

City of Ottawa

Transportation Master Plan Update

# Road Network Development

March 31, 2025

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# 1 Introduction

## 1.1 About the Transportation Master Plan Update

The Transportation Master Plan (TMP) is the City's blueprint for planning, developing, and operating its walking, cycling, transit and road networks over the next several decades. The TMP update is comprised of two parts:

- **Part 1 - Policies (completed):** Approved in April 2023, Part 1 of the TMP sets out policies that guide how the City plans, builds, operates, and maintains its transportation system. The 75 policies span a broad range of topics, and include a focus on healthy communities, complete streets, climate change, safety, equity, and regional competitiveness.
- **Part 2 - Capital Infrastructure Plan (underway):** The TMP Capital Infrastructure Plan will identify the projects and investments that are needed to meet Ottawa's travel needs and achieve the City's objectives. It will also identify a subset of projects that are affordable within the City's long-range financial plans, along with the corresponding timelines for implementation.

## 1.2 Report Overview

The purpose of this **Road Network Development** report is to present the draft recommended road projects in the Transportation Master Plan. The report identifies two future transportation networks, the Needs-Based Road Network and the Priority Road Network. The **Needs-Based Network** identifies the projects that are needed by 2046 to accommodate anticipated growth. The **Priority Network** is a subset of the Needs-Based Network, focusing on the highest priority projects as determined by the evaluation and analysis documented in this report. While projects in the Needs-Based Network are important for mobility, only projects in the Priority Network are expected to be implemented by 2046.

This report builds on Part 1 of the TMP, which provides the framework for identifying future road network needs and prioritizing projects. Network development aims to accommodate travel demand through transit and active transportation; however, road capacity projects (e.g. new or widened roads) are also required to provide access to new development and address congestion where residual demand cannot be met by sustainable modes. The process used to develop the recommended networks includes the following key steps:

1. **Undertake a road capacity needs analysis:** This involves modelling future travel activity and identifying needs based on observed capacity constraints. This step is documented in **Section 2**.

2. **Identify a list of candidate projects:** This step builds on the needs analysis and draws from a number of additional sources including the 2013 TMP, environmental assessment studies, and public engagement. Further details are provided in **Section 3.1**.
3. **Analyze & select projects:** In this step, a detailed modelling and analysis exercise is undertaken to assess the feasibility of each candidate project and its impact on network performance. The recommended projects form the “Needs-Based Network”, which is described in **Section 3.2**.
4. **Prioritize projects:** At this stage, projects are evaluated using the Council-approved prioritization framework. The framework accounts for a number of criteria including mobility benefits, city-building impacts, and cost. The result of this process is the identification of a phased “Priority Network”, which is presented in **Section 3.3**.

While road projects are intended to address capacity deficiencies at a corridor level, some deficiencies are more localized and can be addressed using **isolated measures and intersection modifications**, rather than pursuing larger-scale road projects. **Section 3.3.1** discusses the ongoing review of isolated measures, linked to the TMP review of road capacity constraints.

In addition to capacity-driven projects, the TMP also identifies projects to reconfigure existing streets to better accommodate sustainable modes, in support of intensification and modal shift. Two categories of projects are included:

- **Road urbanization projects** – Projects to add walking and cycling facilities to arterial and collector roads without sidewalks; most roads in this category currently have a rural cross-section.<sup>1</sup>
- **Mainstreet improvements** – Projects to upgrade existing Mainstreet Corridors and roads in Design Priority Areas with new sidewalks, cycle tracks, and amenities to support sustainable transportation.

These projects were referred to as “complete street modifications to existing roads” in TMP Part 1 and are documented in **Section 3.3.5**.

Finally, TMP Part 1 discussed the possibility that the Capital Infrastructure Plan would include projects to address at-grade rail crossings. **Section 4** presents the results of a review of at-grade rail crossings; no projects are included in the TMP, but these locations will continue to be monitored as the city grows.

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<sup>1</sup> A rural cross-section refers to a roadway that has paved or unpaved shoulders adjacent to the travel lanes, and ditches or swales to manage stormwater runoff. Many projects in this category would also upgrade to an urban or semi-urban cross-section.

The TMP is being prepared in support of the Official Plan, including incorporating planned growth in the identified Future Neighbourhoods. The Tewin community, like other Future Neighbourhoods, is currently being studied as part of a complementary Secondary Plan process considering local and regional road infrastructure needs for the staged and full buildout conditions of the community. Through the Secondary Plan process, refined road infrastructure requirements may be identified.

## 1.3 Related Documents

Several other TMP documents and reports provide context for the **Road Network Development** report:

- **TMP Part 1 – Policies:** The first stage of the TMP set out the policies and supporting actions to achieve the City’s vision of a flexible, dependable, safe, and efficient transportation system. Specifically, Policy 9-4 deals with identifying future road network needs. Notably, this includes a “Transit First” approach to determine how much travel will occur by transit before identifying road requirements, and the adoption of a volume-to-capacity (V/C) ratio<sup>2</sup> threshold of 1.0 during peak periods for network planning purposes (refer to **Section 2**).
- **TMP Part 1 – Road and Transit Prioritization Frameworks:** Also approved as part of TMP Part 1, these frameworks provide criteria, metrics, and scoring rubrics to guide the evaluation and prioritization of candidate projects. Application of the road framework is described in **Section 3.3**.
- **Needs, Opportunities, and Uncertainty Report:** This report lays the groundwork for the needs analysis in the Network Development reports. It analyzes macro-level trends (e.g. population growth, work-from-home behaviour, changes in travel patterns), and identifies a series of high-level needs and opportunities that the TMP should address.
- **Travel Outlooks Report:** This report projects travel demand to 2046 and identifies future transportation challenges under a business-as-planned scenario<sup>3</sup>. The Outlooks Report shows that increased travel demand in 2046 will put pressure on the limited transportation

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<sup>2</sup> The volume-to-capacity (V/C) ratio is a metric used to evaluate the operational performance of a road segment by calculating the ratio of the observed or projected traffic volume to the maximum carrying capacity of the facility. A value of 1.0, the threshold used in this analysis, would indicate the road segment is operating exactly at capacity.

<sup>3</sup> The business-as-planned (BAP) scenario accounts for the existing roads and transit services, as well as any projects that have funding secured for implementation.

corridors crossing the Greenbelt. Localized congestion hot spots will also be created or exacerbated by growth, especially within suburban communities.

- **Transit Network Development Report:** This report describes the development of the 2046 Needs-Based Transit Network and Priority Transit Network. As described in **Section 2.2**, gaps and challenges that could not be addressed by investment in transit are the focus of the Road Network Development report.
- **Highlights Report:** This report provides an overview of the draft TMP Capital Infrastructure Plan and presents city-wide and area-specific mode share targets (i.e. the percentage of people traveling by different modes of transportation). It also provides geographic overviews of the multi-modal improvements recommended by the TMP Capital Infrastructure Plan for the different areas of the City.

## 2 Road Capacity Needs Analysis

### 2.1 Travel Demand Modelling

The TRANS<sup>4</sup> regional travel demand model was used to forecast transportation network needs to 2046, the study’s planning horizon. The model uses projected population and employment in Ottawa, as well as transportation system inputs, to estimate future travel demand for different modes of transportation. The model also accounts for travel demand generated outside of Ottawa in Canada’s Capital Region and in adjacent Ontario municipalities. Alternative networks can be tested in the model to assess how they perform. When candidate projects are added – such as a new road – the model predicts the resulting change in travel activity as people shift their mode of travel or route to take advantage of the new capacity. As a result, the impact of induced demand is captured in the model forecasts. More details about the modelling process are provided in the **Travel Outlooks** report.

The analysis of road network needs is based on the travel demand observed during the average hour of the morning peak period (6:30 a.m. to 8:59 a.m.) on an average weekday. This approach ensures that needs are identified only when congestion problems are persistent throughout the entire peak period, rather than just the busiest 60 minutes. The City of Ottawa’s 2013 Transportation Master Plan also used the morning peak period for planning purposes.

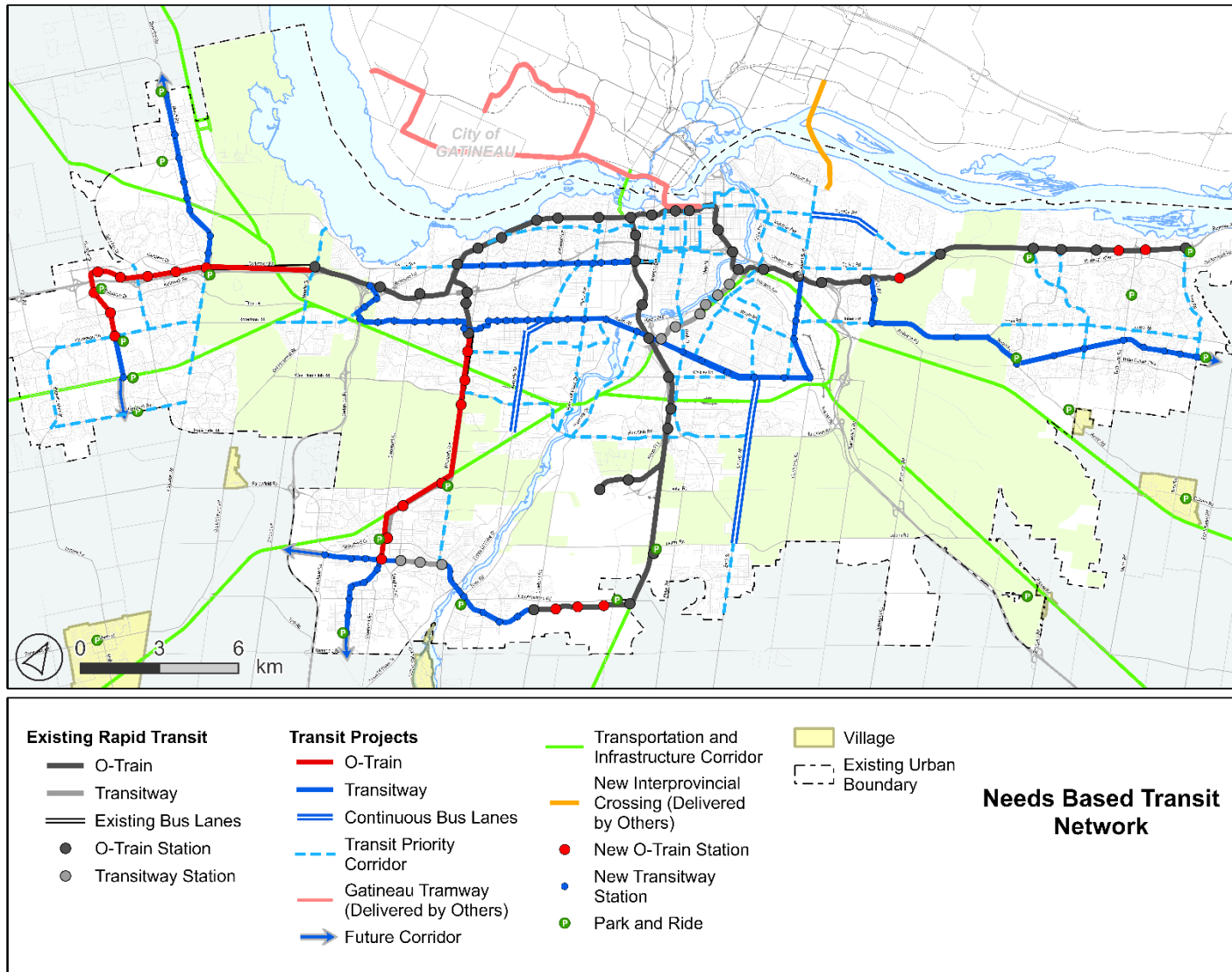
### 2.2 The “Transit First” Approach

Developing the road network employed a “transit first” approach. This approach first identified transit improvements to meet 2046 travel needs, leading to the Needs-Based Transit Network shown in **Exhibit 2.1**. The Needs-Based Transit Network includes the Stage 3 O-Train extensions to Barrhaven and Kanata-Stittsville, as well as major Transitway projects such as the Cumberland Transitway, South Transitway, Southwest Transitway, Carling Transitway, and the Baseline-Heron-St Laurent Transitway. The residual auto demand in the Needs-Based Transit Network (i.e. the demand that is not expected to use transit) formed the basis for assessing road capacity needs. This approach helped to avoid over-estimating auto demand. New roads to provide access to development were also considered in assessing network needs.

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<sup>4</sup> The TRANS Committee coordinates transportation data collection and modelling efforts between the major transportation planning agencies of the National Capital Region. The TRANS Committee comprises the City of Ottawa, la Ville de Gatineau, OC Transpo (City of Ottawa), la Société de transport de l’Outaouais, Ontario Ministry of Transportation, le Ministère des Transports et de la Mobilité durable du Québec, and the National Capital Commission.

Exhibit 2.1: 2046 Needs-Based Transit Network



## 2.3 Identifying Needs by Geography

The TRANS travel demand forecasting model was used to identify geographic areas where there are capacity constraints within the road network. There are two parts to this analysis. First, a “screenline” analysis was conducted, comparing total vehicle demand and total lane capacity on all roads connecting two geographic areas of the city. Second, to account for constraints not easily identified by the screenline analysis, a more localized analysis was performed within the growth areas of the city.

### 2.3.1 Screenline Analysis

A screenline is an imaginary line on a map that intersects a collection of roads that serve related trips or desire lines. Screenlines are used to identify the number of vehicles travelling between different areas of the city and help to identify whether the volume of traffic exceeds the available capacity. The volume-to-capacity (V/C) ratio provides a measure of the degree of congestion along a screenline; a V/C ratio greater than one indicates that traffic volumes exceed the available capacity and traffic delays can be expected.

