General Committee Meeting Agenda

Tuesday, December 3, 2019

7 p.m.

Council Chambers

Aurora Town Hall

Public Release
November 26, 2019

Town of Aurora
General Committee
Meeting Agenda

Tuesday, December 3, 2019
7 p.m., Council Chambers

Councillor Humfryes in the Chair

1. Approval of the Agenda

2. Declarations of Pecuniary Interest and General Nature Thereof

3. Community Presentations

4. Delegations

5. Consent Agenda

Items listed under the Consent Agenda are considered routine or no longer require further discussion and are enacted in one motion. The exception to this rule is that a Member may request that one or more items be pulled for discussion and voted on separately.

Recommended:

That the following Consent Agenda Item, C1, be approved:

C1. FS19-039 – Annual Cancellation, Reduction or Refund of Property Taxes under Sections 357 and 358 of the *Municipal Act*

Recommended:

1. That Report No. FS19-039 be received; and

2. That total property taxes in the amount of $ 11,478.77 due from the property owners be adjusted pursuant to Section 357 of the Act; and

3. That total property taxes in the amount of $ 4,442.08 due to the property owners be adjusted pursuant to Section 358 of the Act; and

4. That any associated interest charged applicable to these adjustments be cancelled in proportion to the total property taxes adjusted; and

5. That the Director of Finance/Treasurer be directed to remove said property taxes from the collector's roll reflecting these property tax adjustments.

6. Advisory Committee Meeting Minutes

Recommended:

That the following Advisory Committee Meeting Minutes item, A1, be received:

A1. Accessibility Advisory Committee Meeting Minutes of November 13, 2019

Recommended:

1. That the Accessibility Advisory Committee meeting minutes of November 13, 2019, be received for information.

7. Consideration of Items Requiring Discussion (Regular Agenda)

R1. OPS19-024 – Fleet Management Strategy

Presentation to be provided by Roger Smith, Richmond Sustainability Initiatives, Fleet Challenge Division.

Recommended:

1. That Report No. OPS19-024 be received; and

2. That the recommendations from the Richmond Sustainability Initiatives (RSI), Fleet Management Strategy, be endorsed.

R2. OPS19-019 – Hallmark Baseball Diamonds – Additional Funding

Recommended:

1. That Report No. OPS19-019 be received; and

2. That the total approved budget for Capital Project No. 73287- Hallmark Lands Baseball Diamonds be increased to $3,942,000, representing an increase of $942,200 to be funded from the Parks Development Charges reserve.

R3. PDS19-098 – Town of Aurora Official Plan Review

Presentation to be provided by Andria Sallese, Senior Policy Planner, Policy Planning and Economic Development.

Recommended:

1. That Report No. PDS19-098 be received; and

2. That staff give public notice for a Special Meeting of Council regarding the initiation of the Official Plan Review in accordance with the requirements of Section 26 of the *Planning Act*; and

3. That staff report back following the Special Meeting of Council with a summary of the feedback received through the public consultation process to inform the development of a work program for Council's consideration; and

4. That the Town Clerk provide a copy of this report to York Region, the Lake Simcoe Conservation Authority, and Toronto Regional Conservation Authority for their information**.**

R4. PDS19-069 – Regional Municipal Comprehensive Review (MCR) Update: Aurora Employment Land Conversion Requests

Recommended:

1. That Report No. PDS19-069 be received; and

2. That this report be forwarded to York Region as the Town of Aurora position on the proposed employment land conversions.

R5. FS19-040 – Water Meter Replacement Program Contract

Recommended:

1. That Report No. FS19-040 be received; and

2. That WAMCO be awarded the contract for the replacement of residential meters for five (5) years at a cost of $502,500 annually excluding taxes under the single source provisions of the Procurement By-law; and

3. That Director of Finance be authorized to execute the agreement, including any and all documents and ancillary agreements required to give effect to the same.

R6. OPS19-023 – Roads Infrastructure Repairs

Recommended:

1. That Report No. OPS19-023 be received; and

2. That Capital Project No. 34004 – Safety Railing – Yonge Street north of Orchard Heights and Capital Project No. 34005 – Traffic Protection Guide Rail – Kennedy Street West be approved; and

3. That a total budget of $500,000 be approved for Capital Project No. 34004 – ($400,000) and Capital Project No. 34005 ($100,000) to be funded from the Repair and Replacement Reserve; and

4. That approval be given for staff to proceed with the tendering process for Capital Project No. 34004 and Capital Project No. 34005.

