CITY OF VAUGHAN

REPORT NO. 1 OF THE

VAUGHAN METROPOLITAN CENTRE SUB-COMMITTEE

For consideration by the Committee of the Whole of the City of Vaughan on March 6, 2018

The Vaughan Metropolitan Centre Sub-Committee met at 9:37 a.m. on February 13, 2018.

Members Present: Councillor Sandra Yeung Racco, Acting Chair

Local & Regional Councillor Sunder Singh

Councillor Rosanna DeFrancseca

The following items were dealt with:

1 EDGELEY POND AND PARK PROJECT UPDATE WARD 4 VAUGHAN METROPOLITAN CENTRE

The Vaughan Metropolitan Centre Sub-Committee advises Council:

- 1) That the recommendation contained in the following report of the Deputy City Manager, Planning and Growth Management dated February 13, 2018, was approved; and
- 2) That the presentation by Abe Khademi, Director of Water Resources, WSP, and C1, presentation material titled: "Edgeley Pond + Park", was received.

Purpose

To provide an update on the status of the detailed design, project budget and implementation plan for the Edgeley Pond and Park project.

Recommendation

1. That this report and the presentation by DTAH and WSP Canada, be received.

Report Highlights

- The design of the Edgeley Pond and Park project has advanced to the 60% completion stage.
- A value engineering exercise was completed between the 30% and 60% design stages to evaluate the function, cost, and objectives of the design with the purpose of reducing the overall project cost and to reduce the risk of future cost escalations.
- Based on the current 60% design, phase 1 of the project is estimated to cost \$23.8 million, which exceeds the current budget.
- Staff will report to a future Finance, Administration and Audit Committee Meeting once the 90% design cost estimate is prepared and budget amendment funding options are fully assessed.
- The City recently received a \$2.47 million grant funding through the Clean Water and Wastewater Fund for this project.

Background

The Edgeley Pond and Park is one of the most complex projects that the City has undertaken, with a design that responds to a wide range of stakeholder needs while resolving challenging technical requirements.

The Edgeley Pond and Park project is a first-of-its-kind project for Vaughan. The goal of the project is to build an iconic and sustainable open space at the centre of the new downtown, the Vaughan Metropolitan Centre (VMC).

Through this project, the City is advancing the construction of essential storm water infrastructure to manage flooding risks and unlock development potential, while creating a signature public destination that captures the imagination of all VMC residents and visitors within a green environment.

The scope of the Edgeley Pond and Park design is larger than solving water management issues – it is also about exploring innovative landscape approaches that integrate a multilayered and complex passive recreation network within the pond area, while creating a strong public realm connection with the emerging urban context.

This visionary design will be implemented over time. The first phase of the project has been scoped to address immediate flooding mitigation works, while providing the beginnings of public space for use and activation by residents and visitors of the VMC.

The design of the Edgeley Pond and Park was initiated in 2017 with the objective of commencing construction in 2018.

Analysis and Options

The detailed design of the Edgeley Pond and Park has advanced to the 60% completion stage

Since the last update report to the VMC Sub-Committee in October 2017, the City's consulting team has advanced the project to a 60% detailed design submission stage. Through the design process, a value engineering exercise was completed between the 30% and 60% design stages to evaluate the function, cost, and objectives of the design with the purpose of reducing the overall project cost and to reduce the risk of future cost escalations.

The 60% detailed design drawing package also includes a phasing strategy to facilitate the construction of areas of the project that can be undertaken immediately, and implement a plan for construction of future areas of the project that will be completed in coordination with adjacent private development projects.

Regular design coordination meetings with the Technical Advisory Committee (TAC), external partnering agencies and adjacent landowners continue to provide significant feedback as the design nears completion. In addition, focused meetings with adjacent landowners are still being organized to coordinate project details and construction activities.

Early consultation with aquatic habitat review agencies has been initiated to coordinate design efforts, and expedite the timely review and issuance of permits with appropriate external public agencies. These agencies include the Toronto Region Conservation Authority (TRCA), the Ministry of Natural Resources and Forestry, the Ministry of the Environment and Climate Change and the Department of Fisheries and Oceans.

The 60% design package includes a project phasing plan

The project will be constructed in at least two phases. Phase 1 includes all civil works required to manage storm water functionality and unlock development potential. Phase 2 will include the construction of two major pedestrian/cycling bridges and the north-east creek bank adjacent to the future linear park. Phase 2

works can be implemented when the park lands immediately adjacent to the east of the pond become available. Once Phase 2 can be constructed, a detailed cost estimate will be completed to inform future budget requests.

Cost control measures have been employed throughout the project

Extensive cost control measures have been implemented to ensure that the net value of the planned assets is cost effective without compromising the engineering function and recreational integrity of the project. The design went through a detailed value engineering process between the 30% and 60% design stages that resulted in a \$5.6 million overall cost reduction.

The cost estimate prepared in conjunction with the 60% design submission sets the total cost of Phase 1 at \$23.8 million inclusive of contingencies, administrative recovery and HST costs, which exceeds the current budget envelope for the project. The updated cost estimate revealed that the civil works required to mitigate flooding are more expensive than had been allocated in the Black Creek Financial Strategy (BCFS). Other components of the project came in under budget. Based on the complex funding methodology that was established through the BCFS, reallocation of funds from one construction component to another to offset and reapportion surplus funds is limited as discussed further under the financial section of this report

An Operation and Maintenance Manual is being prepared in conjunction with the design exercise

Parallel with the design process, the consulting team is also developing an Operations and Maintenance (O&M) Manual where standard tasks are developed for typical grounds-keeping and periodic maintenance, and for the maintenance and restoration of the site after a substantial rain event. Safety measure protocols will also be incorporated into the design and detailed in the O&M Manual. This will allow for proper forecasting of maintenance activities and costs over time.

A contractor pre-qualification bid process has been initiated

As part of the project implementation plan, a contractor pre-qualification process is being undertaken with the objective of identifying a list of qualified contractors with experience in projects of similar size and scope. The qualified contractors will be invited to bid on the future public tender process for the Edgeley Pond and Park project.