A map of the screenline system used in the TMP is illustrated in **Exhibit 2.2**. As in the 2013 TMP, the screenlines are grouped into five general areas: west, southwest, southeast, east, and downtown.

For the road network development, the screenline analysis was based on travel demand from the 2046 Business-as-Planned (BAP) scenario plus the projects from the Needs-Based Transit Network. This 2046 reference scenario is referred to as the “Transit First” scenario. As such, the impacts of transit improvements are accounted for in the screenline auto demand.

The 2046 “Transit First” screenline volumes are shown in **Exhibit 2.3** alongside the 2022 reference scenario as a point of comparison. The volumes represent the average hourly demand over the morning peak period (6:30 a.m. to 9:00 a.m.) and correspond to the peak “inbound” direction (towards the downtown). Highlights by area are discussed below:

- **West:** Screenlines that span Highway 417 show the highest volume-to-capacity ratios. Screenline #28, which only intersects with Highway 417, has a V/C ratio of 1.20 in 2046. Screenline #24, which includes Highway 417, Carling Avenue and Richmond Road, is expected to have a V/C ratio of 1.10 in 2046.
- **Southwest:** From the southwest, there are no screenlines operating over capacity.
- **Southeast:** From the southeast, there are several screenlines with capacity constraints in 2046. Screenline #13’s V/C ratio of 1.15 shows demand exceeding capacity for traffic

entering the Alta Vista area from the south. Screenline #32, westbound on Highway 417 crossing the Rideau River, indicates a high demand to enter downtown. Finally, Screenline #20 suggests a lack of capacity across the Rideau River in 2046.

- **East:** From the east, all screenlines show enough capacity to meet demand to 2046. However, Screenline #16, which includes both major routes into Orleans – Ottawa Road 174 and Innes Road – has a V/C ratio of 0.99, suggesting that it will be approaching capacity in 2046, with even minor disruptions triggering congestion. Without investments in transit infrastructure and service on the Cumberland Transitway, this screenline would be over-capacity. Furthermore, the sceenline-based analysis does not capture the more localized capacity constraints in south Orleans; for this area, available capacity on St Joseph is of limited value.

Localized capacity constraints for all areas of the City are discussed in **Section 2.3.2**.

Exhibit 2.2: Screenline System

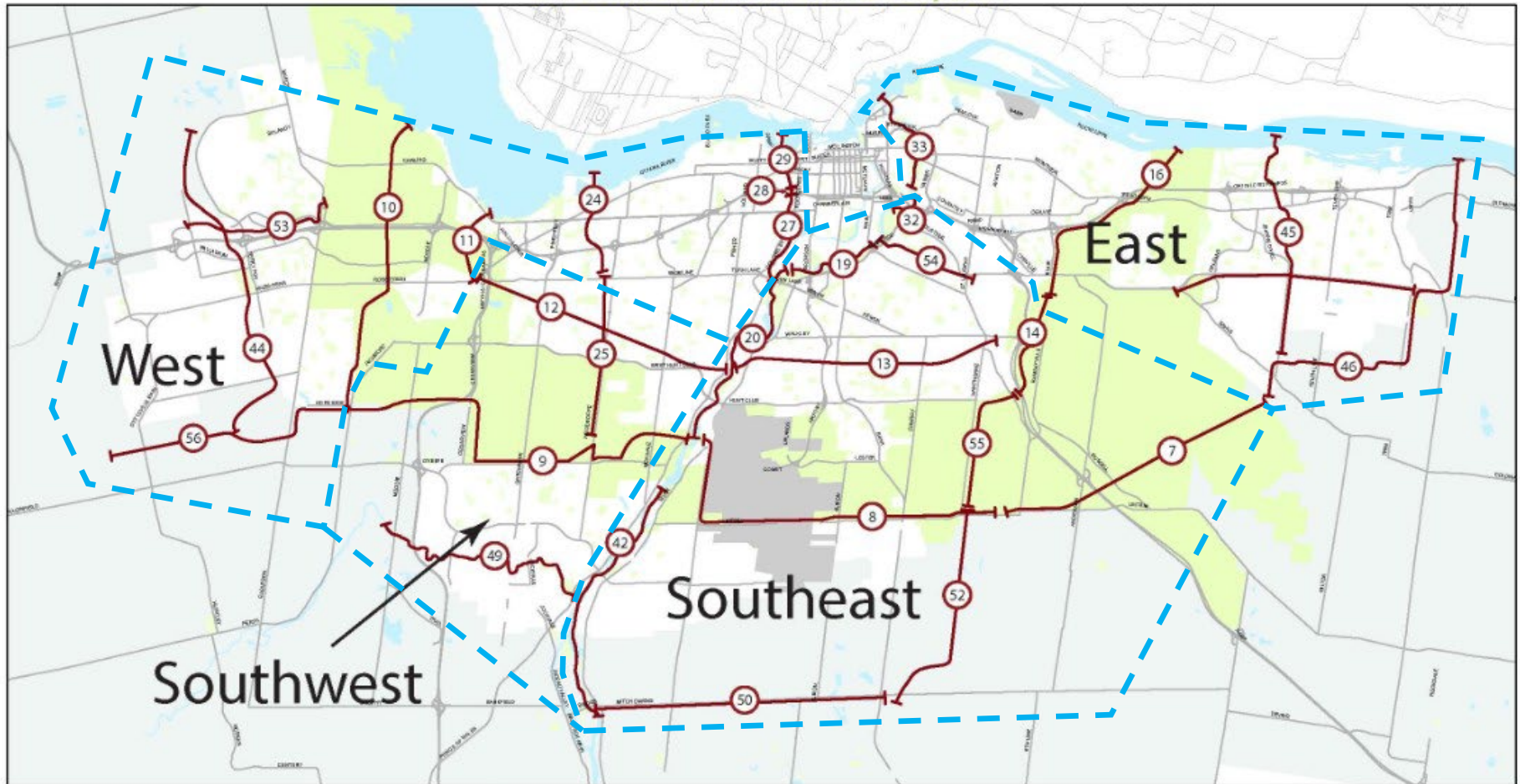


Exhibit 2.3: Comparison of Base Year vs 2046 “Transit First” Scenario: Screenline Volumes, Capacity, and Volume-to-Capacity Ratio (V/C)

AM Average Peak Hour, Autos			2022 Inbound			2046 “Transit First” Inbound		
No.	Area	Screenline Description	Vehicles	Capacity	V/C	Vehicles	Capacity	V/C
10	West	Eagleson	8,036	16,000	0.50	11,246	16,000	0.70
11	West	Acres	7,032	11,300	0.62	9,087	11,300	0.80
24	West	Western Parkway	7,942	9,800	0.81	9,918	9,000	1.10
27	West	O-Train - South	1,757	3,200	0.55	2,268	2,600	0.87
28	West	O-Train - Central	6,973	6,800	1.03	8,145	6,800	1.20
29	West	O-Train - North	1,633	3,600	0.45	2,717	3,600	0.75
44	West	Terry Fox	5,982	20,600	0.29	9,603	20,600	0.47
53	West	Campeau	2,598	9,200	0.28	4,553	9,200	0.49
56	West	Fallowfield West	752	3,200	0.24	1,163	3,200	0.36
9	Southwest	Fallowfield	6,630	13,600	0.49	10,417	13,600	0.77
12	Southwest	CNR West	8,444	13,400	0.63	12,294	13,400	0.92
25	Southwest	Woodroffe	3,371	5,000	0.67	4,318	5,000	0.86
49	Southwest	Jock River	4,067	12,000	0.34	6,870	14,000	0.49
7	Southeast	Ramsayville	2,857	8,000	0.36	6,262	8,000	0.78
8	Southeast	Leitrim	3,485	6,400	0.54	6,114	6,400	0.96
13	Southeast	CNR East	8,237	11,400	0.72	13,107	11,400	1.15
14	Southeast	Highway 417/Walkley	2,529	5,600	0.45	5,107	5,600	0.91
19	Southeast	Rideau River - Ottawa South	3,415	5,600	0.61	4,850	5,600	0.87
20	Southeast	Rideau River - South	3,577	3,800	0.94	4,648	3,800	1.22
32	Southeast	Rideau River - 417	6,332	6,000	1.06	7,326	6,000	1.22
42	Southeast	Rideau River - Manotick	1,594	3,200	0.50	2,678	3,200	0.84
50	Southeast	Mitch Owens	1,460	9,600	0.15	2,405	9,600	0.25
52	Southeast	Hawthorne - South	294	4,000	0.07	1,269	4,000	0.32

AM Average Peak Hour, Autos			2022 Inbound			2046 "Transit First" Inbound		
No.	Area	Screenline Description	Vehicles	Capacity	V/C	Vehicles	Capacity	V/C
54	Southeast	Smyth/Hydro	2,861	4,800	0.60	4,453	4,800	0.93
55	Southeast	Hawthorne - North	219	2,000	0.11	1,033	2,000	0.52
16	East	Green's Creek	7,836	10,400	0.75	10,316	10,400	0.99
33	East	Rideau River - North	2,292	4,400	0.52	3,099	4,400	0.70
45	East	Billberry Creek	6,033	13,600	0.44	8,395	13,600	0.62
46	East	Frank Kenny	2,165	9,000	0.24	4,456	9,000	0.50
47	East	Innes	3,357	15,000	0.22	6,038	15,000	0.40
		<b>Total</b>	<b>142,296</b>	<b>281,000</b>		<b>207,732</b>	<b>280,100</b>	

### **2.3.2 Commentary by Area**

Not all project needs are captured at screenlines. **Exhibit 2.5** presents the forecast traffic volumes and volume-to-capacity ratios for each major road in Ottawa as modelled using the 2046 “Transit First” scenario. The following sub-sections present an area-by-area analysis that highlights localized capacity constraints. This provides the basis for road capacity projects not captured by screenline-level needs.

#### **Downtown**

While there are some locations where auto demand is indicated as being above capacity – particularly from the east / Byward Market – the focus within the Greenbelt is accommodating new demand with improvements to sustainable modes of travel. (See Policy 5-2 and Policy 9-2 from the Council-approved [TMP Policies](#).)

#### **East**

The East area includes the lands east of the Rideau River and north of the Prescott-Russell Recreational Trail, encompassing the eastern Greenbelt and Orleans. While there are significant transit improvements underway (Stage 2 O-Train extension to Trim Station) and planned (Cumberland Transitway), new growth continues to add demand to the road network. Even with these transit investments, capacity constraints are expected on east-west corridors including Ottawa Road 174 (currently in the process of being uploaded to the Province), Innes Road connecting to Blackburn Hamlet Bypass, Navan Road, Brian Coburn Boulevard<sup>5</sup>, and Old Montreal Road east of Trim Road.

#### **West**

The West area includes Kanata, Stittsville, and Fallowfield. It is generally bounded by the Ottawa River to the north, Carp Road to the west, Fallowfield Road to the south and the O-Train Line 2 corridor to the east. Like Orleans, Kanata-Stittsville is a major growth node for the city. However, recent work by the province on Highway 417 has added capacity that is generally sufficient to meet the demand across the Greenbelt through 2046.

There are, however, more localized road capacity needs in this area, given the growth in trips. This includes portions of Terry Fox Drive, the northern segment of March Road, and Fallowfield Road connecting the West to Highway 416 and Barrhaven. New roads including

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<sup>5</sup> For Brian Coburn Boulevard between Navan Road and Tenth Line Road, an external operational review was conducted to identify link-level and intersection-specific capacity constraints. The review confirmed that the current road infrastructure is insufficient to accommodate existing and future travel demand.

Robert Grant Avenue and Stittsville Main Street are also needed to support development and provide connectivity in these growing communities.

### **Southeast**

The Southeast area includes the area south of Hunt Club, east of the Rideau River and west of Highway 417. It includes the Findlay Creek and Tewin growth areas, which are expected to generate a significant number of new north-south trips across the Greenbelt, as well as east-west trips to Barrhaven and Orleans. In Findlay Creek, in particular, new road capacity is needed to accommodate development. Capacity constraints during the morning peak period are primarily expected on north-south corridors including Bank Street, Airport Parkway, and Riverside Drive. Congestion is also expected on select east-west corridors based on 2046 travel demand: Strandherd Drive over the Rideau River and Earl Armstrong Road.

