGES

- Obstruct short-cutting traffic along lower order road classifications
- Safer pedestrian crossing by providing refuge that lessens exposure by dividing crossing distance into two more manageable distances
- Maintain non-motorized access

DISADVANTAGES

- May increase traffic on adjacent streets
- May increase trip length for residents



DESIGN

- Raised medians through intersections provide opportunities for landscaping and two-stage pedestrian crossings.
- Medians protecting turning lanes or pedestrian refuge areas should be at least 3.0 metres wide. All others should be a minimum of 2.0 metres wide.
- The median should extend a sufficient distance beyond the intersection's edge to prevent attempts by drivers to circumvent the barrier. A smaller opening may be provided for bicycle cross-traffic.

OPERATIONS AND MAINTENANCE

- Post-installation impacts on adjacent lower order streets should be monitored.
- Medians should be designed with snow removal in mind and can be used for snow storage if necessary, though this may negatively impact planted materials and can block driver sight lines.
- Median construction should facilitate maintenance of plantings and vegetation.

Diverter

Raised triangular islands at an intersection that prevent vehicles from turning a certain direction or driving through an intersection. May be oriented diagonally across an intersection to force left turns in two directions and right turns from other approaches.

MEASURE

Obstruction

PRIMARY PURPOSE

Volume Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER MEASURE

$14,200-$21,300
Excavation, cutting/milling, concrete median, asphalt. Total expenditures greater due to costs of labour, signage, landscaping

ADVANTAGES

- Obstruct short-cutting traffic along lower order road classifications

DISADVANTAGES

- May increase traffic on adjacent streets
- May increase trip length for some residents
- Impacts to emergency response access

DESIGN

- Can be used on one-way and two way streets but can only be implemented at intersections.
- Barriers may take the form of walls, gates, landscaped areas, or other obstructions.
- Openings for pedestrians and cyclists should be provided to preserve movement in all directions for non-motorized transportation modes.
- Approaches require signage corresponding to valid and invalid movements from all approaches.
- Should not be used on streets providing frequent access to emergency services.

OPERATIONS AND MAINTENANCE

- Post-installation impacts on the surrounding street network should be monitored to ensure that traffic is diverted to higher order, rather than other lower order streets.

Directional Closure

A directional closure is a longer curb extension or vertical barrier extending to the roadway's midpoint that obstructs or prohibits one direction of traffic, creating a one way street for all but local traffic.

MEASURE

Obstruction

PRIMARY PURPOSE

Volume Reduction

ACCOMPANYING SIGNAGE

MATERIAL COST PER MEASURE

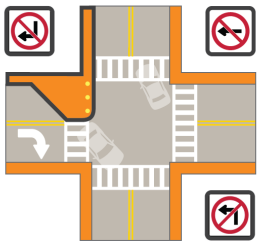
$7,000-$10,500
Excavation, cutting/milling, concrete median, asphalt. Total expenditures greater due to costs of labour, signage, landscaping

ADVANTAGES

- Obstruct short-cutting traffic along lower order road classifications

DISADVANTAGES

- May increase traffic on adjacent streets
- May increase trip length for some residents
- Impacts to emergency response access



DESIGN

- Can only be implemented at intersections.
- Barriers may take the form of walls, gates, landscaped areas, or other obstructions.
- Openings for pedestrians and cyclists should be provided to preserve movement in all directions for non-motorized transportation modes.
- Approaches require signage corresponding to valid and invalid movements from all approaches.
- Should not be used on streets providing frequent access to emergency services or on transit routes.

OPERATIONS AND MAINTENANCE

- Post-installation impacts on the surrounding street network should be monitored to ensure that traffic is diverted to higher order, rather than other lower order streets.

Full Closure

Installation of a barrier across the entire width of a roadway, preventing drivers from passing through. Full closures can be designed and built to allow emergency vehicle access through the use of gates or breakaway/mountable materials.

MEASURE

Obstruction

PRIMARY PURPOSE

Volume Reduction

ACCOMPANYING SIGNAGE

COST PER MEASURE

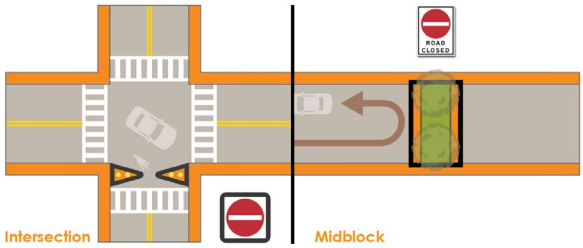
Highly varied based on roadway width, material choice, appropriate signage, and required labour

ADVANTAGES

- Reduce pedestrian-vehicle conflict
- Obstruct short-cutting traffic along lower order road classifications

DISADVANTAGES

- May increase traffic on adjacent streets
- May increase trip length for some residents
- Impacts to emergency response access



DESIGN

- May be implemented at intersections or mid-block locations.
- Barriers may take the form of walls, gates, landscaped areas, or other obstructions.
- Openings for pedestrians and cyclists should be provided to preserve movement in all directions for non-motorized transportation modes.
- In addition to site signage, full closures require pre-warning signage at the most proximate intersection in each direction.
- Should not be used on streets providing frequent access to emergency services or on transit routes.

OPERATIONS AND MAINTENANCE

- Post-installation impacts on the surrounding street network should be monitored to ensure that traffic is diverted to higher order, rather than other lower order streets.

Textured Crosswalks

A textured or patterned surface placed along a pedestrian crosswalk to increase visibility and safety. Textured pavements reinforce the shared nature of crosswalk space between motorists and pedestrians.

MEASURE

Awareness

PRIMARY PURPOSE

Safety

ACCOMPANYING SIGNAGE

MATERIAL UNIT COST

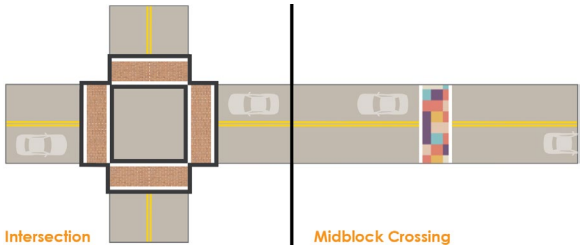
$200-$300 per patterned square metre
Material expenditures vary according to size of crosswalk, choice of paint/stamped concrete/brick

ADVANTAGES

- Alert drivers to a change in area context/character
- Positive aesthetic value

DISADVANTAGES

- Depending on the material used, textured crosswalk can make crossing more difficult for those with mobility aids and the visually impaired
- Materials may be costly and maintenance burden greater than painted crosswalks
- Less effective during winter when obscured by snow and ice



DESIGN

- While able to be implemented alone, texturing is often used to enhance other elements such as raised crosswalks.
- Color is typically added as a visual cue to increase effectiveness through earlier indication of the presence of a crosswalk.
- While not specifically defined, dimensions should be limited to the area required to provide adequate visual recognition.

OPERATIONS AND MAINTENANCE

- Textured crosswalk require more frequent maintenance action due to likelihood of uneven transitions between asphalt and other materials.
- Similar to painted crosswalks, stamped, patterned, or painted textured crosswalks require repainting at regular intervals to maintain appearance and effectiveness.

Bicycle Boulevard

Installation of signage and pavement markings on streets with less vehicle traffic indicating that the roadways are shared facilities for bicycles and automobiles. Sometimes referred to as neighbourhood greenways, bicycle boulevards typically combine elements such as speed cushions, bulb-outs, diverters, signage, and pavement markings to create useful low-stress routes parallel to heavily trafficked corridors.

MEASURE

Awareness

PRIMARY PURPOSE

Safety

ACCOMPANYING SIGNAGE

COST CONSIDERATIONS

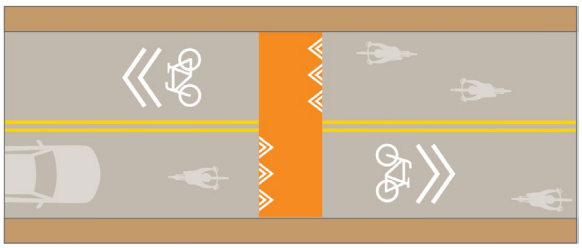
Implementations costs vary as a function of the number of installed vertical control elements, signage, pavement markings

ADVANTAGES

- Well programmed bicycle boulevards greatly expand an official lower stress cycling network
- Vehicular access is maintained
- Can also slow and limit cut-through traffic

DISADVANTAGES

- May greatly increase trip length for cyclists versus a comparable vehicular route depending on street grid connectivity



DESIGN

- Bicycle boulevards are most appropriate for streets already experiencing lower vehicular speeds and volumes.
- Clear signage and directional pavement markings enhance bicycle boulevard corridors that follow indirect routes.
- Bicycle boulevards create a major opportunity to integrate many forms of green infrastructure into speed and volume management.
- Traffic signals may be required to ensure safety of cyclists where bicycle boulevards cross high vehicular volume streets.

OPERATIONS AND MAINTENANCE

- Post-implementation traffic conditions should be monitored to ensure conditions meet desired targets.
- Designated bicycle boulevards should receive higher priority within street maintenance service plans.

Radar Speed Display Sign

Radar-activated devices that display the speeds of approaching vehicles and may display an alert that a driver is violating the speed limit. The signs are designed to reduce speeds and promote cautious driving by creating a sense of the presence of official surveillance.

MEASURE

Awareness

PRIMARY PURPOSE

Speed Reduction

COST PER MEASURE

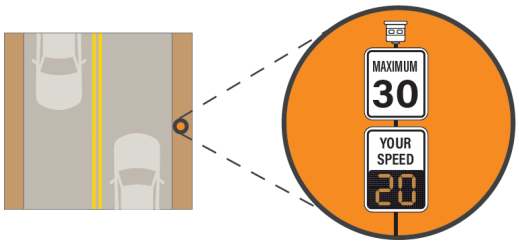
Highly varied based on vendor, style, power source, mounting pole, physical installation and potential electrical work

ADVANTAGES

- Minimal to no impact on transit/emergency vehicle operations
- Minimal to no impact on physical roadway features such as drainage
- Can be used at multiple locations
- Less expensive than direct enforcement
- Useful where physical measures are not feasible due to roadway constraints

DISADVANTAGES

- Initial capital cost
- Two units required to serve both directions of travel
- Requires ongoing maintenance
- Effectiveness may wane if overused and drivers perceive no likely true enforcement



DESIGN

- Devices may be portable or permanent.
- Signs may include displayed messages when a vehicle is in violation of the speed limit such as SLOW DOWN or REDUCE SPEED.
- Signs may be effective when posted in a transition zone to a lower speed area.

OPERATIONS AND MAINTENANCE

- Speed display signs require a reliable power source. Many contemporary models are equipped with backup batteries or solar panels that should be inspected regularly.
- Rotation, relocation, or repair of damaged signs requires action on the part of public works.
- Continually ensure sign visibility is not blocked by vegetation or other obstacles.

On-Road Messaging

Pavement markings communicate a higher sense of priority and the potential for a significant change in the roadway to drivers. Messages may emphasize the presence of traffic calming features.

MEASURE

Awareness

PRIMARY PURPOSE

Safety

COST PER MEASURE

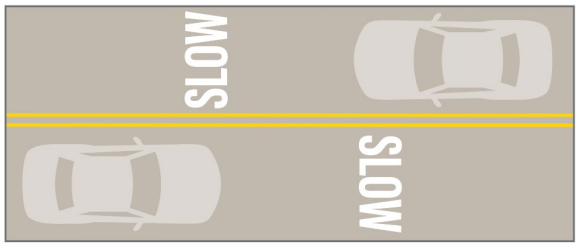
$200-$300 per painted square metre
Material expenditures vary according to number and size of messages

ADVANTAGES

- Minimal to no impact on transit/emergency vehicle operations
- Minimal to no impact on physical roadway features such as drainage

DISADVANTAGES

- Requires ongoing maintenance
- Less effective during winter
- May impact cyclists or motorcycles
- May increase roadway noise



DESIGN

- Often used in conjunction with gateways or other traffic calming measures.
- Typically placed in a transition zone or along a bicycle boulevard.
- Added colour may add to effectiveness
- Use skid-resistant surfacing and paints

OPERATIONS AND MAINTENANCE

- Similar to painted crosswalks, stamped, on-road messaging requires repainting at regular intervals to maintain appearance and effectiveness.

Traffic Calmed Neighbourhood/ Community Safety Zone Signs

Signs indicating that the driver is either entering a neighborhood that has forms of traffic calming measures in place or a community safety zone where fines are doubled for traffic related incidents or violations. Both signs are intended to enhance driver awareness and encourage safe driving.

MEASURE

Awareness

PRIMARY PURPOSE

Speed Reduction

COST PER MEASURE

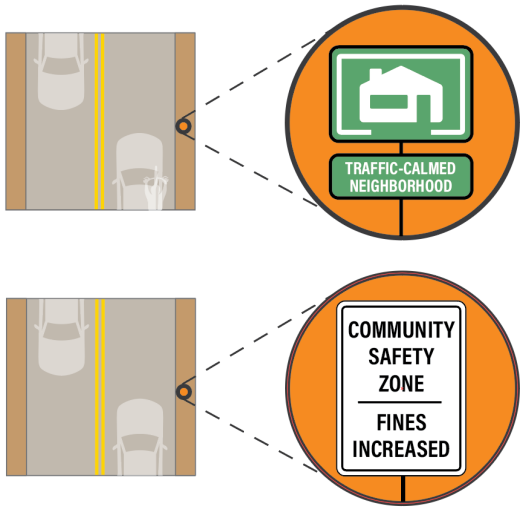
Varied based on vendor, size of signage, material type, sheeting type, mounting pole

ADVANTAGES

- Consequences of enforcement and increased fines increase effectiveness
- Minimal to no impact on transit/emergency vehicle operations
- Minimal to no impact on physical roadway features such as drainage

DISADVANTAGES

- Can lose effectiveness if deployment is not selective and appropriate
- Requires input and commitment from police for the enforcement needed to retain maximum effectiveness



DESIGN

- Establishment of zones and use of signs must be authorized by local by-laws.
- Community safety zones are typically implemented near public places such as schools, daycare facilities, senior homes, or hospitals.
- Signs must be posted at each limit of a community safety zone.

OPERATIONS AND MAINTENANCE

- Responsibility for replacement and/or repair of damaged signs and posts.
- Continually ensure sign visibility is not blocked by vegetation or other obstacles.

Appendix B

Recommended Improvement Costs and Prioritization

Unit Price Schedule

ID	Description	Unit	2024 Unit Value	Comments/Assumptions
1	Signed Bike Route with Sharrow Lane Markings	Linear km	$ 11,760	Price for both sides of the road, includes route signs every 330m, and sharrow stencil every 75m as per Ministry Guidelines.
2	Signed Bike Route with Buffered Paved Shoulder in conjunction with existing road reconstruction / resurfacing	Linear km	$ 417,220	Price for both sides of the road, 1.5m paved shoulder + 0.5 to 1.0m paved buffer, assumes cycling project pays for additional granular base, asphalt, edge lines and signs (buffer zone framed by white edge lines)
3	Conventional 1.5m-1.8m Bicycle Lanes by Adding Bike Lane Markings and Signs	Linear km	$ 32,760	Price for both sides of the road, includes signs, stencils, and edge line. Price is for thermoplastic paint.
4	Conventional 1.5m-1.8m Bicycle Lanes in Conjunction with a New Road or Road Reconstruction Project	Linear km	$ 365,980	Price for both sides of the road, assumes 1.5m bike lanes on both sides of the roadway (1.5m x 2 sides = 3.0m). Includes catch basin leads, asphalt, signs, pavement markings sub-base only. Road project funds all other improvements
5	Buffered Bicycle Lane with Flex Bollards - Assumed New Road or Road Reconstruction/Widening Already Planned	Linear km	$ 525,820	Price for both sides of the road, assumes 1.5m bike lanes + flex bollards centered in hatched buffer zone at 10m intervals. Includes catch basin leads, asphalt, signs, edge line pavement markings (both sides of buffer zone) sub-base only.
6	Uni-directional Cycle Tracks: Raised and Curb Separated - Retrofit Existing Roadway	Linear km	$ 809,850	Both sides. Includes construction but excludes design and signal modifications. Form of cycle track and materials as well as related components such as bike signals, upgrade/modification of signal controllers, utility/lighting pole relocations, bike boxes etc. are excluded and are project specific and will impact unit price.
7	Hard Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting (New)	Linear km	$ 484,020	3.0m wide hard surface pathway (asphalt) within park setting (normal conditions) 90mm asphalt depth. Price depends of scale / complexity of project. Excludes drainage features and landscaping
8	Granular Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting	Linear km	$ 233,300	3.0m wide, compacted stone dust surface normal site conditions. Price depends of scale / complexity of project. Excludes drainage features and landscaping
10	Granular Surfaced Multi-Use Trail in a Woodland Setting	Linear km	$ 180,290	2.4m wide, compacted stone dust surface. Price depends on scale / complexity of project.
11	Sidewalk, New Construction, Single Side of Roadway, Adjacent to Curb	Linear km	$ 463,170	Price for 1.8m concrete sidewalk. Include site prep., select utility relocation, minor drainage modifications / traffic control.
12	Roundabout, New Construction	each	$ 1,268,453	Price to construct a roundabout. Includes removals and streetlighting. Does not include landscaping or servicing infrastructure.
13	Signalized Intersection	each	$ 400,000	Includes only the capital and installation costs of new traffic signals. Does not include geometric modifications, removals, streetlighting, landscaping, or servicing infrastructure.
14	Widen and Add Lanes to a Two-Lane Non-Local Roadway	Linear km	$ 3,834,646	All-inclusive price to widen an existing roadway per Ministry of Transportation of Ontario parametric estimating guide.
15	Construct a New or Extend an Existing Two-Lane Non-Local Roadway	Linear km	$ 3,222,060	All-inclusive price to create or extend an existing roadway per Ministry of Transportation of Ontario parametric estimating guide.
16	Construct a New or Extend an Existing Urban Local Street	Linear km	$ 3,058,227	All-inclusive price to create or extend an existing local street per City of Ottawa development cost.
17	Two Way Active Transportation Multi-Use Path within Road Right-of-Way	Linear km	$ 471,300	3.0m wide hard surface pathway (asphalt) within road right of way (no utility relocations). Price assumes existing sidewalk to be removed.
17b	Two Way Active Transportation Multi-Use Path within Road Right-of-Way	Linear km	$ 400,650	2.5m wide hard surface pathway (asphalt) within road right of way (no utility relocations). Price assumes existing sidewalk to be removed.

***All unit prices exclude tax, contingency, design and approvals costs.**

Recommended Transportation Improvements and Evaluation Scores

Mode	ID	Facility	Roadway	Description	Limits	Linear KM	Phasing	Construction Cost	Relative Operational Cost	Environmental Assessment Class	Project Evaluation						
											Network Resilience	Network Connectivity and Equity	User Safety	Destination Access	Construction and Feasibility Factors	Development Support	Total Score
Cycling Improvements	CR1	Signed Route	Alma Street	Signed cycling route with signage and sharrow markings on the roadway both directions.	Between Notre Dame Street in the east and Simoneau Street in the west.	0.3	Long-Term	$3,269	Low	Exempt	1	1	1	2	4	1	10
	CR2	Protected Bike Lane	Carmen Bergeron Street	Buffered bike lane with flex bollards, signage, and cycling lane markings both directions.	Between County Road 17 in the north and Richelieu Street in the south.	0.1	Short-Term	$61,521	Medium	Exempt	2	4	3	2	2	1	14
	CR3	Paved Shoulder	Caron Street	Buffered Paved shoulder with signage on both sides of the roadway.	Between the new Bronze Avenue in the north and Baseline Road in the south.	1.6	Long-Term	$678,400	Low	Exempt	2	4	2	1	3	2	14
	CR4	Signed Route	Du Parc Avenue	Signed cycling route with signage and sharrow markings on the roadway both directions.	Between Simoneau Street in the east and St Joseph Street in the west.	0.6	Short-Term	$7,115	Low	Exempt	1	1	1	4	4	1	12
	CR5	Protected Bike Lane	Edwards Street	Buffered bike lane with flex bollards, signage, and cycling lane markings both directions.	Between Laurier Street in the south and County Road 17 in the north.	0.4	Short-Term	$215,586	Medium	Exempt	2	4	3	2	4	1	16
	CR6	Painted Bike Lane	Expansion Lands Street "B"	**Per the EXPANSION LANDS SECONDARY PLAN:** Painted bike lane with signage and cycling lane markings both directions.	Between David Street in the north and the urban area boundary in the south.	1.0	Long-Term	$358,660	Medium	Included in Roadway EA for Expansion Lands Street B	2	2	2	1	1	3	11
	CR7	Protected Bike Lane	Laporte Street	Buffered bike lane with flex bollards with signage and cycling lane markings both directions.	Between Laurier Street in the east and County Road 17 in the west.	0.3	Short-Term	$139,868	Medium	Exempt	2	4	3	2	2	1	14
	CR8	Painted Bike Lane	Laurier Street	Painted bike lane with signage and cycling lane markings both directions.	Between Heritage Drive in the west and County Road 17 in the east	3.4	Short-Term	$112,039	Medium	Exempt	2	4	2	3	2	1	14
	CR9	Painted Bike Lane	Patricia Street	Painted bike lane with signage and cycling lane markings both directions.	Between St. Joseph Street in the east and Heritage Drive in the west.	1.2	Short-Term	$38,329	Medium	Exempt	2	4	2	2	2	1	13
	CR10	Protected Bike Lane	Richelieu Street	Buffered bike lane with flex bollards, signage, and cycling lane markings both directions.	Between Carmen Bergeron Street in the west and	0.2	Short-Term	$88,864	Medium	Exempt	2	4	3	2	2	1	14
	CR11	Painted Bike Lane	Saint Jean Street	Painted bike lane with signage and cycling lane markings both directions.	Between Laurier Street in the north and Patricia Street in the south.	0.4	Short-Term	$13,825	Medium	Exempt	2	4	2	2	4	1	15
	CR12	Painted Bike Lane	Saint Joseph Street	Painted bike lane with signage and cycling lane markings both directions.	Between Laurier Street in the north and Avenue du Parc in the south.	0.1	Short-Term	$4,685	Medium	Exempt	2	4	2	4	2	1	15
Multi-Use Paths and Trails	CR13	Multi-Use Path	Bronze Avenue Extension (New)	**Per the EXPANSION LANDS SECONDARY PLAN:** Build multi-use path opposite sidewalk.	Between Caron Street in the west and David Street in the east.	1.3	Long-Term	$506,422	Medium	Included in Roadway EA for Bronze Avenue Extension	2	2	2	1	1	3	11
	CR14	Multi-Use Path	Caron Street	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between David Street in the north and the new Bronze Avenue in the south	0.3	Medium-Term	$133,817	Medium	Exempt	3	4	3	1	2	2	15
	CR15	Multi-Use Path	Côté Street	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Dianne Avenue in the east and Jasper Crescent in the west.	0.3	Long-Term	$100,163	Medium	Exempt	3	4	3	1	2	1	14
	CR16	Multi-Use Path	Dalrymple Drive	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Dianne Avenue in the south and Caron Street in the east.	0.5	Long-Term	$214,348	Medium	Exempt	3	4	3	1	2	1	14
	CR17	Multi-Use Path	David Street	**Per the EXPANSION LANDS SECONDARY PLAN:** Build multi-use path opposite sidewalk.	Between Caron Street in the west and the new Bronze Avenue in the east.	0.9	Long-Term	$355,377	Medium	Included in Roadway EA for David Street	2	4	2	1	1	1	11
	CR18	Multi-Use Path	Descôtes Circle	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Richelieu Street in the south and Lemay CIrcle in the north.	0.2	Long-Term	$70,514	Medium	Exempt	3	4	3	1	2	1	14
	CR19	Multi-Use Path	Des Pins Avenue	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Dalrymple Drive in the east and the existing School pathway in the west.	0.6	Medium-Term	$229,572	Medium	Exempt	3	4	3	2	2	1	15
	CR20	Multi-Use Path	Dianne Avenue	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Côté Street in the south and Dalrymple Drive in the north.	0.1	Long-Term	$57,694	Medium	Exempt	3	4	3	1	2	1	14
	CR21	Multi-Use Path	Heritage Drive	New Multi-Use Path replacing sidewalk on one side of street to provide neighborhood internal bicycle connections	Between the proposed connection to Sylvain Street in the south and Laurier Street in the north.	0.6	Short-Term	$225,566	Medium	Exempt	2	4	2	2	2	1	13
	CR22	Multi-Use Path	Industrielle Street	New Multi-Use Path opposite sidewalk to provide neighborhood internal bicycle and pedestrian connections	Between County Road 17 in the south and the roundabout in the east.	0.5	Long-Term	$201,527	Medium	Exempt	2	4	2	2	3	1	14
	CR23	Multi-Use Path	Jasper Crescent	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between the neighbourhood connecting trail to Topaze Crescent in the south and Côté Street in the north.	0.1	Long-Term	$58,094	Medium	Exempt	3	4	3	1	2	1	14
	CR24	Multi-Use Path	La Berge Street Extension (Proposed)	Bi-directional multi-use path along roadway extension to provide bicycle and pedestrian connections.	Between County Road 17 in the north and the existing Laurier Street in the south.	0.3	Long-Term	$106,974	Medium	Included in Roadway EA for La Berge Street Extension	2	4	2	1	1	1	11
	CR25	Multi-Use Path	Laporte Street	Maintain existing sidewalk and add a Multi-Use Path to the opposite side of the street to provide neighborhood internal bicycle connections	Between Laurier Street in the west and Sylvain Street in the east.	0.4	Medium-Term	$168,674	Medium	Exempt	3	4	3	2	3	1	16
	CR26	Multi-Use Path	Laurier Street/Poupart Road	Buffered bike lane with flex bollards with signage and cycling lane markings both directions.	Between Richelieu Street in the west, and Heritage Drive in the east	1.0	Medium-Term	$408,663	Medium	Exempt	2	4	3	3	2	1	15
	CR27	Multi-Use Path	Laviolette Street	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between St Denis Street in the south and Laurier Street in the north.	0.6	Long-Term	$240,390	Medium	Exempt	3	4	3	1	2	1	14
	CR28	Multi-Use Path	Lemay Circle	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Descôtes Circle in the south and the Richelieu Grande-Rivière Park Trail in the north.	0.4	Long-Term	$151,846	Medium	Exempt	3	4	3	1	2	1	14
	CR29	Multi-Use Path	Notre Dame Street	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Des Pins Avenue in the south and Laurier Street in the north.	0.6	Long-Term	$232,778	Medium	Exempt	3	4	3	2	2	1	15
	CR30	Multi-Use Path	Poupart Road	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** New multi-use path on the north side of Poupart Road built as part of the Poupart Road widening.	Between St-Jean Street in the east and the proposed West Roadway extension.	1.1	Short-Term	$428,696	Medium	EA in Progress	3	4	3	2	3	3	18
	CR31	Multi-Use Path	Poupart Road	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** New multi-use path on the east side of Poupart Road built as part of the Poupart Road widening.	Between the proposed West Roadway extension in the south and Richelieu Street in the north.	0.4	Short-Term	$174,283	Medium	EA in Progress	3	4	3	2	3	3	18
	CR32	Multi-Use Path	Richelieu Street	New Multi-Use Path opposite sidewalk to provide neighborhood internal bicycle and pedestrian connections	Between Poupart Road in the west and Descôtes Circle in the east	0.2	Medium-Term	$90,948	Medium	Exempt	3	4	3	2	2	1	15
	CR33	Multi-Use Path	Saint Denis Street	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Laviolette Street in the east and St. Jacques Street in the west.	0.4	Long-Term	$163,065	Medium	Exempt	3	3	3	1	2	1	13
	CR34	Multi-Use Path	Saint Jean Street	New multi-use path on the north side of St. Jean Street built as part of development.	Between the new Bronze Avenue in the east and Poupart Road in the west.	0.6	Short-Term	$235,582	Medium	EA in Progress	3	4	3	2	1	3	16
	CR35	Multi-Use Path	Topaze Crescent	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Docteur Corbeil Boulevard in the south and the neighbourhood connecting trail to Jasper Crescent in the north.	0.3	Long-Term	$106,172	Medium	Exempt	3	4	3	1	2	1	14
	CR36	Multi-Use Path	West Roadway (Proposed)	**Per the OFFICIAL PLAN:** New Multi-Use path on the north side of the New West Roadway through the Rockland West Secondary Lands.	Between Poupart Road in the east and County Road 17 in the west.	1.4	Long-Term	$548,089	Medium	Included in Roadway EA for proposed West Roadway	**Limited Info as no land use plan is in place. This link will need to be further evaluated after Rockland West Secondary Plan is completed**						
	CR37	Multi-Use Path	Etienne, Nadine (Bourget)	New Multi-Use path to provide pedestrian and bicycle connections between village neighbourhoods and the P-R Rec. Trail.	Between Levis Street (P-R Rec Trail) in the east and Marcil Road in the west.	0.8	Long-Term	$329,735	Medium	Exempt	3	4	3	1	2	1	14

