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WESTERN VAUGHAN INDIVIDUAL ENVIRONMENTAL ASSESSMENT STUDY

The Transportation Services Committee recommends the adoption of the recommendation contained in the following report dated January 21, 2011, from the Commissioner of Transportation Services.

1. RECOMMENDATION

It is recommended that the Regional Clerk circulate this report to the Clerks of the City of Vaughan, City of Brampton, Town of Caledon and the Region of Peel.

2. PURPOSE

This report updates Regional Council on the Western Vaughan Individual Environmental Assessment (IEA) Study and outlines the recommendations proposed in the study.

3. BACKGROUND

The Western Vaughan IEA builds on the results of studies undertaken to-date and specifically identifies the Regional transportation infrastructure needed to support long-term growth

The Region's Transportation Master Plan is a comprehensive document that provides a "blueprint" to address transportation needs by examining existing operational constraints as well as long term growth. The document outlines strategies, policies and also identifies potential transportation improvements across the entire Region. The TMP is updated every 5 years to review current data, trends and changes in transportation and identify potential changes to the planned transportation system.

The Western Vaughan Individual Environmental Assessment (IEA) was initiated in 2007 and builds on previous studies and the key initiatives outlined in the Transportation Master Plan (TMP) Update. Using the TMP as an overall guideline, the IEA focuses on the Western Vaughan area and goes into further details with respect to alternative transportation networks, detailed environmental inventory and updated development applications to identify a sustainable transportation network that will encourage multi-modal travel.

Provincial legislation and subsequent approved plans have identified future growth in West Vaughan

The western portion of the City of Vaughan is undergoing a transformation with respect to land use and transportation. There is rapid urbanization within this portion of the City with the planned northward expansion of the residential/commercial land base. Based on the growth to date, many of the corridors in the study area are currently experiencing congestion and operational constraints for all vehicles including cars, trucks and transit vehicles.

There are several planning studies that affect the future infrastructure in the area including finalization of the Places to Grow legislation and resultant changes to population and employment in this area, the City of Vaughan's Official Plan Review, the North Kleinburg-Nashville Secondary Plan, Peel Region's Highway 427 Extension Area Master Plan study, Ministry of Transportation's (MTO) GTA West Corridor study and the Highway 427 Extension Study and the Region's Transportation Master Plan Update.

The study area includes the western portion of the City of Vaughan from Highway 400 in the east to Highway 50 in the west and from Highway 407 in the south to Teston Road in the north including the Boyd Conservation Area and Kortright Conservation Area

The Western Vaughan IEA study area as shown in *Attachments 1 and 2* includes the western portion of the City of Vaughan from Highway 400 in the east to Highway 50 in the west and from Highway 407 in the south to Teston Road in the north. The study area is primarily composed of a mix of residential and open space land uses surrounded by industrial-commercial land uses associated with Highways 400, 407, and 427.

Open space land uses include the Boyd Conservation Area extending north from Langstaff Road to Rutherford Road and the Kortright Conservation Area located directly north of Rutherford consists of 842 hectares of Toronto and Region Conservation Authority owned land. The largest natural environmental feature of the study area is the Humber River and valley.

4. ANALYSIS AND OPTIONS

ENVIRONMENTAL ASSESSMENT PROCESS

The Western Vaughan IEA has been conducted in accordance with the Terms of Reference approved by the Minister of the Environment

The Western Vaughan study has been undertaken as an Individual Environmental Assessment (EA), which is the most intensive environmental study that can be undertaken. Unlike a Class EA, which has an established process that is pre-approved by the Ministry of Environment, an Individual EA requires the Minister of the Environment

to approve the process that will be followed for the study. In 2006, the Region received approval of the Terms of Reference (ToR) for the Individual EA and the Western Vaughan study has been undertaken in accordance with this approval. The key steps in the process are as follows:

- Define purpose of / rationale for the undertaking – confirmed the purpose of the project is to improve transportation mobility and facilitate more convenient and reliable transportation choices within the Study Area.
- Develop and identify a short list of alternatives to the undertaking – reviewed nine alternatives that included various permutations and combinations of transportation measures and network considerations, including an assessment of existing operational constraints.
- Evaluate short-listed alternatives to the undertaking - compared the three short-listed alternatives to identify the alternative that best addressed the transportation challenges and minimized impacts on the environment.
- Develop and evaluate alternative methods of carrying out the undertaking– compared alternative design options based on minimizing environmental impacts.
- Impact Assessment – Identified the impacts of the Preferred Design and evaluated mitigation and potential compensation where impacts could not be avoided.