The design of the Edgeley Pond and Park project will be completed in Q2-2018

The detailed design will be advance to 90% over the next several months. In addition, staff will:

- Close the contractor pre-qualification Bid process on February 20th
- Report to the Finance, Administration and Audit Committee in April 2018 with the project budget amendment request
- Pursue the necessary permits and approvals
- Prepare tender documentation by the end of May 2018.
- Report to VMC Sub-Committee in June 2018 with a project update and details on the final project design, tendering and construction schedule

Previous Reports/Authority

Edgeley Pond and Park Project update Ward 4Vaughan Metropolitan Centre June 2016

Edgeley Pond and Park Project Award of Contract Ward 4 Vaughan Metropolitan Centre September 2016

Edgelev Pond and Park Project update Ward 4Vaughan Metropolitan Centre June 2017

Edgeley Pond and Park Project update Ward 4 Vaughan Metropolitan Centre October 2017

Financial Impact

The design of the Edgeley Pond and Park is being funded from capital projects DT-7121-13. The construction of the Edgeley Pond and Park project is a component of the Black Creek Financial Strategy (BCFS), which was approved by Council in May 2016. Capital project DE-7175-17 for the construction of the Edgeley Pond and Park was approved with a project budget of \$21.1 million with funding aligned with the BCFS. This budget contains funding for some items that will not be constructed as part of Phase 1. Once these items are excluded, the resulting budget for Phase 1 is \$20.4 million, which is in line with the BCFS.

The cost estimate prepared in conjunction with the 60% design submission sets the total cost of Phase 1 at \$23.8 million inclusive of contingencies, administrative recovery and HST costs. The cost increase is mainly attributable to the design of storm water management and civil components of the project and the preservation of certain natural heritage features.

When compared to the overall budget, the increase in project cost is \$3.4 million, however, given that the BCFS is based on a funding allocation methodology, the project budget must be assessed based on the allocation of funding by project component. Based on this assessment, the budget shortfall is potentially higher at \$6.64 million. This is because based on the BCFS funding allocation methodology, in areas where cost savings have been realized in certain project components, these savings cannot be reallocated to project components that are experiencing a shortfall.

The City has successfully secured Clean Water and Wastewater Fund (CWWF) grant funding of \$2.47 million for this project.

Staff will report to a future Finance, Administration and Audit Committee once the 90% design cost estimate has been finalized and budget amendment funding options are fully assessed.

Broader Regional Impacts/Considerations

The development of the Edgeley Pond and Park supports the Region of York Official Plan vision of building sustainable communities where the natural environment is protected and enhanced, while promoting the health and well-being of residents in accessible and safe communities.

The Edgeley Pond and Park combines essential storm water management infrastructure with valuable open space that will provide passive recreation to the Vaughan Metropolitan Centre residents and visitors. This and other design considerations are in accordance to the Region's Official Plan objectives related to storm water management, creating healthy and vibrant communities within high density areas – designated regional centres.

The Region of York is being consulted as a key stakeholder and commenting agency throughout the detailed design process.

Conclusion

The design of the Edgeley Pond and Park project has advanced to a 60% completion stage. As part of the design exercise, a comprehensive value engineering analysis and cost estimate were completed, which identified certain key civil components of the project-mainly related to flood management-are expected to exceed the approved project budget envelope. Staff will report to a future Finance, Administration and Audit Committee once the 90% design cost estimate has been finalized and budget amendment funding options are fully assessed.

The detailed design will be advance to 90% over the next several months with the objective of tendering the project to qualified contractors in June 2018.

This report was prepared in consultation with the following staff:

Jamie Bronsema, Director, Parks Development Rita Selvaggi, Interim Director, Financial Planning and Development Finance Jack Graziosi, Director, Infrastructure Delivery Rob Bayley, Manager of Urban Design and Cultural Heritage

For more information, please contact Andrew Pearce, Director, Development Engineering, ext. 8255

Attachments

None

Prepared by

Jennifer Cappola-Logullo, VMC Project Manager, Development Engineering, ext. 8433 Gerardo Paez Alonso, VMC Project Manager, Parks Development, ext. 8195 Amy Roots, VMC Project Manager, Planning, ext. 8035 Nelson Pereira, Senior Financial Analyst, Development Finance, ext. 8393

2 VMC BLACK CREEK RENEWAL PROJECT CLASS ENVIRONMENTAL ASSESSMENT STUDY UPDATE

The Vaughan Metropolitan Centre Sub-Committee advises Council:

1) That the recommendation contained in the following report of the Deputy City Manager, Planning and Growth Management dated February 13, 2018, was approved.

Purpose

To provide an update and highlight the conclusions and recommendations of the Vaughan Metropolitan Centre (VMC) Black Creek Renewal Class Environmental Assessment (EA) study.

Recommendation

1. That this report be received for information purposes.

Report Highlights

- The Black Creek Class Environmental Assessment (Class EA) Study is now essentially completed and staff anticipate issuing the Notice of Study Completion in March 2018 in accordance with the Municipal Class EA process
- Substantial stakeholder engagement took place in conjunction with the Class EA including a VMC stakeholder facilitated process which resulted in the development of a preferred channel alignment concept
- Black Creek Financial Strategy established the framework for funding the renewal works
- An alternative storm water management strategy for the south-east quadrant of the VMC is also being developed through the Class EA study

Background

The flooding in the Black Creek sub-watershed during the August 19, 2005 storm event illustrated the need to implement cost-effective retrofit and stream rehabilitation projects to improve conveyance capacity in the Black Creek and highlighted the fact that significant infrastructure will be required to accommodate future development and achieve the vision outlined for the downtown. With significant development and redevelopment proposed in the VMC, a more specific assessment of water management needs and

opportunities was required to reduce the future impact on infrastructure and property.

In early 2012, the City completed the Black Creek Optimization Study which identified the need to improve the existing stream channel conditions to achieve appropriate flood control and conveyance capacity within the VMC Secondary Plan area which, in turn, would accommodate future development.

The Black Creek Renewal Class EA was initiated in 2012

Subsequently, in July 2012, the City initiated the VMC Black Creek Renewal Class EA Study, which built on the findings and recommendations of the Optimization Study. Based on issues raised by the majority of stakeholders directly impacted, it became clear that an expanded/enhanced consultation process was necessary to develop a plan for the Black Creek which would be supportable by the majority of the stakeholders and meet the objectives of the City.