	CR38	Multi-Use Path	Kingsley Street (Bourget)	New Multi-Use path to provide pedestrian and bicycle connections between village neighbourhoods.	Between Lavigne Street in the east and Marcil Road in the west.	0.9	Long-Term	$362,989	Medium	Exempt	3	4	3	1	2	1	**14**
	CR39	Multi-Use Path	Lavigne Street (Bourget)	New Multi-Use path to provide pedestrian and bicycle connections between village neighbourhoods and the P-R Rec. Trail.	Between Laval Street in the south and Levis Street (P-R Rec Trail) in the north.	0.8	Medium-Term	$312,106	Medium	Exempt	3	4	3	2	2	1	**15**
	CR40	Multi-Use Path	Marcil Road (Bourget)	New Multi-Use path to provide pedestrian and bicycle connections between village neighbourhoods.	Between Laval Street in the south and the Prescott-Russell Recreational Trail in the north.	1.1	Medium-Term	$424,689	Medium	Exempt	3	4	3	1	2	1	**14**
	CR41	Multi-Use Path	Moise-Gendron, Colette, Lemery (Bourget)	New Multi-Use path to provide pedestrian and bicycle connections between village neighbourhoods and the P-R Rec. Trail.	Between Champlain Road in the east and P-R Rec Trail access off of Rue Moise-Gendron in the west.	0.6	Long-Term	$249,204	Medium	Exempt	3	4	3	1	2	1	**14**
	CR42	Multi-Use Path	Montcalm, Potvin (Bourget)	New Multi-Use path to provide pedestrian and bicycle connections between village neighbourhoods.	Between Champlain Road in the south and Laval Street in the north.	0.4	Long-Term	$149,843	Medium	Exempt	3	4	3	2	2	1	**15**
	CR43	Multi-Use Path	Clarence Crossing Roadway Extension (Potential)	Bi-directional multi-use path along roadway extension to provide bicycle and pedestrian connections to/from Clarence Crossing development.	Between Wilson Road in the east and the Clarence Crossing development lands in the west.	0.2	Long-Term	$80,130	Medium	Included in Potential Future Roadway EA	**Limited Info as no land use plan is in place. This link will need to be further evaluated after Clarence Crossing Development is completed**						
Roadways	**CR44**	Roadway	Bronze Avenue Extension (New)	**Per the EXPANSION LANDS SECONDARY PLAN:** Extension of Bronze Avenue with a two-lane cross-section. Will include sidewalks and on-street bike lanes.	Between Caron Street in the west and David Street in the east.	1.3	Long-Term	$4,072,684	High	Schedule C	4	2	3	1	1	3	**14**
	CR45	Roadway	Edwards Street	**Per the OFFICIAL PLAN:** Extension of Edwards Street to loop to County Road 17.	Between existing northern extent of Edwards Street to loop south and connect with County Road 17.	0.6	Long-Term	$1,997,677	High	Eligible for Screening (B)	2	2	1	1	1	3	**10**
	CR46	Roadway	Expansion Lands Street "B"	**Per the EXPANSION LANDS SECONDARY PLAN:** New two-lane north-south roadway to service the new expansion lands area. Will have sidewalks and on-street bike lanes on boths sides of the road.	Between David Street in the north and the urban area boundary in the south.	1.0	Long-Term	$3,157,619	High	Schedule C	4	2	3	1	1	3	**14**
	CR47	Roadway	La Berge Street Extension (Proposed)	Extension of La Berge Street with multi-use path and sidewalk on one side of the road.	Between County Road 17 in the north and the existing Laurier Street in the south.	0.3	Long-Term	$860,290	High	Eligible for Screening (B)	4	4	3	1	1	1	**14**
	CR48	Intersection	La Berge Street/County Road 17	**Per the OFFICIAL PLAN:** Upgrade existing stop controlled intersection with a signalized intersection.	At the intersection of La Berge Street, County Road 17, and the proposed La Berge Street extension.	N/A	Long-Term	$400,000	Medium	Exempt	1	1	4	1	3	1	**11**
	CR49	Roadway	Poupart Road	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** Road widening from two lanes to four. Will include a multi-use pathway on the north side of the roadway.	Between Bronze Avenue in the east and the north-south section of Poupart Road in the west.	1.1	Short-Term	$4,141,418	High	EA in Progress	1	1	1	1	1	3	**8**
	CR50	Intersection	Poupart Road	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** New roundabout at new intersection.	At the entrance to the future Stewart Village development	N/A	Short-Term	$1,268,453	Medium	EA in Progress	1	1	3	1	1	3	**10**
	CR51	Intersection	Poupart Road/Richelieu Street	**Per the OFFICIAL PLAN:** Upgrade existing stop controlled intersection with a signalized intersection.	At the intersection of Poupart Road and Richelieu Street.	N/A	Medium-Term	$400,000	Medium	Exempt	1	1	4	2	3	1	**12**
	CR52	Intersection	Poupart Road/Saint Jean Street	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** New roundabout to replace the existing STOP controlled intersections.	At the intersection of St-Jean Street and Poupart Road.	N/A	Short-Term	$1,268,453	Medium	EA in Progress	1	1	2	1	1	3	**9**
	CR53	Intersection	Poupart Road/New West Roadway	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** New roundabout at new intersection.	At the future intersection of Poupart Road and the New West Roadway.	N/A	Short-Term	$1,268,453	Medium	EA in Progress	1	1	2	1	1	3	**9**
	CR54	Intersection	Richelieu Street/Carmen Bergeron Street	Upgrade existing stop controlled intersection with a signalized intersection.	At the intersection of Richelieu Street and Carmen Bergeron Street	N/A	Medium-Term	$400,000	Medium	Exempt	1	1	4	2	3	1	**12**
	CR55	Intersection	Saint Jean Street/Bronze Avenue	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** New roundabout at new intersection.	At the future intersection of St-Jean and the new Bronze Avenue servicing the southern end of Morris Village.	N/A	Short-Term	$1,268,453	Medium	EA in Progress	1	1	2	1	1	3	**9**
	CR56	Roadway	Saint Jean Street	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** Road widening from two lanes to four south of new roundabout.	Between Poupart Road in the north and the urban area boundary in the south.	0.5	Short-Term	$2,100,236	High	EA in Progress	1	1	1	1	1	3	**8**
	CR57	Roadway	Saint Jean Street	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** Road widening from two lanes to four east of new roundabout.	Between Poupart Road in the west and the new Bronze Avenue in the east.	0.5	Short-Term	$1,917,323	High	EA in Progress	1	1	1	1	1	3	**8**
	CR58	Roadway	West Roadway (Proposed)	**Per the OFFICIAL PLAN:** New Major Collector roadway between County Road 17 and Poupart Road to service a future developable area. Alignment, cross-section, and Design still needs to be determined based on potential development that is still to be determined. This roadway should include provisions of active transportation including pedestrian and cycling facilities.	Between Poupart Road in the east and County Road 17 in the west.	1.4	Long-Term	$4,407,778	High	Schedule C	**Limited Info as no land use plan is in place. This link will need to be further evaluated after Rockland West Secondary Plan is completed**						
	CR59	Roadway	Clarence Crossing Roadway Extension (Potential)	Collector roadway extension linking Clarence Crossing development to wider roadway network.	Between Wilson Road in the east and the Clarence Crossing development lands in the west.	0.2	Long-Term	$644,412	Medium	Eligible for Screening (B)	**Limited Info as no land use plan is in place. This link will need to be further evaluated after Clarence Crossing Development is completed**						
Pedestrian Improvements	**CR60**	Sidewalk (One Side)	Alma Street	Build sidewalk on the south side of the street to continue sidewalk from Avenue du Parc.	Between Notre Dame Street In The East And Simoneau Street In The West.	0.4	Long-Term	$163,036	Low	Exempt	2	4	2	2	2	1	**13**
	CR61	Sidewalk (One Side)	Bronze Avenue Extension (New)	**Per the EXPANSION LANDS SECONDARY PLAN:** Build sidewalk on one side of the street.	Between Caron Street in the west and David Street in the east.	1.3	Long-Term	$585,447	Medium	Included in Roadway EA for Bronze Avenue Extension	2	2	2	1	1	3	**11**
	CR62	Sidewalk (One Side)	Caron Street	Build sidewalk on the west side of the street to complement the proposed Multi-Use Path.	Between David Street in the north and the new Bronze Avenue in the south.	0.3	Medium-Term	$154,699	Low	Exempt	2	2	2	1	4	2	**13**
	CR63	Sidewalk (One Side)	David Street	**Per the EXPANSION LANDS SECONDARY PLAN:** Build sidewalk on one side of the street.	Between Caron Street in the west and the new Bronze Avenue in the east.	0.9	Long-Term	$410,832	Medium	Included in Roadway EA for David Street	2	4	2	1	1	1	**11**
	CR64	Sidewalk (One Side)	Dianne Avenue	Sidewalk on one side of the street.	Between Dalrymple Street In The South And Paul Terrace In The North.	0.1	Long-Term	$24,483	Low	Exempt	2	4	2	1	2	1	**12**
	CR65	Sidewalk (One Side)	Emerald Street	Sidewalk on one side of the street.	Between Jasper Crescent In The East To Silver Lane In The West	0.4	Medium-Term	$201,896	Low	Exempt	2	4	2	1	2	1	**12**
	CR66	Sidewalk (Both Sides)	Expansion Lands Street "B"	**Per the EXPANSION LANDS SECONDARY PLAN:** Build sidewalks on both sides of the street.	Between David Street in the north and the urban area boundary in the south.	1.0	Long-Term	$907,813	Medium	Included in Roadway EA for Expansion Lands Street B	2	2	2	1	1	3	**11**
	CR67	Sidewalk (One Side)	Industrielle Street	Sidewalk on one side of the street opposite Multi-Use Path.	Between County Road 17 in the south and the roundabout in the east.	0.5	Long-Term	$232,975	Medium	Exempt	2	3	2	1	3	1	**12**
	CR68	Sidewalk (One Side)	La Berge Street Extension (Proposed)	Sidewalk on one side of the street to provide pedestrian connections and continue the profile of the existing road in its extension.	Between County Road 17 in the north and the existing Laurier Street in the south.	0.3	Long-Term	$123,666	Medium	Included in Roadway EA for La Berge Street Extension	2	4	2	1	1	1	**11**
	CR69	Sidewalk (One Side)	Laval Street (Bourget)	Build sidewalk on the north side of the street to continue existing sidewalk.	From Bourget Home Hardware west to Marcil Road	0.5	Medium-Term	$250,112	Low	Exempt	2	4	2	2	4	1	**15**
	CR70	Sidewalk (One Side)	Maisonneuve and Saint Pierre Streets (Bourget)	Sidewalk on one side of the street.	Between Lavigne Street in the west and Laval Street in the east.	0.3	Long-Term	$152,383	Low	Exempt	2	4	2	2	2	1	**13**
	CR71	Sidewalk (One Side)	Patricia Street	Build sidewalk on the south side of the street to continue existing sidewalk.	Between St-Jacques Street In The East To Heritage Drive In The West	0.7	Medium-Term	$327,924	Medium	Exempt	2	4	2	4	2	1	**15**
	CR72	Sidewalk (One Side)	Paul Terrace	Sidewalk on one side of the street.	Between Caron Street In The East And Dianne Avenue In The West.	0.2	Long-Term	$97,729	Low	Exempt	2	4	2	1	2	1	**12**

Pedestr	CR73	Sidewalk (One Side)	Poupart Road	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** Sidewalk on one side of the street on the south side.	Between St Jean Street in the east to the proposed West Roadway in the west.	1.1	Short-Term	$495,592	Medium	EA in Progress	2	4	2	2	3	3	16
	CR74	Sidewalk (One Side)	Poupart Road	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** Sidewalk on one side of the street on the west side.	Between the proposed West Roadway in the south and Richelieu Street in the north.	0.4	Short-Term	$201,479	Medium	EA in Progress	2	4	2	2	4	3	17
	CR75	Sidewalk (One Side)	Richelieu Street	Sidewalk on one side of the street opposite Multi-Use Path.	Between Poupart Road in the west and Descôtes Circle in the east	0.2	Medium-Term	$105,140	Low	Exempt	2	4	2	4	2	1	15
	CR76	Sidewalk (One Side)	Saint Jean Street	**Per the St-Jean Street - Poupart Side Road MUNICIPAL ENVIRONMENTAL ASSESSMENT:** Sidewalk on one side of the street on the south side.	Between the new Bronze Avenue in the east and Poupart Road in the west.	0.6	Short-Term	$272,344	Medium	EA in Progress	2	4	2	2	4	3	17
	CR77	Sidewalk (One Side)	Sterling Avenue	Add sidewalk on the other side of the street so that both sides of the road have a sidewalk.	Between Silver Lane In The North To Docteur Corbeil Boulevard In The South	0.4	Medium-Term	$189,437	Low	Exempt	2	4	2	2	4	2	16
	CR78	Sidewalk (One Side)	West Roadway (Proposed)	**Per the OFFICIAL PLAN:** Sidewalk on the south side of the New West Roadway through the Rockland West Secondary Lands.	Between Poupart Road in the east and County Road 17 in the west.	1.4	Long-Term	$633,617	Low	Included in Roadway EA for proposed West Roadway	2	2	2	1	3	3	13
	CR79	Sidewalk (One Side)	Clarence Crossing Roadway Extension (Potential)	Sidewalk along single side of roadway extension to provide pedestrian connections to/from Clarence Crossing development.	Between Wilson Road in the east and the Clarence Crossing development lands in the west.	0.2	Long-Term	$92,634	Low	Included in Potential Future Roadway EA	**Limited Info as no land use plan is in place. This link will need to be further evaluated after Clarence Crossing Development is completed**						
Developer	D1	Roadway	Bronze Avenue (New)	Complete two-lane roadway construction (Major Collector).	Between Caron Street in the east and Cobalt Street in the west, Granite Street in the east and St-Jean Street in the west.	0.7	Short-Term	$2,094,339	High	Existing Subdivision/Planning Act Agreement	2	2	1	1	3	4	13
	D2	Multi-Use Path	Bronze Avenue (New)	Multi-Use pathway built on the north side of the roadway as part of the construction of the New east-west roadway to service a new subdivision in south Rockland.	Between Caron Street in the east and Cobalt Street in the west, Granite Street in the east and St-Jean Street in the west.	0.7	Short-Term	$260,423	Medium	Existing Subdivision/Planning Act Agreement	2	2	3	1	4	4	16
	D3	Sidewalk (One Side)	Bronze Avenue (New)	Build sidewalk on one side of the street (south).	Between Caron Street in the east and Cobalt Street in the west, Granite Street in the east and St-Jean Street in the west.	0.7	Short-Term	$301,061	Low	Existing Subdivision/Planning Act Agreement	2	2	3	1	4	4	16
	D4	Roadway	Clarence Crossing	Collector roads serving as primary transportation corridors within the Clarence Crossing development and providing external access to/from the primary roadway network.	Throughout the Clarence Crossing development lands east of Clarence Creek.	2.9	Medium-Term	$9,343,974	Medium	Subdivision/Planning Act Agreement	2	2	1	2	3	4	14
	D5	Multi-Use Path	Clarence Crossing	Multi-use pathways parallel to roadways within the Clarence Crossing development that provide additional pedestrian and bicycle connectivity between sidewalks, roadways, and multi-use trails.	Throughout the Clarence Crossing development lands east of Clarence Creek.	3.5	Medium-Term	$1,402,275	Medium	Subdivision/Planning Act Agreement	2	2	3	2	4	4	17
	D6	Sidewalk (One Side)	Clarence Crossing	Sidewalks along a single side of roadways within the Clarence Crossing development that provide additional pedestrian connectivity between multi-use paths and trails.	Throughout the Clarence Crossing development lands east of Clarence Creek.	3.9	Medium-Term	$1,806,363	Medium	Subdivision/Planning Act Agreement	2	2	3	2	4	4	17
	D7	Multi-Use Trail	Clarence Crossing	Off-road trail connections providing additional pedestrian and bicycle connectivity between sidewalks, roadways, and multi-use paths.	Throughout the Clarence Crossing development lands east of Clarence Creek.	5.8	Medium-Term	$2,807,316	Medium	Subdivision/Planning Act Agreement	2	2	3	2	4	4	17
	D8	Roadway	Heritage Drive	**Per the OFFICIAL PLAN:** Extension of Heritage Drive to Sylvain Street.	Between the existing southern extent of Heritage Drive to the existing southern extent of Sylvain Street.	0.1	Medium-Term	$325,428	Medium	Eligible for Screening (B)	4	4	3	1	3	1	16
	D9	Painted Bike Lane	Sterling Avenue	Painted bike lane with signage and cycling lane markings both directions.	Between Docteur Corbeil Boulevard in the north and the new Bronze Avenue in the south.	0.3	Short-Term	$9,697	Medium	Exempt	2	4	2	2	4	3	17
	D10	Multi-Use Path	Sylvain Street	New Multi-Use Path to provide neighborhood internal bicycle and pedestrian connections	Between Laporte Street in the north and the proposed connection to Heritage Drive in the south.	0.2	Medium-Term	$98,159	Low	Exempt	3	4	3	2	2	1	15
County	PR1	Paved Shoulder	Baseline Road	Buffered Paved shoulder with signage on both sides of the roadway.	Between Landry Street in the east and St. Jean Street in the west.	4.2	Long-Term	$1,752,324*	Low	Exempt	2	4	2	1	3	1	13
	PR2	Paved Shoulder	County Road 17	**Per the Ottawa Road 174 / County Road 17 ENVIRONMENTAL ASSESSMENT:** Buffered Paved shoulder with signage on both sides of the roadway.	Between the City limits in the east and Laurier Street in the west.	8.6	Long-Term	$3,583,503	Low	EA Completed	2	3	2	1	3	1	12
	PR3	Paved Shoulder	County Road 17	**Per the Ottawa Road 174 / County Road 17 ENVIRONMENTAL ASSESSMENT:** Buffered Paved shoulder with signage on both sides of the roadway.	Between the Canaan Road in the west and Cameron Bergeron Street in the east	1.5	Long-Term	$626,247	Low	EA Completed	2	3	2	1	3	1	12
	PR4	Multi-Use Path	County Road 17	**Per the Ottawa Road 174 / County Road 17 ENVIRONMENTAL ASSESSMENT:** Bi-directional mutli-use path on the south side of County Road 17 for pedestrian and cyclist use.	Between Laurier Street in the east and the proposed West Roadway in the west.	5.9	Long-Term	$2,365,838	Medium	EA Completed	3	4	3	1	3	1	15
	PR5	Roadway	County Road 17	**Per the Ottawa Road 174 / County Road 17 ENVIRONMENTAL ASSESSMENT:** Road widening from two to four lanes.	Between Landry Street in the east and the western City limit.	8.9	Long-Term	$34,166,696	Low	EA Completed	1	1	1	1	3	1	8
	PR6	Paved Shoulder	Du Golf Road	Buffered Paved shoulder with signage on both sides of the roadway.	Between Champlain Street in the east and the Gagné Road in the west.	5.6	Long-Term	$2,315,571*	Low	Exempt	2	4	2	2	3	1	14
	PR7	Paved Shoulder	Du Golf Road	Buffered Paved shoulder with signage on both sides of the roadway.	Between Joanisse Road in the east and the City limits in the west.	2.1	Long-Term	$876,162*	Low	Exempt	2	3	2	2	3	1	13
	PR8	Paved Shoulder	Joanisse Road	**Per the United Counties COMMUTER CYCLING PLAN:** Buffered Paved shoulder with signage on both sides of the roadway.	Between Baseline Road in the north and 2746 Joanisse Road in the south.	7.7	Medium-Term	$3,200,077*	Low	Exempt	2	4	2	2	3	1	14
	PR9	Paved Shoulder	Russell Road	**Per the United Counties COMMUTER CYCLING PLAN:** Buffered Paved shoulder with signage on both sides of the roadway.	Between the city limits in the east and Johnston Road in the west.	2.4	Medium-Term	$982,970*	Low	Exempt	2	3	2	2	3	1	13

Appendix C | Public Consultation

From: Young, Rachel (Waterloo)
To: [redacted]
Subject: City of Clarence-Rockland Multi-Modal Transportation Master Plan Notice of Study Commencement and Public Meeting
Date: Wednesday, February 5, 2025 12:25:00 PM
[redacted]

Good afternoon,

The City of Clarence-Rockland (City) is revising its 2019 Multi-Modal Transportation Master Plan (MMTMP). This updated plan addresses emerging challenges, facilitates growth, and incorporates policies to steer transportation and land use decisions effectively. This study is being undertaken in accordance with Approach #1 of the Master Planning Process, as outlined in Appendix 4 of the Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011, 2015, 2023).

A **Virtual Public Meeting** and an **In-Person Public Meeting** is being planned to present and gather feedback on the MMTMP study process, the goals and objectives of the MMTMP, existing travel conditions and community characteristics, community input on transportation infrastructure in the City, as well as next steps in the MTMP process. This Public Meeting is being held as follows:

Virtual Public Meeting March 5, 2025 at 5:00 PM to 6:30 PM
At the following link: Transportation Master Plan - City of Clarence-Rockland

In-Person Public Meeting: March 6, 2025 from 5:00 PM to 8:00 PM
Address: 1535 Du Parc Avenue, Rockland, Ontario, K4K 1C3

Please see attached Notice of Study Commencement and Notice of Public Meeting for additional information.

Thank you,

Rachel Young
Transportation/Environmental Planner

Direct: (519) 575-4228
Email: Rachel.young2@stantec.com

Stantec
100-300 Hagey Boulevard
Waterloo ON N2L 0A4

Notice of Study Commencement and Public Meeting 1

The City of Clarence-Rockland
Transportation Master Plan

The City of Clarence-Rockland (City) is revising its 2019 Multi-Modal Transportation Master Plan (MMTMP) based on shifts in available transportation options and changes in resident and visitor travel behavior since the original plan was formulated. This updated plan addresses emerging challenges, facilitates growth, and incorporates policies to steer transportation and land use decisions effectively.

The MTMP will be an important resource for the City as it continues to adapt to changing needs, growth and development, and new opportunities. The MMTMP will shape how we travel, help us further understand and define our regional connections, and support the movement of goods and services throughout the region. As part of the MMTMP study process, a vision will be established, actions and policies will be defined, and a financial strategy will be developed to address the short, medium, and long-term transportation needs of the community.

Please note the St. Jean – Poupart Reconstruction Study is not being amended or impacted in scope or design by this Multi-Modal Transportation Master Plan (MMTMP) process. The 2019 MMTMP recommendations for the St. Jean-Poupart area still apply.

The Process
This study is being undertaken in accordance with Approach #1 of the Master Planning Process, as outlined in Appendix 4 of the Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011, 2015, 2023). As such, the MMTMP will generally address Phases 1 and 2 of the MCEA process and will form the basis for the recommended Schedule B and C transportation infrastructure projects identified within the MMTMP report.

Consultation
A comprehensive engagement process is being undertaken as part of the MMTMP process, and your participation is encouraged to ensure a thoughtful approach is taken to transportation planning. You are invited to visit the City's webpage to subscribe to receive updates on this study, and to review relevant study information.

A **Virtual Public Meeting** and an **In-Person Public Meeting** is being planned to present and gather feedback on the MMTMP study process, the goals and objectives of the MMTMP, existing travel conditions and community characteristics, community input on transportation infrastructure in the City, as well as next steps in the MTMP process. This Public Meeting is being held as follows:

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Address: 1535 Du Parc Avenue, Rockland, Ontario, K4K 1C3

For more information about this study, please contact:

Charles O. Bonneau
Coordinator, Capital Projects
Phone: 613-446-6022 x2425
Email: EEMPG_MCEA@clarence-rockland.com

Nevena Gazibara
Lead Environmental Planner
Phone: (905) 381-3249
Email: EEMPG_MCEA@clarence-rockland.com

Additional project information and project notices will be posted on the City's website at: (Transportation Master Plan - City of Clarence-Rockland).

All information will be collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. Except for personal information, all comments will become part of the public record.

This notice was issued February 5, 2025

Avis de lancement d'étude et de réunion publique 1

Plan directeur de transport de la Cité de Clarence-Rockland

La Cité de Clarence-Rockland (la Cité) révise son plan directeur de transport multimodal (PDTM) 2019 en fonction des changements dans les options de transport disponibles et des changements dans le comportement de déplacement des résidents et des visiteurs depuis la formulation du plan original. Ce plan actualisé permettra de relever les nouveaux défis, de soutenir la croissance et de mettre en oeuvre des politiques visant à orienter efficacement les décisions en matière de transport et d'utilisation du sol.

Le PDTM constituera une ressource importante pour la Cité qui continuera à s'adapter à l'évolution des besoins, à la croissance et au développement, ainsi qu'aux nouvelles opportunités. Le PDTM façonnera notre façon de nous déplacer, nous aidera à mieux comprendre et définir nos liaisons régionales, et favorisera la circulation des biens et des services dans toute la région. Dans le cadre du processus d'étude du PDTM, une vision sera établie, des mesures et des politiques seront définies, et une stratégie financière sera élaborée pour répondre aux besoins à court, moyen et long terme de la communauté en matière de transport.

Il est à noter que l'étude sur la reconstruction de la section St-Jean et Poupart n'est pas modifiée et que sa portée et sa conception ne sont pas affectées par le processus du plan directeur de transport multimodal (PDTM). Les recommandations du PDTM 2019 pour la section St-Jean et Poupart s'appliquent toujours.

