

Transportation Master Plan Infrastructure Requirement Study

Development of the Supplementary Transit Network

October 2008



PREFACE

The recommendations and findings presented in this report are one component of a larger study to develop the transit and road infrastructure requirements of the 2008 update to the City of Ottawa's Transportation Master Plan (TMP). This study is being conducted in such a manner as to satisfy Phases 1 and 2 of the Municipal Class Environmental Assessment (October 2000, as amended in 2007) as follows:

Phase 1 – Problem or Opportunity: The development of a long-term Transportation Vision and associated planning principles, identifying problems and opportunities;

Phase 2 – Alternative Solutions: A review of transit and road networks. This includes a capacity review of the City's downtown rapid transit network; the development of primary and supplementary transit corridors; identifying potential new and widened arterial roads and bridges, and; associated implementation timelines.

Further documentation will be prepared which describes all of the work undertaken to fulfill Phases 1 and 2, as well as the public and stakeholder consultation carried out.

The Municipal Class Environmental Assessment (EA) recognizes the benefits of long-range infrastructure planning under the Master Planning process and outlines various approaches for Master Plans to fulfill the requirements of the Class EA. The 2008 TMP update is being carried out as part of the City of Ottawa's mandatory 5-year Official Plan Review, and will therefore be planned in accordance with Approach #4 – Integration with the Planning Act.



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1. Introduction

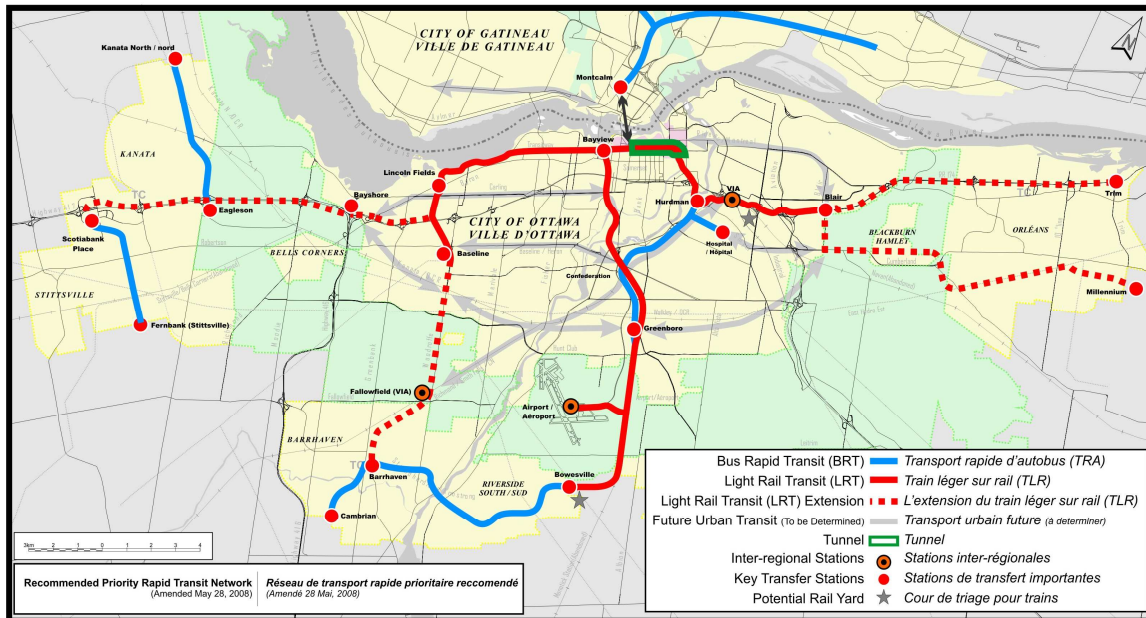
In most major urban centres, a variety of transit services are offered to meet the specific needs of transit users and provide appropriate passenger carrying capacities. These transit services fall within a range of distinct categories which are often defined as follows:

1. Rapid Transit (dedicated lanes & grade separation)
2. Transit Intensive (dedicated lanes, no grade separation)
3. Transit Priority (set of coordinated physical measures throughout the corridor)
4. Transit Shared with Traffic

The development of a network addressing the City’s long-term needs consistent with the first category of transit service was addressed in the previous stage of this update to the Transportation Master Plan (TMP), and is documented in the April 2008 report entitled “Development of a Downtown Transit Solution and Network Implications”. The outcome of this work was a **Primary Rapid Transit Network** that was subsequently approved by Ottawa City Council on 28 May 2008.

The approved network, shown in Figure 1.1, is centered on the introduction of a Light Rail Transit (LRT) tunnel running through the downtown, along with the conversion of the existing Transitway to LRT between Baseline and Blair Stations. It also incorporates the conversion of the existing O-Train to electric LRT along with its extension into Riverside South. Extensions to the existing bus Transitway system to Kanata (North and West), Barrhaven Town Centre, and to Orleans (East Transitway and Cumberland Transitway) are also included.

Figure 1.1: Approved Rapid Transit Network



This network was developed to address the current transit congestion in the downtown. It provides the required capacity to serve the long-term downtown transit demand to the 2031 horizon year, and beyond. The network also incorporates corridors that could be implemented initially as bus Transitway lines, and converted to electric LRT at a later date when the following conditions are met:

- Development of corridors inside the Greenbelt first
- Business Case supports return on rail investment (ridership, capital and operating costs)
- Achieving a minimum density target (to be determined in the updated Official Plan)
- Availability of funding

These corridors are identified in Figure 1.1 by the red dashed lines.

This report details the development of a **Supplementary Transit Network**, comprised of corridors providing transit services that generally fall within the above-noted Transit Intensive and Transit Priority categories. These corridors provide feeder services to and from the rapid transit network as well as between a variety of urban destinations, and they directly serve the variety of land uses found adjacent, or in close proximity to the corridor. This supplementary network enhances transit service coverage, and provides flexibility and additional choices for transit users.

For the purposes of this analysis, **Transit Intensive corridors** were defined as those that demonstrate high ridership potential that can be accommodated by providing an all-day, dedicated, continuous exclusive transit facility for use by buses or trains, operating at grade with priority at signalized intersections. A range of operations can be implemented within a corridor to provide Transit Intensive service, including:

- At-grade LRT operating within dedicated lanes, with signal pre-emption at intersections;
- Dedicated all-day bus-only lanes – with or without physical separation from general traffic (*i.e.* raised lanes, median, etc.).

Similarly, **Transit Priority corridors** were defined to include a set of coordinated road, intersection and signal modifications within a designated corridor. These measures may include peak-period transit-only lanes, short dedicated lane segments, queue-jumps, and traffic signal priority, and others that can be implemented over time and on an as-needed basis. Transit Priority measures minimize the impacts of traffic congestion on transit operations within a corridor through physical, operational and legislative means that give transit buses preferential treatment over other vehicles. The improvements can lead to a reduction of average travel times as well as a reduction of the variability of travel times.

A variety of Transit Priority measures have been implemented to date in Ottawa, including:

- Bus queue-jumps incorporating an advance stop bar at intersections to reduce delays for transit vehicles;
- Bus priority at traffic control signals whereby a bus is detected at an intersection and the green light can be extended or red light shortened to move the bus along faster (signal pre-emption);
- Transit priority signal indicator allowing transit vehicles to jump the queue and enter the intersection ahead of other traffic;
- Traffic management techniques, such as queue relocations and exemptions to certain traffic regulations for buses;
- Special bus stop arrangements, such as curb-side bus stops, to avoid delays when trying to re-enter the travel lane; and,



- Demand for service indicating system (DSIS), a push-button signalling system allowing customers at the stop to alert approaching buses to exit the highway and make the pick-up (if no request, the bus continues along the freeway without delay).

For the purpose of this analysis, Transit Intensive measures requiring continuous all-day dedicated lanes have been separated from the rest of the Transit Priority measures, as the cost and benefits associated to a fully dedicated transit corridor are very different than the cost and benefits related to spot treatments.

Interprovincial transit connections were not considered as part of this study, as this is the subject of a separate study led by the NCC which will look more specifically at transit demand and needs between the core areas of Ottawa and Gatineau.

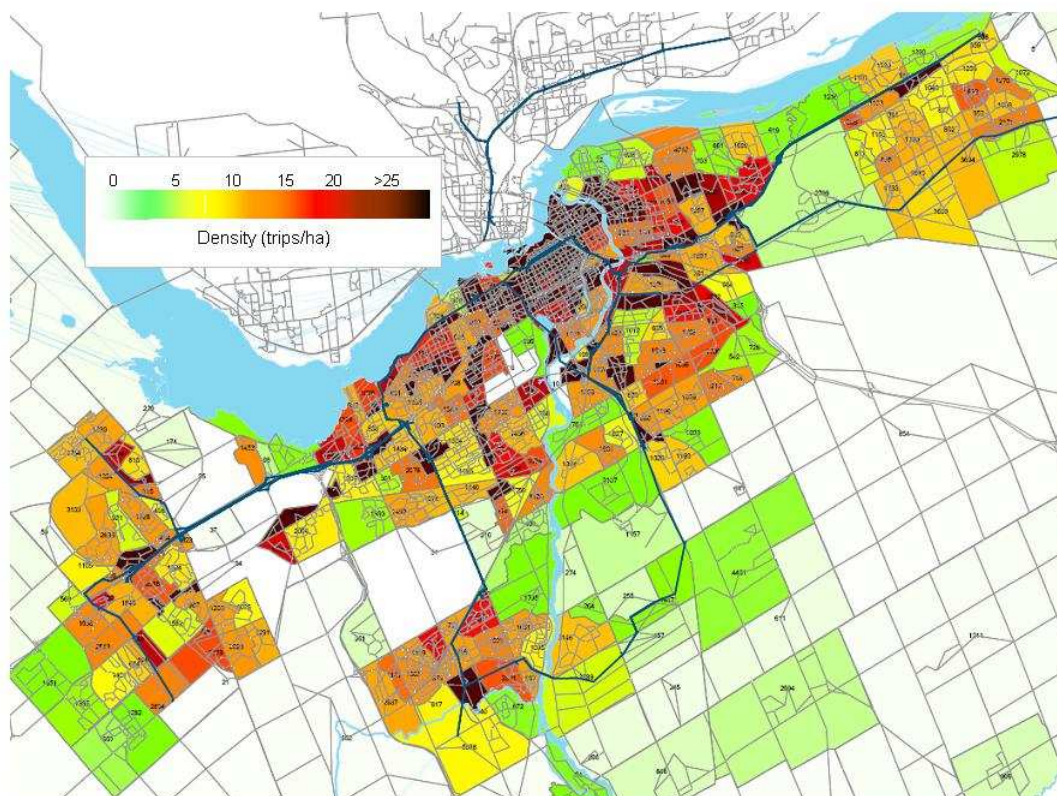


2. Evaluation Process

2.1. Approach and Methodology

The development of the Supplementary Transit Network commenced with identifying candidate corridors suitable for implementing either transit intensive or transit priority infrastructure that link high density trip areas to the primary rapid transit network. Figure 2.1 illustrates those zones where high numbers of transit trips begin and end in the AM peak by 2031 – these represent high density trip areas with the most transit potential.

Figure 2.1: High Density Transit Trip Areas



Potential corridors were identified from a number of sources including:

- The previous 2003 TMP Rapid Transit network developed through the Rapid Transit Expansion Study (RTES);
- Other relevant planning and transportation studies, including the findings of the Mayor's Task Force on Transportation and the International Peer Review Panel;
- EA studies undertaken for various sectors of the City of Ottawa; and,
- Comments and submissions from City staff and the public.

In addition to these background documents, an overall assessment of the City's transit system and travel demand was undertaken with a view of identifying:

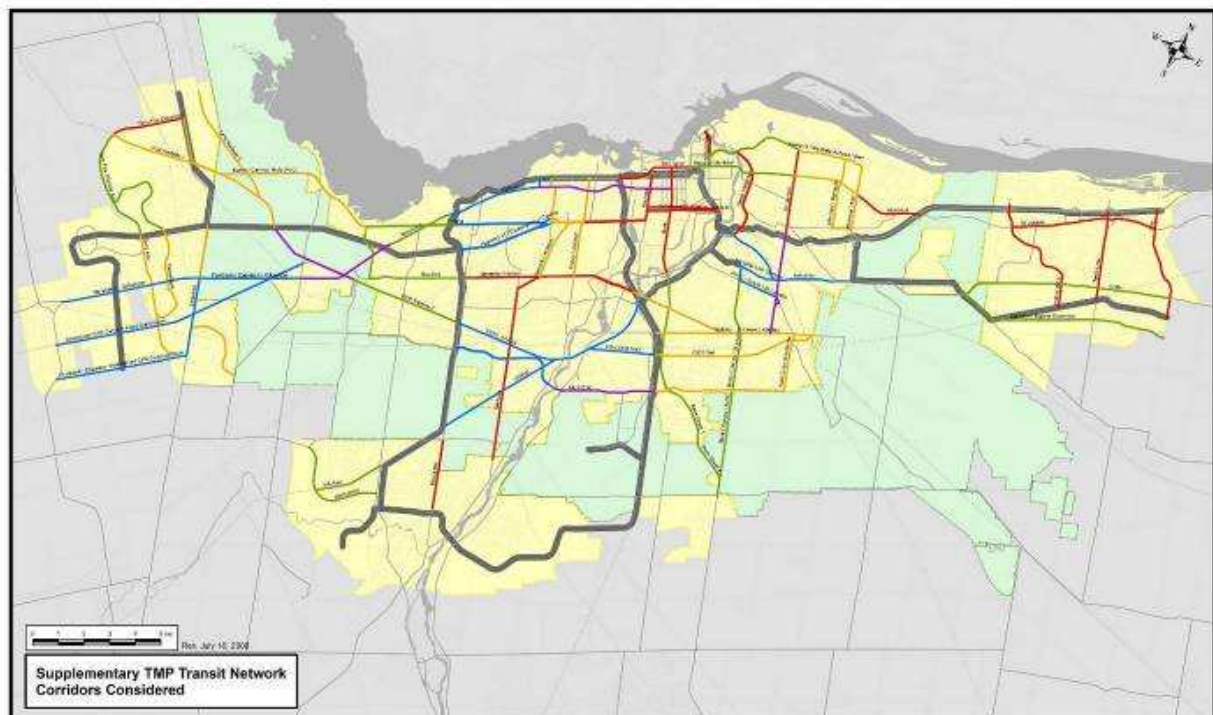
- Transit system network gaps and opportunities to provide connectivity of services serving city wide travel.
- Forecast travel demand patterns across the City.

Corridors were grouped into packages due to their location and the role they play in terms of network connectivity. It was assumed that corridors within one package will compete between each other, however the evaluation demonstrated that more than one corridor per package can prevail. Corridors considered for inclusion in the Supplementary Transit Network are shown in Figure 2.1, with the different colours used to distinguish the various corridor packages.

After identifying the candidate corridors, a two-step approach was employed to develop the Supplementary Transit Network. Initially each candidate corridor was analysed based on a range of criteria to determine its suitability as a Transit Intensive corridor. A preliminary list of Transit Intensive corridors was identified, which was refined based on further considerations. The remaining corridors that did not emerge from this analysis were subsequently re-considered for Transit Priority potential. Those that emerged from this analysis were knitted together with the previously identified transit intensive corridors to form the Supplementary Transit Network.

The full list of corridors considered are described in detail in **Appendix A**

Figure 2.2: Transit Corridors Considered



2.2. Evaluation Criteria

With a view to evaluate the effectiveness of the potential transit corridors identified earlier, a detailed list of criteria were produced and organized into 3 major categories that would assist in the ranking of corridors:

- **Ridership Potential** best reflects transit travel demands served by the corridor and included a detailed ridership market analysis. Strong all day ridership, balanced passenger loadings by direction and overall transit service operating constraints/opportunities were assessed and evaluated as they relate to contributing to ridership potential within the corridor. Ridership potential is therefore intended to capture both peak and off-peak ridership characteristics including the primary market served by the corridor either local and/or through transit travel demands.
- **Ease of Implementation** focuses on specific right of way elements which may constrain the implementation of the preferred level of transit services within a corridor (reflects cost to implement)
- **Smart Growth Potential** reflects opportunities to strengthen land use density as well as supporting strong sustainable modes of transport including transit. Key considerations included population and employment levels within walking distance to transit services.

Each of the above-noted categories includes a subset of independent criteria that would help evaluate their implications and potential. Note that each criterion was kept as independent as possible in order not to double count their effects.

Transit Intensive potential and possible Transit Priority corridors were analyzed independently. Tables 2.1 and 2.2 detail the sub-criteria, assumptions and ratings used.

Most criteria are common to both the Transit Intensive and Transit Priority corridor analyses. The principal differences are:

- the thresholds identified for each analysis – as the transit demand required for an efficient transit intensive corridor is different than for a transit priority measures corridor; and
- the *Ease of Implementation* sub-criteria as a segregated facility relies on the ROW available on the full length of the corridor (e.g. converting an existing lane of general traffic, removing road amenities, purchasing new land, etc.) and might require major new structures or modifications to existing structures; while transit priority measures will mainly consist of spot treatments such as intersection approaches and signal modifications (linked to number of lanes and intersections, ease of intersection modification, etc.).

For comparison purposes, the arithmetic results of the analyses for some of the quantitative criteria (e.g. average number of lanes in the corridor, number of intersections per km) were attributed a point score depending upon where they fell within a given range. This is an accepted probabilistic approach which tries in most cases to have 10% to 25% getting the highest mark and 10% to 25% getting the lowest mark as a means to compare options.

Population and employment within walking distance of the corridor were considered. Although the City's policy is to provide "service within 400m (5min walk for most people) of 95% of the residents and workplaces in the urban transit service area", it was decided to extend this distance to 600m in order to capture potential future developments falling within close proximity to the corridors. Four sub-criteria were



developed using this data: existing population, 2031 population, existing employment and 2031 employment.

For consistency purposes, the units of measure for some criteria were expressed on a per kilometre basis; in order not to penalize/enhance longer corridors versus shorter ones (*e.g.* number of intersections in the corridor, population and employment within 600m of the corridor, etc.)



Table 2.1: Transit Intensive Evaluation Criteria

Criteria	Description	Thresholds and Associated Rating
Ease of Implementation		
Number of Intersections per km	Average number of future signalized intersection per km.	Less than 1 per km (20 pts) 1 to 3 per km (10 pts) More than 3 per km (5pts)
Number of Structures in the Corridor	Number and description of new structures (bridges and/or retaining walls) or those that would require major modifications if a segregated facility was implemented in the corridor.	0 structures (20 pts) 1 structure (10 pts) 2 or more structures (5 pts)
Feasibility of Implementing Segregated Facility in Corridor	Assess the feasibility of implementing a segregated facility in the corridor based on the level of congestion, ROW availability, impacts, land value, geometry, etc. <i>This criterion was deemed to be the most significant sub-criteria of the category.</i>	Easy (60 pts): Sufficient room for full build-out Possible (45 pts): General traffic lanes could be reallocated or property purchased with low impact/ low cost (no development planned in the area by 2031 or land easy to purchase – e.g. rail or hydro corridor) Difficult (30 pts): Property needed with medium impact / medium cost (need to remove road amenities, or some minor demolition work, or purchase green space) Very Difficult (15 pts): Property needed with high impact / high cost (major demolition work required or very high property value or sensitive area).

Criteria	Description	Thresholds and Associated Rating
Smart Growth Potential		
Transit Oriented Development Potential	<p>Based on the existing adjacent land use, assesses the potential/appropriateness for high-density Transit Oriented Development adjacent to this corridor in support of smart growth goals by 2031 or beyond.</p> <p>As this criterion takes into consideration not only what could be achieved by 2031 and beyond, it consequently received a higher weighting.</p>	<p>High potential (40 pts)</p> <p>Medium-High potential (30 pts)</p> <p>Medium potential (20 pts)</p> <p>Low-Medium potential (10 pts)</p> <p>Low potential (0 pts)</p>
Existing Population within 600 m per km	Average population per km within a distance of 600m from the corridor, based on 2006 Statistics Canada Census (source: City of Ottawa, Planning Transit and the Environment Department, Research & Forecasting).	<p>Greater than 9,000 per km (10 pts)</p> <p>Between 5,500 & 9,000 per km (5 pts)</p> <p>Between 2,000 & 5,500 per km (2.5pts)</p> <p>Less than 2,000 per km (0 pts)</p>
2031 Population within 600 m per km	Average population per km within a distance of 600m from the corridor, projected for 2031 (source: City of Ottawa, Planning Transit and the Environment Department, Research & Forecasting).	<p>Greater than 9,000 per km (10 pts)</p> <p>Between 5,500 & 9,000 per km (5 pts)</p> <p>Between 2,000 & 5,500 per km (2.5pts)</p> <p>Less than 2,000 per km (0 pts)</p>
Existing Employment within 600 m per km¹	Average number of jobs within a distance of 600m from the corridor, based on 2006 Employment Survey business locations (source: City of Ottawa, Planning Transit and the Environment Department, Research & Forecasting).	<p>Greater than 6,500 per km (20 pts)</p> <p>Between 3,500 & 6,500 per km (10 pts)</p> <p>Between 1,000 & 3,500 per km (5pts)</p> <p>Less than 1,000 per km (0 pts)</p>

¹ As one job generates more trips during the peak periods than one person (0.8 trips per job vs. 0.3 trips per person following 2005 OD survey), employment criteria were weighted more than population criteria.

Criteria	Description	Thresholds and Associated Rating
2031 Employment within 600 m per km¹	Average number of jobs per km within a distance of 600m from the corridor, projected for 2031 (source: City of Ottawa, Planning Transit and the Environment Department, Research & Forecasting).	Greater than 6,500 per km (20 pts) Between 3,500 & 6,500 per km (10 pts) Between 1,000 & 3,500 per km (5pts) Less than 1,000 per km (0 pts)
Ridership Potential		
Level of All-day Transit Demand	Level of all-day transit demand in corridor based on existing observations and OC Transpo experience.	High (10 pts) Medium (5 pts) Low (2.5 pts)
High Transit Demand in Both Directions	Indicative of high volume 2-way balanced transit demand in the corridor (source: 2031 EMME model).	Yes (10 pts) No (0 pts)
Links to Key Destinations	Are there destinations of regional significance adjacent to, or connected to this corridor (e.g. hospitals, major academic institutions, cultural facilities, employment and shopping districts, etc.).	Many (20 pts) Some (10 pts) Few (5 pts) None (0 pts)
Serves Local Transit Needs	Assessment of degree to which corridor serves local transit needs (e.g. short trips, frequent boardings, etc.) based on existing observations and OC Transpo experience.	Yes (10 pts) No (0 pts)
Peak Direction Ridership	Ridership estimate for the peak direction (2031 AM peak hour), including a detailed assessment of adjacent corridors.	Greater than 1600 riders (50 pts) Between 1200 and 1600 riders (25 pts) Between 800 and 1200 riders (10 pts) Less than 800 riders (0 pts)



Table 2.2: Transit Priority Evaluation Criteria

Criteria	Description	Thresholds and associated rating
Ease of Implementation		
Number of lanes	2031 weighted average of the number of lanes in the corridor. Scoring based on assumption that the more lanes in a corridor, the greater the cost to reconstruct intersections and/or other key locations to provide transit priority.	Less than 4 lanes (30 pts) Between 4 and 5 lanes (20 pts) More than 5 lanes (10 pts)
Number of intersections per km	Average number of future signalized intersection per km.	Less than 1 per km (30 pts) 1 to 3 per km (20 pts) More than 3 per km (10 pts)
Ease of intersection modifications	Assessment of the ease of intersection modifications in the corridor based on ROW availability, geometry, etc. <i>This criterion was deemed to be the most significant sub-criteria of the category.</i>	Easy (40 pts) No constraints at intersections. Existing ROW can accommodate required widening. Possible (25 pts) Implementation possible but requiring property purchase. Difficult (10 pts) Many constraints at intersections. Property difficult to purchase.
Smart Growth Potential		
Transit Oriented Development Potential	Based on discussions with City staff, assesses the potential / appropriateness for high-density Transit Oriented Development adjacent to this corridor by 2031 or beyond. <i>This criterion was deemed to be the most significant sub-criteria of the category.</i>	High potential (40 pts) Medium-High potential (30 pts) Medium potential (20 pts) Low-Medium potential (10 pts) Low potential (0 pts)
Existing Population within 600 m per km	Average population per km within a distance of 600m from the corridor, based on 2006 Statistics Canada Census (source: City	Greater than 7,000 per km (10 pts)



Criteria	Description	Thresholds and associated rating
	of Ottawa, Planning Transit and the Environment Department, Research & Forecasting).	Between 4,500 & 7,000 per km (5 pts) Between 1,500 & 4,500 per km (2.5pts) Less than 1,500 per km (0 pts)
2031 Population within 600 m per km	Average population per km within a distance of 600m from the corridor, projected for 2031 (source: City of Ottawa, Planning Transit and the Environment Department, Research & Forecasting).	Greater than 7,000 per km (10 pts) Between 4,500 & 7,000 per km (5 pts) Between 1,500 & 4,500 per km (2.5pts) Less than 1,500 per km (0 pts)
Existing Employment within 600 m per km²	Average number of jobs within a distance of 600m from the corridor, based on 2006 Employment Survey business locations (source: City of Ottawa, Planning Transit and the Environment Department, Research & Forecasting).	Greater than 5,000 per km (20 pts) Between 3,000 & 5,000 per km (10 pts) Between 500 & 3,000 per km (5pts) Less than 500 per km (0 pts)
2031 Employment within 600 m per km²	Average number of jobs per km within a distance of 600m from the corridor, projected for 2031 (source: City of Ottawa, Planning Transit and the Environment Department, Research & Forecasting)	Greater than 5,000 per km (20 pts) Between 3,000 & 5,000 per km (10 pts) Between 500 & 3,000 per km (5pts) Less than 500 per km (0 pts)
Ridership Potential		

² As one job generates more trips during the peak periods than one person (0.8 trips per job vs. 0.3 trips per person following 2005 OD survey), employment criteria were weighted more than population criteria.



Criteria	Description	Thresholds and associated rating
Level of All-day Transit Demand	Level of all-day transit demand in corridor based on existing observations and OC Transpo experience.	High (10 pts) Medium (5 pts) Low (2.5 pts)
High Transit Demand in Both Directions	Indicative of high volume 2-way balanced transit demand in the corridor (source: 2031 EMME model).	Yes (10 pts) No (0 pts)
Links to Key Destinations	Number of destinations of regional significance adjacent to, or connected to this corridor (e.g. hospitals, major academic institutions, cultural facilities, employment and shopping districts, etc.).	Many (20 pts) Some (10 pts) Few (5 pts) None (0 pts)
Serves Local Transit Needs	Assessment of degree to which corridor serves local transit needs (e.g. short trips, frequent boardings, etc.) based on existing observations and OC Transpo experience.	Yes (10 pts) No (0 pts)
Average Peak Direction Ridership	Average ridership estimate in the peak direction between the lower and upper estimate (2031 AM peak hour).	Greater than 700 riders (50 pts) Between 500 and 700 riders (25 pts) Between 300 and 500 riders (10 pts) Less than 300 riders (0 pts)



2.3. Transit Intensive Evaluation

All candidate corridors were evaluated for transit intensive implementation using the Transit Intensive thresholds presented in Table 2.1. For comparison purposes, some sub-criteria were attributed a point score depending upon where they fell within a given range. Details of the evaluation appear in **Appendix B**. The table below summarizes the results of this evaluation.