A facilitated stakeholder engagement process was undertaken in 2013/14

In June 2013, the City expanded the Class EA study consulting team to include a multidisciplinary design facilitation team led by Swerhun Inc. in collaboration with Real Estate Search Corporation (RESC), The Municipal Infrastructure Group (TMIG), Schollen and Company, and Public Work. Over the following year, this facilitation team held a number of meetings and design workshops to engage with key stakeholders to understand their perspectives and priorities regarding the project and to ultimately propose a path forward for the Black Creek design vision and channel alignment that would be supported by the majority of stakeholders. These stakeholders included City of Vaughan staff, the Toronto and Region Conservation Authority ("TRCA"), York Region, the Province of Ontario and community interest groups such as Sustainable Vaughan and local landowners.

The facilitation process concluded in May 2014 and resulted in a land use framework and urban design vision that would be utilized to develop alternative alignments for the Black Creek Renewal.

A comprehensive financial strategy with multiple funding sources was established for the Black Creek Renewal project in 2016

A result of the facilitation process was the undertaking of the Black Creek Financial Strategy and Development Charge Background Study which was carried out to establish the framework for funding the potential realignment and renewal of Black Creek Channel including the Edgeley Pond retrofit. Preliminary work on the new financial strategy and framework was commenced by staff in 2014 and late in the year it was decided that the City should retain consultants to provide an Area Specific Development Charge (ASDC) Background Study and related financial strategy. Staff retained engineering (Fabian Papa and Partners) and finance (Hemson Consulting Ltd.) consultants to assist in developing the Strategy. The Black Creek Financial Strategy concluded in May 2016 and presented equitable cost allocation, sound methodology and put in place a financial plan for the long-term development of the Black Creek storm water infrastructure which included the enactment of an ASDC By-law. The financial strategy was approved by Vaughan Council in June 2016.

With a land use framework and financial strategy in place, the remaining steps of the Black Creek EA study were completed in 2017 which included public and stakeholder consultation in May and the analysis and evaluation of the alternative designs for the potential alignment configurations for the Black Creek Renewal.

Previous Reports/Authority

Black Creek Storm Water Optimization Study Master Plan Class Environmental Assessment (EA)

Allocation of Funding Sources Report and Development Charge Background Study - Black Creek Financial Strategy – May 2016 (PDF)

Analysis and Options

Improving the existing condition of the Black Creek channel within the VMC Secondary Plan area is key to advancing development

Through the VMC Secondary Plan, the Black Creek corridor is positioned as a signature feature that will create identity for the new downtown, attract investment along its frontage, support urban growth, and add value as the prominent open space amenity and natural heritage feature for the VMC community. The renewal of the Black Creek corridor will serve as a defining place maker in the VMC as both a destination and prominent piece of ecological infrastructure. The long-term vision of this feature was significant in establishing the land use framework for the Secondary Plan, and will serve as a key catalyst to attract urban intensification, investment and animation in the downtown.

The urban design vision for the corridor developed through the facilitation process manages watershed and storm water needs while providing a diverse range of edge conditions, recreational opportunities, programs, and urban experiences, and integration of parks and open spaces. The natural character and ecological landscape of the corridor is amplified on the west side, while the east side delivers a unique public urban amenity and distinct address for development.

The Class EA identified a preferred channel realignment concept

With the preferred concept established through the facilitation process, the Black Creek Renewal Class EA focused on potential alignment configurations for the Black Creek. It considered the road networks, land use designations, population projections established through the VMC Secondary Plan process, and the requirement to mitigate the current flooding and erosion problems in Black Creek while introducing potential enhancements to the natural heritage system and public realm associated with the Black Creek corridor.

Four (4) alternative designs were comparatively and qualifiedly evaluated based on set criteria resulting in the selection of a preferred alignment. Alternative #4 (Meander North of Peelar Road) was selected as the preferred alignment due to a number of advantages compared to the other alternatives.

The details of the Class EA study are incorporated into the final draft Environmental Study Report (ESR) which was prepared in December 2017 with input and review from external agencies. A copy of the draft Executive Summary of the Class EA is included as Attachment 1 to this report.

The design of the Black Creek corridor immediately south of Hwy 7 requires further review

The design of the Black Creek corridor immediately south of the Hwy. 7 presents some technical challenges that still need further review before finalizing the Class EA. These challenges include the need to integrate an appropriate transition between the existing and future culverts across Highway 7 and the proposed Black Creek channel; the need to provide an access crossing to Jane Street; and the integration of an appropriate urban square at the south-east corner of Jane Street and Highway 7. A number of focused meetings have taken place with the adjacent landowner, TRCA and City staff to address the design of this area but further review is required before the City is satisfied moving forward to finalize the Class EA.

An alternative storm water management strategy was developed through the Class EA for the southeast quadrant of the VMC

The VMC Master Servicing EA identified the need for a new storm water facility to service the southeast quadrant of the VMC, presently sited south of Peelar Road, east of the Black Creek. The need for and placement of the facility have been challenged through both the VMC Secondary Plan appeals process as well as the VMC Master Servicing Class EA. As a result, an alternative storm water management (SWM) strategy was developed to manage storm water within the VMC southeast quadrant without the need for a SWM facility in the future.

Alternative opportunities to incorporate SWM control features in an underground storage system within the buffer area of the channel corridor, including integration of these features with the 'Blue' streets contemplated by the VMC Streetscape and Open Space Plan, were previously identified in conjunction with the Black Creek Renewal facilitation process. As outlined in the Streetscape and Open Space Plan, 'Blue' streets are public streets extending laterally outwards from Black Creek where Low Impact Development (LID) measures can be implemented to improve storm water quality and incrementally reduce storm water quantity with maximum benefit. These special streets are envisioned to treat water as both a resource and as a design feature.

Landowners within the south-east quadrant have also indicated an ability and willingness to achieve higher levels of SWM control measures through on-site practices than presently required.

As part of the Class EA study, this alternative SWM strategy was developed for the VMC southeast quadrant to address concerns of the feasibility of SWM facility that was recommended in the VMC Servicing Master Plan. Some of the benefits associated with this alternative strategy include reduced peak flows which reduces flooding potential on adjacent properties as well as improvements to overall water quality released into the creek. As well, without a SWM facility and the associated land requirements for construction, SWM controls can be implemented earlier in the VMC southeast quadrant as development proceeds on a site by site basis.

Staff recognize the need for additional discussions with TRCA and the City's Public Works Department to further refine the SWM strategy before the final solution is determined, which may include one option or a hybrid of both options.