Processus

La présente étude est entreprise conformément à l'approche 1 du processus de préparation des plans directeurs, tel que décrit à l'appendice 4 de l'évaluation environnementale municipale de portée générale (octobre 2000, telle que modifiée en 2007, 2011, 2015 et 2023). À ce titre, le PDTM traitera généralement des phases 1 et 2 du processus d'évaluation environnementale municipale de portée générale et servira de fondement aux projets d'infrastructure de transport des annexes B et C recommandés dans le rapport du PDTM.

Consultation

Un processus d'engagement complet est en cours dans le cadre du processus du PDTM, et votre participation est la bienvenue afin de garantir une approche réfléchie de la planification des transports. Vous êtes invités à vous abonner sur la page Web de la Cité pour obtenir de l'information d'intérêt et des mises à jour sur l'étude.

Une **réunion publique en personne** et une **réunion publique virtuelle** sont prévues pour présenter et recueillir des commentaires sur le processus d'étude du PDTM, les buts et objectifs de la mise à jour du PDTM, et pour communiquer les conditions de déplacement existantes, les caractéristiques de la communauté, les commentaires de la communauté sur l'infrastructure de transport dans la Cité, les améliorations proposées, ainsi que les prochaines étapes du processus du PDTM :

Réunion publique virtuelle : Plan directeur des transports - Cité de Clarence-Rockland
Date et heure : 5 mars, 2025 à partie de 17 :00 jusqu'à 18 :30

Réunion publique en personne : Le 6 mars, 2025 à partie de 17 :00 jusqu'à 20 :00
Adresse : Salle de spectacle Optimiste
1535 Du Parc Ave
Rockland, Ontario

Pour plus d'informations sur cette étude, veuillez contacter :

Charles O. Bonneau
Coordonnateur, Projets en capital
Tél. : 613-446-6022 poste 2425

Nevena Gazibara, Planificateur
Environnemental principal
Tél. : (905) 381-3249

Courriel : EEMPG_MCEA@clarence-rockland.com

Courriel : EEMPG_MCEA@clarence-rockland.com

Des renseignements supplémentaires sur le projet et des avis de projet seront publiés sur le site Web de la Cité au (Plan directeur des transports - Cité de Clarence-Rockland)

Tous les renseignements seront recueillis conformément à la *Loi sur l'accès à l'information municipale et la protection de la vie privée*. À l'exception des renseignements personnels, tous les commentaires seront versés au dossier public.

Cet avis a été publié le 5 février 2025

Meeting Notes

Clarence-Rockland Online Public Meeting

Project/File:	165001314
Date/Time:	March 5, 2025 / 5:00-6:30 PM
Location:	Online
Next Meeting:	In-person March 6, 2025
Attendees:	City of Clarence Rockland:
	Charles Bonneau
	Richard Campeau
	Jonathan Samson
	Stantec:
	Bob Williams
	Nevena Gazibara
	Angelo Renon
	Public:
	[redacted]
	[redacted]
	[redacted]

Item:	Action:
Outbound travel from Bourget to Clarence-Rockland or Ottawa [redacted] asked whether the subdivisions were considered when considering connectivity and increase in traffic flow. Specifically passing lanes or park-and-rides to accommodate these new developments.	Richard: Russel Road is a County Road, thus they take their own Transportation Studies. Clarence-Rockland can make considerations. Bob: At the time of the analysis new development around Bourget was not considered, additionally increasing capacity was not considered along rural roadways. We do recommend some transit feasibility studies which could line up with the park-and-rides.
County Road 17 Safety [redacted] wondered if there was anything planned or being planned to consider safety inbound to Clarence-Rockland from Orleans utilizing County Road 17.	Richard: The Counties of Prescott and Russel and Ottawa have undergone an EA study to see possible solutions. The EA is up for another review. This has been ongoing for over 15 years. There are multiple agencies required to consider safety standards and also possible funding from both the provincial and federal governments.

Meeting adjourned 6:30 PM.

FEUILLE DE COMMENTAIRES

Plan Directeur de Transport Multimodalité Clarence-Rockland

Réunion Publique – www.clarence-rockland.com

Le 6 mars, 2025 1535 Avenue Du Parc, Rockland, Ontario, K4K 1C3

Veuillez répondre aux questions suivantes. Visitez le site web du projet à l'adresse www.clarence-rockland.com pour voir la présentation de la réunion publique et pour soumettre des commentaires supplémentaires.

1. Avez-vous des commentaires à formuler sur les objectifs de transport multimodal?

2. Avez-vous des commentaires sur les critères et le processus d'évaluation?

FEUILLE DE COMMENTAIRES

Plan Directeur de Transport Multimodalité Clarence-Rockland

Réunion Publique – www.clarence-rockland.com

Le 6 mars, 2025 1535 Avenue Du Parc, Rockland, Ontario, K4K 1C3

3. Avez-vous des commentaires sur les améliorations proposées?

Veuillez laisser votre fiche de commentaires remplie dans la boîte de dépôt prévue à cet effet ou la soumettre :
(**Avant le 26 mars, 2025)** à:

Nevena Gazibara, B.Sc., MREM, ENV SP.
Lead Environmental Planner
Stantec Consulting Ltd.
200-835 Paramount Drive
Stoney Creek ON L8J 0B4
Tel. (905) 381-3249
Courriel: Nevena.gazibara@stantec.com

Nom et Adresse (facultatif) VEUILLEZ ÉCRIRE EN LETTRES MOULÉES

Nom: [redacted]

Adresse Postal: [redacted] Y Rd 17

(inclure le code postal) ROCKLAND [redacted]

Tel: [redacted]

Les informations recueillies seront utilisées conformément à la loi sur l'accès à l'information et la protection de la vie privée. À l'exception des informations personnelles, tous les commentaires feront partie du dossier public.

FEUILLE DE COMMENTAIRES

Plan Directeur de Transport Multimodalité Clarence-Rockland

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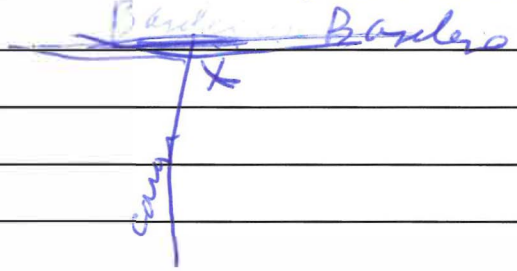
Le 6 mars, 2025 1535 Avenue Du Parc, Rockland, Ontario, K4K 1C3

3. Avez-vous des commentaires sur les améliorations proposées?

3 Stop sur - Caron - Dr. Corbeil pour sécurité.

- Caron - Baseline Stop dangereux Vision terrible Haie Cedre à droite



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Clarence-Rockland

City of Clarence-Rockland Multimodal Transportation Master Plan (MTMP) Update

Public Meeting

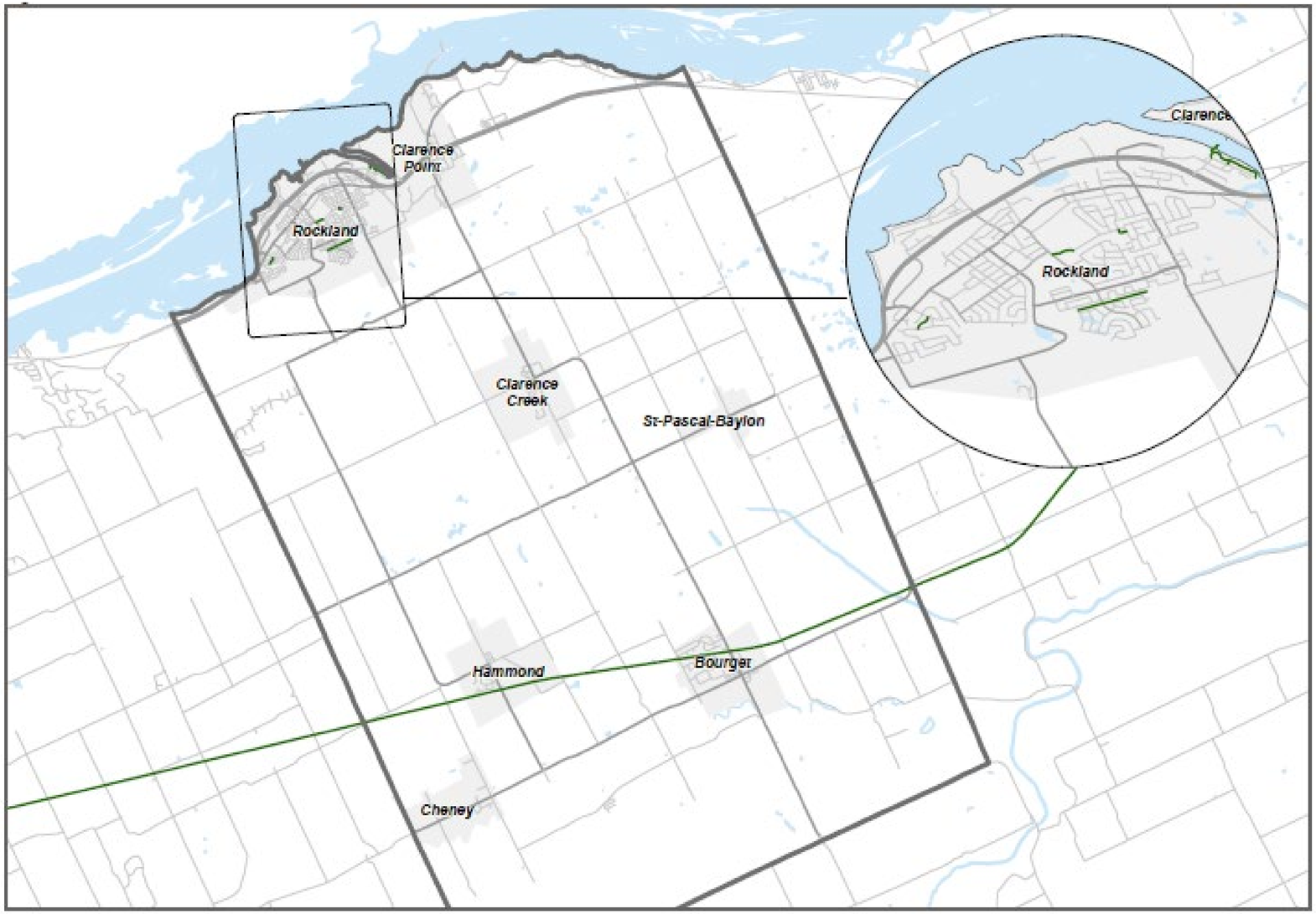
Stantec

MTMP Background & Context

The City of Clarence-Rockland completed a Multimodal Transportation Master Plan (MTMP) in 2019. The City is undertaking an update to the 2019 MTMP to revise the long-range strategic transportation infrastructure plan for Clarence-Rockland based on changes in available transportation options and resident/visitor travel patterns and behaviour since the 2019 MTMP was completed. This MTMP update will **address new challenges, support growth, and include policies to guide transportation and land use decisions**.

The 2025 MTMP Update continues to expand upon previous planning work conducted for the 2005 Strategic Transportation Plan for the Urban Area of Clarence-Rockland by re-evaluating previously planned improvements, as well as considering and responding to physical and planned changes within the City since that time.

Transportation Master Plan Study Area



The MTMP Study Area is the City of Clarence-Rockland, the largest municipality within the United Counties of Prescott Russell (UCPR) and is part of the Ottawa-Gatineau Census Metropolitan Area. As a result, a large percentage of the City's labour force commutes to the National Capital Region for employment.

Master Planning Process

This study is being undertaken in accordance with Approach #1 of the Master Planning Process, as outlined in Appendix 4 of the Municipal Class Environmental Assessment (MCEA) document (October 2000, as amended in 2007, 2011, 2015, 2023).

Phases 1 and 2 of the MCEA process will generally be addressed and will form the basis for the recommended Schedule B and C transportation infrastructure projects identified in the MTMP Update report.

Phase 1:
Problem and Opportunity

- Information Gathering
- Identify Problems and Opportunities

Phase 2:
Alternative Solutions

- Identify and Evaluate Alternative Solutions
- Develop Implementation Strategy

Ongoing Consultation

Notice of Study Commencement and Notice of Public Meeting 1 (February 2025)

Public Meeting March 5 2025

Notice of Study Completion (May 2025)

Multimodal Transportation Master Plan

Vision Statement 2019 vs 2025 Update

2019

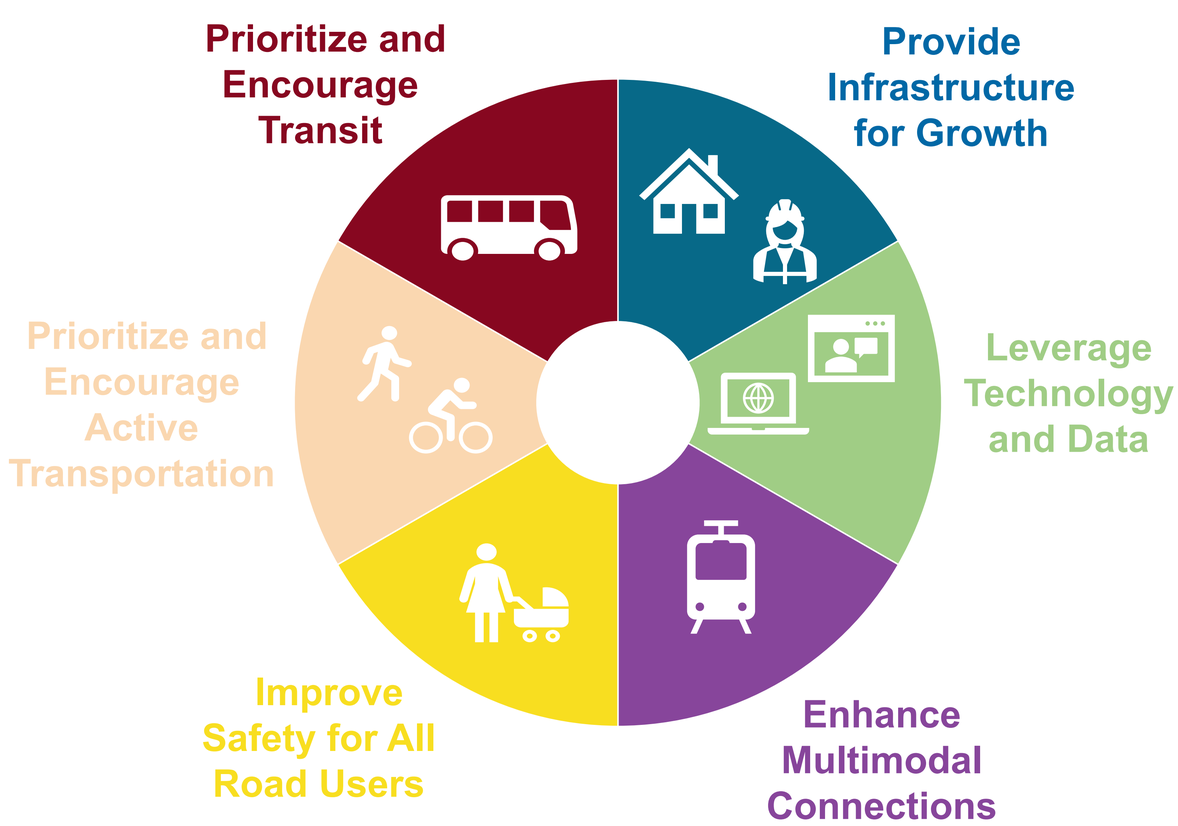
A multi-modal transportation network that integrates a mixture of infrastructure and mobility options for residents to access jobs, services, and recreation within and beyond the city safely and efficiently.

2025

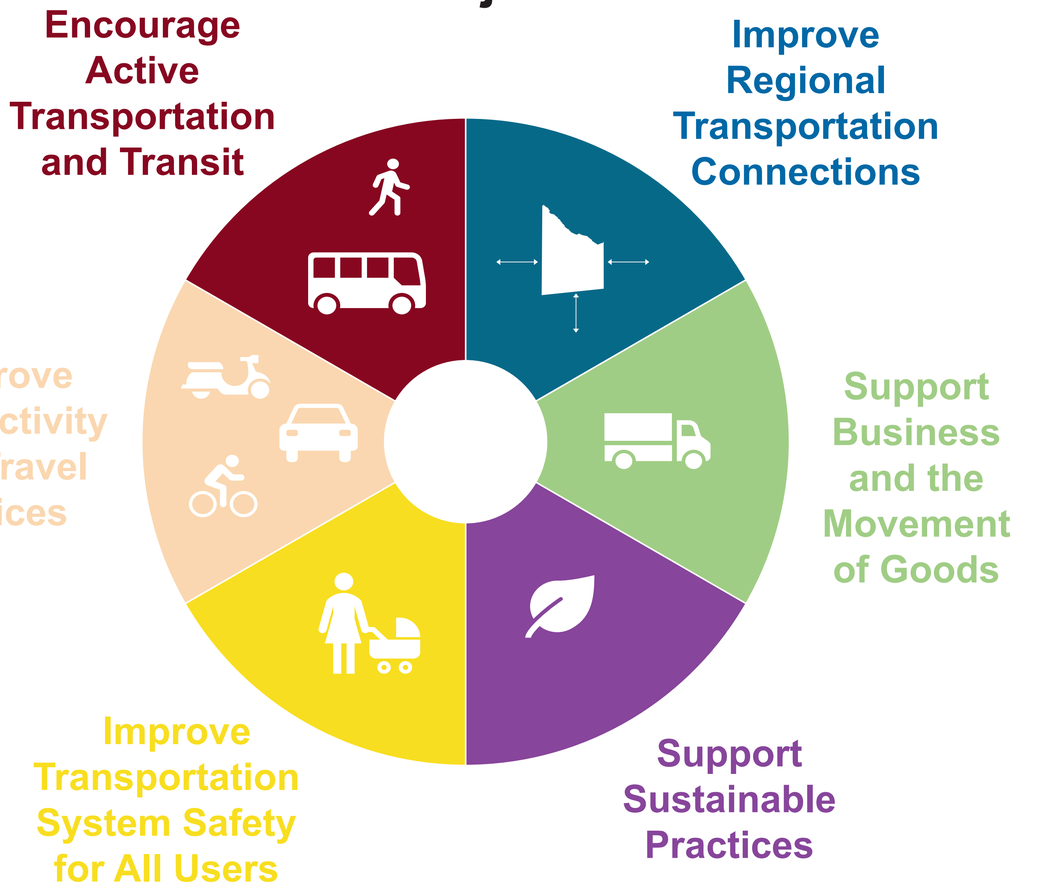
Clarence-Rockland's transportation system enhances the quality of life of all residents and visitors while supporting the needs of businesses to be successful. The transportation system will enable safe access to and between neighbourhoods and commercial areas, regardless of how someone chooses to travel. The transportation system promotes sustainable communities and supports individuals and families by meeting their social and cultural needs in an inclusive, respectful, responsible and accessible way.

MTMP Objectives 2019 vs 2025

2019 Objectives



2025 Objectives



Community Characteristics

The City of Clarence-Rockland continues its steady population growth. From 23,185 to 26,505 over the last 10 years, Clarence-Rockland is the largest municipality within the UCPR, comprising over a quarter of its total population (95,639).

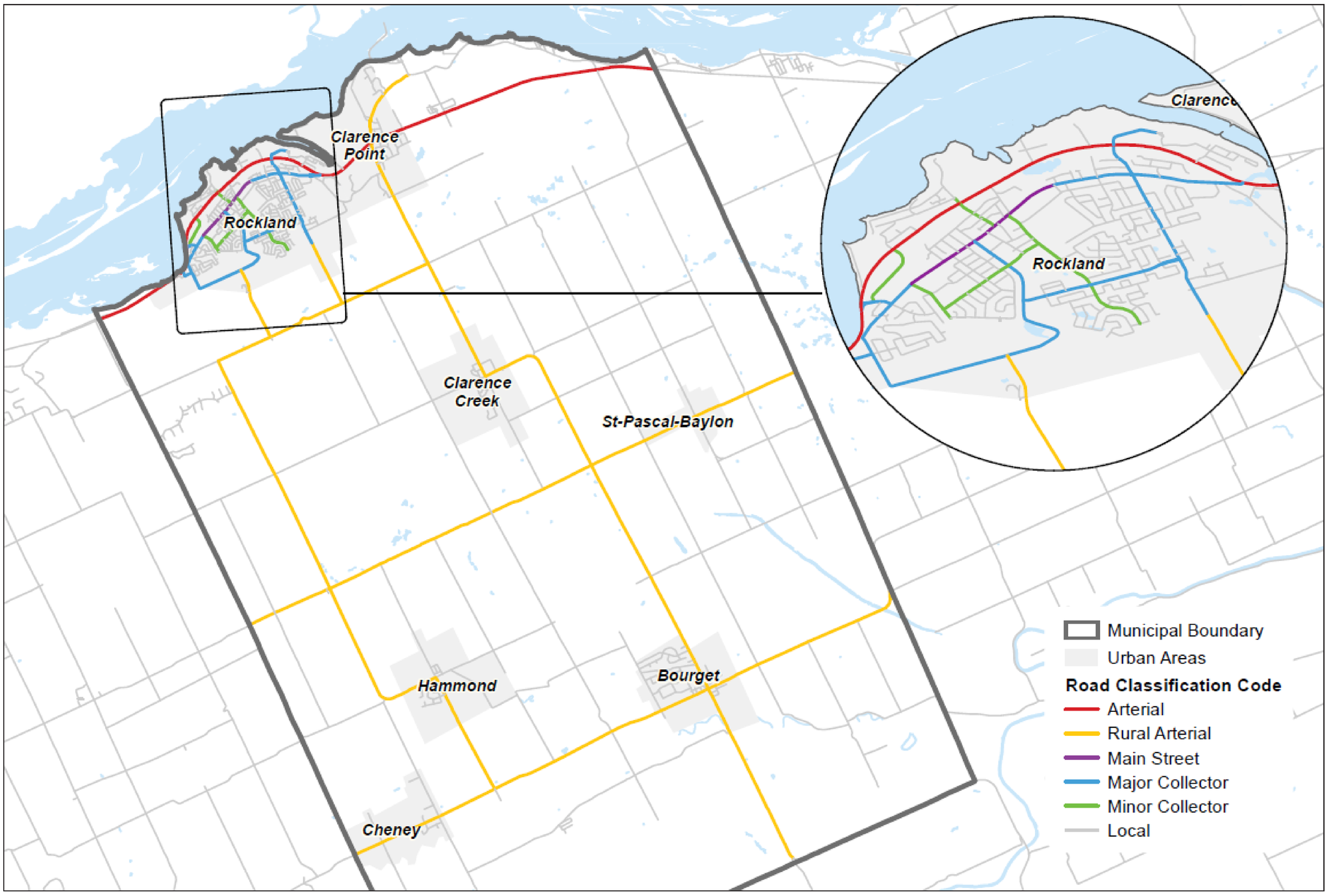
This growth is due to the fastest growing residents of ages over 65 years. Which has grown over 30% between 2016 and 2021 through in-migration and aging.