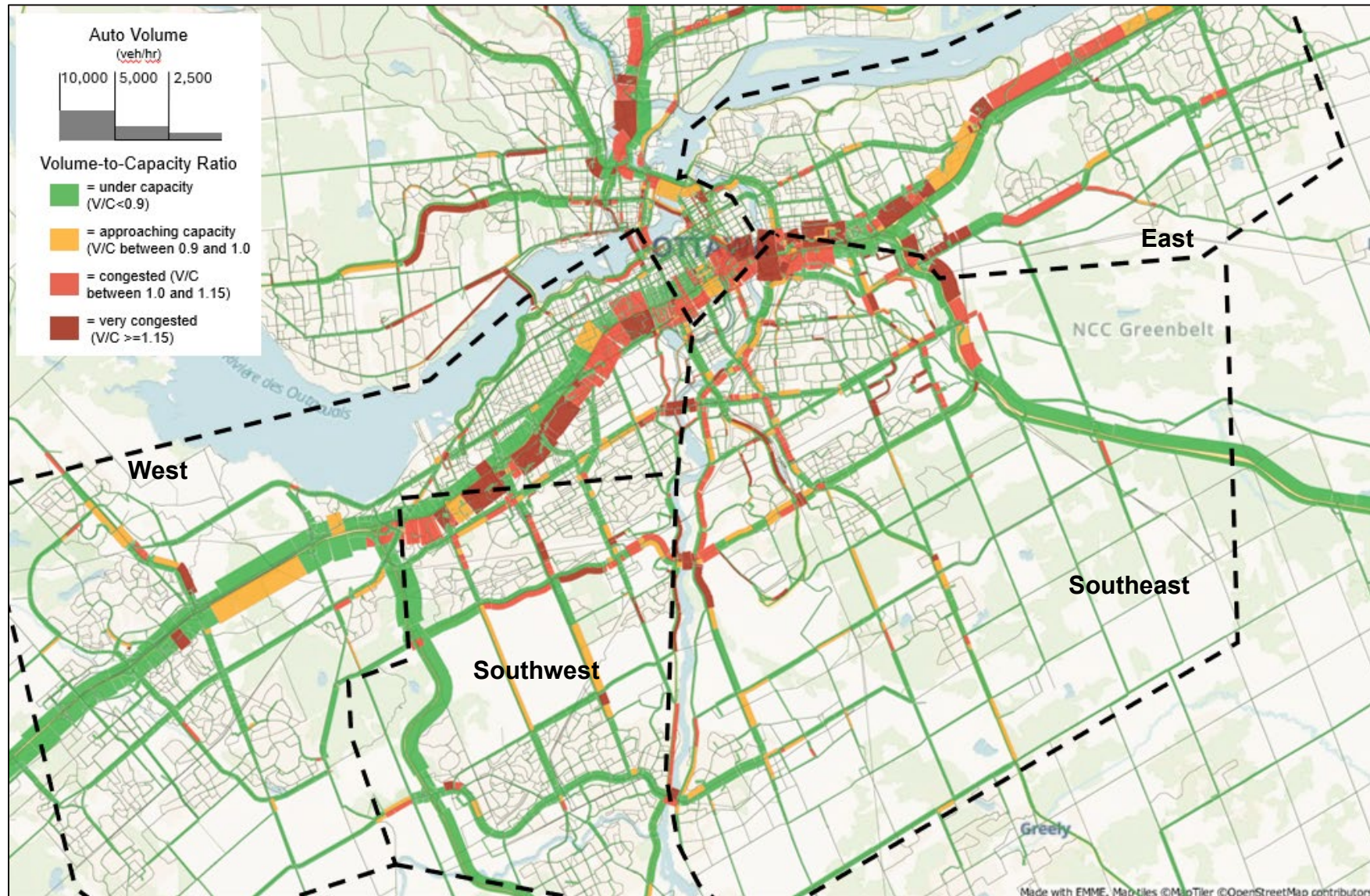
### **Southwest**

The Southwest area encompasses the area west of the Rideau River and south of the CNR rail line, including Barrhaven. Barrhaven is another major growth area, where new trips are expected to add pressure to the road network. Significant congestion is forecast crossing the Rideau River at the Vimy Memorial Bridge, as well as further north on Hunt Club (captured by Screenline #20). There are also significant capacity constraints along Prince of Wales Drive, despite the absence of capacity constraints along the broader screenline. Completing the realignment and widening of Greenbank Road will also be important to support development and to improve connectivity to the new Highway 416 interchange at Barnsdale.

### **Rural**

Modelling indicates minimal road capacity needs within rural villages, and in the general rural area. Gaps in walking and cycling facilities are addressed through active transportation projects.

Exhibit 2.4: 2046 Auto Volume and Volume-to-Capacity Ratio (Average AM Peak Hour) – Transit First Scenario



Source: TRANS regional travel demand model

## 3 Network Development

The capacity deficiencies noted in the previous section are expected to create congestion and delays, impacting residents and businesses. To address these deficiencies, the TMP identifies projects that add road capacity and improve access to development. The road network development process includes the following steps:

- Identifying a long list of candidate projects
- Analyzing projects based on need, resulting in a “Needs-Based Network”
- Evaluating and prioritizing projects and identifying a “Priority Network”

The **Needs-Based Network** is the set of projects that are needed by 2046 to ensure the road network functions efficiently, in accordance with the City’s objectives. However, not all projects are expected to be affordable. The **Priority Network** is a subset of the Needs-Based Network, focusing on the highest priority projects. It is anticipated that projects in the Priority Network will be implemented by 2046, based on current knowledge of project costs and revenue sources. The process used to develop the networks is described below.

For reference, the following road projects were included in the “business-as-planned” scenario, so were not evaluated further as the City has already committed to building the projects:

- **Bank Street Widening:** Widening from two to four lanes between Leitrim Road and Blais Road
- **Carp Road South Widening:** Widening from two to four lanes between Highway 417 and Hazeldean Road
- **Greenbank Road Re-Alignment and Widening:** New road (four lanes) between Chapman Mills Drive and Cambrian Road
- **Mer Bleue Road Widening:** Widening from two to four lanes between Copperhead Street / Decoeur Drive and Renaud Road
- **Renaud Road Realignment:** Realignment from Brian Coburn Boulevard to Renaud Road, with closure of existing Renaud Road near Bradley Estates
- **Robert Grant Avenue Extension:** extension of Robert Grant Avenue from Abbott Street to Hazeldean Road
- **Earl Grey Underpass:** Extension of Earl Grey Drive with underpass of Terry Fox Drive

### 3.1 Identifying and Analyzing Candidate Projects

A long list of candidate road projects was compiled from several sources including:

- **The 2013 TMP and Environmental Assessment Studies** – Projects that were identified in the 2013 TMP and not yet committed or implemented as well as projects that have undergone recent Environmental Assessment studies were added to the list of candidate projects.
- **Internal stakeholders** – City staff and other stakeholders identified projects to add to the list of candidate projects.
- **Public consultations on existing transportation issues, needs, and opportunities** – Feedback on key transportation and road-specific issues, needs, and opportunities informed the list of candidate projects.
- **Needs analysis** – Through the technical analysis documented in Section 2, additional potential road capacity projects were identified.

The candidate projects were assessed for feasibility, and a comprehensive modelling exercise was carried out to evaluate their impact on network performance. In carrying out the analysis of candidate projects, an iterative process was employed with projects added or removed from the network. Projects were not carried forward if they did not fulfill at least one of the two core mobility needs:

- Addressing a screenline capacity deficiency or significant local capacity deficiency; or,
- Providing transportation access to support new development.

Candidate projects were also removed if they met one of the following criteria:

- Conflict with Council-endorsed transportation policy (e.g. widening beyond two general purpose lanes in each direction); or
- Have substantial environmental, technical, or approval challenges.

Some project segments were also adjusted at this stage to better meet the considerations above. This reflects Policy 9-4 from TMP Part 1: “Phased implementation of large projects will be explored, as this allows mobility improvements to be achieved sooner, in more locations across the city.” Projects carried forward from this analysis make up the Needs-Based Road Network. These projects are presented in **Section 3.2**.

Focused reviews of projects along three corridors – the Alta Vista Transportation Corridor, the Airport Parkway Corridor, and the Innes Road Corridor – were also conducted as part of developing the Needs-Based Road Network; results are presented in **Section 3.1.1** below.

**Appendix A** identifies the projects from the 2013 TMP that were not carried forward to the Needs-Based Network, along with the rationale. As documented in Appendix A, several road projects from the 2013 TMP are not included in the Needs-Based Network. For most of these projects, the City will continue to protect the right-of-way for the future widenings and/or new

roads, and they will continue to be included in the “Ultimate Road Network” in the Official Plan. The need for these projects will be re-assessed the next time the TMP is updated, as travel patterns evolve and the City continues to grow.

The Needs-Based Network focuses on arterial roads, as new **collector roads** are usually provided through development. However, in some cases, these are delivered as City projects; the north-south segment of Stittsville Main Street is one example. All future collector roads – whether delivered by the City or through development – are included in the Official Plan Ultimate Road Network (Schedule C4) and will be identified in the final TMP Capital Infrastructure Plan. The final TMP Capital Infrastructure Plan may also identify additional collector roads that would need to be delivered as City projects.

### 3.1.1 Focused Reviews

Several corridors warranted a more detailed analysis to determine whether they should be carried forward to the Needs-Based Road Network. These projects are discussed below.

#### Alta Vista Transportation Corridor

The Alta Vista Transportation Corridor (AVTC) extends from the intersection of Walkley Road and Conroy Road in southeast Ottawa, north through the Alta Vista community to the Smyth Road Hospital Complex, crosses the Rideau River and connects to Nicholas Avenue at the Highway 417 Interchange. This is depicted in Exhibit 3.1. A transportation facility has been proposed in the corridor since at least 1950, with a general-purpose roadway, high-occupancy vehicle lanes, and/or transit infrastructure all being proposed at various times.

In 2005, the City of Ottawa completed the *Alta Vista Transportation Corridor Environmental Assessment*, which identified a four-lane facility over its entire length, with two lanes for general traffic and two high-occupancy/transit lanes. The 2013 TMP modified the section north of the Southeast Transitway to comprise four general-purpose lanes; the HOV/transit

Exhibit 3.1: Alta Vista Transportation Corridor



lanes would only extend south of this point. The City proceeded to build the first phase of the AVTC as two general-purpose lanes between Riverside Drive near Hurdman Station and the Hospital Complex. This segment of the AVTC, known as the Hospital Link Road, opened in 2018. The Hospital Link Road improved access for transit and general traffic to the Hospital Complex from the north and also improved active transportation connections.

The 2025 TMP has reviewed the need and justification for additional road and/or transit infrastructure within different segments of the AVTC corridor. In summary, the recommendations are as follows:

- **Northern Section (Hospital Link Road to Nicholas Street/Highway 417 On-ramps):** Remove the northern section of the AVTC from the TMP Needs-Based Road Network, and from the Ultimate Road Network in the Official Plan.
- **Southern Section (Walkley Road to Hospital Link Road):** Maintain this segment of the AVTC within the TMP Needs-Based Road Network, and retain the designation of the AVTC from Walkley Road to the Southeast Transitway as a Transit Priority Corridor.

Details on the rationale for these recommendations are provided below:

**Northern Section (Hospital Link Road to Nicholas Street/Highway 417 On-ramps):** The primary rationale for the AVTC in the 2005 Environmental Assessment and the 2013 TMP was to provide road capacity to accommodate travel between the growing communities in southeast Ottawa and the core. However, the updated travel demand modelling for the 2025 TMP suggests that a road connection within this segment would provide no effective congestion relief, primarily due to downstream capacity constraints. Both Nicholas Street and Highway 417 at Nicholas are already over capacity, and these facilities are not expected to be widened. The travel demand modelling also shows that the northern section would attract about 600 additional vehicles to the area during the AM peak period and would, if built, become congested by 2046.

This segment is not carried forward. Travel demand from southeast Ottawa will continue to be accommodated on existing corridors including Highway 417, St Laurent Boulevard / Russell Road, Riverside Drive, Bank Street, Main Street, Airport Parkway, O-Train Line 2, the Southeast Transitway, and new frequent transit service connecting southeast Ottawa into the urban transit network.

**South Section (Walkley Road to Hospital Link Road):** The AVTC south of the Hospital Link Road would provide an additional north-south connection midway between Alta Vista Drive and St. Laurent Boulevard, which are spaced about three kilometers apart. This segment of the AVTC would reduce pressure on Alta Vista Drive and St. Laurent Boulevard, improve connectivity, and reduce cut-through traffic within the Alta Vista community. Access to the

Hospital Complex from the south, a potential benefit identified in the 2005 Environmental Assessment, would also be enhanced, reducing emergency response times.

The AVTC is also expected to enhance transit network connectivity, providing direct access from Conroy Road to the Southeast Transitway. It is proposed that the AVTC corridor between Walkley Road and the Southeast Transitway be identified as a Transit Priority Corridor in the TMP's Needs-Based Transit Network.

### **Airport Parkway Widening**

The Airport Parkway is a controlled-access arterial roadway that connects Bronson Avenue to MacDonald-Cartier International Airport. At present, the road consists of four general purpose lanes from its terminus at Bronson Avenue to south of Brookfield Road, and two general purpose lanes from south of Brookfield Road to the Airport. It regularly experiences congestion between Brookfield Road and Hunt Club Road during peak periods, and modelling suggests that congestion will increase as development continues in Ottawa's south urban communities.

Widening of the Airport Parkway south of Brookfield Road was a recommendation of the City's 2008 and 2013 Transportation Master Plans. Following approval of the 2013 plan, the City undertook an Environmental Assessment for the widening of the corridor, which was completed in 2017. This Environmental Assessment identified the following key project elements: widening the Airport Parkway from two to four lanes between Brookfield Road and Hunt Club Road, a new southbound off-ramp and roundabout at Walkley Road, and improvements to Walkley Road (including the addition of cycling facilities) to mitigate anticipated impacts from the new southbound off-ramp. Staff were then directed to proceed with detailed design work, which is on-going.

In February 2023, City Council passed a motion to phase the implementation of the proposed works included in the 2017 Airport Parkway Widening Environmental Assessment. Phase 1 implementation is planned to begin construction in 2026 and includes the new Airport Parkway southbound off-ramp and Walkley Road roundabout and cycling facilities on Walkley Road from McCarthy Road to the O-Train station entrance. The February 2023 City Council motion also provided direction to defer widening of the Airport Parkway until the Transportation Master Plan update is complete and O-Train Line 2 is operational for two years.

In April 2023, City Council approved Part 1 of the updated Transportation Master Plan, which focused on policies and actions to guide the planning of the transportation system to 2046. Policy 8-6 of the TMP states that the City should "Avoid road or highway widenings that compete with rapid transit corridors unless all reasonable alternatives to address long-term travel demands have been exhausted". The Airport Parkway runs directly parallel to O-Train

Line 2, meaning that inclusion of this widening project in the Needs-Based Network needs to demonstrate that all reasonable alternatives to widening have been exhausted.

