

To: York Region Rapid Transit Corporation Board of Directors

From: Mary-Frances Turner, President

Subject: **Review of EA approved vivaNext BRT rapidway alignment in Markham Centre**

Ref: **YORK #6381706**

Recommendations

It is recommended that:

1. The Board receives this report for information.

Purpose

The purpose of this report is to advise the YRRTC Board of a joint study between YRRTC and the City of Markham. The study will review alternative alignments and determine a preferred alignment for the vivaNext rapidway in Markham Centre, and the implications of these alignments on the existing and proposed Markham Centre local road network. The Environmental Assessment (EA) approved 407 Transitway alignment will be documented

Background

Markham Centre is a Provincial Urban Growth Centre in the Greater Golden Horseshoe with an emerging high density, mixed-use downtown served by an interconnected transit network

- Significant development continues to emerge in Markham Centre, a designated Urban Growth Centre, geographically bounded by Rodick Road

on the west, Kennedy Road on the east, Highway 7 on the north and Highway 407 on the south

- This mixed-use urban community is served by an interconnected network of existing and proposed transit services, including GO rail and bus, the 407 transitway, vivaNext bus rapid transit (BRT), and local YRT buses
- The City's current planned targets for Markham Centre include 20,000 housing units, 41,000 people and 39,000 jobs. It is anticipated that these targets will change with an updated Secondary Plan
- Markham Centre is also identified as one of 51 Mobility Hubs in the Metrolinx *Big Move* Regional Transportation Plan. The Mobility Hubs are intended to provide travellers with access to the Regional Rapid Transit Network, and support high density development. The City of Markham has initiated a *Mobility Hub Study* centred on lands in and around the Unionville GO Station
- Recently, it was also announced that York University will build a new campus in Markham Centre. The University will increase travel demand on YRT/Viva and GO Transit services, as well as the adjacent local road network
- Development in Markham Centre will be significantly supported by the planned Regional Express Rail service enhancements to the GO Transit network, providing more frequent and convenient travel options for residents and commuters. The planned two-way, 15-minute or better electrified service to/from the Unionville GO Station, will increase access to the Markham Centre area
- The City of Markham has identified, through previous studies, that more local road connections in Markham Centre will be required to facilitate future traffic volumes generated by the new planned growth targets noted above for Markham Centre. Despite the transit modal split assumptions used to define the number of local roads in the original secondary plan, the City believes it will not facilitate the future traffic generated by the ultimate development of Markham Centre and increased transit service in the area
- To accommodate this intensification, YRRTC will be completing the vivaNext BRT Rapidway, funded by the Province of Ontario through Metrolinx, in Markham Centre

The current EA approved vivaNext rapidway alignment in Markham Centre traverses over the York Durham Sanitary Sewer, posing some challenges

- The 2005 approved Highway 7 and Vaughan N-S Environmental Assessment includes a section of the vivaNext rapidway in Markham Centre, from Warden

Avenue to Birchmount Road. This section is currently constructed and in operation

- The proposed alignment east of Birchmount Road is an east-west route generally north of Enterprise Boulevard that connects to YMCA Boulevard. Three stations are proposed between Warden Avenue and Kennedy Road, with the major Markham Centre station located in close proximity to Unionville GO Station (**see Attachment 1**)
- Preliminary engineering design has been completed for this alignment from the east limit of the rapidway at Birchmount Road to the Rouge River tributary, with a temporary transition back to Enterprise Boulevard
- This preliminary engineering design indicated some engineering challenges between the EA approved alignment and the York Durham Sanitary Sewer (YDSS), in the vicinity of a tributary to the Rouge River. A bridge structure over the tributary will conflict with the YDSS (**see Attachment 1**). Based on the these challenges, YRRTC is reviewing the approved alignment and station locations east of Birchmount Road

The joint study will be done in two parts

- The study will be divided into two parts, with Part A dealing with the realignment of the vivaNext rapidway, and Part B dealing with any required modifications to the future Markham Centre local road network
- City of Markham and Metrolinx staff have been consulted regarding this study and were provided an opportunity to comment on the study Terms of Reference. Markham staff are in agreement with the study Terms of Reference and have agreed to seek funding approval for the Markham portion of the work (Part B). Metrolinx staff are in agreement that the study proceed