A comprehensive public consultation process was undertaken to solicit input from residents in the study area

Public consultation is an integral part of the EA process. There were a total of 11 public meetings held for the study. Given the large study area, a comprehensive notification strategy was deployed for each public meeting that included handing out approximately 40,000 flyers to all residents, multiple advertisements in the Vaughan Citizen and Toronto Star, website notification and posters at local community centres and libraries. On average, the attendance at the meetings was approximately 35 people. In addition to the formal public meetings, local stakeholder consultation was undertaken as requested by residents in specific areas, such as Kleinberg Area Ratepayers Association, the Sonoma Heights Ratepayers Association (Rutherford Road near Islington Avenue), area residents on Rutherford Road near Clarence Street and the West Woodbridge Ratepayers Association (Highway 27 near Langstaff Road).

In addition to the broader public consultation process, two advisory committees were formed to guide the study and provide input at key stages of the study

The study was also guided by input from two advisory committees, the Community Stakeholder Advisory Committee (composed of residents and landowners with large development properties) and the Regulatory Agency Advisory Committee (composed of agencies such as Toronto and Region Conservation Authority, City of Vaughan, GO Transit, CP Rail and the Region of Peel). The role of the advisory committees was to act

as a “focus group” prior to staff proceeding at key milestones in the study and prior to disseminating information to the public at large. A total of six advisory committee meetings were held over the course of the study.

Public comments focused on the need for transportation infrastructure while minimizing impacts to adjacent residents

In general, the public recognized the need to provide transportation infrastructure and continue to identify transportation as one of the key issues in this area. It was noted that ongoing growth has had an impact on travel times and that there is a need to respond to these issues.

There were a number of comments about the Region’s proposed transit/HOV design and many residents identified issues related to the impacts of road widening, reduced boulevards and increased noise issues. Staff responded to these matters by stating the importance of transportation infrastructure to support planned growth and Council’s approved design for transit/HOV lanes. Staff outlined the design features that will be implemented to address some of the impacts. These include noise walls where they are warranted in accordance with Region’s noise policy, dedicated bike lanes, sidewalks, street tree planting and centre median design to improve urban design and increase safety.

Staff have been working collaboratively with Ministry of Transportation to ensure a seamless coordination of information and design issues related to the Highway 427 extension and terminus at Major Mackenzie Drive

The Ministry of Transportation (MTO) has recently received final EA approval for the extension of Highway 427 from Highway 7 to Major Mackenzie Drive. The Highway 427 Extension study was undertaken during the time staff were undertaking the West Vaughan IEA study. Throughout the course of both studies, staff from both the MTO and the Region worked collaboratively to share information about their respective projects.

A separate process was undertaken to engage First Nations and respond to their specific issues

In accordance with the Terms of Reference, a separate consultation process was followed to solicit input from First Nations and other Aboriginal communities. All First Nations and Aboriginal communities identified in the list provided by the Ministry of Aboriginal Affairs for this study area were contacted for the study. Two meetings were held to inform First Nations regarding the study, solicit their input and review the findings of the study at key stages.

ENVIRONMENTAL ASSESSMENT CONCLUSIONS

The preferred solution to achieve long term transportation objectives is to implement a six-lane road cross-section with Transit/HOV lanes on 36 km of arterial roads within the study area

An assessment of existing operational conditions and current limitations was undertaken. It was determined that existing infrastructure was already near capacity in several corridors. Based on the current conditions and noting future growth, nine alternatives to the Undertaking were selected for further review. Upon completion of the Alternatives to the Undertaking of the Western Vaughan IEA study, it was determined that approximately 40 km of roads/transit improvements are required to support long term growth in the study area. With the exception of four km on the portion of Highway 27, north of Major Mackenzie Drive, transit/HOV lanes consistent with Region's six lane design standard are recommended on all road sections.