R7. PDS19-100 – Proposed Approach to Consider Backyard Swim School as a Permitted Home Occupation Use

Recommended:

1. That Report No. PDS19-100 be received; and

2. That staff initiate an Official Plan Amendment to add backyard swim schools as a Home Occupation use in the Town's Official Plan.

R8. PDS19-103 – Capital Project No. 81021 – Additional Funding Request for Capital Project No. 81021 Engineering Design Criteria Manual

Recommended:

1. That Report No. PDS19-103 be received; and

2. That the total approved budget for Capital Project No. 81021 be increased from $50,000 to $68,600, representing an increase of $18,600 to be funded from the Studies and Other Reserve Fund.

R9. PDS19-104 – Draft Plan of Condominium Application
Gottardo 404 (Aurora) Inc.
95 Eric T Smith Way
Part of Lot 3, Plan 65M-4324
File: CDM-2019-03

Recommended:

1. That Report No. PDS19-104 be received; and

2. That the Draft Plan of Condominium, File No. CDM-2019-03, for an office building with ten (10) units and a total gross floor area of 4,723 square meters (50,843 square feet), subject to Schedule "A" to this report, be approved.

8. Notices of Motion

(a) Mayor Mrakas
Re: Street Name Addition – Kimberley Kerr

9. New Business

10. Closed Session

11. Adjournment

Town of Aurora
General Committee Report No. FS19-039

Subject:	**Annual Cancellation, Reduction or Refund of Property Taxes under Sections 357 AND 358 of the Municipal Act**
Prepared by:	Lindsay Lee, Tax Administrator and Darlene Munro, Acting Manager and Accounting Supervisor of Revenues
Department:	Finance
Date:	December 3, 2019

Recommendation

1. **That Report No. FS19-039 be received; and**
2. **That total property taxes in the amount of $ 11,478.77 due from the property owners be adjusted pursuant to Section 357 of the Act; and**
3. **That total property taxes in the amount of $ 4,442.08 due to the property owners be adjusted pursuant to Section 358 of the Act; and**
4. **That any associated interest charged applicable to these adjustments be cancelled in proportion to the total property taxes adjusted; and**
5. **That the Director, Finance/Treasurer be directed to remove said property taxes from the collector's roll reflecting these property tax adjustments.**

Executive Summary

This report summarizes the property taxes which were adjusted by the Treasurer under Section 357 and 358 of the *Municipal Act, 2001.* These adjustments are because of changes in current value assessment as determined and verified by the Municipal Property Assessment Corporation.

- Section 357 adjustments of $11,478.77 will reduce the overall taxes on 10 properties
- Section 358 adjustments total $4,442.08 and will be refunded to property owners
- Municipal Property Assessment Corporation has verified the applications

Background

Section 357 adjustments are in response to changes in the current value assessment. Property owners or their agents may make application for the cancellation of property taxes for the current year in response to changes in current value assessment that result in an increase or decrease in property taxes.

Section 358 adjustments are for errors in the current value assessment. Property owners or their agents may make application for the cancellation of property taxes due to gross or manifest errors made by Municipal Property Assessment Corporation in the current value assessment for two years prior to the current taxation year.

These property tax adjustments are not because of the Town having failed to collect rightful taxes but to rather adjust the property taxes to the correct and proper amount**.**

Analysis

Section 357 adjustments of $11,478.77 will reduce the overall taxes on 10 properties

Two applications were received prior to the deadline of February 28, 2019 for the 2018 taxation year for property taxes to be adjusted under Section 357 totaling $3,533.37. An additional eight applications were received at the time of authoring the Council report for the 2019 taxation year for property taxes to be adjusted under Section 357 totaling $7,945.40. These adjustments are listed in Attachment #1 titled “Tax Adjustments under Section 357 of the Municipal Act”. These amount represents an overall tax reduction to the properties.

Table #1 below summarizes the 357 adjustments for both taxation years representing total property tax adjustments of $11,478.77 by the respective shares. The Town will adjust the appropriate portions due to/from the Regional Municipality of York and the respective York Region Boards of Education.

Table #1 – Summary of 357 Adjustments

Tax Year	Town of Aurora ($)	Region of York ($)	Boards of Education ($)	Total ($)
2018	(1,294.55)	(1,507.75)	(731.07)	(3,533.37)
2019	(2,916.51)	(3,401.62)	(1,627.27)	(7,945.40)
Total	**(4,211.06)**	**(4,909.37)**	**(2,358.34)**	**(11,478.77)**

Property owners have until February 28, 2020 to apply under Section 357 for adjustments for the 2019 taxation year.