The next steps in finalizing the VMC Black Creek Renewal Class EA process

The Class EA is essentially complete and has been circulated to the technical agencies for review and comment. The next steps in the Class EA study are as follows:

- Finalize the report based on comments from reviewers, regulatory agencies, and stakeholders;
- Address the outstanding design details at the south-east corner of Jane Street and Highway 7 and refine the storm water management strategy for the south-east quadrant in the VMC; and
- Issue a Notice of Study Completion and place the Class EA for the minimum 30-day public review
 period. During this period, the public may further review and submit comments and/or concerns to
 the City and the Ministry of Environment and Climate Change (MOECC). Staff will address these
 comments and should any member of the public not be satisfied with the responses; a Part II Order
 request may be submitted directly to the Minister of the Environment thereby initiating an
 independent Ministry review process.

Following the filing of the Notice of Completion of the Class EA study expected by end of Q1-2018, the next step will be to prioritize the detailed design and construction of the various segments of the Black Creek Renewal Class EA with consideration for the timing of development.

Financial Impact

The Black Creek Financial Strategy and Development Charge Background Study, which was approved by Council in June 2016, established the frameworks for funding the realignment and renewal of Black Creek channel.

Broader Regional Impacts/Considerations

Regional staff were involved throughout the duration of the Study and are supportive of the Study findings and recommendations. Regional comments were received on the draft Environmental Study Report and were addressed prior to finalizing the Environmental Study Report.

Conclusion

The VMC Black Creek Renewal Class EA Study has been essentially completed and has confirmed that there is an opportunity to implement effective flood controls works, enhance the natural heritage system and enhance the public realm through the reconstruction and renewal of the Black Creek valley corridor between Highway 7 and Highway 407.

The draft study has been submitted to the technical agencies for their final review and comments. Staff will continue to work with all its partners to complete the review process as promptly as possible. Staff will also continue to work with the TRCA and adjacent landowners to refine the design of the Black Creek corridor at the south-east corner of Jane Street and Highway 7, and confirm the SWM strategy for the south-east quadrant of the VMC before finalizing the Class EA study.

Upon completion of the review process and resolution of the remaining design issues, the Environmental Study Report be finalized and associated Notice of Completion be issued. Issuing the Notice of Completion will place the Environmental Study Report on public record for the minimum 30-day review period in accordance with the Municipal Class Environmental Assessment process.

The City may proceed with the detailed design and construction works after the Class EA study has received final approval.

For more information, please contact: Andrew Pearce, Director, Development Engineering, ext. 8255

Attachment

1. Draft Executive Summary - Black Creek Renewal Project, Class Environmental Assessment

Prepared by

Jennifer Cappola-Logullo, VMC Project Manager, Development Engineering, ext. 8433

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

3 VAUGHAN METROPOLITAN CENTRE CYCLING NETWORK
PROPOSED REVISIONS TO THE VMC STREETSCAPE AND OPEN SPACE PLAN
AND VMC SECONDARY PLAN ROAD NETWORK

The Vaughan Metropolitan Centre Sub-Committee advises that the following recommendation was adopted:

- 1) That the recommendation contained in the following report of the Deputy City Manager, Public Works and the Deputy City Manager, Planning and Growth Management dated February 13, 2018, be forwarded to Council for approval;
- 2) That the presentation by Dorothy Kowpak, Project Manager, Active & Sustainable Transportation, Infrastructure Planning and Corporate Asset Management, and Communication C2, presentation material titled "Vaughan Metropolitan Centre How will it move YOU?", was received; and
- 3) That the deputation by Mr. Michael Iacovelli, Treelawn Boulevard, Kleinburg, on behalf of the York Region Cycling Coalition, was received.

Purpose

To obtain Council approval to revise Figure 5.3: Cycling Network in the Vaughan Metropolitan Centre (VMC) Streetscape and Open Space Plan (SOSP) to allocate space for cycling on all collector and City arterial roadways in the VMC providing a minimum grid-network of raised and separated cycle tracks and to reflect this in the cross-sections in Appendix A of the VMC Secondary Plan (SP).

Recommendations

- That Council endorse a revised Vaughan Metropolitan Centre Cycling Network Plan included as Attachment #2 to this report (Figure 5.3: Cycling Network in the Vaughan Metropolitan Centre Streetscape and Open Space Plan); and
- That staff revise the associated road cross-sections in Appendix A of the Vaughan Metropolitan Centre Secondary Plan) in accordance with the revised Vaughan Metropolitan Centre Cycling Network Plan.

Report Highlights

- Transportation-related matters continue to be top-of-mind among Vaughan residents according to the 2016 Vaughan Satisfaction Survey.
- There is significant opportunity, particularly in new development areas, to provide access to high-quality and affordable sustainable transportation options for Vaughan residents.
- Many major cities across Canada are retrofitting their downtowns to include a denser network of separated facilities.
- The VMC, still in it's emerging stages, provides the City with a unique opportunity to allocate space for cycling now, to avoid impacts to the boulevard space or vehicular roadway in the future.
- Anticipated development, population density, land-use mix, and higher order transit services in the VMC substantiate the need for a grid-network of connected and separated cycling facilities for all ages and abilities.
- Separating different modes of transportation makes street-level interactions a more comfortable and predictable experience for all users.
- Space allocation for cycling facilities will not impact the urban streetscapes or boulevard design.

Background

Staff are updating the City's 2007 Pedestrian and Bicycle Master Plan. The primary focus of the study is to develop a plan based on extensive public and stakeholder input such as resident surveys, face to face conversations, community pop-ups, etc. Residents reported through the phase one survey that they feel uncomfortable mixing with vehicular traffic and would bike more in Vaughan if separated facilities were available.

Residents and stakeholders have also indicated that connections to and from the City's new downtown, specifically the subway station and transit facilities, and a denser and connected network of separated cycling facilities within the VMC, should be a key priority.

Given the rapid development occurring in the VMC, the need to advance a focused report on the VMC street and cycling network was identified in advance of the Pedestrian and Bicycle Master Plan Update scheduled for completion in 2018. The Pedestrian and Bicycle Master Plan Update is one of the action items identified under Term of Council Priority #2 - Continue to develop transit, cycling and pedestrian options to get around the City.

