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COMMUNICATION	
F&A -	Nov. 25/13
ITEM -	5

**DATE:** November 19, 2013

**TO:** Mayor and Members of Council

**RE:** **FINANCE AND ADMINISTRATION MEETING – NOVEMBER 25, 2013**  
**REPORT 16, ITEM 5**  
**PEDESTRIAN LINKAGES IN WEST WOODBRIDGE**  
**WARD 2**

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### **Recommendation**

The Commissioner of Engineering and Public Works and the Director of Engineering Services recommends:

1. That this report be received for information.

### **Economic Impact**

There is no direct economic impact as a result of this report.

Project No. EN-1949-17, "Pedestrian Link Feasibility Study", has been submitted in the amount of \$50,000.00 as part of the 2014 Capital Budget to be funded through taxation. The project is identified to be undertaken in 2017.

This project request is to fund the procurement of a consultant to complete pedestrian link feasibility studies at Highway 27 and the Canadian Pacific Rail (CPR) Bridge (refer to Attachment 1) and at Woodbridge Avenue and the CPR Bridge (refer to Attachment 2). Separating the two feasibility studies will increase the overall cost by \$10,000. An explanation of the funding requirement is provided in the Background – Analysis and Options section of this report.

### **Background - Analysis and Options**

The Finance and Administration Committee, at its meeting of November 12, 2013, deferred Item 1 of Finance and Administration Committee Report No.14 – Draft 2014 Budget and 2015-2017, to continue deliberations, and requested additional information on the following:

**"The potential to separate into two projects the Feasibility Study for the CP pedestrian underpasses at both Highway 27 and Woodbridge Avenue to provide for the possibility of moving one project ahead of the other"**

At its meeting on June 26, 2012, (Item 39, Report No. 29), Council directed:

**"That staff investigate the feasibility of a less expensive sidewalk tunnel under-pass crossing and report back to the Finance and Administration Committee for discussion as part of the 2013 budget process."**

In order to investigate the feasibility of sidewalk tunnel under-pass crossings, detailed, site specific analyses must be completed at both the Highway 27 and the Canadian Pacific Rail (CPR) Bridge as well as the Woodbridge Avenue and the CPR Bridge. Project No. EN-1949-13, "Pedestrian Link Feasibility Study", was submitted as part of the 2013 Budget to complete pedestrian link studies at the above

mentioned locations. Following staff's prioritization of tax funded capital projects, Council approved the inclusion of this project in the 2012 program year, as part of the approved 2013 budget and outlook. This project had been prioritized for consideration for the 2017 capital budget.

The prioritization of all future capital projects was again reviewed by staff in the preparation of the 2014 capital budget and outlook. The priority of Project No. EN-1949-17, "Pedestrian Link Feasibility Study", remained unchanged, and the project has again been included in the outlook recommended for 2017 implementation.

The cost estimate of \$50,000 for the project reflects cost savings that could be achieved by combining the two studies into a single assignment. Rationale for the cost savings includes:

1. The close proximity of these two sites would create efficiencies for a consultant and reduce the number of site visits required, as both sites could be assessed during one site visit.
2. An overall reduction in the number of meetings between the City and a consultant.
3. An overall reduction in costs associated with reporting as only one report would need to be generated.

It is estimated that separating the pedestrian link feasibility studies into two separate projects would result in an overall cost increase of approximately \$10,000. The following cost estimates represent the individual project costs for separating the studies:

- \$30k for the Highway 27 and CPR bridge pedestrian link feasibility study
- \$30k for the Woodbridge Avenue and CPR bridge pedestrian link feasibility study

While there is opportunity to separate the two pedestrian link feasibility studies into separate projects, staff estimate that this will result in an overall increase in costs. In addition, as the funding source for these projects is taxation, the prioritization of these projects would remain unchanged with an outlook for 2017 implementation.


#### **Attachments**

1. Location Map – Highway 27 and CPR Bridge
2. Location Map – Woodbridge Avenue and CPR Bridge
3. Extract from Council Meeting Minutes of June 26, 2012 (Item 39, Report No. 29).