Section 358 adjustments total $4,442.08 and will be refunded to property owners

Applications were received under Section 358 for the taxation years 2016, 2017, and 2018. These adjustments are listed in Attachment #2 titled “Tax Adjustments under Section 358 of the Act” and result in an overall tax reduction to the affected properties. Table #2 summarizes the total property tax adjustment of $4,442.08 that will be refunded to the property owners.

Table #2 – Summary of 358 Adjustments

Tax Year	Town of Aurora ($)	Region of York ($)	Boards of Education ($)	Total ($)
2016	(23.16)	(27.44)	(62.39)	(112.99)
2017	(251.47)	(295.26)	(142.11)	(688.84)
2018	(1,332.81)	(1,554.67)	(752.77)	(3,640.25)
Total	**(1,607.44)**	**(1,877.37)**	**(957.27)**	**(4,442.08)**

Property owners have until December 31, 2019 to apply under Section 358 for adjustments for the 2017 and 2018 taxation years.

Municipal Property Assessment Corporation has verified the applications

The Municipal Property Assessment Corporation has reviewed all applications and they have verified assessment values and taxation periods used to determine the property tax adjustments.

Advisory Committee Review

Not applicable

Legal Considerations

In accordance with section 357 of the *Municipal Act, 2001*, Council may cancel, reduce or refund all or part of the taxes levied on a property for various reasons, including a change in assessments. An applicant has 35 days to appeal Council's decision to the Assessment Review Board. The Board will hear the appeal and make a decision, which is considered final.

In accordance with section 358 of the *Municipal Act, 2001*, Council may cancel, reduce or refund all or part of the taxes levied on a property for overcharges. Prior to Council's decision, MPAC must confirm that there was an error in the assessment.

In both of the above cases, an applicant may make representations to Council at the meeting where Council makes it decision.

Financial Implications

Table #3 below summarizes the total property tax adjustments for 357 and 358 applications. The Town's share of the property tax adjustments results in a net amount of $5,818.50 being refunded to the property tax owners.

Table #3 – Summary of 357 and 358 Adjustments

Adjustment Type	Town of Aurora ($)	Region of York ($)	Boards of Education ($)	Total ($)
357	(4,211.06)	(4,909.37)	(2,358.34)	(11,478.77)
358	(1,607.44)	(1,877.37)	(957.27)	(4,442.08)
Total	**(5,818.50)**	**(6,786.74)**	**(3,315.61)**	**(15,920.85)**

The Town's 2019 budget for our share of property tax adjustments such as 357's, 358's, Assessment Review Board decisions and Municipal Property Assessment Corporation's minutes of settlement is $250,000.

Communications Considerations

Finance staff have provided the required 14 days notice to the applicants advising them of the opportunity to make representations to Council at the December 10th Council meeting. Within 14 days after Council makes its decision, Finance staff will advise each property owner in writing and inform them of the last day to appeal.

Link to Strategic Plan

Adjusting tax accounts to reflect verified adjustments to assessment values contributes to achieving the Strategic Plan guiding principal of "Leadership in Corporate Management" and improves transparency and accountability to the community.

Alternative(s) to the Recommendation

There are no alternatives to the recommendations contain in this report. The adjustments recommended are statutory and have been validated by Municipal Property Assessment Corporation and are now rightfully due to the property owners.

Conclusions

The adjustment of property taxes in this report under Sections 357 and 358 of the Act total $15,920.85 and the affected property owners will be notified.

Attachments

Attachment #1 –Tax Adjustments under Section 357 of the Municipal Act
Attachment #2 –Tax Adjustments under Section 358 of the Municipal Act

Previous Reports

None

Pre-submission Review

Agenda Management Team review on November 14, 2019

Departmental Approval

Rachel Wainwright-van Kessel, CPA, CMA
Director, Finance
- Treasurer

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

Attachment #1 –Tax Adjustments under Section 357 of the Municipal Act

SUMMARY TOTAL S. 357	TOWN	REGION	EDUCATION	TOTAL
	$ 4,211.06	$ 4,909.37	$ 2,358.34	**$ 11,478.77**

MUNICIPAL ACT, SECTION 357 **2018 Tax Year**

ROLL #	TRANS #	TOWN	REGION	EDUCATION	SUBTOTAL
19-46-000-031-63600-0000	2018-002	$ 662.51	$ 771.62	$ 374.14	$ 1,808.27
19-46-000-041-68009-0000	2018-011	$ 632.04	$ 736.13	$ 356.93	$ 1,725.10
TOTAL		**$ 1,294.55**	**$ 1,507.75**	**$ 731.07**	**$ 3,533.37**