Table 2.3: Transit Intensive Evaluation Summary

	Transit Intensive Rating		
	Ease of Implementation	Smart Growth	Ridership
Abandoned CPR Carleton Place Sub – Stittsville Main to Moodie			
Alta Vista Transportation Corridor/Smyth/St. Laurent – Hospital Connection to Blair Road (via Innes)			
Bank – Wellington to Highway 417			
Bank – Highway 417 to Billings Bridge Station			
Bank – Billings Bridge Station to Greenboro Station			
Bank –Greenboro Station to Leitrim			
Baseline – Bayshore Station to Baseline Station			
Baseline/Heron – Baseline Station to Billings Bridge Station			
Blackburn Bypass Extension – Innes/Blackburn Bypass East Intersection to Millennium Station			
Bronson – Carling to Albert/Slater			
Carling – Bayshore Station to Lincoln Fields Station			
Carling – Lincoln Fields Station to Kirkwood			
Carling – Kirkwood to O-Train (Carling Station)			
Carling – O-Train (Carling Station) to Bronson			
Castlefrank –West Transitway (Terry Fox Station) to Eagleson (via Terry Fox and Fernbank)			
Catherine & Chamberlain/Isabella – Bronson to Lees Station			
Conroy/Alta Vista Transportation Corridor – Hunt Club to Hospital Connection			
Conroy/St. Laurent – Hunt Club to St. Laurent Station (via Walkley)			

	Transit Intensive Rating		
	Ease of Implementation	Smart Growth	Ridership
Eagleson – West Transitway (Eagleson Station) to Fernbank			
Eagleson/Stonehaven –West Transitway (Eagleson Station) to Richmond (via Stonehaven)			
Fernbank/Eagleson/Abandoned CPR Carleton Place Sub –Stittsville Main to Moodie			
Fernbank/Eagleson/Robertson –Stittsville Main to Moodie			
Fisher/Holland – Baseline to Tunney’s Pasture Station			
Hazeldean/Robertson – Stittsville Main to Moodie			
Hemlock/Rockcliffe Airbase/Bathgate – St. Laurent to Blair Station			
Hemlock/Rockcliffe Airbase/Blair – St. Laurent to Blair Station			
Heron/Walkley – North-South LRT to Highway 417			
Highway 417 (Queensway)/Carling –Queensway Station to Kirkwood			
Hospital Link Corridor – Hospital Connection to Blair Road (via Innes)			
Hunt Club –Southwest Transitway to North-South LRT (South Keys Station)			
Hunt Club/Hawthorne – North-South LRT to Highway 417			
Industrial –Hurdman Station to Blair Road (via Innes)			
Innes – Innes/Blackburn Bypass East Intersection to Millennium Station			
Jeanne d’Arc – Cumberland Transitway to Jeanne d’Arc Station			
King Edward – Sussex to Rideau			
March/Carling/Holley Acres –Terry Fox to West Transitway (Bayshore Station)			
Merivale – Baseline to Hunt Club			
Merivale – Hunt Club to Leikin			
Merivale/Holland – Baseline to Tunney’s Pasture Station			
Merivale/Kirkwood –Baseline to Westboro Station (via Carling, Richmond and McRae)			
Montreal/Bathgate – St. Laurent to Blair Station			



	Transit Intensive Rating		
	Ease of Implementation	Smart Growth	Ridership
Montreal/Blair – St. Laurent to Blair Station			
Montreal/Ogilvie – Blair Rd to Blair Station			
OCR Rail – New West Transitway Station within Greenbelt to Highway 416			
OCR Rail – North-South LRT to Highway 417			
OCR Rail – Southwest transitway to North-South LRT (South Keys Station)			
OCR Railway 1 – Terry Fox to West Transitway (New stop in Greenbelt)			
OCR Railway 2 –Klondike to West Transitway (New stop in Greenbelt)			
OCR Railway 3 – Highway 416 to Southwest Transitway			
OCR/VIA Rail –Southwest Transitway @ Knoxdale to N-S LRT (Between Confederation & Heron Stations)			
Richmond – Bayshore Station to Lincoln Fields Station			
Richmond – Lincoln Fields to Westboro Station (via Churchill/Scott)			
Richmond/Wellington/Somerset – Westboro Station (via McRae) to North-South LRT			
Rideau/Montreal – Sussex to St. Laurent			
Rideau/St. Patrick/Beechwood/Hemlock – Sussex to St. Laurent (via Coburg)			
Robertson/Richmond – Moodie to Bayshore			
Somerset – North-South LRT to Bank			
St. Joseph – Jeanne d’Arc to Trim			
St. Laurent – St. Laurent Station to Hemlock			
Strandherd –Fallowfield to Southwest Transitway			
Tenth Line – Cumberland Transitway to Tompkins/Charlemagne			
Tenth Line – Tompkins/Charlemagne to Place d’Orleans Station			
Terry Fox – CN Railway Tracks to West Transitway (Terry Fox Station)			
Terry Fox – West Transitway (Terry Fox Station) to Eagleson (via Fernbank)			



	Transit Intensive Rating		
	Ease of Implementation	Smart Growth	Ridership
Terry Fox Extension – OCR to March			
Terry Fox/Kanata Avenue – CN Railway Tracks to West Transitway (Terry Fox Station)			
Trim – Cumberland Transitway to East Transitway (Trim Station)			
Vanier Parkway – Beechwood to Hurdman Station (via Industrial extension)			
VIA Rail – Fallowfield Station to North-South LRT (between Confederation & Heron Stations)			
VIA Rail – Strandherd to Greenbank			
VIA/OCR Rail – Fallowfield Station to North-South LRT (Greenboro Station)			
Walkley – North-South LRT to Highway 417			
Wellington –O-Train (Bayview Station) to Sussex			
Woodroffe – Fallowfield Station to Stoneway (N)			
Woodroffe – Stoneway (N) to Strandherd Drive			

Legend:	
High Potential – Easy	≥ 75 points
Some Potential – Possible	65 ≤ x < 75 points
Few/Limited Potential – Difficult	45 ≤ x < 65 points
Low Potential – Very Difficult	< 45 points

The analysis of each of the corridors was initially undertaken assuming each of the three categories is weighted equally (e.g. Ease of Implementation Smart Growth Potential and Ridership Potential were considered to have equal importance in assessing the individual corridors).

A sensitivity analysis was undertaken as indicated in Table 2.4, below to assess the impact of placing a higher importance on any one of the three criteria over the others by varying the importance placed on each of the criteria. In this respect, the sensitivity analysis addressed the impact of changes to the rating scheme by increasing the importance of one criterion over the others (e.g. 2 to 1 weighting over the remaining criteria). In addition, the sensitivity analysis also considered increasing both the ease of implementation and ridership potential together. The primary objective in undertaking the sensitivity analysis is to assess whether the ranking of individual corridors is measurably different when subjected to a variation in rating scheme.

Table 2.4: Applied Weights for Sensitivity Analysis

	Equal Weighting	Emphasis on <i>Ease of Implementation</i>	Emphasis on <i>Smart Growth</i>	Emphasis on <i>Ridership</i>	Emphasis on <i>Ease of Implementation & Ridership</i>
Ease of Implementation	1	2	1	1	2
Smart Growth Potential	1	1	2	1	1
Ridership Potential	1	1	1	2	2

Corridors that received a score of more than 65 points out of 100 in the foregoing evaluation were selected for further consideration as potential *Transit Intensive Corridors*. Based on this evaluation, the following represent the most promising corridors for the implementation of transit intensive service:

- Baseline/Heron (Baseline Station to Billings Bridge Station)
- Carling (Lincoln Fields Station to Kirkwood and Kirkwood to O-Train/Carling Station)
- Bank Street (Wellington to Highway 417)
- Hospital Link Corridor (Hospital connection to St. Laurent at Innes)
- Rideau/Montreal (Sussex to St. Laurent)

The use of existing and/or abandoned rail corridors for transit was reviewed in detail. The evaluation concluded that none of these corridors are recommended for transit intensive use due to low ridership and limited smart-growth potential.

These results are analysed further in Section 3.

2.4. Transit Priority Evaluation

It is important to note that many corridors which did not qualify in the previous evaluation offer considerable opportunities to strengthen and contribute to increased transit ridership city-wide as Transit Priority corridors. Accordingly, those corridors on arterial roads that were not selected for Transit-Intensive implementation were re-considered based on redefined/relaxed service thresholds as presented in Table 2.2 for suitability of implementing transit priority measures. A similar evaluation process was applied to select potential *Transit Priority Corridors*, the difference being that ridership estimates were revised to reflect the transit demand accommodated on the recommended Transit-Intensive corridors.

As transit priority measures are by definition roadway modifications intended to minimize the impacts of traffic congestion on bus transit operations, existing rail corridors were not considered further in this analysis.

A threshold score of 55 out of 100 points was identified for *Transit Priority Corridors* to be considered. Details of the evaluation appear in **Appendix C**. The table below summarizes the results of this evaluation.

Table 2.5: Transit Priority Evaluation Summary

	Transit Priority Rating		
	Ease of Implementation	Smart Growth	Ridership
Alta Vista Transportation Corridor/Smyth/St. Laurent – Hospital Connection to Blair Road (via Innes)			
Bank – Highway 417 to Billings Bridge Station			
Bank – Billings Bridge Station to Greenboro Station			
Bank –Greenboro Station to Leirim			
Baseline – Bayshore Station to Baseline Station			
Blackburn Bypass Extension – Innes/Blackburn Bypass East Intersection to Millennium Station			
Bronson – Carling to Albert/Slater			
Carling – Bayshore Station to Lincoln Fields Station			
Carling – O-Train (Carling Station) to Bronson			
Castlefrank –West Transitway (Terry Fox Station) to Eagleson (via Terry Fox and Fernbank)			
Catherine & Chamberlain/Isabella – Bronson to Lees Station			
Conroy/Alta Vista Transportation Corridor – Hunt Club to hospital Connection			
Conroy/St. Laurent – Hunt Club to St. Laurent Station (via Walkley)			
Egleson – West Transitway (Egleson Station) to Fernbank			
Egleson/Stonehaven –West Transitway (Egleson Station) to Richmond (via Stonehaven)			
Fernbank/Egleson/Robertson –Stittsville Main to Moodie			
Fisher/Holland – Baseline to Tunney’s Pasture Station			
Hazeldean/Robertson – Stittsville Main to Moodie			
Hemlock/Rockcliffe Airbase/Bathgate – St. Laurent to Blair Station			
Hemlock/Rockcliffe Airbase/Blair – St. Laurent to Blair Station			
Heron/Walkley – North-South LRT to Highway 417			
Highway 417 (Queensway)/Carling –Queensway Station to Kirkwood			



	Transit Priority Rating		
	Ease of Implementation	Smart Growth	Ridership
Hunt Club –Southwest Transitway to North-South LRT (South Keys Station)			
Hunt Club/Hawthorne – North-South LRT to Highway 417			
Industrial –Hurdman Station to Blair Road (via Innes)			
Innes – Innes/Blackburn Bypass East Intersection to Millennium Station			
Jeanne d’Arc – Cumberland Transitway to Jeanne d’Arc Station			
King Edward – Sussex to Rideau			
March/Carling/Holley Acres –Terry Fox to West Transitway (Bayshore Station)			
Merivale – Baseline to Hunt Club			
Merivale – Hunt Club to Leikin			
Merivale/Holland – Baseline to Tunney’s Pasture Station			
Merivale/Kirkwood –Baseline to Westboro Station (via Carling, Richmond and McRae)			
Montreal/Bathgate – St. Laurent to Blair Station			
Montreal/Blair – St. Laurent to Blair Station			
Montreal/Ogilvie – Blair Rd to Blair Station			
Richmond – Bayshore Station to Lincoln Fields Station			
Richmond – Lincoln Fields to Westboro Station (via Churchill/Scott)			
Richmond/Wellington/Somerset – Westboro Station (via McRae) to North-South LRT			
Rideau/St. Patrick/Beechwood/Hemlock – Sussex to St. Laurent (via Coburg)			
Robertson/Richmond – Moodie to Bayshore			
Somerset – North-South LRT to Bank			
St. Joseph – Jeanne d’Arc to Trim			
St. Laurent – St. Laurent Station to Hemlock			
Strandherd –Fallowfield to Southwest Transitway			



	Transit Priority Rating		
	Ease of Implementation	Smart Growth	Ridership
Tenth Line – Cumberland Transitway to Tompkins/Charlemagne			
Tenth Line – Tompkins/Charlemagne to Place d’Orleans Station			
Terry Fox – CN Railway Tracks to West Transitway (Terry Fox Station)			
Terry Fox – West Transitway (Terry Fox Station) to Eagleson (via Fernbank)			
Terry Fox Extension – OCR to March			
Terry Fox/Kanata Avenue – CN Railway Tracks to West Transitway (Terry Fox Station)			
Trim – Cumberland Transitway to East Transitway (Trim Station)			
Vanier Parkway – Beechwood to Hurdman Station (via Industrial extension)			
Walkley – North-South LRT to Highway 417			
Wellington –O-Train (Bayview Station) to Sussex			
Woodroffe – Fallowfield Station to Stoneway (N)			
Woodroffe – Stoneway (N) to Strandherd Drive			

Legend:	
High Potential – Easy	≥ 75 points
Some Potential – Possible	55 ≤ x < 75 points
Few/Limited Potential – Difficult	35 ≤ x < 55 points
Low Potential – Very Difficult	< 35 points

Based on the evaluation, the Preliminary list of potential Transit Priority corridors is as follows. Note that the corridors have been organized into common geographical groups for the purposes of further analysis. These results are analysed in Section 3.

Table 2.6: Preliminary List of Transit Priority Corridors (by Area)

Area	Proposed Transit Priority Corridors
Inner area	<ul style="list-style-type: none"> ▪ Carling (O-Train to Bronson) ▪ Bronson (Carling to Albert/Slater) ▪ Catherine & Chamberlain / Isabella (Bronson to Lees Station) ▪ Somerset (O-Train crossing to Bank) ▪ Wellington (Bayview to Sussex)
East /West cross-town	<ul style="list-style-type: none"> ▪ Baseline (Bayshore to Baseline Station) ▪ Hunt Club (Southwest Transitway to South Keys Station) ▪ Heron/Walkley and Walkley (North-South LRT to Highway 417)



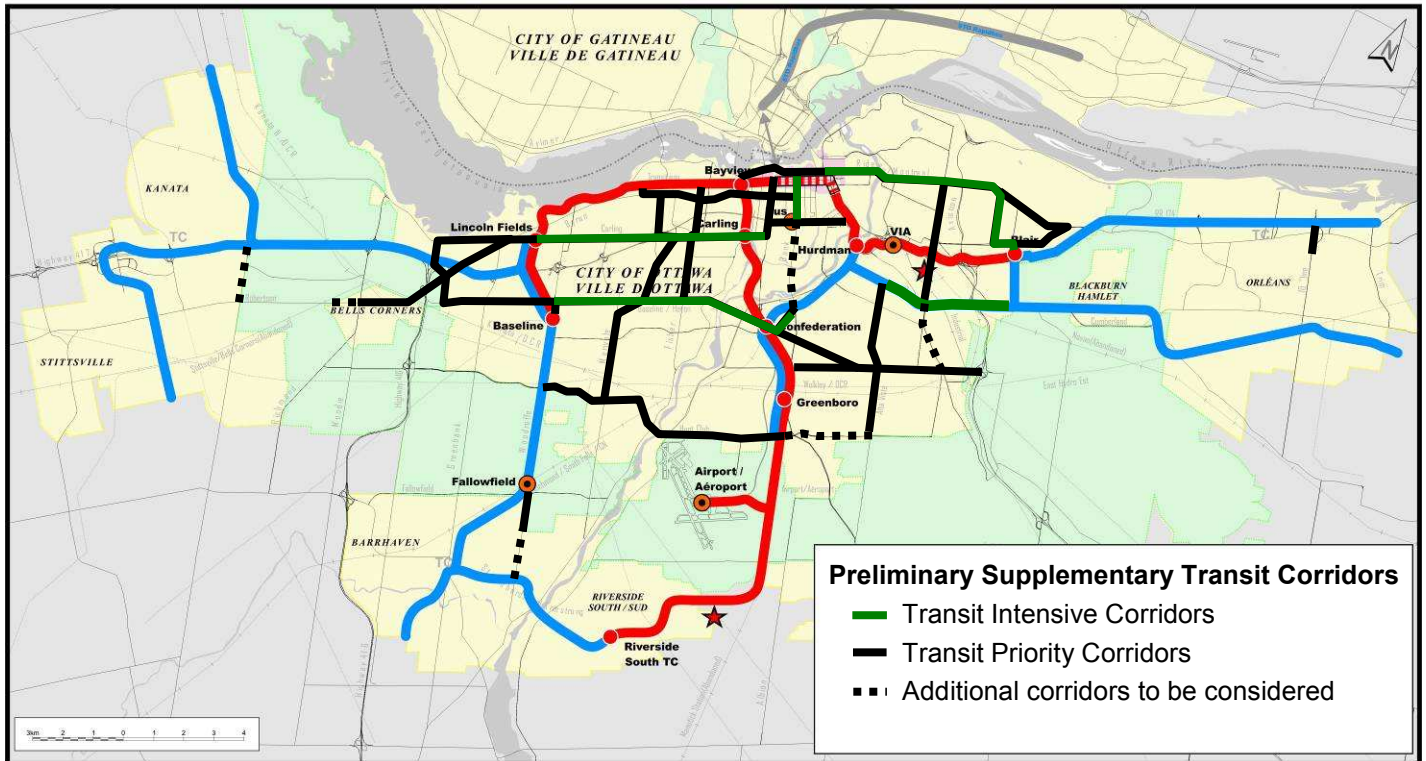
Area	Proposed Transit Priority Corridors
Ottawa East and Beacon Hill area	<ul style="list-style-type: none"> ▪ Montreal/Ogilvie (Blair to Blair Station) ▪ Montreal Bathgate (St Laurent to Blair Station)
North / South corridor	<ul style="list-style-type: none"> ▪ Merivale/Kirkwood, Fisher/Holland and Merivale/Holland (Baseline to Tunney's Pasture Station) ▪ Merivale (Baseline to Hunt Club) ▪ St Laurent (St Laurent Station to Hemlock)
Bayshore / Cedarview area	<ul style="list-style-type: none"> ▪ Carling and Richmond (Bayshore to Lincoln Fields) ▪ Robertson/Richmond (Westcliffe/Moodie to Richmond)
Others	<ul style="list-style-type: none"> ▪ Conroy/Alta Vista Transportation Corridor (Hunt Club to Hospital link) ▪ Tenth line (Charlemagne to Place d'Orleans Station) ▪ Richmond/Wellington/Somerset (Westboro to NS LRT) ▪ Woodroffe (Fallowfield Station to Stoneway)



3. Analysis and Recommendations

Resulting from the evaluation process outlined in Section 2, the preliminary list of corridors identified for consideration in the Supplementary Transit Network is illustrated on the Figure 3.1. Note that some additional corridors have also been identified. Although they did not necessarily attain the evaluation threshold score, they are being considered as they provide for network continuity or are needed for operational purposes based on OC Transpo experience.

Figure 3.1: Preliminary Supplementary Transit Corridors



An analysis and recommendation for each of the above-illustrated corridors follows. To support the analysis, current operational issues experienced in those corridors are presented in Table 3.1.

Table 3.1: Current Operational Issues

Corridor	Current Operational Issues	Rationale
Merivale (Baseline to Hunt Club)	Some	Transit delay due to commercial development access during midday, afternoon peak and weekend time periods. Delay experienced at Hunt Club, Colonnade, Viewmount, Meadowlands, Emerald Plaza, Clyde and Baseline intersections.
Merivale (Baseline to Carling)	Some	Transit delay due to congestion at Baseline, Kirkwood and Carling intersections.
Holland (Carling to Tunney's Pasture)	Few	Transit delay due to violations of the southbound transit queue-jump lane.
Carling (Lincoln Fields to O-Train)	Many	Transit delay due to congestion at Woodroffe, Fairlawn, Maitland, Kirkwood, Merivale and Holland intersections. As Carling is an alternate route to Highway 417, any significant disruptions on the highway result in traffic congestion along Carling.
Carling (O-Train to Bronson)	Many	Transit delay experienced at Preston and Bronson intersections. Eastbound right-turning queues at Bronson result in bus lane violations and traffic diversion into the adjacent areas.
Bronson (Carling to Chamberlain/ Catherine)	Many	Transit delay due to high traffic volumes at all signalized intersections. Eastbound buses on routes 101/102 are delayed on Powell at Bronson.
Catherine & Chamberlain/ Isabella (Bronson to Lees Station)	Many	Transit delay due to congestion experienced at Bronson, Bank, O'Connor and Metcalfe intersections.
Richmond/Carling (Bayshore to Lincoln Fields)	Many	Eastbound transit delay during the morning peak at Pinecrest and Carling intersections, and approach to Ottawa River Pkwy (ORP). Westbound transit delay during the afternoon peak at ORP ramp, and Alpine, Richmond and Pinecrest intersections.
Robertson/Richmond (Westcliffe west of Moodie) to Bayshore)	Some	Transit delay due to commercial development access during midday, afternoon peak and weekend time periods. As Richmond/Robertson is an alternate route to Highway 417, any significant disruptions on the highway result in traffic congestion along Richmond/Robertson.
Baseline (Bayshore to Baseline)	Some	Transit delay due to congestion during the peak periods at Greenbank and Highgate intersections.
Baseline	Many	Transit delay during peak periods at Woodroffe,

(Baseline to Billings Bridge)		Navaho, Clyde, Merivale, Fisher, Prince of Wales and Riverside intersections.
St Laurent (Hemlock to St Laurent Station)	Some	Transit delay during peak periods at Montreal and Ogilvie intersections.
Russell/St Laurent (Walkley to St Laurent Station)	Many	Transit delays during peak periods at Walkley, Smyth, Innes and Belfast intersections.
Bank (Billings Bridge to Highway 417)	Some	Transit delay due to conflict with on-street parking. Peak period stopping restrictions are helpful, but not long enough.
Bank (Highway 417 to Wellington)	Few	Transit delay due to conflict with on-street parking and access to adjacent commercial development.
Wellington (Bank to Sussex)	Many	Transit delay due to traffic congestion, high bus volumes and heavy passenger loads.
Somerset (O-Train crossing to Bank)	Some	Transit delays during the peak periods at the Booth, Bronson and Bank intersections.
Rideau/Montreal (Sussex to St Laurent)	Many	Transit delay between Sussex and King Edward due to traffic congestion, heavy trucks, high bus volumes and heavy passenger loads. Some delays due to on-street parking along Rideau and Montreal.
Montreal/Bathgate (St Laurent to Blair Station)	Few	Transit delay at Blair/Ogilvie during the peak periods.
Conroy/Alta Vista Transportation Corridor (Hunt Club to Hospital link)	N/A	Alta Vista Transportation Corridor does not exist yet and all traffic and transit follow less direct routings.
Hunt Club (Southwest Transitway to South Keys)	Many	Peak period transit delay due to extreme traffic congestion near the Michael J. E. Sheflin Bridge and at Airport Parkway interchange.
Hunt Club (South Keys to Conroy)	Some	Transit delay due to traffic congestion during the peak periods at Bridle Path, Bank and Albion intersections.
Heron/Walkley (Billings Bridge to Highway 417)	Some	Transit delay due to traffic congestion during peak periods at Bank, Alta Vista, Conroy, St. Laurent and Hawthorne intersections.
Woodroffe (Fallowfield to Strandherd)	Few	Roadway recently widened to four lanes. Some transit delay at Strandherd intersection.

3.1. Transit Intensive Corridor Analysis

3.1.1. Baseline/Heron Corridor

This corridor will provide east-west transit network continuity within the Greenbelt from Baseline Station (through Navaho Drive) to Billings Bridge Station (through Data Centre Road). It connects the Southwest Transitway and East-West LRT terminus at Baseline Station to the North-South LRT line at Confederation Station and the Southeast Transitway at Billings Bridge Station.

Future transit demand along Baseline and Heron Roads is predicted to be high by 2031, in both directions. As the level of all day demand is also predicted to be high, dedicated all-day bus-only lanes in both directions are recommended in this corridor. Bus technology is recommended to provide an opportunity for



continuity in cross-town bus operations (Kanata-Baseline Station-Heron Station-Hospital Station-Cumberland).

The City has already taken steps to implement dedicated transit lanes in this corridor from Prince of Wales Drive to Data Centre Road by 2009-2010, by relocating general traffic. Studies are underway to assess the feasibility of implementing further transit priority measures within this corridor in the near term, and additional studies must be undertaken in the future to develop the longer term plan for the recommended dedicated bus facility.

3.1.2. Carling Corridor

The evaluation of both Carling Avenue and Richmond Road as transit intensive corridors rated them each as having good to strong potential across most criteria. Due to their close proximity, these parallel corridors serve similar levels of ridership (with considerable overlap) throughout their length. However, the choice of Carling Avenue to best serve the needs of the broader corridor as part of the supplementary transit network over Richmond Road was supported by the following elements:

- high population growth within 600m of the corridor – a projected increase of 140% over current levels, to approximately 66,650 persons by 2031;
- strong, significant employment growth within 600m of the corridor – an estimated increase of 100% over current levels, reaching 67,900 jobs. From Kirkwood to the O-Train, the future estimated employment density within 600m of the Carling Avenue corridor (14,150 jobs per km) is the highest of all corridors studied outside of Ottawa’s Inner Area;
- high demands for transit services and strong potential for all day transit demand in both directions.

The 2003 OP designates Carling Avenue as an ‘Arterial Mainstreet’ intended to encourage more intensive redevelopment with a range of transit-oriented mixed land uses within a pedestrian-friendly environment along with a more significant residential component. Currently, Carling Avenue is a wide regional arterial road with predominantly commercial land uses – where the urban fabric is made up of large lots, low-density buildings fronted with parking lots or grass.