The 2025 TMP has reviewed the need for the widening of the Airport Parkway in the context of updated modelling and recommends its inclusion in the Needs-Based Network. This recommendation takes the following findings into consideration:

- **Congested conditions remain even after improvements to O-Train Line 2 and other rapid transit initiatives:** Despite the “transit-first approach” employed to assess roadway needs, the Airport Parkway is still forecast to experience substantial congestion, with average peak hour volumes exceeding available capacity before 2046. This would be the case even with full double tracking and six-minute headways on Line 2.
- **Widening of the Airport Parkway helps to alleviate congestion on other roads:** The Airport Parkway is part of the CNR East screenline, which includes Riverside Drive, Bank Street, and Conroy Road. The entirety of this screenline is forecast to be above capacity by 2046; widening the Airport Parkway will help reduce pressure and avoid widening other roads along the screenline. Reduction of cut-through traffic on adjacent roads such as Flannery Drive, Springland Drive and McCarthy Road is also expected.
- **Downstream impacts may be exacerbated:** A widened Airport Parkway is expected to lead to more vehicles on Bronson south of the Rideau Canal, but no net new vehicles on Bronson north of the Canal. Some users of the widened Airport Parkway will continue on to Bronson through the Glebe; but previous users will shift to alternative corridors. Some additional vehicles on Brookfield and Riverside north of Brookfield.
- **Most users of the Airport Parkway are travelling to and from destinations that are not directly adjacent to the Line 2 corridor:** Approximately 90% of users of the Airport Parkway between Brookfield Road and Hunt Club Road start and end their trip more than 1 km from the O-Train Line 2 corridor. This means that an alternative transit trip for these travellers would likely require at least three transit routes to complete: one to access the O-Train, the O-Train itself, and one to access the final destination.

### **Innes Road Corridor**

Innes Road connects Orleans to destinations inside the Greenbelt. It serves as an alternative to Ottawa Road 174 and is a more direct route for residents of south Orleans and those travelling to or from areas in the vicinity of Walkley Road or Hunt Club Road. Peak period capacity constraints are projected along the length of this corridor, even after accounting for trips that are expected to be accommodated by the Cumberland Transitway (see the **Transit Network Development Report**). Innes Road is six general purpose lanes through its most congested segments between Highway 417 and Blair Road. Further east through the

Greenbelt, it continues as six lanes until the Blackburn Hamlet Bypass, where it transitions to four lanes.

The 2024 Brian Coburn Boulevard Extension and Cumberland Transitway Environmental Assessment (EA) recommended the construction of a new corridor with two general purpose lanes in each direction from the intersection of Brian Coburn Boulevard and Navan Road to the junction of Innes with the future Innes-Walkley Road. This project is carried forward into the Needs-Based Road Network to address the capacity deficiency across the Greenbelt in this location. However, the project requires further review before it can proceed as the alignment identified in the EA is not supported by the National Capital Commission (NCC), which owns the land for the corridor. In Exhibit 3.3, the project is assumed to run along Navan Road, the Blackburn Hamlet Bypass, and Innes Road. This new alignment – one of the alternatives evaluated in the EA – is considered to be more feasible given the NCC’s position, although it has a higher cost.

Between Blair Road and Highway 417, widening Innes Road to four lanes per direction is not expected to be feasible or desirable. However, there may be opportunities to increase the capacity of this corridor without widening. There are a number of intersections and ingress/egress points that could be reviewed for localized improvements to reduce friction along the corridor. Further study is required to explore these operational improvements. The new Innes-Walkley Road is also expected to reduce pressure on Innes Road west of Blair Road and improve connectivity from the east to destinations along Walkley Road and Hunt Club Road.

## **3.2 Needs-Based Network**

The TMP’s Needs-Based Network for road capacity projects is presented in **Exhibit 3.2**, including a summary of the rationale for each project. **Exhibit 3.3** presents a map version of the Needs-Based Road Network. These are the projects that are warranted to address the forecasted vehicular travel demand to 2046, and/or that provide transportation access to support development. The prioritization of these projects for funding and implementation is documented in **Section 3.3**. The Needs-Based Road Network includes only capacity projects. These projects are classified as either new roads or road widenings, as defined below:

- **New Roads:** New corridors that fill gaps in the network and serve new developments.
- **Road Widenings:** Adding new capacity to existing roads, including road widenings for High Occupancy Vehicle lanes.

As part of the project scope, road capacity projects also include walking, cycling, and/or transit infrastructure, as appropriate, as per the City’s “Complete Streets” policy.

Exhibit 3.2: Needs-Based Road Network – Project Descriptions and Rationale

Corridor	Description	Rationale
Airport Parkway (Brookfield to Hunt Club)	Widen from two to four lanes between Brookfield Road and Hunt Club Road	Addresses a major capacity deficiency for north-south traffic using Riverside Drive, the Airport Parkway, and Bank Street, and improves access to the MacDonald-Cartier International Airport. This project is needed even with O-Train Line 2 to accommodate significant growth in Riverside South and Findlay Creek.
Airport Parkway (Hunt Club to the Airport)	Widen from two to four lanes between Hunt Club Road and MacDonald-Cartier International Airport, including realignment south of Hunt Club Road.	Accommodates growth in Riverside South - Findlay Creek and improves access to and from MacDonald-Cartier International Airport. Capacity constraints on this segment of the Airport Parkway are triggered by the widening from Brookfield to Hunt Club.
Albion Road (Lietrim to Lester)	Widen from two to four lanes between Leitrim Road and Lester Road	Accommodates growth in Riverside South and Findlay Creek and provides capacity for north-south travel to the downtown via the Airport Parkway.
Alta Vista Transportation Corridor South (Hospital Link to Walkley)	New two-lane road between the Hospital Link Road/Ring Road (north side of the Ottawa Hospital Ottawa Health Sciences Centre) and Walkley Road	Improves connectivity and reduces short-cutting on local streets in Alta Vista and Elmvale. See <b>Section 3.1.1</b> for additional information.
Bank Street (Blais to Earl Armstrong Extension)	Widen from two to four lanes between Blais Road and Earl Armstrong Road Extension	Provides capacity for growth in Findlay Creek and Greely.
Barnsdale Road (Highway 416 to Greenbank Extension)	Widen from two to four lanes between Hwy 416 and Greenbank Road Extension	Required in conjunction with new Barnsdale Road – Highway 416 interchange.
Blackburn Hamlet Bypass (Navan to Innes)	Widen between Navan Road and Innes Road	Addresses localized capacity deficiency across the Greenbelt for the growth areas in south Orléans.

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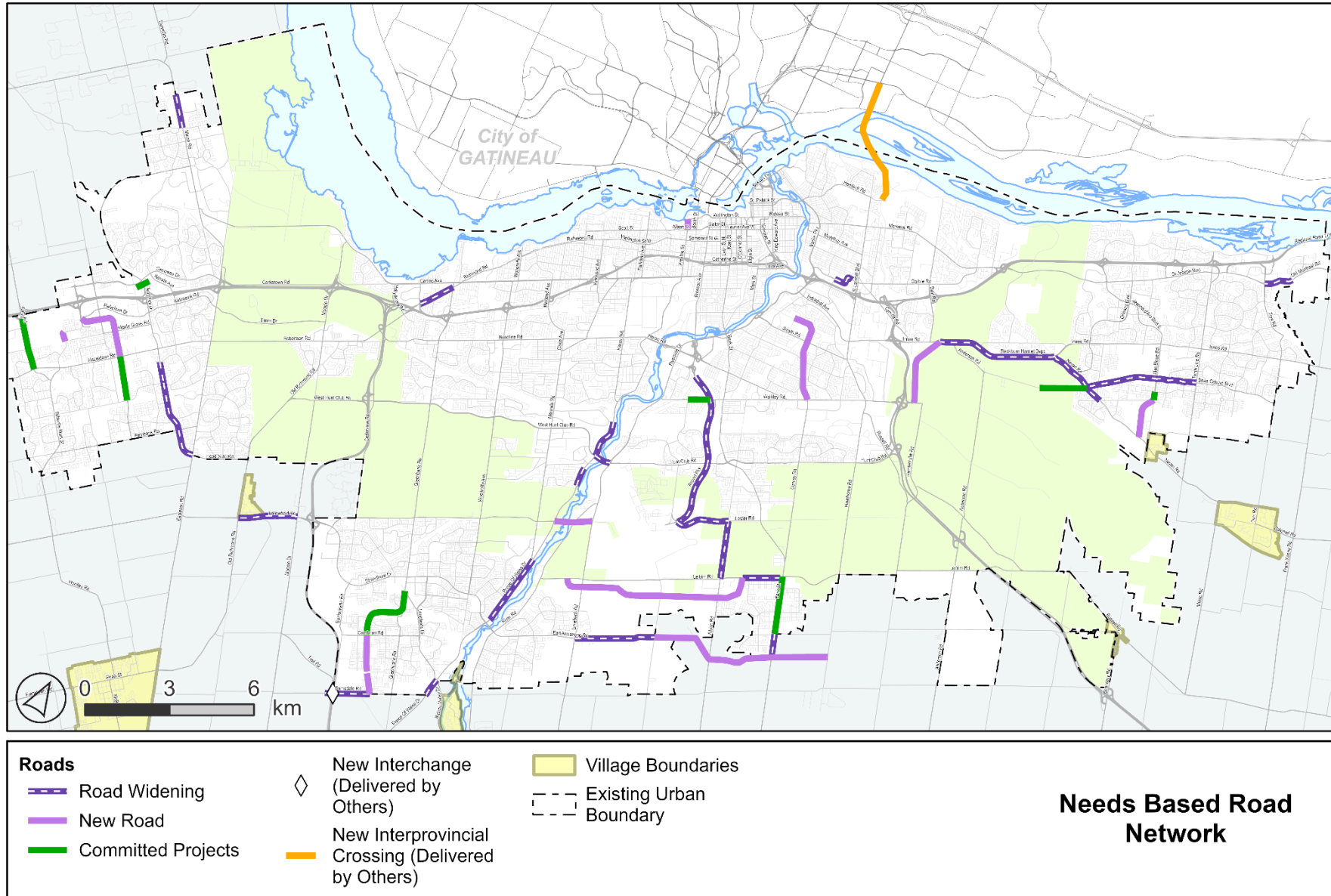
Corridor	Description	Rationale
Brian Coburn Boulevard (Navan to Mer-Bleue)	Widen from two to four lanes between Navan Road and Mer Bleue Road	Addresses congestion and capacity constraints for residents of Chapel Hill.
Brian Coburn Boulevard (Mer-Bleue to Tenth Line)	Widen from two to four lanes between Mer-Bleue Road and Tenth Line Road	Provides additional vehicular capacity to growth areas in Orleans and addresses existing congestion.
Coventry Road (Belfast to St. Laurent Shopping Centre Western Entrance)	Widen from two to four lanes between Belfast Road and St. Laurent Shopping Centre Western Entrance	Provides continuity and capacity between adjacent four-lane sections of Coventry Road; Environmental Assessment underway to confirm need and justification.
Earl Armstrong Road Widening (Limebank to Bowesville)	Widen from two to four lanes between Limebank Road and Bowesville Road	Provides capacity for growth in Riverside South.
Earl Armstrong Road Extension (Bowesville Station to Bank)	New/upgraded two-lane road between Bowesville Station and Bank Street	Provides capacity and connectivity for growth in Riverside South and Findlay Creek, helping to complete the road network, supports goods movement, improve access to development, and alleviate congestion on Albion Road.
Fallowfield Road (Old Richmond to Moodie)	Widen from two to four lanes between Old Richmond Road and Moodie Drive	Addresses increasing travel demand between Barrhaven and Kanata South.
Greenbank Road Re-Alignment (Cambrian to Kilbirnie)	New road (two lanes) connecting Cambrian Road to Kilbirnie Drive	Provides access to new development lands in South Nepean.
Greenbank Road Re-Alignment (Kilbirnie to Barnsdale)	New road (two lanes) between Kilbirnie Road and Barnsdale Road	Provides access to new development lands in South Nepean.
Hunt Club Road Bridge Widening	Widen from four to six lanes between Prince of Wales Drive and Riverside Drive	Addresses capacity deficiencies crossing the Rideau River.
Innes-Walkley Link	New four-lane road (initial phase two-lanes) between Innes Road and Walkley Road	Bypasses congested section of Innes Road and provides direct connection between Orléans and Walkley / Hunt Club.

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<b>Corridor</b>	<b>Description</b>	<b>Rationale</b>
Leitrim Road (Limebank to Bank)	Re-align and widen from two to four lanes between Limebank Road and Bank Street	Provides capacity for development in Riverside South and supports future airport expansion; federal funding contribution expected to support this project.
Lester Road (Airport Parkway to Albion)	Widen from two to four lanes between Airport Parkway and Albion Road	Accommodates growth in Riverside South and Findlay Creek and provides capacity for north-south travel to the downtown via the Airport Parkway.
March Road (Maxwell Bridge to Buckbean)	Widen from two to four lanes between Maxwell Bridge and Buckbean Avenue	Provides additional vehicular capacity to growth areas in north Kanata.
Mer-Bleue Road (Renaud to Navan)	Extend Mer-Bleue Road between Renaud Road and Navan Road as a two-lane arterial to the west of existing Mer-Bleue Road	Provides arterial road connectivity for the development areas south of Innes Road.
Navan Road (Renaud to Blackburn Hamlet Bypass)	Widen from two lanes to four lanes between existing Renaud Road and Blackburn Hamlet Bypass	Addresses capacity constraints along Navan Road from existing Renaud Road to Brian Coburn Boulevard and Blackburn Hamlet Bypass.
Old Montreal Road (Trim to Famille-Laporte)	Widen from two to four lanes between Trim Road and Famille-Laporte Avenue	Provides capacity for the Cardinal Creek development areas east of Trim Road.
Preston Street (Albert to Wellington)	Extend existing two-lane urban roadway from Albert Street to Wellington Street	Provides new road connection through Lebreton Flats including structure crossing the O-Train and aqueduct.
Prince of Wales Drive (Colonnade to Hunt Club)	Widen from two to four lanes from Colonnade Road to West Hunt Club Road	Addresses capacity deficiencies along Prince of Wales corridor.
Prince of Wales Drive (Deakin to Amberwood)	Widen from two to four lanes from ~200 m south of Deakin Street to Amberwood Crescent.	Addresses capacity deficiencies along Prince of Wales corridor.
Prince of Wales Drive (Merivale to Barnstone)	Widen from two to four lanes between Merivale Road and Barnstone Drive	Addresses capacity deficiencies along Prince of Wales corridor.
Prince of Wales Drive (Longfields to Barnsdale)	Widen from two to four lanes between Longfields Drive and Barnsdale Road	Addresses increasing traffic volume originating in South Barrhaven.