The roads identified for improvements are shown in *Attachment 3* and reflect approximately 40 km of road and transit improvements. The extent of transportation improvements is generally consistent with the Region's recently completed Transportation Master Plan Update and is supported by staff as the preferred solution to addressing long-term transportation needs in the study area.

In order to protect the Kortright Conservation area, the northerly section of Pine Valley Drive between Rutherford Road and Teston Road is proposed to remain as a two lane roadway with intersection improvements at the major intersections

The Kortright Centre for Conservation area is an important environmental feature identified as an area for protection in the study. Three Regional roads abut this conservation area including Major Mackenzie Drive, Rutherford Road and Pine Valley Drive. Initially all three roads were considered for widening to provide for a six-lane cross-section with transit/HOV lanes.

The northern section of Pine Valley Drive currently ends at Rutherford Road, and as outlined in the Minister's approval of the Terms of Reference, a southerly extension of this road through Boyd Conservation Area could not be considered in this study. Although the traffic projections showed some increases on Pine Valley Drive, it was determined that these increases could be redistributed to adjacent roads with the help of mid-block collector roads for planned development in the area. Furthermore, the steep slopes, heavily wooded areas, and wildlife in this area would present a challenge with respect to potential mitigation if road widening was to be contemplated.

It is proposed that Pine Valley Drive between Rutherford Road and Teston Road should continue to function as a two-lane roadway. In order to accommodate the increased

traffic on this road, intersection improvements such as designated turn lanes and improved signal timings were considered and recommended.

Major Mackenzie Drive and Rutherford Road through the Kortright Conservation area, are designed to minimize impacts on conservation lands and improve connectivity across the roadway for pedestrians and wildlife

Both Major Mackenzie Drive and Rutherford Road require improvements to provide for a six-lane road cross-section with transit/HOV lanes to accommodate future travel across the Kortright Conservation area. In order to minimize impacts through this section the typical landscaped centre median was eliminated in the design. Steeper slopes with natural vegetated walls are proposed to reduce the amount of valley land that would be impacted. At the river and stream crossings, wider span bridges will replace the small box culverts to improve conditions for the streams and provide enhanced opportunities for pedestrian connections under the roadway. Three additional wildlife crossings are also proposed to improve connectivity under Major Mackenzie Drive.

More work will be undertaken to finalize the location of an archaeological discovery adjacent to Major Mackenzie Drive between Islington Avenue and Pine Valley Drive and develop appropriate measures to mitigate impacts.

One of the key issues in this section is an archaeological find that is identified on the north side of Major Mackenzie Drive between Islington Avenue and Pine Valley Drive. During the archaeological studies, remnants (i.e. pottery handles, pieces of clay plates etc.) from a potential camp site were discovered adjacent to the roadway. Based on Stage 2 archaeological studies, the design for Major Mackenzie Drive in this area was modified to avoid impacts to this archaeological site. When the Region proceeds with detailed design for this section a Stage 3 archaeological study will be undertaken to better understand the extent of the site, and refine the design to ensure there are no impacts.

The IEA identified Major Mackenzie Drive improvements should proceed immediately to accommodate current and near term growth in the study area

In order to accommodate current and near term growth, improvements should proceed initially on Major Mackenzie Drive. This early need is related to the planned extension of Highway 427 to Major Mackenzie Drive and the approved development near Highway 27 and Huntington Road. In addition, development continues to grow in the area adjacent to Weston Road. Furthermore, the Region of Peel has completed master plans for potential changes to their roads west of Highway 50, including realignments that will result in increased access to the planned interchange at Highway 427 and Major Mackenzie Drive. As a result of these factors, and the importance of Major Mackenzie Drive as one of the few major arterial roads that cross the entire Region, improvements on Major Mackenzie Drive should precede other roads in the study area. The Major

Mackenzie Drive improvements are included in the Region's current 10-Year Roads Construction Program.