Previous Reports/Authority

April 19, 2017, Finance, Administration and Audit Committee (Item 8, Report No. 4, Recommendation 1)

March 21, 2017, Finance, Administration and Audit Committee (Item 6, Report No. 3, Recommendation 1)

December 15, 2015, Committee of the Whole (Item 23, Report No. 44, Recommendation 2)

Analysis and Options

Vaughan Official Plan 2010 calls for a transportation transformation in how people move around Vaughan

Since the 1970s, Vaughan has been one of the fastest growing municipalities in Canada. This growth has taken place in a primarily suburban form and auto-oriented structure focused on moving vehicles rather than people. Vaughan Official Plan 2010 (VOP 2010) calls for a transportation transformation in how people move around Vaughan by establishing a comprehensive transportation network that allows a full range of mobility options, including walking, rolling, cycling and transit. The 2012 Transportation Master Plan update further indicates that it will take more than just large investments in transit infrastructure to cope with future transportation demand.

Transportation-related matters continue to be top-of-mind among Vaughan residents according to the 2016 Vaughan Citizen Satisfaction Survey

The results of the 2016 City of Vaughan Citizen Satisfaction Survey indicate that transportation-related matters continue to be top-of-mind among Vaughan residents with 62% of respondents citing transportation as the most important issue facing their community. When asked specifically about cycling infrastructure, only 20% of respondents were very satisfied, indicating that there is considerable room for improvement.

There is significant opportunity, particularly in new development areas, to provide access to highquality and affordable sustainable transportation options

One advantage in Vaughan is that many areas are still under development. Therefore, there is significant opportunity to provide access to high-quality and affordable sustainable transportation opportunities from the start so that all Vaughan residents get where they need to go. Providing balanced transportation networks is not only a more inclusive approach to urban planning and transportation development but will also help manage existing and potential future vehicular traffic congestion in the City.

The developing VMC provides one such opportunity, especially given the anticipated population density and land-use mix

The 2017 Growth Plan for the Greater Golden Horseshoe identifies the VMC as a focal point for growth and intensification with a target of 200 people and jobs per hectare. To meet the density target, a population of approximately 25,000 residents and 11,500 jobs are planned for the VMC area by 2031 (VMC SP). However, early development in the VMC is exceeding these targets and will be revisited during the City's 2018 municipal comprehensive review. As such, in a relatively short time, the VMC will become the City's major urban hub with the highest concentration of residents and employment. This combined with the VMC SP's land use strategy, creates short trip opportunities and are common metrics for transportation choices such as walking, cycling and transit.

2012 Transportation Master Plan indicates that it will take more than just large investments in transit infrastructure to cope with future transportation demand

At the centre of the planned VMC transportation network is the Toronto-York Spadina Subway line, the Highway 7 vivaNext Bus Rapid Transitway and the York Region Transit Bus Terminal. These higher order transit services which have been completed (i.e. subway) or are nearing completion have established the

VMC as an Anchor Mobility Hub. The 2012 Transportation Master Plan indicates that it will take more than just large investments in transit infrastructure to cope with future transportation demand. Higher-order walking and cycling infrastructure, connected to transit is needed to provide the balanced transportation network called for in VOP 2010 and the VMC SP. Cycling provides a unique opportunity in that catchment areas are much larger for cycle-transit users than for traditional transit users who access stations by foot. Connecting bicycle travel to transit permits areas more distant from transit to be accessible further decreasing the need to drive and/or own a personal vehicle.

In the last five years there has been significant support and advancement at the provincial level for cycling

In the last ten years, there has been a steady increase in societal and governmental interest and support in cycling as a viable and healthy mode of transportation. With the release of the #CycleON: Ontario's Cycling Strategy in 2013, there has been significant support and advancement, particularly at the provincial level, for cycling through the development of strategies, policies, legislation and guidelines for the planning, design, implementation and operation of safer cycling facilities. Including:

- 2017 Ontario Municipal Commuter Cycling Program (MCC) Ontario to invest \$93 million in cycling infrastructure Vaughan was awarded \$908,612 in the first year of the program
- 2017 Province announces \$3 million for Active & Safe Routes to School
- 2017 Ontario taking action to keep pedestrians, cyclists and drivers safe
- 2017 Ontario making commuting easier for cyclists in Southern Ontario Province Building New Secure Bike Storage at GO Stations and Carpool Lots
- 2017 Draft Province-wide Cycling Network
- 2017 Tour by Bike Ontario's Cycling Tourism Plan
- 2017 Growth Plan for the Greater Golden Horseshoe updated to encourage municipalities to provide cycling infrastructure and secure bike parking near major transit stations
- 2016 Bill 213, Highway Traffic Amendment Act (Careless Driving), second reading Increased files for careless driving causing serious bodily harm or death
- 2016 Ontario's Five-Year Climate Change Action Plan
- 2016 Ontario Municipal Cycling Infrastructure Program (Ontario allocating \$10 Million in local cycling infrastructure)
- 2015 Bill 31, Transportation Statute Law Amendment Act (Making Ontario's Roads Safer
- 2014 Ministry of Transportation (MTO) Bikeways Design Manual Update
- 2014 #CycleON: Action Plan 1.0
- 2013 Ontario Traffic Manual (OTM) Book 18: Cycling Facilities, 1st ed.
- 2013 #CycleON: Ontario's Cycling Strategy

Direction from the Province is anticipated on the use of power-assisted bicycles and limited-speed e-scooters in cycling facilities, an important consideration with Vaughan's aging population

With Vaughan's aging population, there may be opportunity to accommodate other forms of transportation within the proposed all ages and abilities "cycling" network such as power-assisted bicycles and limited-speed e-scooters. Direction from the Province is anticipated regarding the accommodation of these devices with the release of Action 2.0 of #CycleON: Ontario's Cycling Strategy.