Analysis

Changes to the approved alignment may require an amendment to the Highway 7 EA

- Modification to the BRT alignment may require a change to the approved EA. If an alternative alignment is identified through the study, the approved EA would require amendment via Ontario Regulation 231/08 (Transit Projects and Metrolinx Undertakings), in accordance with the Transit Project Assessment Process (TPAP)

- The approach of the joint study with the City of Markham will be to anticipate an amendment to the approved EA in accordance with TPAP, if an alternative alignment is identified
- For operational purposes, it is preferred to have a BRT rapidway for the exclusive use of Viva buses along the entire alignment in Markham Centre. The exclusive Rapidway alignment assessment would include the intersection with Kennedy Road. The implementation phasing of the dedicated right-of-way may be affected by the timing of the local road network implementation by the City of Markham

A Consultant Work Program is required to carry out this study

- A consultant study is required to identify and evaluate alternative rapidway alignments between Birchmount Road and Kennedy Road, taking into consideration the impacts on the existing and planned local road network and development block pattern in Markham Centre, and the EA approved 407 Transitway alignment
- The findings of the joint study will inform the alignment of the vivaNext BRT rapidway, associated local road network, and station locations. The City of Markham's, *Markham Centre Mobility Hub Study* has been temporarily suspended, pending the outcome of this joint study. The results of the *Markham Centre Mobility Hub Study* will form the basis for the new Markham Centre Secondary Plan which will include any necessary amendments to the Markham Centre local road network plan
- The Consultant's work program will include:
 - Identifying alternative alignments for the BRT rapidway through consultation with the affected stakeholders
 - Recommending a preferred BRT alignment
 - Advising if EA approvals are necessary and obtaining such approvals, if required
 - Adjusting the planned Markham Centre road network and development block pattern as required, in consultation with the City of Markham, to account for the BRT alignment
 - Documenting any impacts that the recommended BRT Rapidway alignment and adjusted local road network may have on the EA approved 407 Transitway alignment
 - Developing an implementation and phasing strategy to achieve the new BRT alignment that takes into account the local road network, timing of certain infrastructure improvements and timing of transit enhancements in the area (i.e. RER)

- For the purposes of this study, the EA approved 407 Transitway alignment will be respected. The City of Markham will separately continue their discussions with the MTO regarding concerns with the 407 Transitway alignment in light of these findings
- Extensive public consultation is not required as part of this study. However, it is intended that staff from Metrolinx Ministry of Transportation, City of Markham, York Region, Toronto Region Conservation Authority, and affected landowners and developers will be consulted as necessary
- It is anticipated that this consulting assignment will be awarded in February 2016, and be completed by early Fall 2016

Financial

The vivaNext rapidway within Markham Centre to Unionville Station is fully funded

- The vivaNext rapidway within Markham Centre, is fully funded by the Province of Ontario through Metrolinx
- The partnership between Metrolinx and YRRTC has successfully introduced bus rapid transit to York Region and will continue to do so in the coming years as the vivaNext BRT service is expanded
- Part A of the study will be funded through the Metrolinx vivaNext BRT program. Part B will be funded by the City of Markham
- Construction of the rapidway in Markham Centre is scheduled for completion in 2021. A detailed implementation schedule will be developed following the conclusion of this study

Conclusion

- YRRTC will be completing the vivaNext BRT rapidway in Markham Centre, funded by the Province of Ontario through Metrolinx, to accommodate development of Markham Centre and the Highway 7 corridor
- A bridge structure over a tributary to the Rouge River on the EA approved BRT alignment will conflict with the YDSS. This conflict and associated challenges warrant a new look at the approved BRT alignment and station locations east of Birchmount Road

- Any refinement to the Markham Centre planned base road network, as a result of an alternative BRT rapidway alignment, will be assessed in consultation with the City of Markham. This work will inform the *Markham Centre Mobility Hub Study* that will proceed following the conclusion of the subject study
- Any impacts that an alternative BRT rapidway alignment and adjusted local road network may have on the EA approved 407 Transitway alignment will be documented
- The consultant assignment is anticipated to commence in early 2016 and be completed in Fall 2016

For more information on this report, please contact Paul May, Chief Engineer, York Region Rapid Transit Corporation at 905-886-6767, Ext. 71030.

Mary-Frances Turner
President

December 10, 2015

Attachment: (1)

Attachment 1: BRT Rapidway in Markham Centre