A long-span bridge across the Humber River and a grade separation of Major Mackenzie Drive at the CP Rail line will eliminate the "jog" at Major Mackenzie Drive and Highway 27 improving east-west thoroughfare across the Region

Major Mackenzie Drive is currently a discontinuous road at Highway 27. Motorists must travel north and south on a short portion of Highway 27 in order to continue their journey east and west along Major Mackenzie Drive. This discontinuity, or "jog" on Major Mackenzie Drive is inefficient from a transportation capacity perspective. Major Mackenzie Drive is an important east-west arterial road that provides connectivity across the Region. It currently has interchanges at both Highway 404 and Highway 400 and is planned to have an interchange at the terminus of the EA approved Highway 427 extension.

Given these important connections and the planned growth along Major Mackenzie Drive near Highway 427, it was determined that the "jog" on Major Mackenzie Drive at Highway 27 needs to be corrected to improve east-west travel. The proposed design to address this issue is shown on *Attachment 4*. The design shows the extension of Major Mackenzie Drive westerly from the south intersection on Highway 27 to where it rejoins the existing alignment of Major Mackenzie Drive east of the CP rail tracks. This design involves a long span bridge crossing of the Main Humber River and a grade separation of Major Mackenzie Drive at the CP rail line.

Major Mackenzie Drive has been designed to suit MTO's design for the proposed Highway 427 terminus

The preferred design shown for the Highway 427 interchange at Major Mackenzie Drive terminus has been integrated with the proposed improvements to Major Mackenzie Drive in the vicinity of the interchange including grades, alignment, cross sections and access to proposed developments.

The IEA also identified subsequent, longer term improvements to Weston Road, Pine Valley Drive south of Highway 7, Rutherford Road and Highway 27

Weston Road improvements are required due to the ongoing commercial demands in the corridor and the importance of improving transit for access to the employment areas. Improvements to Pine Valley Drive south of Highway 7 are required to facilitate improved access to Highway 407 and are identified as a need in the mid-term. The planned improvements to Rutherford Road east of Highway 27 are considered in the long term since this section is currently four lanes wide. Finally, the proposed improvements on Highway 27 are based on the assumption that having obtained EA approval, the

Highway 427 extension work will be implemented in the near term and will likely handle much of the demand in this corridor until the lands immediately adjacent to Highway 27 are developed.

Highway 7 between Kipling Avenue and Bruce Street (east of Islington Avenue) is subject to significant constraints, and this IEA does not recommend improvements at this time.

Highway 7 transitions from a 7 lane cross section to a 5 lane cross section in the above noted area. The review of this section of Highway 7 was included in the EA for rapid transit on Highway 7 and was recently approved.

The rapid transit EA noted significant challenges within this area to accommodate a centre lane bus way, notably the existing CP rail structure west of Islington Avenue and the steep slopes adjacent to this structure. The EA concluded that the overall transit benefits did not outweigh the impacts to widen the road in this area. The portion of Highway 7 between Kipling Avenue and Bruce Street was identified in the Rapid Transit EA to be studied in more detail subject to reviewing potential operational needs after construction of the rapidway on Highway 7. As such, the West Vaughan IEA has not recommended improvements.

This Highway 7 section will be the subject of a further report in 2011

In recognition of questions relating to this section raised at the January 12, 2011 Transportation Services Committee, staff will be preparing a report summarizing the past history, constraints at this location, potential for further studies and operational improvements, in the spring of 2011.

NEXT STEPS IN THE ENVIRONMENTAL ASSESSMENT PROCESS

The major components of the study have been completed and staff expect to make a submission to the Minister of the Environment in the second quarter of 2011

All of the public consultation meetings for the study have been completed. Detailed technical analysis identifying the impacts of the preferred design is also complete and staff are currently finalizing the draft EA document. A pre-circulation of the draft EA document to affected agencies and the advisory committees is planned in the first quarter of 2011. Meetings with agencies to finalize the document for formal submission will be undertaken shortly after that and the final IEA document is expected to be submitted in the second quarter of 2011.