Source: City of Clarence-Rockland

Source: City of Clarence-Rockland

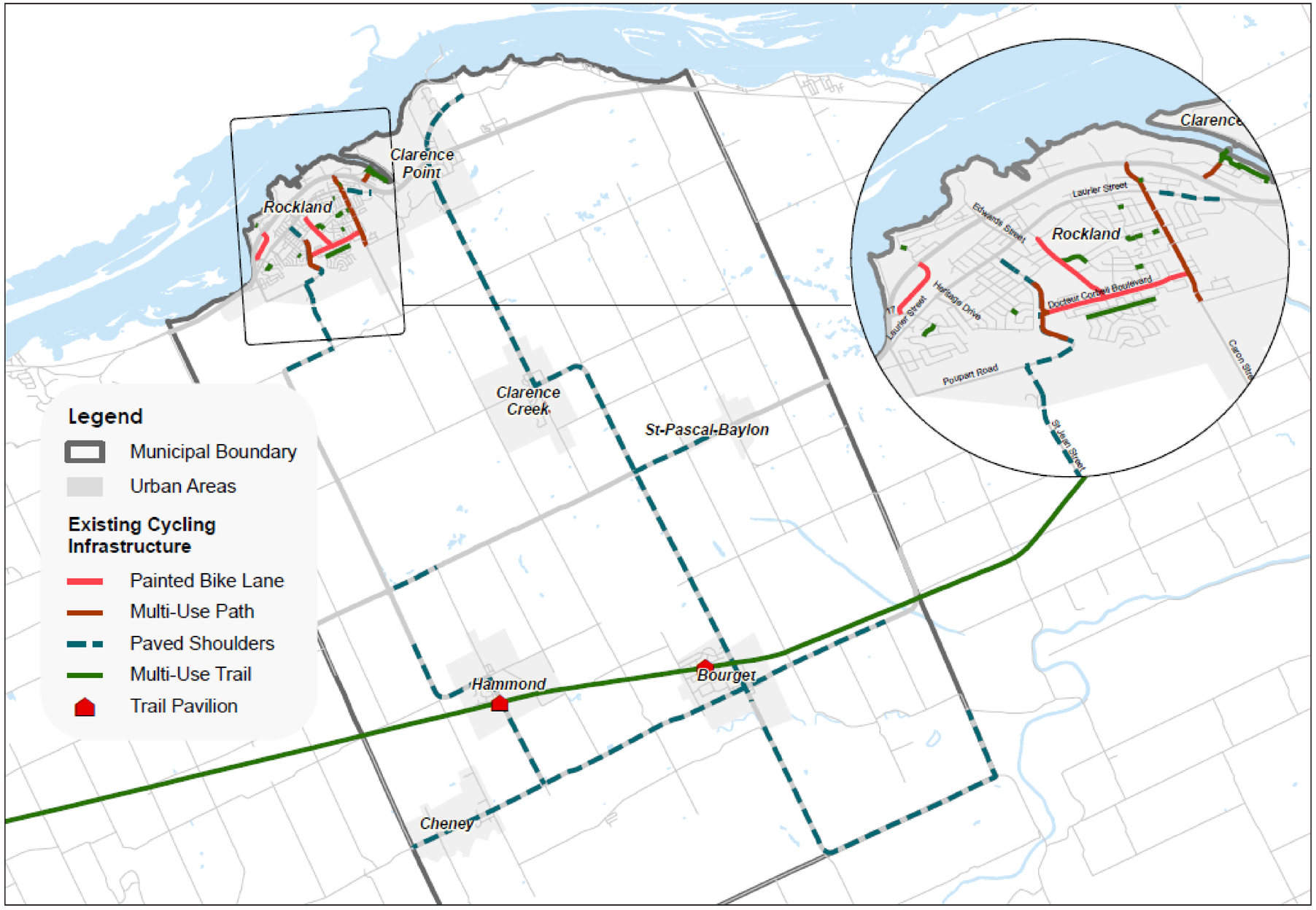
Source: City of Clarence-Rockland

Existing Road Network



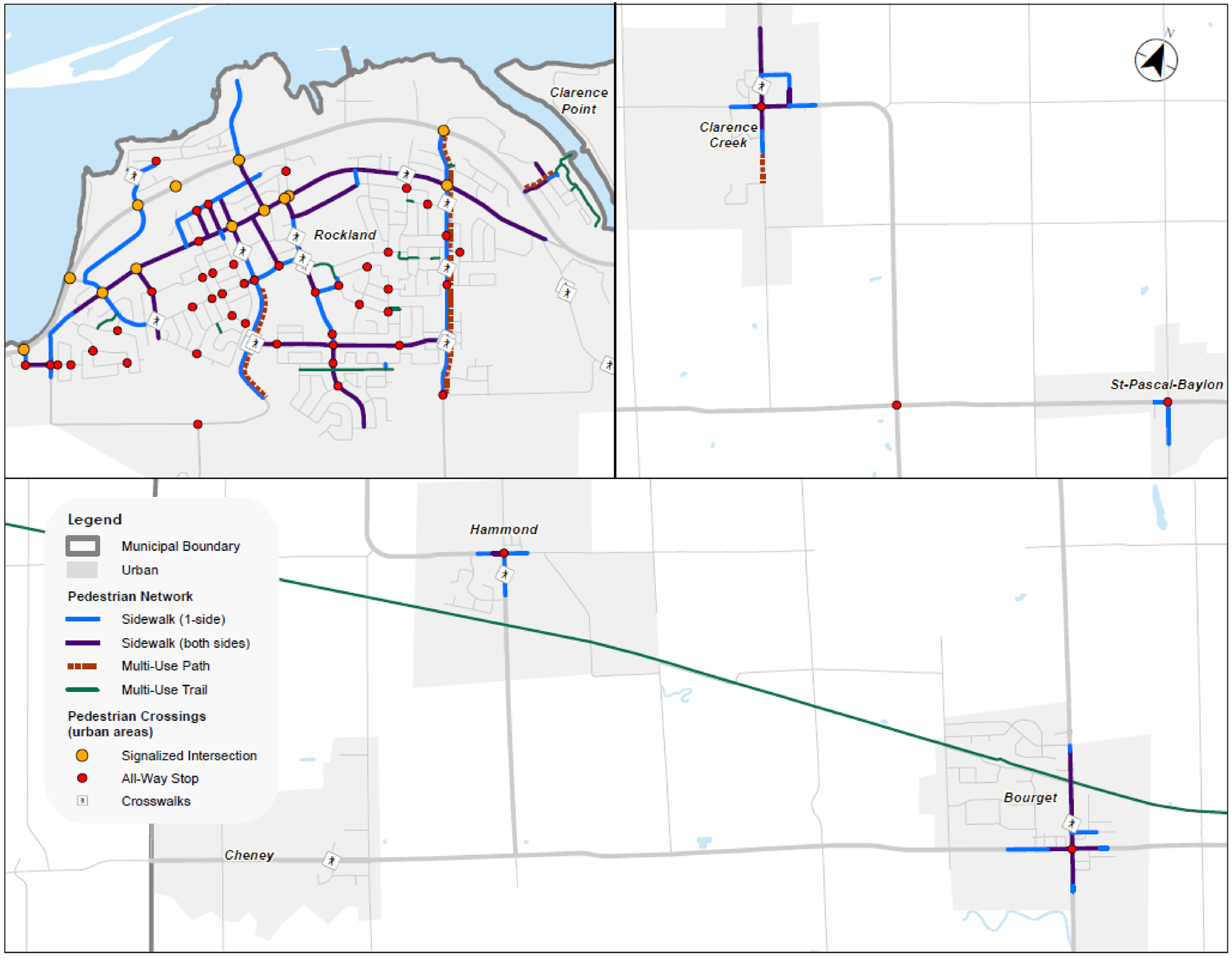
Existing Active Transportation Network

Existing Clarence-Rockland Cycling Network

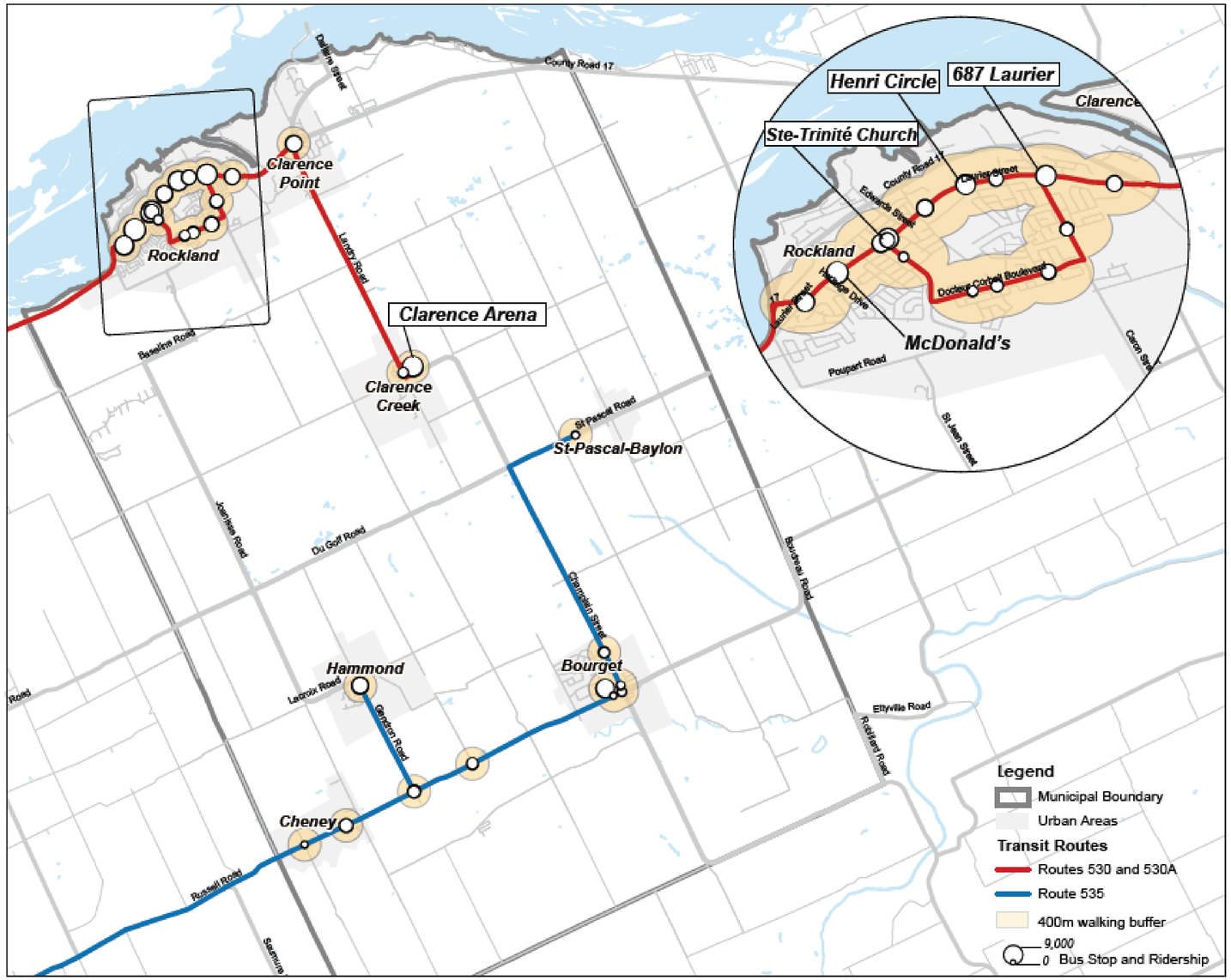


Existing Active Transportation Network

Existing Pedestrian Facilities in Settlement Areas

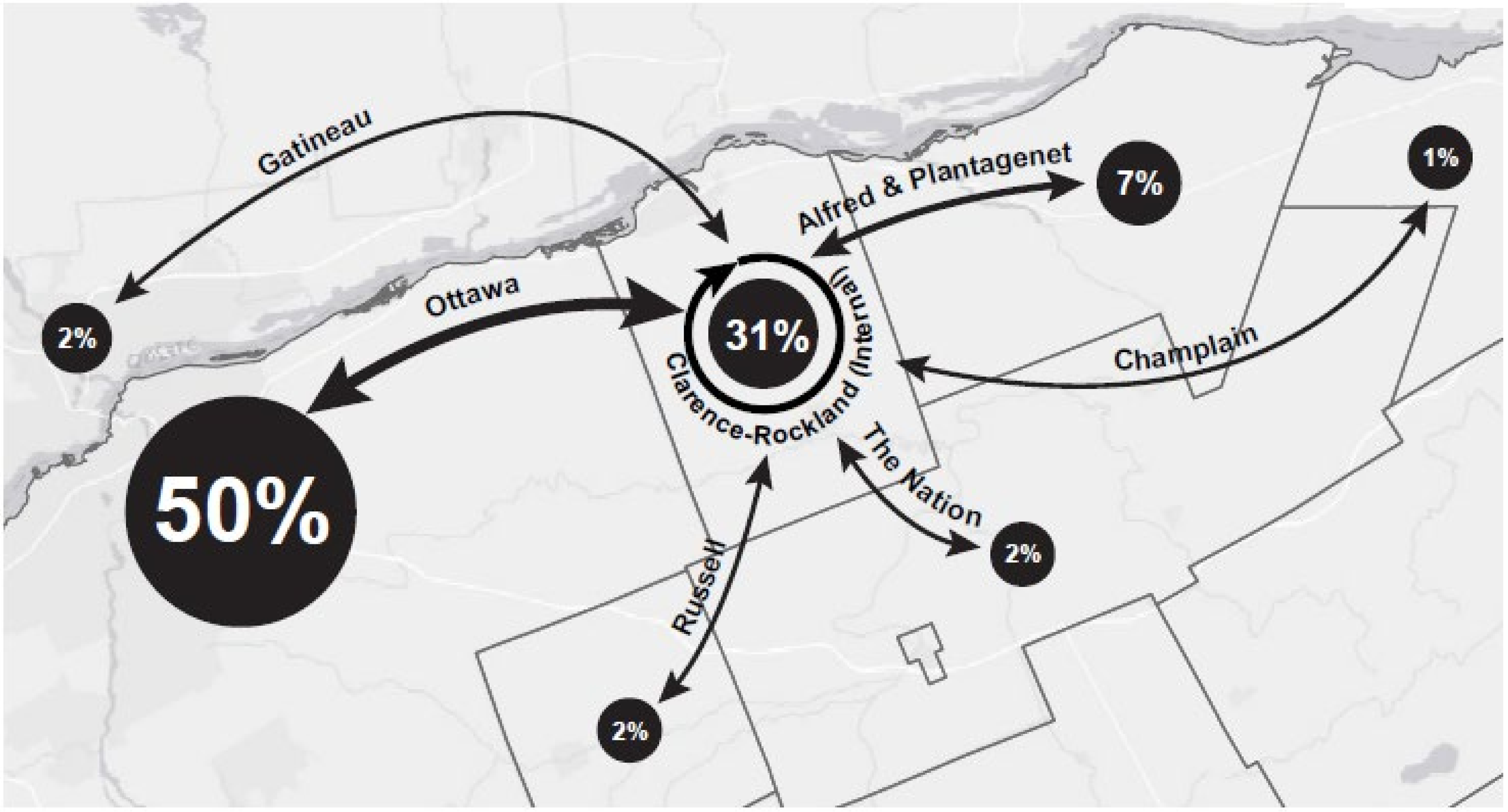


Former Transit Network



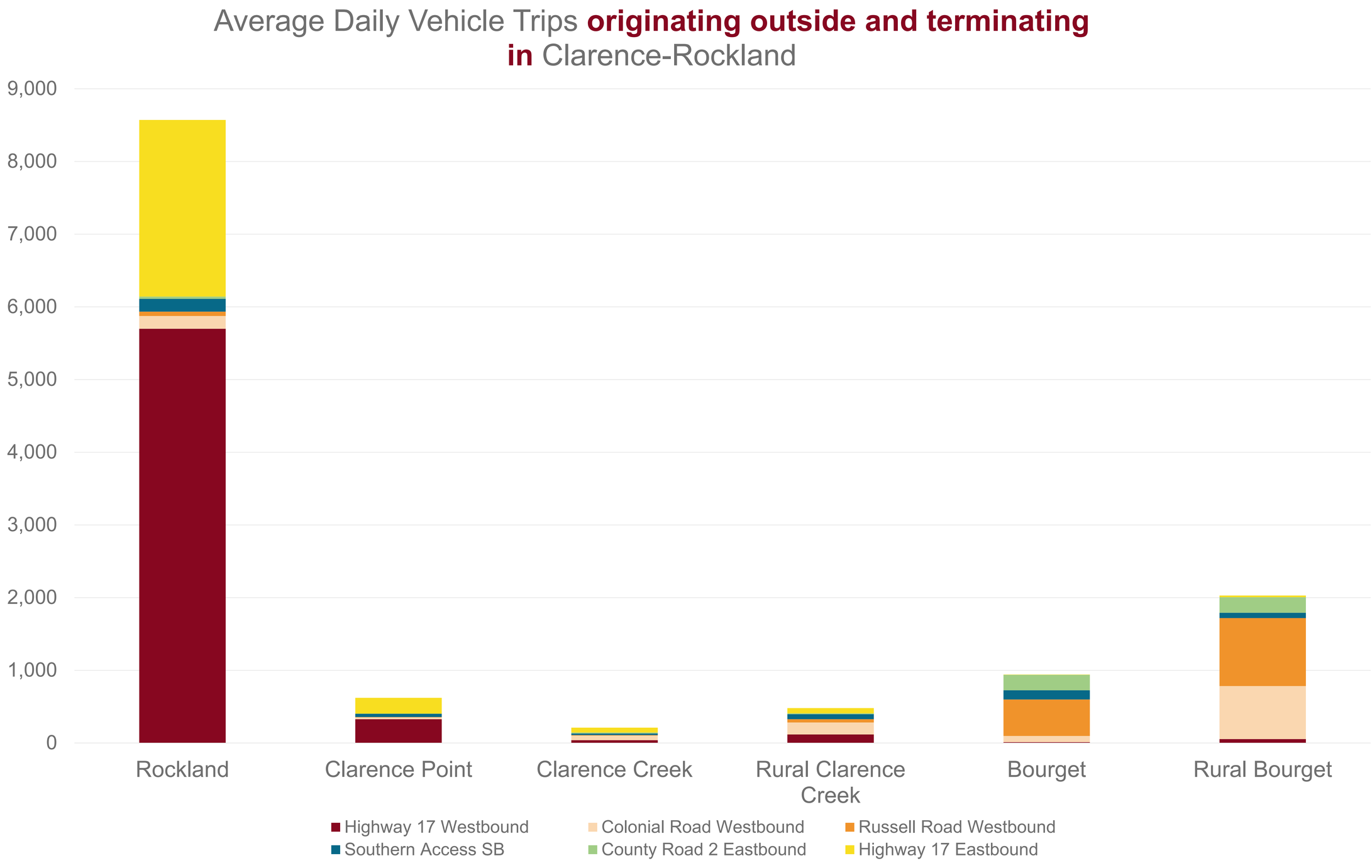
In 2003, the City of Clarence-Rockland launched a commuter transit service to Ottawa, which later expanded to two routes. Run by Leduc Bus Lines and partially subsidized by the City, the service was suspended due to pandemic restrictions and low demand. As of 2023, no return date has been set.

Existing Travel Trends: Traffic Distribution

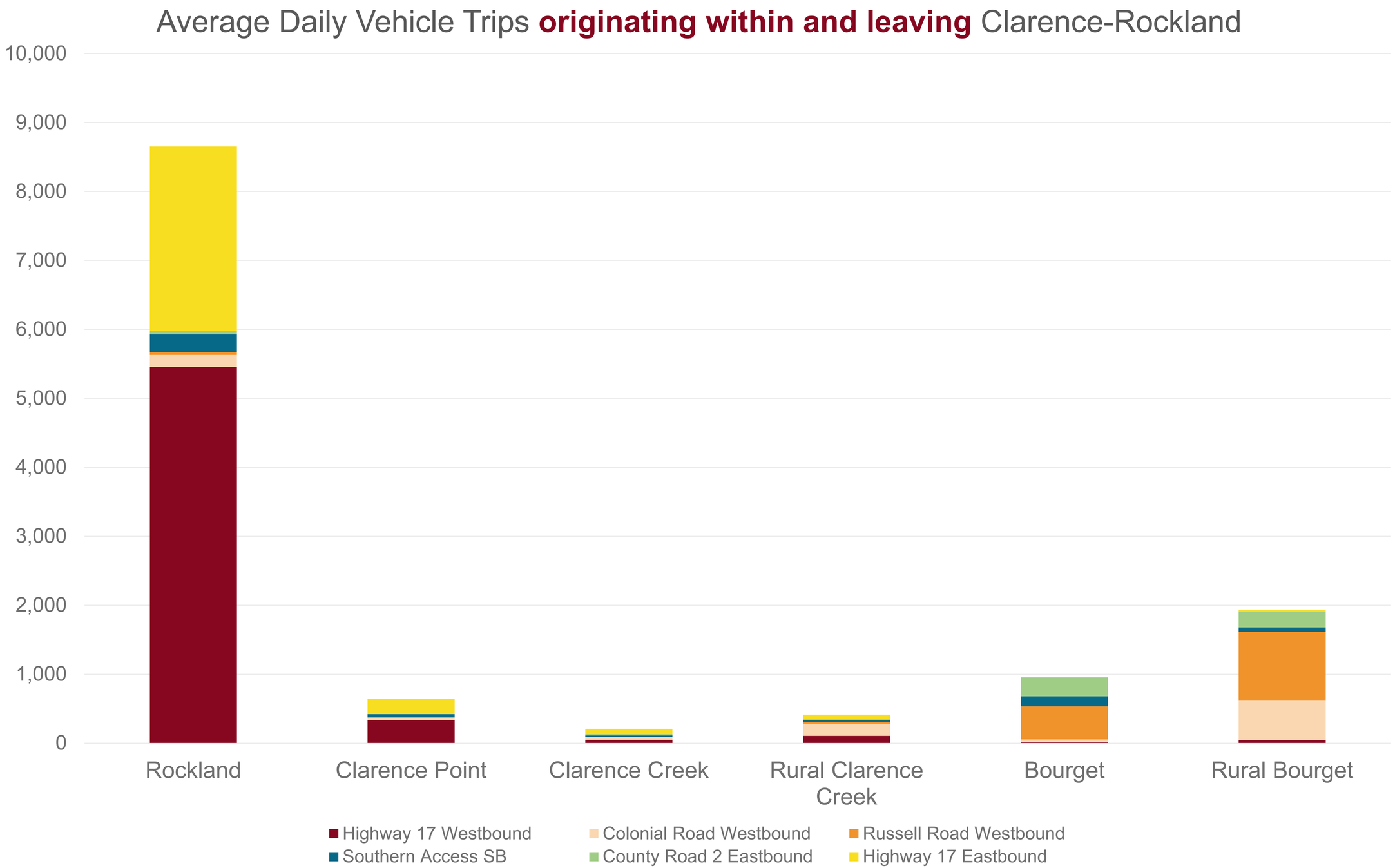


Aggregated 2021 Census Commuter Flows to and from Clarence-Rockland

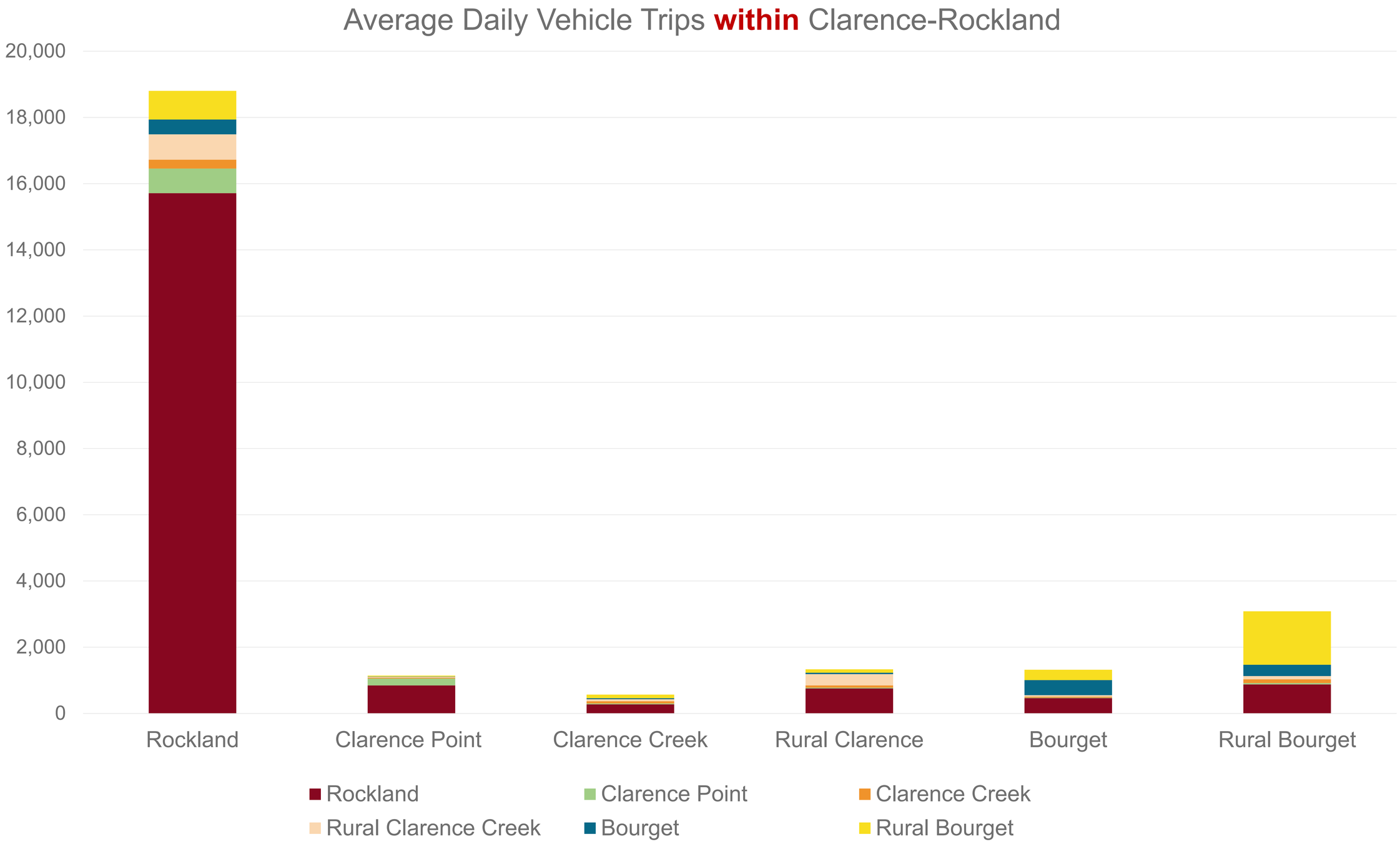
Existing Travel Trends



Existing Travel Trends



Existing Travel Trends



Needs Assessment 2019 vs 2025

The manner in which people use the transportation system has been altered by effects of the COVID-19 pandemic. This has also changed how the City can invest in new infrastructure. The plan modifications made today will remain part of the transportation system for many years and must be resilient. The needs and opportunities from the 2019 MTMP have been reassessed against the 2025 analysis of current and future conditions and recharacterized to inform updated recommendations.

2019

- There are many areas in Rockland where Sidewalks are non-existent
- Most of C-R's Residential Development is Low-Density Low-Rise
- Clarence-Rockland has limited Cycling Facilities
- Transit ridership is decreasing
- Hamlets are not well connected to jobs, services and recreation in Rockland
- There is congestion on County Road 17

2025

- Service of New Development
- Shifting Travel Patterns
- Neighborhood Internal Active Transportation Connectivity
- Safe Facilities for Longer Bicycle Trips
- Making Laurier Street Complete
- Restoration of Transit Service
- Formalization of Truck Routes/Restrictions

Challenges and Opportunities

Challenges

- Shifting travel patterns
- Lack of internal active transportation connectivity
- Disconnected cycling facilities for longer bicycle trips
- Disconnected truck routes
- The distance between destinations

Opportunities

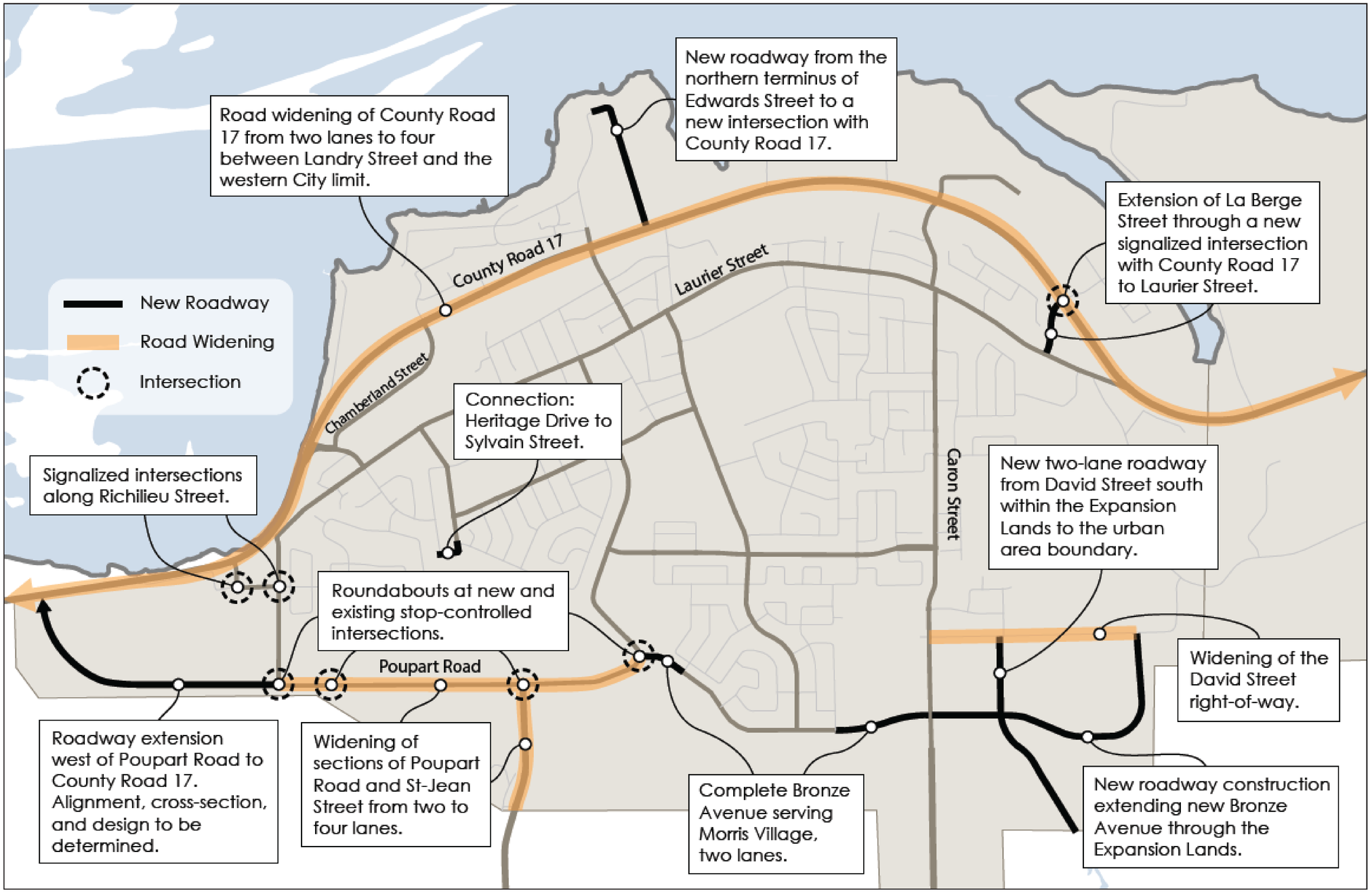
- Make Laurier Street Complete
- Restoration of bus transit service
- Formalize truck routes and truck restrictions
- Add dedicated pedestrian and bicycle infrastructure to encourage connectivity within and across neighbourhoods

Evaluation Criteria and Evaluation Process

Implementation of a large-scale multi-modal transportation plan requires an evaluation process to inform decision makers as they prioritize investments with the potential for the highest impact.

