

COMMITTEE OF THE WHOLE – NOVEMBER 10, 2009

HIGHWAY 427 TRANSPORTATION CORRIDOR DRAFT ENVIRONMENTAL ASSESSMENT MINISTRY OF TRANSPORTATION WARDS 1 AND 2

Recommendations

The Commissioner of Engineering and Public Works and the Commissioner of Planning recommend:

1. That the Ministry of Transportation be requested to address the comments on the 427 Transportation Corridor, Draft Environmental Assessment (EA) Report that are outlined in this report before finalizing the EA Report;
2. That Staff report back to Council on the recommendations of the final 427 Transportation Corridor EA Report; and
3. That a copy of this report be forwarded to the Ministry of Transportation and the Region of York.

Contribution to Sustainability

The proposed Highway 427 Transportation Corridor Extension contributes to sustainability by addressing the existing and short-term inter-regional transportation constraints related to the current Highway 427 terminus, and by enhancing goods movement to and from the CPR Vaughan Intermodal facility. In addition, the extension of Hwy 427 will facilitate the planned growth in the City, in particular the West Vaughan Employment area.

Economic Impact

There are no immediate economic impacts resulting from the adoption of this report.

Communications Plan

The 427 Transportation Corridor Environmental Assessment Study included three rounds of Public Information Centres, an extensive consultation process with external agencies, municipalities and the Public (including affected landowners, interest groups and the general public) in accordance with the *Environmental Assessment Act*. In addition, the 427 Transportation Corridor Environmental Assessment Draft Report and pertinent appendices are available for public review on the 427 Project Website at www.427corridor.com

The Ministry of Transportation will be notified of any resolution passed by Council relating to this report before the end of the pre-submission review period.

Purpose

The purpose of this report is to provide Council with an overview of the recommended corridor alignment which is detailed in the 427 Transportation Corridor Draft Environmental Report together with Staff's comments on same.

Background - Analysis and Options

On June 23, 2005, the Ministry of Transportation (MTO) submitted the Terms of Reference (ToR) for the 427 Transportation Corridor Environmental Assessment Study (427 EA) to the Ontario

Minister of Environment for approval as required under the *Ontario Environmental Assessment Act*. The ToR was approved by the Ontario Minister of the Environment on November 1, 2005.

The purpose of the 427 EA study is to:

- Address existing and short-term transportation problems related to the then current Highway 427 terminus, truck traffic accessibility to and from the CPR Vaughan Intermodal Facility, and their impact on inter-regional traffic in the Peel-York boundary area;
- Identify and protect required property for any proposed transportation corridor and allow planned development to occur outside of the transportation corridor;
- Ensure that alternatives / preferred solutions will not preclude or predetermine planning for other transportation corridors.

The primary objective of the study is to address transportation issues in the area south of Greenbelt and to facilitate planning and development as envisioned in the Provincial Growth Plan.

The approved ToR set out the following transportation planning alternatives to be considered as part of the 427 EA:

- Do Nothing
- Travel Demand Management (TDM)
- Transportation Systems Management (TSM)
- Improved Existing Roadways
- New or Improved Transit Services
- New Roadways/Transitways
- Combination of the above

The major objective when generating alternatives is to develop alternatives that can reasonably address the problems and opportunities identified. The following combinations of alternatives to the undertaking were evaluated in detail:

1. Do Nothing (including planned infrastructure improvements)
2. TDM, TSM and Improved Existing Roadways
3. TDM, TSM, Improved Existing Roadways, and New or Improved Transit Services
4. TDM, TSM, New or Improved Transit Services, and New Roadways/Transitways

Based on the detailed analysis, Alternative 4 was identified as the recommended Alternative to the Undertaking. Following the selection of the preferred Alternative to the Undertaking, the next step in the process is to develop and examine terminus locations and alignments.

As part of the 427 EA process, three rounds of public consultation were completed. City of Vaughan staff, together with representatives from Region of Peel, Region of York, City of Brampton, Township of King and Town of Caledon also participated in the Municipal Advisory Group meetings (MAG).