Corridor	Description	Rationale
Richmond Road (Bayshore to Pinecrest)	Widen from two to four lanes between Bayshore Drive and Pinecrest Road	Provides continuity and capacity between adjacent four-lane sections of Richmond Road.
Rideau River Crossing at Fallowfield Road	New four-lane bridge and approaches between Prince of Wales Drive and Limebank Road	Provides capacity and connectivity across the Rideau River, alleviating congestion at the Strandherd Drive and Hunt Club Road river crossings.
Robert Grant Extension (Palladium to Hazeldean)	New two-lane road between Palladium Drive and Hazeldean Road	Provides access and capacity for development in Stittsville.
Stittsville Main Street Extension (Maple Grove to Derreen)	New north-south collector road between Maple Grove Road and Derreen Avenue, connecting to the new east-west road delivered through development	Provides connectivity and access for development in Stittsville.
Terry Fox Drive (Winchester to Castlefrank)	Widen from two to four lanes between Winchester Drive and Castlefrank Road	Addresses existing capacity deficiency and congestion along Terry Fox Drive.
Terry Fox Drive (Castlefrank to Eagleson)	Widen from two to four lanes between Castlefrank Road and Eagleson Road	Addresses capacity deficiencies and supports development in Kanata South.

Exhibit 3.3: Needs-Based Road Networks



### 3.2.1 Road-Rail Grade Separation Needs Assessment

The 2017 Barrhaven and Merivale Road Rail Crossing Grade Separation Study identified the requirement to provide grade separation at the railway crossings on Woodroffe Avenue, Fallowfield Road, Merivale Road, and Jockvale Road, as well as the Southwest Transitway (future O-Train corridor). As a follow-up to this study, an Environmental Assessment was undertaken for three of the grade separations – at Woodroffe Avenue, Fallowfield Road and the O-Train. This work was carried out as part of the 2024 Planning and Environmental Assessment Study for the Barrhaven O-Train extension. In order for these projects to proceed, partnership funding from the federal and provincial governments, and potentially VIA Rail, will be required.

The City of Ottawa currently has 63 at-grade rail crossings. As part of the TMP Update, all of these crossings were reviewed based on updated criteria from Transport Canada's *Grade Separation Assessment Guidelines*<sup>6</sup>. The review considered: average annual daily traffic (AADT), average trains per day, and the cross-product of these two values; collision history; posted road speed; train speed; known queuing or blocking issues; and road functional classification.

None of the locations that were reviewed meet the new Transport Canada warrants for road-rail grade separation. However, the City will continue to pursue opportunities to improve rail safety and address known safety concerns through measures such as enhanced signage or controls at crossings, and/or changes to roadways in the vicinity of crossings. These locations will also be monitored as growth occurs and vehicle or train volumes increase.

## 3.3 Priority Road Network

The Needs-Based Road Network identifies the full list of road capacity projects that are needed to address development needs and peak period capacity constraints to 2046. However, it is not affordable to implement all of the projects in the Needs-Based Network within the planning horizon.

The TMP's Priority Road Network identifies the subset of capacity projects from the Needs-Based Network that should be prioritized for implementation. The Priority Network also includes road urbanization and mainstreet improvement projects that will reconfigure existing streets to better accommodate sustainable modes, in support of growth and intensification.

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<sup>6</sup> [Grade separation assessment guidelines](#)

Prioritization is based on the **Transit and Road Project Prioritization Frameworks** from the TMP Part 1. The Transit and Road Project Prioritization Frameworks were developed based on Official Plan objectives, TMP policies, and the frameworks from the 2013 TMP. They were also reviewed and refined based on the results of public engagement from June 1 to July 2, 2022. Council approved the Prioritization Frameworks in 2023. The Frameworks include prioritization criteria, metrics and scoring rubrics. In applying the framework, each project receives a total score that allows it to be compared to other projects within the same category.

### **3.3.1 Road Capacity Projects**

#### **Scoring – Road Capacity Projects**

All road capacity projects in the Needs-Based Network were prioritized on their mobility benefits, city-building merit, and cost. Top-performing projects were selected for the Priority Network and assigned a phase for implementation. The framework and its application are described below:

- **Mobility needs (score out of 55):** A measure of the project’s ability to achieve the goals of Ottawa’s transportation system and meet current and future mobility needs. Projects usually received points on either Access to Development or Congestion Reduction, so the maximum score for mobility needs was 33. A minimum threshold of 10 points was required for a project to be considered in the Priority Network.
  - **Access to development (score out of 33):** This measures the extent to which a road project improves access to new development areas. Road widening projects automatically received a score of 0 (because access is already provided via the existing road), while new roads were assessed on whether they significantly improve access to existing communities or open up new development lands. Projects providing access to areas where development is already underway received more points than those at earlier stages of development or without approved plans.
  - **Congestion reduction (score out of 22):** This measure assigns points based on a project’s effect on reducing delay, and considers the level of congestion in the 2022 base year as well as the 2046 “Transit First” scenario. The highest-scoring projects were those that showed high levels of congestion in both the base and future years, and that significantly reduced delays on the corridor as a result of implementing the project. Compared to the Council-approved framework, this metric was amended slightly such that each scoring category reflects both the level of congestion in the base year (2022) and the level of congestion in 2046 without the project. The score also accounts for the extent of delay reduction in 2046 with and without the projects.

- **City-building impacts (score out of 25):** The contribution of the project to achieving the City's objectives identified in the Official Plan and Transportation Master Plan:
  - **Potential for induced demand & GHG emissions (score out of 4):** This measures the road's potential impact on generating new auto demand and, by extension, GHG emissions. All new roads were assigned 4 points since they support more direct routing of trips. Road widening projects are intended to reduce congestion, and therefore make driving more attractive; these projects received a score of 2 points. These base scores were then adjusted by subtracting two points from any project that competes with rapid transit within the Priority Transit Network; these projects are expected to have a more significant impact on induced demand by encouraging modal shift.
  - **Impacts on natural systems (score out of 4):** This metric assigns points to projects based on their proximity to natural systems, as measured using data from the City's Geographic Information Systems (GIS). Most projects scored 1 point out of 4 because of their proximity to a watercourse.
  - **Effect on priority neighbourhoods (score out of 4):** Projects that benefit TMP Equity Priority Neighbourhoods (by, for example, reducing cut-through traffic) received 4 points, while projects that negatively impact Priority Neighbourhoods (because of increased noise, for example) received 0 points. Most road projects received 2 points because they had neither positive nor negative impacts on Priority Neighbourhoods.
  - **Support for place-making & healthy streets (score out of 4):** Projects scored 4 points if they would add new sidewalks and cycling facilities where they are absent today. Projects received 2 points if adjacent land uses are not sensitive to street design, such as roads through the Greenbelt. Projects received 0 points where a widening would be expected to have a notable negative impact on adjacent properties and land uses. Most projects scored 4 points.
  - **Support for transit (score out of 5):** This metric assigns up to 5 points to indicate the degree to which the project supports transit. Road projects that are fully integrated with new transit infrastructure scored 5 points, while projects that improve conditions for transit in mixed traffic scored 3 points. Projects that have limited or no benefit to transit travel times scored 1 or 0.
  - **Goods movement & economic development (score out of 4):** This measures a project's importance to moving goods as a function of the number of trucks using the corridor (from the travel demand forecasting model) and a qualitative assessment of the importance of the corridor to the movement of goods.

- **Cost (score out of 20):** This metric assigns points based on the total estimated cost of a project, relative to (normalized against) other projects. Lower cost projects received high scores than higher cost projects.

The above criteria were used to assess the overall performance of projects in the Needs-Based Network, and the highest ranked projects became part of the Priority Network.

### **Phasing – Road Capacity Projects**

Scoring and phasing are closely related, in that projects with the highest score are most likely to be assigned an earlier phase of implementation. However, the prioritization framework is unable to capture every nuance that might inform project phasing. As such, the recommended phasing considers local conditions, availability and capacity of parallel routes, anticipated development timing, and other factors affecting project urgency.

While the City intends to generally pursue projects in the order listed, there may be cases where implementation is delayed or advanced, for example, due to coordination opportunities, property requirements, project readiness, or funding opportunities from other levels of government. Further, the City intends to review the project prioritization every five years, in line with the TMP Part 1 direction for the Capital Infrastructure Plan to be dynamic with respect to the implementation of projects, with flexibility to shift priorities if external factors affect planned growth or mobility.

**Exhibit 3.4** provides a summary of the projects in the Priority Road Network, including their cost, phase, and prioritization score. Although total scores are out of 100, the actual scores range between 30 and 70 as the scoring methodology and framework make it difficult to receive a high score (for example, projects generally received points for either access to development OR congestion reduction). The scores do not reflect the need for the project, as all projects in the Needs-Based Network are important and necessary for meeting travel needs to 2046. Instead, the scores reflect the priority of each project relative to the other projects in the Needs-Based Network. Scores between 40 and 60 indicate projects with the greatest benefit which should be implemented as a high priority.

The estimated costs for projects in the Needs-Based Network presented in the table are for capital costs, including design, engineering and contingencies. Lifecycle costs will be captured in the final TMP, so that they can be accounted for in the City's long-range financial planning.

A map of the Priority Road Network is presented in **Exhibit 3.5**, while prioritization scores for all projects in the Needs-Based Road Network are provided in **Appendix B**.

Exhibit 3.4: Priority Road Network - Costing, Phasing, and Prioritization Scores<sup>7</sup>

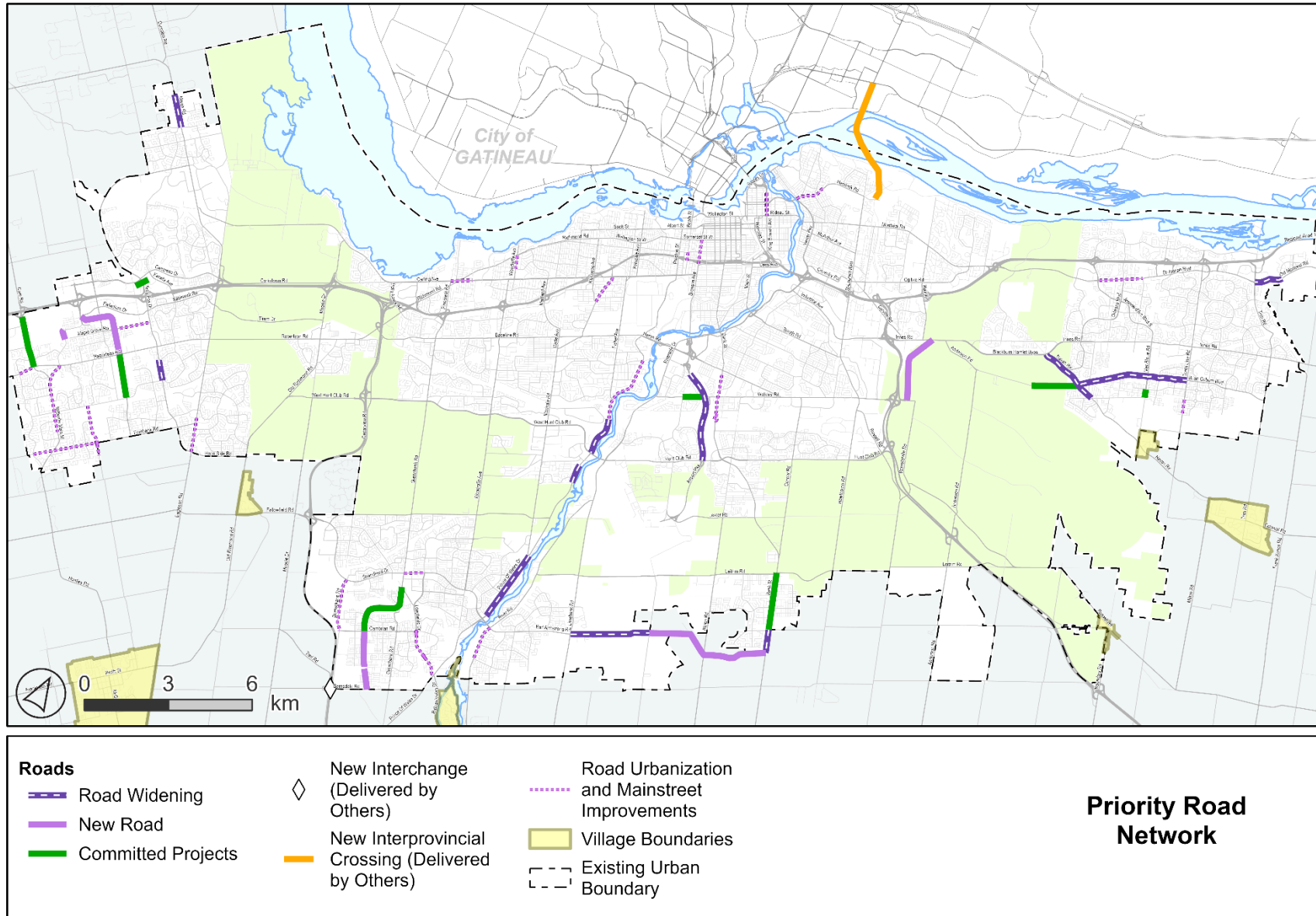
Project Name	Description	Cost (\$M)	Phase	Score
Stittsville Main Street Extension (Maple Grove to Derreen)	New north-south collector road between Maple Grove Road and Derreen Avenue, connecting to the new east-west road delivered through development	8.0	1	66.4
Greenbank Road Re-Alignment (Cambrian to Kilbirnie)	New road (two lanes) connecting Cambrian Road to Kilbirnie Drive	33.0	1	62.3
Robert Grant Extension (Palladium to Hazeldean)	New two-lane road between Palladium Drive and Hazeldean Road	88.4	1	54.9
Prince of Wales Drive (Deakin to Amberwood)	Widen from two to four lanes from ~200 m south of Deakin Street to Amberwood Crescent.	31.2	1	47.5
Brian Coburn Boulevard (Mer-Bleue to Tenth Line)	Widen from two to four lanes between Mer-Bleue Road and Tenth Line Road	42.3	1	44.6
Terry Fox Drive (Winchester to Castlefrank)	Widen from two to four lanes between Winchester Drive and Castlefrank Road	34.0	1	42.3
Earl Armstrong Road Extension (Bowesville Station to Bank)	New/upgraded two-lane road between Bowesville Station and Bank Street	98.0	1	42.1
Airport Parkway (Brookfield to Hunt Club)	Widen from two to four lanes between Brookfield Road and Hunt Club Road. This project is needed even with O-Train Line 2 to accommodate significant growth in Riverside South and Findlay Creek.	89.0	1	40.8
Innes-Walkley Link	New two-lane road between Innes Road and Walkley Road; included in phase 1 due to importance, despite high cost	110.0	1	37.2