A grade-separated rapid transit facility was considered. It was not recommended as the West Transitway provides the direct link for rapid transit service carrying riders from west Ottawa into the downtown, and the cost to implement a grade-separated rapid transit facility would be very expensive and duplicate the investment made in the West Transitway. Since the Carling Avenue corridor serves an entirely different market – encompassing commercial, institutional and residential land uses along its length – it is appropriate to implement a transit operation consistent with those of a transit-intensive corridor, meaning more frequent stops to serve local transit needs and to support urban-scale transit-oriented development along its entirety. Also, a grade-separated rapid transit facility would introduce a significant barrier within this corridor that would be counter to the intended pedestrian friendly nature of a ‘Mainstreet’.

Therefore, an at-grade LRT facility within dedicated lanes is recommended, preferably operating in the median, connecting with the East-West LRT line at Lincoln Fields Station and the North-South LRT line at Carling Station. Choosing LRT technology would help in the transition toward a more dense urban form as it transforms Carling into a new focal point for the neighbourhood.

This LRT line can only be built if connections to a rail yard exist.



3.1.3. Hospital Link Corridor

This corridor will be an important link in the rapid transit system, as it will provide direct access from all points on the rapid transit network to the General Campus of the Ottawa Hospital, CHEO, the University of Ottawa Health Sciences campus, and other adjacent land uses, as well as serving as a catalyst to the transit-oriented redevelopment of the former National Defence Medical Centre (NDMC) lands. As such, future transit demand is predicted to be high in both directions.

A grade-separated dedicated transit facility is recommended in this corridor to provide east-west rapid transit network continuity within the Greenbelt, connecting the Cumberland Transitway (at the Blair/Innes intersection) to the Southeast Transitway immediately south of Lycée Claudel Station. Bus technology is recommended to provide an opportunity for a continuous cross-town bus service (Kanata-Baseline Station-Heron Station-Hospital Station-Cumberland).

The corridor also includes the connection from the Blair/Innes intersection to Blair Station. A dedicated transit facility is also proposed along this segment will for continuity purposes, to be implemented either when the Hospital Link corridor or the Cumberland Transitway is constructed.

The connection from Blair Station to the Southeast Transitway could be implemented in advance of the conversion of the East Transitway to LRT, thereby minimizing impact to existing riders by routing continuous rapid transit service from/to Orleans through this corridor during construction.

3.1.4. Bank Street Corridor

This corridor provides north-south transit network continuity within the Inner Area from Wellington Street to Highway 417, mainly bringing bus lines coming from/to the east (along Somerset, Gladstone, Highway 417 and Chamberlain/Isabella) to the central business district (CBD).

As the current and future demand is very high in both directions, and off-peak demand is high also, dedicated all day bus lanes in both directions would be suggested in this corridor. However, due to the physical constraints on Bank Street (a 20m ROW protection per 2003 OP for this 2 to 4-lane undivided arterial), the very high general traffic demand along this main north-south arterial road, and the need for on-street parking for local businesses, peak-period bus-only lanes are recommended. Considering that the transit demand is balanced in both directions, implementing the bus lanes both northbound and southbound for the two peak periods (7am-9am and 3:30pm-5:30pm) by prohibiting on-street parking during those periods is recommended.

Using a parallel corridor such as O'Connor or Kent to implement all day bus lanes in both directions could be considered as another option. However, rerouting buses through O'Connor or Kent would remove frequent pass-by commuter traffic which is important to Bank Street businesses.

3.1.5. Rideau/Montreal Corridor

A neighbourhood Mainstreet, such as Montreal Road, is built with a closely-knit urban fabric, *i.e.* small lots, small-scale buildings, where the majority of buildings extend to the front lot line and where there exists a mix of uses that includes residential above retail.

Montreal Road is one of several designated Mainstreets in the 2003 OP, where the City wants to encourage mixed-use development with plenty of street-level activity and strong transit service, by taking advantage of infill opportunities and the incremental replacement of strip malls, parking lots and single-storey structures with high-quality mixed-use buildings. Potential for intensification is largely based on site-



specific opportunities, generally small to medium in scale. Sites include vacant lots, aging strip malls, car sales lots, parking lots and gas stations.

This corridor, from Sussex Avenue to St Laurent Boulevard, facilitates transit connections to Ottawa East and Beacon Hill districts. Peak direction bus lanes are currently implemented in this corridor between Cumberland Street and St Laurent (7am-9am westbound – 3:30pm-5:30pm eastbound), on-street parking being prohibited in the peak direction during peak hours only. All day bus lanes exist in both directions from Sussex to Cumberland.

The very high level of existing and future all day transit demand in both directions would suggest implementing an exclusive transit facility in this corridor. Due to physical constraints (a 23m to 30m ROW protection per 2003 OP for this 4-lane undivided arterial), the very high general traffic demand along this east-west arterial road, and the need for on-street parking for local businesses, implementing an exclusive facility would be a costly endeavour with high impacts and is not recommended.

Therefore, dedicated all-day bus-only lanes in both directions in this corridor were considered. However, for the same reasons as listed above, continued implementation of the peak-period bus-only lanes, from Cumberland to St Laurent is recommended. Considering that the transit demand is balanced in both directions, it is further recommended to implement the bus-only lanes simultaneously in both directions, with increased time of day coverage (6am-9:30am and 2:30pm-6:30pm) by prohibiting on-street parking during those periods.

Options to extend this corridor to Blair Station did not emerge from the transit intensive analysis because of the high impact associated with implementing an all-day dedicated transit facility – the main issue being the elimination of general traffic lane on Montreal Road. However, considering that peak period bus lanes on Montreal Road are intended, the reduced transit demand between the St Laurent intersection and Blair Station suggests that bus lanes could be implemented in the peak direction only (7am-9am WB and 3:30pm-5:30pm EB).

The Montreal Road/Bathgate Drive corridor is the preferred connection to Blair Station, as it has higher ridership potential (*i.e.* higher level of all day transit demand and linking to more key destinations such as Montfort Hospital, Cité Collegial, NRC Campus, Gloucester Centre). New dedicated bus lanes would have to be constructed on Bathgate Drive, as it is a 2-lane road with no on-street parking. Particular details of the routing will be determined based on demand and development patterns through an Environmental Assessment carried out closer to the time of implementation. From Bathgate, the transit vehicles could continue onto City Park Drive, which has low general traffic use, to access Blair Station.

Transit priority measures along Burma Road and other roads feeding into and within the CFB Rockcliffe redevelopment should be considered as they are constructed, thereby facilitating transit users' access to the Rideau/Montreal and Montreal/Bathgate transit priority corridors from the outset.

It should be noted that where appropriate, and with potentially limited finances available, the City should consider implementing lower-cost transit priority measures within the above-noted transit intensive corridors as an interim measure to provide higher service levels than exist today, thereby promoting and capturing increasing ridership demand.



3.1.6. Existing/Abandoned Rail Corridors

Existing and/or abandoned rail lines were considered for transit intensive implementation. A summary of the evaluation is presented below:

Abandoned CPR Carleton Place Sub and Fernbank/Eagleson/Abandoned CPR Carleton Place Sub (Stittsville Main to Moodie)

These candidate corridors, each of which incorporates a portion of the existing Trans-Canada Trail system in the abandoned CPR Carleton Place Sub, are located in the Kanata/Stittsville area. They were evaluated together with the Hazeldean/Robertson and the Fernbank/Eagleson/Robertson alternative alignments. None of them scored high enough to be considered for implementation as transit intensive corridors by 2031 due to limited smart growth and ridership potential as the transit demand will be served by the future extension of the West Transitway to Fernbank.

OCR Railway 1 and OCR Railway 2 – Terry Fox or Klondike to West Transitway (New station in Greenbelt)

These corridors, located in the Kanata North area, were evaluated together with the March/Carling/Holly Acres alternative. None of them scored high enough to be considered for transit intensive implementation due to very limited smart growth and ridership potential by 2031, as most of the transit demand will be served by the future Kanata North Transitway.

OCR Rail – New Station within Greenbelt to Highway 416

This corridor, crossing the western portion of the Greenbelt, was evaluated together with the Robertson/Richmond alternative. Neither corridor scored high enough to be considered for transit intensive implementation; however the Robertson/Richmond corridor was recommended for transit priority implementation as it showed more smart growth potential and higher ridership potential by 2031 due to the proximity of some key origins/destinations to the corridor.

OCR Railway 3 – Highway 416 to Southwest Transitway

This corridor, located in the Bayshore/Cedarview area, was evaluated together with the Carling, Richmond and Baseline alternatives. Of those corridors, both Richmond and Baseline were retained as they showed some smart growth potential and high ridership potential by 2031 – while the rail corridor showed low smart growth potential (due to less employment and population density within 600m) and low ridership potential (due to the remoteness of any key origins/destinations from the corridor) by 2031. This portion of the rail corridor is not required, as the transit demand will be served by the Richmond and Baseline corridors.

OCR Rail – North-South LRT to Highway 417

This corridor, located in the Alta Vista/Hunt Club area, was evaluated together with Heron/Walkley, Walkley and Hunt Club/Hawthorne alternatives. Of those corridors, the Heron/Walkley alternative was chosen as it showed some smart growth potential and high ridership potential by 2031 – while the rail corridor only showed limited smart growth potential (due to less employment and population density within 600m) and less ridership potential (due to the remoteness of key origins/destinations from the corridor) by 2031. This portion of the rail corridor is not required, as the transit demand will be served by the Heron/Walkley corridor.



Corridors Connecting the Southwest Transitway to the North-South LRT line

A variety of candidate corridors, linking the Southwest Transitway to the North-South LRT line, were evaluated together in a package with the Hunt Club alternative. Four distinct options were evaluated, comprised of the existing OCR corridor from the Southwest Transitway at Knoxdale or the VIA line from Fallowfield Station on the west side of the Rideau River combined with either the OCR corridor connecting to Greenboro Station or the VIA line to Confederation Heights east of the Rideau River. The evaluation identified that none of them rated highly enough to be considered for transit intensive implementation. However, Hunt Club was recommended for transit priority implementation, as it showed some smart growth potential and ridership potential by 2031.

VIA Rail – Strandherd to Greenbank

This corridor, located in the South Nepean area, was evaluated together with the Strandherd alternative. Neither scored high enough to be considered for transit intensive implementation due to very limited smart growth and ridership potential by 2031.

Despite that the evaluation determined that none of the existing/abandoned rail corridors rated consideration for transit-intensive use, in order to consider long-term potential beyond 2031 they were re-evaluated using the lower thresholds established for consideration as Transit-Priority corridors. The results are as follows:



Table 3.2: Existing/Abandoned Rail Corridor Long-Term Potential Evaluation Summary

	Transit Priority Measures Rating		
	Ease of Implementation	Smart Growth	Ridership
Abandoned CPR Carleton Place Sub – Stittsville Main to Moodie	Not applicable		
Fernbank/Eagleson/Abandoned CPR Carleton Place Sub –Stittsville Main to Moodie	Not applicable		
OCR Rail – New West Transitway Station within Greenbelt to Highway 416	Not applicable		
OCR Rail – North-South LRT to Highway 417	Not applicable		
OCR Rail – Southwest Transitway to North-South LRT (South Keys Station)	Not applicable		
OCR Railway 1 – Terry Fox to West Transitway (New stop in Greenbelt)	Not applicable		
OCR Railway 2 –Klondike to West Transitway (New stop in Greenbelt)	Not applicable		
OCR Railway 3 – Highway 416 to Southwest Transitway	Not applicable		
OCR/VIA Rail –Fallowfield Station to N-S LRT (Between Confederation & Heron Stations)	Not applicable		
VIA Rail – Fallowfield Station to North-South LRT (between Confederation & Heron Stations)	Not applicable		
VIA Rail – Strandherd to Greenbank	Not applicable		
VIA/OCR Rail – Fallowfield Station to North-South LRT (Greenboro Station)	Not applicable		

Legend:		
High Potential – Easy		≥ 75 points
Some Potential – Possible		55 ≤ x < 75 points
Few/Limited Potential – Difficult		35 ≤ x < 55 points
Low Potential – Very Difficult		< 35 points

In most instances the evaluation again shows very limited potential for the use of the rail corridors for transit purposes, because of low to limited smart-growth and ridership potential. In order to attract sufficient ridership to make the rail corridors viable for transit use, high-density mixed-use Transit-oriented developments – likely centred on key intersections along the line – would have to be put in place, and transit services would have to be frequent during peak periods.

Nevertheless, the evaluation does suggest that the existing OCR/Hydro and VIA corridors connecting the Southwest Transitway to the North-South LRT lines be protected for the longer term. Although the need is not identified for fully dedicated transit facilities within these corridors by 2031, in keeping with the preliminary findings of the City’s East-West Corridor LRT EA study, there are some locations along the OCR/Hydro corridor where high potential for intensification exists, as well as potential for a travel demand



increase from Kanata and Orleans, that may justify a dedicated East-West transit corridor beyond the 2031 planning horizon.

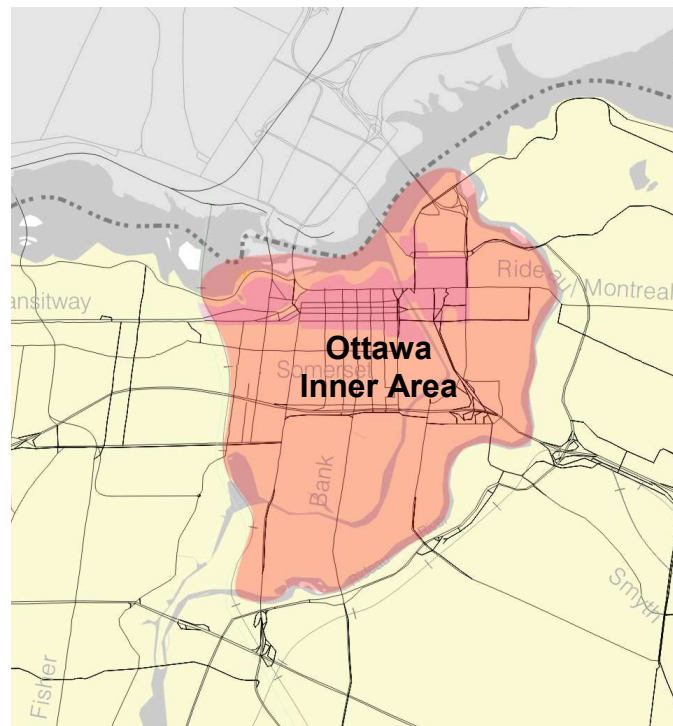
3.2. Transit Priority Corridor Analysis

The preliminary list of Transit Priority corridors were organized into groups for the assessment as shown in Table 2.6. The following analysis is based on those group assignments.

3.2.1. Inner Area

The Inner Area, shown in Figure 3.2 below, will be surrounded by LRT and Transitway corridors by 2031, but only one rapid transit corridor penetrates it, through the CBD. Because of the density of population and employment within the Inner Area, it can not be serviced through the rapid transit network alone. Some north-south and east-west transit corridors need to be provided to improve riders travel time in this heavily congested area.

Figure 3.2: Ottawa Inner Area



Two corridors were already identified through the transit intensive analysis:

- Bank Street (Wellington to Highway 417): peak period bus lanes both directions
- Rideau/Montreal: peak period bus lanes both directions (Cumberland to St. Laurent).

In addition to those, the following corridors emerged from the Transit Priority corridor analysis:

Carling (O-Train to Bronson)

Carling Avenue between the O-Train and the Bronson Avenue intersection is a very dense corridor in both population and employment. Bus lanes already exist along Carling, eastbound from Preston Street to Cambridge Street and westbound from Bronson Avenue to Booth Street. The eastbound lane is not operating as efficiently as it should because of bus lane violations. The Preston and Bronson intersections will require modifications to favour transit (*i.e.* signal pre-emption, queue jumps, etc.).

Bronson (Carling to Albert/Slater)

As one of two main north-south corridors to access the downtown, dedicating space for transit on the either Bronson or Bank corridors would have heavy impact on general traffic travel time through those corridors, as well as serious economic consequences. Therefore, implementing transit priority measures along Bronson Avenue, from Carling Avenue to Chamberlain/Catherine Streets only is recommended. Transit users destined to or originating from downtown can then be routed through Chamberlain/Catherine and Bank.

Catherine & Chamberlain/Isabella (Bronson to Lees)

Catherine Street and Chamberlain/Isabella Streets are one way arterials, 3-lanes each, running on either side of Highway 417 (the Queensway). This main east-west corridor within the Inner Area is very dense in both population and employment. It already experiences high levels of delay, the main pressure points being the Bronson, Bank, O'Connor and Metcalfe intersections. Transit priority measures at those key intersections will be required in the short term, as well as other intersections if need arise.

Somerset (O-Train crossing to Bank)

Somerset Street is a 4-lane undivided arterial designated as a Traditional Mainstreet from Wellington Street to Elgin Street within the 2003 OP. This main east-west corridor within the Inner Area is very dense in both population and employment. From the O-Train crossing to Bank Street, transit is experiencing some delays during the peak periods at the Booth, Bronson and Bank Street intersections. Some transit priority measures will have to be implemented at those intersections and others as need arise.

Wellington (Bayview Station to Sussex)

Wellington is an extremely dense employment corridor, used by STO buses to access downtown Ottawa. Although this corridor shows a high population density by 2031 in the west end (LeBreton Flats), this development is located within 400m of the LRT corridor. Therefore, transit users are more likely to use the rapid transit network than the supplementary transit network. Consequently, transit priority measures are appropriate in this corridor only from Bank to Sussex.

As this corridor also connects to two future peak period bus lane facilities (Bank and Rideau/Montreal), the implementation of bus lanes from Bank to Sussex is also recommended for continuity purposes, which is not very different from today's operation. Additional measures, such as enhanced passenger loading areas, should also be considered.

Bank (Highway 417 to Billings Bridge Station)



Although Bank Street, from Highway 417 to Billings Bridge Station, did not emerge from the analysis, transit priority measures on this corridor from Gloucester Street to the Rideau River, are recommended to support its role as a Traditional Mainstreet in the 2003 Official Plan³ with a very high intensification potential. Transit improvements are necessary to provide an urban feeling to this key north-south corridor.

This corridor currently experiences some transit delays due to on-street parking. The peak period stopping restrictions currently implemented are helpful, but not long enough. This would have to be reviewed. A set of coordinated transit priority measures should also be considered as required (signal pre-emption, queue jumps, etc.) while reconstructing Bank Street from Rideau Canal to Highway 417 (planned for 2010-2011). Transit priority measures from Rideau Canal to Rideau River should be planned simultaneously.

3.2.2. East /West cross-town

An east/west corridor between the Southwest Transitway and the NS LRT, combined with the Walkley corridor, from the N-S LRT to Highway 417; the St Laurent corridor, from St Laurent Station to Walkley; and the Baseline corridor, from Bayshore to Baseline Stations would provide an alternative east/west cross-town bus corridor, which could improve transit mode split along this corridor. Those are the main transit desire lines not expected to perform well without some major transit network improvements:

- Bayshore/Cedarview to Merivale: 560 riders projected for the AM peak hour – 24% transit mode split
- Merivale to Alta-Vista: 400 riders projected for the AM peak hour – 23% transit mode split
- Ottawa East to Alta-Vista: 400 riders projected for the AM peak hour – 23% transit mode split
- Beacon Hill to Alta-Vista: 320 riders projected for the AM peak hour – 22% transit mode split
- Merivale to Bayshore/Cedarview: 300 riders projected for the AM peak hour – 20% transit mode split

Hunt Club Road Corridor

The Hunt Club Road corridor, from the Southwest Transitway to South Keys Station, scores high from a smart-growth potential as it has a high employment density within 600m for 2031 (employment density is weighted more than population density because of trip generation rates – 10 jobs will attract 8 trips during the AM peak period vs. a population of 10 will generate 3 trips during the AM peak period). Therefore, it is recommended that transit priority measures be implemented along the segments of Hunt Club Road, between the Southwest Transitway and South Keys Station, where transit service will operate. These could include signal pre-emption, queue jumps and other measures along the corridor where issues at intersections arise.

³ “The purpose of the Traditional Mainstreet Zone is to: accommodate a broad range of uses including retail, service commercial, office, residential and institutional uses, including mixed-use buildings but excluding auto-related uses, in areas designated **Traditional Mainstreet** in the Official Plan; foster and promote compact, mixed-use, pedestrian-oriented development that provide for access by foot, cycle, transit and automobile; recognize the function of Business Improvement Areas as primary business or shopping areas; and impose development standards that will ensure that street continuity, scale and character is maintained, and that the uses are compatible and complement surrounding land uses.” City of Ottawa Zoning By-law

Heron/Walkley and Walkley (North-South LRT to Highway 417)

Both the Heron/Walkley and Walkley corridors, from the North-South LRT to Highway 417, score high in terms of Transit Priority potential. If we consider future demand in those corridors and how service could operate, only one corridor would need to be implemented as a visible transit priority corridor, although it doesn't exclude some spot treatments on the second corridor. Heron/Walkley corridor is scoring higher because of:

- higher population and employment densities potential,
- easier to implement due to less problematic intersections located on Heron compared to Walkley between the NS LRT and Heron intersection
- connecting to more key destinations (*i.e.* Billing Bridge Station, Confederation).

From a network perspective the Heron/Walkley corridor is also more valuable as it provides a direct connection with Baseline corridor. Therefore implementing the Heron/Walkley corridor as a visible transit priority corridor for the 2031 planning horizon is recommended.

Due to the continuity with Baseline corridor, previously identified as a dedicated bus lane corridor, and the high score of Heron/Walkley corridor, continuation of dedicated bus lanes along this corridor is recommended (as shown in Figure 3.3). This would require road reconstruction along the entire corridor (*i.e.* removing the median).

Russell/St Laurent (Walkley to St Laurent Station)

The St Laurent corridor was considered as part of package 9, from Hunt Club Road to St Laurent Station via Conroy Road and Walkley Road. The Alta Vista Transportation corridor was preferred to this corridor from a service operation point of view. However, further analysis of St Laurent corridor, from Walkley to St Laurent Station through Russell Road, showed high transit potential independently of the Alta Vista Transportation corridor due to the high intensification potential in this corridor (dense employment area) and good ridership potential (Medium level of all day transit demand, connecting to few key destinations and high ridership demand in both directions).

This corridor was not identified in the transit intensive analysis as justifying dedicated transit lanes due to the ridership potential by 2031. However, implementing bus lanes from Walkley Road to Innes Road is recommended, as transit demand will continue to rise with intensification and for continuity reasons. Russell Road is a 2-lane collector that would need to be widened to accommodate a bus lane in each direction. St Laurent Boulevard would also need to be widened from 4 to 6 lanes as this corridor is already heavily congested today.

Baseline (Bayshore to Baseline Station)

The Baseline corridor, from Bayshore to Baseline Station, although it is part of package 5, with Carling and Richmond corridors, is not servicing the same purpose and, therefore, is required in addition to those.

It was assumed that a dedicated transit corridor would be developed in the green space adjacent to Queensway Carleton Hospital, the rest of the corridor operating on-street.

This corridor was not identified in the transit intensive analysis as justifying dedicated transit lanes due to a low smart growth potential by 2031 within proximity of the corridor. However, implementing all day bus lanes in both directions along the full length of the corridor should be considered for the following reasons:

- To accommodate the increasing demand from Kanata and Bayshore / Cedarview to Merivale and Alta-Vista by 2031 and beyond;



- To provide continuity to Baseline dedicated transit corridor from Baseline to Billings Bridge Stations;
- Balanced demand in both directions (800EB and 900 WB projected during the AM peak hour by 2031).

This would be implemented as follows:

- New exclusive corridor adjacent to Queensway-Carleton hospital
- Road reconstruction from the new hospital corridor to Centrepointe Drive (west) taking over the median and boulevard along this 4-lane divided arterial
- Taking away a lane of general traffic in each direction, from Centrepointe Drive (west) to Woodroffe, as this is a 6-lane divided arterial.

This corridor will need to be implemented once the EW LRT line is extended up to Baseline Station.

3.2.3. Ottawa East and Beacon Hill area

In this area, the Rideau/Montreal/Bathgate corridor, from Sussex to Blair Station was already identified through the transit intensive analysis as requiring peak period and all-day bus lanes. In addition to that two corridors emerged from the transit priority measure analysis:

Ogilvie (Montreal to Blair Station)

From a demand and service operation point of view, the full corridor would not be required in addition to Montreal/Bathgate corridor. However, there are some key destinations in this corridor that will still need to be serviced independently of Montreal/Bathgate located 1.5km east of Blair Road along Ogilvie (*i.e.* Gloucester High School, Gloucester Arena) as well as a high density residential area. Therefore implementing transit priority measures along Ogilvie, from Montreal to Blair Station, such as signal pre-emption, queue jumps and other measures where issues at intersections arise are recommended.

St Laurent (Hemlock to St Laurent Station)

From a demand and service operation point of view, this corridor would be required in addition to Montreal/Bathgate corridor. Due to its commercial nature and businesses along there, this corridor services an all day transit demand. Transit vehicles along this corridor already experience delays, the main pressure points being the Montreal and Ogilvie intersections. North of Montreal Road, the corridor is not experiencing any problem. Therefore, the implementation of a set of coordinated transit priority measures from Montreal to St Laurent Station is recommended.

3.2.4. North/South corridors

Merivale (Hunt Club to Baseline)

Merivale Road, from Hunt Club to Baseline, is a 4-lane undivided arterial along which transit vehicles are already experiencing some delays due to traffic congestion related to the commercial development during the midday, afternoon peak and weekend time periods. The main pressure points are at the Hunt Club, Colonnade, Viewmount, Meadowlands, Emerald Plaza, Clyde and Baseline intersections.

Most of those intersections being less than 600m apart, a sequence of intersection modifications (including queue jumps) might end up being as expensive as implementing a continuous dedicated bus lane, but less efficient. Therefore, all-day bus-only lanes in both directions are recommended. This will require localized road widening.



Merivale/Holland (Baseline to Tunney's Pasture Station)

Merivale/Kirkwood, Fisher/Holland and Merivale/Holland corridors all score high for Transit Priority potential. If we consider future demand in those corridors and how service could operate, only one corridor would need to be implemented as a transit priority corridor.

Merivale/Holland has more potential regarding smart growth (more population and employment within close proximity). It is also linking to more key destinations (*i.e.* Tunney's Pasture/Holland Cross area, Meriline Court, Westgate) and therefore has higher ridership potential. Beside, Merivale Road, from Caldwell Avenue to Carling Avenue, is designated as a Traditional Mainstreet in the City's Zoning By-Law.

From a network continuity point of view, Merivale/Holland corridor would also connect to Merivale corridor (from Hunt Club to Baseline) that was identified as a potential transit priority corridor as well. Therefore, implementing Merivale/Holland corridor as a visible transit priority corridor is recommended.

The ridership in this corridor is heavy in the northbound direction during the morning peak period and in the reverse direction during the afternoon peak period, especially along Holland.

