
Report of the Commissioner of Public Works

Bus Rapid Transit Prioritization

1. Recommendations

1. Regional Council approve the recommendation to advance environmental assessment and preliminary engineering work for bus rapid transit projects identified in Phase 1 on:
 - a. Jane Street North from Highway 7 to Major Mackenzie Drive
 - b. Enterprise Boulevard from Birchmount Road to Kennedy Road (via YMCA Boulevard)
 - c. Kennedy Road / Highway 7, Kennedy Road from YMCA Boulevard to Highway 7 and over to McCowan Road.
2. Regional Council endorse advancing advocacy for funding from senior levels of government for bus rapid transit projects identified in Phases 1, 2 and 3.
3. The Regional Clerk forward this report to the Clerks of the local municipalities for information.

2. Purpose

[Committee of the Whole Memorandum \(May 2023\)](#) summarized the need to develop a priority-setting framework for remaining segments of the planned bus rapid transit network as identified in the Region's 2022 Transportation Master Plan (Transportation Master Plan).

This report describes the bus rapid transit priority-setting process and results. Approval to advance Phase 1 projects for environmental assessment (EA) and preliminary engineering work is recommended along with endorsement to advocate for Phase 1, 2 and 3 bus rapid transit project funding.

Key Points:

- Staff presented a prioritization process to assess future BRT corridors to Council and the York Region Rapid Transit Corporation (YRRTC) Board in May 2023, and presented the preliminary outcomes of this exercise to the YRRTC Board on September 7, 2023
- With limited resources and funding, the 130 km remaining sections of bus rapid transit will need to be delivered in phases, similar to phased delivery of the existing 34 kms already constructed
- A prioritization process was applied to unconstructed bus rapid transit corridors identified in the 2022 Transportation Master Plan to prioritize bus rapid transit projects for delivery in three phases
- Results from the prioritization process show three corridors to be advanced during Phase 1: Jane Street North from Highway 7 to Major Mackenzie Drive, Enterprise Boulevard from Birchmount Road to Kennedy Road (via YMCA Boulevard) and Kennedy Road / Highway 7 from YMCA Boulevard, Kennedy Road to Highway 7 and over to McCowan Road (Kennedy Road/Highway 7)
- Future bus rapid transit projects were identified as projects to be advanced as part of Phase 2: Highway 7 East (McCowan Road to York-Durham Line), Major Mackenzie Drive West (Jane Street to Yonge Street), Major Mackenzie Drive East (Yonge Street to Leslie Street), Leslie Street South (Steeles Avenue to Highway 7), Leslie Street North (Highway 7 to Major Mackenzie Drive) and Highway 7 West (Helen Street to Highway 50)
- Future bus rapid transit projects were identified to be advanced as part of Phase 3 including: Yonge Street (19th Avenue to Savage Road), Yonge Street (Davis Drive to the East Gwillimbury GO station via Green Lane), Major Mackenzie Drive (Jane Street to Highway 50, Leslie Street to McCowan Road, and McCowan Road to Donald Cousens Parkway)
- Staff recommend initiating a transit EA and preliminary engineering for the Phase 1 Jane Street North segment from Highway 7 to Major Mackenzie Drive
- For the Phase 1 projects on Enterprise Boulevard and on Kennedy Road/Highway 7, staff recommend reconfirming findings of the EA alignment from 2005 and initiation of preliminary engineering, as appropriate
- Advancement of planning or preliminary engineering for Phase 2 projects will be considered as part of the annual budget process. Some Phase 2 projects, such as Highway 7 East, already have approved EAs

3. Background

The need for a rapid transit prioritization process was summarized for Council and YRRTC Board in May 2023

Thirty-four kilometres of BRT have been constructed and are in operation across the Region. Construction of the remaining 130 kilometres shown in the Region's Official Plan and 2022 Transportation Master Plan are not yet identified for construction funding by any level of government. Identifying rapid transit priorities for York Region will better position projects for funding by senior levels of government. Preparatory works such as EAs and preliminary engineering is recommended for priority projects to ensure the Region is best positioned to secure any available funding.