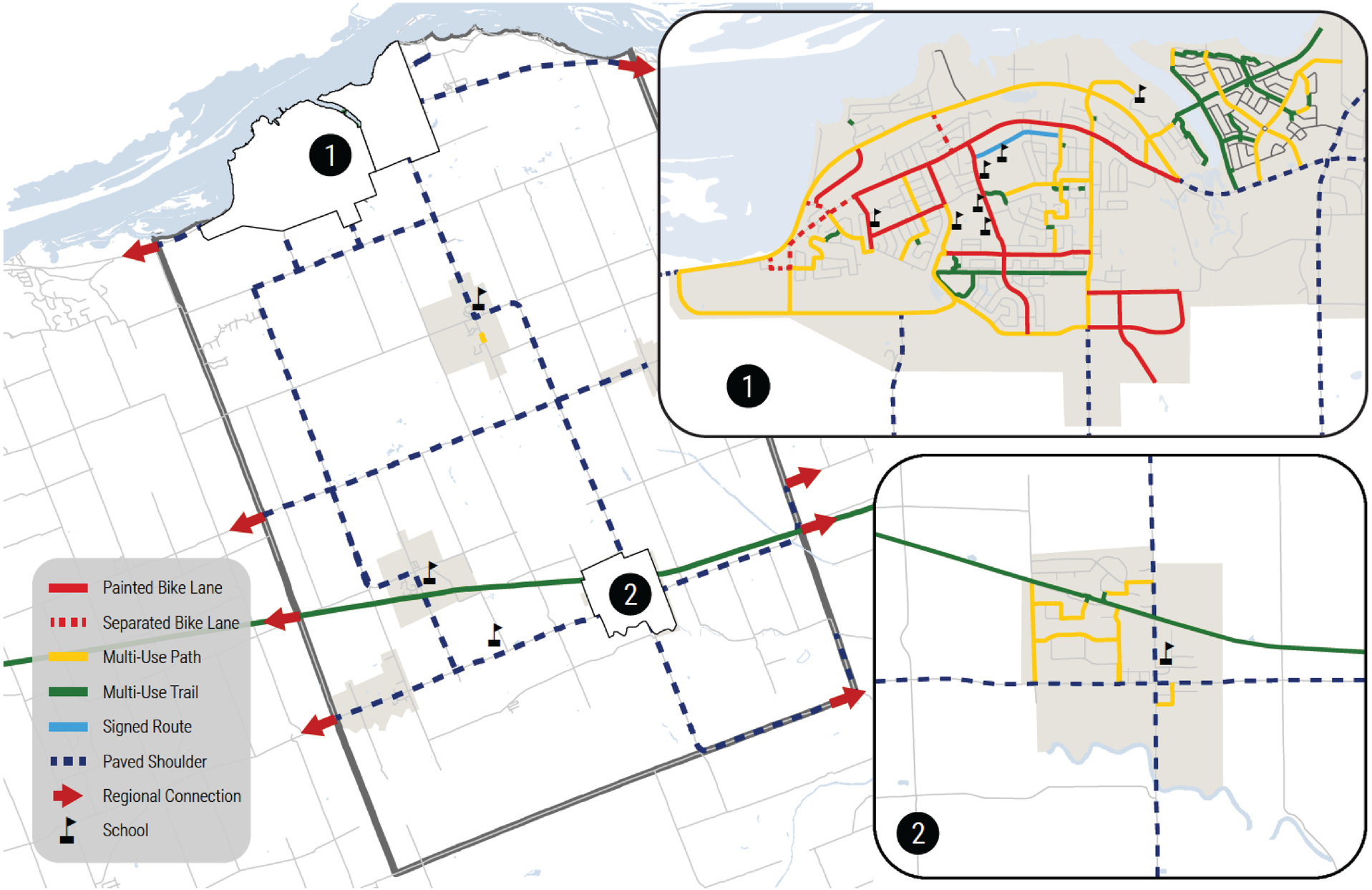
Evaluation Criteria	Rationale
Network Connectivity	Transportation corridors are most useful as part of a connected network that increases the usefulness of each facility and incorporates aspects of equity as underserved areas often feature fewer transportation options.
Development Support	Higher density new development requires complete accompanying transportation infrastructure to fully benefit new and existing residents. Supporting non-motorized transportation in these areas incrementally preserves capacity of the vehicular network.
Destination Access	Connectivity is not limited to links to other available travel facilities. A transportation network should provide direct access to places that people want to go.
User Safety	A well-designed transportation network mitigates safety risks for all users. While no recommended project is designed unsafely, certain facilities enhance safety for vulnerable road users while reducing overall conflict.
Network Resilience	A resilient transportation network is balanced and flexible. It presents multiple viable options to residents and visitors while retaining function if an emergency renders certain options temporarily inaccessible.
Constructability and Feasibility	Construction costs as well as complicating factors such as property ownership and existing conflicting infrastructure highly impact the likelihood of project implementation.

Road Network Proposed Improvements



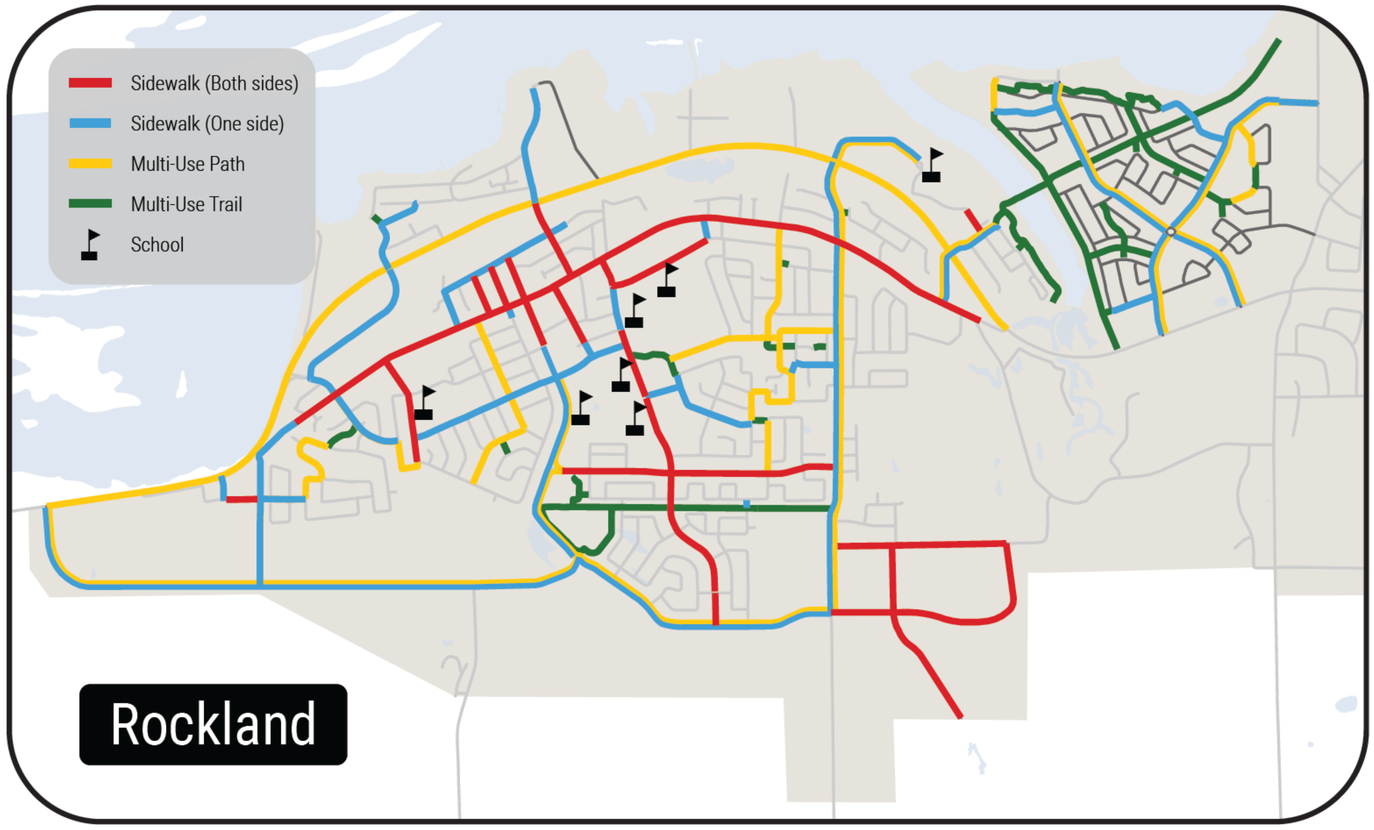
Active Transportation Proposed Improvements

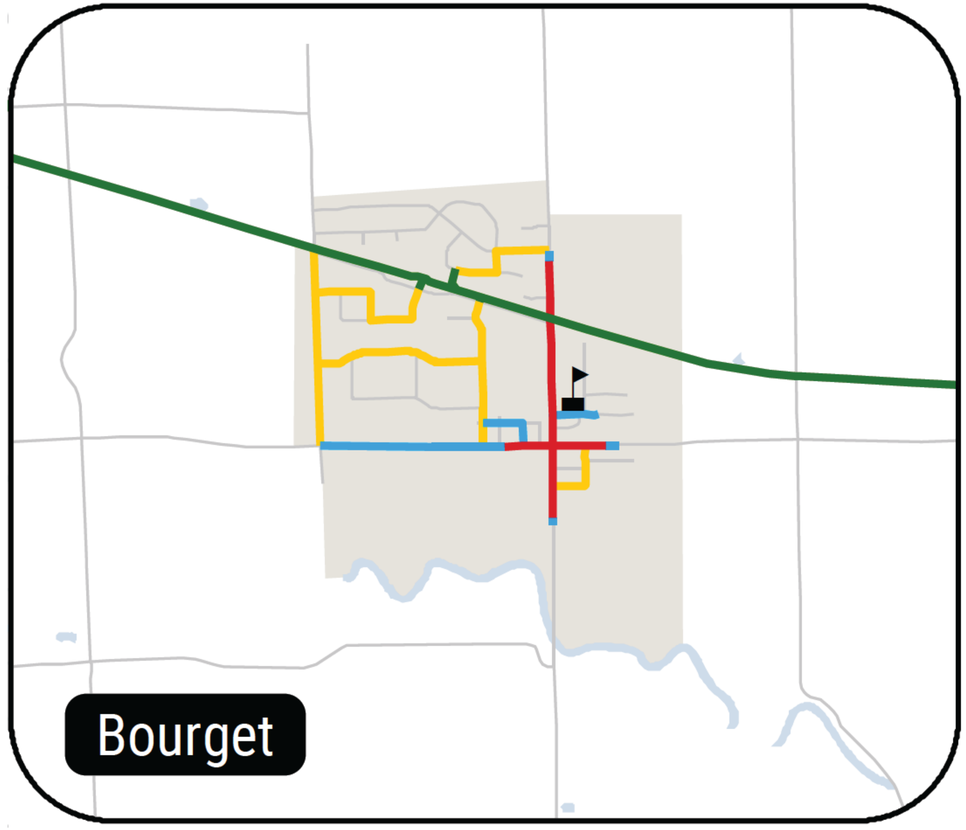
Cycling Network



Active Transportation Proposed Improvements

Pedestrian Network





Rather than sidewalks on both sides of local streets along with the inclusion of on-street bicycle lanes, the revised network makes greater use of the multi-use path within Rockland and Bourget neighborhoods.

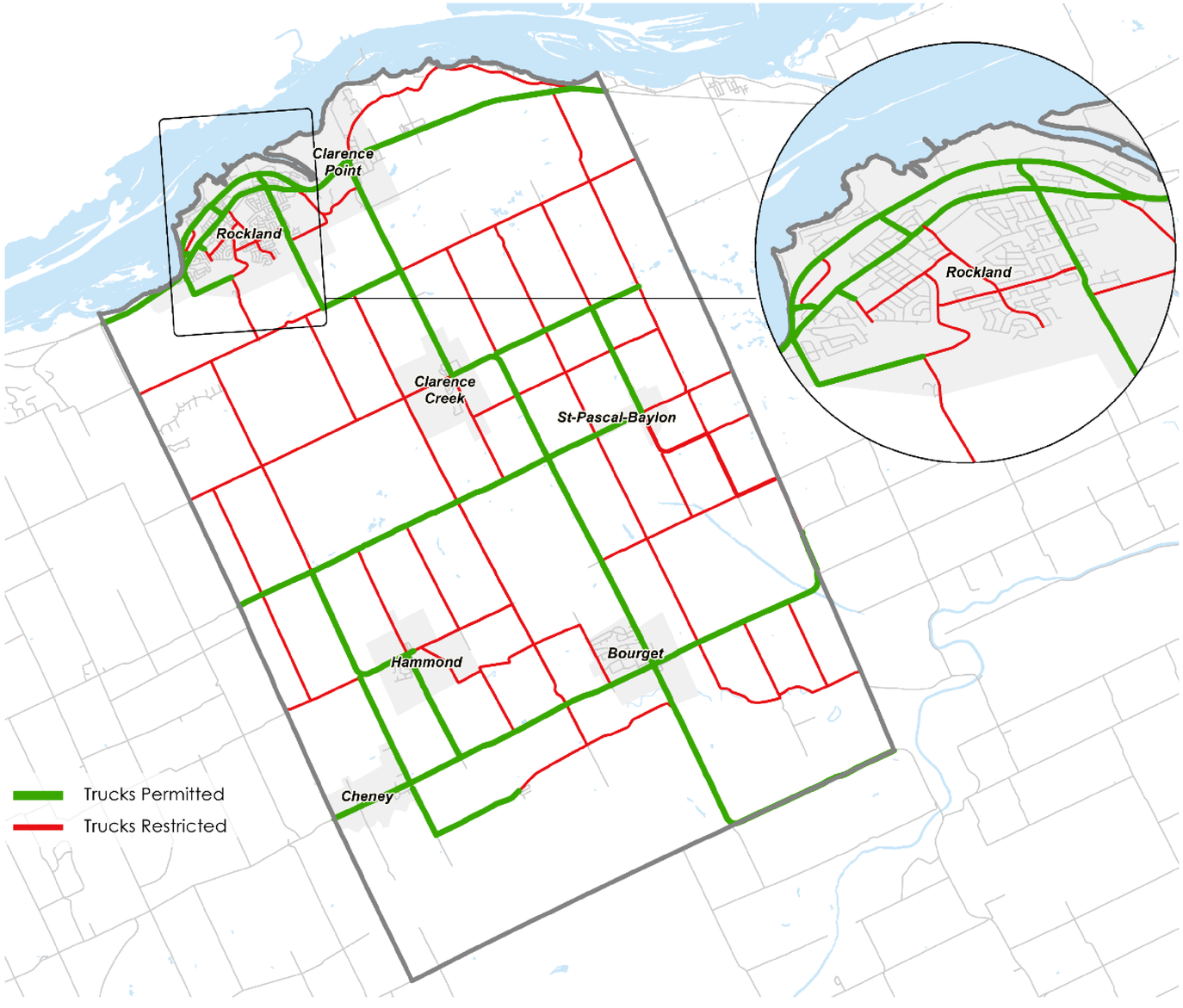
Truck Routes Proposed Improvements

Formalization of Truck Routes/Restrictions

Roadways are classified as restricted to trucks based on:

- Existing restrictions
- Maximum roadway grade
- Curves affecting lane width and visibility
- Posted speed limits
- Roadway surface and load rating (trucks not allowed on unpaved roads)

The proposed network lifts restrictions along Chemin du Lac between Duquette and Henrie Roads to create an outlet and route to Saint-Pascal-Baylon for permitted traffic on Duquette Road.



Next Steps

Phase 1
Problem and Opportunity

- Information Gathering
- Identify Problems and Opportunities

Phase 2
Alternative Solutions

- Identify and Evaluate Alternative Solutions
- Develop Implementation Strategy

Multimodal Transportation Master Plan

Ongoing Consultation

Notice of Study Commencement

Public Meeting (March 5, 2025)

Notice of Study Completion (May 2025)

Thank you for participating!

Please share your thoughts and ideas!

Email the study team:
EEMPG_MCEA@clarence-rockland.com

Complete the Comment Form

Contact a member of the study team:

Charles O. Bonneau
Coordonnateur, Projets en capital
Coordinator, Capital Projects
Phone: 613-446-6022 x2239
Email: cbonneau@clarence-rockland.com

Nevena Gazibara, Lead Environmental Planner
Phone: (905) 381-3249
Email: Nevena.Gazibara@stantec.com

Please provide your feedback by March 26, 2025

Clarence-Rockland

Cité de Clarence-Rockland

Mise à jour du plan directeur de transport multimodal (PDTM)

Réunion publique

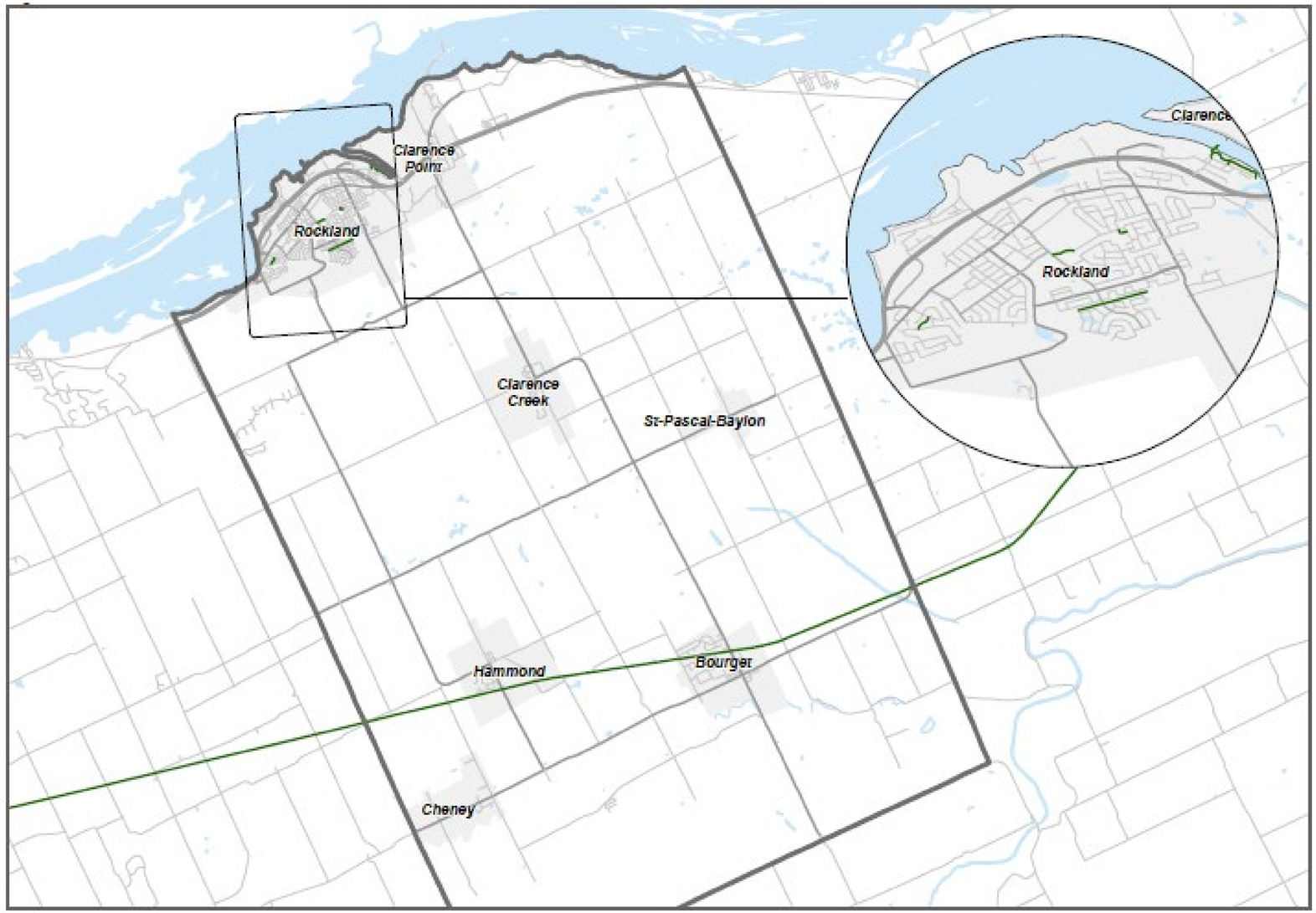
Stantec

Historique et contexte du PDTM

La Cité de Clarence-Rockland a achevé son plan directeur de transport multimodal (PDTM) en 2019. Elle entreprend la mise à jour de ce PDTM par la révision du plan stratégique d'infrastructure de transport à long terme pour Clarence-Rockland en fonction des changements dans les options de transport disponibles, ainsi que dans les habitudes de déplacement et de comportement des résidents et des visiteurs depuis 2019. Cette mise à jour permettra de **relever les nouveaux défis, de soutenir la croissance et de mettre en œuvre des politiques pour orienter les décisions en matière de transport et d'utilisation du sol**.

La mise à jour 2025 du PDMT continue d'étendre les travaux d'aménagement antérieurs menés dans le cadre du plan stratégique de transport de 2005 pour l'aire urbaine de la Cité de Clarence-Rockland en réévaluant les améliorations planifiées précédemment, de même qu'en tenant compte et en répondant aux changements physiques et planifiés au sein de la Cité depuis lors.

Zone d’étude du plan directeur de transport



La zone d’étude du PDTM est la Cité de Clarence-Rockland, la plus grande municipalité des Comtés unis de Prescott et Russell (CUPR) et fait partie de la région métropolitaine de recensement d’Ottawa-Gatineau. Un grand pourcentage de la population active de la Cité se rend donc dans la région de la capitale nationale pour le travail.

Processus de préparation des plans directeurs

Cette étude est réalisée conformément à l'approche n° 1 du processus de préparation des plans directeurs, tel qu'indiqué à l'appendice 4 du document Évaluation environnementale municipale de portée générale (EEMPG) (octobre 2000, modifié en 2007, 2011, 2015 et 2023).

Les phases 1 et 2 du processus d'EEMPG seront généralement traitées et constitueront la base des projets d'infrastructure de transport recommandés des annexes B et C établis dans le rapport de mise à jour du PDTM.

Phase 1 : Problèmes et opportunités

- Collecte d'informations
- Détermination des problèmes et des opportunités

Phase 2 : Solutions de rechange

- Détermination et évaluation de solutions de rechange
- Élaboration d'une stratégie de mise en oeuvre

Consultations continues

Avis de lancement de l'étude et de la première réunion publique (février 2025)

Réunion publique 5 mars 2025

Avis de fin de l'étude (mai 2025)

Plan directeur de transport multimodal

Mise à jour de l’énoncé de vision

2019

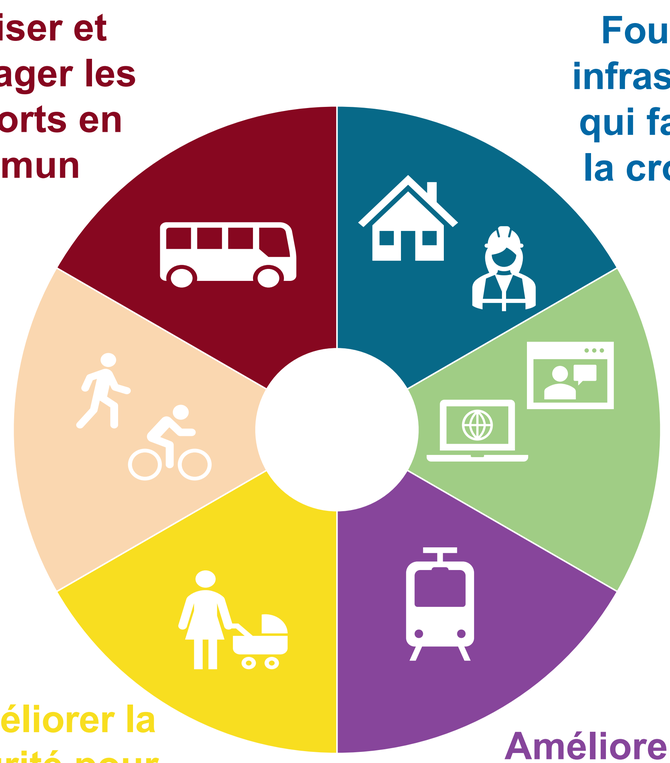
Un réseau de transport multimodal qui intègre un ensemble d’infrastructures et d’options de mobilité permettant aux habitants d’accéder aux emplois, aux services et aux loisirs à l’intérieur et à l’extérieur de la Cité de manière sécuritaire et efficace.

2025

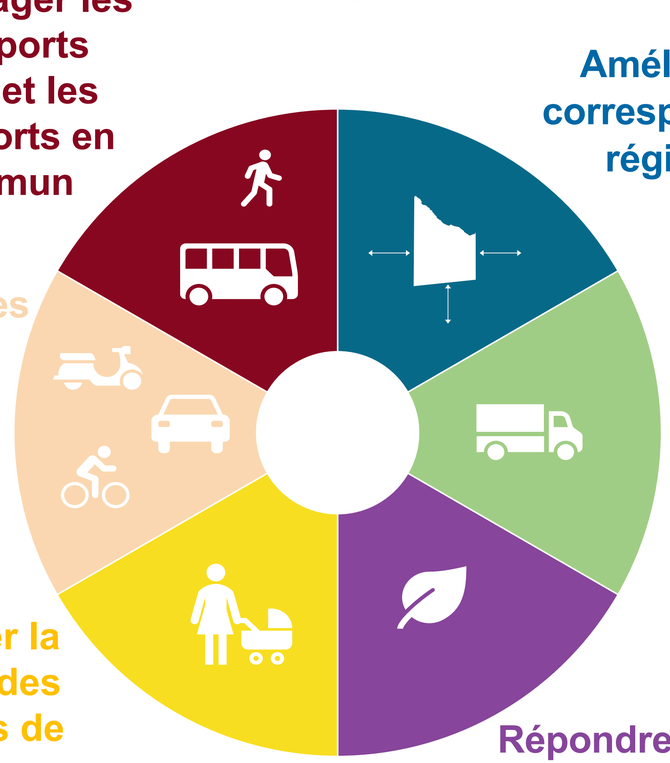
Le système de transport de Clarence-Rockland contribue à la qualité de vie de tous les résidents et visiteurs, tout en soutenant les besoins des entreprises. Il favorise la sécurité des déplacements vers et entre les quartiers résidentiels et commerciaux, quel que soit le mode de transport choisi. Il favorise également le développement durable des communautés et le soutien des individus et des familles en répondant aux besoins sociaux et culturels de manière inclusive, respectueuse, responsable et accessible.