#### **Report prepared by:**

Vince Musacchio, P.Eng, PMP, Manager – Capital Planning and Infrastructure, ext. 8311

Respectfully submitted,

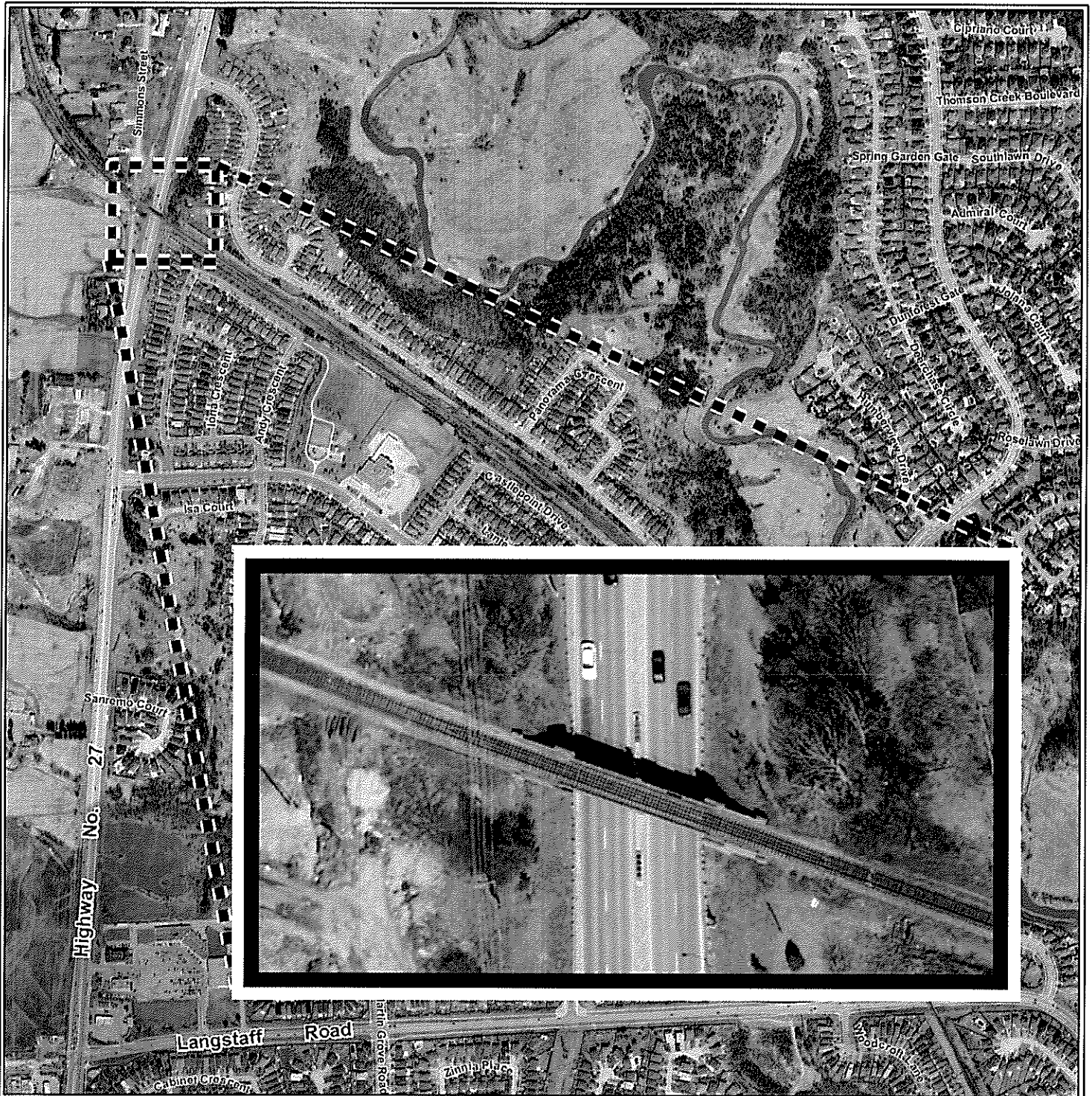


Paul Jankowski  
Commissioner of Engineering  
And Public Works



Jack Graziosi.  
Director of Engineering Services

# ATTACHMENT No. 1

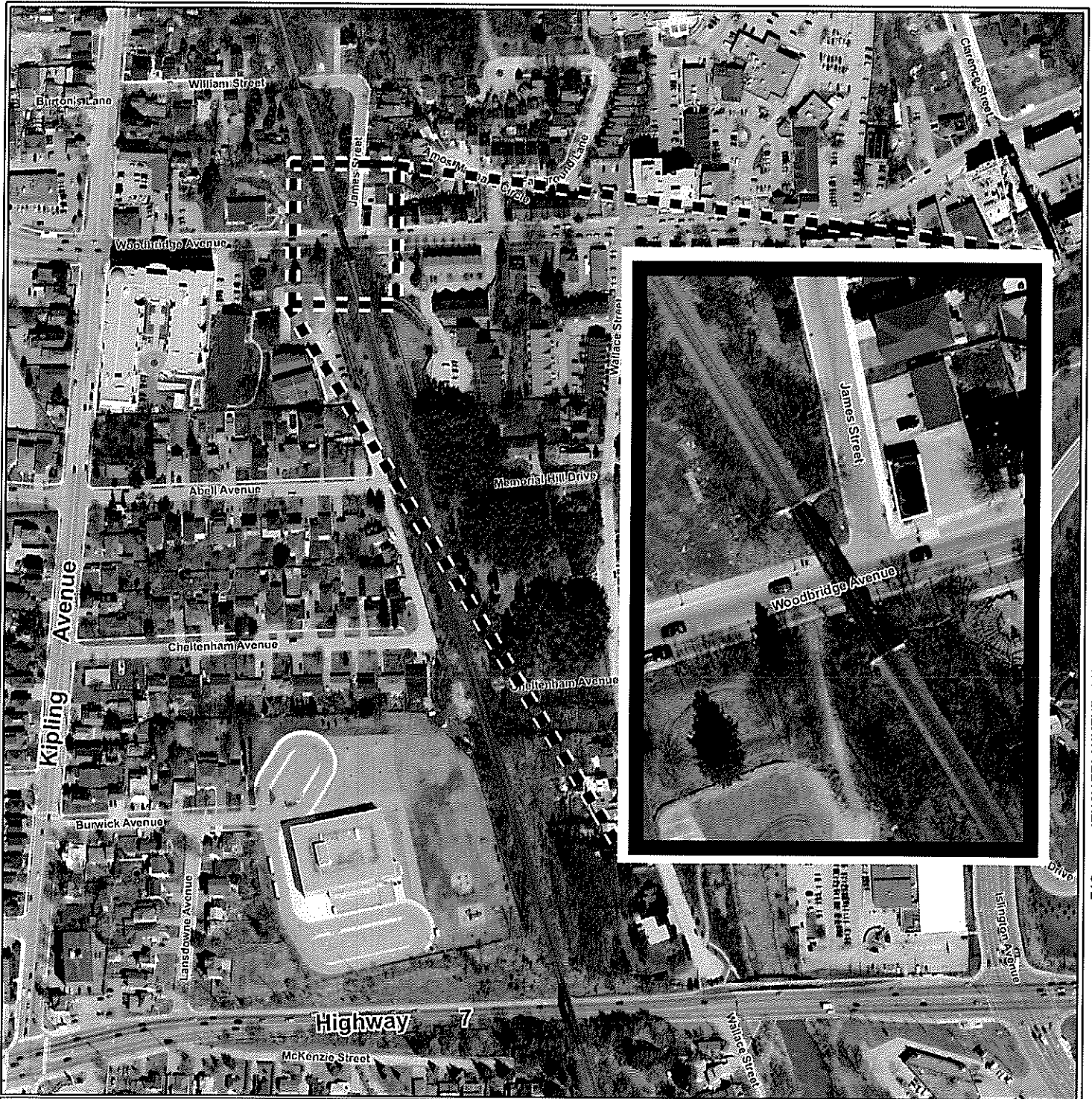


## LOCATION MAP PEDESTRIAN LINKAGES ALONG HIGHWAY 27 AT CANADIAN PACIFIC RAIL



NOT TO SCALE

# ATTACHMENT No. 2



## LOCATION MAP PEDESTRIAN LINKAGES ALONG WOODBRIDGE AVENUE AT CANADIAN PACIFIC RAIL



NOT TO SCALE



## ATTACHMENT NO. 3

CITY OF VAUGHAN

### EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 26, 2012

Item 39, Report No. 29, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on June 26, 2012.

