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INTERIM IMPROVEMENTS FOR PEDESTRIANS ON RUTHERFORD ROAD THOMAS COOK AVENUE/ THORNHILL WOODS DRIVE TO ILAN RAMON AVENUE CITY OF VAUGHAN

The Transportation Services Committee recommends the adoption of the recommendations contained in the following report dated June 3, 2011, from the Commissioner of Transportation Services.

1. RECOMMENDATION

It is recommended that:

1. Council authorize staff to partner with the City of Vaughan staff to implement interim improvements for pedestrians on Rutherford Road between Ilan Ramon Avenue and Thomas Cook Avenue / Thornhill Woods Drive; and
2. The Region's funding commitment for half of the \$400,000 estimated implementation costs be contingent on the City of Vaughan funding the other half of these costs and being solely responsible for the operation and maintenance of the interim pedestrian facilities.

2. PURPOSE

This report seeks Council approval to cost-share between the Region and the City of Vaughan to implement interim improvements for pedestrians on Rutherford Road between Thomas Cook Avenue/Thornhill Woods Drive and Ilan Ramon Avenue.

3. BACKGROUND

The Region is currently undertaking a Class EA for Rutherford Road / Carrville Road from Jane Street to Yonge Street

The eight kilometre section of roadway is located within the City of Vaughan and the Town of Richmond Hill and is identified in the Region's Transportation Master Plan as an integral part of the Transit Priority Network. The study investigates the need for improvements in order to move people and goods. Accordingly, the study takes into consideration all modes of travel including automobiles/trucks, transit facilities as well as bicycles and pedestrian facilities.

The EA study is underway with completion anticipated in late 2012.

Improvements on Rutherford Road from Dufferin Street to Yonge Street are programmed for construction in 2017 in the Region's 2011 10-Year Roads Construction Program

Once the Municipal Class EA is complete, detailed design will be initiated to formalize the recommended improvements based on the EA findings. The 2011 10-Year Roads Construction Program identifies the reconstruction of the section of Rutherford Road from Jane Street to Dufferin for 2014 and between Dufferin Street and Bathurst Street for 2017.

In the Summer 2010 City of Vaughan staff requested York Region staff to assist in the design and construction of sidewalks to increase access and facilitate safer pedestrian movement on Rutherford Road between Thomas Cook Avenue/Thornhill Woods Drive and Ilan Roman Avenue

The existing cross-section on Rutherford between Thomas Cook and Avenue/Thornhill Woods Drive is a combination of urban sections with narrow boulevards and rural cross-section with deep embankments across a valley. There are no dedicated pedestrian facilities on this section of Rutherford Road.

Requests were received by City of Vaughan staff to construct facilities which would increase safety for pedestrians travelling along Rutherford Road between Thomas Cook Avenue/Thornhill Woods Drive and Ilan Roman Avenue in particular as a result of community requests associated with access to the places of worship in the area, in particular the synagogue on the north side of Rutherford approximately 200 metres west of Ilan Roman Avenue.

Pedestrian counts undertaken in summer 2010 and winter 2010/2011 indicated that the majority of the pedestrian activity was on the south side of Rutherford Road

An automated pedestrian count was undertaken by Regional staff in July 2010 for five days including a Saturday and Sunday counts. Of the over 450 pedestrians observed walking on the north and south shoulder of Rutherford Road in the vicinity west of Ilan Roman Avenue, over approximately 70 percent were travelling along the south side of Rutherford Road.

Another set of counts were undertaken in March 2011. On the weekday, less than 20 pedestrians were counted travelling on the south side of Rutherford Road. On the Saturday there were over 75 pedestrians observed, with the majority travelling along the north side of Rutherford Road.

The main pedestrian generators appear to be residences, a commercial retail plaza and places of worship

Observations found that the majority of the pedestrians were associated with the commercial retail facilities located between Ilan Roman Drive and Bathurst Street. The predominance of the pedestrians travelling on the north side was associated with the synagogue.