A southbound transit queue jump lane already exists north of Carling; however more enforcement would be needed as general traffic constantly uses this lane. The other main pressure points identified today are Baseline, Kirkwood and Carling intersections.

This corridor did not emerge from the transit intensive analysis because it was judged very difficult to implement as an all day dedicated transit facility. However, a peak period bus lane in the peak direction could be considered. It would require removal of one general traffic lane along Merivale and the prohibition of on-street parking along Holland from 7am-9am NB and 3:30-5:30 SB.

3.2.5. Bayshore/Cedarview area

Richmond/Carling (Bayshore to Lincoln Fields)

Both the Carling and Richmond corridors, from Bayshore to Lincoln Fields Stations scored high for Transit Priority potential. From a demand and service operation point of view, both corridors would not need to be implemented as visible transit priority corridors.

Richmond Road has more potential from a smart growth point of view, due to higher population and employment levels within 600m planned for 2031. Therefore, Richmond Road is preferred to Carling Avenue, although it doesn't exclude some spot treatments along Carling as required.

In this corridor, transit vehicles already experience delays eastbound during the morning peak period at Pinecrest, Carling and on the approach to the Ottawa River Parkway, and westbound during the afternoon peak period at the Ottawa River Parkway ramp, Alpine, Richmond and Pinecrest.

Reserved bus lanes and WB left turn lane for transit only at Richmond Road are being planned and will be implemented by 2009-2010. A set of coordinated transit priority measures such as signal pre-emption and queue jumps will need to be implemented at other key intersections along Richmond when need arises.

Robertson/Richmond (Westcliffe/Moodie to Bayshore)



This corridor is a 4-lane undivided arterial with a continuous bi-directional left turn lane from Moodie to Stafford and a 4-lane divided arterial from Stafford to Bayshore Station.

This corridor has emerged from the transit priority analysis as it would be relatively easy to implement and has a high ridership potential due to the combination of through transit trips from Kanata to Bayshore and local key destination such as the Queensway-Carleton Hospital.

Transit vehicles in this corridor currently experience some delays during the midday, afternoon peak and weekend time periods related to the commercial development. As Richmond/Robertson is an alternate route to Highway 417, any significant disruptions on the highway result in traffic congestion along Richmond/Robertson.

Therefore, implementing transit priority measures along this corridor is recommended, such as signal pre-emption, queue jumps and other measures where issues at intersections arise.

3.2.6. Additional Corridors Considered

Conroy/Alta Vista Transportation Corridor (Hunt Club to Hospital link)

Conroy Road is a six-lane divided arterial. The Alta Vista Transportation Corridor (AVTC) is a future 2-lane road planned to be built in the short term (2009-2015) from Riverside Drive to the Ottawa Hospital General Campus, to service the development of Hospital Lands. Considering future service operations in this area, the ridership potential could be high (*i.e.* some transit routes currently running through Kilborn, Pleasant Park and Smyth, to service the population and employment area located east of the future AVTC could be rerouted through AVTC to connect to the rapid transit network providing a more direct routing). It is assumed that priority measures could be incorporated into the construction of the AVTC. Transit priority measures will also be implemented along Conroy where issues at intersections arise.

Tenth line (Charlemagne to Place d'Orleans Station)

Tenth Line Road, from Charlemagne to Place d'Orleans Station, has very high ridership potential (more than 1000 riders NB by 2031 during the AM peak hour), especially during peak periods, due to local routes circulating in the residential areas along Charlemagne and Tenth Line, bringing riders to the nearest Transitway station, Place d'Orleans. Therefore, transit priority measures along this corridor are recommended, such as signal pre-emption, queue jumps and other measures where issues at intersections arise.

Richmond/Wellington/Somerset (Westboro Station to NS LRT)

This corridor is a 4-lane undivided arterial designated as a Traditional Mainstreet in the 2003 OP from Island Park Drive to Somerset Street West. Transit vehicles currently experience some delays during peak periods around the Holland and Parkdale intersections.

Transit priority measures should be considered along this corridor such as signal pre-emption, queue jumps and other measures where issues at intersections arise, especially from Holland to Somerset intersections, to promote an urban feeling and enhance intensification potential along this designated Traditional Mainstreet.

Woodroffe (Fallowfield Station to Strandherd)

Woodroffe Avenue, from Stoneway to Fallowfield Station, emerged from the transit priority analysis due to the high ridership potential (about 1000 riders NB by 2031 during the AM peak hour), especially during



peak periods, due to local routes circulating in the surrounding residential areas, converging onto Woodroffe to bring riders to the nearest Transitway station, Fallowfield.

The corridor, south of Stoneway intersection, did not emerge from the analysis as being required by 2031 due to a low ridership potential once the planned BRT and LRT network is completed. However, the full corridor from Strandherd to Fallowfield will need to be implemented as a transit priority corridor as an interim solution, before completion of the rapid transit network by 2031. This corridor would provide access from/to Riverside South community and Riverview Park-and-Ride lot, through the Strandherd Bridge, before the North-South LRT is implemented.

Transit vehicles currently experience some delays at the Strandherd intersections. Therefore, implementing transit priority measures along this corridor are recommended in the short term, such as signal pre-emption, queue jumps and other measures where issues at intersections arise. The Strandherd Bridge construction would also be required in the short term to provide the access from/to Riverside South.

Egleson (Hazeldean to Eagleson Station)

Like Tenth Line Road, Eagleson Road, from Hazeldean to Eagleson Station, has very high ridership potential (more than 2000 riders NB by 2031 during the AM peak hour), especially during peak periods, due to local routes circulating in the residential areas joining at Hazeldean and Eagleson intersection, bringing riders to the nearest Transitway station, Eagleson Station. Therefore, implementing transit priority measures along this corridor are recommended, such as signal pre-emption, queue jumps and other measures along the corridor where issues at intersections arise.

Hunt Club (South Keys Station to Conroy)

This corridor did not emerge from the transit priority measure analysis when packaged with Hawthorne corridor up to the Highway 417. However, when considering Hunt Club only from South Keys Station to Conroy intersection, this section showed greater transit potential initially diluted when looking at the full corridor up to Highway 417. This corridor would provide some transit network continuity with Conroy/Alta Vista Transportation corridor.

Transit vehicles are delayed today in this corridor due to traffic congestion during peak periods at Bridle Path, Bank and Albion. Therefore, it is recommended to implement transit priority measures where service is operated along this corridor, such as signal pre-emption, queue jumps and other measures along the corridor where issues at intersections arise.

3.3. Other Considerations

The Innes Road corridor, east of Blair Road, did not emerge from the transit priority analysis. Similar to Woodroffe Avenue south of Stoneway, this corridor did not emerge due to the low ridership potential along this corridor once the planned rapid transit network for 2031 is completed. However, until the Cumberland Transitway is implemented, Innes Road will remain the main transit corridor in this area. Various transit priority measures at selected intersections are already being planned along this corridor.

Should the Cumberland Transitway be implemented as a BRT facility, dedicated all-day bus-only lanes along Innes Road and the existing Blackburn Hamlet Bypass, from Blair Road to Navan Road would be recommended. This would require the widening of the existing Blackburn Hamlet Bypass to 6-lanes to provide the needed rapid transit network connectivity and would remain in-place until such time as the



Cumberland corridor is converted to LRT, at which time the LRT line would be constructed to pass directly through Blackburn Hamlet.

The King Edward Avenue corridor, from Sussex Avenue to Rideau Street, did not emerge from the transit priority analysis. This is due to the low/medium ridership potential projections by 2031. However, as of this writing the STO are planning to revise their operations, using a storage facility near the King Edward and Sussex intersection as the starting point for their afternoon service. This will considerably increase transit service along King Edward and explains the proposed dedicated southbound bus lane planned for implementation by 2009, by relocating an existing traffic lane from 2pm to 7pm.

Another corridor that was not considered as part of this analysis although it was identified in 2003 Transportation Master Plan as a transit priority corridor is Smyth Road, from St Laurent to Riverside. This is because the Hospital Link corridor was preferred to this corridor.

3.4. Project Cost Estimates

Capital cost estimates were developed for each of the supplementary corridors in accordance with the intended transit service improvements identified in Table 3.3. They consider all construction costs and, where appropriate, specialized pavement markings, signs, signals and other associated equipment required to implement transit priority measures. An additional 15% is added to the cost of each project to account for engineering and project management. A 30% contingency allowance to account for project uncertainty is also included. No allowance has been included for property costs.

The cost estimates for the transit intensive corridors were developed in more detail than the transit priority corridors as they generally require significant construction including a number of corridor-long elements such as utility relocation and landscaping.

The cost estimates are detailed in Appendix D.

3.4.1. Transit Intensive Corridors

The cost estimate for Carling Avenue assumes surface-running electric LRT operating within the roadway median. The project assumes the full reconstruction of the 7 km roadway, including new storm sewers and catch-basins, sidewalks, curbs & asphalt and street lighting. The estimate includes LRT vehicles and all associated railway elements such as tracks, crossings, power supply, communications and control systems, as well as connections to the North-South and East-West LRT Lines. Bridges and walls are included at the connection to the North-South line to allow the LRT to cross under the road. Twenty-two on-line stations are incorporated, as well as the reconstruction of the existing Carling Station on the North-South line. The estimate incorporates the relocation of an existing line of hydro poles, and landscaping.

The cost estimate for the Baseline/Heron/Walkley/St. Laurent Corridor includes the construction of new bus-only lanes along the full length of the corridor, and a new segment of bus-only road between Bayshore Station and Baseline road in the vicinity of the Queensway-Carleton Hospital. It includes new storm sewers and catch-basins, curbs and sidewalks, streetlights and landscaping. Transit stations have been assumed to be located at major crossroads. A number of utility relocations have already been identified for this corridor and their costs have been accounted for.

The cost estimate for the Hospital corridor from the Hospital Link to Blair Station has been based on the construction of a new dedicated bus rapid transit facility (transitway) with grade separations at major



roadway crossings (including Highway 417). It includes four online stations, with a larger footprint station at the crossing of St. Laurent Boulevard with Innes Road at the connection to the Baseline/Heron/Walkley/St. Laurent corridor.

3.4.2. Transit Priority Corridors

Estimates for transit priority corridors were developed by identifying the number of intersections to be reconstructed, parking spots removed, or length of road construction required. A queue jump at an intersection may require widening for a bus bypass as well as bus detection equipment and signals. Measures such as implementing peak period bus lanes may not require large scale road reconstruction but would require signage, line painting, bus detection equipment and signals.

3.5. Summary of Findings

Table 3.3 and Figure 3.3 summarize the findings from our analysis. The development of the preferred phasing and implementation plan for the TMP transit network is the subject of a separate analysis.



Table 3.3: Summary of Recommendations

Corridor Name (Limits)	Transit Service Improvements	Rationale	Estimated Cost
Baseline/Heron (Baseline Station to Billings Bridge Station)	All day dedicated bus lanes requiring: <ul style="list-style-type: none"> ▪ Road widening from Navaho to Prince of Wales ▪ Taking away a lane of general traffic, from Prince of Wales to Data Centre 	<ul style="list-style-type: none"> ▪ Transit delays exist during the peak periods experienced at Woodroffe, Navaho, Clyde, Merivale, Fisher, Prince of Wales and Riverside. ▪ East-west bus network continuity ▪ Existing all day transit demand ▪ Future transit demand predicted to be high in both directions by 2031 	90,000,000
Carling (Lincoln Fields Station to O-Train/Carling Station)	At grade LRT within dedicated lanes (median preferred)	<ul style="list-style-type: none"> ▪ Mainstreet designation (arterial-type) with high potential for intensification ▪ High potential for all day transit demand in both directions by 2031 	250,000,000
Hospital Link (Hospital Ring Road to Blair Road)	Grade-separated dedicated BRT facility	<ul style="list-style-type: none"> ▪ East-west bus network continuity ▪ High potential for all day transit demand ▪ Future transit demand predicted to be high in both directions by 2031 	44,200,000
Bank Street (Wellington to Highway 417)	Peak period bus lanes in both directions (7am-9am and 3:30pm-5:30pm) by prohibiting on-street parking during those periods	<ul style="list-style-type: none"> ▪ Traditional Mainstreet designation between Gloucester Avenue and Billings Bridge ▪ Existing all day transit demand ▪ Future transit demand predicted to be high in both directions by 2031 ▪ Physical constraints (ROW protection per 2003 OP of 20m), high general traffic demand along this main north-south arterial road and requirements for on-street parking to serve local businesses 	2,000,000
Rideau/Montreal (Sussex to St. Laurent)	Peak period bus lanes with increased time of day coverage in both directions (6am-9:30am and 2:30pm-6:30pm) by prohibiting on-street parking during those periods	<ul style="list-style-type: none"> ▪ Traditional Mainstreet designation where the City wants to encourage continued mixed-use development with plenty of street-level activity and strong transit service ▪ Existing all day transit demand ▪ Future transit demand predicted to be high in both directions by 2031 ▪ Physical constraints (ROW protection per 2003 OP of 23m to 30m), very high general traffic demand along this east-west arterial road and need for on-street parking for local businesses 	4,700,000
Montreal/Bathgate (St Laurent to Blair Station)	<ul style="list-style-type: none"> ▪ Montreal: Peak period bus lanes in peak direction only (7am-9am WB and 3:30pm-5:30pm EB) by reallocating 	<ul style="list-style-type: none"> ▪ High level of all day transit demand ▪ Links to key destinations such as Montfort Hospital, Cite Collegial, NRC Campus, Gloucester Centre 	13,800,000

Corridor Name (Limits)	Transit Service Improvements	Rationale	Estimated Cost
	existing traffic lanes during those periods <ul style="list-style-type: none"> ▪ Bathgate: dedicated bus lanes 		
Carling (O-Train to Bronson)	<ul style="list-style-type: none"> ▪ Existing bus lanes, EB from Preston to Cambridge & WB from Bronson to Booth ▪ Intersection modifications required at Preston & Bronson (signal pre-emption, queue jumps) 	<ul style="list-style-type: none"> ▪ Dense population and employment corridor 	3,700,000
Bronson (Carling to Catherine/ Chamberlain)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> ▪ Dense population and employment corridor ▪ Future transit demand predicted to be high in both directions by 2031 ▪ The only direct north-south corridor other than Bank Street to access the downtown by automobile 	8,000,000
Catherine & Chamberlain/Isabella (Bronson to Lees Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> ▪ Main east-west corridor within the Inner Area ▪ Dense population and employment corridor 	12,900,00
Somerset (O-Train crossing to Bank)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> ▪ Traditional Mainstreet designation along full section ▪ Main east-west corridor within the Inner Area ▪ Dense population and employment corridor 	7,400,000
Wellington (Bank to Sussex)	To be determined by the Interprovincial Transit Integration Study.	<ul style="list-style-type: none"> ▪ Dense employment corridor ▪ Used by STO buses to access downtown Ottawa ▪ High bus volumes already filling in a lane of general traffic during peak periods 	n/a
Bank (Highway 417 to Billings Bridge Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.) + parking restrictions	<ul style="list-style-type: none"> ▪ Traditional Mainstreet designation along section north of Rideau River at Billings Bridge ▪ High potential for intensification ▪ Main north-south corridor within the Inner Area 	14,800,000
Hunt Club (Southwest Transitway to South Keys Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> ▪ Potential for employment intensification by 2031 ▪ Network continuity between two rapid transit corridors 	23,900,000



Corridor Name (Limits)	Transit Service Improvements	Rationale	Estimated Cost
Heron/Walkley (North-South LRT to Hawthorne)	Dedicated bus lanes requiring road reconstruction	<ul style="list-style-type: none"> High population and employment density by 2031 Connects to key destinations 	47,700,000
Russell/St Laurent (Walkley to St Laurent Station)	South of Innes: dedicated bus lanes requiring road widening North of Innes: Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> Intensification potential in this corridor Dense employment area Good ridership potential (Medium level of all day transit demand, connecting to some key destinations and demand balanced in both directions). 	17,000,000
Baseline (Bayshore Station to Baseline Station)	Dedicated bus lanes requiring: <ul style="list-style-type: none"> New exclusive corridor adjacent to Queensway-Carleton Hospital Road reconstruction from the new hospital corridor to Centrepointe Drive. (west) Taking away a lane of general traffic in each direction, from Centrepointe Drive (west) to Woodroffe 	<ul style="list-style-type: none"> Increasing demand from Kanata and Bayshore / Cedarview to Merivale and Alta-Vista by 2031 and beyond Continuity with the Baseline dedicated transit corridor from Baseline to Billings Bridge Stations Balanced demand in both directions. 	35,600,000
Ogilvie (Montreal to Blair Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> Some key destinations (<i>i.e.</i> Gloucester High School, Recreation Centre) as well as a high density residential area. High transit oriented development potential 	12,900,000
St Laurent (Montreal to St Laurent Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> High population and employment density by 2031 	23,100,000
Merivale (Baseline to Hunt Club)	All day bus lanes in both directions requiring localized widening	<ul style="list-style-type: none"> High population and employment density by 2031 Continuity with the Merivale/Holland corridor 	29,900,000
Merivale/Holland (Baseline to Tunney's Pasture Station)	Peak period bus lanes in peak direction only (7am-9am NB and 3:30pm-5:30pm SB) by	<ul style="list-style-type: none"> High population and employment density by 2031 Some key destinations (<i>i.e.</i> Tunney's Pasture/Holland Cross area, Meriline Court, Westgate) 	15,200,000



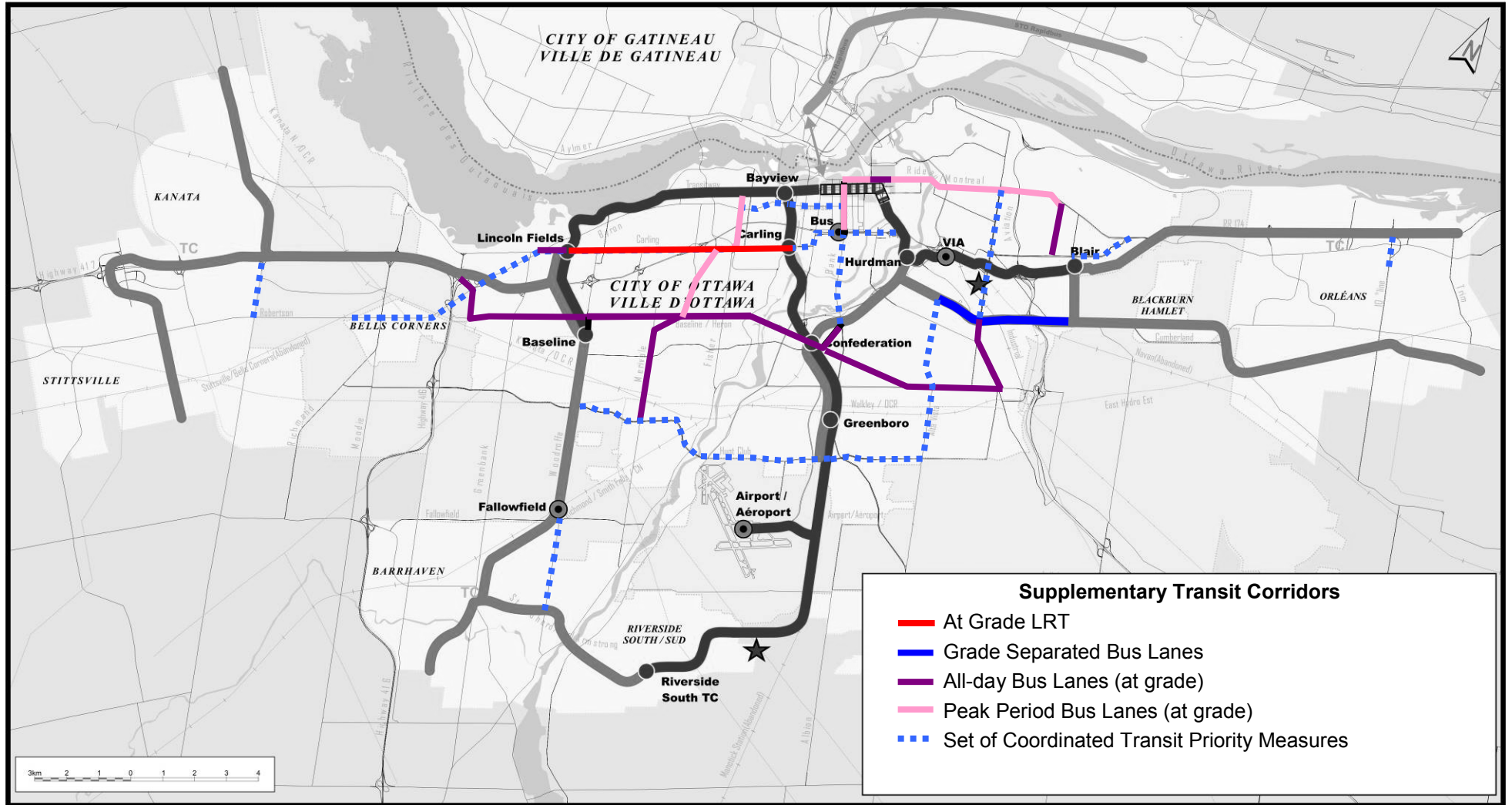
Corridor Name (Limits)	Transit Service Improvements	Rationale	Estimated Cost
	reallocating existing traffic lanes on Merivale and on-street parking on Holland	<ul style="list-style-type: none"> Continuity with the Merivale corridor south of Baseline 	
Richmond/Carling (Bayshore Station to Lincoln Fields Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.) + dedicated bus lanes planned from Richmond / Carling intersection to Lincoln Fields Station, and WB left turn lane for transit only at Richmond	<ul style="list-style-type: none"> High population density by 2031 High ridership potential in both directions by 2031 	14,400,000
Robertson/Richmond (Westcliffe to Bayshore Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> High ridership potential by 2031 Key destinations such as the Queensway-Carleton Hospital 	17,500,000
Conroy/Alta Vista Transportation Corridor (Hunt Club to Hospital link)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.) incorporated into the construction of the AVTC.	<ul style="list-style-type: none"> High ridership potential by 2031 depending on transit operation review 	17,400,000
Tenth Line (Charlemagne North to Place d'Orleans Station)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> High ridership potential due to local routes converging to this corridor to access the nearest Transitway station 	7,400,000
Wellington/Somerset (Holland to O-Train crossing)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> Designated Traditional Mainstreet with high intensification potential 	1,800,000
Woodroffe (Fallowfield to Strandherd)	Set of coordinated transit priority measures as required	<ul style="list-style-type: none"> High ridership potential due to local routes converging to this corridor at Stoneway intersection to access the nearest Transitway station Interim solution, before completion of the rapid transit network, to provide access from/to Riverside South community and Riverview Park-and-Ride lot, through the Strandherd Bridge 	2,000,000
Eagleson (Hazeldean to Eagleson)	Set of coordinated transit priority measures as required	<ul style="list-style-type: none"> High ridership potential due to local routes converging to this corridor at Hazeldean intersection to access the nearest Transitway station 	8,400,000



Corridor Name (Limits)	Transit Service Improvements	Rationale	Estimated Cost
Station)	(signal pre-emption, queue jumps, etc.)		
Hunt Club (South Keys to Conroy)	Set of coordinated transit priority measures as required (signal pre-emption, queue jumps, etc.)	<ul style="list-style-type: none"> ▪ Some transit potential ▪ Transit network continuity with Conroy / Alta Vista Transportation corridor. 	12,600,000
King Edward (Sussex to Rideau)	Dedicated southbound bus lanes from 2pm to 7pm	<ul style="list-style-type: none"> ▪ High number of transit vehicles expected due to STO transit operations – bus terminal at Sussex 	underway



Figure 3.3: Recommended Supplementary Transit Network



Appendix A: Corridor Evaluation – Criteria Details



MCCORMICK RANKIN CORPORATION



Corridor Description								
Package	ID#	Name	From	To	Length (m)	Type	Current Adjacent Land Use	R.O.W. Protection per 2003 OP (m)
Stand-alone Corridors	1	Terry Fox extension	OCR	March	2,800	4-Lane Divided Arterial	Residential	44.5
	2a	Woodroffe	Fallowfield Station	Stoneway (N)	1,600	4-Lane Divided Arterial	Residential	44.5
	2b	Woodroffe	Stoneway (N)	Strandherd Drive	1,400	4-Lane Divided Arterial	Residential	44.5
	3a	Merivale	Baseline	Hunt Club	3,800	4-Lane Undivided Arterial	Commercial	37.5
	3b	Merivale	Hunt Club	Leikin	4,000	4-Lane Undivided Arterial 2-Lane Undivided Arterial (through the Greenbelt)	Commercial (Hunt Club to Slack) Residential (Slack to Greenbelt)	37.5 (G) across Greenbelt
	4	Baseline/Heron	Baseline Station	Billings Bridge Station	7,400	2-Lane Undivided Collector (Navaho) 4-Lane Divided Arterial (Baseline) 6-Lane Divided Arterial (Heron)	Commercial/Employment (Woodroffe to Navaho & Clyde to Merivale) Residential/Rural (Navaho to Clyde & Merivale to Rideau River) Employment (Rideau River to Billings Bridge)	44.5
	5a	Carling	Kirkwood	O-Train (Carling Station)	3,000	6-Lane Divided Arterial	Commercial/Institutional (Kirkwood to Civic Hospital - North Side) Residential (Merivale to Fisher - South Side) (Civic Hospital to Sherwood - North Side) Employment (Sherwood to O-Train)	44.5
	5b	Carling	O-Train (Carling Station)	Bronson	900	6-Lane Divided Arterial	Employment O-Train to Bronson - North Side	44.5
	6	Catherine & Chamberlain/Isabella	Bronson	Lees Station	3,100	3-Lane Arterial - Single Direction Pair	Mixed Use	23 All Streets except 26 (Isabella - O'Connor to Metcalfe)
	7a	Bank	Wellington	Highway 417	1,600	2-Lane Undivided Arterial (Wellington to Laurier) 4-Lane Undivided Arterial (Laurier to Highway 417)	Employment (Wellington to Laurier) Commercial/Mixed Use (Laurier to Highway 417)	20
	7b	Bank	Highway 417	Billings Bridge Station	3,100	4-Lane Undivided Arterial	Commercial/Mixed Use	23
	7c	Bank	North-South LRT (Greenboro station)	Southeast Transitway (Billings Bridge Station)	3,500	4-Lane Divided Arterial (Greenboro to Billings Bridge)	Commercial	37.5
	7d	Bank	Leitrim	North-South LRT (Greenboro station)	6,000	4-Lane Undivided Arterial (Leitrim to Albion) 4-Lane Divided Arterial (Albion to Greenboro)	Rural (Leitrim to Queensdale) Residential (Queensdale to Athans) Commercial (Athans to Greenboro Station)	44.5 (Leitrim to Hunt Club) 37.5 (Hunt Club to Greenboro)
	8	St Laurent	St. Laurent Station	Hemlock	3,500	6-Lane Divided Arterial (Station to McArthur) 4-Lane Divided Arterial (McArthur to Montreal) 4-Lane Undivided Arterial (Montreal to Hemlock)	Commercial (Station to McArthur) Residential & Institutional (McArthur to Montreal)	44.5 (St Laurent to Montreal) 26 (Montreal to Hemlock)
	9	Montreal / Oglivie	Blair Road	Blair Station (via Oglivie)	4,000	4-Lane Divided Arterial (Montreal) 4-Lane Undivided Arterial (Oglivie)	Mixed Use	37.5
	10	St Joseph	Jeanne d'Arc	Trim	5,700	4-Lane Divided Arterial	Commercial/Mixed Use	32 (Jeanne d'Arc to Edgar Brault) 26 (Edgar Brault to Gabriel) 32 (Edgar Brault to Dufour) 37.5 (Dufour to Trim)
	11	Jeanne d'Arc	Cumberland Transitway	East Transitway (Jeanne d'Arc Station)	5,100	4-Lane Divided Arterial	Residential	37.5
12a	Tenth Line	Cumberland Transitway	Tompkins/Charlemagne	2,500	4-Lane Divided Arterial	Residential Commercial (@ Innes)	44.5 (Transitway to Innes) 37.5 (Innes to Amiens) 44.5 (Amiens to Tompkins)	
12b	Tenth Line	Tompkins/Charlemagne	East Transitway (Place d'Orleans Station)	1,400	4-Lane Divided Arterial	Residential	44.5	
13	Trim	Cumberland Transitway	East Transitway (Trim station)	4,400	4-Lane Divided Arterial	Residential	46	
14	Bronson	Carling	Albert/Slater?	1,700	4-Lane Undivided Arterial	Residential	23	
15	King Edward	Sussex	Rideau	2,900	6-Lane Divided Arterial	Residential	40	
16	Vanier Parkway	Beechwood	Hurdman Station (via Industrial extension)	7,500	4-Lane Divided Arterial 6-Lane Intersection at Montreal Road	Residential	37.5	
17	Wellington	O-Train (Bayview Station)	Sussex	3,000	4-Lane Undivided Arterial	Employment Residential	26	