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#### **PEDESTRIAN LINKAGES IN WEST WOODBRIDGE WARD 2**

The Committee of the Whole recommends:

- 1) That the recommendation contained in the following report of the Commissioner of Engineering and Public Works, dated June 19, 2012, be approved; and
- 2) That staff investigate the feasibility of a less expensive sidewalk tunnel under-pass crossing and report back to the Finance and Administration Committee for discussion as part of the 2013 budget process.

#### **Recommendation**

The Commissioner of Engineering and Public Works recommends:

1. That the City plan for integrating a sidewalk facility with the future designs for a new railway bridge over Highway 27 to be undertaken by Regional Municipality of York, Canadian Pacific Railway, or Metrolinx in the future, as identified in Alternative 3 within the Background – Analysis and Options of this report; and
2. That the City continue to monitor the pedestrian activity in the area.

#### **Contribution to Sustainability**

The purpose of the report is to review the feasibility of constructing pedestrian links that will promote and improve pedestrian movements between Royalpark Way and Martin Grove Road. As such, the installation of this link is consistent with Green Directions Vaughan Goal #3: To ensure that Vaughan is a City that is easy to get around with low environmental impacts, in particular Objectives 3.1 and 3.2.

**Objective 3.1** To develop and sustain a network of sidewalks, paths and trails that supports all modes of non-vehicular transportation.

**Objective 3.2** To develop and sustain a network of roads that supports efficient and accessible public and private transit.

#### **Economic Impact**

There is no direct economic impact as a result of this report. However, the options outlined in this report will assist Council in determining the feasibility of implementing pedestrian link(s) between Royalpark Way and Martin Grove Road.

#### **Communications Plan**

A communication plan has not been developed as a result of the undertaking of this feasibility study. However, should the City proceed with a pedestrian link between Royalpark Way and Martin Grove, Engineering Services staff will advise the Mayor and Members of Council and will distribute a notice of project to all affected stakeholders.

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 26, 2012

Item 39, CW Report No. 29 – Page 2

Purpose

To report to Council on the feasibility of the construction of a pedestrian link(s) between Royalpark Way and Martin Grove Road.

Background - Analysis and Options

At its meeting on September 7, 2010, (Item 71, Report No. 40 of the Committee of the Whole), Council directed:

**“That staff prepare a report on the feasibility and viability of constructing a pedestrian crosswalk between Royalpark Way and Martin Grove Road including costs, to a future Committee of the Whole meeting.”**

Staff conducted a feasibility study, investigating various opportunities of improving pedestrian access from Royalpark Way to Martin Grove Road and undertook a Pedestrian Activity Review to determine the existing level of pedestrian activity in the vicinity of the railway, between Royalpark Way and Martin Grove Road. The following observations were made on the pedestrian study:

- Zero pedestrians crossed the railway within the area
- No damage to the perimeter fencing delineating the railway
- No sign of pedestrian paths (desire lines) observed

The need for investigating possible pedestrian links arose from the fact that there is insufficient space to construct a sidewalk passing under the Canadian Pacific Railway bridge along Highway 27. Notwithstanding the results of the pedestrian study, the following alternatives were investigated:

**1. Constructing a sidewalk under the existing Canadian Pacific Railway bridge is not feasible**

This option includes the construction of a new sidewalk along Highway 27, under the existing Canadian Pacific Railway (CPR) bridge. In order to accommodate the sidewalk, the existing lane widths on Highway 27 would need to be reduced below the Regional Municipality of York standards, impacting the safety of both the vehicular and pedestrian traffic in the vicinity of the bridge. The lane widths would need to be reduced to 3.1 meters. This lane width is much less than the standard minimum lane width of 3.5 meters for a high speed road, such as Highway 27. As a result, the inclusion of a sidewalk under the existing span of the bridges would not be feasible.

