

4

VIVA PHASE 2 YONGE STREET - Y2, AND HIGHWAY 7 - H3 CORRIDORS PRELIMINARY ENGINEERING UPDATE

The Rapid Transit Public/Private Partnership Steering Committee recommends the following:

- 1. The presentation by Jon Hulse, Chief Engineer, York Region Rapid Transit Corporation, be received; and**
- 2. The recommendations contained in the following report, September 4, 2008, from the Vice-President, York Region Rapid Transit Corporation, be adopted:**

1. RECOMMENDATIONS

It is recommended that:

1. Council receive this update on preliminary engineering for Yonge Street – Y2 and Highway 7 – H3 corridors.
2. Subject to a source of funding being secured, Council authorize York Consortium 2002 to undertake the construction of the Markham Town Centre civic mall rapidway – Warden Avenue to Birchmount Drive, subject to staff determining, in conjunction with the Owner's Engineer, that York Consortium 2002's Guaranteed Maximum Price proposal is cost competitive and within budget.
3. Council authorize the Regional Chair and Clerk to execute a contract with York Consortium 2002 for such work in a form acceptable to staff and legal counsel.
4. In the event that York Consortium 2002's Guaranteed Maximum Price proposal to undertake the work is not deemed to be cost competitive, that Council authorize staff to immediately publicly tender the work through a Request for Proposal or Tender process.
5. The Chair and Clerk be authorized to enter into the necessary legal arrangements for the use of and operation of the rapidway with the Town of Markham prior to construction of the rapidway.
6. The Chair and Clerk be authorized to enter into arrangements with the Ontario Realty Corporation for use of the Warden Avenue lands prior to purchase.

2. PURPOSE

This report provides a comprehensive description of the activities and progress of the York Region Rapid Transit Corporation to date for the Yonge Street - Richmond Hill Centre to 19th Avenue (Y2), and Highway 7 – Richmond Hill Centre to Markham Centre (H3) corridor preliminary engineering work programme.

The report also seeks approval for York Consortium 2002 to undertake construction of Markham Town Centre civic mall rapidway – Warden Avenue to Birchmount Drive and that Council authorize the Regional Chair and Clerk to execute a contract with York Consortium 2002 for such work in a form acceptable to staff and legal counsel subject to their price being cost competitive.

3. BACKGROUND

In June 2007, the Province announced an aggressive transportation investment program, MoveOntario 2020, which included Yonge Street - Richmond Hill Centre to 19th Avenue (Y2), and Highway 7 – Richmond Hill Centre to Markham Centre (H3).

During October 2007, the York Region Rapid Transit Corporation prepared a detailed submission of all rapid transit Quick-Win Projects that could be delivered in the next five years as requested by Metrolinx. This list included rapidway corridors on Highway 7 from the just west of Pine Valley Drive in Vaughan to just east of Kennedy Road in Markham (H2/H3), and on Yonge Street from Richmond Hill Centre to Newmarket (Y2/Y3), as illustrated in Figure 1.

Quick-Wins Tranche 2 recommendations were addressed during the 2008-2009 Provincial Budget process. York Region was successful in having \$100 million of Quick-Wins Tranche 2 projects funded in the Provincial 2008 Spring Budget, specifically, funding for preliminary engineering, vehicles and intelligent transportation system for rapidways on Highway 7 from the just west of Pine Valley Drive in Vaughan to just east of Kennedy Road in Markham (H2/H3), and on Yonge Street from the Richmond Hill Centre to Newmarket (Y2/Y3), as illustrated in Table 1.

Table 1
Quick-Wins - Second Stage

Rapidway Segment	(\$ millions)			
	Preliminary Engineering	ITS*	Vehicles	Total
York-Viva Highway 7, Pine Valley Drive to Kennedy – including H2 and H3	14.0	17.0	21.0	52.0

York-Viva Yonge Street, Richmond Hill Centre to 19th Avenue – Y2	8.0	6.0	5.0	19.0
York-Viva Yonge Street, 19th Avenue to Newmarket – Y3	15.0	9.0	5.0	29.0
Total Quick-Wins Second Stage	37.0	32.0	31.0	100.0

* ITS = Intelligent Transportation Systems (including ticket vending and validation equipment, traffic signals and controllers, the communications infrastructure and onboard equipment)

Figure 1
York Region Rapid Transit Network – Phase 2



4. ANALYSIS AND OPTIONS

The Yonge Street - Richmond Hill Centre to 19th Avenue (Y2) corridor preliminary engineering work programme is continuing to make good progress with expected completion in April 2009

The engineering layouts for the rapidway on the Yonge Street rapidway from the Richmond Hill Centre to 19th Avenue (Y2) continue to be developed. All key preliminary engineering activities for the Y2 corridor continue to make good progress to finalize the Guaranteed Maximum Price and Construction Program by the end of April 2009.