The initial rapid transit prioritization process focusses on bus rapid transit with the intention to ultimately prioritize all rapid transit projects in the Region including rail projects. This process was developed in collaboration with YRRTC, building on the rapid transit prioritization framework used by Metrolinx. The prioritization process was presented in a Memorandum to Committee of the Whole on May 4, 2023 and was presented to the YRRTC Board on May 11, 2023. Staff committed to report back to Council in fall 2023 with prioritization results and recommendations.

Bus rapid transit priority-setting criteria align with Metrolinx's

Criteria include transit ridership, rapid transit network connectivity, land use density, project readiness, project cost, and socio-economic considerations. These criteria are consistent with those used by Metrolinx.

Using consistent criteria supports the Region's planning and advocacy efforts with the Ministry of Transportation and Metrolinx as the next phase of rapid transit priorities are advanced across the Greater Toronto and Hamilton Area (GTHA). The Region has been successful in the past identifying priority projects which then underpin advocacy efforts to secure funding from senior levels of government.

4. Analysis

Three scenarios were run using criteria resulting in similar project prioritization

The prioritization framework incorporates five of the six criteria presented to Council and the YRRTC board in May. These include transit ridership, project costs, network connectivity, land use density, and project readiness. Data to assess the socio-economic criteria are still being developed and will be incorporated into the prioritization process when ready.

Three scenarios were investigated to determine the most appropriate weighting of the criteria. A balanced scenario in which all criteria are equally weighted, a high development scenario in

which the land use density criterion was more heavily weighted, and a high transit ridership scenario, where the transit ridership criterion was more heavily weighted.

While there were minor variations in results among scenarios, highest ranked projects in the balanced scenarios were the highest ranked projects in each of the other scenarios. Given that the criteria all include estimations of future conditions for development, transit ridership and costs, it makes sense to equally weight them, since all are equally important in determining success of a rapid transit corridor. The Metrolinx priority-setting process is similarly based on a balanced approach where each criterion is equally weighted.

Bus rapid transit projects were prioritized for delivery in three phases

The Transportation Master Plan identified the rapid transit network required to support growth in the Region over the next 30 years. Each unconstructed bus rapid transit corridor in the 2051 network was evaluated based on prioritization criteria and given an overall score. The prioritization framework was applied which differentiated bus rapid transit projects for delivery in three phases. While all bus rapid transit projects are expected to be needed to meet 2051 travel demands, projects in Phase 1 have a higher relative priority compared to projects in Phase 2 and 3.

A prioritization approach with phases allows more than one project to be included in each phase. This provides a level of flexibility to consider multiple projects for delivery since conditions can change over time and opportunities can be created which advance a project for funding consideration with other levels of government.

The three phases of priority bus rapid transit corridors were identified with Phase 1 priorities including Jane Street North and Markham Centre

Project priorities are identified in three phases, with Phase 1 being the highest priority projects to advance pre-work, including EA and preliminary engineering, if not already completed. Advancing advocacy for construction funding from senior levels of government for Phase 1 projects will be undertaken. For projects identified in Phases 2 and 3, advocacy for planning, engineering, and construction funding from senior levels of government will be advanced based on funding opportunities for future projects with consideration for planning or engineering funding to be included as part of annual Regional budget discussions. Appendix A shows bus rapid transit projects by phase, along with evaluation results for each criterion from most to least desirable. Projects within each phase are not listed in any prioritized order. Table 1 summarizes Bus Rapid Transit projects across these three project phases.

Table 1
Bus Rapid Transit Projects by Project Phase

Phase	Project Name
1	<p>Enterprise Boulevard – Birchmount Road to Kennedy Road (via YMCA Boulevard)</p> <p>Kennedy Road / Highway 7 YMCA Blvd/Kennedy Road to Highway 7 and over to McCowan Road)</p> <p>Jane Street North – Highway 7 to Major Mackenzie Drive</p>
2	<p>Highway 7 West – Highway 50 to Helen Street</p> <p>Highway 7 East – McCowan Road to York Durham Line / CP Havelock</p> <p>Major Mackenzie Drive – Jane Street to Yonge Street</p> <p>Major Mackenzie Drive – Yonge Street to Leslie Street</p> <p>Leslie Street – Steeles Avenue to Highway 7</p> <p>Leslie Street – Highway 7 to Major Mackenzie Drive</p>
3	<p>Yonge Street – Gamble Road / 19th Avenue to Sawmill Valley Drive / Savage Road</p> <p>Yonge Street – Davis Drive to East Gwillimbury GO</p> <p>Major Mackenzie Drive – Highway 50 to Jane Street</p> <p>Major Mackenzie Drive – Leslie Street to McCowan Road</p> <p>Major Mackenzie Drive – McCowan Road to Donald Cousens Parkway</p>