MUNICIPAL ACT, SECTION 357 **2019 Tax Year**

ROLL #	TRANS #	TOWN	REGION	EDUCATION	SUBTOTAL
19-46-000-112-80290-0000	2019-001	$ 387.58	$ 452.05	$ 216.25	$ 1,055.88
19-46-000-010-19013-0000	2019-002	$ 231.69	$ 270.23	$ 129.27	$ 631.19
19-46-000-110-02838-0000	2019-003	$ 405.36	$ 472.78	$ 226.17	$ 1,104.31
19-46-000-042-13400-0000	2019-004	$ 483.45	$ 563.86	$ 269.74	$ 1,317.05
19-46-000-113-68100-0000	2019-005	$ 642.83	$ 749.76	$ 358.67	$ 1,751.26
19-46-000-042-01700-0000	2019-006	$ 212.62	$ 247.98	$ 118.63	$ 579.23
19-46-000-053-25800-0000	2019-007	$ 333.06	$ 388.46	$ 185.83	$ 907.35
19-46-000-010-19012-0000	2019-008	$ 219.92	$ 256.50	$ 122.71	$ 599.13
TOTAL		**$ 2,916.51**	**$ 3,401.62**	**$ 1,627.27**	**$ 7,945.40**

Attachment #2 –Tax Adjustments under Section 358 of the Municipal Act

SUMMARY TOTAL S. 357	TOWN	REGION	EDUCATION	TOTAL
	$ 1,607.44	$ 1,877.37	$ 957.27	**$ 4,442.08**

MUNICIPAL ACT, SECTION 358 **2016 Tax Year**

ROLL #	TRANS #	TOWN	REGION	EDUCATION	SUBTOTAL
19-46-000-124-22110-0000	2016-005	$ 23.16	$ 27.44	$ 62.39	$ 112.99
TOTAL		**$ 23.16**	**$ 27.44**	**$ 62.39**	**$ 112.99**

MUNICIPAL ACT, SECTION 358 **2017 Tax Year**

ROLL #	TRANS #	TOWN	REGION	EDUCATION	SUBTOTAL
19-46-000-124-22110-0000	2017-004	**No change recommended by MPAC**			
19-46-000-031-70900-0000	2017-005	$ 64.42	$ 75.64	$ 36.41	$ 176.47
19-46-000-031-32500-0000	2017-006	**No change recommended by MPAC**			$ -
19-46-000-042-01700-0000	2017-007	$ 187.05	$ 219.62	$ 105.70	$ 512.37
TOTAL		**$ 251.47**	**$ 295.26**	**$ 142.11**	**$ 688.84**

MUNICIPAL ACT, SECTION 358 **2018 Tax Year**

ROLL #	TRANS #	TOWN	REGION	EDUCATION	SUBTOTAL
19-46-000-031-70900-0000	2018-001	$ 430.27	$ 501.74	$ 243.01	$ 1,175.02
19-46-000-113-68100-0000	2018-002	$ 306.85	$ 357.38	$ 173.29	$ 837.52
19-46-000-031-32500-0000	2018-003	**No change recommended by MPAC**			$ -
19-46-000-042-01700-0000	2018-004	$ 386.84	$ 452.31	$ 218.53	$ 1,057.68
19-46-000-053-25800-0000	2018-005	$ 208.85	$ 243.24	$ 117.94	$ 570.03
TOTAL		**$ 1,332.81**	**$ 1,554.67**	**$ 752.77**	**$ 3,640.25**

Town of Aurora
Accessibility Advisory Committee
Meeting Minutes

Date:	Wednesday, November 13, 2019
Time and Location:	7 p.m., Holland Room, Aurora Town Hall
Committee Members:	John Lenchak (Chair), Hailey Reiss (Vice Chair), Matthew Abas, Max Le Moine, Jo-anne Spitzer, Councillor Rachel Gilliland
Members Absent:	None
Other Attendees:	Mat Zawada, Accessibility Advisor, Linda Bottos, Council/ Committee Coordinator

The Chair called the meeting to order at 7:01 p.m.