Public Information Centre #1

The first Public Information Centre (PIC) was held in Vaughan on April 25, 2007 which provided information to the public on the transportation problems, the study area conditions, the evaluation of alternatives to the undertaking and initial route alternatives. In addition, an initial assessment of the five terminus locations (Langstaff Road, Rutherford Road, Major Mackenzie Drive, Nashville Road, and Mayfield Road Extension) was completed using an established process to determine whether each location was practical for a future Highway 427 terminus. Based on the

results of this initial assessment, the Langstaff Road and Nashville Road terminus alternatives were not carried forward for further assessment.

City of Vaughan Position

Following the first 427 EA PIC, Vaughan Council, at its meeting on May 22, 2007, passed a resolution indicating to the Ministry of Transportation that it prefers a westerly alignment for the extension of Highway 427 that follows the north-south Hydro One Corridor. This option was preferred for the following reasons:

1. Reduced impact on proposed residential development;
2. Reduced impact on a heritage settlement area including the Nashville Cemetery;
3. Provides a better alignment and design of the realignments of Major Mackenzie Drive and Huntington Road.

Furthermore, in advance of the second PIC, Council, at its meeting of May 12, 2008 endorsed the following recommendations:

1. *"That City of Vaughan Council endorse the technically preferred route for the Highway 427 Extension (from Highway 7 to Rutherford Road);*
2. *That City of Vaughan Council support the westerly alignment for the route north of Rutherford Road (to Major Mackenzie Drive);*
3. *That, in the event that the westerly route cannot be approved, that an alignment as far west of the central route be recommended;*
4. *That the Ministry of Transportation (MTO) work closely with the City of Vaughan, the City of Brampton, the Town of Caledon and the Region of York and the Region of Peel as well as all other stakeholders, throughout the remainder of the Environmental Assessment process so as to ensure that the matters identified in the report, adopted by Council on May 22, 2007, are addressed;*
5. *That staff be directed to consult with MTO staff and report back to the Committee of the Whole on the final recommended route; and*
6. *That the following report of the Commissioner of Planning and the Commissioner Engineering and Public Works, dated May 5, 2008, be received."*

Public Information Centre #2

On May 13 and 15, 2008, the second 427 EA PIC was held in Vaughan and Caledon, respectively. The purpose of this PIC was to present information on the study process, an assessment and evaluation of the alternatives, the technically preferred terminus location and route alternatives, as well as the next steps in the study.

Based on the evaluation of the three possible terminus locations, Major Mackenzie Drive was identified as the technically preferred terminus location as it fulfilled all the study objectives without significant environmental impacts. The evaluation of the nine route alignments resulted in the selection of Alternative C2 (Central alignment) as the technically preferred route for the highway corridor subject to refinements based on public input and through the preliminary design phase of the EA.

The Central Corridor Alignment Refinements (Westerly Shift)

Following the second 427 EA PIC, consultation on refinements to the technically preferred route (TPR) were held with York Region, CPR, TRCA, City of Vaughan and local landowners. Meetings were held on July 15, 2008 and October 15, 2008. Based on these meetings, the alignment of the TPR in the vicinity of Major Mackenzie Drive was shifted westerly by approximately 150 metres. This modified alignment was generally acceptable to the stakeholders.

After confirmation of the TPR, the preliminary design commenced. Design concepts at three key locations were developed and refined:

- Section south of Langstaff Road – The section south of Langstaff Road was shifted to the east to minimize environmental impacts to Rainbow Creek. The Transitway Corridor was identified and protected along the west side of the alignment. Due to the easterly shift of the corridor, six hydro towers were affected by the proposed alignment.
- Rutherford Road Interchange - At the conceptual stage, it was assumed that the existing municipal roads would cross over the highway. After further review, it was determined that the grade separation required to raise Rutherford Road would result in significant impact to the Knox Vaughan Church, Knox Vaughan Cemetery, West Robinson Creek and require extensive reconstruction of a number of the existing Hydro Towers. Accordingly, the 427 EA Team determined that Rutherford Road should remain at its existing grade and that the 427 Transportation Corridor alignment would cross over Rutherford Road. In addition, to provide better transportation operation on Rutherford Road and to avoid a crossing of the West Robinson Creek, McGillivray Road was realigned further to the east.
- Major Mackenzie Drive Interchange – The westerly shift to the TPR required changes to the proposed Major Mackenzie Drive interchange location and design. The preliminary design maintained the perpendicular crossing of West Robinson Creek and introduced a 1700 m radius curve north of the creek. Major Mackenzie Drive was realigned 250 m north at the proposed interchange which allowed the interchange ramp to be developed off CPR property. The shift also created additional spacing between the interchange and the proposed future access off Major Mackenzie Drive for both the CPR lands and the lands north of Major Mackenzie Drive. In addition, the transit station was placed at the north-west corner of the proposed Major Mackenzie Drive interchange. The realignment of Huntington Road was deferred pending further consultation with the stakeholders.

Public Information Centre #3

On April 22 and 23, 2009, the third 427 EA PIC was held in both Vaughan and Caledon, respectively, for the purpose of presenting the refinements to the TPR (Westerly shift) and the associated preliminary design, impact assessment and proposed mitigation measures.

The realignment of Huntington Road and the access to the lands north and south of Major Mackenzie Drive (east of the 427 Corridor) had not been fully addressed at this time.

Refinements to the Recommended Alternative

Following the PIC#3 and the confirmation of the TPR, MTO proceeded to complete the preliminary design of the recommended alternative. The preliminary design exercise included a more detailed investigation and the development of preliminary plans, profiles, cross-sections and design criteria.

The key refinements to the TPR that were identified through this design process were:

- Hydro Corridor Crossing Plan – The North bound lanes of the 427 Transportation Corridor were shifted significantly to the east to accommodate the required separation between the existing 500kV hydro towers and the North-bound and South-bound lanes of the future corridor. Based on the TPR, one tower on the existing 230kV transmission line will need to be removed and replaced with two new towers which will be located in the median on either side of the south bound lanes as shown in Attachment No.2 (Exhibit 6-3 Plate 2).
- Hydro Corridor Crossing Profile – The proposed Highway 427 profile in the vicinity of Langstaff Road was lowered to meet Hydro One's current vertical clearance standards.
- Langstaff Road Interchange SWM Pond Location – As a result of consultation with the area stakeholders, the proposed storm water management pond No. 02, which was originally proposed to be located east of the Langstaff Road N-E/W ramp was relocated to the median lands at the North-West quadrant of the Langstaff Road interchange as shown on Attachment No. 2 (Exhibit 6-3 Plate 2).
- Rutherford Road Interchange SWM Pond Location – The proposed storm water management pond No.4 located next to the Rutherford Road North-bound off ramp was shifted approximately 45 metres south of its original location to address stakeholders' concerns as shown on Attachment No.3 (Exhibit 6-3, Plate 3).

The Recommended Alternative

On October 8, 2009, the Ministry of Transportation issued the 427 Transportation Corridor Draft EA Report for a pre-submission review by the agencies and the public prior to the formal submission of the final EA Report to the Minister of the Environment. The pre-submission review period ends on November 12, 2009. Final submission to the Minister of Environment is expected in January 2010.

The 427 Transportation Corridor Draft EA Report recommends a highway corridor that is approximately 6.6 km in length including interchanges at Langstaff Road, Rutherford Road and Major Mackenzie Drive as shown in Attachments 1 to 6 (Exhibit 6-3 on Plates 1-6). The 427 EA is seeking approval for 6 lanes from Highway 7 to Rutherford Road and 4 lanes from Rutherford Road to Major Mackenzie Drive. The 427 Corridor is proposed to have a minimum right-of-way width of 110 m plus an additional 60 metres along the west side of the proposed highway right-of-way for the transitway corridor. Additional property requirements at interchange locations, the transitway stations, local road realignments and storm water management ponds have also been identified. Typical cross-sections of the highway are shown on Attachment No. 7 (Exhibit 6-4).