Phase 1 projects build off existing rapid transit investments to better connect Urban Growth Centres with near-term intensification opportunities. Jane Street North BRT connects to Spadina Subway/Highway 7 BRT through Vaughan Metropolitan Centre to the new Vaughan Cortellucci Hospital. Markham Centre BRT extends Highway 7 BRT from Richmond Hill Centre and completes the corridor through Markham Centre with a connection to Unionville GO station.

Phase 2 projects respond to emerging rapid transit corridors and initiatives by others with increasing intensification opportunities that are connected through lower density established

neighbourhoods. Emerging rapid transit corridors include Highway 7 East, Major Mackenzie Drive and Leslie Street. Initiatives by others include Highway 7 West BRT, connecting the Vaughan Metropolitan Centre to Brampton, currently being studied by Metrolinx.

Phase 3 projects complete the BRT network identified in the 2022 Transportation Master Plan to support York Region's growth over the longer term to 2051.

Some Phase 1 and 2 bus rapid transit projects are underway by the Region or Metrolinx

Highway 7, from Highway 50 to Helen Street, is being advanced by Metrolinx in the Queen Street-Highway 7 Bus Rapid Transit Preliminary Design Business Case. This business case is a Metrolinx process and was initiated in 2022. Business case work is anticipated to be completed by 2024, with stakeholder consultation occurring between Q3 2022 and Q1 2024. An update to Council was provided in [October 2020](#) indicating that this corridor is not a top BRT transit priority corridor from the Region's perspective. The prioritization process identifies Highway 7 West as a Phase 2 project. This is an example of the difference between prioritization results in the Metrolinx process versus the York Region process. Metrolinx is assessing based on a GTHA scale so that a Highway 7 project to connect downtown Brampton to the Vaughan Metropolitan Centre has more benefit to Metrolinx than it does for the Region.

Another update was provided in [May 2023](#) seeking Council approval for a feasibility study to investigate widening the constrained section of Highway 7, from Kipling Avenue to east of Islington Avenue as part of Metrolinx's larger project. Work with Metrolinx for this section of Highway 7 is ongoing.

Markham Centre bus rapid transit project consists of two segments, Enterprise Boulevard and Kennedy Road / Highway 7. The Enterprise Boulevard segment is located generally along Enterprise Boulevard, from Birchmount Road to Kennedy Road (via YMCA Boulevard). A portion of this segment, from Birchmount to Andre De Grasse Street, is being delivered concurrent with adjacent development and will be under construction in 2024. The Kennedy Road segment from YMCA Boulevard to Highway 7 is being delivered by the Region and is included in the 10-year Capital Plan. Appendix B shows a map of future bus rapid transit projects by phases and highlights bus rapid transit projects already underway.

The alignment for Highway 7 East was included as part of the larger EA that was completed in 2005, Highway 7 Corridor & Vaughan North-South Link Public Transit Improvements. The study limits include Highway 7 from Highway 50 to York Durham Line, and Jane Street between Steeles Avenue and Highway 7, in anticipation of TTC's Spadina Subway.

Steeles Avenue and McCowan Road were not included in the bus rapid transit prioritization

Steeles Avenue bus rapid transit (from Highway 27 to York-Durham Line) was excluded from the prioritization as this corridor is under the City of Toronto's jurisdiction. A sensitivity assessment was completed to understand where a Steeles Avenue bus rapid transit project

(from Jane Street to McCowan Road) would rank relative to the bus rapid transit projects included within the Region. Based on the assessment, a Steeles Avenue bus rapid transit project (from Jane Street to McCowan Road) would be prioritized as a Phase 1 project.