**2. A new sidewalk tunnel under-pass crossing would cost the City \$7M in tax levy to implement**

Pedestrian underpasses have the advantage of having minimal visual impact to the surrounding area but tend to have high costs. The construction cost of tunnelling under the CPR line has been estimated at \$7 million. In addition, the construction of such a pedestrian tunnel would result in ongoing security concerns, as well as additional maintenance concerns/costs. There is also the common perception of pedestrians that underground tunnels are unsafe, leading some pedestrians to avoid them despite the provision for security features.

**3. Installation of new sidewalk in conjunction with future bridge rehabilitation/reconstruction by the Regional Municipality of York, CP Rail, or Metrolinx is feasible**

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Staff have reviewed the opportunity of installing the sidewalk that completes the link from Royalpark Way and Martin Grove Road in conjunction with a Regional Municipality of York widening of Highway 27. The widening of Highway 27, from four to six lanes, would require the widening of the CPR bridge. This option is the most cost effective alternative for a pedestrian linkage. The City would only be responsible for the cost associated with widening the bridge enough to accommodate a 1.5m sidewalk and the cost of the sidewalk itself.

As part of the recommendations of the York Region's West Vaughan Transportation Improvements Individual Environmental Assessment (WVIEA), Highway 27, from Steeles Avenue to Major Mackenzie Drive, will be widened from 4 lanes to 6 lanes. The Regional Municipality of York has not identified Highway 27 as a priority road within their 10 Year roads capital program. Since there is no planned work in the foreseeable future, a time line for the installation of a pedestrian link can not be determined at this time.

CPR has indicated that the existing single track, two-span rail bridge that carries the CP MacTier subdivision over Highway 27 may be replaced by a double track two-span bridge. CPR has not indicated/finalized the proposed timings of the above mentioned improvements. In addition, CPR informed staff that should the City proceed with the bridge reconstruction to facilitate the installation of a sidewalk under it, CPR's portion of the construction cost sharing would depend on the assessed condition of the bridge, and the value CPR would gain from a reconstruction. Since CPR has no immediate plans to conduct any rehabilitation/replacement of the bridge at this time, CPR's contribution would be minimal at this time.

In 2010, Metrolinx undertook the "Bolton Commuter Rail Service" Feasibility Study. This study reviewed the feasibility for new regional rail service to the Town of Caledon, identified within Metrolinx 15 year plan. The study recommends improvements to the CP MacTier subdivision, including the structure on Highway 27. An additional set of tracks would be required to facilitate rail service from the Town of Caledon to Toronto.

There may be opportunity for the City to cost share any improvements to the CPR Bridge structure. Should the City coordinate improvements with either Metrolinx, CPR or the Regional Municipality of York, the cost to the City would be greatly reduced. The City would only be required to contribute any additional cost associated with accommodating a sidewalk.

**4. CP Rail will not approve a new at-grade road crossing east of Highway 27**

Staff considered the option of extending one of the existing roads to cross the CPR tracks, providing a new vehicle and pedestrian crossing. One example would be extending the west leg of Panorama Court across the CPR tracks at a level crossing, and intersecting with Castlepoint Drive. This option would have certain advantages, such as lower costs than a pedestrian overpass. However, there would also be disadvantages such as traffic infiltration and increased noise. A new track-level crossing would likely result in trains sounding their whistles whenever they approached. The crossing would also have warning bells, and the new gap in the noise fence would make the noises of the train more intrusive than they were before. Staff contacted CPR to determine this option's feasibility. CPR stated that they would deny such an application on the basis that vehicular crossings are already close by. Since the primary motivation for a roadway extension would be pedestrian access, CPR had indicated that approval would only be granted for a pedestrian overpass or underpass option.

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**5. CP Rail will not approve a sidewalk at-grade crossing of the railway**

Staff discussed the possibility of a pedestrian sidewalk crossing at track level with CPR. CPR indicated that pedestrian-only at-grade crossings, where pedestrians can cross the tracks on foot at a designated location, are not permitted in this area. Should the City like to investigate this option and CPR does not approve the proposal, staff can escalate the proposal to the Canadian Transportation Association (CTA) for further review. This investigation/CTA approval process could take several years to complete and may not result in the approvals required to proceed with this option.