In fall 2010 York Region staff commissioned an engineering assignment to undertake the investigation of pedestrian facilities within the area including the provision of a standard sidewalk

In September 2010, Region staff retained the services of an engineering consultant to assist in the investigation and provision of industry standard sidewalks / pedestrian facilities. The consultant provided a detailed review of opportunities and constraints associated with such a provision. Under existing conditions, only a few areas were found to be suitable for implementation of standard sidewalks. The existing topography and physical characteristics of the corridor present significant impediments to implementing a standard pedestrian facility without significant reconstruction of the roadway, boulevard and the two watercourse crossings.

4. ANALYSIS AND OPTIONS

An investigation of a range of alternatives was undertaken to accommodate the pedestrian activity

Although the installation, operation and maintenance of sidewalks on Regional Roads is a local municipal responsibility, staff have reviewed this particular request because the City cannot install a sidewalk without a road platform being available to support it. Recognizing the limited opportunities to readily implement standard pedestrian facilities, staff investigated a range of solutions for an interim temporary solution to provide a safer environment than what exists today for those pedestrians travelling in the area. Two alternatives were considered.

The first alternative considered a compromise temporary pedestrian facility, balanced with narrowed vehicle travel lane widths

The first alternative considered provision of a temporary facility which required physical improvements and operational requirements to provide a compromise balancing a safer location for pedestrians, with slightly narrower lane widths on Rutherford Road. This compromise represents a risk management approach to balancing the needs of all users at this location until a more permanent solution can be implemented.

Components of the facility include:

- Widening the partially paved shoulders to provide a temporary asphalt surface with the majority ranging between 1.5 and 1.8 metres in width. (Please note in some constrained areas a temporary facility will still yield only 0.8 m similar to what is available today).
- In sections which are considered rural with partially paved shoulders, the facility would include installation of a modified continuous temporary concrete barrier between the travel lane and the pedestrian facility.
- In areas with urban cross-section, similar widths would be provided adjacent to the curb.

From an operational perspective, those travelling by car will be affected by the presence of the interim and temporary pedestrian facility including:

- Reduced travel lane widths.
- Temporary concrete barrier at the edge of the curb lane (0.3m away).

Monitoring of conditions will be integral to the operations especially during winter months when specialized and laborious snow clearing techniques will be required both on the auto lanes as well as on the temporary asphalt pedestrian facility.

The estimated cost of the first alternative is \$400,000 and can be implemented in 2011

Major items associated with implementation include removal and placement of pavement markings, installation of concrete barriers and end treatments as well as asphalt paving in all areas.

The second alternative, a temporary pedestrian facility designed to typical standards, was found to require significant engineering design to mitigate impacts on the two existing watercourse crossings as well as permits and approvals from respective agencies

The second alternative includes providing a 1.8 metre wide asphalt pathway which is delineated from the travel lanes by a steel beam guiderail in the rural sections of Rutherford Road.

In the existing urban section, a 1.8 metre minimum asphalt pathway would be paved immediately behind the concrete curb. In a majority of the areas, implementation of such travelways for pedestrians would result in significant improvements including retaining wall structures in the vicinity of the two watercourse crossings located between Thomas Cook Avenue/Thornhill Woods Drive and Ilan Roman Avenue.

The design would provide a temporary standardized space/facility for pedestrian travel and maintenance.

The estimated cost of the second alternative is well over \$1,000,000 and the implementation would be delayed to at least 2012 to allow for detailed design work and permitting

Preliminary cost estimates were developed for the second alternative. Implementation of such a facility is estimated to exceed \$500,000 for one side of Rutherford Road. This estimate does not include the significant time associated with obtaining permits and approvals from agencies for works within the areas of the two watercourses. With the two watercourses identified to include fish habitat and more specifically the now endangered Red Side Dace habitat, the time required to obtain approvals to encroach and implement pedestrian facilities, would be significant.