McCowan Road, from Steeles Avenue to Major Mackenzie Drive, is identified in the 2022 Transportation Master Plan as a potential rapid transit corridor, subject to future study. This future study work has not yet been completed and the potential link does not have any current status. The focus of this prioritization work was on projects previously identified as Rapid Transit Corridors in the 2022 Transportation Master Plan. If a north/south rapid transit link is identified in Markham as part of a future study, it would be included as part of the annual prioritization process at that time.

Based on results of the prioritization process, next steps are recommended to improve the readiness of Phase 1 projects

Staff recommend advancing EA and preliminary engineering works for Phase 1 projects to improve project readiness and increase the likelihood of construction funding from other levels of government:

- Jane Street North BRT, from Highway 7 to Major Mackenzie Drive - Initiate EA followed by preliminary engineering
- Enterprise Boulevard BRT, from Andre De Grasse Street to the intersection of YMCA boulevard at Kennedy Road - Reconfirm the findings of the EA alignment from 2005 and initiate preliminary engineering as appropriate
- Highway 7 BRT, from Kennedy Road to McCowan Road - Reconfirm findings of the 2005 EA and initiate preliminary engineering as appropriate

Completing environmental assessments and preliminary engineering work for these corridors will ensure these projects are ready to advance when construction funding from other levels of government becomes available. Advancement of planning or preliminary engineering for Phase 2 projects will be considered as part of the annual budget process. Some Phase 2 projects, such as Highway 7 East, have approved EAs.

Rapid Transit prioritization supports economic vitality and sustainable environment objectives in the Strategic Plan

The prioritization framework builds on focus area actions identified in the 2022 Transportation Master Plan and aligns with objectives identified in the 2023 to 2027 Strategic Plan:

- 2022 Transportation Master Plan Focus Area: Reduce Car Travel, Especially During Rush Hours
- 2023 to 2027 Strategic Plan Objective 2 under Economic Vitality Area of Focus: Invest in a safe, effective transportation system that connects people, goods and services

- 2023 to 2027 Strategic Plan Objective 1 under Sustainable Environment Area of Focus: Deliver and promote environmentally sustainable services

5. Financial Considerations

Advancing rapid transit has financial benefits beyond the Region, connecting people to jobs, and communities to key destinations. The 2022 Transportation Master Plan identified the need for a \$12.4 billion total investment in rapid transit infrastructure and programs to support growth over the next 30 years. The Regional share of rapid transit investment is \$4.1 billion including bus rapid transit corridors, Yonge North Subway Extension and expansion of transit facilities and fleet as shown in Table 2 below. York Region’s investment in bus rapid transit infrastructure is based on the estimated funding contribution model of 40% Federal, 33% Provincial and 27% Regional/Municipal.

Table 2
2022 Transportation Master Plan Transit Capital Cost Estimate

Component: Transit	Total (\$ billions)	Regional (\$ billions)
Bus Rapid Transit corridors	5.4	1.6
Yonge North Subway Extension	5.6	1.1
Transit facilities / fleet (expansion)	1.4	1.4
Total	12.4	4.1

Funding for environmental assessment and preliminary engineering work for bus rapid transit projects is included in the 2023 approved YRRTC capital plan, which includes \$35 million over the next 10 years. This capital plan is currently sufficient to support Region-led bus rapid transit environmental assessment and preliminary engineering for Phase 1 projects. This funding is not adequate to address the Regional/Municipal 27% contribution for construction of any Provincial bus rapid transit project (for example the Queen Street-Highway 7 bus rapid transit project being led by Metrolinx). If bus rapid transit funding is advanced by senior levels of government, the Region’s share of capital costs would need to be funded through a reprioritized 10-year capital plan.

Table 3 summarizes capital funds budgeted in the 2023 10-year capital plan and the agency delivering Phase 1 projects.