Several meetings have been held with Richmond Hill staff to review the preliminary layouts and to seek their input and comments. The property acquisition programme and public consultation are being dovetailed with Richmond Hill's Official Plan review process. The coordination and timing of the public consultation and property acquisition programmes will be the subject of a future report to Committee. Activities to date have included:

- As a part of the Design Criteria, continued design coordination with relevant Richmond Hill studies and reports including streetscape issues. Design criteria is now over 60% complete.
- Digital Mapping – existing conditions, 100% complete.
- Pavement and Geotechnical Design Report – 85% complete.
- Drainage Design Report – 75% complete.
- Utility Identification and Coordination – 65% complete.
- Property Legal Descriptions – 90% complete.
- Preliminary Engineering Drawings – 35% complete.
- Transit Priority and ITS Deployment Plan – 90% complete.
- VIVA Station Design – 25% complete.

The Highway 7 – Richmond Hill Centre to Markham Centre (H3) Corridor preliminary engineering work programme is continuing to make good progress with expected completion in April 2009

The engineering layouts for the rapidway on Highway 7 from the Richmond Hill Centre to just east of Kennedy Road (H3) corridor continue to be developed. All key preliminary engineering activities for the H3 corridor continue to make good progress to finalize the Guaranteed Maximum Price and Construction Program by the end of April 2009. Activities to date have included:

- As a part of the Design Criteria, continued design coordination with relevant Richmond Hill and Town of Markham studies and reports including streetscape issues. Design criteria is now 50% complete.
- Digital Mapping of existing conditions - 100% complete.
- Pavement and Geotechnical Design Report – 85% complete.

- Drainage Design Report – 75% complete.
- Utility Identification and Coordination – 65% complete.
- Property Requirements and legal Descriptions – 90% complete.
- Preliminary Engineering Drawings – 40% complete.
- Transit Priority and ITS Deployment – 90% complete.
- VIVA Station Design – 20% completed.

Figure 1 provides an illustration of the bus rapidway concept along Highway 7, west of Highway 404.

Figure 1 – Bus Rapidways along Highway 7



The rapidway design layout continues to be optimized to mitigate property impacts along the length of the corridor. The team has reviewed the design layout with Markham and Richmond Hill planning and engineering staff. As the programme moves forward, the team will finalize utility impacts and identify property requirements and mitigation strategies in preparation for the commencement of the property acquisition programme. Staff will report back to Committee prior to the commencement of the property and

public consultation programmes.

Markham Centre Civic Mall Rapidway – Warden Ave. to Birchmount Drive

The Markham Centre Civic Mall Rapidway is a 1 km. segment of the “Centre to Centres” Highway 7 Viva rapid transit system. It is unique in character in that it runs along a shared use corridor through the heart of Markham Centre. The Civic Mall section will connect eastward to the intermodal facilities at the Unionville GO Transit station, allowing Viva transit users to connect to higher order GO Rail and 407 Transitway systems, as well as to local transit routes.

Development construction has begun along the Markham Centre Civic Mall

Construction of high density condominium buildings along the northern edge of the corridor is well underway and occupancy is expected to commence later this year, with full occupancy expected in early 2009.

Early construction of rapidways along the Civic Mall is proposed

The York Region Rapid Transit Corporation has proposed early construction of the Civic Mall segment from Warden Avenue to Birchmount Drive to service this high density residential area based on the strength of federal and provincial funding announcements made in early 2007. Preliminary design and engineering of the Civic Mall commenced in the fall of 2007 and is nearing completion for the underground civil works portion. In order to be ready for the construction of the park elements during 2009, the underground civil works (storm sewer, utility relocation and rapidway granular material placement) are scheduled for this fall with completion in spring 2009.

It is anticipated that York Consortium 2002 will present a Guaranteed Maximum Price in the fall of 2008 to construct the Civic Mall underground civil works. The Guaranteed Maximum Price will be assessed within the terms of the Master Agreement and Go Forward Business Arrangements Agreement. Subject to Council approval, and conditional on funding, either a contract will be awarded to York Consortium 2002 for their bid price, or negotiations will commence with York Consortium 2002 to determine a price acceptable to the Region. If an acceptable price is not achieved the Region may publicly tender the project through a Request for Proposals, subject to Council approval.

Dialogue with Markham regarding cost-sharing and legal arrangements regarding the use and operation of the civic mall are nearing completion

Rapid Transit staff has been involved in discussions with Markham staff to determine the basis for cost-sharing civil works in the civic mall. The construction award for the rapidway is limited to works required for the rapidway and Markham will be tendering its own contract for the completion of the civic mall. Legal arrangements for operation and title of the rapidway are nearing completion.