Corridor Description								
Package	ID#	Name	From	To	Length (m)	Type	Current Adjacent Land Use	R.O.W. Protection per 2003 OP (m)
Stand-alone Corridors	18	Richmond/Wellington/Somerset	Westboro Station via McRae	NS LRT	3,300	4-lane Undivided Arterial	Mixed Use Commercial/Residential	20
	19	Somerset	NS LRT	Bank	2,000	4-lane Undivided Arterial	Mixed Use Commercial/Residential	20
Package 1: Kanata / Stittsville Direction: North / South Connection improvement: Kanata South to West Transitway	1	Terry Fox	West Transitway (Terry Fox Station)	Eagleson (via Fernbank)	6,000	4-Lane Divided Arterial	Residential Employment (@ Palladium - West Side) Recreation (@Maple Grove - West Side)	44.5
	2	Castlefrank	West Transitway (Terry Fox Station)	Eagleson (via Terry Fox & Fernbank)	6,700	2-Lane Major Collector (Katimavik to Terry Fox) 4-Lane Divided Major Collector (Terry Fox)	Residential	44.5 (Lord Byng to Aird) 40 (Aird to Katimavik) 26-35 (Katimavik to Terry Fox)
	3	Eagleson	West Transitway (Eagleson Park & Ride Lot)	Fernbank	4,800	6-Lane Divided Arterial (P&R to Abbeyhill) 4-Lane Divided Arterial (Abbeyhill to Fernbank)	Residential Commercial (@ Michael Copeland)	44.5
	4	Eagleson/Stonehaven	West Transitway (Eagleson Park & Ride Lot)	Richmond (via Stonehaven)	6,900	6-Lane Divided Arterial (P&R to Abbeyhill) 4-Lane Divided Arterial (Abbeyhill to Stonehaven) 4-Lane Undivided Major Collector (Stonehaven)	Residential	44.5 (Eagleson) 26-35 (Stonehaven)
Package 2: Kanata / Stittsville Direction: East / West Connection improvement: Stittsville to Moodie	1	Hazledean/Robertson	Stittsville Main	Moodie	9,400	4-Lane Divided Arterial (Stittsville Main to Eagleson) 4-Lane Undivided Arterial (Eagleson to RR Overpass) 4-Lane Divided Arterial (RR Overpass to Moodie)	Commercial & Mixed Use	37.5 (Stittsville Main to Fringewood) 44.5 (Fringewood to Terry Fox) 37.5 (Terry Fox to Moodie)
	2	Abandoned CPR Carleton Place Subdivision	Stittsville Main	Moodie	10,200	Abandoned Rail Corridor - Trans Canada Trail	Residential (West of Eagleson) Greenbelt (Eagleson to Richmond) Employment/Industrial/Commercial (Richmond to Moodie)	30.5 (100 ft.)
	3	Fernbank/Eagleson/Abandoned CPR Carleton Place Subdivision	Stittsville Main	Moodie	11,700	4-Lane Divided Arterial (Fernbank & Eagleson) Abandoned Rail Corridor - Trans Canada Trail	Residential (Fernbank & Eagleson) Greenbelt (Eagleson to Richmond) Employment/Industrial/Commercial (Richmond to Moodie)	30 (Fernbank) 44.5 (Eagleson) 30.5 (CPR Carleton Place)
	4	Fernbank/Eagleson/Robertson	Stittsville Main	Moodie	12,200	4-Lane Divided Arterial (Fernbank & Eagleson) 4-Lane Undivided Arterial (Eagleson to RR Overpass) 4-Lane Divided Arterial (RR Overpass to Moodie)	Residential (Fernbank & Eagleson) Greenbelt - Robertson (Eagleson to Richmond) Employment/Industrial/Commercial - Robertson (RR to Moodie)	30 (Fernbank) 44.5 (Eagleson) 37.5 (Robertson)
Package 3: Kanata North 1 Direction: North / South Connection improvement: Terry Fox/CNR to West Transitway	1	Terry Fox	CN Railway tracks	West Transitway (Terry Fox station)	4,300	4-Lane Divided Arterial	Residential (CNR to Campeau) Commercial (Campeau to Station)	44.5
	2	Terry Fox/Kanata Avenue	CN Railway tracks	West Transitway (Terry Fox station)	6,100	4-Lane Divided Arterial (Terry Fox) 2-Lane Divided Collector (Kanata Ave)	Residential (CNR to Campeau) Commercial (Campeau to Station)	44.5 (Terry Fox) 26-35 (Kanata Ave)
Package 4: Kanata North 2 Direction: North / South Connection improvement: Kanata North to West Transitway	1	OCR Railway 1	Terry Fox	West Transitway (new stop in the Greenbelt)	7,700	Active Freight Rail Corridor	Residential (West of March) Employment & Commercial (March to Carling) Rural (Carling to New Stop)	30.5 (100 ft.)
	2	OCR Railway 2	Klondike	West Transitway (new stop in the Greenbelt)	6,300	Active Freight Rail Corridor	Employment (Klondike to Carling) Rural (Carling to New Stop)	30.5 (100 ft.)
	3	March/Carling/Holly Acres	Terry Fox	West Transitway (Bayshore Station)	10,100	6-Lane Divided Arterial (March) 2-Lane Undivided Arterial (Carling) 4-Lane Undivided Arterial (Holly Acres)	Employment & Commercial - (March & Carling to Herzberg) Rural (Herzberg to Moodie) Residential (Moodie to Bayshore Station)	44.5
Package 5: Bayshore / Cedarview Direction: East / West Connection improvement: West to East of Bayshore / Cedarview community	1	Carling	Bayshore Station	Lincoln Fields Station	4,000	4-Lane Divided Arterial (Holly Acres to Pinecrest) 6-Lane Divided Arterial (Pinecrest to Lincoln Fields)	Residential Commercial (Carling to Lincoln Fields - North Side)	37.5 (Bayshore to Richmond) 44.5 (Richmond to Lincoln Fields)
	2	Richmond	Bayshore Station	Lincoln Fields Station	3,400	2-Lane Undivided Arterial (Bayshore to Pinecrest) 4-Lane Divided Arterial (Pinecrest to Carling) 6-Lane Divided Arterial (Carling to Lincoln Fields)	Residential (Bayshore to Carling) Commercial (Carling to Lincoln Fields)	37.5
	3	Baseline	Bayshore Station	Baseline Station	5,600	New exclusive corridor adjacent to Queensway-Carleton hospital 4-Lane Divided Arterial (Holley Acres Rd. & Hospital to Centrepointe) 6-Lane Divided Arterial (Centrepointe to Baseline)	Residential	44.5
	4	OCR Railway 3	Hwy 416	Southwest Transitway	4,400	Active Freight Rail Corridor	Residential	30.5 (100 ft.)
Package 6: Ottawa West 1 Direction: East / West Connection improvement: Service through Carlingwood area	1	Richmond	Lincoln Fields	Westboro Station via Churchill/Scott	4,500	2-Lane Arterial (Lincoln Fields to Rowanwood) 3-Lane Arterial (Rowanwood to Golden) 4-Lane Undivided Arterial (Golden to Churchill) 2-Lane Arterial (Richmond to Westboro Station)	Residential (South Side) Commercial/Mixed Use (North Side)	26 (Richmond & Scott) 20 (Churchill)
	2	Carling	Lincoln Fields Station	Kirkwood	3,800	4-Lane Divided Arterial (Lincoln Fields to Woodroffe) 6-Lane Divided Arterial (Woodroffe to Kirkwood)	Commercial/Mixed Use Residential (Farlawn to Maitland - South Side)	44.5
	3	Hwy 417(Queensway)/Carling	Queensway Station	Kirkwood	3,800	8-Lane Freeway	Residential	55 (Hwy 417)



Corridor Description								
Package	ID#	Name	From	To	Length (m)	Type	Current Adjacent Land Use	R.O.W. Protection per 2003 OP (m)
Package 7: Ottawa West 2 Direction: North / South Connection improvement: Baseline to EW LRT	1	Merivale/Kirkwood	Baseline	Westboro Station via Carling, Richmond & McRae	5,000	4-Lane Undivided Arterial	Residential	26.5 (Merivale) 26 (Kirkwood)
	2	Fisher/Holland	Baseline	Tunney's Pasture Station	4,000	4-Lane Undivided Arterial	Residential	34 (Fisher) 26 (Holland)
	3	Merivale/Holland	Baseline	Tunney's Pasture Station	4,800	4-Lane Undivided Arterial	Residential	26.5 (Merivale) 26 (Holland)
Package 8: Merivale Direction: East / West Connection improvement: Southwest Twy to North-South LRT	1	Hunt Club	Southwest Transitway	North-South LRT (South Keys station)	8,700	4-Lane Divided Arterial	Commercial/Industrial/Employment (Cleopatra to Uplands) Residential (Uplands to N-S LRT)	44.5
	2	OCR Rail	Southwest Transitway	North-South LRT (Greenboro station)	8,100	Active Freight Rail Corridor	Residential (Twy to Merivale) Commercial/Industrial (Merivale to Prince of Wales) Residential (Riverside to N-S LRT)	30.5 (100 ft.)
	3	VIA Rail	Fallowfield Station	North-South LRT (between Confederation and Heron stations)	10,000	Active Passenger Rail Corridor	Rural (Woodroffe to Merivale) Commercial/Industrial (Merivale to Prince of Wales) Residential (Riverside to N-S LRT)	30.5 (100 ft.)
	4	VIA/OCR Rail	Fallowfield Station	North-South LRT (Greenboro Station)	9,600	Active Passenger Rail Corridor (VIA) Active Freight Rail Corridor (OCR)	Rural (Woodroffe to Merivale) Commercial/Industrial (Merivale to Prince of Wales) Residential (Riverside to N-S LRT)	30.5 (100 ft.)
	5	OCR/VIA Rail	Southwest Transitway	North-South LRT (between Confederation and Heron stations)	8,600	Active Passenger Rail Corridor (VIA) Active Freight Rail Corridor (OCR)	Residential (Twy to Merivale) Commercial/Industrial (Merivale to Prince of Wales) Residential (Riverside to N-S LRT)	30.5 (100 ft.)
Package 9: Alta Vista 1 Direction: North / South Connection improvement: Hunt Club to Transitway	1	Conroy/Alta Vista Transportation Corridor	Hunt Club	Hospital connection	5,200	6-Lane Divided Arterial (Conroy) 4-Lane Divided Arterial (AVTC)	Residential (Hunt Club to Hospital) Institutional/Residential (Hospital to Lycee Claude Station)	44.5 (Conroy) Variable (AVTC)
	2	Conroy/St Laurent	Hunt Club	St. Laurent Station via Walkley	7,400	4-Lane Undivided Arterial (St. Laurent - South) 6-Lane Divided Arterial (Conroy) 4-Lane Divided Arterial (Walkley, St. Laurent - North)	Residential (Hunt Club to Smyth) Commercial (Smyth to St. Laurent Station)	44.5 (Conroy) 24-26 (St. Laurent)
Package 10: Alta Vista 2 Direction: East / West Connection improvement: Service through Alta Vista area	1	Heron/Walkley	North-South LRT	Highway 417	7,400	4-Lane Divided Arterial (N-S LRT to Bank & Baycrest to 417) 4-Lane Undivided Arterial (Bank to Baycrest)	Residential Commercial (Holly Lane to 417)	37.5 (Heron) 44.5 (Walkley)
	2	Walkley	North-South LRT	Highway 417	6,700	4-Lane Undivided Arterial (N-S LRT to Albion) 4-Lane Divided Arterial (Albion to 417)	Residential Commercial (Holly Lane to 417)	37.5 (Bank to Heron) 44.5 (Heron to 417)
	3	OCR Rail	North-South LRT	Highway 417	6,400	Active Freight Rail Corridor	Industrial	Varies
	4	Hunt Club/Hawthorne	North-South LRT (South Keys station)	Highway 417	8,600	4-Lane Divided Arterial (Hunt Club) 4-Lane Undivided Arterial (Hawthorne)	Residential (Hunt Club) Industrial (Hawthorne)	44.5 (both)
Package 11: Alta Vista 3 Direction: East / West Connection improvement: Cumberland to South East Twy	1	Industrial	Hurdman Station	Blair Rd (via Innes)	5,700	4-Lane Undivided Arterial (Industrial) 4-Lane Divided Arterial (St. Laurent to 417) 6-Lane Divided Arterial (417 to Blair)	Industrial/Commercial (Hurdman to 417) Commercial (417 to Blair - South Side) Commercial & Residential (417-Blair - North Side)	37.5 (Industrial) 44.5 (Innes)
	2	Hospital Link Corridor	Hospital connection	Blair Rd (via Innes)	4,700	Exclusive Corridor using AVTC and Hydro Corridor 4-Lane Divided Arterial (St. Laurent to 417) 6-Lane Divided Arterial (417 to Blair)	Institutional/Residential (Transitway to Russell) Commercial/Industrial (Russell to 417) Commercial (417-Blair - South) Commercial & Residential (417-Blair - North)	TBD
	3	Alta Vista Transportation Corridor/Smyth/St. Laurent	Hospital connection	Blair Rd (via Innes)	5,800	Exclusive Corridor in AVTC 4-Lane Undivided Arterial (Smyth) 4-Lane Divided Arterial (St. Laurent to 417) 6-Lane Divided Arterial (417 to Blair)	Institutional/Residential (Transitway to Smyth) Residential (Smyth) Industrial/Commercial (St. Laurent to 417) Commercial (417-Blair - South) Commercial & Residential (417-Blair - North)	Varies (AVTC) 26 (Smyth) 44.5 (St. Laurent & Innes)
Package 12: Ottawa East Direction: East / West Connection improvement: Service through Ottawa East area	1	Rideau/Montreal	Sussex	St. Laurent	4,000	4-Lane Undivided Arterial	Mixed Use	30 (Sussex to King Edward) 26 (King Edward to Rideau River) 23 (Rideau River to de l'Église) 26 (de l'Église to St. Laurent)
	2	Rideau/St. Patrick/Beechwood/Hemlock	Sussex	St. Laurent via Coburg	5,100	4-Lane Undivided Arterial 2-Lane Arterial (Hemlock)	Mixed Use (Rideau & Beechwood) Residential (Coburg & Hemlock)	30 (Sussex to King Edward) 26 (King Edward to Coburg) 23-26 (Beechwood) 30 (Hemlock)



Corridor Description								
Package	ID#	Name	From	To	Length (m)	Type	Current Adjacent Land Use	R.O.W. Protection per 2003 OP (m)
Package 13: Beacon Hill Direction: North / South Connection improvement: Service through Beacon Hill area	1	Montreal/Blair	St. Laurent	Blair Station	4,200	4-Lane Undivided Arterial (Montreal) 2-Lane Arterial (Blair)	Commercial (St. Laurent to Lang's) Residential (Lang's to Carson & Blair Road) Mixed Use (Carson to Bathgate)	37.5 (Montreal) 30 - Blair (Montreal to Ogilvie) 44.5 - Blair (Ogilvie to Station)
	2	Montreal/Bathgate	St. Laurent	Blair Station	4,700	4-Lane Undivided Arterial (Montreal) 2-Lane Collector (Bathgate)	Commercial (St. Laurent to Lang's) Residential (Lang's to Carson) Residential/Institutional (Bathgate)	37.5 (Montreal) 24 (Bathgate)
	3	Hemlock/Rockcliffe Airbase/Blair	St. Laurent	Blair Station	5,300	2-Lane Collector	Residential (Hemlock) Mixed Use (Airbase) Residential/Institutional (Blair)	22 - Hemlock 30 - Blair (Montreal to Ogilvie)
	4	Hemlock/Rockcliffe Airbase/Bathgate	St. Laurent	Blair Station	5,600	2-Lane Collector	Residential (Hemlock) Mixed Use (Airbase) Residential/Institutional (Bathgate)	22 - Hemlock 23.5-36 - Airbase 24 - Bathgate
Package 14: Cumberland Direction: East / West Connection improvement: St Laurent to South East Twy	1	Innes	Innes/Blackburn Bypass east intersection	Millennium Station	8,900	4-Lane Divided Arterial	Residential Commercial (Page to east of Tenth Line - South Side)	37.5 (Bypass to Prestwick) 40 (Prestwick to Tenth Line) 37.5 (Tenth Line to Millenium)
	2	Blackburn Bypass Extension	Innes/Blackburn Bypass east intersection	Millennium Station	9,100	4-Lane Divided Arterial	Residential	40
Package 15: South Nepean Direction: East / West Connection improvement: Service through South Nepean area	1	Strandherd	Fallowfield	South West Twy (Strandherd station)	4,400	6-Lane Undivided Arterial	Residential Commercial (@Greenbank)	44.5
	2	VIA Rail	Strandherd	Greenbank	2,700	Active Passenger Rail Corridor	Residential Commercial (@Greenbank)	30.5 (100 ft.)
Package 16: Greenbelt crossing Direction: East / West Connection improvement: Kanata to Cedarview	1	Robertson / Richmond	Moodie	Bayshore	4,600	4-lane Undivided Arterial with continuous bi-directional Left Turn Lane (Moodie to Stafford) 4-lane Divided Arterial (Stafford to Bayshore)	Commercial (Moodie to OCR) Greenbelt (OCR to Bayshore)	37.5 (Moodie to Larkspur) G (44.5 +/-) (Larkspur to Bayshore)
	2	OCR Rail	New Twy Station within Greenbelt	Highway 416	3,800	Active Freight Rail Corridor	Greenbelt	30.5 (100 ft.)