Table 3
Capital Funds Budgeted for Phase 1 Projects

Phase 1 Projects	Total Project Cost (\$M)	Spent (\$M)	10-Year Program (2023) (\$M)	Lead
BRT EA and PE Work for:				
• Enterprise Boulevard – Birchmount Road to Kennedy Road (via YMCA Boulevard)				YRRTC led environmental assessment and preliminary engineering
• Kennedy Road / Highway 7 – YMCA Blvd/Kennedy Road to Highway 7 and over to McCowan Road	\$35.1	-	\$35.1	
• Jane Street North– Highway 7 to Major Mackenzie Drive				
Enterprise Boulevard between Birchmount Road and Andre De Grasse Street	\$5.4	\$3.6	\$1.8	Developer led construction
Kennedy Road from Highway 407 to Highway 7	\$60.8	\$1.1	\$57.1	York Region led design and construction

As environmental assessment and preliminary engineering work advances for Phase 1 projects, funding for environmental assessment and preliminary engineering of Phase 2 projects can be considered within available budget and as part of the annual budget process.

There is increasing competition for transit and infrastructure funding across the GTHA and Canada. Advancing the planning and preliminary design of the next 130 kilometres of bus rapid transit ensures that the Region remains in a state of readiness with shovel-ready projects having greater likelihood of being funded by senior levels of government.

6. Local Impact

The proposed rapid transit prioritization process helps advance environmental assessment and preliminary design works for bus rapid transit corridors providing higher-order transit services to local municipalities. The prioritization framework provides a collaborative and transparent

process for Regional staff to work together with local municipalities in planning and phasing rapid transit to address community needs.

A connected rapid transit system helps local municipalities to meet housing and development targets by allowing increased densities and less reliance on single occupant vehicles for travel. For this reason, rapid transit corridors are integral to long-term development plans for benefiting local municipalities.

7. Conclusion and Next Steps

Regional staff developed a process to prioritize the remaining 130 kilometres of bus rapid transit segments identified in the 2022 Transportation Master Plan. The rapid transit prioritization framework identifies priority projects within three phases for implementation based on a balanced approach to address growth in communities across the Region. This process builds on Metrolinx's prioritization framework and includes criteria such as transit ridership, rapid transit network connectivity, land use density, project readiness, and project cost.

Using the prioritization framework, rapid transit projects have been differentiated into three phases with the following projects ranked highest: Jane Street North BRT from Highway 7 to Major Mackenzie Drive, Enterprise Boulevard BRT from Birchmount Road to Kennedy Road (via YMCA Boulevard) and Kennedy Road /Highway 7 from YMCA Boulevard, Kennedy Road to Highway 7 over to McCowan Road. Staff recommend a transit environmental assessment and preliminary engineering be initiated for Jane Street North BRT, and preliminary engineering work be initiated for the sections of Enterprise Boulevard BRT and Kennedy Road / Highway 7 BRT that are not already identified for construction.

For more information on this report, please contact Brian Titherington, Director, Infrastructure Asset Management (TRN) at 1-877-464-9675 ext. 75901. Accessible formats or communication supports are available upon request.

Recommended by:



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Appendix A – BRT Project Evaluation Table
Appendix B – BRT Project Phases and Road Improvements Underway

BRT Project Evaluation Table

		Least Preferred ○ → ● Most preferred			
Phase	Project Name	Transit Ridership	Network Connectivity	Land Use Density	Project Readiness
1	Enterprise Boulevard – Birchmount Road to Kennedy Road (via YMCA Boulevard)				
	Kennedy Road / Highway 7 YMCA Blvd/Kennedy Road to Highway 7 and over to McCowan Road				
	Jane Street North – Highway 7 to Major Mackenzie Drive				
2	Highway 7 – Highway 50 to Helen Street				
	Highway 7 – McCowan Road to York Durham Line / CP Havelock				
	Major Mackenzie Drive – Jane Street to Yonge Street				
	Major Mackenzie Drive – Yonge Street to Leslie Street				
	Leslie Street – Steeles Avenue to Highway 7				
	Leslie Street – Highway 7 to Major Mackenzie Drive				
3	Yonge Street – Gamble Road / 19 th Avenue to Sawmill Valley Drive / Savage Road				
	Yonge Street – Davis Drive to East Gwillimbury GO				

Least Preferred ○ → ● Most preferred

Phase	Project Name	Transit Ridership	Network Connectivity	Land Use Density	Project Readiness
	Major Mackenzie Drive – Highway 50 to Jane Street				
	Major Mackenzie Drive – Leslie Street to McCowan Road				
	Major Mackenzie Drive – McCowan Road to Donald Cousens Parkway				