5. FINANCIAL IMPLICATIONS

The preliminary cost to construct the recommended improvements is outlined in the tables below. The costs in Table 1 reflect the programmed costs as identified in the Region's proposed 2011 10 – Year Roads Construction Program and will be refined as the various projects move through the various stages of detailed design, regulatory approvals, contract preparation and construction.

Table 1
Preliminary Cost Estimates for Planned Improvements in the current 10 -Year Roads Construction Program

Road	Section (Capital Programme Year)	Km	Cost Estimates	Current DC Funding Rate
Major Mackenzie Drive	Highway 50 to CP McTier Subdivision (2016)	3.0	\$20 M	82%
	CP McTier Subdivision to Highway 27 (2014)	1.5	35 M	82%
	Highway 27 to Pine Valley Drive (2014)	4.0	43 M	90%
	Pine Valley Drive to Weston Road (2013)	2.0	11 M	90%
Total		10.5	\$109 M	

The costs in Table 2, below, are preliminary cost estimates for the longer term improvements required beyond the proposed 2011 10 – Year Roads Construction Program.

Table 2
Preliminary Cost Estimates for Longer Term Improvements

Program	Arterial Road	Location (From – To)	Number of Km	Cost Estimates	Current DC Funding Rate
Longer Term	Rutherford Road	Highway 50 to Highway 27	3.0	\$18 M	82%
	Weston Road	Steels Avenue to Major Mackenzie Drive	8.5	65 M	90%
	Pine Valley Drive	Steeles Avenue to Highway 7	2.0	24 M	90%

Rutherford Road	Highway 27 to Pine Valley Drive	4.0	48 M	90%
	Pine Valley Drive to Weston Road	2.0	11 M	90%
Highway 27	Steeles Avenue to Major Mackenzie Drive	8.0	83 M	--
	Major Mackenzie Drive to Teston Road / Nashville Road (4-lane cross-section – no HOV lanes)	2.0	19 M	--
Total		29.5	\$268 M	

The recommended improvements will be financed from a combination of tax levies and development charges.

The transportation improvements recommended through this study will be financed from a combination of tax levies and development charges.

The projects and the related DC (development charge) rates noted in Tables 1 and 2 are included in the current DC by-law, with the exception of the road sections on Highway 27 which have not been itemized in the Region's current DC bylaw. These additional road sections on Highway 27 and the DC rates for all projects will be reviewed as part of the 2012 DC by-law update.

6. LOCAL MUNICIPAL IMPACT

The City of Vaughan has significant growth planned for the Western Vaughan study area. The provision of the additional transportation improvements will help to support the growth plans by providing a network of transit/high occupancy vehicle (HOV) lanes, and bike lanes to support multi-modal travel in accordance with the Region's policies for sustainability. City of Vaughan staff are part of the advisory committee and have been consulted on key issues.

7. CONCLUSION

The *Places to Grow* legislation and subsequent Regional and local municipal planning documents have identified planned growth areas in the study area. Based on these growth plans, the West Vaughan Individual EA has identified the transportation network that will be required to support the proposed development. The study has identified the need to widen roads to provide for six-lane road cross-sections with transit/HOV lanes along the major corridors. These lanes will provide priority for multi-modal travel

including transit, bicycles and carpoolers. By focusing on multi-modal users, the Region will be providing sustainable options to accommodate future transportation demands. The final IEA document is expected to be submitted to the Ministry of Environment in the second quarter of 2011.