Staff from Markham and the Region have developed capital and operating principles

Over the past few months Regional and Town of Markham staff have been meeting on a regular basis to discuss capital cost sharing for the Civic Mall and rapidway elements as well as a basis for operating and maintaining the mall and transit facilities. The principles discussed will form the basis for formal arrangements between the parties. The principles for cost sharing the capital improvements are as follows:

- The Region will be responsible for the design and construction of the rapid transit facilities through the Civic Mall corridor including the rapidways station facilities, intersection improvements and signalization required for transit operations.
- The Town will be responsible for the design and construction of the park components of the Civic Mall
- Design work is to be coordinated and guided by the conceptual design direction as previously endorsed by Regional and Town of Markham Councils.
- The rapidway corridor will be defined as a 14 metre cross section through the mall which includes the rapidways, rolled curbs, and “visibility zones” on either side of the corridor required for operational safety.
- The lighting for the transitway and park will be a shared facility designed to a common lighting level that meets the operation visibility requirements of the rapidways.

The principles governing the operation and maintenance of the Civic Mall and transit facilities are as follows:

- The Civic Mall and lands under the rapidways from Warden to Rouge Valley Drive West will be owned by the Town.
- The Town will provide the Region with appropriate arrangements for the use of the corridor for rapid transit operations and maintenance, as well as use for emergency and policing services. The instruments are still under discussion between Town and Regional staff and the Region’s outside counsel.
- The rapidways will be maintained by the Town with respect to summer cleaning, washing and waste removal and winter operations and snow removal.
- The Region will reimburse the Town for summer and winter maintenance.
- The Region will maintain the Warden station facilities.
- The Region will pay a proportionate share of the general lighting for the Civic Mall based on metered service.

5. FINANCIAL IMPLICATIONS

Yonge Street, Richmond Hill Centre to 19th Avenue (Y2), and Highway 7, west of Pine Valley Drive to east of Kennedy Road (H2/H3) corridors

The Province has committed \$22 million for preliminary engineering for the Viva Phase 2 rapidways on Highway 7 from just west of Pine Valley Drive to just east of Kennedy Road (H2 and H3), and for Yonge Street from the Richmond Hill Centre to 19th Avenue (Y2).

Markham Town Centre civic mall rapidway – Warden Ave. to Birchmount Drive

There are a number of funding commitments that will cover the cost of the construction of the Civic Mall, estimated to be in the range of \$6 to \$7 million. However, the timing of this project is ahead of the timing of available capital dollars through the MoveOntario 2020 and FLOW process. The Region has received \$67.6 million for MoveOntario 2020 – Quickwins 1 and 2, specifically for preliminary engineering, Cornell terminal lands and additional bus stations, buses and intelligent transportation systems (ITS). Working with the Ministry of Transportation of Ontario and Metrolinx, staff will endeavour to have a portion of the funds advanced for ITS, reallocated to the construction of the Civic Mall and the acquisition of land.

As indicated in Table 1, a total of \$32 million was committed through the MoveOntario 2020 Quickwins 2 announcement and 2008 Provincial Budget.

Access to Ontario Realty Corporation lands prior to purchase will be secured

The Ontario Realty Corporation (ORC) has agreed that it will be able to support access to the ORC lands on Warden Avenue that are part of this construction project. It is expected that the acquisition of these lands will follow shortly after the announcement of construction this fall. If required, authorization will be secured from the ORC to enter into formal negotiations with the intent to purchase lands.

6. LOCAL MUNICIPAL IMPACT

The Yonge Street rapidway corridor from Richmond Hill Centre to 19th Avenue (Y2) and Highway 7 rapidway corridor from Richmond Hill Centre to east of Kennedy Road (H3) preliminary engineering activities are being closely coordinated with local planning and economic development activities along the rapid transit corridors.

7. CONCLUSION

Significant work has been accomplished for the Yonge Street - Richmond Hill Centre to 19th Avenue (Y2) and Highway 7 - Richmond Hill Centre to Markham Centre (H3) corridor preliminary work programme, and continues to be on schedule and within budget.

The York Region Rapid Transit Corporation has proposed early construction of the Civic Mall segment from Warden Avenue to Birchmount Drive for this fall in order to be ready for the construction of park elements during 2009.

The report seeks approval for York Consortium 2002 to undertake construction of Markham Town Centre civic mall rapidway – Warden Ave. to Birchmount Drive subject to their price being cost competitive. If an acceptable price is not achieved, the Region may publicly tender the project through a Request for Proposals, subject to Council approval.

For more information on this report, please contact Mary-Frances Turner, Vice-President, York Region Rapid Transit Corporation at (905) 886-6767 ext. 2226.

The Senior Management Group has reviewed this report.