1. Approval of the Agenda

Moved by Jo-anne Spitzer
Seconded by Matthew Abas

That the agenda as circulated by Legislative Services, with the following additional item, be approved:

- Item 7 – Election of Chair and Vice Chair for Year 2020 of the Accessibility Advisory Committee (2018-2022 Term)

Carried

2. Declarations of Pecuniary Interest and General Nature Thereof

There were no declarations of pecuniary interest under the *Municipal Conflict of Interest Act, R.S.O. 1990, c. M.50*.

3. Receipt of the Minutes

Accessibility Advisory Committee Meeting Minutes of October 2, 2019

Moved by Hailey Reiss
Seconded by Matthew Abas

That the Accessibility Advisory Committee meeting minutes of October 2, 2019, be received for information.

Carried

4. Delegations

None

5. Matters for Consideration

1. Memorandum from Planner
Re: Site Plan Application, Regional Municipality of York, 242 St. John's Sideroad East, Aurora, Con 1 Pt Lot 86 RS65R2500 Part of Part 1 EXP 288904 Part 1, File Number: SP-2019-06

Staff provided an overview of the application noting that there would be no public access to the building. The Committee reviewed the site plan and discussed the accessibility standards to be considered as part of the application.

Moved by Max Le Moine
Seconded by Matthew Abas

1. That the memorandum regarding Site Plan Application, Regional Municipality of York, 242 St. John's Sideroad East, Aurora, Con 1 Pt Lot 86 RS65R2500 Part of Part 1 EXP 288904 Part 1, File Number: SP-2019-06 be received; and

2. That the following Accessibility Advisory Committee comments regarding the Site Plan Application be considered by staff:

   (a) Request for automatic door openers at the main entrance of the building; and

(b) Request for tactile walking surface indicators at the top of the interior staircase of the building.

Carried

2. Memorandum from Planner
Re: Site Plan Application (1st Submission), New Industrial Building w/Office Space, 320 Industrial Parkway South, Lot 25, Plan M-2012, File Number: SP-2019-07

Staff gave an overview of the application noting that interior drawings were not yet available. The Committee reviewed the site plan and discussed the accessibility standards to be considered as part of the application.

Moved by Councillor Gilliland
Seconded by Max Le Moine

1. That the memorandum regarding Site Plan Application (1st Submission), New Industrial Building w/Office Space, 320 Industrial Parkway South, Lot 25, Plan M-2012, File Number: SP-2019-07 be received; and

2. That the following Accessibility Advisory Committee comments regarding the Site Plan Application (1st Submission) be considered by staff:

   (a) Request for an extra curb depression at the walkway on the east elevation of the proposed building; and

   (b) Request for an outdoor rest area with adaptable seating at the main entrance of the proposed building; and

   (c) Request for automatic door openers at all public access entry points of the proposed building.

Carried

3. Memorandum from Senior Planner
Re: Site Plan Amendment Application (1st Submission), 16015 Bayview Avenue, Part 1, Plan 65R-32530, File Number: SP-2019-08

Staff provided an overview of the application, and the Committee reviewed the site plan amendment and discussed the accessibility standards to be considered as part of the application.

Moved by Hailey Reiss
Seconded by Rachel Weiss

1. That the memorandum regarding Site Plan Amendment Application (1st Submission), 16015 Bayview Avenue, Part 1, Plan 65R-32530, File Number: SP-2019-08, be received; and

2. That the following Accessibility Advisory Committee comments regarding the Site Plan Amendment Application (1st Submission) be considered by staff:

   (a) Request for the addition of a corresponding curb depression associated with the access aisle on the east elevation of Building B; and

   (b) Request to consider extending the exterior accessible path of travel at the south end of Building B, if the grading would allow, westward to the sidewalk on Bayview Avenue.

Carried

4. Memorandum from Accessibility Advisor
Re: Accessibility Review Checklist – Site Plan

Staff gave a summary of the memorandum and provided a draft AAC Site Plan Review checklist for review. The Committee and staff discussed various aspects to be considered and added to the checklist including universal washrooms, design requirements of accessibility signage, recommended surface materials for exterior paths of travel, sensory room criteria, and snow clearing. The Committee suggested making the checklist available as a resource for local businesses. Staff agreed to follow up regarding the design of accessibility signage and possible by-law provisions regarding snow clearing and placement.