Package	Corridor Description				Ease of Implementation				Smart Growth Potential								Ridership Potential								
	ID#	Name	From	To	# of Intersections / km	# of structures (New or Require Major Modification)	Feasibility of implementing segregated facility in Corridor	Ease of intersection modifications	Rating Transit Intensive	Rating Transit Priority Measure	TOD Potential (lan Cross)	Existing Population within 600 m per km	2031 Population within 600 m per km	Existing Employment within 600 m per km	2031 Employment within 600 m per km	Rating Transit Intensive	Rating Transit Priority Measure	Level of All-day Transit Demand	High Transit Demand in Both Directions	Links to Key Destinations	Serves Local Transit Needs	Peak Direction Ridership 2031 (TI)	Peak Direction Ridership 2031 (TPM)	Rating Transit Intensive	Rating Transit Priority Measure
Stand-alone Corridors	1	Terry Fox extension	OCR	March	0 to 1	none (0)	E	None expected. It is assumed that priority measures could be incorporated into the reconstruction of Terry Fox at the time of widening.	100	90	Low	1,370	4,490	2,280	4,900	18	28	Low	N	Few	No	100 EB 150 WB	100 EB 150 WB	8	8
	2a	Woodroffe	Fallowfield Station	Stoneway (N)	1 to 3	none (0)	E	None expected. It is assumed that priority measures could be incorporated into the reconstruction of Woodroffe at the time of widening.	90	80	Low	3,280	7,180	290	590	8	28	Low	N	None	Yes	150-250 NB 200 SB	150-250 NB 200 SB	23	63
	2b	Woodroffe	Stoneway (N)	Strandherd Drive	1 to 3	none (0)	E	None expected. It is assumed that priority measures could be incorporated into the reconstruction of Woodroffe at the time of widening.	90	80	Low	5,940	13,090	440	1,110	20	30	Low	N	None	Yes	600-1000 NB 300 SB	600-1000 NB 300 SB	13	13
	3a	Merivale	Baseline	Hunt Club	3 or more	Minor modifications under OCR underpass (0)	D	Would require elimination of general traffic lane or additional property.	55	55	High	2,770	5,750	3,200	7,480	73	78	Med	N	Some	Yes	750 NB 400 SB	750 NB 400 SB	25	75
	3b	Merivale	Hunt Club	Leikin	1 to 3	New Via Rail underpass (1)	P	Crosses Greenbelt - would require special treatment - possibly no street-lighting.	60	75	Med	220	400	2,000	5,000	35	35	Low	N	Few	No	300-700 NB 150 SB	300-700 NB 150 SB	8	33
	4	Baseline/Heron	Baseline Station	Billings Bridge Station	1 to 3	No modification required to Rideau River crossing. Minor modifications to Federal Complex service rd & O-Train underpass to accommodate transit facility. No modifications to Airport Parkway overpass (assumes curb-side transit facility) (0)	P	(Station to Prince of Wales) E (Prince of Wales to Billings Bridge) Would require purchase of Experimental Farm Lands (0)	80	65	Med	2,710	5,490	2,540	5,700	40	53	High	Y	Many	Yes	1,300 EB 600 WB	1,300 EB 600 WB	75	100
	5a	Carling	Kirkwood	O-Train (Carling Station)	3 or more	New underpass @ Highway 417 (Queensway). Minor modifications to O-Train underpass to accommodate new transit facility (1)	D	Would require elimination of general traffic lane, roadside amenities or additional property.	45	55	Med	3,400	7,220	6,960	14,150	68	73	High	Y	Many	Yes	1800 EB 800 WB	1800 EB 800 WB	100	100
	5b	Carling	O-Train (Carling Station)	Bronson	1 to 3	none (0)	D	Steep grades. Corridor Narrows at Bronson. Would require elimination of general traffic lane, roadside amenities or additional property.	60	70	Med	8,490	18,600	13,160	24,650	75	80	Med	Y	Some	Yes	1500 EB 500 WB	1500 EB 500 WB	60	85
	6	Catherine & Chamberlain/Isabella	Bronson	Lees Station	3 or more	none (0)	VD	Would require elimination of general traffic lane and/or property purchase. Conflicts with multiple Queensway access ramps along corridor.	40	50	Med-High	6,100	12,760	5,640	11,560	75	85	Med	Y	Few	No	500 EB 700WB	500 EB 700WB	20	45
	7a	Bank	Wellington	Highway 417	3 or more	none (0)	VD	Would require elimination of general traffic lane.	40	50	High	7,080	15,540	9,440	20,000	95	100	High	Y	Many	Yes	850-1200 NB 1100-1700 SB	850-1200 NB 1100-1700 SB	100	100
	7b	Bank	Highway 417	Billings Bridge Station	3 or more	Potential requirement for new underpass @ Highway 417 (Queensway). Modifications to deck over Rideau Canal. Possible new crossing or widened deck over Rideau River (0)	VD	Would require elimination of general traffic lane. Bank Street Bridge over Canal is a heritage Structure.	30	40	High	5,380	11,800	3,220	6,830	78	80	High	N	Some	Yes	400 NB 300 SB	400 NB 300 SB	30	80
	7c	Bank	North-South LRT (Greenboro station)	Southeast Transitway (Billings Bridge Station)	1 to 3	No modifications required to OCR, VIA Rail and SE Transitway overpasses as it is assumed that transit facility would remove general traffic lane (0)	D	Would require elimination of general traffic lane.	60	65	High	3,170	6,820	2,220	4,580	63	63	Med	N	Some	Yes	150-550 NB 100-400 SB	150-550 NB 100-400 SB	25	35
	7d	Bank	Leitrim	North-South LRT (Greenboro station)	1 to 3	none (0)	E	(Leitrim to Albion), D (Albion to Greenboro) Would require elimination of general traffic lane (Albion to Greenboro), Crosses Greenbelt (Leitrim to Lester)	83	80	Med	2,060	4,280	910	2,020	30	35	Med	N	Few	Yes	100-300 NB 50-100 SB	100-300 NB 50-100 SB	20	20
	8	St Laurent	St. Laurent Station	Hemlock	3 or more	Minor modifications under Labelle Street overpass (0)	D	(Station to McArthur), P (McArthur to Montreal) VD (Montreal to Hemlock) Would require elimination of general traffic lane or additional property between Station and McArthur.	55	45	High	5,170	10,350	2,950	6,650	78	80	Med	Y	Few	Yes	200-1500 NB 150-800 SB	200-1500 NB 150-800 SB	55	80
	9	Montreal / Ogilvie	Blair Road	Blair Station (via Ogilvie)	1 to 3	none (0)	D	Would require elimination of general traffic lane, roadside amenities or additional property.	60	50	High	3,130	3,170	3,520	3,830	65	65	Med	Y	Some	Yes	500 SB 1000 NB	500 SB 1000 NB	45	85
	10	St Joseph	Jeanne d'Arc	Trim	1 to 3	none (0)	VD	Would require elimination of general traffic lane, roadside amenities or additional property. This section of St. Joseph Blvd is subject of proposed redevelopment plan.	45	65	High	2,570	5,480	1,350	3,850	60	63	Med	N	Few	Yes	50 NB 100 SB	50 NB 100 SB	20	20
	11	Jeanne d'Arc	Cumberland Transitway	East Transitway (Jeanne d'Arc Station)	1 to 3	none (0)	D	Would require elimination of general traffic lane, roadside amenities or additional property. Steep grade on hill S of St. Joseph.	60	50	Low	3,020	6,220	810	2,180	13	28	Low	N	None	Yes	250-450 NB 50 SB	250-450 NB 50 SB	13	23
	12a	Tenth Line	Cumberland Transitway	Tompkins/Charlemagne	1 to 3	none (0)	D	(Innes to Amiens) Would require elimination of general traffic lane, roadside amenities or additional property between Innes & Amiens.	65	65	Low	4,570	9,250	1,120	2,690	23	35	Low	N	Few	Yes	50 NB 50 SB	50 NB 50 SB	18	18
	12b	Tenth Line	Tompkins/Charlemagne	East Transitway (Place d'Orleans Station)	1 to 3	none (0)	P	Steep grades S of St. Joseph.	75	80	Low-Med	4,520	9,310	270	2,000	28	30	Low	N	Few	Yes	1000 NB 50 SB	1000 NB 50 SB	28	68
13	Trim	Cumberland Transitway	East Transitway (Trim station)	1 to 3	none (0)	E	Steep grades S of St. Joseph.	90	80	Low	2,330	4,860	460	1,150	10	23	Low	N	Few	Yes	200 NB 20 SB	200 NB 20 SB	18	18	
14	Bronson	Carling	Albert/Slater?	3 or more	New underpass @ Highway 417 (Queensway) (1)	VD	Would require elimination of general traffic lane.	25	40	Med-High	12,220	28,850	18,310	41,610	90	90	Med	Y	Some	Yes	850-1200 NB 250-750 SB	850-1200 NB 250-750 SB	60	85	
15	King Edward	Sussex	Rideau	1 to 3	Minor modifications under existing SB structure (0)	D	Would require elimination of general traffic lane or roadside amenities.	60	55	Med	4,670	10,480	7,860	16,770	73	75	Med	N	Some	No	50-250 NB 200-400 SB	50-250 NB 200-400 SB	15	25	
16	Vanier Parkway	Beechwood	Hurdman Station (via Industrial extension)	1 to 3	New overpass @ Highway 417. Assume no change to 2 Transitway, VIA Rail & Terminal Avenue structures. As new transit facility would remove existing traffic lane (1)	D	Would require elimination of general traffic lane or roadside amenities.	45	50	Med	2,850	5,970	1,990	4,230	43	43	Med	N	Some	Yes	600 NB 300 SB	600 NB 300 SB	25	50	
17	Wellington	O-Train (Bayview Station)	Sussex	3 or more	Minor modifications to existing Viaduct, Parking Lot Access and Rideau Canal decks as it is assumed that new transit facility would remove existing traffic lane (0)	VD	Would require elimination of general traffic lane. High volumes of STO buses already on corridor. Within Parliamentary precinct.	40	40	Med	5,090	14,980	34,450	76,830	73	75	High	Y	Many	Yes	500-1300 EB 500-1000 WB	500-1300 EB 500-1000 WB	75	100	
18	Richmond/Wellington/Somerset	Westboro Station via McRae	NS LRT	3 or more	Modifications to O-Train overpass deck not required to accommodate transit priority (0)	VD	Requires elimination of general traffic lane.	40	40	High	5,980	7,530	4,190	5,070	70	85	High	N	Some	Yes	550 EB 150 WB	550 EB 150 WB	30	65	
19	Somerset	NS LRT	Bank	3 or more	Modifications to O-Train overpass deck not required to accommodate transit priority (0)	VD	Requires elimination of general traffic lane.	40	40	High	14,260	18,860	27,850	30,500	100	100	High	N	Some	Yes	650-800 EB 150-250 WB	650-800 EB 150-250 WB	40	80	
Package 1: Kanata / Stittsville Direction: North / South Connection improvement: Kanata South to West Transitway	1	Terry Fox	West Transitway (Terry Fox Station)	Eagleson (via Fernbank)	1 to 3	New overpass @ Highway 417 (Queensway) (1)	E	None	75	80	Low	1,870	5,410	1,090	2,620	13	28	Low	N	Few	No	600 NB 200 SB	600 NB 200 SB	8	33
	2	Castlefrank	West Transitway (Terry Fox Station)	Eagleson (via Terry Fox & Fernbank)	1 to 3	New overpasses would be required at West Transitway and Highway 417 (Queensway) (2)	VD (Castlefrank), E (Terry Fox) City committed to no further widening 2-lane section of Castlefrank between Highway 417 & Hazeldean through Community Traffic Concerns Study related to Highway overpass & ramps project.	50	75	Low	2,710	7,210	810	2,770	13	33	Med	N	Few	Yes	600 NB 200 SB	600 NB 200 SB	20	45	
	3	Eagleson	West Transitway (Eagleson Park & Ride Lot)	Fernbank	1 to 3	none (0)	D (P&R to Abbeyhill), P (Abbeyhill to Fernbank) Would require elimination of general traffic lane (P&R to Abbeyhill) - this portion is adjacent to Greenbelt.	70	55	Low	2,630	5,810	690	1,640	13	28	Low	N	None	Yes	1500 NB 200 SB	1500 NB 200 SB	38	63	
	4	Eagleson/Stonehaven	West Transitway (Eagleson Park & Ride Lot)	Richmond (via Stonehaven)	1 to 3	none (0)	D (P&R to Abbeyhill), P (Abbeyhill to Stonehaven) VD (Stonehaven) Would require elimination of general traffic lane on Eagleson (P&R to Abbeyhill) portion adjacent to Greenbelt and on Stonehaven.	60	50	Low	2,780	5,960	470	1,050	13	23	Low	N	Few	Yes	1500 NB 200 SB	1500 NB 200 SB	43	68	
Package 2: Kanata / Stittsville Direction: East / West Connection improvement: Stittsville to Moodie	1	Hazeldean/Robertson	Stittsville Main	Moodie	1 to 3	Minor modifications under Abandoned CPR corridor Overpass (or structure may be removed) (0)	D (Stittsville Main to Fringwood), E (Fringwood to Terry Fox) D (Terry Fox to Moodie) Would require elimination of general traffic lane from Stittsville Main to Fringwood and Terry Fox to Eagleson. Portion of Corridor Crosses Greenbelt.	65	80	Med	1,550	3,880	1,300	2,920	33	35	Med	N	Few	Yes	500-900 EB 100 WB	500-900 EB 100 WB	30	45	
	2	Abandoned CPR Carleton Place Subdivision	Stittsville Main	Moodie	1 to 3	Minor modifications to deck of abandoned CPR Overpass to accommodate transit facility (0)	E Portion of Corridor Crosses Greenbelt Corridor is currently portion of Trans-Canada Trail.	90	N/A	Low	1,670	4,340	900	2,070	8	25	Low	N	Few	No	500 EB 50 WB	500 EB 50 WB	8	33	
	3	Fernbank/Eagleson/Abandoned CPR Carleton Place Subdivision	Stittsville Main	Moodie	0 to 1	Minor modifications to deck of abandoned CPR Overpass to accommodate transit facility (0)	VD (Fernbank), P (Eagleson) E (CPR) Portion of Corridor Crosses Greenbelt.	80	N/A	Low	1,220	3,350	690	1,560	8	23	Low	N	Few	No	50 EB 100 WB	50 EB 100 WB	8	8	
	4	Fernbank/Eagleson/Robertson	Stittsville Main	Moodie	0 to 1	Minor modifications under Abandoned CPR corridor Overpass (or structure may be removed) (0)	VD (Fernbank), P (Eagleson) D (Robertson) Portion of Corridor Crosses Greenbelt.	70	75	Low	1,200	3,270	760	1,700	8	23	Low	N	Few	No	50 EB 100 WB	50 EB 100 WB	8	8	

Corridor Description				Ease of Implementation				Smart Growth Potential								Ridership Potential									
Package	ID#	Name	From	To	# of Intersections / km	# of structures (New or Require Major Modification)	Feasibility of implementing segregated facility in Corridor	Ease of intersection modifications	Rating Transit Intensive	Rating Transit Priority Measure	TOD Potential (lan Cross)	Existing Population within 600 m per km	2031 Population within 600 m per km	Existing Employment within 600 m per km	2031 Employment within 600 m per km	Rating Transit Intensive	Rating Transit Priority Measure	Level of All-day Transit Demand	High Transit Demand in Both Directions	Links to Key Destinations	Serves Local Transit Needs	Peak Direction Ridership 2031 (TI)	Peak Direction Ridership 2031 (TPM)	Rating Transit Intensive	Rating Transit Priority Measure
Package 3: Kanata North 1 Direction: North / South Connection improvement: Terry Fox/CNR to West Transitway	1	Terry Fox	CN Railway tracks	West Transitway (Terry Fox station)	0 to 1	Underpass of Terry Fox required for connection to Station (1)	E	P Campeau, Herthy Way	85	75	Low-Med	630	2,960	750	1,880	18	23	Low	N	Few	No	100 NB 500 SB	100 NB 500 SB	8	33
	2	Terry Fox/Kanata Avenue	CN Railway tracks	West Transitway (Terry Fox station)	1 to 3	Underpass of Terry Fox required for connection to Station (1)	E (Terry Fox) D to VD (Kanata Ave) Would require elimination of general traffic lane on Kanata Avenue Kanata Avenue roadwork/residential north of Campeau	P Campeau	55	75	Low	1,460	4,690	590	2,180	8	25	Low	N	Few	Yes	100 NB 500 SB	100 NB 500 SB	18	43
Package 4: Kanata North 2 Direction: North / South Connection improvement: Kanata North to West Transitway	1	OCR Railway 1	Terry Fox	West Transitway (new stop in the Greenbelt)	0 to 1	none (possible modifications @ Highway 417 (Queensway) to accommodate station in Greenbelt @ West Transitway corridor)	E	D N/A	100	N/A	Low-Med	190	1,600	860	1,980	15	23	Low	N	None	No	150-550 NB 100-350 SB	150-550 NB 100-350 SB	3	13
	2	OCR Railway 2	Klondike	West Transitway (new stop in the Greenbelt)	0 to 1	none (possible modifications @ Highway 417 (Queensway) to accommodate station in Greenbelt @ West Transitway corridor)	E	D N/A	100	N/A	Low-Med	270	820	720	1,720	15	20	Low	N	Few	No	150-300 NB 100-200 SB	150-300 NB 100-200 SB	8	8
	3	March/Carling/Holly Acres	Terry Fox	West Transitway (Bayshore Station)	0 to 1	New underpass @ OCR Corridor (1)	D (March) E (Carling) D (Holly Acres) Portion of Corridor crosses Greenbelt Requires new railway overpass in Greenbelt	E Ullswater	75	90	Low-Med	880	1,780	2,250	5,070	25	38	Med	N	Some	Yes	150-400 NB 100-350 SB	150-400 NB 100-350 SB	25	25
Package 5: Bayshore / Cedarview Direction: East / West Connection improvement: West to East of Bayshore / Cedarview community	1	Carling	Bayshore Station	Lincoln Fields Station	1 to 3	Widening required to Southwest Transitway Overpass (1)	VD Would require elimination of general traffic lane Steep grades west of Pinecrest	P Scrivens (WB), Alpine (EB), Croydon	30	55	High	5,640	11,480	1,080	2,300	65	65	Med	Y	Few	Yes	500-1300 EB 200-900 WB	500-1300 EB 200-900 WB	55	80
	2	Richmond	Bayshore Station	Lincoln Fields Station	1 to 3	Widening required to Southwest Transitway Overpass (1)	D Grade differential between north and south side of Richmond Road between Bayshore and Dunstons makes developing a suitable vertical profile difficult. Requires elimination of general traffic lane from Pinecrest to Lincoln Fields.	P Pinecrest, Alpine (EB), Croydon,	45	75	Med	7,810	15,870	1,930	4,020	50	55	Med	Y	Few	Yes	500-1300 EB 200-900 WB	500-1300 EB 200-900 WB	55	80
	3	Baseline	Bayshore Station	Baseline Station	1 to 3	None (Assumes on-street operations on Holly Acres and new corridor to be developed in Greenspace adjacent to Queensway Carleton Hospital)	P Significant portion of corridor is residential	P Montreay (WB), Guthrie (WB), Greenbank (EB)	75	65	Low-Med	3,780	7,650	1,830	3,980	33	38	Low	Y	Some	Yes	600-800 EB 700-900 WB	600-800 EB 700-900 WB	43	83
	4	OCR Railway 3	Hwy 416	Southwest Transitway	0 to 1	Would require new or widened overpasses at Highway 416, Greenbank and Woodcliffe depending on chosen technology and operational requirements (3)	E Would require widening railway overpass structures	D N/A	90	N/A	Low	4,070	8,340	1,020	2,150	18	33	Low	N	Few	No	600 EB 400 WB	600 EB 400 WB	8	33
Package 6: Ottawa West 1 Direction: East / West Connection improvement: Service through Carlingwood area	1	Richmond	Lincoln Fields	Westboro Station via Churchill/Scott	1 to 3	none (0)	VD Council cancelled proposed EA for widening this portion of Richmond Road. Corridor competes for riders with West Transitway	D New Orchard (WB), Woodcliffe (WB), Cleary (WB), Fraser (WB), Golden, Roosevelt, Churchill	45	60	High	4,090	8,820	1,960	4,120	63	68	Med	Y	Few	Yes	800-3000 EB 150-850 WB	400 EB 200 WB	80	30
	2	Carling	Lincoln Fields Station	Kirkwood	1 to 3	New underpass @ Highway 417 (1)	D Requires elimination of general traffic lane, roadside amenities or property purchase	P No constrained intersections if we assume that we can use one existing lane in each direction for transit priority	45	55	High	4,670	9,670	3,570	7,670	83	85	Med	Y	Few	Yes	800-3000 EB 150-850 WB	800-3000 EB 150-850 WB	80	80
	3	Hwy 417(Queensway)/Carling	Queensway Station	Kirkwood	0 to 1	No modifications to existing Highway 417 (Queensway) structures required as it is assumed that new transit facility would remove highway traffic lane (0)	VD Requires elimination of highway traffic lane	P N/A	55	65	Low	3,270	6,910	2,910	6,240	23	43	Low	Y	Few	No	1250-3000 EB 500-850 WB	0 EB 0 WB	68	8
Package 7: Ottawa West 2 Direction: North / South Connection improvement: Baseline to EW LRT	1	Merivale/Kirkwood	Baseline	Westboro Station via Carling, Richmond & McRae	3 or more	New underpass @ Highway 417 (Queensway) (1)	VD Would require elimination of general traffic lane Adjacent to Experimental Farm	P Caldwell (SB), Merivale/Kirkwood (NB), Laperriere, Carling Eastbound (SB), Hampson Park Entrance (SB), Byron (NB), all intersections on Richmond Road	25	55	Low-Med	4,840	9,960	2,250	5,390	38	50	Low	Y	Few	Yes	950-1200 NB 500-650 SB	950-1200 NB 500-650 SB	53	78
	2	Fisher/Holland	Baseline	Tunney's Pasture Station	1 to 3	No modifications required at Highway 417 (Queensway) underpass as it is assumed that new transit facility would remove general traffic lane on Holland (0)	VD Widening of Fisher to 4-lanes for Transit identified in 2003 OPITMP. Adjacent to Experimental Farm. Would require elimination of general traffic lane on Holland.	P Carling (SB), Kenilworth, Sherwood Dr (NB), Fisher Park Entrance (SB), Tyndal, Wellington, Spencer possible if on-street parking removed	60	65	Low-Med	4,140	8,670	6,560	13,850	58	63	Med	Y	Few	Yes	850-1350 NB 500-700 SB	850-1350 NB 500-700 SB	55	80
	3	Merivale/Holland	Baseline	Tunney's Pasture Station	3 or more	No modifications required at Highway 417 (Queensway) underpass as it is assumed that new transit facility would remove general traffic lane on Holland (0)	VD Would require elimination of general traffic lane Adjacent to Experimental Farm	P Caldwell (SB), Merivale/Kirkwood (NB), Shillington, Crear (NB), Carling (SB), Kenilworth, Sherwood Dr (NB), Fisher Park Entrance (SB), Tyndal, Wellington, Spencer possible if on-street parking removed	40	55	Med-High	5,200	10,750	6,060	13,430	73	85	Med	Y	Some	Yes	1200-1600 NB 500-700 SB	1200-1600 NB 500-700 SB	60	85
Package 8: Merivale Direction: East / West Connection improvement: Southwest Twy to North-South LRT	1	Hunt Club	Southwest Transitway	North-South LRT (South Keys Station)	1 to 3	Widening of VIA Rail Overpass. Assumes transit facility removes lane of general traffic on MUE Shelton Bridge (Rideau River). New overpass structures at Airport Parkway, O-train & SRT Transitway required (4)	E D (Rideau River Crossing) Would require elimination of general traffic lane on, or widening of MUE Shelton Bridge	P Bowsville (WB), Airport Parkway interchange	65	65	Med	1,710	3,450	2,620	5,580	38	50	Med	Y	Some	No	350-750 EB 200-500 WB	350-750 EB 200-500 WB	25	50
	2	OCR Rail	Southwest Transitway	North-South LRT (Greenboro station)	0 to 1	Potential widening to Woodcliffe, Merivale, Riverside Drive and Airport Parkway overpasses depending on chosen technology and operational requirements. New overpasses at Merivale, Prince of Wales and crossing of Rideau River required (0)	E VD (Rideau River Crossing) Would require new crossing of Rideau River	D N/A	60	N/A	Med-High	2,110	4,740	1,450	3,060	45	53	Med	Y	Few	No	350-750 EB 200-500 WB	350-750 EB 200-500 WB	20	45
	3	VIA Rail	Fallowfield Station	North-South LRT (between Confederation and Heron stations)	0 to 1	Potential widening to Riverside Drive, Walkley and Airport Parkway overpasses depending on chosen technology and operational requirements. New overpasses at Merivale, Prince of Wales and crossing of Rideau River required (0)	E VD (Rideau River Crossing) Would require new crossing of Rideau River	D N/A	60	N/A	Med	1,070	2,340	1,860	3,860	38	38	Med	Y	Some	No	350-1350 EB 200-750 WB	350-1350 EB 200-750 WB	75	75
	4	VIA/OCR Rail	Fallowfield Station	North-South LRT (Greenboro Station)	0 to 1	Potential widening to Riverside Drive and Airport Parkway overpasses depending on chosen technology and operational requirements. New overpasses at Merivale, Prince of Wales and crossing of Rideau River required (0)	E VD (Rideau River Crossing) Would require new crossing of Rideau River	D N/A	60	N/A	Med	830	1,920	1,350	2,860	30	33	Med	Y	Some	No	350-1350 EB 200-750 WB	350-1350 EB 200-750 WB	75	75
	5	OCR rail / Riverside / Walkley	Southwest Transitway	Walkley Station	0 to 1	Potential widening to Woodcliffe, Merivale and Riverside Drive overpasses depending on chosen technology and operational requirements. New overpasses at Merivale, Prince of Wales and crossing of Rideau River required (0)	E VD (Rideau River Crossing) Would require new crossing of Rideau River	D N/A	60	N/A	Med-High	2,100	2,380	1,520	1,640	45	45	Med	N	Few	No	350-750 EB 200-450 WB	350-750 EB 200-450 WB	10	60
Package 9: Alta Vista 1 Direction: North / South Connection improvement: Hunt Club to Transitway	1	Conroy/Alta Vista Transportation Corridor	Hunt Club	Hospital connection	1 to 3	none (0)	E	E None expected. It is assumed that priority measures could be incorporated into the construction of the AVTC	90	70	Low	2,950	6,050	2,870	6,430	23	43	Med	Y	Some	Yes	500-950 NB 200-400 SB	500-950 NB 200-400 SB	45	85
	2	Conroy/St Laurent	Hunt Club	St. Laurent Station via Walkley	1 to 3	none. It is assumed that transit facility would eliminate general traffic lane (0)	E (Conroy & Walkley) D (St. Laurent)	P Walkley, Harding (WB) St. Laurent, Joffe (NB), Pleasant Park (NB)	80	55	Low-Med	2,410	5,000	3,450	7,430	40	48	Med	Y	Few	Yes	300-400 NB 500-900 SB	300-400 NB 500-900 SB	30	55
	1	Heron/Walkley	North-South LRT	Highway 417	1 to 3	Minor widening only under Airport Parkway, Riverside Drive Access, VIA Rail and Southeast Transitway overpasses (0)	D (Heron) E (Walkley) Would require elimination of general traffic lane on Heron	P Alta Vista (EB), Jefferson (WB), Ryder/Don Reid (WB), Harding (WB), Banton (WB), Melfort (WB)	75	65	Med	2,950	6,270	2,950	6,330	43	53	Med	Y	Some	Yes	200-800 EB 200-1500 WB	200-800 EB 200-1500 WB	60	85
	2	Walkley	North-South LRT	Highway 417	1 to 3	No modifications required to existing structures between N-S LRT & Bank as it is assumed that transit facility would eliminate existing lane of general traffic. Likely require widened structures at 2 railway crossings east of Russell Road (2)	D (Bank to heron) E (Heron to 417) Would require elimination of general traffic lane from bank to Heron	P Hampstead (EB), Cedarwood (EB), Baycrest (WB), Alta Vista (EB), Jefferson (WB), Ryder/Don Reid (WB), Harding (WB), Banton (WB), Melfort (WB)	70	50	Med	2,780	5,590	2,160	4,690	43	43	Med	Y	Few	Yes	200-800 EB 200-1500 WB	200-800 EB 200-1500 WB	55	80
	3	OCR Rail	North-South LRT	Highway 417	0 to 1	May require new underpasses at Bank and Hawthorne depending on chosen technology and operational requirements (2)	E	D N/A	90	N/A	Med	1,640	3,300	1,670	3,840	38	40	Low	Y	None	No	200-800 EB 200-1500 WB	200-800 EB 200-1500 WB	38	63
4	Hunt Club/Hawthorne	North-South LRT (South Keys station)	Highway 417	1 to 3	Likely require new or widened structures at Hawthorne Road overpass and 2 railway crossings east of Russell Road (3)	E (Hunt Club), D (Hawthorne) Would require elimination of continuous 2-way left-turn lane and additional property on Hawthorne Road. Hawthorne Road is subject of very high volumes of heavy trucks	E Pike (WB)	70	80	Low-Med	2,360	4,750	1,030	2,370	25	28	Low	N	None	Yes	200-300 EB 500-750 WB	200-300 EB 500-750 WB	13	38	
Package 11: Alta Vista 3 Direction: East / West Connection improvement: Cumberland to South East Twy	1	Industrial	Hurdman Station	Blair Rd (via Innes)	1 to 3	Abandoned rail corridor overpass to be removed. New VIA rail overpass. New Highway 417 (Queensway) overpass (2)	D (Industrial), P (St. Laurent to 417), VD (417 to Blair). Require re-construction/replacement of 2 Railway Bridges and widening of 417 overpass. Would require elimination of general traffic lane, roadside amenities, or additional property (417 to Blair)	E (Industrial) D (Innes) Home Depot Access, Cyrville, Stonehenge (West), Stonehenge (East), Blair (EB constraints can be minimized if continuous right turn lane into shopping centre ends are used/eliminated)	50	65	High	2,000	4,130	3,160	7,260	70	75	Med	N	Few	Yes	50-400 EB 100-1200 WB	50 EB 100 WB	45	20
	2	Hospital Link Corridor	Hospital connection	Blair Rd (via Innes)	1 to 3	Abandoned rail corridor overpass to be removed. New VIA rail overpass. New Highway 417 (Queensway) overpass. Potential for grade separation at Russel I (3)	P (AVTC - St. Laurent - 417), VD (417 to Blair). Growing Avenue residents concerns adjacent to corridor. Adjacent to Rideau-Perley Veterans Hospital. Requires relocation of Hydro facility. Require re-construction/replacement of 2 Railway Bridges and widening of 417 overpass. Would require elimination of general traffic lane, roadside amenities, or additional property (417 to Blair)	E (AVTC) D (Innes) Home Depot Access, Cyrville, Stonehenge (West), Stonehenge (East), Blair (EB constraints can be minimized if continuous right turn lane into shopping centre ends are used/eliminated)	59	75	High	1,250	2,590	3,520	7,680	73	73	High	Y	Some	Yes	700 EB 1800 WB	700 EB 1800 WB	90	90
	3	Alta Vista Transportation Corridor/Smyth/St. Laurent	Hospital connection	Blair Rd (via Innes)	3 or more	Abandoned rail corridor overpass to be removed. New VIA rail overpass. New Highway 417 (Queensway) overpass (2)	E (AVTC) VD (Smyth & 417-Blair) D (St. Laurent) P (St. Laurent-417) Would require elimination of general traffic lanes on Smyth and St. Laurent. Smyth is a residential street. Require re-construction / replacement of 2 Railway Bridges and widening of 417 overpass. Would require elimination of general traffic lane, roadside amenities or additional property (417 to Blair)	P (AVTC, Smyth, St. Laurent) D (Innes) All intersection on Smyth are constrained. Home Depot Access, Cyrville, Stonehenge (West), Stonehenge (East), Blair (EB constraints can be minimized if continuous right turn lane into shopping centre ends are used/eliminated)	51	65	Med-High	1,420	2,940	3,020	6,570	58	63	Med	Y	Some	Yes	700 EB 1800 WB	700 EB 1800 WB	85	25
Package 12: Ottawa East Direction: East / West Connection improvement: Service through Ottawa East area	1	Rideau/Montreal	Sussex	St. Laurent	3 or more	Potential deck modifications required on Cummings bridge (Rideau River) (1)	VD Would require elimination of general traffic lane and relocation of all on-street parking	D All intersections are constrained	25	40	High	7,240	15,970	3,780	8,230	85	90	High	Y	Some	Yes	1300 EB 2500 WB	1300 EB 2500 WB	90	90
	2	Rideau/St. Patrick/Beechwood/Hemlock	Sussex	St. Laurent via Coburg	3 or more	Potential deck modifications required on Rideau River crossing (1)	VD Would require elimination of general traffic lane and relocation of all on-street parking	D All intersections are constrained	25	50	Med-High	5,430	12,000	3,390	7,360	68	75	Med	Y	Some	Yes	1300 EB 2500 WB	150 EB 350 WB	85	35