Mise à jour des objectifs

2019 Objectives



2025 Objectives



Caractéristiques de la communauté

La Cité de Clarence-Rockland poursuit sa croissance démographique régulière. Passant de 23 185 à 26 505 habitants au cours des dix dernières années, Clarence-Rockland est la municipalité la plus populeuse des CUPR, constituant plus d'un quart de sa population totale (95 639 habitants).

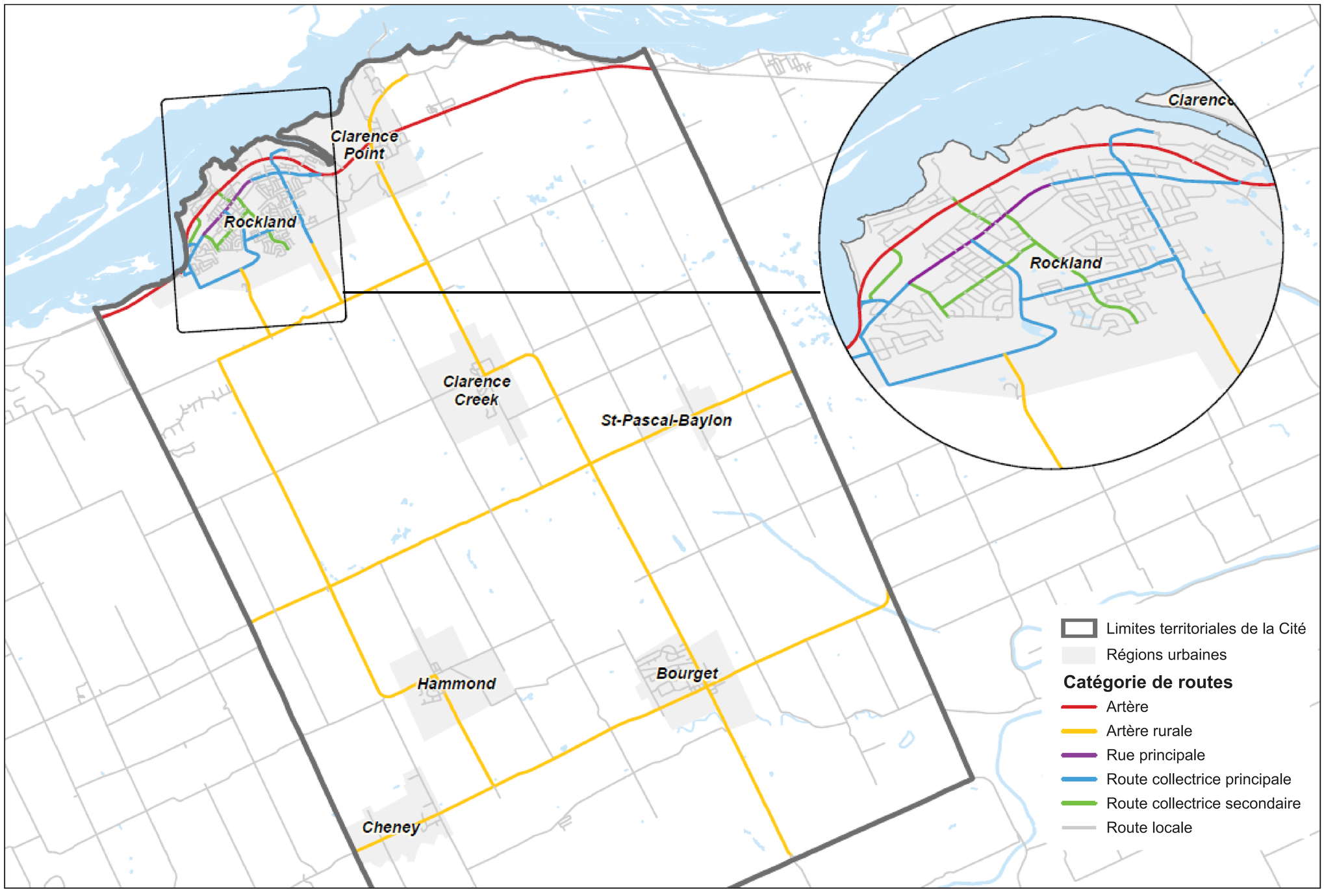
Cette croissance est due à l'augmentation la plus rapide du nombre de résidents âgés de plus de 65 ans. Cette population a augmenté de plus de 30 % entre 2016 et 2021 en raison de l'immigration et du vieillissement.

Source: La Cité de Clarence-Rockland

Source: La Cité de Clarence-Rockland

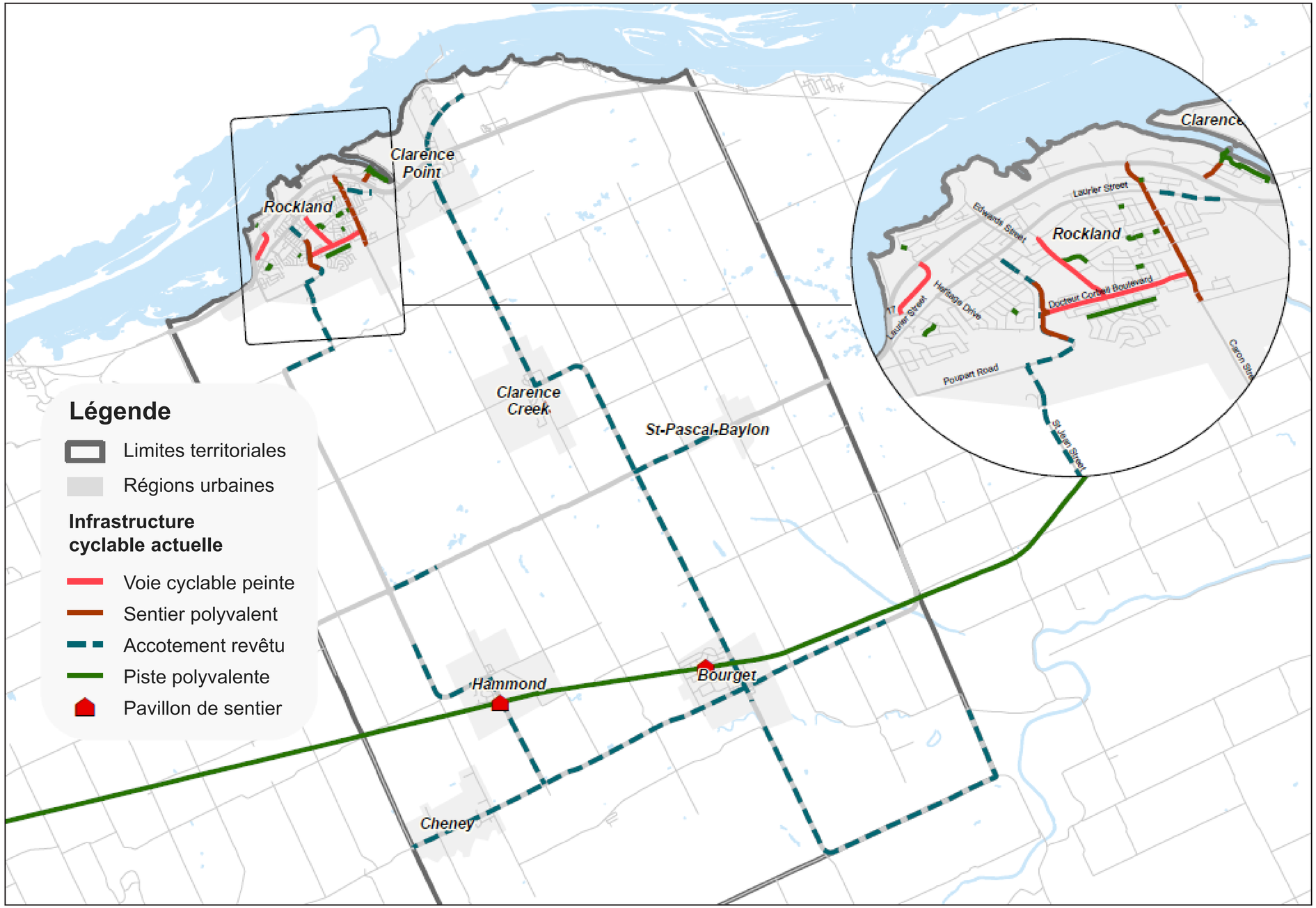
Source: La Cité de Clarence-Rockland

Réseau routier actuel



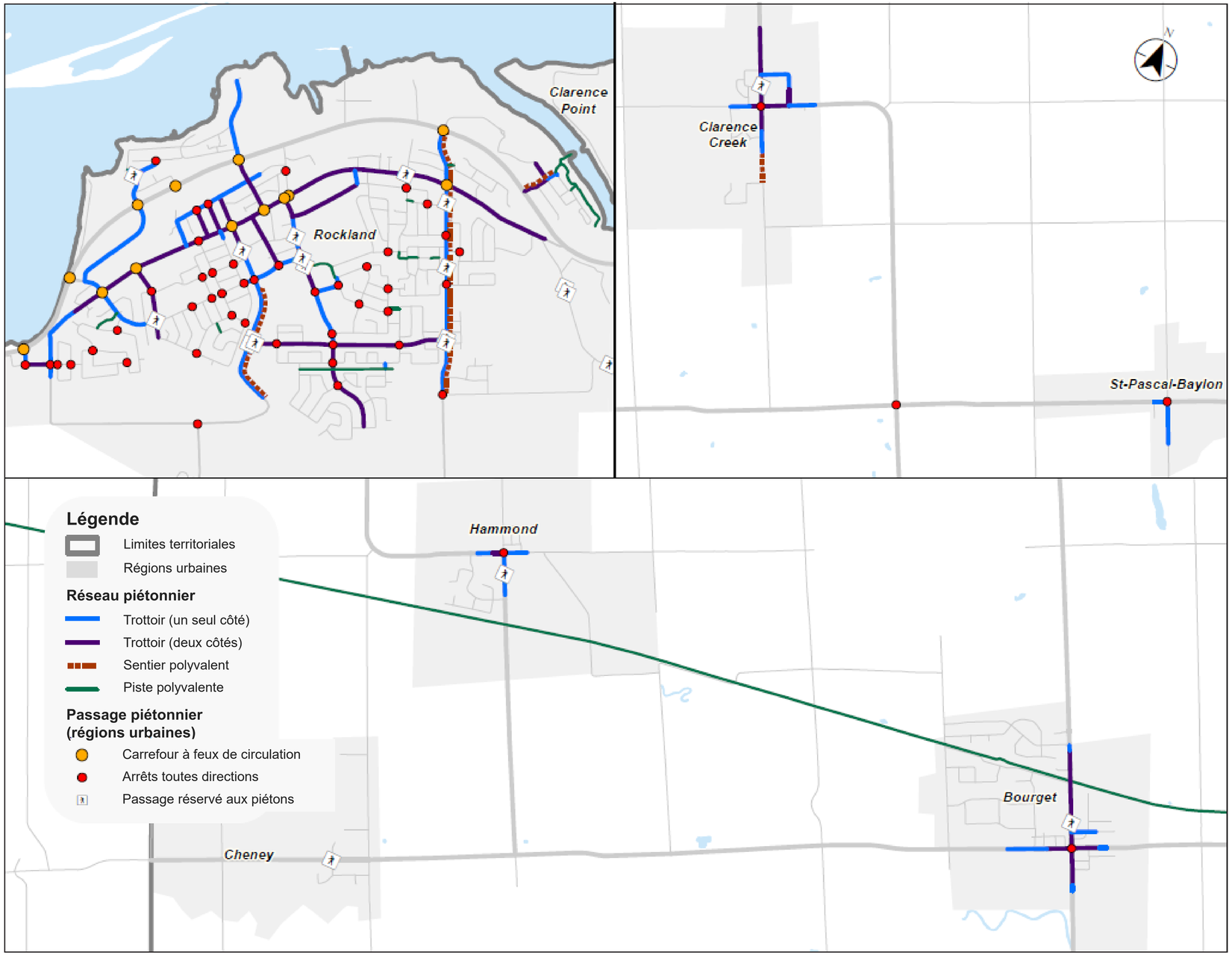
Réseau de transport actif actuel

Réseau cyclable actuel de Clarence-Rockland

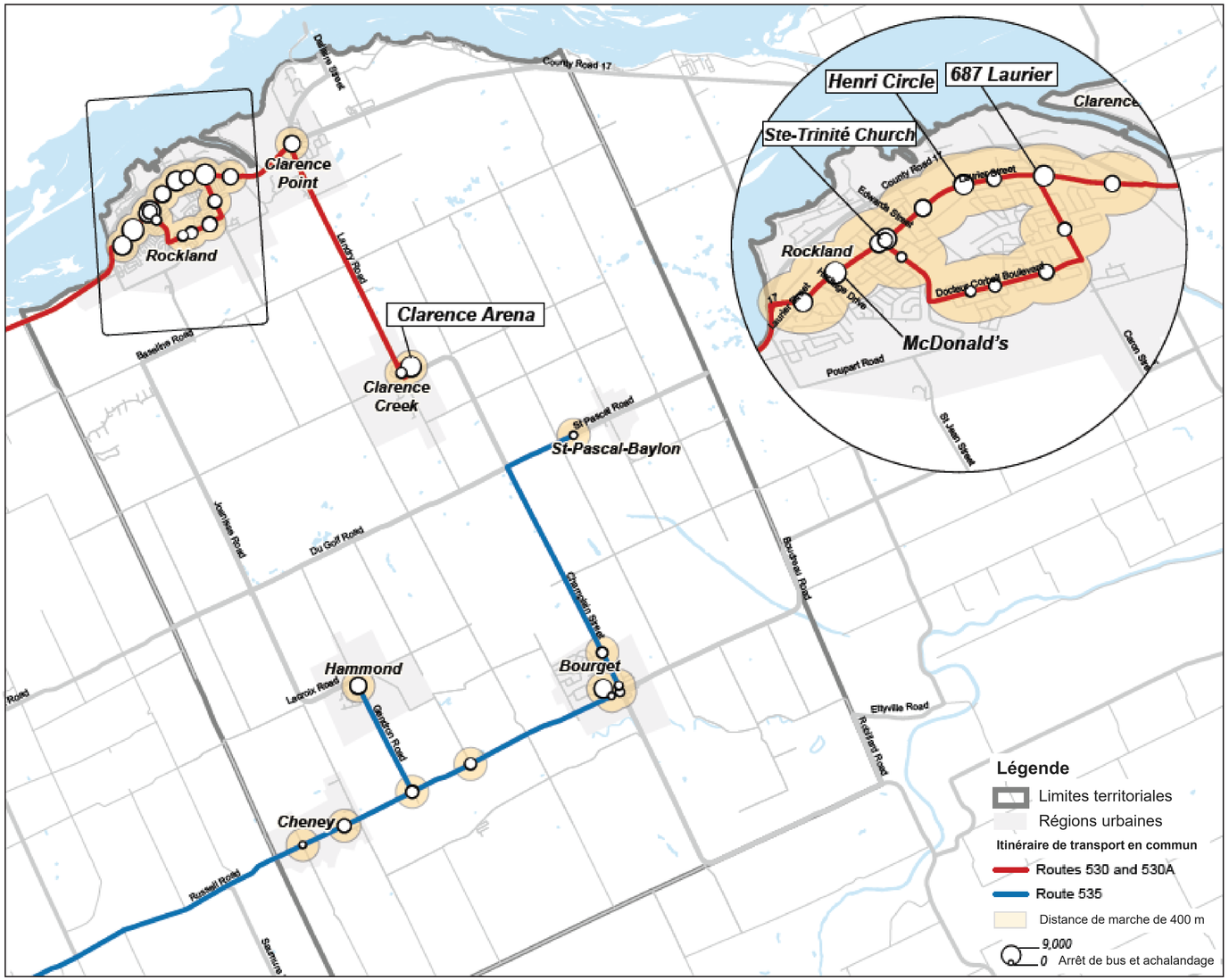


Réseau de transport actif actuel

Aménagements piétonniers actuels dans les zones de peuplement

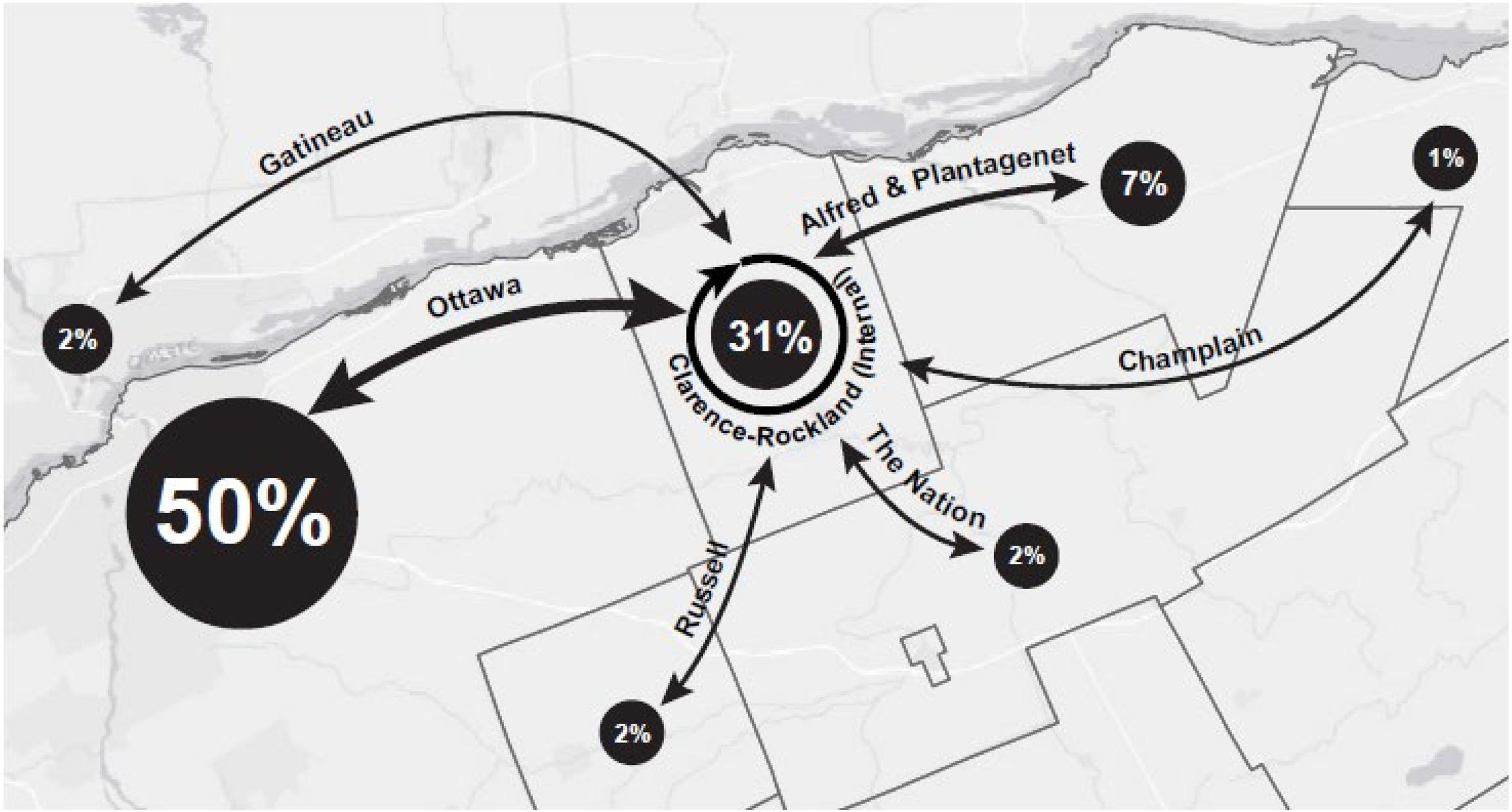


Ancien réseau de transport en commun



En 2003, la Cité de Clarence-Rockland a lancé un service de transport de banlieue vers Ottawa, qui s'est ensuite étendu à deux itinéraires. Géré par Leduc Bus Lines et partiellement subventionné par la Cité, le service a été suspendu en raison des restrictions liées à la pandémie et de la faible demande. En 2023, aucune date de retour n'avait encore été établie.

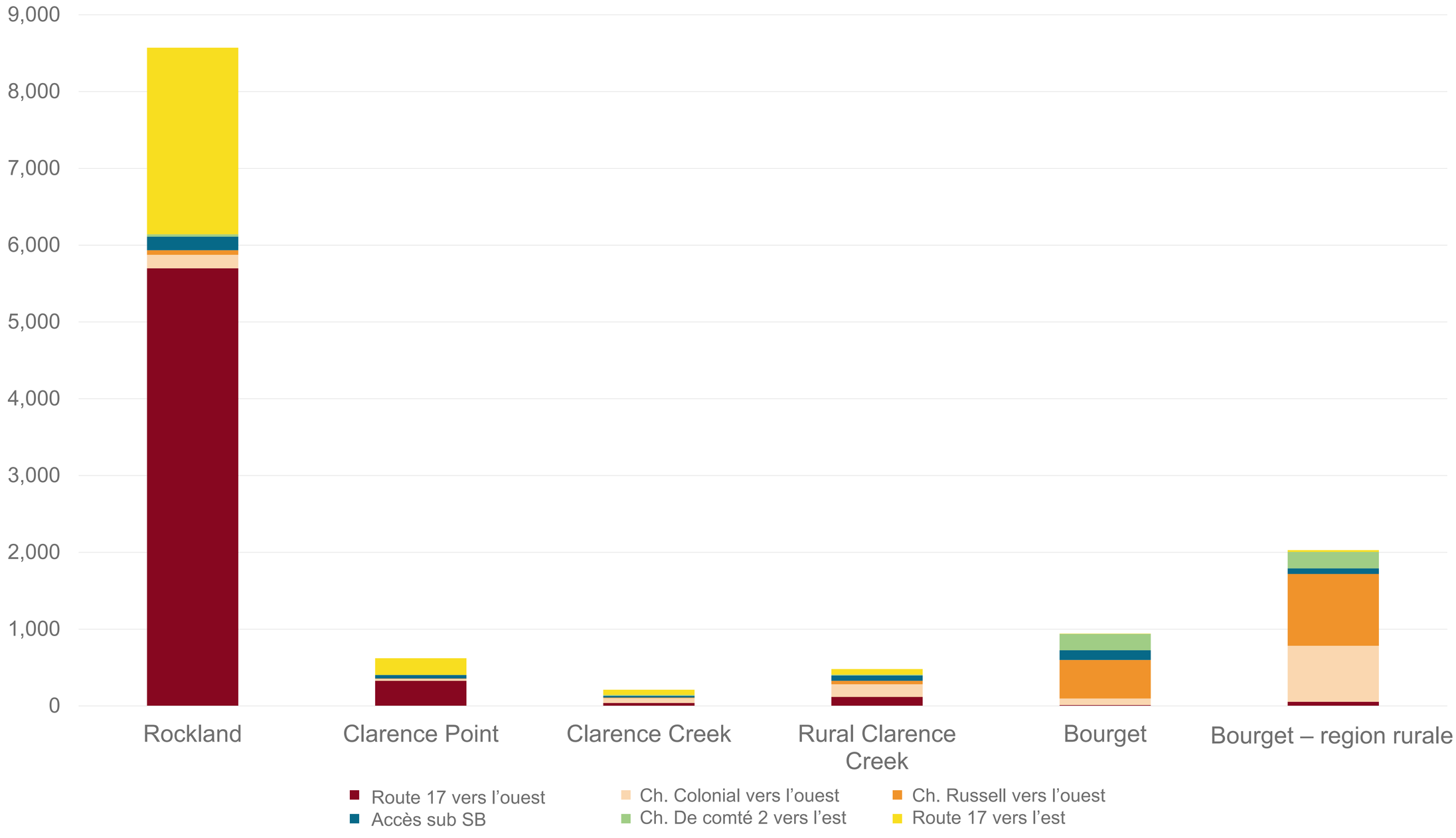
Habitudes de déplacement actuelles : répartition des déplacements



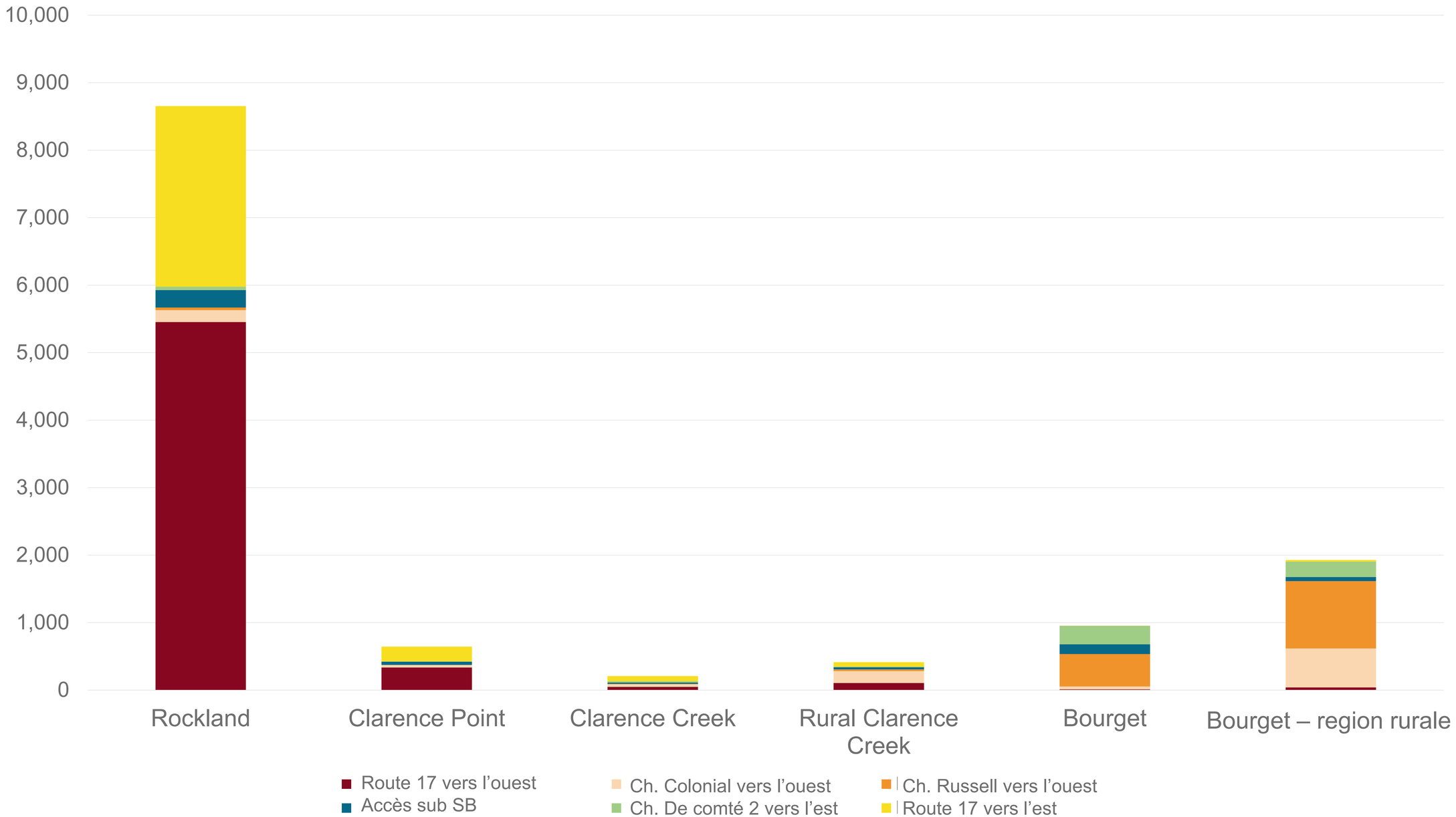
Navettage vers et depuis la Cité de Clarence-Rockland (données agrégées, Statistique Canada, *Recensement de la population 2021*