<sup>7</sup> Phasing of projects primarily considered project scores. Other considerations included the phasing of development and factors such as implementation readiness, the implementation timelines of other projects, and project urgency.

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Project Name	Description	Cost (\$M)	Phase	Score
Greenbank Road Re-Alignment (Kilbirnie to Barnsdale)	New road (two lanes) between Kilbirnie Road and Barnsdale Road; included in phase 2 because it primarily supports Future Neighbourhoods which are in the early stages of planning	20.0	2	41.4
Prince of Wales Drive (Colonnade to Hunt Club)	Widen from two to four lanes from Colonnade Road to West Hunt Club Road	81.0	2	40.5
Prince of Wales Drive (Merivale to Barnstone)	Widen from two to four lanes between Merivale Road and Barnstone Drive	91.6	2	39.6
Navan Road (Renaud to Blackburn Hamlet Bypass)	Widen from two lanes to four lanes between existing Renaud Road and Blackburn Hamlet Bypass	96.0	2	38.3
Brian Coburn Boulevard (Navan to Mer-Bleue)	Widen from two to four lanes between Navan Road and Mer Bleue Road	72.1	2	38.2
March Road (Maxwell Bridge to Buckbean)	Widen from two to four lanes between Maxwell Bridge and Buckbean Avenue	48.0	2	36.1
Old Montreal Road (Trim to Famille-Laporte)	Widen from two to four lanes between Trim Road and Famille-Laporte Avenue	30.0	2	35.6
Bank Street (Blais to Earl Armstrong Extension)	Widen from two to four lanes between Blais Road and Earl Armstrong Road Extension	35.2	2	35.2
Earl Armstrong Road Widening (Limebank to Bowesville)	Widen from two to four lanes between Limebank Road and Bowesville Road	85.0	2	33.2

Exhibit 3.5: Priority Road Networks



## **Isolated Measures and Intersection Modifications**

In some locations, road capacity deficiencies are more localized and can be addressed using isolated measures and intersection modifications, rather than pursuing larger-scale road projects. Isolated measures are prioritized and implemented through other programs such as the City's Network Modification Program, separate from the TMP. However, concurrent with the TMP Update, the City is reviewing the list of intersections and funding level for isolated measures and intersection modifications. Locations identified through the TMP analysis that should be considered for isolated measures are provided below. These projects are expected to address growth-related pressures where a road is not identified for widening within the Priority Road Network.

- **Innes Road, Blair Road to Highway 417:** Intersection improvements and/or modifications to ingress/egress points to reduce friction along the corridor.
- **Hope Side Road at Terry Fox Drive / Eagleson Road:** Intersection improvements and localized widening to alleviate congestion at and around the intersection.
- **Lester Road and Albion Road South:** Intersection improvements and localized widening to alleviate congestion at and around the intersection.
- **Leitrim Road and Anderson Road:** Conversion of the existing four-way stop-controlled intersection of Leitrim Road and Anderson Road to include enhanced and/or coordinated intersection control(s), intended to alleviate anticipated congestion and support regional connections along the Anderson corridor between Leitrim Road and the Highway 417 ramp terminals.

Additional locations will continue to be reviewed for isolated measures in the coming months. Furthermore, where road widening projects are part of the Priority Network, environmental assessments or planning studies for these projects will review opportunities to address congestion through isolated measures or smaller-scale projects.

### **3.3.2 Urbanization and Mainstreet Improvement Projects**

Road Urbanization and Mainstreet Improvement projects involve upgrading existing streets to enable walking, cycling and transit, without adding vehicle capacity. These projects are important to support growth and intensification and align with Official Plan objectives for creating 15-minute neighbourhoods.

Road Urbanization projects enable walking and cycling in communities that have been built around arterial or collector roads without sidewalks. Many of these roads have rural cross-

sections<sup>8</sup>. These projects will add urban amenities like sidewalks and cycling facilities, bus stops, and lighting; some projects will also upgrade roads to an urban or semi-urban cross-section. Projects are intended to improve access to available services and amenities and enhance the safety and enjoyability of the pedestrian environment.

Mainstreet Improvement projects are focused on upgrading Corridors<sup>9</sup> in Design Priority Areas<sup>10</sup> to support intensification, placemaking, and economic development. Projects are expected to add or upgrade walking and cycling facilities, boulevards, and bus stops. They are particularly important in areas experiencing growth where road widening is impractical or infeasible, requiring trips to be made by other modes.

The selection of recommended projects was based on the following methodology, described in more detail below:

- Identification of a “long list” of candidate projects.
- Assessment of the candidate projects to develop a short list of projects.
- Evaluation of short-listed projects according to specific criteria.
- Refinement of the short-listed projects and their segments to develop the recommended list, including review of the project distribution within TMP Equity Priority Neighbourhoods.

**Long-list of projects.** The “long list” of candidate projects were identified as follows:

- For road urbanization projects, the long list included any arterial road within the City’s urban boundary and villages that does not have sidewalks;
- For mainstreet improvement projects, the long list included any Mainstreet Corridor or road in a Design Priority Area that is missing sidewalks or cycling facilities/multi-use pathways.

**Short-list of projects.** Candidate projects were further assessed and were not carried forward to the short list if they met one of the following criteria: controlled access roadway that does not provide access to adjacent destinations; would result in very low access to services and amenities; or, would present very high technical feasibility challenges (such as needing significant road widening or structure replacement, or having notable property impacts).

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<sup>8</sup> A rural cross-section refers to a roadway that has paved or unpaved shoulders adjacent to the travel lanes, and ditches or swales to manage stormwater runoff.

<sup>9</sup> The Corridor designation under the Official Plan that applies to bands of land along specified streets whose planned function combines a higher density of development, a greater degree of mixed uses and a higher level of street transit service.

<sup>10</sup> Design Priority Areas are defined in the Official Plan as locations within the City that are of high importance and are intended to support the image of Ottawa as a Capital and major city and contribute to a positive experience for residents and visitors.

**Evaluation of projects.** The short-listed projects were then evaluated based on the criteria in Exhibit 3.6 and Exhibit 3.7 below, for Road Urbanization and Mainstreet Improvement projects, respectively.

**Equity review, feasibility review, and refinements to project limits.** After the projects were evaluated, a check was made to ensure that an appropriate distribution of Mainstreet Improvement projects were located in Equity Priority Neighbourhoods. In addition, a final review of the highest-ranked projects was conducted to refine their limits and confirm feasibility, identifying the most important segments to connect key destinations and ensuring that projects would be implementable in the near-term.

Exhibit 3.6: Prioritization Criteria for Road Urbanization Projects

Criteria	Sub-criteria
Meets City’s objectives to support planned growth and intensification	<ul style="list-style-type: none"> <li>• Higher priority for corridors that fall within Community Design Plan or Secondary Plan areas and have a key role in the success of that plan.</li> <li>• Higher priority for project corridors that are in Design Priority Areas, have a Mainstreet Corridor designation, and where the City has received numerous requests for improvements.</li> </ul>
Creation of people friendly spaces / public realm for all ages and abilities	<ul style="list-style-type: none"> <li>• Higher priority for corridors with no or discontinuous pedestrian facilities.</li> <li>• Higher priority for corridors with no or discontinuous cycling facilities, factoring in the potential complexity with their installation (ROW width, utility conflicts, stormwater management).</li> <li>• Potential for project to improve pedestrian experience based on City of Ottawa 15-Minute Neighborhood scoring of “pedestrian safety and enjoyability”; higher priority for low scoring corridors.</li> </ul>
Network connectivity	<ul style="list-style-type: none"> <li>• Higher priority for greater population and employment adjacent to the project corridor, based on 2046 population and employment projections.</li> <li>• Higher priority for project corridors that provide connectivity to existing or planned transit routes.</li> </ul>
Destinations	<ul style="list-style-type: none"> <li>• Higher priority for projects connecting to Urban Employment Areas.</li> <li>• Higher priority for corridors that are located near or provide access to elementary and secondary schools.</li> <li>• Higher priority for corridors that provide greater access to services and amenities, based on the City of Ottawa 15-minute Neighbourhood scoring for “Service and Amenity Access”.</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• Higher priority for corridors that have more historical collisions involving pedestrians and cyclists.</li> </ul>

Exhibit 3.7: Prioritization Criteria for Mainstreet Improvement Projects

Criteria	Sub-criteria
Meets City’s objectives to support planned growth and intensification	<ul style="list-style-type: none"> <li>• Higher priority for corridors that fall within Community Design Plan or Secondary Plan areas and have a key role in the success of that plan.</li> <li>• Higher priority for corridors that will add active transportation infrastructure to corridors that currently don’t have any.</li> <li>• Higher priority for corridors that are in Design Priority Areas, have a Mainstreet Corridor designation, and where the City has received numerous requests for improvements.</li> </ul>
Creation of people friendly spaces / public realm for all ages and abilities	<ul style="list-style-type: none"> <li>• Higher priority for corridors with no or discontinuous existing active transportation facilities, factoring in potential complexity of installation (available right-of-way width, potential utility conflicts).</li> <li>• Potential for project to improve urban heat islands based on City urban heat island mapping, with higher priority for hotter locations.</li> <li>• Potential for project to improve quality of pedestrian experience based on City of Ottawa 15-Minute Neighborhood scoring for “Pedestrian Safety and Enjoyability”, with higher priority for low scoring corridors.</li> <li>• Higher priority for corridors designated as Mainstreets.</li> </ul>
Network connectivity	<ul style="list-style-type: none"> <li>• Higher priority for greater population and employment within a 1 km radius of the project, based on 2046 population and employment projections.</li> <li>• Higher priority for project corridors that provide connectivity to existing or planned Transitway and O-Train stations.</li> </ul>
Destinations	<ul style="list-style-type: none"> <li>• Higher priority for projects providing connections to Urban Employment Areas.</li> <li>• Higher priority for project corridors that are located near or provide access to elementary and secondary schools.</li> <li>• Higher priority for project corridors that provide greater access to services and amenities, based on the City of Ottawa 15-Minute Neighbourhood scoring for “Service and Amenity Access”.</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• Higher priority for project corridors that have more historical collisions involving pedestrians and cyclists.</li> </ul>

Exhibit 3.8 and Exhibit 3.9 list the top recommended projects for implementation within the 2046 horizon, along with the planning-level cost estimates. Cost estimates were based on conceptual cross-sections that considered: the type of active transportation facility (sidewalks,

cycle tracks and/or multi-use pathways); boulevards; bus stops; streetlighting; protected intersection features; and drainage improvements, as needed. The conceptual designs maintained the existing arrangement of vehicle lanes and aimed to work within the existing road right-of-way, to minimize the need for property. Cost estimates will be refined once the projects proceed to design.

The road urbanization projects are generally located in suburban communities and are needed because of greenfield growth. In some locations, they are proposed where a road widening was previously expected but is no longer required within the planning horizon. Mainstreet improvement projects are located in both urban and suburban contexts; they support both greenfield growth and intensification. The recommended list also includes five planned integrated road renewal projects that meet the project criteria and will support intensification and modal shift. These projects are scheduled to proceed in the near term, subject to funding availability. The projects will be designed and delivered by the City’s Asset Management group and will include active transportation and public realm improvements.

The projects in Exhibit 3.8 and Exhibit 3.9 are not ranked by priority. The final TMP Capital Infrastructure Plan will include the recommended phasing of projects for implementation. Road Urbanization and Mainstreet Improvement projects that were evaluated but not prioritized for implementation will remain as candidate projects for future consideration.