Corridor Description				Ease of Implementation						Smart Growth Potential						Ridership Potential									
Package	ID#	Name	From	To	# of Intersections / km	# of structures (New or Require Major Modification)	Feasibility of implementing segregated facility in Corridor	Ease of intersection modifications	Rating Transit Intensive	Rating Transit Priority Measure	TOD Potential (lan Cross)	Existing Population within 600 m per km	2031 Population within 600 m per km	Existing Employment within 600 m per km	2031 Employment within 600 m per km	Rating Transit Intensive	Rating Transit Priority Measure	Level of All-day Transit Demand	High Transit Demand in Both Directions	Links to Key Destinations	Serves Local Transit Needs	Peak Direction Ridership 2031 (TI)	Peak Direction Ridership 2031 (TPM)	Rating Transit Intensive	Rating Transit Priority Measure
Package 14: Cumberland Direction: East / West Connection improvement: St Laurent to South East Twy	1	Innes	Innes/Blackburn Bypass east intersection	Millennium Station	1 to 3	none (0)	D Requires elimination of general traffic lane	P Tenthe Line, Provence (WB)	60	65	Low-Med	2,830	5,790	480	1,510	23	23	Med	N	Some	Yes	50-150 EB 150-300 WB	50-150 EB 150-300 WB	25	25
	2	Blackburn Bypass Extension	Innes/Blackburn Bypass east intersection	Millennium Station	0 to 1	none (0)	P May require elimination of some roadside amenities	E None expected. It is assumed that priority measures could be incorporated into the construction of the SBHSP Extension	85	90	Low-Med	540	3,300	50	540	13	18	Med	N	Few	Yes	200-400 EB 300-600 WB	200-400 EB 300-600 WB	20	30
Package 15: South Nepean Direction: East / West Connection improvement: Service through South Nepean area	1	Strandherd	Fallowfield	South West Twy (Strandherd station)	0 to 1	Assumes VIA Rail overpass constructed as 6-lane facility (0)	E	E none	100	80	Med	1,240	5,050	590	4,800	33	40	Low	N	Few	No	100-300 EB 50-450 WB	100-300 EB 50-450 WB	8	8
	2	VIA Rail	Strandherd	Greenbank	0 to 1	May require widened overpass at Greenbank Road depending on chosen technology and operational requirements (1)	E	D N/A	85	N/A	Low	4,600	10,130	170	1,740	18	30	Low	N	Few	No	500 EB 200 WB	500 EB 200 WB	8	33
Package 16: Greenbelt crossing Direction: East / West Connection improvement: Kanata to Cedarview	1	Robertson / Richmond	Moodie	Bayshore	1 to 3	Potential widening under OCR overpass (0)	P May require elimination of some roadside amenities (in Bell's Corners). May require elimination of general traffic lane, or purchase of NCC Greenbelt property.	E none	75	80	Med	2,890	2,910	2,920	3,160	35	40	Med	Y	Some	Yes	550-900 EB 700 WB	550-900 EB 700 WB	45	85
	2	OCR Rail	New Twy Station within Greenbelt	Highway 416	0 to 1	Potential widening required to Moodie and Richmond overpasses depending on chosen technology and operational requirements (2)	E	N/A	90	N/A	Low-Med	290	300	1,610	1,690	20	20	Low	Y	None	No	150-750 NB 100-550 SB	150-750 NB 100-550 SB	13	23

Appendix B: Transit Intensive Evaluation – Rating per Corridor



MCCORMICK RANKIN CORPORATION



Corridor Description				Ease of Implementation				Smart Growth						Ridership						no weight	x2 criteria #1	x2 criteria #2	x2 criteria #3	x2 x1 x2	Comments & Recommendations	
Package	ID#	Name	From	To	# of Intersections / km	# of structures	Feasibility of segregated lanes	Cost of Transit Intensive Corridor	TOD Potential	Existing Population within 600 m per km	2031 Population within 600 m per km	Existing Employment within 600 m per km	2031 Employment within 600 m per km	Rating	Level of All-day Transit Demand	High Transit Demand in Both Directions	Links to Key Destinations	Serves Local Transit Needs	Peak Direction Ridership 2031	Ridership Potential	Transit Intensive Suitability					
Stand-alone Corridors	1	Terry Fox extension	OCR	March	20	20	60	100	0	0	2.5	5	10	17.5	2.5	0	5	0	0	7.5	42	56	36	33	47	
	2a	Woodroffe	Fallowfield Station	Stoneway (N)	10	20	60	90	0	2.5	5	0	0	7.5	2.5	0	0	10	10	22.5	40	53	32	36	47	
	2b	Woodroffe	Stoneway (N)	Strandherd Drive	10	20	60	90	0	5	10	0	5	20	2.5	0	0	10	0	12.5	41	53	36	34	45	
	3a	Merivale	Baseline	Hunt Club	5	20	30	55	40	2.5	5	5	20	72.5	5.0	0	10	10	0	25	51	52	56	44	47	
	3b	Merivale	Hunt Club	Leikin	10	5	45	60	20	0	0	5	10	35	2.5	0	5	0	0	7.5	34	41	34	28	34	
	4	Baseline/Heron	Baseline Station	Billings Bridge Station	10	20	50	80	20	2.5	2.5	5	10	40	10.0	10	20	10	25	75	65	69	59	68	70	Corridor to be considered for Transit Intensive Implementation
	5a	Carling	Kirkwood	O-Train (Carling Station)	10	5	30	45	20	2.5	5	20	20	67.5	10.0	10	20	10	50	100	71	64	70	78	72	Corridor to be considered for Transit Intensive Implementation
	5b	Carling	O-Train (Carling Station)	Bronson	10	20	30	60	20	5	10	20	20	75	5.0	10	10	10	25	60	65	64	68	64	63	
	6	Catherine & Chamberlain/Isabella	Bronson	Lees Station	5	20	15	40	30	5	10	10	20	75	5.0	10	5	0	0	20	45	44	53	39	39	
	7a	Bank	Wellington	Highway 417	5	20	15	40	40	5	10	20	20	95	10.0	10	20	10	50	100	78	69	83	84	75	Corridor to be considered for Transit Intensive Implementation
	7b	Bank	Highway 417	Billings Bridge Station	5	10	15	30	40	2.5	10	5	20	77.5	10.0	0	10	10	0	30	46	42	54	42	40	
	7c	Bank	North-South LRT (Greenboro station)	Southeast Transitway (Billings Bridge Station)	10	20	30	60	40	2.5	5	5	10	62.5	5.0	0	10	10	0	25	49	52	53	43	47	
	7d	Bank	Leitrim	North-South LRT (Greenboro station)	10	20	53	83	20	2.5	2.5	0	5	30	5.0	0	5	10	0	20	44	54	41	38	47	
	8	St Laurent	St. Laurent Station	Hemlock	5	20	30	55	40	2.5	10	5	20	77.5	5.0	10	5	10	25	55	63	61	66	61	60	
	9	Montreal / Ogilvie	Blair Road	Blair Station (via Ogilvie)	10	20	30	60	40	2.5	3	10	10	65.0	5.0	10	10	10	10	45	57	58	59	54	55	
	10	St Joseph	Jeanne d'Arc	Trim	10	20	15	45	40	2.5	2.5	5	10	60	5.0	0	5	10	0	20	42	43	46	36	38	
	11	Jeanne d'Arc	Cumberland Transitway	East Transitway (Jeanne d'Arc Station)	10	20	30	60	0	2.5	5	0	5	12.5	2.5	0	0	10	0	13	28	36	24	24	32	
	12a	Tenth Line	Cumberland Transitway	Tompkins/Charlemagne	10	20	35	65	0	2.5	10	5	5	22.5	2.5	0	5	10	0	17.5	35	43	32	31	38	
	12b	Tenth Line	Tompkins/Charlemagne	East Transitway (Place d'Orleans Station)	10	20	45	75	10	2.5	10	0	5	27.5	2.5	0	5	10	10	27.5	43	51	39	39	47	
13	Trim	Cumberland Transitway	East Transitway (Trim station)	10	20	60	90	0	2.5	3	0	5	10.0	2.5	0	5	10	0	17.5	39	52	32	34	45		
14	Bronson	Carling	Albert/Slater?	5	5	15	25	30	10	10	20	20	90	5.0	10	10	10	25	60	58	50	66	59	52		
15	King Edward	Sussex	Rideau	10	20	30	60	20	2.5	10.0	20	20	73	5.0	0	10	0	0	15	49	52	55	41	45		
16	Vanier Parkway	Beechwood	Hurdman Station (via Industrial extension)	10	5	30	45	20	2.5	5.0	5	10	43	5.0	0	10	10	0	25	38	39	39	34	37		
17	Wellington	O-Train (Bayview Station)	Sussex	5	20	15	40	20	2.5	10	20	20	72.5	10.0	10	20	10	25	75	63	57	65	66	61		
18	Richmond/Wellington/Somerset	Westboro Station via McRae	NS LRT	5	20	15	40	40	5	5	10	10	70	10.0	0	10	10	0	30	47	45	53	43	42		
19	Somerset	NS LRT	Bank	5	20	15	40	40	10	10	20	20	100	10.0	0	10	10	10	40	60	55	70	55	52		
Package 1: Kanata / Stittsville Direction: North / South Connection Improvement: Kanata South to West Transitway	1	Terry Fox	West Transitway (Terry Fox Station)	Eagleson (via Fernbank)	10	5	60	75	0	0	2.5	5	5	12.5	2.5	0	5	0	0	7.5	32	43	27	26	36	
	2	Castlefrank	West Transitway (Terry Fox Station)	Eagleson (via Terry Fox & Fernbank)	10	10	30	50	0	2.5	5.0	0	5	13	5.0	0	5	10	0	20	28	33	24	26	31	
	3	Eagleson	West Transitway (Eagleson Park & Ride Lot)	Fernbank	10	20	40	70	0	2.5	5	0	5	12.5	2.5	0	0	10	25	37.5	40	48	33	39	46	
	4	Eagleson/Stonehaven	West Transitway (Eagleson Park & Ride Lot)	Richmond (via Stonehaven)	10	20	30	60	0	2.5	5.0	0	5	13	2.5	0	5	10	25	42.5	38	44	32	39	44	
Package 2: Kanata / Stittsville Direction: East / West Connection Improvement: Stittsville to Moodie	1	Hazeldean/Robertson	Stittsville Main	Moodie	10	20	35	65	20	0	2.5	5	5	32.5	5.0	0	5	10	10	30	43	48	40	39	45	
	2	Abandoned CPR Carleton Place Subdivision	Stittsville Main	Moodie	10	20	60	90	0	0	2.5	0	5	7.5	2.5	0	5	0	0	7.5	35	49	28	28	41	
	3	Fernbank/Eagleson/Abandoned CPR Carleton Place Subdivision	Stittsville Main	Moodie	20	20	40	80	0	0	2.5	0	5	7.5	2.5	0	5	0	0	7.5	32	44	26	26	37	
	4	Fernbank/Eagleson/Robertson	Stittsville Main	Moodie	20	20	30	70	0	0	2.5	0	5	7.5	2.5	0	5	0	0	7.5	28	39	23	23	33	
Package 3: Kanata North 1 Direction: North / South Connection Improvement: Terry Fox/CNR to West Transitway	1	Terry Fox	CN Railway tracks	West Transitway (Terry Fox station)	20	5	60	85	10	0	3	0	5	18	2.5	0	5	0	0	7.5	37	49	32	29	41	
	2	Terry Fox/Kanata Avenue	CN Railway tracks	West Transitway (Terry Fox station)	10	5	40	55	0	0	2.5	0	5	7.5	2.5	0	5	10	0	17.5	27	34	22	24	31	

Corridor Description				Ease of Implementation				Smart Growth						Ridership						no weight	x2 criteria #1	x2 criteria #2	x2 criteria #3	x2 x1 x2	Comments & Recommendations		
Package	ID#	Name	From	To	# of Intersections / km	# of structures	Feasibility of segregated lanes	Cost of Transit Intensive Corridor	TOD Potential	Existing Population within 600 m per km	2031 Population within 600 m per km	Existing Employment within 600 m per km	2031 Employment within 600 m per km	Rating	Level of All-day Transit Demand	High Transit Demand in Both Directions	Links to Key Destinations	Serves Local Transit Needs	Peak Direction Ridership 2031	Ridership Potential	Transit Intensive Suitability						
Package 4: Kanata North 2 Direction: North / South Connection Improvement: Kanata North to West Transitway	1	OCR Railway 1	Terry Fox	West Transitway (new stop in the Greenbelt)	20	20	60	100	10	0	0.0	0	5	15.0	2.5	0	0	0	0	0	2.5	39	54	33	30	44	
	2	OCR Railway 2	Klondike	West Transitway (new stop in the Greenbelt)	20	20	60	100	10	0	0.0	0	5	15.0	2.5	0	5	0	0	0	7.5	41	56	34	33	46	
	3	March/Carling/Holly Acres	Terry Fox	West Transitway (Bayshore Station)	20	5	50	75	10	0	0.0	5	10	25.0	5.0	0	10	10	0	0	25	42	50	38	38	45	
Package 5: Bayshore / Cedarview Direction: East / West Connection Improvement: West to East of Bayshore / Cedarview community	1	Carling	Bayshore Station	Lincoln Fields Station	10	5	15	30	40	5	10	5	5	65	5.0	10	5	10	25	55	50	45	54	51	47		
	2	Richmond	Bayshore Station	Lincoln Fields Station	10	5	30	45	20	5	10	5	10	50	5.0	10	5	10	25	55	50	49	50	51	50		
	3	Baseline	Bayshore Station	Baseline Station	10	20	45	75	10	2.5	5.0	5	10	33	2.5	10	10	10	10	42.5	50	56	46	48	54		
	4	OCR Railway 3	Hwy 416	Southwest Transitway	20	10	60	90	0	2.5	5	5	5	17.5	2.5	0	5	0	0	0	7.5	38	51	33	31	43	
Package 6: Ottawa West 1 Direction: East / West Connection Improvement: Service through Carlingwood area	1	Richmond	Lincoln Fields	Westboro Station via Church/Scott	10	20	15	45	40	2.5	5	5	10	62.5	5.0	10	5	10	50	80	63	58	63	67	63		
	2	Carling	Lincoln Fields Station	Kirkwood	10	5	30	45	40	2.5	10	10	20	82.5	5.0	10	5	10	50	80	69	63	73	72	67	Corridor to be considered for Transit Intensive Implementation	
	3	Hwy 417(Queensway)/Carling	Queensway Station	Kirkwood	20	20	15	55	0	2.5	5	5	10	22.5	2.5	10	5	0	50	67.5	48	50	42	53	54		
Package 7: Ottawa West 2 Direction: North / South Connection Improvement: Baseline to EW LRT	1	Merivale/Kirkwood	Baseline	Westboro Station via Carling, Richmond & McRae	5	5	15	25	10	2.5	10	5	10	37.5	2.5	10	5	10	25	52.5	38	35	38	42	39		
	2	Fisher/Holland	Baseline	Tunney's Pasture Station	10	20	30	60	10	2.5	5	20	20	57.5	5.0	10	5	10	25	55	58	58	58	57	58		
	3	Merivale/Holland	Baseline	Tunney's Pasture Station	5	20	15	40	30	2.5	10	10	20	72.5	5.0	10	10	10	25	60	58	53	61	58	55		
Package 8: Merivale Direction: East / West Connection Improvement: Southwest Twy to North-South LRT	1	Hunt Club	Southwest Transitway	North-South LRT (South Keys station)	10	10	45	65	20	0	2.5	5	10	37.5	5.0	10	10	0	0	25	43	48	41	38	44		
	2	OCR Rail	Southwest Transitway	North-South LRT (Greenboro station)	20	10	30	60	30	2.5	2.5	5	5	45	5.0	10	5	0	0	20	42	46	43	36	41		
	3	VIA Rail	Fallowfield Station	North-South LRT (between Confederation and Heron stations)	20	10	30	60	20	0	3	5	10	38	5.0	10	10	0	25	50	49	52	46	49	52		
	4	VIA/OCR Rail	Fallowfield Station	North-South LRT (Greenboro Station)	20	10	30	60	20	0	0	5	5	30	5.0	10	10	0	25	50	47	50	43	48	50		
	5	OCR/VIA Rail	Southwest Transitway	North-South LRT (between Confederation and Heron stations)	20	10	30	60	30	2.5	2.5	5	10	50	5.0	10	10	0	0	25	45	49	46	40	44		
Package 9: Alta Vista 1 Direction: North / South Connection Improvement: Hunt Club to Transitway	1	Conroy/Alta Vista Transportation Corridor	Hunt Club	Hospital connection	10	20	60	90	0	2.5	5	5	10	22.5	5.0	10	10	10	10	45	53	62	45	51	59		
	2	Conroy/St Laurent	Hunt Club	St. Laurent Station via Walkley	10	20	50	80	10	2.5	2.5	5	20	40	5.0	10	5	10	0	30	50	58	48	45	52		
Package 10: Alta Vista 2 Direction: East / West Connection Improvement: Service through Alta Vista area	1	Heron/Walkley	North-South LRT	Highway 417	10	20	45	75	20	2.5	5	5	10	42.5	5.0	10	10	10	25	60	59	63	55	59	63		
	2	Walkley	North-South LRT	Highway 417	10	10	50	70	20	2.5	5	5	10	42.5	5.0	10	5	10	25	55	56	59	53	56	59		
	3	OCR Rail	North-South LRT	Highway 417	20	10	60	90	20	0	2.5	5	10	37.5	2.5	10	0	0	25	37.5	55	64	51	51	59		
	4	Hunt Club/Hawthorne	North-South LRT (South Keys station)	Highway 417	10	10	50	70	10	2.5	2.5	5	5	25	2.5	0	0	10	0	12.5	36	44	33	30	38		
Package 11: Alta Vista 3 Direction: East / West Connection Improvement: Cumberland to South East Twy	1	Industrial	Hurdman Station	Blair Rd (via Innes)	10	10	30	50	40	2.5	2.5	5	20	70	5.0	0	5	10	25	45	55	54	59	53	52		
	2	Hospital Link Corridor	Hospital connection	Blair Rd (via Innes)	10	10	39	59	40	0	2.5	10	20	72.5	10.0	10	10	10	50	90	74	70	74	78	74	Corridor to be considered for Transit Intensive Implementation	
	3	Alta Vista Transportation Corridor/Smyth/St. Laurent	Hospital connection	Blair Rd (via Innes)	5	10	36	51	30	0	2.5	5	20	57.5	5.0	10	10	10	50	85	65	61	63	70	66		
Package 12: Ottawa East Direction: East / West Connection Improvement: Service through Ottawa East area	1	Rideau/Montreal	Sussex	St. Laurent	5	5	15	25	40	5	10	10	20	65	10.0	10	10	10	50	90	67	56	71	73	63	Corridor to be considered for Transit Intensive Implementation	
	2	Rideau/St. Patrick/Beechwood/Hemlock	Sussex	St. Laurent via Coburg	5	5	15	25	30	2.5	10	5	20	67.5	5.0	10	10	10	50	85	59	51	61	66	58		
Package 13: Beacon Hill Direction: North / South Connection Improvement: Service through Beacon Hill area	1	Montreal/Blair	St. Laurent	Blair Station	10	20	15	45	30	2.5	10	10	20	72.5	5.0	10	10	10	25	60	59	56	63	59	57		
	2	Montreal/Bathgate	St. Laurent	Blair Station	10	20	15	45	30	2.5	5	10	20	67.5	10.0	10	20	10	25	75	63	58	64	66	62		
	3	Hemlock/Rockcliffe Airbase/Blair	St. Laurent	Blair Station	20	5	15	40	40	0	5	5	10	60	2.5	10	5	10	25	52.5	51	48	53	51	49		
	4	Hemlock/Rockcliffe Airbase/Bathgate	St. Laurent	Blair Station	10	5	15	30	40	2.5	5	5	10	62.5	5.0	10	10	10	25	60	51	46	54	53	49		
Package 14: Cumberland Direction: East / West Connection Improvement: St Laurent to South East Twy	1	Innes	Innes/Blackburn Bypass east intersection	Millennium Station	10	20	30	60	10	2.5	5	0	5	22.5	5.0	0	10	10	0	25	36	42	33	33	39		
	2	Blackburn Bypass Extension	Innes/Blackburn Bypass east intersection	Millennium Station	20	20	45	85	10	0	2.5	0	0	12.5	5.0	0	5	10	0	20	39	51	33	34	45		

Corridor Description					Ease of Implementation				Smart Growth						Ridership					no weight	x2 criteria #1	x2 criteria #2	x2 criteria #3	x2 x1 x2	Comments & Recommendations	
Package	ID#	Name	From	To	# of Intersections / km	# of structures	Feasibility of segregated lanes	Cost of Transit Intensive Corridor	TOD Potential	Existing Population within 600 m per km	2031 Population within 600 m per km	Existing Employment within 600 m per km	2031 Employment within 600 m per km	Rating	Level of All-day Transit Demand	High Transit Demand in Both Directions	Links to Key Destinations	Serves Local Transit Needs	Peak Direction Ridership 2031	Ridership Potential	Transit Intensive Suitability					
Package 15: South Nepean Direction: East / West Connection Improvement: Service through South Nepean area	1	Strandherd	Fallowfield	South West Twy (Strandherd station)	20	20	60	100	20	0	3	0	10	33	2.5	0	5	0	0	7.5	47	60	43	37	50	
	2	VIA Rail	Strandherd	Greenbank	20	5	60	85	0	2.5	10	0	5	17.5	2.5	0	5	0	0	7.5	37	49	32	29	41	
Package 16: Greenbelt crossing Direction: East / West Connection Improvement: Kanata to Cedarview	1	Robertson / Richmond	Moodie	Bayshore	10	20	45	75	20	2.5	2.5	5	5	35	5.0	10	10	10	10	45	52	58	48	50	55	
	2	OCR Rail	New Twy Station within Greenbelt	Highway 416	20	10	60	90	10	0	0	5	5	20	2.5	10	0	0	0	12.5	41	53	36	34	45	

Appendix C: Transit Priority Measure Evaluation – Rating per Corridor



MCCORMICK RANKIN CORPORATION



Corridor Description				Ease of Implementation				Smart Growth						Ridership						no weight	x2 criteria #1	x2 criteria #2	x2 criteria #3	x2 x1 x2	Comments & Recommendations	
Package	ID#	Name	From	To	# of lanes cost	# of Intersections / km	Ease of intersection modifications	Cost of Transit Intensive Corridor	TOD Potential	Existing Population within 600 m per km	2031 Population within 600 m per km	Existing Employment within 600 m per km	2031 Employment within 600 m per km	Rating	Level of All-day Transit Demand	High Transit Demand in Both Directions	Links to Key Destinations	Serves Local Transit Needs	Peak Direction Ridership 2031	Ridership Potential	Transit Priority Measures Suitability					
Stand-alone Corridors	1	Terry Fox extension	OCR	March	20	30	40	90	10	0	2.5	5	10	27.5	2.5	0	5	0	0	7.5	42	54	38	33	45	
	2a	Woodroffe	Fallowfield Station	Stoneway (N)	20	20	40	80	10	2.5	10	0	5	27.5	2.5	0	0	10	50	62.5	57	63	49	58	63	
	2b	Woodroffe	Stoneway (N)	Strandherd Drive	20	20	40	80	10	5	10	0	5	30	2.5	0	0	10	0	12.5	41	51	38	34	43	
	3a	Merivale	Baseline	Hunt Club	20	10	25	55	40	2.5	5	10	20	77.5	5	0	10	10	50	75	69	66	71	71	68	Corridor to be considered for TPM Implementation
	3b	Merivale	Hunt Club	Leikin	30	20	25	75	20	0	0	5	10	35	2.5	0	5	0	25	32.5	48	54	44	44	50	
	4	Baseline/Heron	Baseline Station	Billings Bridge Station	20	20	25	65	20	2.5	5	5	20	52.5	10	10	20	10	50	100	73	71	68	79	77	Corridor already considered for Transit Intensive Implementation
	5a	Carling	Kirkwood	O-Train (Carling Station)	10	20	25	55	20	2.5	10	20	20	72.5	10	10	20	10	50	100	76	71	75	82	77	Corridor already considered for Transit Intensive Implementation
	5b	Carling	O-Train (Carling Station)	Bronson	10	20	40	70	20	10	10	20	20	80	5	10	10	10	50	85	78	76	79	80	78	Corridor to be considered for TPM Implementation
	6	Catherine & Chamberlain/Isabella	Bronson	Lees Station	30	10	10	50	30	5	10	20	20	85	5	10	5	0	25	45	60	58	66	56	55	Corridor to be considered for TPM Implementation
	7a	Bank	Wellington	Highway 417	30	10	10	50	40	10	10	20	20	100	10	10	20	10	50	100	83	75	88	88	80	Corridor already considered for Transit Intensive Implementation
	7b	Bank	Highway 417	Billings Bridge Station	20	10	10	40	40	5	10	10	20	85	10	0	10	10	10	40	55	51	63	51	49	
	7c	Bank	North-South LRT (Greenboro station)	Southeast Transitway (Billings Bridge Station)	20	20	25	65	40	2.5	5	5	10	62.5	5	0	10	10	10	35	54	57	56	49	53	
	7d	Bank	Letrim	North-South LRT (Greenboro station)	20	20	40	80	20	2.5	2.5	5	5	35	5	0	5	10	0	20	45	54	43	39	47	
	8	St Laurent	St. Laurent Station	Hemlock	10	10	25	45	40	5	10	5	20	80	5	10	5	10	50	80	68	63	71	71	66	Corridor to be considered for TPM Implementation
	9	Montreal / Ogilvie	Blair Road	Blair Station (via Ogilvie)	20	20	10	50	40	2.5	2.5	10	10	65.0	5	10	10	10	50	85	67	63	66	71	67	Corridor to be considered for TPM Implementation
	10	St Joseph	Jeanne d'Arc	Trim	20	20	25	65	40	2.5	5	5	10	62.5	5	0	5	10	0	20	49	53	53	42	47	
	11	Jeanne d'Arc	Cumberland Transitway	East Transitway (Jeanne d'Arc Station)	20	20	10	50	10	2.5	5	5	5	27.5	2.5	0	0	10	10	22.5	33	38	32	31	35	
	12a	Tenth Line	Cumberland Transitway	Tompkins/Charlemagne	20	20	25	65	10	5	10	5	5	35	2.5	0	5	10	0	17.5	39	46	38	34	40	
	12b	Tenth Line	Tompkins/Charlemagne	East Transitway (Place d'Orleans Station)	20	20	40	80	10	5	10	0	5	30	2.5	0	5	10	50	67.5	59	64	52	61	65	Corridor to be considered for TPM Implementation
13	Trim	Cumberland Transitway	East Transitway (Trim station)	20	20	40	80	10	2.5	5	0	5	22.5	2.5	0	5	10	0	17.5	40	50	36	34	44		
14	Bronson	Carling	Albert/Slate?	20	10	10	40	30	10	10	20	20	90	5	10	10	10	50	85	72	64	76	75	68	Corridor to be considered for TPM Implementation	
15	King Edward	Sussex	Rideau	10	20	25	55	20	5	10	20	20	75	5	0	10	0	10	25	52	53	58	45	47		
16	Vanier Parkway	Beechwood	Hurdman Station (via Industrial extension)	20	20	10	50	20	2.5	5	5	10	43	5	0	10	10	25	50	48	48	46	48	49		
17	Wellington	O-Train (Bayview Station)	Sussex	20	10	10	40	20	5	10	20	20	75	10	10	20	10	50	100	72	64	73	79	71	Corridor to be considered for TPM Implementation	
18	Richmond/Wellington/Somerset	Westboro Station via McRae	NS LRT	20	10	10	40	40	5	10	10	20	85	10	0	10	10	25	55	60	55	66	59	55	Corridor to be considered for TPM Implementation	
19	Somerset	NS LRT	Bank	20	10	10	40	40	10	10	20	20	100	10	0	10	10	50	80	73	65	80	75	68	Corridor to be considered for TPM Implementation	
Package 1: Kanata / Stittsville Direction: North / South Connection Improvement: Kanata South to West Transitway	1	Terry Fox	West Transitway (Terry Fox Station)	Eagleson (via Fernbank)	20	20	40	80	10	2.5	5	5	5	28	2.5	0	5	0	25	32.5	47	55	42	43	51	
	2	Castlefrank	West Transitway (Terry Fox Station)	Eagleson (via Terry Fox & Fernbank)	30	20	25	75	10	2.5	10	5	5	33	5	0	5	10	25	45	51	57	46	49	55	
	3	Eagleson	West Transitway (Eagleson Park & Ride Lot)	Fernbank	10	20	25	55	10	2.5	5	5	5	27.5	2.5	0	0	10	50	62.5	48	50	43	52	53	
	4	Eagleson/Stonehaven	West Transitway (Eagleson Park & Ride Lot)	Richmond (via Stonehaven)	20	20	10	50	10	2.5	5	0	5	23	2.5	0	5	10	50	67.5	47	48	41	52	52	
Package 2: Kanata / Stittsville Direction: East / West Connection Improvement: Stittsville to Moodie	1	Hazeldean/Robertson	Stittsville Main	Moodie	20	20	40	80	20	2.5	2.5	5	5	35	5	0	5	10	25	45	53	60	49	51	57	
	4	Fernbank/Eagleson/Robertson	Stittsville Main	Moodie	20	30	25	75	10	0	2.5	5	5	22.5	2.5	0	5	0	0	7.5	35	45	32	28	38	
Package 3: Kanata North1 Direction: North / South Connection Improvement: Terry Fox/CNR to West Transitway	1	Terry Fox	CN Railway tracks	West Transitway (Terry Fox station)	20	30	25	75	10	0	2.5	5	5	23	2.5	0	5	0	25	32.5	43	51	38	41	48	
	2	Terry Fox/Kanata Avenue	CN Railway tracks	West Transitway (Terry Fox station)	30	20	25	75	10	0	5	5	5	25.0	2.5	0	5	10	25	42.5	48	54	42	46	52	