Many major cities across Canada are retrofitting their downtowns to include a denser network of separated cycling facilities to make street-level interactions a more comfortable and predictable experience for all users

Many major cities across Canada are retrofitting their downtowns to include a denser network of separated cycling facilities to make street-level interactions a more comfortable and predictable experience for all users. These cities have seen major societal and economic benefits in implementing these networks. For example:

Since the implementation of their first cycle track on Sherbourne Street in 2012, the City of Toronto has been upgrading many of their downtown bike lanes to cycle tracks to improve safety of corridor users and discourage motorists from parking, standing or stopping illegally in on-street bicycle lanes. Most recently, in May 2016, Toronto Council approved the implementation of temporary separated cycling facilities along a 2.5km stretch of Bloor Street. The pilot was installed in late August 2016 and over a one-year period, extensive data was collected to evaluate the performance of the project including a comprehensive Economic Impact Study. This analysis showed:

- Total number of conflicts between all road users (i.e. motorist-motorist, cyclist-motorist, pedestrian-motorist and pedestrian-cyclists) decreased by 44%.
- All road users feel safer on Bloor Street after the implementation of Bloor Street separated bike lanes
- Most merchants reported an increase in the number of customers and most visitors reported spending more and visiting more frequently.
- Total customer spending in the Bloor Street pilot area increased more than in the surrounding area with a 4.45% growth in customer spending in the pilot area (Moneris Solutions Customer Spending Analysis).

Evaluation of the Bloor Street Bike Lane Pilot project is thought to be the most comprehensive and evidenced based evaluation completed on a transportation project in Toronto's history. In November 2017, Toronto Council approved the installation of permanent cycle tracks. For more information see <u>Bloor Street West Bike Lane Pilot Project Evaluation Report, Public Works and Infrastructure Committee, October 3, 2017.</u>

In 2014, City of Calgary Council approved a budget of \$7.1 million to pilot 6.5 km network of cycle tracks and shared space in the Calgary City Centre for 18 months. The pilot network was constructed in spring of 2015 and by the end of 2016, Calgary Council voted to make the cycle tracks and associated design enhancements permanent. The presence of an integrated multi-modal transportation system has improved Calgary's reputation in being a more attractive city to live, work and visit and has made cycling a viable transportation option in the City's busiest area. Initial before/after data has shown:

- 40% increase in Calgarians arriving by bicycle since the cycle tracks were installed
- Motor vehicle collision frequency decreased or remained the same on each cycle track corridor
- Separating people cycling, walking and driving has reduced sidewalk riding from 16% to 2% and improved the perception of safety for people cycling while maintaining the perception of safety for people driving and walking along cycle track routes

For more information see <u>Centre City Cycle Track Network Pilot Project Final Report to Council dated December 8, 2016</u>.

Other examples include:

- In October 2016, Edmonton City Council unanimously approved \$7.5 million to retrofit the downtown street network and install a 7.8 km fine grid network of cycling facilities less than a year, by the summer of 2017. Early data collection shows that the use of Edmonton's downtown cycling facilities nearly doubled in the first month.
- In December 2017, Halifax Regional Council unanimously approved an Integrated Mobility Plan (IMP), adding many amendments to speed up progress including the implementation of an All Ages & Abilities Bicycle Network of protected bikeways and active transportation greenways.

The VMC can be a destination for cycling tourism

The VMC SP and SOSP identify streets in the VMC as places of multi-modal movement, and spaces of social, cultural and economic activity. The vision is that all modes of transportation seamlessly come together to support an intense concentration of attractions such as businesses, rich and diverse open spaces, urban parks, public squares and art, year-round urban recreational activities, City-wide

entertainment and cultural events and festivals. According to Ontario's Cycling Tourism Plan, in 2014, 1.7 million visitors to Ontario participated in cycling and spent \$428 million. Cycling visitors generally spent more on average per trip than other visitors, \$255/trip for cycling tourists compared to \$171/trip for total visitors.

The City has a unique opportunity to allocate space for cycling now, to avoid impacts to the boulevard space or vehicular roadway in the future and reduce the risk of implementing a less effective and more expensive retrofit

The VMC, as Vaughan's brand-new downtown, is still in its emerging stages. The City has a unique opportunity to allocate space for cycling now, to avoid impacts to the boulevard space or vehicular roadway in the future and reduce the risk of implementing a less effective and more expensive retrofit. The 2017 Town of Oakville Active Transportation Master Plan estimates the implementation of a uni-directional cycle track, raised and curb separated, in an existing right-of-way (i.e. retrofit) to cost between \$250,000 - \$600,000 / lane-km depending on the extent of modifications required. Based on recent projects, including the first cycle track constructed in the VMC along Apple Mill Road and Millway Avenue, the cost of constructing a cycle track as part of a new construction project is approximately \$200,000 – 300,000 / lane-km.

The Cycling and Pedestrian Advisory Task Force recommended safe, connected cycling infrastructure through the provision of protected cycle routes

In February 2017, the Cycling and Pedestrian Advisory Task Force completed its mandate and presented their Findings Report which was received by Council. Recommendations included:

- 1. Priority be given to providing designated cycling routes on regional roads/local collector roads.
- 2. Safe, connected cycling infrastructure be established.
- 3. Improve safety through protected cycling routes.

Residents would feel more comfortable riding a bike in Vaughan if they did not have to mix with vehicular traffic

The Pedestrian and Bicycle Master Plan Update community survey indicated that most respondents (84% of 654 respondents) would feel more comfortable riding a bike in Vaughan if they did not have to mix with vehicular traffic. 80 hours of face-to-face conversations with over 2,700 residents, 654 surveys as well as 929 written comments have revealed that the number one reason residents do not bike more in Vaughan is that they feel unsafe. The provision of safer cycling infrastructure, separated from vehicular traffic would result in more residents cycling supporting Vaughan's mandate of providing residents with safer, low-carbon, viable transportation options.

Raised and separated cycle tracks on all collector and City arterial roads within the VMC are recommended

City arterial and collector streets form a grid-like network allowing for convenient and efficient movement between origins and destinations providing effective routing for transit vehicles, bicycles and pedestrians (VOP 2010). A recommendation of the Pedestrian and Bicycle Master Plan Update study is to allocate space for cycling on all collector and City arterial roads in the VMC to provide a minimum grid network of raised and separated cycle tracks.

The original VMC Streetscape and Open Space Plan (SOSP) proposed approximately 6.1 km of separated cycle tracks and 1.6 km of painted bike lanes on municipal rights-of-way as shown on Attachment #1. The proposed revision increases the municipal network to 13.4 km of separated cycle tracks yielding approximately 7.1 km of east-west corridors and 6.3 km of north-south corridors, as shown on Attachment #2. Thus, creating a fine grid network of connected and physically separated cycling facilities within 250 m of all residents and employees in the City's new urban centre. See Attachment #3 for a summary of proposed changes. A 26-metre road-right-of way is required. This recommendation has no impact on the

urban boulevards or streetscape standards approved by Council.