Moved by Max Le Moine
Seconded by Matthew Abas

1. That the memorandum regarding Accessibility Review Checklist – Site Plan be received; and

2. That the Accessibility Advisory Committee comments and suggestions regarding the Accessibility Review Checklist – Site Plan be received and referred to staff for consideration and action as appropriate.

Carried

5. Memorandum from Accessibility Advisor
Re: Special Events Sensory Room/Space

Staff gave an overview of the memorandum noting that Aurora is the first municipality to offer a sensory room/space at special events. The Committee and staff discussed various potential contacts and community organizations that may wish to be involved and/or provide assistance regarding the provision of a sensory room. The Committee made further suggestions regarding options and resources for equipment and activities to be included, and inquired about the possibility of seeking donations for a sensory room.

Moved by Hailey Reiss
Seconded by Matthew Abas

1. That the memorandum regarding Special Events Sensory Room/Space be received; and

2. That the Accessibility Advisory Committee comments and suggestions regarding the Special Events Sensory Room/Space be received and referred to staff for consideration and action as appropriate.

Carried

6. Round Table Discussion
Re: Town of Aurora Accessibility Plan 2018 to 2024

The Committee requested an update and staff provided a brief overview of items recently completed and those items in progress. The Committee inquired about whether crosswalks may be included in the Accessibility Plan as a

recommended accessibility item, and specifically referred to the need for a crosswalk on Earl Stewart Drive at the sharp curve located between McMaster Avenue and Pedersen Drive.

Moved by Jo-anne Spitzer
Seconded by Matthew Abas

1. That the comments and suggestions regarding the Town of Aurora Accessibility Plan 2018 to 2024 be received and referred to staff for consideration and action as appropriate.

Carried

7. Election of Chair and Vice Chair for Year 2020 of the Accessibility Advisory Committee (2018-2022 Term)

Moved by Jo-anne Spitzer
Seconded by Matthew Abas

That John Lenchak be re-elected as Chair for Year 2020 of the Accessibility Advisory Committee (2018-2022 Term).

Carried

Moved by John Lenchak
Seconded by Matthew Abas

That Hailey Reiss be re-elected as Vice Chair for Year 2020 of the Accessibility Advisory Committee (2018-2022 Term).

Carried

6. Informational Items

None

7. Adjournment

Moved by Hailey Reiss
Seconded by Jo-anne Spitzer

That the meeting be adjourned at 8:18 p.m.

Carried

Town of Aurora
General Committee Report No. OPS19-024

Subject: Fleet Management Strategy

Prepared by: Sara Tienkamp, Manager Parks & Fleet

Department: Operational Services

Date: December 3, 2019

Recommendation

1. **That Report No. OPS19-024 be received; and**

2. **That the Recommendations from the Richmond Sustainability Initiatives (RSI), Fleet Management Strategy be endorsed by Council.**

Executive Summary

This report provides the findings of Richmond Sustainability Initiatives (RSI), retained by the Town, to provide a Fleet Management Strategy for the Fleet Division including the By-law, Facilities, Parks, Roads and Water/Wastewater Divisions:

- Comprehensive Fleet Management Strategy has been delivered that will guide Fleet Services presently and in the future.
- Two (2) key recommendations result from the strategy and are necessary to support other suggested initiatives in the Plan.
- Further investigation, planning and financial commitment required to deliver on the Study's recommendations.
- Data illustrates that replacing aging vehicles and equipment with newer models can achieve a savings of approximately $48,000 in operating costs annually.

Background

Fleet is a multi-million dollar asset to the Town that includes vehicles, equipment, trailers and heavy duty machinery essential to providing the services required within the Town. As such, staff prepared a budget to retain the services of a Fleet Consultant for 2019 Capital Budget deliberations.

In April 2019, Council approved Report OPS19-008 Fleet Consultant Terms of Reference, lifting conditional approval allowing to staff to move forward securing a Fleet Consultant. Staff prepared an RFP for a consultant to provide a Fleet Management

Strategy and retained Richmond Sustainability Initiatives (RSI), specializing in municipal fleet services in Canada and abroad.

Analysis

Comprehensive Fleet Management Strategy has been delivered that will guide Fleet Services presently and in the future

RSI has provided the Town with a comprehensive Fleet Management Strategy to assist Fleet Division staff in managing Fleet in a more sustainable and fiscally responsible way. The strategy reflects all aspects of Fleet management and is built on a corporate Fleet Governance model.