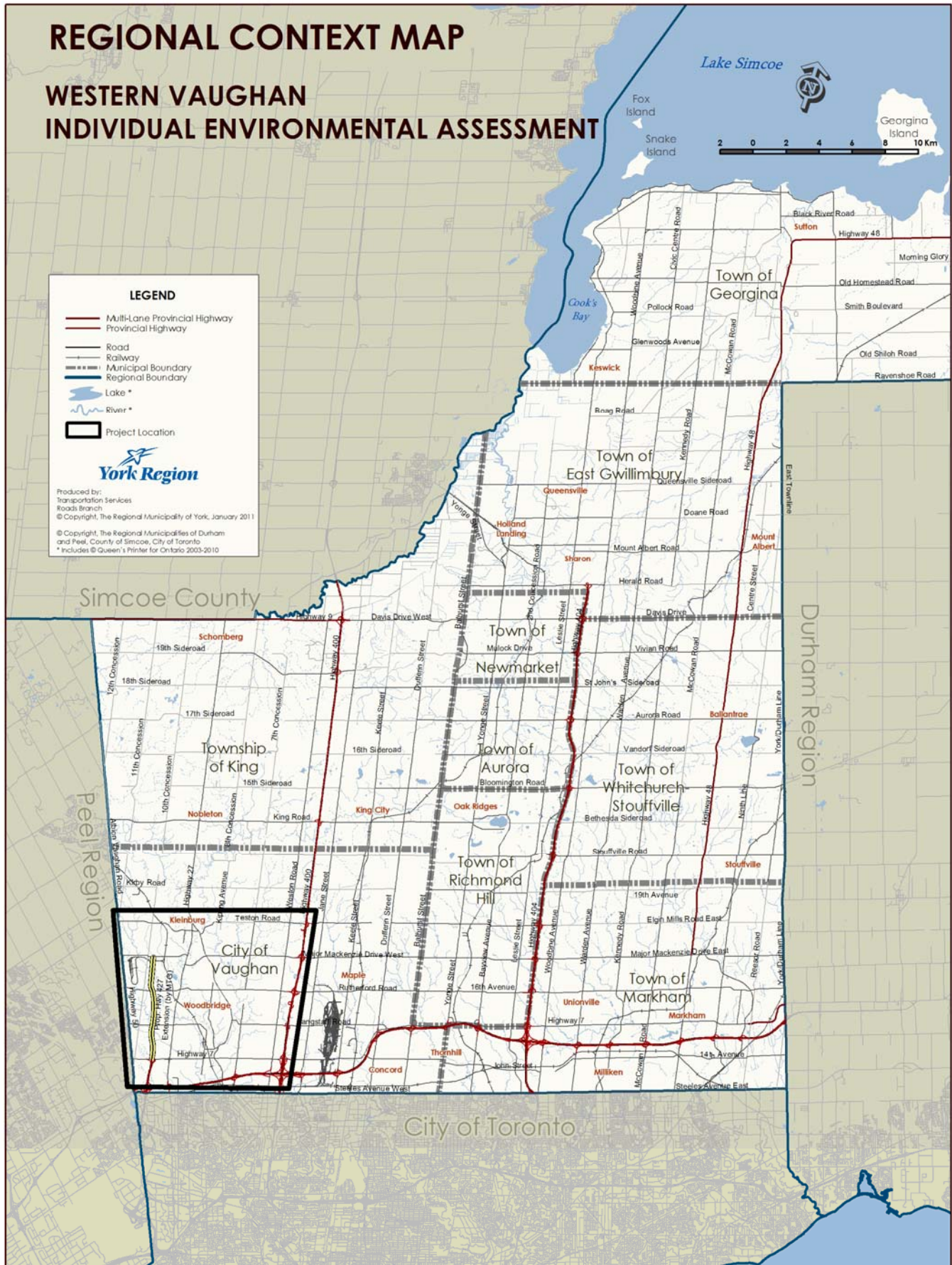
For more information on this report, please contact Paul Jankowski, General Manager, Roads at Ext. 5901.

The Senior Management Group has reviewed this report.

(The 4 attachments referred to in this clause are attached to this report.)