The horizontal alignment of the 427 Transportation Corridor is curvilinear in nature, consisting of numerous horizontal curves connected by tangent sections. The horizontal alignment of the transitway is also curvilinear in nature and its alignment, in general parallels the highway alignment except in the vicinity of interchanges and the transitway stations. The profile of the future Highway 427 extension varies throughout its length. In some locations the profile is below the existing ground level, while in the north half of the study area the mainline is mostly above the existing ground due to the requirements to pass over Rutherford Road, CP Rail line and Major Mackenzie Drive as shown on Attachment No.6 (Exhibit 6-3 Plate 6). The vertical alignment of the transitway follows the profile of 427 Corridor through most of the study length and therefore meets the stringent design criteria of the freeway.

A total of nine storm water management ponds and nine crossing locations (5 road and 4 water crossings) are being proposed along the length of the highway corridor. A grade separated

crossings of the 427 Corridor is proposed at Zenway Boulevard (Highway underpass) and McGillivray Road (Highway overpass).

Staff Comments on the Recommended Alternative

Staff has conducted a review of the 427 Transportation Corridor Draft EA Report and has identified the following comments which should be addressed before the EA Report is finalized.

1. The 427 EA recommends that Highway 427 be constructed to cross under Zenway Boulevard based on safety, traffic staging and cost implications. The Draft EA Report does not provide sufficient details to support this recommendation. Respective details supporting this crossing configuration should be provided in a separate section of the final 427 EA Report. **Additional information is required on the traffic implication in the area resulting from the reconstruction of Zenway Boulevard. How will this impact access to the employment lands and the existing Highway 427 Arterial Road and Zenway Boulevard?**
2. The relevant pedestrian and cycling facilities that are identified in both the City of Vaughan and Region of York Pedestrian and Bicycle Master Plans should be referenced in the EA Report and reflected on the appropriate highway plan and cross-section drawings. **Sidewalks and illumination will be required on all of the proposed highway crossings including Zenway Boulevard, Langstaff Road, Rutherford Road, McGillivray Road and Major Mackenzie Drive.**
3. The West Vaughan Enterprise Zone (Regional Official Plan Amendment 19 - ROPA 19) as approved by the OMB on October 22, 2001 added 2,500 net developable acres to the urban area of the City of Vaughan for the purposes of meeting the employment needs of the City of Vaughan and Region of York to the year 2026. Highway 50, Langstaff Road, Highway 27, a portion of the southern boundary of Kleinburg Community Plan, Major Mackenzie Drive, Ontario Hydro Corridor and Nashville Road bound the subject area. Prior to development, a secondary plan(s) detailing land use designations and policies, transportation, servicing and environmental provisions shall be adopted by the City and approved by the Region. The City of Vaughan is currently undertaking a City-Wide Official Plan review including a secondary plan for the ROPA 19 lands which will likely contain policies with respect to environmental sustainability and the City's "Green Directions" plan that need to be addressed in the design of the Highway.

Due to the Langstaff Road interchange location and its proximity to Highway 27 only one north-south roadway connection will be feasible to Langstaff Road to serve the future employment lands north of Langstaff Road and south of Rutherford Road. The only feasible location for this future roadway east of the future Highway 427 extension is opposite the proposed Innovation Drive.

Section 7.2.1 of the 427 EA Report provides details with respect to the three properties located on the north side of Langstaff Road directly east of the future West-North ramp that will require a combined access to minimize potential safety concerns associated with accesses in proximity to the West-North ramp. A combined access is proposed to be located opposite the proposed Innovation Drive as shown on Attachment No. 2 (Exhibit 6-3, Plate 2). An access at this location may hinder the construction of the northerly extension of Innovation Drive in the future. **Accordingly, the final 427 EA Report should identify an alternative access arrangement to the three properties on the north side of Langstaff Road in the vicinity of the interchange.**

4. The preferred 427 alignment and the associated interchanges at Rutherford Road and Major Mackenzie Drive impact the existing Huntington Road and McGillivray Road, and present certain challenges to maintaining good access to the surrounding lands. In

particular, the proposed Highway 427/Major Mackenzie Drive interchange will be located at the current Major Mackenzie/Huntington Rd. intersection. As a result, Huntington Road is proposed to be terminated south of Major Mackenzie Drive and realigned north of Major Mackenzie Drive. Accordingly, the location for the realigned and/or replacement access for Huntington Road to Major Mackenzie Drive should be determined as part of 427 EA.