Exhibit 3.8: Priority Network Road Urbanization Projects

Project Name	Description	Cost Estimate (\$M)
Fernbank Road from West Ridge Drive to Shea Road	Implement new active transportation facilities on both sides and improve connection to the existing pathway on the south side of Fernbank (Stittsville Main Street to Hartsmere Drive).	4.7
River Road from Earl Armstrong Road to Solarium Avenue	Implement a new multi-use pathway and boulevard on the east side to support adjacent residential developments, and a new multi-use pathway and ditch on the west side to account for the rural characteristics adjacent to the Rideau River.	10.9
Maple Grove Road from east of Huntmar Road to Terry Fox Drive	Implement new sidewalks, cycle tracks and boulevards on both sides to improve safety and connectivity and accommodate future development as outlined in the Kanata West Concept Plan.	13.0
Tenth Line Road from Harvest Valley Drive to Sweet Valley Drive	Provide new pedestrian and cycling facilities on both sides and tie into the existing facilities to improve safety and accessibility.	3.2

Project Name	Description	Cost Estimate (\$M)
Shea Road from Abbott Street to Cosanti Drive	Implement new sidewalks and cycle tracks on both sides to enhance safety and improve connectivity to future developments as part of the Fernbank Community.	9.9
Longfields Drive from Cambrian Road to Prince of Wales Drive	Implement new pedestrian and cycling facilities on both sides and ensure integration with existing infrastructure north of Cambrian Road.	7.7
Prince of Wales Drive from Meadowlands Drive to Colonnade Road	Implement new sidewalks and cycle tracks to improve connectivity, safety and accessibility.	41.4
Hazeldean Road from Carp Road to West Ridge Drive	Implement new pedestrian and cycling facilities on the south side and reconstruct sections of existing sidewalk and multi-use pathway on the north side to a standard configuration.	8.0
Borrisokane Road from Strandherd Drive to Cambrian Road	Implement a new multi-use pathway on the west side that will tie into the existing sidewalk and cycling lane at the recently reconstructed Strandherd/Borrisokane intersection. Provides active transportation facilities for proposed residential and mixed-use developments along the corridor.	8.5
Manotick Main Street from Eastman Avenue to Kelly Marie Drive	Implement new multi-use pathways on both sides to support the surrounding residential land use on approach to Manotick Village, while accounting for the natural landscape characteristics adjacent to the Rideau River.	7.5
Eagleson Road from Cope/Cadence Gate to Hope Side Road	Implement new and improve existing multi-use pathways on both sides of the road to improve safety and accessibility.	15.4
Bank Street from Meadow Drive to Evening Shadow Avenue	Implement new active transportation facilities on both sides of the road to support surrounding rural residential areas and improve active transportation links between residential areas and the expanding Greely Village Centre, as outlined in the Village of Greely Community Design Plan.	5.8
Rockdale Road from Buckland Road to Devine Road	Implement new active transportation facilities to support surrounding residential land uses and activities through the center of the Vars community.	5.0

<b>Project Name</b>	<b>Description</b>	<b>Cost Estimate (\$M)</b>
Munster Road from Butterfield Road to Dogwood Drive	Implement new active transportation facilities to support surrounding residential land uses and activities through the center of Munster Village.	2.5

Exhibit 3.9: Priority Network Mainstreet Improvement Projects

<b>Project Name</b>	<b>Description</b>	<b>Cost Estimate (\$M)</b>
Stittsville Main Street from Hazeldean Road to Bobcat Way	Implement the recommendations from the Stittsville Main Street Public Realm Plan to improve the public space and revitalize the area. Deliver new sidewalks and cycle tracks along the corridor.	41.0
Beechwood Avenue from Vanier Parkway to Juliana Road	Provide continuous cycling and pedestrian facilities and upgrade the existing mix of on-road and off-road facilities to improve safety and accessibility. Improve the public realm and review the need for traffic calming improvements.	21.9
King Edward Avenue from Cathcart Street to Rideau Street	Enhance active transportation facilities to improve safety, accessibility and public realm. The design details and the timing of implementation will be determined in collaboration with the National Capital Commission and the planned new Interprovincial Crossing (Eastern Bridge crossing Kettle Island in the Ottawa River to connect the Aviation Parkway in Ottawa to Montée Paiement in Gatineau).	24.0
Carling Avenue from Pinecrest Road to Croydon Avenue	Implement new cycle tracks and upgrade the existing sidewalks to improve safety and accessibility. Integrate with the planned works at the nearby Lincoln Fields station.	19.9
St. Joseph Boulevard between Jeanne D'Arc Boulevard and Belcourt Boulevard	Implement the recommendations from the Orléans Corridor Secondary Plan to enhance the public realm and planned densification. Implement new sidewalks and cycle tracks to improve safety and accessibility.	17.6
Strandherd Drive between Greenbank Road and Longfields Drive	Improve cycling safety and comfort along Strandherd Drive by replacing the existing on-road cycling lanes with raised cycle tracks.	15.5

Project Name	Description	Cost Estimate (\$M)
Bronson Avenue from Plymouth/Imperial Avenue to Findlay Avenue	Integrated road renewal project that meets Mainstreet Improvements criteria. Design and implementation led by City's Asset Management.	TBD <sup>1</sup>
Bank Street from Collins Avenue to Ledbury Avenue	Integrated road renewal project that meets Mainstreet Improvements criteria. Design and implementation led by City's Asset Management.	16.5 <sup>1</sup>
Merivale Road from Carling Avenue to Kirkwood Road	Integrated road renewal project that meets Mainstreet Improvements criteria. Design and implementation led by City's Asset Management.	TBD <sup>1</sup>
Woodroffe Avenue from Saville Row to Byron Avenue	Integrated road renewal project that meets Mainstreet Improvements criteria. Design and implementation led by City's Asset Management.	TBD <sup>1</sup>
Booth Street from Gladstone Avenue to Orangeville Street	Integrated road renewal project that meets Mainstreet Improvements criteria. Design and implementation led by City's Asset Management.	TBD <sup>1</sup>

1. Eligible project costs reflect the additional cost of implementing sustainable transportation improvements as part of integrated renewal, versus “like for like” roadway replacements.

## 4 Next Steps

This **Road Network Development** report, along with the accompanying **Transit Network Development** report, outline the development of the draft transportation networks for the TMP Capital Infrastructure Plan. These networks will be presented to the public as part of Phase 5 engagement. Comments about the projects and networks, including the project priorities, will be collected for consideration in the final TMP Capital Infrastructure Plan that will be presented to Council for approval.

# Appendix A

## 2013 TMP Projects Not Carried Forward

Exhibit A.1: 2013 TMP Projects Not Carried Forward to the Needs-Based Road Network

<b>Project Name</b>	<b>Project Description</b>	<b>Protect Right-of-Way</b>	<b>Rationale</b>
<b>Alta Vista Transportation Corridor Northern Segment (Nicholas / Highway 417 to Hospital Link)</b>	New four-lane road between Nicholas Street / Highway 417 interchange and Hospital Link.	No	Downstream roads (e.g. Nicholas, Rideau, King Edward) cannot accommodate increase in volume introduced by the project.
<b>Bank Street (Earl Armstrong to Rideau)</b>	Widen from two to four lanes between Earl Armstrong Extension and Rideau	Yes	Low projected demand—road remains below capacity to 2046.
<b>Belfast Road (Coventry to Tremblay)</b>	Widen from two to four lanes between Coventry Road and Tremblay Road	Yes	Low projected demand – increased demand can be accommodated by isolated operational improvements.
<b>Blair Road (Blair Station to Innes)</b>	Widen Blair Road between Blair Station to Innes Road to 4 lanes for high-occupancy vehicle (HOV) lanes.	Yes	Previously identified as “high-occupancy vehicle” lanes; replaced by bus lanes or the Cumberland Transitway.
<b>Cambrian Road (Greenbank re-alignment to Longfields)</b>	Widen from two to four lanes between proposed Greenbank Road realignment and Longfields Drive	Yes	Low projected demand—road remains below capacity to 2046.
<b>Campeau Drive (Didsbury to March)</b>	Widen from two to four lanes between Didsbury Road and March Road	Yes	Low projected demand—road remains below capacity to 2046.
<b>Chapman Mills Drive (Greenbank to Strandherd)</b>	New road between Greenbank Road and Borrisokane Road (previously Strandherd Drive)	Yes	Collector road to support new development; City reviewing opportunities to have all or part of this road delivered through development.
<b>Country Club Road (Golf Club Way to Jenkinson)</b>	New two-lane road between eastern terminus of Golf Club Way and Jenkinson Road.	No	Project does not address an identified need.
<b>Cyrville Road (St. Laurent to Innes)</b>	Widen from two to four lanes between St. Laurent Boulevard and Innes Road.	Yes	Increased demand can be accommodated by isolated operational improvements.

<b>Project Name</b>	<b>Project Description</b>	<b>Protect Right-of-Way</b>	<b>Rationale</b>
<b>Eagleson Road (220 m south of Cadence/Cope to Hope Side Road)</b>	Widen from two to four lanes south of Cadence Gate/Cope Dr (at signalized commercial intersection ~220 m south of Cadence Gate/Cope Dr) and Hope Side Road	Yes	Low projected demand—road remains below capacity to 2046.
<b>Earl Armstrong Road (Bank to Hawthorne)</b>	New two-lane road between Bank Street and Hawthorne	Yes	Project is not needed to 2046 to provide access to new development or to address congestion.
<b>Fallowfield Road (Woodroffe to Prince of Wales)</b>	Widen from two to four lanes between Woodroffe and Prince of Wales	Yes	Low projected demand—road remains below capacity to 2046.
<b>Fallowfield Road (Strandherd to Greenbank)</b>	Widen from two to four lanes between Strandherd Drive and Greenbank Road	Yes	Low projected demand—road remains below capacity to 2046.
<b>Fernbank Road (Stittsville Main to Terry Fox)</b>	Widen from two to four lanes between Stittsville Main Street and Terry Fox Drive	Yes	Low projected demand—road remains below capacity to 2046.
<b>Fisher Avenue (Dynes to Baseline)</b>	Widen from two to four lanes between Dynes Road and Baseline Road	Yes	Low projected demand—road remains below capacity to 2046.
<b>Frank Kenny Road Extension (Trim to Innes)</b>	New road (four lanes) between Trim Road and Innes Road	Yes	Project is not needed to 2046 to provide access to new development or to address congestion.
<b>Hope Side Road (Eagleson to Old Richmond)</b>	Widen from two to four lanes between Eagleson Road and Old Richmond Road	Yes	Low projected demand—road remains below capacity to 2046. Localized capacity improvements recommended to address congestion near the Eagleson Road intersection.
<b>Hunt Club / West Hunt Club Road (Riverside to Bank &amp; Highway 416 to Prince of Wales)</b>	Widen from four to six lanes between Riverside Drive and Bank Street and between Highway 416 and Prince of Wales Drive	Yes	Inconsistent with TMP Part 1 policy direction against widening beyond four lanes; very high project costs.

<b>Project Name</b>	<b>Project Description</b>	<b>Protect Right-of-Way</b>	<b>Rationale</b>
<b>Huntmar Drive (Campeau to Maple Grove)</b>	Widen from two to four lanes between Campeau Drive extension to Cyclone Taylor Boulevard. Widen from two to four lanes between Palladium Drive to Maple Grove Road.	Yes	Low projected demand—road remains below capacity to 2046.
<b>Industrial Avenue Extension (Terminal to Hurdman TOD lands)</b>	New four-lane road extending westward from Terminal Avenue through the Hurdman TOD lands	Yes	Unnecessary without AVTC North; collector road expected to support new development (approach to delivery under review).
<b>Kanata Avenue (Highway 417 to Campeau)</b>	Widen from two to four lanes between Highway 417 and Campeau Drive	Yes	Low projected demand—road remains below capacity to 2046.
<b>Leitrim Road (River to Limebank)</b>	Widen from two to four lanes between River Road and Limebank Road	Yes	Low projected demand—road remains below capacity to 2046.
<b>Leitrim Road (Kelly Farm to Bank)</b>	Widen from two to four lanes between Kelly Farm Drive (just west of) and Bank St.	Yes	Low projected demand—road remains below capacity to 2046.
<b>Lester Road (Albion to Bank)</b>	Widen from two to four lanes between Albion Road and Bank Street	Yes	Low projected demand—road remains below capacity to 2046.
<b>Limebank Road (Earl Armstrong to Mitch Owens)</b>	Widen from two to four lanes between Earl Armstrong Road and Mitch Owens Road	Yes	Low projected demand—road remains below capacity to 2046.
<b>Longfields Road (Cambrian to Prince of Wales)</b>	Widen from two to four lanes between Cambrian Rd and Prince of Wales Dr.	Yes	Low projected demand—road remains below capacity to 2046. A new roundabout at Longfields Road and Kilspindie Ridge is in process.
<b>Maple Grove Road (Terry Fox to Huntmar)</b>	Widen from two to four lanes between Terry Fox Drive and Huntmar Drive	Yes	Low projected demand—road remains below capacity to 2046.
<b>Navan Road (Brian Coburn to Mer Bleue)</b>	Widen from two to four lanes between Brian Coburn Boulevard and Mer Bleue Road.	Yes	Low projected demand—road remains below capacity to 2046.