REGIONAL CONTEXT MAP

WESTERN VAUGHAN INDIVIDUAL ENVIRONMENTAL ASSESSMENT





WESTERN VAUGHAN INDIVIDUAL ENVIRONMENTAL ASSESSMENT

STUDY LIMITS: TESTON ROAD, STEELES AVENUE, HWY 400, HWY 50



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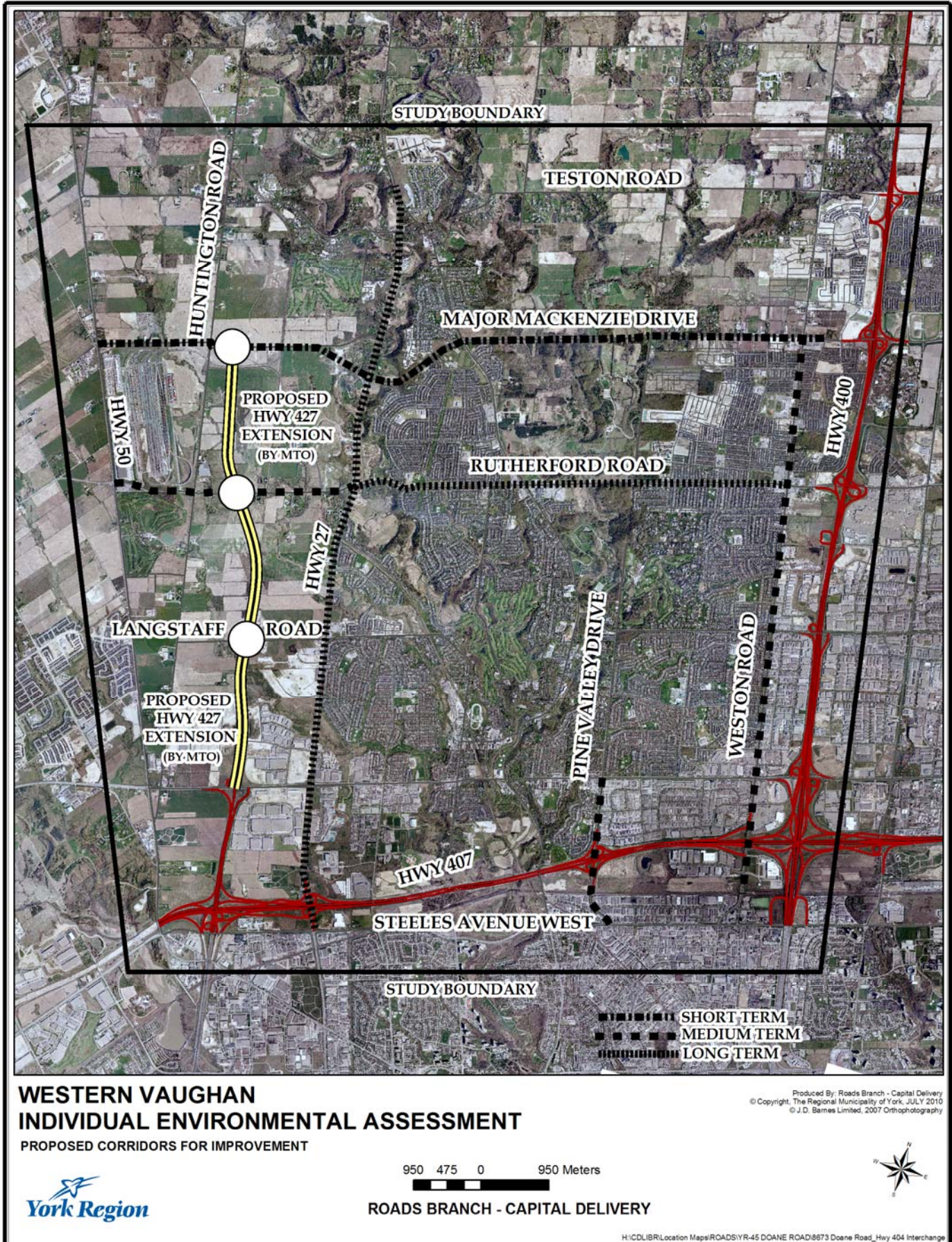