The first compromise alternative can be implemented in 2011 and is recommended

This section of Rutherford Road is scheduled to be improved including sidewalks in 2017 as part of the 2011 Region's 10-Year Roads Construction Program. The Region is committed to working with the City of Vaughan to provide facilities for pedestrians and alternative modes of travel where possible. Meeting the needs of the community in the short term prior to the implementation of the more permanent solution as part of the major capital program is challenging for both the City and the Region. The first alternative is recommended.

The City of Vaughan can expect to incur significant annual operational and maintenance costs until permanent sidewalks are constructed in 2017

The operation and maintenance of these temporary facilities on Rutherford between Thomas Cook Avenue/Thornhill Woods Drive and Ilan Roman Avenue will be the responsibility of the City of Vaughan. The operational and maintenance requirements will require enhanced treatment given the non-standard pedestrian space, especially in the winter season in which snow ploughing of both the roadway and temporary pedestrian facility will be constrained.

Recognizing the constrained nature of the proposed pedestrian space, there is a greater likelihood that mechanical snow clearance techniques will need to be replaced by shovelling by hand, thus increasing the estimated costs significantly to about \$40,000 per season.

In addition to snow clearing, maintenance of the temporary concrete barriers and end treatments will be required every season. Should damage occur, removal and replacements of the damaged sections will be necessary. It is prudent to expect costs for this work to be in the order of \$15,000 per annum.

The earliest targeted date for the reconstruction to begin for this section of Rutherford Road is 2017. With the sidewalks not expected to be in place until 2018, it is expected that the snow removal and maintenance would cost an additional \$385,000 in maintenance and snow removal in addition to the estimated capital costs over the interim period.

5. FINANCIAL IMPLICATIONS

The Region and the City of Vaughan will equally share the design and construction costs and the City of Vaughan will be responsible for the annual maintenance and snow removal costs

Region staff have been working to establish solutions which meet the needs of the Region, City and the adjacent community. The costs associated with the design and construction are estimated to be \$400,000 and will be shared equally the City of Vaughan and the Region.

The City of Vaughan will be solely responsible for all operational and maintenance costs for the temporary pedestrian facilities over the interim period, until sidewalks are constructed under the Rutherford Road improvements project. The operational and maintenance costs over the 2011 to 2017 period are estimated to be in the order of \$385,000.

The funds expended will not be salvageable when the major capital project is implemented

This project would provide an interim temporary facility until future improvements to Rutherford Road, including permanent sidewalks. Most of the construction materials will not be salvageable.

It is proposed that the \$200,000 funding for this temporary improvement be allocated from the approved 2011 Rutherford Road pre-construction design projects currently funded from tax levy and development charge reserves.

6. LOCAL MUNICIPAL IMPACT

The City of Vaughan will be responsible for the annual maintenance and snow removal costs

The City of Vaughan is responsible for half of the \$400,000 cost for design and construction of the temporary pedestrian facility. The City will be solely responsible for all operational and maintenance costs for the temporary pedestrian facilities over the interim period, estimated to be in the order of \$385,000.

Staff at the Region and local municipalities have received similar requests for better pedestrian facilities on other sections of Regional roads

As the Region continues to grow, residential and commercial uses are being established at a rapid rate. Implementation of infrastructure improvements including sidewalks in many areas, has not kept up and is lagging behind a few years.

Staff at the Region and local municipalities have received similar requests for better pedestrian facilities on other sections of Regional roads.

7. CONCLUSION

Provision of an interim temporary space for pedestrian movements which provides a relatively better facility than what is available today has been investigated. As a result of the investigation, it is recommended to implement an interim temporary facility that provides a balance of the challenges in a non-standard facility which provides greater delineation between areas travelled by automobiles and pedestrians and thus provides a better facility than what exists today.

For more information on this report, please contact Paul Jankowski, General Manager, Roads at extension 5901.

The Senior Management Group has reviewed this report.