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ENTERPRISE DRIVE / STOUFFVILLE GO TRANSIT LINE GRADE SEPARATION

The Rapid Transit Public/Private Partnership Steering Committee recommends the adoption of the recommendations contained in the following report, January 15, 2004, from the Acting Executive Co-ordinator, York Rapid Transit Plan:

1. RECOMMENDATIONS

It is recommended that:

1. The Region contribute the incremental cost to the Town of Markham's contract for the Enterprise Drive/Stouffville GO Line Grade Separation attributable to the YRTP transitway access through the Markham Centre.

2. Funding up to an amount of $750,000 be committed for the GO line separation from the Transportation and Works rapid transit capital program prior to the approval of the 2004 Regional Budget by Council.

3. Staff report back with the final cost of works following the tender submissions to the Town of Markham.

2. PURPOSE

This report discusses the relationship of the Town of Markham's proposed eastward extension of Enterprise Drive to YRTP's planned transitway through Markham Centre. It addresses the implications of the proposed 2004 construction schedule for the roadworks on route planning and funding for rapid transit infrastructure through the area. The purpose of the report is to provide the basis for the recommended action to protect access to the Markham Centre for rapid transit.

3. BACKGROUND

The Environmental Assessment Study for the Highway 7 Corridor Transitway completed an evaluation of alignment alternatives during the summer of 2003. Council endorsed the resulting recommended alignments for each segment of the corridor at its September 2003 meeting and the recommendations were presented to the public at Information Centres later that month.

The recommended alignment through the Markham Centre area, between Warden Avenue and Kennedy Road makes use of the proposed Civic Mall along the York-Durham Sanitary Sewer Easement and must cross GO Transit's Stouffville Rail line in the vicinity of the Unionville GO Station west of Kennedy Road. An extensive analysis of horizontal and vertical alignment options for the rail crossing was carried out leading to the recommendation to integrate the transitway grade separation with the grade separation required by the Town of Markham for the extension of Enterprise Drive through Markham Centre eastward to Kennedy Road.

The recommended arrangement provided the most convenient inter-connection between the Region's rapid transit services and GO Commuter Rail as well as the opportunity to locate a transit station centrally within the available development lands making up the eastern precinct of Markham Centre.

On June 26, 2003, Council adopted the following recommendation contained in Clause 6 of Report 6 of the Rapid Transit Public/Private Partnership Steering Committee, that "the Region provide design requirements and contribute up to $160,000 of the design cost of the Enterprise Drive/GO Rail underpass commenced recently by the Town of Markham."

The Town of Markham plans to tender construction of the Enterprise Drive Grade Separation and the Helen Avenue link to Kennedy Road early in 2004 so that the road could be opened to serve Markham Centre by mid 2005. Consequently, the YRTP office has carried out an analysis of the options to protect for the subsequent need for the transitway portion of the integrated grade separation.

4. ANALYSIS AND OPTIONS

The transitway grade separation works comprise three main components. Specifically, these are the third span of the bridge carrying GO Transit tracks over Enterprise Drive and the transitway, the transitway ramps and associated retaining walls either side of the bridge and an underpass to allow the transitway to cross Enterprise Drive and access the Civic Mall. These components are illustrated in *Attachment 1.*

Three main options were assessed to protect for the above future transitway grade separation that will be required at the time the full system rapid transit infrastructure is implemented through Markham Centre. These encompassed:

a) Deferring all construction for grade separation of the transitway to a separate contract at a later date when the timing of rapid transit implementation is known.

b) Including the entire transitway grade separation works in the Town of Markham's 2004 contract.

c) Constructing only those portions of the transitway grade separation that would be impractical and costly to construct when required at a future date with the new Enterprise Road grade separation in operation.

The implications of pursuing each option are outlined below:

a) Deferring all transitway grade separation construction.

This option minimizes early capital funding commitments at the $160,000 threshold for design adopted by Council at the June 2003 meeting. Also, there would be the potential for funding by three levels of Government if the work was undertaken as part of a phase in development of the full system planned under YRTP.