In support of the strategy document additional documents and software have been have been provided to help guide the operation of the Division being:

1. Life Cycle Analysis and Long Term Capital Planning document and supporting proprietary software, RSI's Fleet Analytics Review (FAR) program. This software allows staff to optimize the vehicle lifecycles based on real-time tracked data, including service levels, operating costs, fuel consumption and greenhouse gas (GHG) emissions.

2. Best Management Practices within a Municipal Fleet that is tailored to Aurora. This Plan details and guides operational functions, utilizing Aurora's current processes and enhancing them with industry best practices to assist staff in managing the Fleet operation.

Two (2) key recommendations are highlighted in the strategy and are necessary to support other suggested initiatives in the Plan

A total of twelve (12) recommendations have been outlined (Attachment #1) and are consistent with the deliverables reflected within the RFP.

Two (2) recommendations in the Fleet Management Strategy stand out as top priorities that are key to moving Fleet Services in the right direction, in addition to assisting in the delivery of other important recommendations:

- **Fleet Maintenance Management System**. *Establish Fleet Management System (FMS) to optimize the management of fleet and assist in cost reduction.*

  Staff are investigating the Maximo and CityWide software currently with the Town, which should be able to be able to provide a system required to fulfil Fleet's needs.

This also provides a platform for the **Preventive Maintenance** recommendation to be prioritized, further expanded and scheduled accordingly, as well as the ability to track costs for maintenance, assisting staff in accurate budgeting and capital planning.

- **Future Capital Purchases**. *Invest in capital to continually refresh and modernize the Town's fleet with new vehicles. In doing so, the Town will reap lower operating cost reductions while heading off the negative issues associated with an aging fleet.*

  The **Optimal Vehicle Life Cycles** recommendation is closely tied to capital purchases, as it speaks to the reinvestment of capital and promoting the ongoing modernization of the fleet, through optimizing economic lifecycle practices. The fleet is a primary resource for the Town and a modern, safe and reliable fleet is essential for delivering municipal services to the residents.

It is important to note that both these recommendations reflect modernization, innovation and fiscal responsibility, all integral to what we trying to achieve as an organization moving forward in the years to come.

Further investigation, planning and financial commitment required to deliver on the Study's recommendations

Many of the recommendations can be implemented through some planning and management practices; however, others have a significant financial component attached to their implementation and will need to be reviewed and refined over a longer time frame prior to coming forward as separate initiatives for Council consideration.

As such, a staff report for approval of the 2019 and 2020 Capital Budget fleet projects will be tabled in early 2020. The report will illustrate how the Lifecycle and Long Term Capital Planning document methodology and Fleet Analytic Review software modelling, supports capital Fleet requirements while providing a direct link to the consultants work.

Further to the capital report, a green fleet report will come forward in 2020 for Council deliberation, defining elements, framework, potential future financial impacts and how it will interface with other corporate green initiatives.

Data illustrates that replacing aging vehicles and equipment with newer models can achieve a savings of approximately $48,000 in operating costs annually

RSI utilized the FAR software tool to plot Aurora's current day baseline relative to the fleet's age and operating statistics for a one year period. This baseline included data on service levels (uptime and utilization), operating costs, fuel consumption and GHG

emissions.

Through modelling and running different scenarios for lifecycle analysis it was found that capital spending and the resultant operating expense impacts vary when the current day baseline period and three (3) year capital planning approaches were compared. All replacement scenarios studied delivered significant operating expense reductions, confirming that a newer fleet is less costly to operate.

It was determined a net operating expense reduction of approximately $48,000 is achievable.

Advisory Committee Review

Not applicable.

Legal Considerations

None.

Financial Implications

There are no financial impacts currently; however, recommendations with financial implications within the FMS with will be brought forward separately in reports for Council consideration in the future.

Communications Considerations

There is no external communication required.

Link to Strategic Plan

This project supports the Strategic Plan Goal of Supporting an Exceptional Quality of Life for all by improving transportation, mobility and connectivity. This project maintains a well-managed and fiscally responsible Municipality.

Alternative(s) to the Recommendation

1. Council could chose not to endorse the Fleet Management Strategy.

Conclusions

The newly created Fleet Management Strategy is a comprehensive policy document that captures virtually all aspects of a fleet operation including capital planning, operational maintenance practices and life cycling. This document will streamline current asset management practices and create a more efficient fleet management approach built on a corporate fleet governance modal to guide the divisions into the future.