Appendix D: Supplementary Corridor Cost Estimates

Transit Intensive Corridors

Transit Priority Corridors



MCCORMICK RANKIN CORPORATION



Transit Intensive Corridors

The following Transit Intensive Corridors were estimated with more detail as they were initially considered for the primary transit network. These corridors include:

1. Caling LRT – Lincoln Fields to Carling Station
2. Hospital Connection from Southeast Transitway to Blair Road
3. Baseline Road – Baseline Station to Confederation

Carling (Lincoln Fields Station to O-Train/Carling Station) At grade LRT within dedicated lanes (median preferred)				
Clearing / removals	7,000	m	\$ 375.00	\$ 2,625,000.00
fill / grading	428,400	t	\$ 20.00	\$ 8,568,000.00
Cut / excavation	43,650	m3	\$ 25.00	\$ 1,091,250.00
modification to accommodate 5m clearance at 417 (lower road by 0.2m)	640	m3	\$ 25.00	\$ 16,000.00
600 storm sewer	7,000	m	\$ 600.00	\$ 4,200,000.00
CB	4 @ 40m spacing 700	each	\$ 2,000.00	\$ 1,400,000.00
CB leads	ROW @ 40m spacing 5,950	m	\$ 250.00	\$ 1,487,500.00
Tracks	14,000	m	\$ 1,215.00	\$ 17,010,000.00
Crossings	12	each	\$ 50,000.00	\$ 600,000.00
Turnout	2	each	\$ 500,000.00	\$ 1,000,000.00
asphalt	62,426	t	\$ 100.00	\$ 6,242,600.00
curbs	28,000	m	\$ 50.00	\$ 1,400,000.00
sidewalks	28,000	m2	\$ 55.00	\$ 1,540,000.00
traffic plant	34	each	\$ 150,000.00	\$ 5,100,000.00
streetlighting	350	each	\$ 3,200.00	\$ 1,120,000.00
hydro pole relocation	253	each	\$ 25,000.00	\$ 6,325,000.00
Structure – Carling & Otrain (within median)	800	m2	\$ 2,750.00	\$ 2,200,000.00
Structure – Carling & Otrain (under Carling).	4,200	m2	\$ 2,750.00	\$ 11,550,000.00
retaining walls	4,615	m2	\$ 1,000.00	\$ 4,615,088.36
urban renewal	7,000	m	\$ 2,000.00	\$ 14,000,000.00
On Line Stations	22	each	\$ 1,000,000.00	\$ 22,000,000.00
relocated carling station	1	each	\$ 2,000,000.00	\$ 2,000,000.00
Traction Power	7000	m	\$ 1,350.00	\$ 9,450,000.00



Power Supply	7000	m	\$ 1,000.00	\$ 7,000,000.00
Sub-stations	7000	m	\$ 1,200.00	\$ 8,400,000.00
Control / Signals	7000	m	\$ 3,000.00	\$ 21,000,000.00
Communication System	7000	m	\$ 750.00	\$ 5,250,000.00
SECTION TOTAL				\$ 167,190,438.36
Engineering & Project Management	15%			\$ 25,078,565.75
	30%			57,680,701.24
TOTAL				\$ 249,949,705.35

Total Carling LRT = \$ 250 M



The Hospital Connection consists of 2 sections:

1. From Southeast Transitway to Hospital Ring Road
2. From Hospital Ring Road to Blair

Hospital Link						
(Southeast Transitway to Hospital Ring Road)						
Grade-separated dedicated BRT facility						
earth EX for new alignment		1,500	m	\$ 375.00	\$	562,500.00
Cut / excavation	l=325, w= 25avg, h=7	57000	m3	\$ 85.00	\$	4,845,000.00
Transitway urban		1500	m	\$ 475.00	\$	712,500.00
Culverts and Outlets		3200	m	\$ 1,000.00	\$	3,200,000.00
Stormwater Management Facilities		1	LS	\$ 3,310,000.00	\$	3,310,000.00
Granulars & Asphalt		1,500	m	\$ 660.00	\$	990,000.00
Curbs & Sidewalks (Urban)		1,500	m	\$ 330.00	\$	495,000.00
At Grade Intersection (at transitway)		1	each	\$ 500,000.00	\$	500,000.00
fencing		3,000	m	\$ 80.00	\$	240,000.00
Utilities (Bell, Hydro, Gas, Fibreoptic) + Tower Relocations		1	LS	\$ 1,250,000.00	\$	1,250,000.00
Municipal Services Relocations (Water, Sanitary and Storm)		1	LS	\$ 3,500,000.00	\$	3,500,000.00
Under Riverside Drive Access	15	15	m ²	\$ 2,500.00	\$	562,500.00
Under Via	10	15	m ²	\$ 2,500.00	\$	375,000.00
Under Alta Vista	20	15	m ²	\$ 2,500.00	\$	750,000.00
retaining walls	650	7	m ²	\$ 1,000.00	\$	4,550,000.00
Hospital		1	LS	\$ 3,000,000	\$	3,000,000.00
Communication System		1500		300	\$	450,000.00
SECTION 6 TOTAL					\$	29,292,500.00
Engineering & Project Management		15%			\$	4,393,875.00
		30%				10,105,912.50
TOTAL					\$	43,792,287.50



Hospital Link					
(Hospital Ring Road to Blair Road)					
Grade-separated dedicated BRT facility					
new alignment		4,825	m	\$ 375	\$ 1,809,375.00
rural ditching		2300	m	\$ 125.00	\$ 287,500.00
urban		2525	m	\$ 475.00	\$ 1,199,375.00
Transitway Roadway (rural and urban)		4,825	m	\$ 660	\$ 3,184,500.00
Sidewalks, boulevards (Urban)		2,525	m	\$ 330	\$ 833,250.00
At Grade Intersection		1	each	\$ 250,000	\$ 250,000.00
fencing		9,650	m	\$ 80	\$ 772,000.00
high tension hydro pole relocation		5	m	\$ 250,000.00	\$ 1,250,000.00
Industrial	35	15	m2	2500	\$ 1,312,500.00
access road	15	15	m2	2000	\$ 450,000.00
St Laurent	45	15	m2	2500	\$ 1,687,500.00
Innes Flyover	225	12	m2	2500	\$ 6,750,000.00
Bantree	35	15	m2	2500	\$ 1,312,500.00
St Laurent station		1	LS	\$ 3,000,000	\$ 3,000,000.00
online stations		4	each	\$ 1,000,000	\$ 4,000,000.00
Communication System		4825	m	\$ 300.00	\$ 1,447,500.00
SECTION TOTAL					\$ 29,546,000.00
Engineering & Project Management		15%			\$ 4,431,900.00
		30%			10,193,370.00
TOTAL					\$ 44,171,270.00

Total Hospital Connection = \$ 88 M



The Baseline Corridor consists of 4 sections:

1. Baseline/Heron - From Baseline Station to Confederation
2. Heron/Walkley - From Confederation to Russell Road
3. Russell / St Laurent – From Walkley to Transitway at Innes
4. Baseline –From Bayshore Station to Baseline Station

Baseline/Heron					
(Baseline Station to Billings Bridge Station)					
All day dedicated bus lanes requiring:					
Road widening from Navaho to Prince of Wales					
Taking away a lane of general traffic, from Prince of Wales to Data Centre					
earth EX for new alignment	6,500	m	\$ 375.00		\$ 2,437,500.00
fill / grading	397,800	t	\$ 20.00		\$ 7,956,000.00
600 storm sewer	6,500	m	\$ 600.00		\$ 3,900,000.00
CB	4 @ 40m spacing	650	each	\$ 2,000.00	\$ 1,300,000.00
CB leads	ROW @ 40m spacing	5,525	m	\$ 250.00	\$ 1,381,250.00
At Grade Intersection (no station)	5	each	\$250,000.00		\$ 1,250,000.00
fencing	500	m	\$ 80.00		\$ 40,000.00
asphalt	75,803	t	\$ 100.00		\$ 7,580,300.00
curbs	26,000	m	\$ 50.00		\$ 1,300,000.00
sidewalks	26,000	m2	\$ 55.00		\$ 1,430,000.00
streetlighting	325	each	\$ 3,200.00		\$ 1,040,000.00
Hydro relocation	identified in ORTEP	4500	m	\$ 175.00	\$ 787,500.00
bell relocation	identified in ORTEP	4500	m	\$ 75.00	\$ 337,500.00
gas relocation	identified in ORTEP	4500	m	\$ 100.00	\$ 450,000.00
water relocation	identified in ORTEP	4500	m	\$ 50.00	\$ 225,000.00
sanitary relocation	identified in ORTEP	4500	m	\$ 50.00	\$ 225,000.00
misc underground work	identified in ORTEP	4500	m	\$ 150.00	\$ 675,000.00
urban renewal		6500	m	\$ 2,000.00	\$ 13,000,000.00
Median Stations (including signal rebuild)		13	each	\$ 1,000,000	\$ 13,000,000.00
Communication System		6500	m		300 \$ 1,950,000.00
SECTION 2 TOTAL					\$ 60,265,050.00
Engineering & Project Management	15%				\$ 9,039,757.50
	30%				20,791,442.25
TOTAL					\$ 90,096,249.75



Heron/Walkley (North-South LRT to Hawthorne) Dedicated bus lanes requiring road reconstruction							
Russell to Heron	2800	m widen to 6 lanes	\$ 4,705.00	\$ 13,174,000.00	17,126,200.00	19,695,130.00	
	9	intersections	\$ 150,000.00	\$ 1,350,000.00	1,755,000.00	2,018,250.00	
Walkley to Confederation	3700	m widen to 6 lanes	\$ 4,705.00	\$ 17,408,500.00	22,631,050.00	26,025,707.50	
	11	intersections	\$ 150,000.00	\$ 1,650,000.00	2,145,000.00	2,466,750.00	
Total							\$ 47,700,000.00
Russell/St Laurent (Walkley to Innes) dedicated bus lanes requiring road widening							
St Laurent: Transitway to Russell	400	m widen to 6 lanes	\$ 4,705.00	\$ 1,882,000.00	2,446,600.00	2,813,590.00	
	3	intersections	\$ 150,000.00	\$ 450,000.00	585,000.00	672,750.00	
	2100	m widen to 4 lanes	\$ 4,100.00	\$ 8,610,000.00	11,193,000.00	12,871,950.00	
Russell: St Laurent to Walkley	3	intersections	\$ 150,000.00	\$ 450,000.00	585,000.00	672,750.00	
Total							\$ 17,000,000.00
Baseline (Bayshore Station to Baseline Station) Dedicated bus lanes requiring:							
<ul style="list-style-type: none"> ▪ New exclusive corridor adjacent to Queensway-Carleton Hospital ▪ Road reconstruction from the new hospital corridor to Centrepointe Drive. (west) ▪ Taking away a lane of general traffic in each direction, from Centrepointe Drive (west) to Woodroffe 							
Baseline: Baseline stn to New Road	3800	m widening to 6 lanes	\$ 4,705.00	\$ 17,879,000.00	23,242,700.00	26,729,105.00	
	9	intersections	\$ 150,000.00	\$ 1,350,000.00	1,755,000.00	2,018,250.00	
New Road: Baseline to Holy Acres	1000	m of new road	\$ 4,100.00	\$ 4,100,000.00	5,330,000.00	6,129,500.00	
	3	intersections	\$ 150,000.00	\$ 450,000.00	585,000.00	672,750.00	
Holy Acres: New road to Bayshore	1200	m line painting signs (@200m spacing x 2 dir)	\$ 5.00	6,000.00	7,800.00	8,970.00	
	6		\$ 2,000.00	12,000.00	15,600.00	17,940.00	
Total							\$ 35,600,000.00

Total Baseline Corridor = 90 + 48 + 17 + 36 = \$ 191 M



Transit Priority Corridors

Corridor Name (Limits)	Breakdown of Costs				Total Estimate
		Estimate	Includes 30% Contingency	Includes 15% PM & Eng	
Bank Street (Wellington to Highway 417)	prohibit on-street parking during peak periods	costs include new signage and line painting			\$ 2,000,000.00
	3400 m line painting	\$ 17,000.00	22,100.00	25,415.00	
	48 signs	\$ 96,000.00	124,800.00	143,520.00	
	24 transit signals	\$ 1,200,000.00	1,560,000.00	1,794,000.00	
Rideau/Montreal (Sussex to St. Laurent)	prohibit on-street parking during those periods	costs include new signage, line painting,			\$ 4,700,000.00
	540 surface parking spots	\$ 810,000.00	1,053,000.00	1,210,950.00	
	8200 m line painting	\$ 41,000.00	53,300.00	61,295.00	
	86 signs	\$ 172,000.00	223,600.00	257,140.00	
	43 transit signals	\$ 2,150,000.00	2,795,000.00	3,214,250.00	
Montreal/Bathgate (St Laurent to Blair Station)	take away existing traffic lanes	costs include line painting, signage, intersection modifications			\$ 4,900,000.00
	3600 m line painting	\$ 18,000.00	23,400.00	26,910.00	
	22 signs	\$ 44,000.00	57,200.00	65,780.00	
	3 intersection mod	\$ 3,194,160.00	4,152,408.00	4,775,269.20	
	widen road	costs include widening road from 2 to 4 lanes			\$ 8,900,000.00
	1800 m new 4 lane	\$ 5,481,000.00	7,125,300.00	8,194,095.00	
	3 intersections	\$ 450,000.00	585,000.00	672,750.00	
Carling (O-Train to Bronson)	costs include intersection reconstruction				\$ 3,700,000.00
	2 intersections	\$ 2,464,000.00	3,203,200.00	3,683,680.00	
Bronson (Carling to Catherine/Chamberlain)	costs include intersection reconstruction				\$ 8,000,000.00
	5 intersections	\$ 5,323,600.00	6,920,680.00	7,958,782.00	
Catherine & Chamberlain/Isabella (Bronson to Lees Station)	costs include intersection reconstruction				\$ 12,900,000.00
	10 intersections	\$ 8,622,200.00	11,208,860.00	12,890,189.00	
Somerset (O-Train crossing to Bank)	costs include intersection reconstruction				\$ 7,400,000.00
	4 intersections	\$ 4,928,000.00	6,406,400.00	7,367,360.00	
Bank (Highway 417 to Billings Bridge Station)	costs include intersection reconstruction, signage and line painting				\$ 14,800,000.00
	8 intersections	\$ 9,856,000.00	12,812,800.00	14,734,720.00	
	16 signs	\$ 32,000.00	41,600.00	47,840.00	
	5600 m line painting	\$ 28,000.00	36,400.00	41,860.00	



Corridor Name (Limits)	Breakdown of Costs				Total Estimate
		Estimate	Includes 30% Contingency	Includes 15% PM & Eng	
Hunt Club (Southwest Transitway to South Keys Station)	costs include intersection reconstruction				\$ 23,900,000.00
	13 intersections	\$ 16,016,000.00	20,820,800.00	23,943,920.00	
St Laurent (Montreal to St Laurent Station)	costs include intersection reconstruction				\$ 23,100,000.00
	11 intersections	\$ 15,477,000.00	20,120,100.00	23,138,115.00	
St Laurent (Innes to St Laurent Station)	costs include intersection reconstruction				\$ 8,400,000.00
	4 intersections	\$ 5,628,000.00	7,316,400.00	8,413,860.00	
Ogilvie (Montreal to Blair Station)	costs include intersection reconstruction				\$ 12,900,000.00
	7 intersections	\$ 8,624,000.00	11,211,200.00	12,892,880.00	
Merivale (Baseline to Hunt Club)	widen road from 4+turning to 6+turning				\$ 29,900,000.00
	3800 widening to 8 lanes	\$ 17,746,000.00	23,069,800.00	26,530,270.00	
	15 signals	\$ 2,250,000.00	2,925,000.00	3,363,750.00	
Merivale/Holland (Baseline to Tunney's Pasture Station)	reallocate existing traffic lanes on Merivale and on-street parking on Holland				\$ 15,200,000.00
	3600 m line painting	\$ 18,000.00	23,400.00	26,910.00	
	5 intersections				
	22 signs	\$ 44,000.00	57,200.00	65,780.00	
	5000 m line painting	\$ 10,000,000.00	13,000,000.00	14,950,000.00	
	8 intersections				
Richmond/Carling (Bayshore Station to Lincoln Fields Station)	costs include intersection reconstruction				\$ 14,400,000.00
	5 intersections	\$ 5,323,600.00	6,920,680.00	7,958,782.00	
	200 m of reconstruction	\$ 870,000.00	1,131,000.00	1,300,650.00	
	3 intersections	\$ 3,461,000.00	4,499,300.00	5,174,195.00	
Robertson/Richmond (Westcliffe to Bayshore Station)	costs include intersection reconstruction				\$ 17,500,000.00
	3 intersections	\$ 3,194,160.00	4,152,408.00	4,775,269.20	
	8 intersections	\$ 8,517,760.00	11,073,088.00	12,734,051.20	
Conroy/Alta Vista Transportation Corridor (Hunt Club to Hospital link)	costs include intersection reconstruction				\$ 17,400,000.00
	6 intersections	\$ 7,392,000.00	9,609,600.00	11,051,040.00	
	4 intersections	\$ 4,258,880.00	5,536,544.00	6,367,025.60	



Corridor Name (Limits)	Breakdown of Costs				Total Estimate
		Estimate	Includes 30% Contingency	Includes 15% PM & Eng	
Tenth Line (Charlemagne North to Place d'Orleans Station)					\$ 7,400,000.00
	3 intersections	\$ 3,696,000.00	4,804,800.00	5,525,520.00	
	1 intersections	\$ 1,232,000.00	1,601,600.00	1,841,840.00	
Wellington/Somerset (Holland to O-Train crossing)					\$ 1,800,000.00
	road dieting under construction includes removal of bus bays				
	6 transit priority signals	\$ 1,200,000.00	1,560,000.00	1,794,000.00	
Woodroffe (Fallowfield to Strandherd)					\$ 2,100,000.00
	7 Transit priority signals	1,400,000	1,820,000	2,093,000	
Eagleson (Hazeldean to Eagleson Station)					\$ 8,400,000.00
	4 intersections	\$ 5,628,000.00	7,316,400.00	8,413,860.00	
Hunt Club (South Keys to Conroy)					\$ 12,600,000.00
	6 intersections	\$ 8,442,000.00	10,974,600.00	12,620,790.00	

From the detail Design Currently Underway:

Strandherd Armstrong Bridge = \$48M (1/3 for transit = \$16M)

Strandherd Road = \$35M (1/3 for transit = \$12M)



Unit Costs

8-lane Road narrow Median							
Ex	40m x 1m x \$25/m ³	=	\$	1,000.00		per m	
CB	\$3200 x 2 / 40m	=	\$	160.00		per m	
Sewer		=	\$	525.00		per m	
Lighting	\$3200 x 2 / 40m	=	\$	160.00		per m	
Asphalt	32m x 0.15 x 2.45 x \$110	=	\$	1,295.00		per m	
A	37m x 0.15 x 2.4 x \$25	=	\$	335.00		per m	
B	37m x 0.45 x 2.2 x \$19	=	\$	700.00		per m	
Sidewalk / Median	5m x \$55/m ³	=	\$	275.00		per m	
Curb	4 x \$55/m	=	\$	220.00		per m	
Total Unit Cost				\$	4,670.00		per m

6-lane Road Median & Boulevard							
Ex	40m x 1m x \$25/m ³	=	\$	1,000.00		per m	
CB	\$3200 x 2 / 40m	=	\$	160.00		per m	
Sewer		=	\$	525.00		per m	
Lighting	\$3200 x 2 / 40m	=	\$	160.00		per m	
Asphalt	25m x 0.15 x 2.45 x \$110	=	\$	1,015.00		per m	
A	38m x 0.15 x 2.4 x \$25	=	\$	345.00		per m	
B	30m x 0.45 x 2.2 x \$19	=	\$	565.00		per m	
Blvd	4m x \$55/m ³	=	\$	220.00		per m	
Sidewalk / Median	9m x \$55/m ³	=	\$	495.00		per m	
Curb	4 x \$55/m	=	\$	220.00		per m	
Total Unit Cost				\$	4,705.00		per m

4-lane Road Median & Boulevard							
Ex	33m x 1m x \$25/m ³	=	\$	825.00		per m	
CB	\$3200 x 2 / 40m	=	\$	160.00		per m	
Sewer		=	\$	525.00		per m	
Lighting	\$3200 x 2 / 40m	=	\$	160.00		per m	
Asphalt	18m x 0.15 x 2.45 x \$110	=	\$	730.00		per m	
A	31m x 0.15 x 2.4 x \$25	=	\$	280.00		per m	
B	23m x 0.45 x 2.2 x \$19	=	\$	435.00		per m	
Blvd	4m x \$55/m ³	=	\$	220.00		per m	
Sidewalk / Median	9m x \$55/m ³	=	\$	495.00		per m	
Curb	4 x \$55/m	=	\$	220.00		per m	
Total Unit Cost				\$	4,050.00		per m

Signal Rebuild		\$	150,000.00	each
Signal retrofit for transit priority		\$	50,000.00	each
Line painting	2 \$ / m per line x 2 lines	\$	4.00	per direction
Diamond Lines	200\$ every 200m	\$	1.00	per direction
Overhead Signs	2000\$ every intersection	\$	2,000.00	per dir per intersection



8-lane x 8 lane intersection		4-leg			
	road reconstruction	50m each approach		\$	1,071,000.00
	Asphalt	37m x 37m x 0.15 x 2.45 x \$110		\$	55,345.00
	A	44m x 44m x 0.15 x 2.4 x \$25		\$	17,425.00
	B	38m x 38m x 0.45 x 2.2 x \$19		\$	27,165.00
	Ex	38m x 38 x 1m x \$25/m3		\$	36,100.00
	signal rebuild			\$	200,000.00
	Total Intersection Cost			\$	1,407,000.00 each
6-lane x 6 lane intersection		4-leg			
	road reconstruction	50m each approach		\$	941,000.00
	Asphalt	30m x 30m x 0.15 x 2.45 x \$110		\$	36,385.00
	A	37m 37m x 0.15 x 2.4 x \$25		\$	12,325.00
	B	31m x 31m x 0.45 x 2.2 x \$19		\$	18,080.00
	Ex	31m x 31 x 1m x \$25/m3		\$	24,025.00
	signal rebuild			\$	200,000.00
	Total Intersection Cost			\$	1,232,000.00 each
6-lane x 6 lane intersection		3-leg			
	road reconstruction	50m each approach		\$	705,750.00
	Asphalt	30m x 30m x 0.15 x 2.45 x \$110		\$	36,385.00
	A	37m 37m x 0.15 x 2.4 x \$25		\$	12,325.00
	B	31m x 31m x 0.45 x 2.2 x \$19		\$	18,080.00
	Ex	31m x 31 x 1m x \$25/m3		\$	24,025.00
	signal rebuild			\$	200,000.00
	Total Intersection Cost			\$	997,000.00 each
4-lane x 4 lane intersection		4-leg			
	road reconstruction	50m each approach		\$	810,000.00
	Asphalt	23m x 23m x 0.15 x 2.45 x \$110		\$	21,385.00
	A	30m x 30m x 0.15 x 2.4 x \$25		\$	8,100.00
	B	24m x 24m x 0.45 x 2.2 x \$19		\$	10,835.00
	Ex	24m x 24 x 1m x \$25/m3		\$	14,400.00
	signal rebuild	Includes Transit Priority		\$	200,000.00
	Total Intersection Cost			\$	1,064,720.00 each
4-lane x 4 lane intersection		3-leg			
	road reconstruction	50m each approach		\$	607,500.00
	Asphalt	23m x 23m x 0.15 x 2.45 x \$110		\$	21,385.00
	A	30m x 30m x 0.15 x 2.4 x \$25		\$	8,100.00
	B	24m x 24m x 0.45 x 2.2 x \$19		\$	10,835.00
	Ex	24m x 24 x 1m x \$25/m3		\$	14,400.00
	signal rebuild	Includes Transit Priority		\$	200,000.00
	Total Intersection Cost			\$	862,220.00 each