<b>Project Name</b>	<b>Project Description</b>	<b>Protect Right-of-Way</b>	<b>Rationale</b>
<b>Perth Street (Shea to Eagleson and Queen Charlotte to village boundary)</b>	Widen to four lanes between Shea Road and Eagleson Road and between Queen Charlotte Street and the village boundary	Yes	Low projected demand—road remains below capacity to 2046.
<b>Prince of Wales Drive (Merivale to Amberwood)</b>	Widen from two to four lanes between Merivale Road and Amberwood Crescent.	Yes	Low projected demand—road remains below capacity to 2046.
<b>Richmond Village By-Pass</b>	New two-lane road between Huntley Road and Eagleson Road	Yes	Project is not needed to 2046 to provide access to new development or to address congestion.
<b>Riverside Drive (River Road to Hunt Club)</b>	Widen from four to six lanes between River Road and Hunt Club Road	Yes	Inconsistent with TMP Part 1 policy direction against widening beyond four lanes.
<b>Strandherd Drive (Jockvale to Woodroffe)</b>	Widen from four to six lanes between Jockvale Road and Woodroffe Avenue	Yes	Inconsistent with TMP Part 1 policy direction against widening beyond four lanes; widening to six lanes would be within an Official Plan “Hub” for transit-oriented for development.
<b>Tenth Line Road (Harvest Valley to urban boundary)</b>	Widen from two to four lanes between Harvest Valley Drive and the urban boundary (Sweetvalley/ Little Lake)	Yes	Low projected demand, under capacity to 2046.
<b>Tremblay Road (Pickering to St. Laurent)</b>	Widen from two to four lanes between Pickering Place and St. Laurent Boulevard	Yes	Increased demand can be accommodated by isolated operational improvements.
<b>Walkley-Hunt Club Link</b>	New four-lane road (initial phase two-lanes) between Walkley Road and Hunt Club Rd west of Blackburn Hamlet	Yes	Low projected demand beyond Walkley Road.

# Appendix B

## Project Evaluation Results

Exhibit B.1: Project Evaluation Results

Project Name	Project Description	Access to development (33)	Congestion reduction (22)	City building: Total (25)	City Building: Induced Demand & GHG (4)	City Building: Support for Transit (5)	City Building: Equity Priority Nbhds (4)	City Building: Natural Systems (4)	City Building: Place-Making & Healthy Streets (4)	City Building: Goods Movement & Ec. Dev. (4)	Cost (20)	Total Score	Priority Network	Rationale
<b>Airport Parkway (Brookfield to Hunt Club)</b>	Widen from two to four lanes between Brookfield Road and Hunt Club Road	0	22	6	0	0	2	0	2	2	12.8	40.8	Y	Addresses a major capacity deficiency for north-south traffic using Riverside Drive, the Airport Parkway, and Bank Street, and improves access to the MacDonald-Cartier International Airport. This project is needed even with O-Train Line 2 to accommodate significant growth in Riverside South and Findlay Creek.
<b>Airport Parkway (Hunt Club to the Airport)</b>	Widen from two to four lanes between Hunt Club Road and MacDonald-Cartier International Airport, including realignment south of Hunt Club Road.	0	0	6	0	0	2	0	2	2	14.2	20.2		Accommodates growth in Riverside South - Findlay Creek and improves access to and from MacDonald-Cartier International Airport.
<b>Albion Road (Leitrim to Lester)</b>	Widen from two to four lanes between Leitrim Road and Lester Road	0	6	5	0	0	2	0	0	3	15.8	26.8		Accommodates growth in Riverside South and Leitrim and provides capacity for north-south travel to the downtown via the Airport Parkway.
<b>Alta Vista Transportation Corridor South (Hospital Link to Walkley)</b>	New two-lane road between the Hospital Link Road/Ring Road (north side of the Ottawa Hospital Ottawa Health Sciences Centre) and Walkley Road	0	10	11	4	5	0	1	0	1	5.9	26.9		Improves connectivity and reduces short-cutting on local streets in Alta Vista and Elmvale.
<b>Bank Street (Blais to Earl Armstrong Extension)</b>	Widen from two to four lanes between Blais Road and Earl Armstrong Road Extension	0	10	8	2	0	2	1	2	1	17.2	35.2	Y	Provides capacity for growth in Leitrim and Greely.
<b>Barnsdale Road (Highway 416 to Realigned Greenbank Road)</b>	Widen from two to four lanes between Hwy 416 and Realigned Greenbank Road	0	0	9	2	0	2	1	4	0	14.6	23.6		Required in conjunction with new Barnsdale Road –Highway 416 interchange.
<b>Blackburn Hamlet Bypass (Navan to new Innes-Walkley)</b>	Widen between Navan Road and new Innes-Walkley Road	0	10	6	0	0	2	0	2	2	11.3	27.3		Addresses localized capacity deficiency across the Greenbelt for the growth areas in south Orléans.
<b>Brian Coburn Boulevard (Mer-Bleue to Tenth Line)</b>	Widen from two to four lanes between Mer-Bleue Road and Tenth Line Road	0	18	10	2	1	2	1	4	0	16.6	44.6	Y	Provides additional vehicular capacity to growth areas in Orleans and addresses existing congestion.

Project Name	Project Description	Access to development (33)	Congestion reduction (22)	City building: Total (25)	City Building: Induced Demand & GHG (4)	City Building: Support for Transit (5)	City Building: Equity Priority Nbhd's (4)	City Building: Natural Systems (4)	City Building: Place-Making & Healthy Streets (4)	City Building: Goods Movement & Ec. Dev. (4)	Cost (20)	Total Score	Priority Network	Rationale
<b>Brian Coburn Boulevard (Navan to Mer-Bleue)</b>	Widen from two to four lanes between Navan Road and Mer Bleue Road	0	14	10	0	1	2	3	4	0	14.2	38.2	Y	Addresses congestion and capacity constraints for residents of Chapel Hill.
<b>Coventry Road (Belfast to St. Laurent Shopping Centre Western Entrance)</b>	Widen from two to four lanes between Belfast Road and St. Laurent Shopping Centre Western Entrance	0	6	7	0	0	2	3	0	2	17.0	30.0		Provides continuity and capacity between adjacent four-lane sections of Coventry Road; Environmental Assessment underway to confirm need and justification.
<b>Earl Armstrong Road Extension (Bowesville Station to Bank)</b>	New/upgraded two-lane road between Bowesville Station and Bank Street	11	10	9	4	0	2	0	2	1	12.1	42.1	Y	Provides capacity and connectivity for growth in Riverside South and Findlay Creek, helping to complete the road network, supports goods movement, improve access to development, and alleviate congestion on Albion Road.
<b>Earl Armstrong Road Widening (Limebank to Bowesville)</b>	Widen from two to four lanes between Limebank Road and Bowesville Road	0	10	10	0	0	2	1	4	3	13.2	33.2	Y	Provides capacity for growth in Riverside South.
<b>Fallowfield Road (Old Richmond to Moodie)</b>	Widen from two to four lanes between Old Richmond Road and Moodie Drive	0	10	7	2	0	2	0	0	3	15.5	32.5		Addresses increasing travel demand between Barrhaven and Kanata South.
<b>Greenbank Road Re-Alignment (Cambrian to Kilbirnie)</b>	New road (two lanes) connecting Cambrian Road to Kilbirnie Drive	33	0	12	0	5	2	1	4	0	17.3	62.3	Y	Provides access to new development lands in South Nepean.
<b>Greenbank Road Re-Alignment (Kilbirnie to Barnsdale)</b>	New road (two lanes) between Kilbirnie Road and Barnsdale Road	11	0	12	2	1	2	3	4	0	18.4	41.4	Y	Provides access to new development lands in South Nepean.
<b>Hunt Club Road Bridge Widening</b>	Widen from four to six lanes between Prince of Wales Drive and Riverside Drive	0	22	6	0	1	2	1	2	0	0.0	28.0		Addresses capacity deficiencies crossing the Rideau River.
<b>Innes-Walkley Link</b>	New four-lane road (initial phase two-lanes) between Innes Road and Walkley Road	0	18	8	4	0	2	0	2	0	11.2	37.2	Y	Bypasses congested section of Innes Road and provides direct connection between Orléans and Walkley / Hunt Club.

Project Name	Project Description	Access to development (33)	Congestion reduction (22)	City building: Total (25)	City Building: Induced Demand & GHG (4)	City Building: Support for Transit (5)	City Building: Equity Priority Nbhd (4)	City Building: Natural Systems (4)	City Building: Place-Making & Healthy Streets (4)	City Building: Goods Movement & Ec. Dev. (4)	Cost (20)	Total Score	Priority Network	Rationale
<b>Leitrim Road (Limebank to Bank)</b>	Re-align and widen from two to four lanes between Limebank Road and Bank Street	0	10	11	4	1	2	0	2	2	9.4	30.4		Provides capacity for development in Riverside South and supports future airport expansion; federal funding contribution expected to support this project.
<b>Lester Road (Airport Parkway to Albion)</b>	Widen from two to four lanes between Airport Parkway and Albion Road	0	0	8	2	1	2	0	2	1	17.0	25.0		Accommodates growth in Riverside South and Leitrim and provides capacity for north-south travel to the downtown via the Airport Parkway.
<b>March Road (Maxwell Bridge to Buckbean)</b>	Widen from two to four lanes between Maxwell Bridge and Buckbean Avenue	0	10	10	2	1	2	1	4	0	16.1	36.1	Y	Provides additional vehicular capacity to growth areas in north Kanata.
<b>Mer-Bleue Road (Renaud to Navan)</b>	Extend Mer-Bleue Road between Renaud Road and Navan Road as a two-lane arterial to the west of existing Mer-Bleue Road	0	0	11	4	0	2	1	4	0	14.7	25.7		Provides arterial road connectivity for the development areas south of Innes Road.
<b>Navan Road (Renaud to Blackburn Hamlet Bypass)</b>	Widen from two lanes to four lanes between existing Renaud Road and Blackburn Hamlet Bypass	0	18	8	0	1	2	1	4	0	12.3	38.3	Y	Addresses capacity constraints along Navan Road from existing Renaud Road to Brian Coburn Boulevard and Blackburn Hamlet Bypass.
<b>Old Montreal Road (Trim to Famille-Laporte)</b>	Widen from two to four lanes between Trim Road and Famille-Laporte Avenue	0	10	8	2	1	2	1	2	0	17.6	35.6	Y	Provides capacity for the Cardinal Creek development areas east of Trim Road.
<b>Preston Street (Albert to Wellington)</b>	Extend existing two-lane urban roadway from Albert Street to Wellington Street	6	0	9	4	0	0	1	4	0	16.4	31.4		Provides new road connection through Lebreton Flats including structure crossing the O-Train and aqueduct.
<b>Prince of Wales Drive (Colonnade to Hunt Club)</b>	Widen from two to four lanes from Colonnade Road to West Hunt Club Road	0	14	13	2	1	2	1	4	3	13.5	40.5	Y	Addresses capacity deficiencies along Prince of Wales corridor.
<b>Prince of Wales Drive (Deakin to Amberwood)</b>	Widen from two to four lanes from ~200m south of Deakin Street to Amberwood Crescent.	0	18	12	2	0	2	1	4	3	17.5	47.5	Y	Addresses capacity deficiencies along Prince of Wales corridor.
<b>Prince of Wales Drive (Longfields to Barnsdale)</b>	Widen from two to four lanes between Longfields Drive and Barnsdale Road	0	6	10	2	0	2	1	2	3	17.5	33.5		Addresses increasing traffic volume originating in South Barrhaven.
<b>Prince of Wales Drive (Merivale to Barnstone)</b>	Widen from two to four lanes between Merivale Road and Barnstone Drive	0	14	13	2	1	2	1	4	3	12.6	39.6	Y	Addresses capacity deficiencies along Prince of Wales corridor.

Project Name	Project Description	Access to development (33)	Congestion reduction (22)	City building: Total (25)	City Building: Induced Demand & GHG (4)	City Building: Support for Transit (5)	City Building: Equity Priority Nbhds (4)	City Building: Natural Systems (4)	City Building: Place-Making & Healthy Streets (4)	City Building: Goods Movement & Ec. Dev. (4)	Cost (20)	Total Score	Priority Network	Rationale
<b>Richmond Road (Bayshore to Pinecrest)</b>	Widen from two to four lanes between Bayshore Drive and Pinecrest Road	0	10	7	0	3	0	3	0	1	15.9	32.9		Provides continuity and capacity between adjacent four-lane sections of Richmond Road.
<b>Rideau River Crossing at Fallowfield Road</b>	New four-lane bridge and approaches between Prince of Wales Drive and Limebank Road	0	22	10	4	0	2	1	2	1	0.0	32.0		Provides capacity and connectivity across the Rideau River, alleviating congestion at the Strandherd Drive and Hunt Club Road river crossings.
<b>Robert Grant Extension (Palladium to Hazeldean)</b>	New two-lane road between Palladium Drive and Hazeldean Road	33	0	9	2	0	2	1	4	0	12.9	54.9	Y	Provides access and capacity for development in Stittsville.
<b>Stittsville Main Street Extension (Maple Grove to Derreen)</b>	New north-south collector road between Maple Grove Road and Derreen Avenue, connecting to the new east-west road delivered through development	33	0	14	4	1	2	3	4	0	19.4	66.4	Y	Provides connectivity and access for development in Stittsville.
<b>Terry Fox Drive (Castlefrank to Eagleson)</b>	Widen from two to four lanes between Castlefrank Road and Eagleson Road	0	0	11	2	1	2	1	4	1	8.0	19.0		Addresses capacity deficiencies and supports development in Kanata South.
<b>Terry Fox Drive (Winchester to Castlefrank)</b>	Widen from two to four lanes between Winchester Drive and Castlefrank Road	0	14	11	2	1	2	1	4	1	17.3	42.3	Y	Addresses existing capacity deficiency and congestion along Terry Fox Drive.

Note: Congestion reduction scores of zero (0) indicates: 1) the road is either congested, but not over capacity in the future; 2) the project delivers minimal time savings; or 3) the project is a new road where congestion reduction and/or travel time savings are dispersed over a wide area.