Habitudes de déplacement actuelles

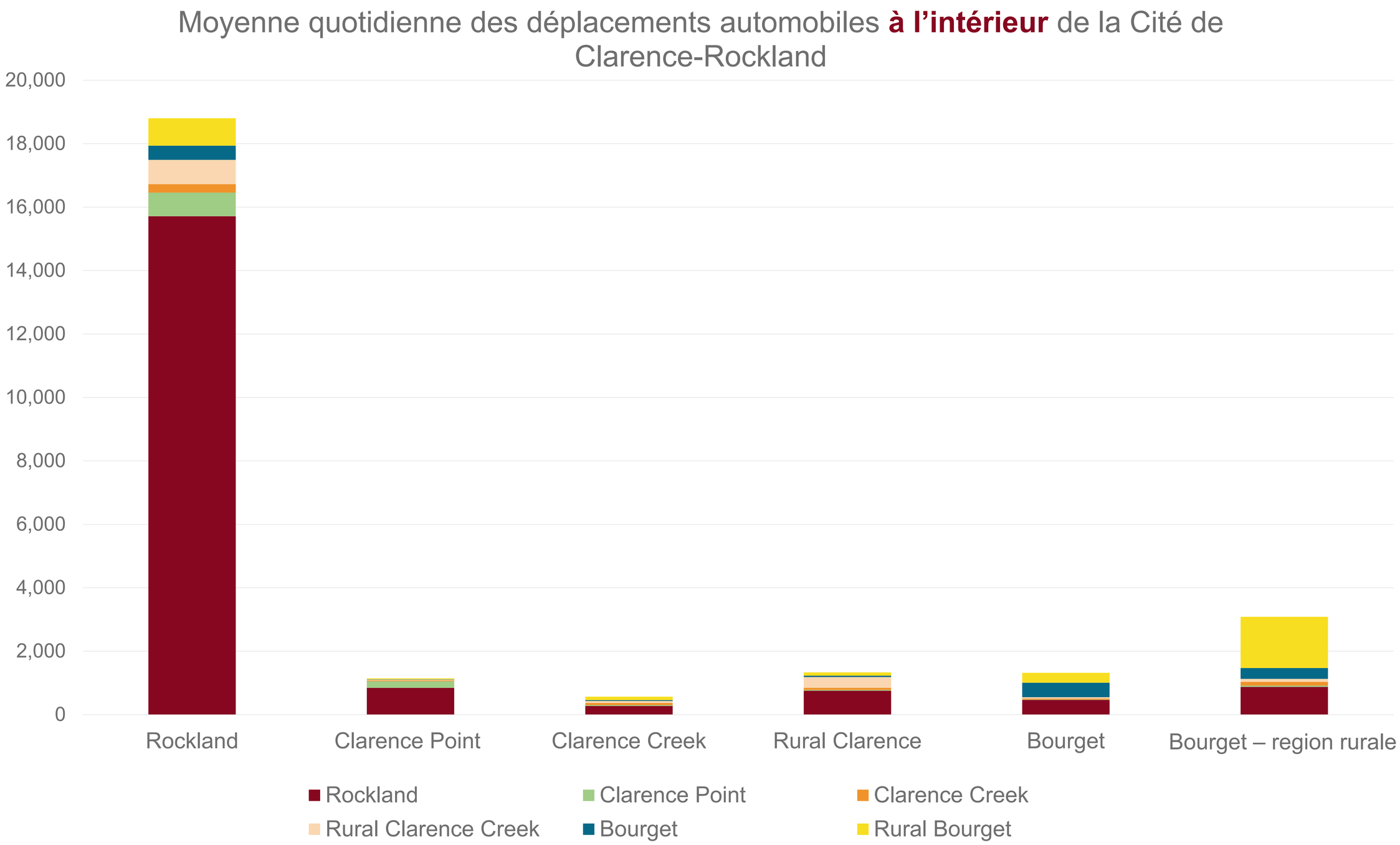
Moyenne quotidienne des déplacements automobiles **en provenance de l'extérieur et se terminant dans** la Cité de Clarence-Rockland



Habitudes de déplacement actuelles



Habitudes de déplacement actuelles : déplacements automobiles dans la Cité et quittant la Cité



Évaluation des besoins (2019 vs 2025)

Les choix de la population en matière de transport ont changé depuis la pandémie de COVID-19. Cela a entraîné des changements dans les investissements de la Cité pour les nouvelles infrastructures. Les modifications qui sont aujourd'hui apportées au plan feront partie du système de transport pendant de nombreuses années et doivent donc être durables. Les besoins et les opportunités du PDTM 2019 ont été réévalués par rapport à l'analyse des conditions actuelles et futures de 2024, et redéfinis afin d'étayer les mises à jour recommandées.

2019

- Plusieurs rues de la Cité sont dépourvues de trottoirs
- L'essentiel de l'aménagement résidentiel de la Cité est de faible densité et de faible hauteur
- Il y a un manque d'aménagements cyclables dans la Cité
- L'achalandage des transports en commun est en baisse
- Les hameaux ne sont pas bien reliés aux emplois, aux services et aux loisirs de la Cité
- Le chemin de Comté 17 est congestionné

2025

- Services dans les nouveaux développements
- Changements dans les habitudes de déplacement
- Correspondances dans les transports actifs intérieurs (de quartier)
- Aménagements sécuritaires pour les longs trajets à vélo
- Rue complète rue Laurier
- Rétablissement du service de transport en commun
- Officialisation des itinéraires/ restrictions pour les camions

Défis et opportunités

Défis

- Changements dans les habitudes de déplacement
- Manque de correspondances dans les transports actifs intérieurs
- Aménagements cyclables sectionnés pour les longs trajets à vélo
- Itinéraires sectionnés pour les camions
- Distance entre les destinations

Opportunités

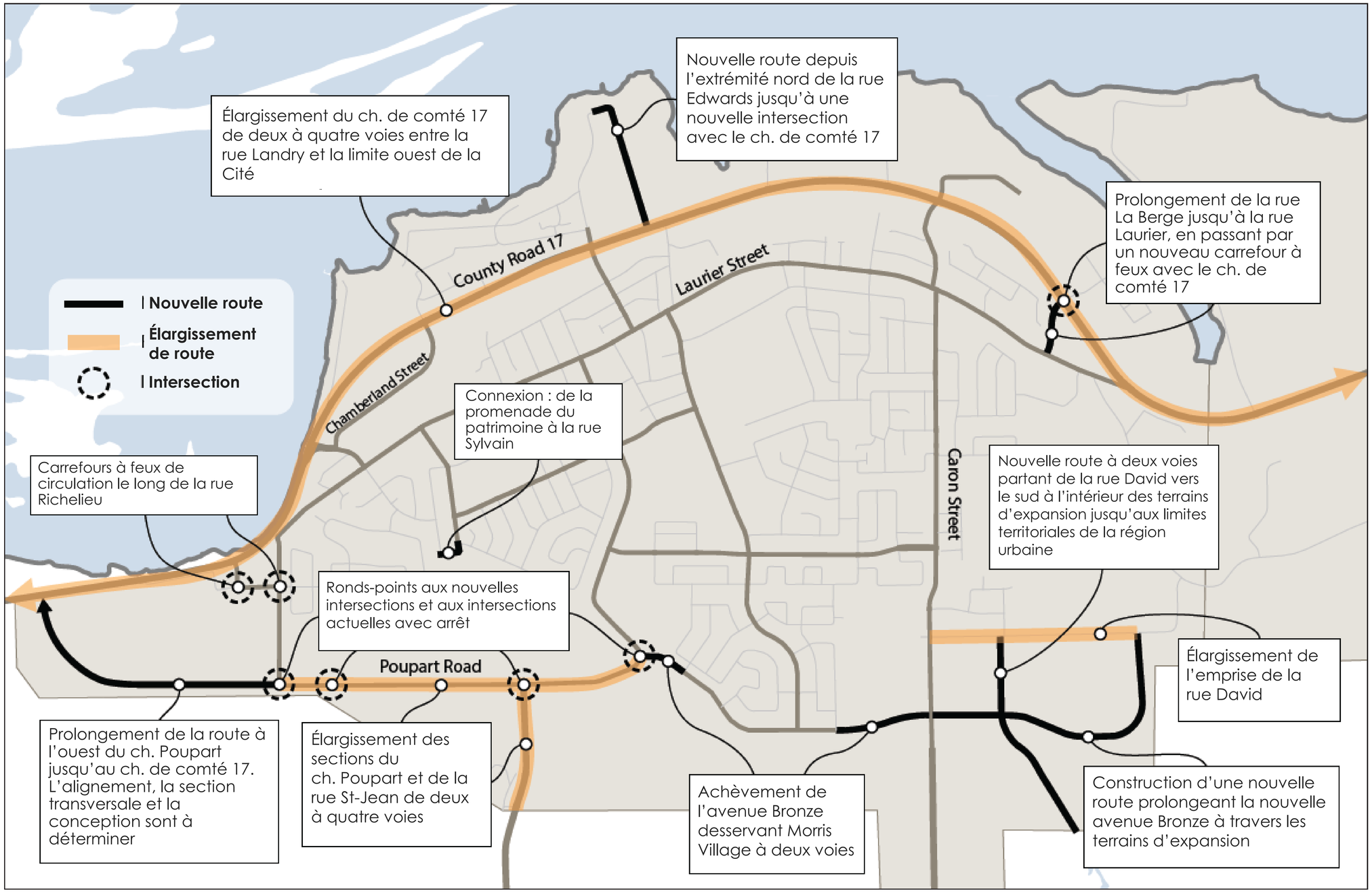
- Rue complète rue Laurier
- Rétablir le service de transport en commun
- Officialiser les itinéraires et les restrictions pour les camions
- Ajouter des infrastructures consacrées aux piétons et aux cyclistes qui favorisent les déplacements à l’intérieur des quartiers et entre les quartiers

Critères et processus d’évaluation

La mise en œuvre d’un plan de transport multimodal à grande échelle nécessite un processus d’évaluation pour aider les décideurs dans la hiérarchisation des investissements susceptibles d’avoir le plus d’impact.

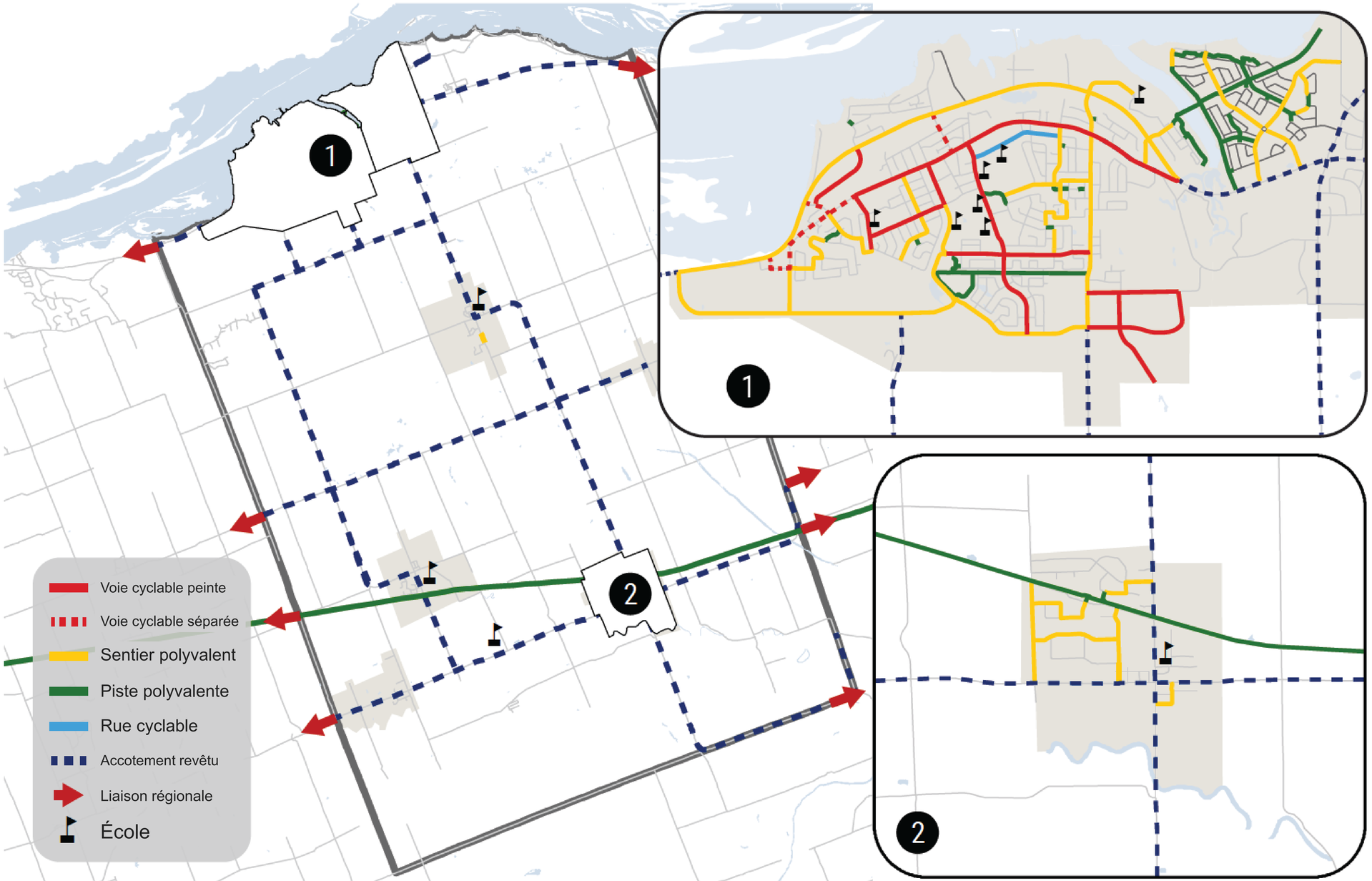
Critère d’évaluation	Justification
Connectivité du réseau	Les couloirs de transport sont d’autant plus utiles qu’ils font partie d’un réseau connecté qui accroît l’utilité de chaque installation et intègre des aspects d’équité, car les zones mal desservies disposent souvent de moins d’options de transport.
Soutien au développement	Les nouveaux aménagements plus denses nécessitent une infrastructure de transport complète pour profiter pleinement aux nouveaux résidents et aux résidents actuels. Le soutien aux transports non motorisés dans ces zones permet de préserver progressivement la capacité du réseau routier.
Accès aux destinations	La connectivité ne se limite pas aux liens avec d’autres moyens de transport disponibles. Un réseau de transport doit fournir un accès direct aux endroits où les gens veulent se rendre.
Sécurité des utilisateurs	Un réseau de transport bien conçu atténue les risques pour la sécurité de tous ses utilisateurs. Bien que la conception des projets recommandés soit toujours sécuritaire, certains aménagements optimisent la sécurité des utilisateurs vulnérables de la route tout en réduisant le nombre total de conflits.
Résilience du réseau	Un réseau de transport résilient est équilibré et flexible. Il offre de multiples options viables aux résidents et aux visiteurs, tout en restant fonctionnel si une situation d’urgence rend certaines options temporairement inaccessibles.
Constructibilité et faisabilité	Les coûts de construction, ainsi que des facteurs de complication tels que la propriété et les infrastructures conflictuelles actuelles ont un impact considérable sur la probabilité de mise en œuvre du projet.

Améliorations proposées au réseau



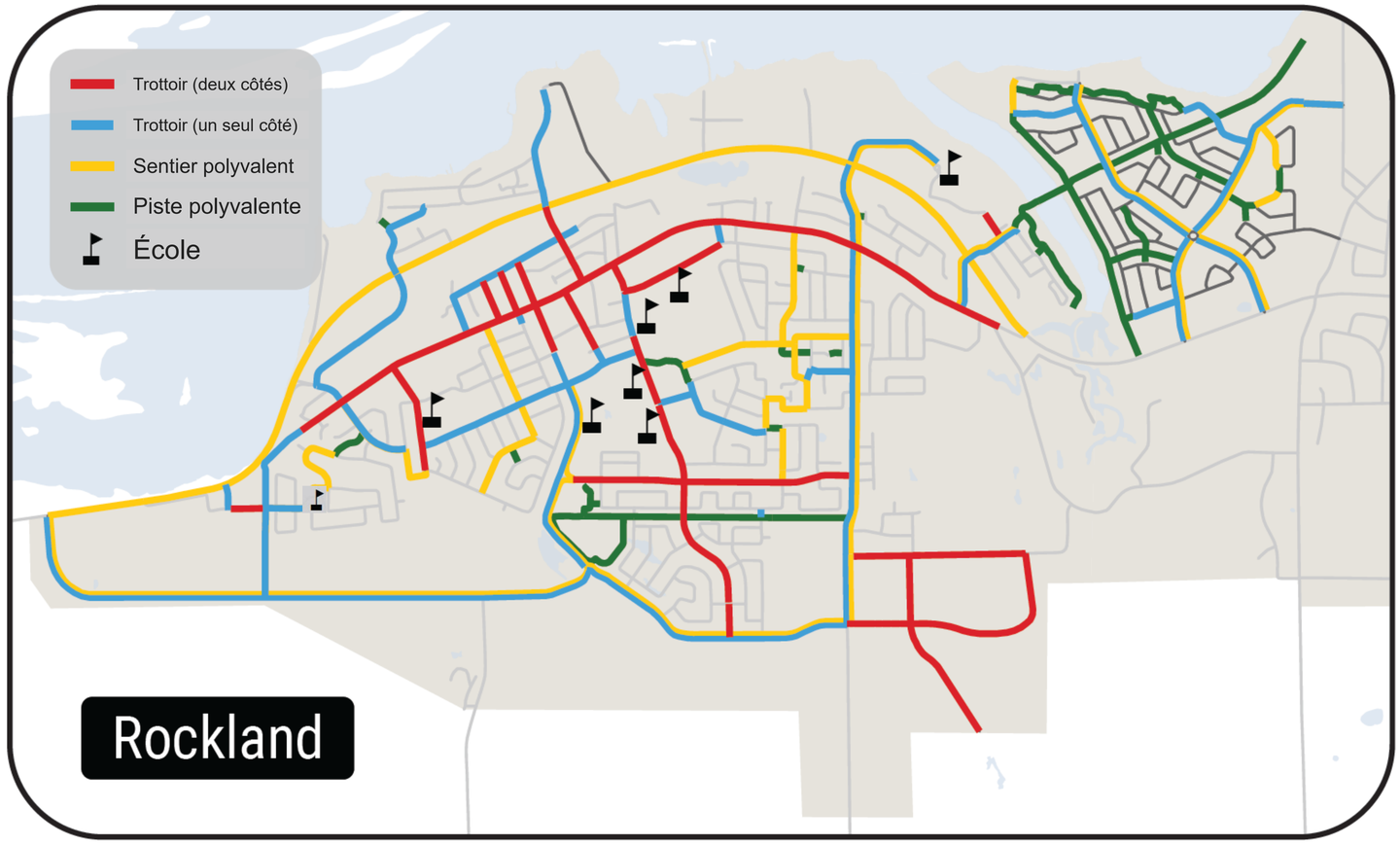
Améliorations proposées pour le transport actif

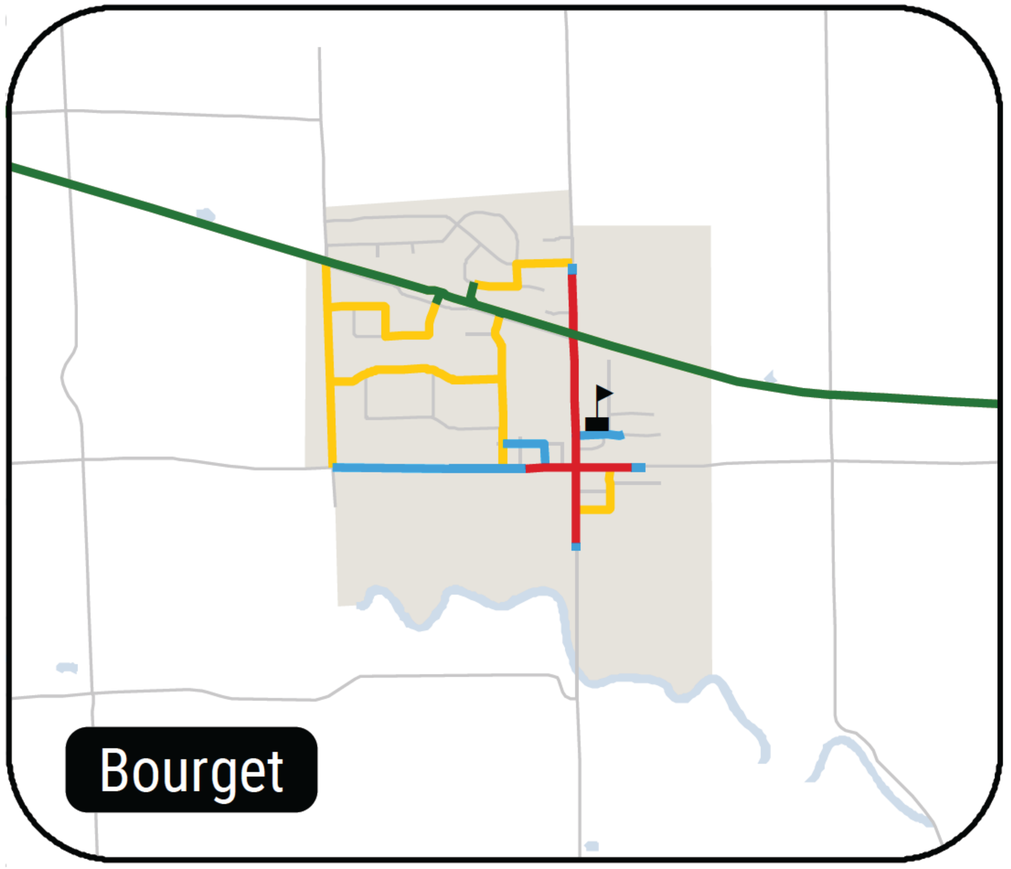
Réseau cyclable



Améliorations proposées pour le transport actif

Réseau piétonnier





Plutôt que des trottoirs de part et d'autre des rues locales et l'ajout de pistes cyclables sur rue, le réseau révisé mise davantage sur les sentiers polyvalents dans les quartiers Rockland et Bourget.

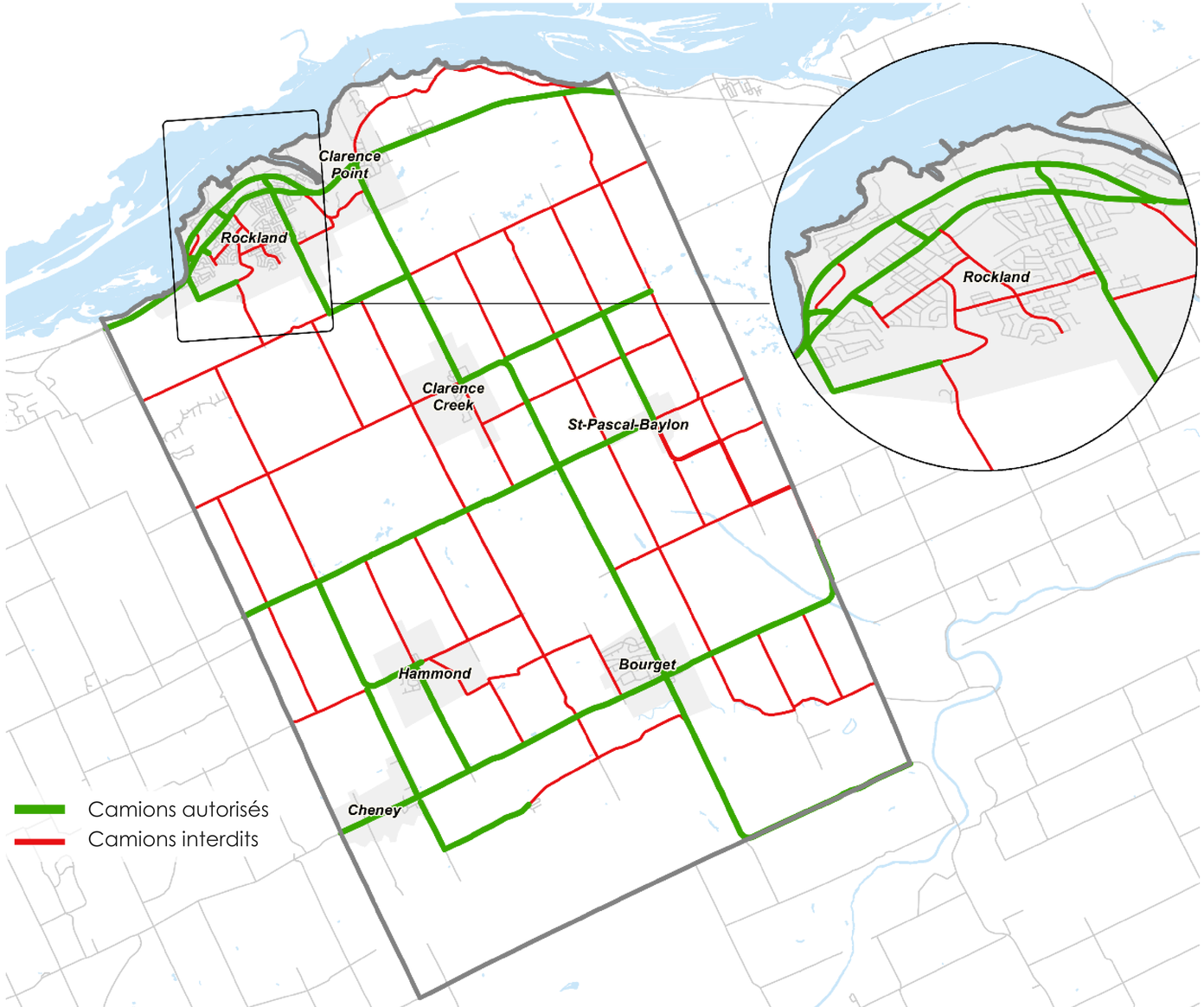
Améliorations proposées pour les itinéraires pour camions

Formalisation des itinéraires/restrictions pour camions

Les routes sont classées comme étant interdites aux camions en fonction des critères suivants :

- Restrictions actuelles
- Pente maximale de la route
- Courbes affectant la largeur et la visibilité des voies
- Limites de vitesse affichées
- Revêtement de la chaussée et capacité de charge (les camions ne sont pas autorisés à circuler sur des routes non revêtues)

Le réseau proposé lève les restrictions le long du Chemin du Lac entre les chemins Duquette et Henrie afin de créer un débouché et un itinéraire vers Saint-Pascal-Baylon pour le trafic autorisé sur le chemin Duquette.