However, the two-stage construction of the GO Rail Grade Separation is neither practical nor cost-effective. Given that both Enterprise Drive and the planned transitway cross the GO Rail Line immediately north of the Unionville Station, deviating the GO track and constructing the bridge will be complex. During the on-going design process, GO Transit has indicated that they would not support an approach that required a second deviation that would likely not be cost-effective and could be impractical with the Enterprise Drive grade separation in use. Under these constraints, it is clear that construction of a separate transitway underpass in the future will cost significantly more than the YRTP share of an integrated bridge crossing.

b) Constructing the entire transitway grade separation works in 2004 under the Town of Markham contract.

This option is not recommended for the following reasons:

- The EA for the transitway alignment either side of the GO Line will not be approved at the time the Town is scheduled to award their Enterprise Drive contract.

- Integration of the transitway with the adjacent developments in Markham Centre will not be possible in the time available before the planned construction start.

- The up-front cost for the Region's share of the complete works is estimated to exceed $5 million with a risk that retro-active sharing of this cost with senior levels of government as part of the full system may not be achievable in the future.

- Although the construction cost of the non-essential portions of the work could be lower if included with a large contract prior to opening of Enterprise Drive to traffic and completion of adjacent development, the real cost to the Region in this option will likely be higher due to deferral of the borrowing to a future date when the facilities are needed.

- The early phase rapid transit services (Quick Start) can be operated with general traffic on the new Enterprise Drive until such time as the Civic Mall is developed and exclusive transit lanes are warranted by traffic volumes in the Centre.

c) Construct only the essential portion of the Transitway Grade Separation in the Town of Markham contract.

The implications of pursuing this third option, estimated to require approximately a $750,000 Region contribution to Markham's construction cost, are the following:

- The incremental construction cost of extending the GO Rail bridge for transit is minimized by adding a third span to the two span bridge needed for the Enterprise Drive Grade Separation.
- Advance construction of the third span minimizes impacts on adjacent properties. These could be significant in the future after development in Markham Centre has occurred.
- Deferring construction of the transitway approaches will allow urban design optimization and keep open opportunities for integrated joint development.
- Deferring most of the transitway grade separation costs to the date of full system construction maximizes the opportunity to share construction costs with other levels of government in future funding programs.
- Disruption of GO rail service is reduced to a single temporary detour on engineered fill already required for the Enterprise Drive Grade Separation, thus avoiding the higher cost "trestle system" needed for separate transitway bridge construction in the future under increased GO service levels.

5. FINANCIAL IMPLICATIONS

This report recommends that the Region contribute the incremental cost of construction of the bridge works attributable to grade separation of the YRTP transitway. In the Town of Markham's 2004 contract for the Enterprise Drive/Stouffville GO Line grade separation the estimated cost of the Region's contribution is approximately $750,000. Funds have been identified within the Transportation and Works rapid transit capital budget prior to the approval of the 2004 Regional Budget by Council. YRTP will pursue senior government contributions to this cost when further funding for the full rapid transit system becomes available. Staff will report further when the final cost is identified following the Town of Markham's tendering of the contract.

6. LOCAL MUNICIPAL IMPACT

YRTP staff are actively working with Town of Markham staff and their consultant on the development of the detailed design for the integrated facility and are in the process of verifying that protection for future rapid transit infrastructure construction and operations is functionally acceptable. This collaboration will also confirm that construction staging and costs are being optimized.

7. CONCLUSION

The rapid transit alignment with a GO Rail underpass integrated with the Enterprise Drive Grade Separation best meets the objectives for rapid transit service to the Markham Centre. Construction of an additional third span on the Enterprise Drive bridge for future use by the YRTP transitway is considered the most cost-effective and practical method of protecting access to the Centre for the Region's proposed rapid transit system.

The Town of Markham proposes to tender the Enterprise Drive Grade Separation and associated road contract early in 2004, thus requiring the Region to commit to a contribution for the minimum necessary rapid transit portion of the capital cost, estimated to be approximately $750,000, at the time of contract award.

(A copy of the attachment referred to in the foregoing has been forwarded to each Member of Council with the January 15, 2004 Rapid Transit Public/Private Partnership Steering Committee agenda and a copy thereof is on file in the Office of the Regional Clerk.)