The City, Region of York and the landowners expressed concerns with the provision of only one access to the Nashville West Community Plan (OPA 669) lands north of Major Mackenzie Drive. As noted in Draft 427 EA Report, MTO is currently reviewing a report prepared by the developers of the Nashville West Community that includes, in addition to the access between the proposed Highway 427 and the CP Rail line, a proposal for a second access that is directly opposite the proposed Highway 427 NB off-ramp. Based on this traffic study, it appears feasible that Huntington Road north of Major Mackenzie Drive could be realigned to intersect the Highway 427 S-E ramp. A second access location between Highway 427 and the CPR MacTier Subdivision rail line to serve lands both north and south of Major Mackenzie Drive. The future road extending south of Major Mackenzie Drive would maintain the access to the lands south of Major Mackenzie Drive that will be lost by the closure of Huntington Road. It is important to note that both these access points are identified in the City's approved OPA 669 for the Nashville West Community.

Accordingly, the City requires that the Huntington Road realignment and access arrangements to the approved Nashville West Community Plan (OPA 669) be addressed in consultation with the City of Vaughan, Region of York and the landowner prior to the finalization of the 427 EA Study.

5. As recommended in the 427 EA, Huntington Road south of Major Mackenzie Drive will be realigned to connect to McGillivray Road. In addition, an interim access is proposed to connect McGillivray Road to Major Mackenzie as identified on Attachment No. 4 (Exhibit 6.3, Plate 4). It is important to note that in 2004, the City completed a Class Environmental Assessment that assessed the opportunities to improve operations for both vehicles and train traffic at the Huntington Road crossing. Increased demand for intermodal transportation results in a greater volume of trains accessing the terminal, periodically blocking Huntington Road at the rail crossing. The City's EA recommended the establishment of a temporary road link between McGillivray Road and Major Mackenzie Drive at a location approximately 700m east of the existing Huntington Road alignment. This new road link was proposed to be in place for approximately 5-8 years until the Highway 427 extension was selected and a longer term transportation solution for this area could be considered.

The City in their consultation with the MTO and correspondence of June 2, 2009, requested that as part of the 427 EA Study, MTO investigate the feasibility of making a permanent connection from McGillivray Road to Major Mackenzie Drive. Options evaluated in the City's Huntington Road Class EA could be utilized in determining the appropriate location of this road link which provides adequate spacing between the future interchange and CP Rail line. In addition, this new roadway should be coordinated with the future access to the Nashville Community Plan on the north side of Major Mackenzie Drive. A connection to Major Mackenzie Drive is necessary to accommodate the proposed employment area south of Major Mackenzie Drive, north of Rutherford Road, east of the future Highway 427 and west of the CP Rail line. The extension of Highway 427 and the existing CP Rail line prohibit any additional east-west access opportunities to these lands in addition to the proposed McGillivray Road crossing under the future Highway 427 extension.

Therefore, it is paramount that the final 427 EA study identify the intersection location of a future permanent roadway on the south side of Major Mackenzie Drive to serve the West Vaughan Enterprise Zone lands and north of Major Mackenzie Drive to serve the Nashville West Community.

6. The preferred alignment of 427 also necessitates the realignment of McGillivray Road in the vicinity of Rutherford Road as shown on Attachment No. 3 (Exhibit 6-3, Plate 3). The location for the realigned intersection of McGillivray Road and Rutherford Road should be situated at a located between the existing stream corridor and the CPR MacTier rail line so the intersection will service the lands both north and south of Rutherford Road. **Accordingly, the final 427 EA should establish the new alignment of McGillivray Road and intersection location with Rutherford Road.**
7. Additional clarification should be provided on the McGillivray Road cross-section under the proposed Highway 427 Overpass structure at CPR/McGillivray Road as shown on Attachment No.4 (Exhibit 6-3, Plate 4). The City does not currently have any plans to widen McGillivray Road; however, as indicated in our previous comments, lands south of Major Mackenzie Drive have been designated for the future employment use. The City will be preparing a secondary plan for these lands as part of the City-Wide Official Plan process and it is anticipated that McGillivray Road will need to be widened some time in the future in order to accommodate development of the future employment lands. **The proposed Highway 427 Overpass structure at CPR/McGillivray Road should accommodate the future expansion of McGillivray Road to provide for four lanes of traffic, and 1.5 meter sidewalk on both sides of the road.**