Cycle tracks cost less than traditional on-road bike lanes

A recent study by the City of Ottawa Infrastructure Standards Review (ISR) Working Group concluded that in new road construction or reconstruction projects, constructing raised cycle tracks in the boulevard as opposed to on-road bike lanes saves a substantial amount of construction costs. This savings opportunity is attributed to infrastructure efficiencies from the difference in roadbed and pavement structure required for cycle tracks compared to traditional on-road bike lanes that are designed to the same specifications as the road way. The ISR Working Group concluded that relocating the bike lane from the roadway to the boulevard would generate \$41,700 /km cost savings (Infrastructure Standards Review, Report to Planning Committee and Council, May 2017).

When looking at the City's recent Millway Avenue and Apple Mill Road Project, considering roadbed and pavement structure alone, the cost of the on-road facility was \$48.27 /m² whereas the cost of the asphalt cycle track was \$33.42 /m².

There will be additional maintenance and operations associated with the added cycling infrastructure

There will be additional maintenance and operations (e.g. sweeping, winter snow removal for serviced facilities, repairs, general maintenance) associated with the added cycling infrastructure dependent on the level of service that is identified through the VMC Operation and Maintenance Plan. This may require additional staff resources, equipment and budget for maintenance operations as the network develops over time.

A recent report to Markham Council on the subject of <u>Highway 7 In-boulevard Cycle Track Annual Maintenance Policy</u> estimated that sweeping and regular winter maintenance costs at \$10,587 / lane-km per year. This estimate assumes that the cycle tracks would be maintained to the same level of standard as sidewalks for non-winter months and maintained to the same level of service as the adjacent roadway, Class 2 highway, for winter months.

A <u>report to Toronto Public Works and Infrastructure Committee</u> estimated annual winter maintenance costs at \$7,000 / lane-km while annual sweeping cost at \$12,000 / lane-km for the Bloor Street West separated bike lanes. Sweeping costs are high given the Bloor cycling facility is located at road level and will experience a higher level of debris accumulation versus an elevated facility. Total sweeping and winter maintenance costs were estimated at \$19,000 / lane-km.

York Region is designing and implementing a number of separated cycling facilities in Vaughan and across York Region. To understand the potential cost of maintaining these facilities the Region is estimating that the maintenance of cycle tracks will cost approximately \$11,039 / lane-km per year (not based on actual costs). This includes an estimated summer sweeping rate of \$385 / lane-km, snow removal rate of \$8,000 / lane-km and \$2,654 / lane-km for de-icing/salting.

During the 2015-2016 winter season, Calgary spent about \$162,000 on snow clearing and removal of their 6.5 km Centre City Cycle Track Network which is approximately \$12,462 / lane-km per year. Based on the above information it is estimated that annual sweeping and winter maintenance will cost \$12,000-\$15,000 / lane-km.

Financial Impact

Based on recent projects, including the first cycle track constructed in the VMC along Apple Mill Road and Millway Avenue, the cost of cycle track construction is approximately \$200,000 - \$300,000 / lane-km (including intersection treatments). The original VMC SOSP proposed approximately 6.1 km of separated cycle tracks and 1.6 km of painted bike lanes on municipal rights-of-way as shown on Attachment #1. This new proposal as shown on Attachment #2 would increase the VMC municipal cycling network to 13.4 km

(26.8 lane-km) of separated cycle tracks.

The total cost to implement the proposed 13.4 km (26.8 lane-km) VMC cycling network is estimated to be \$6,700,000. The network is expected to be implemented in stages, concurrently with streetscape works, considering the phasing and timing of private sector development applications or public road projects as identified in the VMC Collector Roads Functional Design Study (DE-7186-18) proposed in the 2018 budget.

The introduction of cycle tracks on all collector and City arterial roadways in the VMC are considered growth related and therefore, capital funding is proposed to come from City-wide Development Charges. If the proposed revisions to the VMC cycling network are endorsed by Council, the individual projects will be added to the 2018 Development Charge Background Study Update. Once individual streetscape projects proceed, project capital costs will be identified for approval through the annual budget process. There will be additional maintenance and operations work (e.g. sweeping, winter snow removal for serviced facilities, repairs, general maintenance) associated with the added cycling infrastructure dependent on the level of service that is identified through the VMC Operation and Maintenance Plan. It is estimated that annual sweeping and winter maintenance will cost \$12,000-\$15,000 / lane-km. Upon full build-out assuming all cycle track routes receive winter maintenance, the annual cost to maintain the proposed 13.4 km (26.8 lane-km) VMC Cycling Network is estimated to be \$362,000 per year (sweeping and snow removal only).

Broader Regional Impacts/Considerations

York Region staff have been directly involved and consulted throughout the Pedestrian and Bicycle Master Plan update. York Region Transportation Services, York Region Community and Health Services, York Region Police, York Region Transit, York Region School Boards, etc. participate as members of the Stakeholder Advisory Group.

A fine-grid network of separated cycling facilities will support the York Region Transit system providing more convenient and comfortable access to the VMC Bus Terminal, the VivaNext BRT on Highway 7 and other local transit routes servicing the VMC.

Conclusion

With the anticipated development, population density and land use mix, as well as the existing and forthcoming higher order transit services, it is recommended that space be allocated for cycling on all collector and City arterial roads in the VMC, to avoid potential impacts to the boulevard space or vehicular roadway in the future.

It is recommended that cycle tracks be implemented in this space to develop a denser network of separated cycling facilities to make street-level interactions a more comfortable and predictable experience for all users. This recommendation supports Council's priority to invest, renew and manage an improved xmunicipal road network which focuses on the safety and well-being of our citizens travelling by all modes of transportation and cultivates an environmentally sustainable City.

For more information, please contact: Selma Hubjer, Transportation Planning Manager, x8674

Attachments

- Figure 5.3 Cycling Network, Vaughan Metropolitan Centre Streetscape and Open Space Plan (VMC SOSP), November 2015
- 2. Revised Figure 5.3 Cycling Network, Vaughan Metropolitan Centre Streetscape and Open Space Plan (VMC SOSP), February 2018
- 3. Table 1 Summary of VMC Cycling Network Recommendations

Prepared by

Dorothy Kowpak, Active & Sustainable Transportation Project Manager, x8812

(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.)