**6. A new sidewalk overpass of the railway would cost the City \$4M in tax levy to implement and would have significant community and property impacts and tax levy to implement**

Pedestrian overpasses are preferred by CPR. This option has the advantage of requiring less security measures and maintenance; however, there are several disadvantages. Since CPR requires that the pedestrian bridge be elevated 7.0 meters above the railway, the structure would be very large, and would have a significant visual impact in a residential area such as this one. Aside from the bridge crossing itself, the structure would require steps and accessibility ramps on both sides of the tracks. These structures require substantial property, which is not available in the Royalpark Way neighbourhood except for the McClure Meadows Park on the south side of the track. The City would need to purchase property from several homeowners on Royalpark Way before the overpass could be built. Adjacent homeowners may lose privacy with pedestrians having a 7 meter high view of their backyards. The design and construction cost of a pedestrian overpass is estimated at \$4 million, excluding land acquisition costs.

Table 1 summarizes the analysis of the proposed alternatives.

**Table 1:** Analysis of feasibility of constructing a pedestrian link between Royalpark Way and Martin Grove Road



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Alternative	Alternative Description	Estimated Cost	Comments
1	Add a sidewalk under existing Canadian Pacific Railway Bridge	\$50,000	Option is not feasible. Creates a safety concern. Lack of space under the bridge would require narrowing of the existing lanes less than acceptable widths for a higher speed road such as Highway 27
2	Sidewalk Tunnel Under-Pass Crossing	\$7.0 Million	Option is feasible, however, costly. Additionally, this option presents increased safety and maintenance concerns.
3	Construction of a New Sidewalk in Conjunction with future bridge rehabilitation/reconstruction by the Regional Municipality of York, CPR, or Metrolinx	\$250,000	Option is feasible. Regional Municipality of York has not identified Highway 27 within their 10 Capital Program. As such, the timeline for the installation of the pedestrian link can not be determined.  There may be opportunity for the City to cost share any improvements to the CPR Bridge structure. Should the City coordinate improvements with either Metrolinx, CPR or the Regional Municipality of York, the cost to the City would be greatly reduced. The City would only be required to contribute any additional cost associated with accommodating a sidewalk.
4	New Road At-Grade crossing east of Highway 27	\$2.0 Million	Option is feasible. Option is not preferred by CPR due to the abundance of road crossings in the area. Since the request is motivated to provide a pedestrian linkage, CPR has requested that the City review a pedestrian only alternative. This option also presents a visual impact.
5	Sidewalk At-Grade crossing of the Railway	\$200,000	Option is not feasible. CPR will not permit at-grade pedestrian crossing at this location.
6	Sidewalk Overpass of the Railway	\$4.0 Million + Land Acquisition costs	Option is feasible, however, costly. The construction of a pedestrian overpass can pose a privacy issue with the adjacent land owners due to the CPR 7.0 meter clearance requirement.

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In view of the evaluation of the feasibility of constructing a pedestrian link between Royalpark and Martin Grove, in and the results of the Pedestrian Activity Review, planning for the accommodation of a pedestrian access in conjunction with future bridge work at Highway 27 appears most appropriate.

Relationship to Vaughan Vision 2020/Strategic Plan

In consideration of the strategic priorities related to Vaughan Vision 2020, the recommendations of this report will assist in enhancing and ensuring community safety, health and wellness; priorities previously set by Council. Constructing pedestrian links between Royalpark Way and Martin Grove Road ensure that an appropriate level of service is maintained for pedestrian and vehicular traffic in the vicinity in the area.

Regional Implications

Highway 27 is under the jurisdiction of the Regional Municipality of York. As such, approval from the Regional Municipality of York for any work in the Highway 27 right-of-way would be required.

Conclusion

There are no feasible means of adding a pedestrian link across the CPR tracks along Royalpark Way at this time. When York Region or Metrolinx undertakes the design of a new railway bridge over Highway 27 the City will integrate a pedestrian facility at that time.

Attachments

1. Location Map
2. Extract from Council Meeting Minutes of September 7, 2010 (Item 71, Report No. 40).

Report prepared by:

Colin Cassar, CET, Senior Engineering Assistant, ext. 8756  
Vince Musacchio, P. Eng., PMP, Manager of Capital Planning and Infrastructure, ext. 8311

CC:mc

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)