General Comments

1. On page 1-1 of the draft 427 EA Report, a number of studies closely related to the 427 Transportation Corridor Study have been identified. A reference to the City's Growth Management Strategy currently underway should be added to the list of studies. This process includes a City-Wide Official Plan review to conform to the Places to Grow Act and Regional growth targets to the horizon year of 2031. The City's Transportation Master Plan (TMP) is also well underway and will identify the infrastructure needed to efficiently accommodate the population and employment growth that will result from the implementation of the Growth Management Strategy. The City's Growth Management Strategy process is expected to be completed in spring 2010. Additional information can be found on the Vaughan Tomorrow website @ (www.vaughantomorrow.ca)
2. On page 5-69, Motions by Municipal Council passed in response to the technically preferred route (C2-Central Route) presented at the PIC#2 have been identified. In addition to the Motions passed by the York Region Council and Region of Peel Council, reference should be made to the May 22, 2007 and May 12, 2008 Vaughan Council resolutions.
3. Section 6.2.13, page 6-31 specifies the total preliminary project construction cost to be approximately \$300 million. The cost of the proposed Zenway Boulevard structure, removal/relocation of the City of Vaughan roadways, property acquisition cost and other associated costs should be budgeted in the 427 Project and details provided in the final EA Report.
4. A detailed analysis of the open space and natural areas affected by the Highway 427 Corridor alignment will need to be undertaken in consultation with the City, and a terrestrial restoration plan produced during the detailed design stage of the project. The Highway 427 project budget will need to anticipate and provide for the implementation of these elements.

Consultation with MTO

City staff met with MTO and their consultant on October 27, 2009 to discuss the City's comments on the 427 Transportation Corridor Draft EA Report. Region of York staff was also present at the meeting. MTO staff provided assurances to City and Regional staff that all comments will be addressed prior to finalizing the 427 Transportation Corridor EA Report.

Relationship to Vaughan Vision 2020/Strategic Plan

In consideration of the strategic priorities related to Vaughan Vision 2020, the recommendations of this report will contribute to:

- Enhancing and ensuring community safety, health and wellness;
- The pursuit of excellence in service delivery;
- Leadership and promotion of environmental sustainability;
- Planning and managing growth and economic vitality; and,
- Promoting effective governance.

Specific Strategic Plan Initiatives applicable to the recommendations made in this report include Vaughan's corporate priorities to continue to support the Highway 427 extension. This report is therefore consistent with the priorities previously set by Council.

Regional Implications

The Region will provide comments to MTO on the 427 Transportation Corridor Draft EA Report separately.

Conclusion

On October 8, 2009, the Ministry of Transportation issued the 427 Transportation Corridor Draft EA Report for pre-submission review by agencies and the public prior to the formal submission to the Minister of the Environment. Comments on the pre-submission will be accepted by MTO up until November 12, 2009. It is expected that the final 427 EA Report will be submitted to the Minister of Environment in January 2010.

Staff has reviewed the 427 Transportation Corridor Draft EA Report and outlined the more significant comments in this report. Accordingly, it is recommended that MTO be requested to address these comments before finalizing the 427 EA Report.

Attachments

1. Attachment No.1 – Exhibit 6-3, Plate 1
2. Attachment No.2 – Exhibit 6-3, Plate 2
3. Attachment No.3 – Exhibit 6-3, Plate 3
4. Attachment No.4 – Exhibit 6-3, Plate 4
5. Attachment No.5 – Exhibit 6-3, Plate 5
6. Attachment No.6 – Exhibit 6-3, Plate 6
7. Attachment No.7 – Exhibit 6.4

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