4 VMC COMMUNITY IMPROVEMENT PLAN ANNUAL UPDATE

The Vaughan Metropolitan Centre Sub-Committee advises Council:

1) That the recommendation contained in the following report of the Chief Corporate Initiatives and Intergovernmental Relations and the Chief Financial Officer & City Treasurer dated February 13, 2018, was approved.

Purpose

To provide an annual update to VMC Sub-Committee on the uptake and status of the Community Improvement Plan (CIP) for the Vaughan Metropolitan Centre and Weston Road and Highway 7 Primary Centre, which was implemented in December 2015.

Recommendations

1. That this report be received.

Report Highlights

- To date, the City has received and is processing four CIP applications, that collectively total approximately 67,300 m² (724,400 ft²) of new office space, representing 48% of the targeted office space goal.
- The four applications will generate an estimated \$13.3 million in new property tax revenue over the next 10 years. Estimated revenue to be forgone is \$9.9 million from Cash-in-Lieu of Parkland and property taxes (over 10 years).
- Prior to the CIP, the City had an estimated 2.8 million ft² of office space altogether.

Background

The CIP background study was completed in the fall of 2015, followed by the enactment of the CIP by-laws in December 2015. The goal of the CIP is to support the acceleration of office development in the VMC and Weston Road and Highway 7 Primary Centre. Under the CIP by-laws, office developments are eligible for certain financial incentives if they meet the CIP's qualification criteria, which include:

- The development must be located within the VMC or Weston Road and Highway 7 Primary Centre, as identified in Schedules A and B of By-law 176-2015;
- The development must be a minimum of 7,000 m² (75,347 ft²) as measured at the time of the first above grade building permit issuance;
- The development may be located in multiple buildings to meet the 7,000 m² (75,347 ft²) requirement as long as it is included on the same building permit; and,
- The development must be considered as an Office Use under the Municipal Property Assessment Corporation (MPAC) assessment.

Staff brought forward a report to Committee of the Whole in November 2015, which included a recommendation to provide an annual status update on the CIP, report on the level of uptake, pending applications and estimates on forgone revenues. This report highlights these items for the period of January 1, 2017 to December 31, 2017. At the conclusion of the CIP program in December 2020 (or earlier if all 1.5 million ft² of office space has qualified under the program), the annual updates will be consolidated and a revision to the funding/investment strategy may be adopted as necessary through future budget

processes.

Previous Reports/Authority

Community Improvement Plan update - VMC Subcommittee, November 2016.

Community Improvement Plan for Vaughan Metropolitan Centre and Weston Road & Highway 7 Primary Centre - Nov 2015

Community Improvement Plan for the Vaughan Metropolitan Centre and Weston Road & Highway 7
Primary Centre

Analysis and Options

As of Q4 2017, the City is processing the following CIP applications (including the finalization of relevant agreements), that, collectively, total more than 67,300 m² (724,400 ft²) of major office space:

- 1. The major office component of over 17,000 m² of Gross Floor Area (GFA) in the Liberty Development Corporation Centro project (File CIP.16.001) located in the Weston Road and Highway 7 Primary Centre CIP Area;
- 2. The SmartREIT KPMG office development (File CIP.16.002) consisting of over 26,000 m² of GFA in the VMC CIP Area;
- 3. The major office component of the SmartREIT mixed use development (File CIP.16.003) consisting of over 10,800 m² GFA in the VMC CIP Area; and
- 4. The major office component of the Liberty Development Cosmos project (File CIP.17.001) consisting of over 13,500 m² GFA in the VMC CIP Area.

These applications represent approximately 48 per cent of the total 139,355 m² (1.5 million ft²) maximum of major office space identified in the CIP to complement the residential and commercial developments that are anticipated in the VMC and Weston Road and Highway 7 Primary Centre.

Financial Impact

The CIP encourages earlier initiation of major office space projects by providing relief on Development Charges, Cash in Lieu of Parkland Dedication and future Property Taxation. It is expected that future property taxation on these new developments will offset the cost of the incentive program. This pay-back concept ensures that existing property taxpayers are not funding the incentives, but rather the developments will self-fund the incentives through future property taxation.

It is currently estimated that the four CIP applications, which have been received by the City, will result in approximately \$9.9 million less revenue from Cash in Lieu of Parkland and property taxes (over 10 years), as a result of the CIP. Property tax rebates will be gradually phased over a ten-year period. However, new tax revenue to the City generated by the development of this office space will result in an estimated \$13.3 million in new tax revenue over a 10-year period that was not being realized before.

Development Charge incentives do not apply to CIP applications CIP.16.001 and CIP.16.002 as they were able to take advantage of transition measures under the 2013 Development Charge By-law implementation. Applications CIP.16.003 and CIP.17.001 will however, have development charge implications, resulting in \$887,000 that will need to be repaid by the City from other funding sources. These two applications were not in a position to participate in the transition measures under the 2013 Development Charge By-law, but are entitled to the development charge rate freeze incentive as part of the CIP. This impact is included as part of the \$9.9 million figure stated above.

Conclusion

The CIP has helped to create the foundation for accelerating major office development in the VMC and the Weston Road and Highway 7 Primary Centre. Over the course of the second year of the CIP's five-year

period of enactment, staff has been able to raise awareness of the program amongst VMC landowners, the development community, local realtors and businesses. The development industry's investment in major office space has led to a growing number notable office tenants relocating to the VMC including KPMG. Miller Thomson, GFL Environmental, Harley-Davidson and FM Global. Further, the four major office developments with CIP applications currently being processed by staff, will represent nearly 4,000 new jobs when complete that will be added to the Vaughan Metropolitan Centre and Weston Road and Highway 7 Primary Centre.

For more information, please contact: Shirley Kam, Senior Manager of Economic Development, ext. 887
<u>Attachments</u>
None
Prepared by
Michael Launslager, Economic Development Officer, ext. 8472

Michael Launslager, Economic Development Officer, ext. 8472 Nelson Pereira, Senior Financial Analyst, Financial Planning and Development Finance, ext. 8393 Stephen Lue, Senior Planner, Development Planning, ext. 8210

The meeting adjourned at 10:41 a.m.
Respectfully submitted,
Councillor Sandra Yeung Racco, Acting Chair