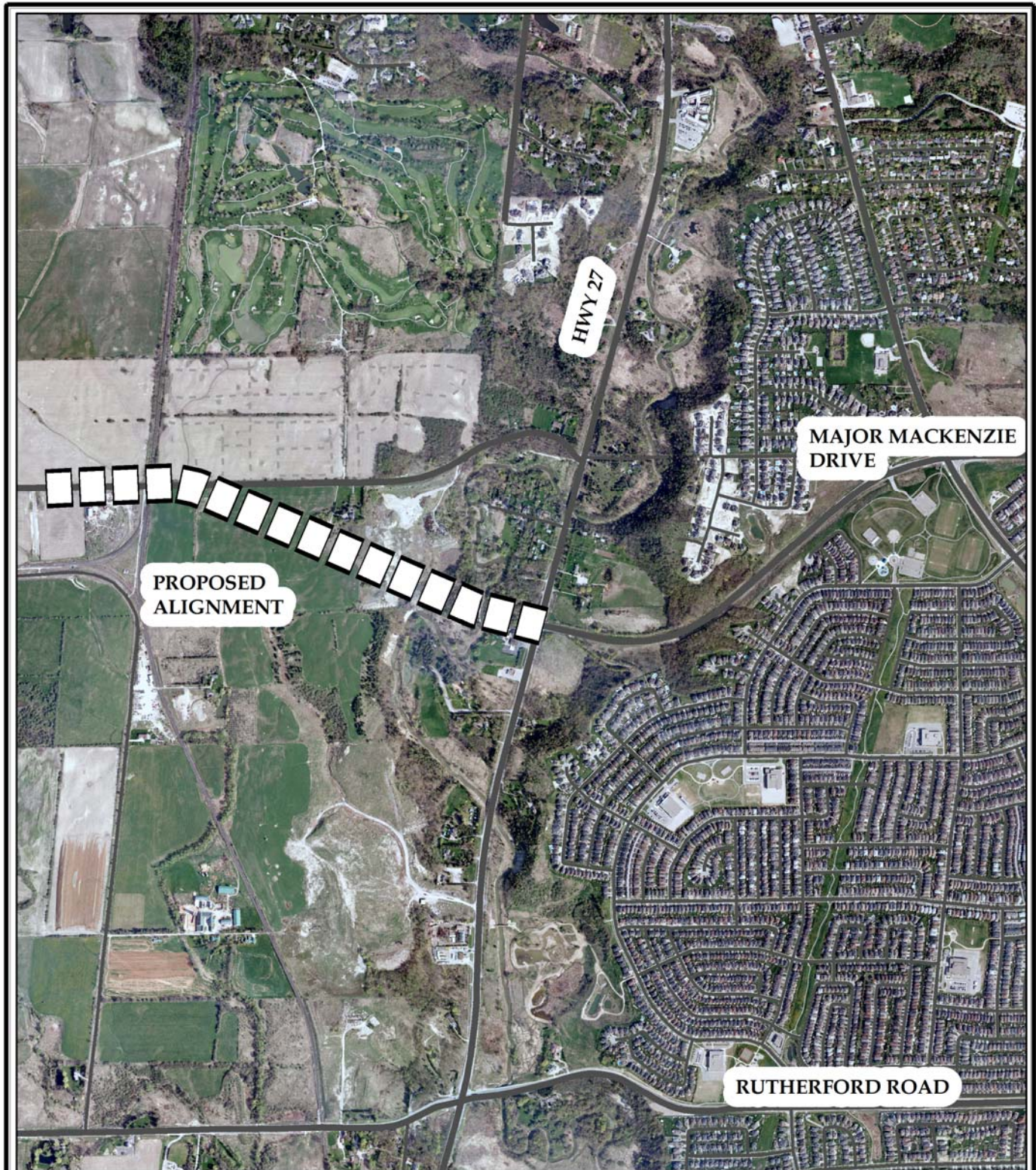
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