Prochaines étapes

Phase 1

Problèmes et opportunités

- Collecte d’informations
- Détermination des problèmes et des opportunités

Phase 2

Solutions de rechange

- Détermination et évaluation de solutions de rechange
- Élaboration d’une stratégie de mise en oeuvre

Plan directeur de transport multimodal

Consultations continues

Avis de lancement de l’étude

Réunion publique (5 mars 2025)

Avis de fin de l’étude (mai 2025)

Nous vous remercions de votre participation!

N’hésitez pas à nous faire part de vos commentaires!

Contacter l’équipe de l’étude :
EEMPG_MCEA@clarence-rockland.com

Remplir le formulaire de commentaires

Contacter un membre de l’équipe de l’étude :

Charles O. Bonneau
Coordonnateur, Projets en capital
Tél. : 613-446-6022 poste 2239
Courriel : cbonneau@clarence-rockland.com

Nevena Gazibara, Planificateur environmental principal
Tél. (905) 381-3249
Courriel : Nevena.Gazibara@stantec.com

Veuillez nous faire part de vos commentaires d’ici le 26 mars 2025

Notice of Master Plan

The City of Clarence-Rockland
Transportation Master Plan

The City of Clarence-Rockland (City) has revised its 2019 Multi-Modal Transportation Master Plan (MMTMP) based on shifts in available transportation options and changes in resident and visitor travel behavior since the original plan was formulated.

As part of the MMTMP process, our consultants, Stantec Consulting Ltd., assessed the City's existing and future transportation challenges and opportunities, and worked to identify short-term and long-term transportation infrastructure needs. This updated MMTMP addresses emerging challenges, facilitates growth, and incorporates policies to steer transportation and land use decisions effectively. Recommendations in the MMTMP support improved connectivity and travel times, enhance safety, and encourage active transportation and transit. The MMTMP has identified actions and policies and a financial strategy to address the short, medium, and long-term transportation needs of the community.

Please note the St. Jean – Poupart Reconstruction Study is not being amended or impacted in scope or design by this MMTMP. The 2019 MMTMP recommendations for the St. Jean-Poupart area still apply.

The Process

This study has been undertaken in accordance with Approach #1 of the Master Planning Process, as outlined in Appendix 4 of the *Municipal Class Environmental Assessment* (MCEA) document (October 2000, as amended in 2007, 2011, 2015, 2023). As such, the MMTMP has addressed Phases 1 and 2 of the MCEA process.

Notice of Review Period

A MMTMP report has been prepared that documents the MMTMP study. This notice announces the start of the 30-day comment period for the MMTMP report in accordance with the requirements of the EA process.

The MMTMP Report will be available for review from May 28th to June 27th, 2025, online at: Transportation Master Plan - City of Clarence-Rockland

Please provide written comments by June 27th, 2025, to the study team members noted below. All comments will become part of the public record of the study except for personal information. Following the comment period, the MMTMP Report will be reviewed and revised as needed, taking into consideration the comments that are received from the public.

For more information about this study, please contact:

Charles O. Bonneau
Coordinator, Capital Projects
Phone: 613-446-6022 x2425
Email: EEMPG_MCEA@clarence-rockland.com

Nevena Gazibara
Lead Environmental Planner
Phone: (905) 381-3249
Email: EEMPG_MCEA@clarence-rockland.com

All information will be collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. Except for personal information, all comments will become part of the public record.

This notice was issued May 21, 2025

Avis concernant le plan directeur

Cité de Clarence-Rockland
Plan directeur des transports

La Cité de Clarence-Rockland (la Cité) a procédé à la mise à jour de son Plan directeur de transport multimodal (PDTM) de 2019, afin de tenir compte des changements survenus dans les options de transport disponibles ainsi que dans les habitudes de déplacement des résidents et des visiteurs depuis l'élaboration du plan initial.

Dans le cadre de ce processus, la firme Stantec Consulting Ltd., mandatée par la Cité, a analysé les défis actuels et futurs ainsi que les possibilités d'amélioration du réseau de transport de la Cité. L'étude a permis de cerner les besoins à court et à long terme en matière d'infrastructure de transport. Cette version à jour du PDTM répond aux défis émergents en matière de transport, soutient la croissance, intègre des politiques pour orienter les décisions liées à l'aménagement du territoire et au transport, formule des recommandations pour améliorer la connectivité, réduire les temps de déplacement, renforcer la sécurité, et promouvoir le transport actif ainsi que le transport en commun, et établit une stratégie financière pour répondre aux besoins de transport de la population à court, moyen et long terme.

Veuillez noter que l'étude de reconstruction du secteur Saint-Jean – Poupart n'est pas modifiée par la présente mise à jour du PDTM. La portée et la conception du projet demeurent inchangées et les recommandations du PDTM de 2019 pour ce secteur restent en vigueur.

Le processus

La présente étude est menée conformément à l'approche 1 du processus de préparation des plans directeurs, tel que décrit à l'appendice 4 de l'Évaluation environnementale municipale de portée générale (octobre 2000, telle que modifiée en 2007, 2011, 2015 et 2023). À ce titre, le PDTM couvre généralement les phases 1 et 2 du processus d'évaluation environnementale municipale de portée générale.

Avis de période d'examen public

Un rapport PDTM a été préparé afin de documenter les résultats de l'étude. Le présent avis annonce le début d'une période de commentaires de 30 jours, conformément aux exigences du processus d'évaluation environnementale.

Le rapport du PDTM sera disponible pour consultation du 28 mai au 27 juin, 2025, en ligne à l'adresse suivante : Plan directeur des transports – Cité de Clarence-Rockland

Nous vous invitons à transmettre vos commentaires par écrit d'ici le 27 juin, 2025 aux membres de l'équipe de l'étude, dont les coordonnées figurent ci-dessous. Tous les commentaires seront consignés dans le dossier public de l'étude, à l'exception des renseignements personnels, qui demeureront confidentiels. À la suite de la période de cette période d'examen, le PDTM sera révisé au besoin afin de tenir compte des commentaires reçus. Le PDTM final sera ensuite présenté au Conseil municipal de la Cité de Clarence-Rockland pour approbation.

Pour plus d'information au sujet de cette étude, veuillez communiquer avec :

Charles O. Bonneau
Coordonnateur, projets en capital
Téléphone : 613-446-6022 x2425
Courriel : EEMPG_MCEA@clarence-rockland.com

Nevena Gazibara
Planificatrice environnementale principale
Téléphone : (905) 381-3249
Courriel : EEMPG_MCEA@clarence-rockland.com

Tous les renseignements seront recueillis conformément à la *Loi sur l'accès à l'information municipale et la protection de la vie privée*. À l'exception des renseignements personnels, tous les commentaires seront versés au dossier public.

Cet avis a été émis le 21 mai 2025

From: [redacted]
To: Young, Rachel (Waterloo)
Subject: Re: Submission of Comments on the Proposed Multimodal Transportation Master Plan Amendment for Clarence-Rockland
Date: Tuesday, June 24, 2025 2:39:20 PM

Hi Rachel

Thank you for the detailed reply. I look forward to seeing the completed study.

[redacted]

On Tue, Jun 24, 2025 at 10:13 AM Young, Rachel (Waterloo) <Rachel.Young2@stantec.com> wrote:

> Thank you for your email and interest in this Multi-Modal Transportation Master Plan (MMTMP) [redacted] Your comments have been forwarded to the project team for consideration.
>
> Figure 4.1 of the MMTMP illustrates both planned and completed developments as of November 12, 2023. Note that some depicted developments may have included an agreement with the City to reserve parkland as part of site plan approval.
>
> We appreciate your feedback concerning safe connectivity for bicycle trips. The project team has reviewed various areas across Clarence-Rockland to identify opportunities for connecting new and existing cycling routes. Figure 6.4 of the MMTMP presents the recommended 2034 Cycling Network for the City with inset maps of Rockland and Bourget. The proposed network seeks to directly connect more of the settlement areas to each other and to the Prescott-Russell Recreational Trail through additional paved shoulders along rural roads, leveraging planned improvements at the County level. Additionally, one of the key recommendations is to implement paved shoulders along County Road 17 east of Laurier Street as far as Wendover and a multi-use path west of Laurier Street in consideration of vehicular volume and speed. The proposed additions to the cycling network would more directly complement the existing paved shoulders along Old Highway 17 from County Road 17 to Dallaire Street. Please note that modifications on or along County Road 17 would be the responsibility of the United Counties of Prescott and Russell.
>
> The proposed cycling network also expands on the needs stated for Laurier Street in Section 6.1.5 of the MMTMP. The plan includes a painted bike lane along Laurier Street from County Road 17 to Heritage Drive and a better separated multi-use path from Heritage Drive to Richelieu Street. The plan also proposes buffered bicycle lanes with flexible posts and signage along Laporte and Edwards Streets to complete links between Laurier Street, County Road 17, and areas to the north.
>
> Thank you for your comments regarding the pedestrian network. While the Transportation Master Plan includes a variety of recommended multi-use paths and sidewalks throughout Rockland, the creation of new pathways utilizing private property was not within the scope of this project. Your suggestion of investigating pathway easements has been received by City staff for further consideration.

Regarding crossing County Road 17 on foot, signal timing is under the jurisdiction of the United Counties of Prescott and Russell. Your comments will be forwarded to the United Counties of Prescott and Russell for consideration.

We acknowledge your concerns that a simple paved shoulder along County Road 17 may not offer sufficient safety or comfort for cyclists due to the high traffic volumes and vehicle speeds. The plan update recommends changing the roadway classification of the Outaouais Sideroad and Tucker Road to collectors, which while not explicitly listed in this round of improvements, implies higher maintenance and active transportation accommodation standards. This has the potential in future rounds of network planning to better link Rockland cyclists and pedestrians to Landry Street (County Road 8).

The proposed new route from County Road 17 to Edwards Street is a recommended project retained from the 2019 Multimodal Transportation Master Plan, which in turn was part of the 2013 Official Plan for the City of Clarence-Rockland. The 2019 Plan bases implementation on future development, which is described in the current City Official Plan as, “lands located north of County Road No. 17 and east of the sewage treatment plant are proposed for a “Business Park” designation and a portion of land at the northern end of Edwards Street is redesignated to allow water-oriented recreational facilities.” Exact roadway placement is subject to change at the design stage but is likely to align with or near to the intersection of Pouliotte Street, providing a secondary route to Laurier Street.

While the plan does not identify specific locations for traffic calming, a separate traffic calming toolkit unique to Clarence-Rockland (Appendix A of the MMTMP) supports the plan by creating a guide for traffic calming implementation from project identification through technical validation and solution selection. The toolkit contains a decision tree to identify the best measures for a series of existing and desired conditions.

The plan recognizes an opportunity to reassess transit services within identified issues and opportunities. It recommends further study into the appropriate service type, optimal physical coverage area(s), meaningful external connections, mutual reinforcement of the active transportation network, and fundamental operational considerations. Despite identifying the potential for on-demand or flexible route service models, it does not preclude any transit service delivery model from future study or implementation. Further, policy recommendations urge the inclusion of language in by-laws or the site approval process that encourages or requires developers to provide dedicated carshare spaces within a development that provide access to short-term car rentals that reduce the need for vehicle ownership.

The assessment of travel characteristics within Chapter 3 of the MMTMP displays how Clarence-Rockland residents utilize alternate routes such as Baseline Road, Golf/Colonial Road, and Russell Road to reach points west of the City and Highway 417. Unfortunately, the City limits and jurisdiction end at Canaan Road. Realignment of routes parallel to Regional Road 174 are the decision of the City of Ottawa.

Thank you again for your interest in this study.

Rachel Young (she/her)

Transportation/Environmental Planner

Direct: (519) 575-4228
Email: Rachel.young2@stantec.com

Stantec
100-300 Hagey Boulevard
Waterloo ON N2L 0A4

[redacted]

From: EEMPG_MCEA <EEMPG_MCEA@clarence-rockland.com>
Sent: Tuesday, June 10, 2025 10:26 AM
To: Gazibara, Nevena <Nevena.Gazibara@stantec.com>
Cc: Richard Campeau <rcampeau@clarence-rockland.com>
Subject: FW: EXTERNAL Submission of Comments on the Proposed Multimodal Transportation Master Plan Amendment for Clarence-Rockland

Good Morning Nevena
Here is the email received regarding the MCEA on the proposed multimodal transportation master plan.
Could you please advise on the next steps on how to address this?
Best Regards,

Charles O. Bonneau
Coordonnateur, Projets en capital
Coordinator, Capital Projects
Cité de / City of Clarence-Rockland

613-446-6022 (2425) cbonneau@clarence-rockland.com
clarence-rockland.com

[redacted]
Sent: June 9, 2025 4:46 PM
To: EEMPG_MCEA <EEMPG_MCEA@clarence-rockland.com>
Subject: EXTERNAL Submission of Comments on the Proposed Multimodal Transportation Master Plan Amendment for Clarence-Rockland

City of Clarence-Rockland

Charles O. Bonneau
Coordinator, Capital Projects
Phone: 613-446-6022 x2425
Email: **EEMPG_MCEA@clarence-rockland.com**

Nevena Gazibara
Lead Environmental Planner
Phone: (905) 381-3249
Email: **EEMPG_MCEA@clarence-rockland.com**

RE: Comments on the Proposed Multimodal Transportation Master Plan Amendment for the City of Clarence-Rockland

I have had an opportunity to quickly review the proposed Plan amendment and generally find myself in agreement with it. It is well-written and easy to follow. However, I do have some comments I would like to bring to your attention:

1. Page 29, Figure 4.1 – The figure seems to show residential development on land that has already been developed on Catherine Street and on land that is already a municipal park.

2. Section 6.4.1 Safe Facilities for Longer Bicycle Trips – This section might be expanded to include a discussion of the value of providing safe shoulders along the roads joining the hamlets to not only achieving safe cycling for residents but also to promote cycling tourism and the economic activity that brings. The authors seem to be unaware that many roadways in the area were once designated as a part of a cycling network – you can still see signs for it along Old Highway 17. Rockland could be made a major point of entry onto a network of safe cycling routes around the PR region but it will have to get its own house in order to do so. For example, Old Highway 17 has no paved shoulder from its junction at the 174 until Wendover. There could be a paved shoulder from the Old Highway 17 down to the Clarence Point-Thurso ferry to encourage cycling to the Parc Plaissance as well. There is much to be gained for connectivity and tourism by planning safe routes between Rockland, the hamlets, Wendover, Plantagenet, the PR Trail, Cumberland etc. The provision of municipal parking to access these routes would be welcome as well – and may serve as a place for local entrepreneurs can set up to provide goods and services to cyclists.

3. Section 6.1.5 – Making Laurier a Complete Street – As a cyclist, I find Laurier west of Edwards dangerous due to its condition, speed of traffic, and on street parking. The street needs to be repaired, bike lanes added and perhaps public education about the need to share the road. I do use the bike lanes along du Chamberland to travel from where I live north of the 174 to various stores and businesses along Laurier. While I generally feel pretty safe, the traffic on this section of road tends to speed and drivers seem to be very unconscious of bike riders like myself. Signage about sharing the

road etc. might help.

4. 6.2.1.1 Pedestrian Network – More effort should be made to add more pathways/short cuts for pedestrians and cyclists between major streets. For instance, cyclists and pedestrians moving along du Chamberlain South to get to shops along Laurier have to go far to the west before being able to get back east along Laurier. The municipality should work with property owners to provide cut throughs to shorten the trip. There is one informal pathway that cuts between du Chamberlain south and Laurier behind a car wash on one side and a strip mall on the other. The municipality could work with the owners to promote its use and make it safe. It may be possible to provide similar cut throughs between Highway 174 and Laurier further to the east as well.

Both my wife and I almost daily use the crosswalks at du Chamberlain and the 174 and Edwards at the 174. Both of us find them intimidating at one is crossing what is effectively a highway. The lights are timed with just sufficient time for us to cross (both of us being relatively fit) but it is the nature of the traffic in these locations that causes concern. Cars travelling at high speed along 174 (seldom appearing to be moving the 70 kph max) have 4 lanes to move between and often make high speed turns onto and out of Edwards and du Chamberlain. I find drivers are not expecting to see cyclists or pedestrians at these intersections. I am not sure what more could be done to make these crossings safer and less of a worry – perhaps taking the speed limit down to 60 kph with photo radar along the whole strip through Rockland? We are not yet deterred from cycling and walking through these intersections but with time I suspect we will not want to take the risk.

5. Figure 6.4 – I would suggest that a simple paved shoulder along Highway 174 to the east of Rockland is not a safe solution for cyclists or pedestrians. Perhaps a fully separated one would be though it would not be very pleasant to use given the high amount of vehicular traffic. Alternatively, the proposal to add bike lanes or pathways along Laurier East, L'Outaouais, and Tucker through to Landry may be a better way to move cyclists and pedestrians eastwards to join Old Highway 174 (assuming it gets paved shoulders to Wendover as a minimum) or to move south along Landry towards the hamlets and the PR trail. Paved shoulders should be provided along old Highway 17 to Wendover and down the road to the ferry crossing at Thurso.

6. Figure 6.6. The proposed new route to the Parc du Moulin at the north end of Edwards is presumably to reduce the amount of traffic on Edwards itself? If this is the case, hopefully traffic calming measures (speed humps, 30 kmh speed limit, more stop signs, etc. are planned for Edwards to encourage traffic to take the new route. Also, a multi use pathway should be planned along the new proposed road and the pathway should extend across the 174 and cut through to Laurier to encourage and facilitate cycling etc. to the municipal waterfront. This is another cut-through the municipality could consider adding to encourage foot and cycling traffic between streets.

The proposed extension of Poupart to join the 174 west of Rockland would be useful but I think consideration should be given to finding some way to extend Poupart westward to connect with other roads (Canaan?) to provide alternative routes south of Highway 174 to Ottawa – or at least out of

Rockland. Simply adding all the traffic from the west side of Rockland to the 174 is going to make a bad situation worse. Alternative routes to Ottawa are needed.

General comment: The proposed plan is silent on EV charging stations. Many municipal transportation plans provide support for EV recharging on commercial, residential and municipal land. Rockland could do more to support EVs and the benefits they bring to the environment. Also, given that the plan largely precludes a full municipal public transportation system, I am surprised the authors did not more fully explore and promote in the report how the municipality could support car sharing companies to set up here in Rockland. If I had easy access to a car sharing program, I would seriously consider giving up our 2nd car.

Finally, my wife and I have only been in Rockland for about 1 year after having lived in Ottawa's east end for 25 years. While we have become accustomed to the drive to Ottawa along the 174, we are very much aware of how tenuous this single link to Ottawa can be. One accident and the road is backed up and drivers either wait it out or seek ways along the backroads to the south of the highway – which is not easy to do. While this might be an inconvenience to some, it could be life and death for others. As the study points out, the population of Clarence Rockland is aging and our municipality does not have a hospital so people needing emergency care are taken down the 174 to Ottawa or eastwards to Hawkesbury. Traffic in either direction can be a significant risk. For this and other reasons, it would have been nice if the study presented proposals as to how Rockland could be more directly connected to Ottawa apart from the 174 through the provision of new roads or the realignment and connection of others. As the authors point out, the bulk of Clarence Rockland's population want, or need, to make trips into Ottawa so the provision of alternative routes would seem to be good planning.

Thank you for providing the opportunity to citizens of Clarence Rockland to comment on the proposed Plan Amendment. I hope the remaining steps of the process go well and our municipality puts a transportation plan in place to better meet the needs of residents, businesses, tourism and the environment.

[redacted]

[redacted]

[redacted]

From: Charles Bonneau <cbonneau@clarence-rockland.com>
Sent: Wednesday, July 2, 2025 10:09 AM
To: Gazibara, Nevena <Nevena.Gazibara@stantec.com>
Cc: EEMPG_MCEA <EEMPG_MCEA@clarence-rockland.com>; Richard Campeau <rcampeau@clarence-rockland.com>
Subject: FW: EXTERNAL RE: City Clarence-Rockland Update on Multi-Modal Transportation Master Plan

Hi Nevena,
Please see the message below for your reference.
Regards,

Charles O. Bonneau
Coordonnateur, Projets en capital
Coordinator, Capital Projects
Cité de / City of Clarence-Rockland

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From: PLMainville@prescott-russell.on.ca <PLMainville@prescott-russell.on.ca>
Sent: June 27, 2025 4:32 PM
To: Charles Bonneau <cbonneau@clarence-rockland.com>
Cc: Richard Campeau <rcampeau@clarence-rockland.com>; Fauteux, Jeremie <JFauteux@prescott-russell.on.ca>; Lefebvre, Dominique <DLefebvre@prescott-russell.on.ca>
Subject: EXTERNAL RE: City Clarence-Rockland Update on Multi-Modal Transportation Master Plan

Bonjour Charles,

Merci de nous avoir partagé la version finale du Plan de transport de la Cité de Clarence-Rockland. Je comprends que ce plan consiste d'une simple mise à jour du plan actuel de transport, cependant, en tant que municipalité de palier supérieur et partie prenante directement concernée par ce plan, particulièrement lorsqu'il est question de modifications ou d'interventions sur le réseau routier sous notre juridiction, il aurait été approprié que nous soyons impliqués dans les discussions et la préparation du document dès les premières étapes.

Nous vous recommandons, pour les prochaines révisions, d'inclure le Comté dans le processus de planification afin d'assurer une coordination adéquate et une cohérence avec les politiques en vigueur au niveau du Comté.

Voici nos commentaires sur le plan:

Section 2.1.2. It is important to note that the "Prescott and Russell Trail" is no longer owned by the UCPR. The UCPR has no role in the maintenance or capital investment of this asset.

Section 3.2.1. This section should reference the existing County Road network and the road classifications outlined in the United Counties of Prescott and Russell (UCPR) Official Plan. As the majority of arterial roads, whether rural or urban, fall under the jurisdiction of the UCPR, it is essential that their classification aligns with the upper-tier municipality's designations. We are of the opinion that a single road should not carry dual designations from both the lower-tier and upper-tier municipalities, as this could create confusion regarding ownership, responsibility, and applicable design standards. To ensure clarity and consistency, we recommend that the plan clearly identify County Roads and reflects their classification as per the Approved UCPR Official Plan.

Additionally, Figure 3.5 should be revised to differentiate County Roads from those classified under the municipal network, making jurisdiction and responsibilities more transparent to the reader.

Section 3.3.2. Internal-External Automobile Travel and Section 3.3.4 – Active Transportation Activity Analysis appear to be significantly lower than the most recent count available to the Counties. In the MMTMP, for the County Road 17 westbound traffic volumes, west of Carmen Bergeron Street, the AM Peak Hour volume is shown as 1,088 vehicles, the PM Peak Hour volume is shown as 1,436 vehicles and the average daily vehicle trips are shown as 12,245 vehicles. The latest Counties count, west of Carmen Bergeron Street, shows a volume of 1,440 vehicles at the AM Peak Hour, 1,688 vehicles at the PM Peak Hour and the average daily vehicle trips were observed at 20,938 vehicles. Furthermore, for the County Road 17 eastbound traffic volumes, west of Rollin Road, in the MMTMP the AM Peak Hour volume is shown as 516 vehicles, the PM Peak Hour is shown as 858 vehicles and the average daily vehicle trips are shown as 5,875 vehicles. The latest Counties count, which were taken west of Ramage Road, shows 724 vehicles at the AM Peak Hour, 970 vehicles at the PM Peak Hour and 11,023 as the average daily vehicle trips.

Similarly, traffic counts for County Roads 2 & 8, were significantly lower than the latest available counts at the Counties.

Section 4.2. The proposed addition of a new intersection on County Road 17 at the terminus of Edwards Street was not identified in recent Transportation Impact Studies (TIS) nor shown as a planned development in Figure 4.1. Without evidence of significant development planned for this area, the rationale for introducing this new connection remains unclear. Furthermore, this intersection is not included in the County Road 17 Environmental Assessment (EA) study. Given the lack of justification and supporting planning documentation, we recommend that this proposed link be removed from the current plan.

Section 6.2.1.1. & 6.2.1.2 Although the County Road 17 Environmental Assessment (EA) study includes proposed cycling and pedestrian facilities in the form of sidewalks and multi-use paths (MUPs), it is critical to ensure these facilities are implemented in a safe and context-sensitive manner. County Road 17 is a high-volume highway, and installing active transportation features along it without clear destinations or areas of interest may not be appropriate.

In our opinion, such infrastructure should prioritize connectivity between key destinations and support active transportation options for the isolated residential neighbourhoods located north of County Road 17 and where areas of interest are located, avoiding areas without purpose. Where feasible, alternate routes such as Chamberland Street and Laporte/Laurier Street should be considered for these facilities. These local roads offer safer, lower-traffic environments and better access to community amenities and local businesses, making them more suitable for active transportation infrastructure.

Section 6.2.2.2 Please refer to our previous comment for Section 3.2.1 regarding the distinction between County roads and Municipal roads. It is important that County roads be designated separately from Municipal roads within the plan to reflect their

differing functions. We recommend that the plan explicitly acknowledge that any proposed cross-sections or modifications to County roads are subject to the review and approval of the County.

Section 6.4.1 & Appendix B As per the County's cost-sharing policy with lower-tier municipalities, the provision of pedestrian and cyclist accommodations on County roads is the financial responsibility of the lower-tier municipality. This policy should be clearly reflected in the plan and supporting documentation. Furthermore, it is the County's standard practice to rehabilitate County roads to a 9.3-metre width during capital projects. This cross-section includes 1.2-metre-wide paved shoulders, which support active transportation. These improvements are included in the overall cost of road reconstruction or overlay projects and are not accounted for separately.

Additionally, please note that a road transfer between the County and the City of Clarence-Rockland was recently completed. This exchange involved a portion of County Road 1 (St-Pascal Road) and County Road 21 (St-Jean Street), which were transferred in exchange for a section of Baseline Road. The plan should be updated accordingly to reflect these changes. Reference to PR9 & PR10 in Appendix B are misleading.

Merci,

Pier-Luc Mainville, P.Eng
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From: Charles Bonneau <cbonneau@clarence-rockland.com>
Sent: June 12, 2025 9:06 AM
To: Marie-Eve Belanger <mbelanger@clarence-rockland.com>; Jonathan Samson <jsamson@clarence-rockland.com>; Guillaume Boudrias <gboudrias@clarence-rockland.com>; Mainville, Pier-Luc <PLMainville@prescott-russell.on.ca>
Cc: Richard Campeau <rcampeau@clarence-rockland.com>
Subject: City Clarence-Rockland Update on Multi-Modal Transportation Master Plan

Bonjour,
I'd like to share the link to our municipal website page where you can find the latest information regarding the update to the City of Clarence-Rockland Transportation Plan:
Avis concernant le plan directeur des transports - La Cite Clarence-Rockland
The 30-day comment period will end on **June 27, 2025**.
If you have any questions specifically related to the information posted on the website, please

follow the process outlined there. However, if you have any other comments or inquiries, feel free to reach out to me directly.

Best regards,

Charles O. Bonneau
Coordonnateur, Projets en capital
Coordinator, Capital Projects
Cité de / City of Clarence-Rockland

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