Attachments

Attachment #1 – Fleet Management Strategy Recommendations
Attachment #2 – Fleet Management Strategy

Previous Reports

OPS2019-008 Fleet Consultant Terms of Reference, April 16, 2019

Pre-submission Review

Agenda Management Team Review on November 14, 2019

Departmental Approval

Allan D. Downey
Director of Operations
Operational Services Department

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

Attachment #1

RICHMOND
Sustainability Initiatives

Recommendations for a Fleet Management Strategy

From the learnings attained from staff meetings and discussions, review and data analysis, and within the framework of the RFP, we prepared detailed recommendations for a Fleet Management Strategy. Consistent with the 12 focal points set out in the RFP, the following are our high-level recommendations for the Town's Fleet Management Strategy. Details and full recommendations around each are provided within this report.

Optimal Vehicle Life Cycles. Re-invest capital in ongoing modernization of the fleet based on optimized economic lifecycle practices. The fleet is a primary resource for the Town of Aurora and a modern, safe and reliable fleet in essential for providing municipal services to the residents of the Town of Aurora.

Current Vehicle and Equipment Inventory. Conduct a right-sizing review of departmental fleet vehicle assignments, with regular reviews thereafter. Fleet Services Dept. should thereafter maintain the correct mix and numbers of vehicles and equipment, aligned with clearly defined user group requirements.

Preventive Maintenance. Enhance current preventive maintenance (PM) procedures to ensure that all fleet units are inspected, repaired and maintained in such a way that defects are prevented from surfacing in the first place, and before a failure, violation, or accident may occur.

Current Fleet Use and Function. Ensure that fleet vehicle use and function, and the vehicles provided and maintained by Fleet Services are in alignment with, and supportive of, the Town of Aurora Operational Services department's responsibilities and mandate.

Future Capital Purchases. Invest capital to continually refresh and modernize the Town's fleet with new vehicles. In doing so, the Town will reap operating cost reductions while heading off the many negative issues associated with an aging fleet.

Early Decommissioning. Consider early decommissioning of poorly performing and under-utilized, surplus vehicles (as determined via a departmental review of assigned vehicles per bullet #2) as they may be stranded assets, liabilities and serving no purpose toward fulfilling the Town's corporate objectives.

Optimal Spare Ratio. Strive to minimize the number of spare vehicles in the fleet, but also ensure that all eventualities are considered, and that options for replacement vehicles are available to ensure disruption of service is avoided at peak or critical times.

Greening the Fleet. Develop a long-term green fleet plan with an internal sponsor and support, along with well-defined targets, timelines, responsibilities, costs and tracking measures.

RICHMOND
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Mechanic Bays & Available Equipment. Maximize the capacity of the fleet garage mechanic bays through optimized workflow planning and management techniques, the addition of a vehicle lift and if necessary, selective outsourcing during peak periods.

Fleet Storage and Protection. Construct a weather protection enclosure or at minimum, a roof with partial/full side enclosures for Aurora's fleet parking area to ensure cold and severe weather operational efficiency and ultraviolet ray protection. Optionally, use the roof surface of the recommended enclosure for a solar array that would reduce power demand, minimize grid dependency, offset the cost of the investment in the structure while adding to the Town's eco-friendly profile.

Fleet Maintenance Management System. Invest in a Fleet Management (software) System (FMS) to optimize fleet management and cost reduction. This is a top priority and without delay, the Town's Fleet Services Dept. should identify its system requirements, including touchpoints with other corporate systems, review its business processes and invest in an FMS.

Budget Allocation Process. Increase the number of operating budget line items to increase granularity and thereby improve management control. To help reduce operating budget over-runs, implement a total cost recovery business model.

Attachment #2

Final
Report
November
2019

Fleet Management Strategy

FLEET MANAGEMENT STRATEGY FOR THE TOWN OF AURORA

RICHMOND SUSTAINABILITY INITIATIVES – FLEET CHALLENGE

Executive Summary

Richmond Sustainability Initiatives – Fleet Challenge was engaged by the Town of Aurora in 2019 to complete a review of its Fleet Services Department and develop recommendations for a Fleet Management Strategy.

About Richmond Sustainability Initiatives
Since 2005 RSI and Fleet Challenge (referred to herein as RSI-FC, Fleet Challenge or FC) have collaborated with fleet managers, technology providers, subject matter experts and auto manufacturers to find viable solutions, technologies and best management practices for reducing operating costs and vehicle emissions through outreach, awareness and education. From the beginning, we have remained a self-supporting and independently funded program without commercial biases or influences, providing fleet review and consulting services to dozens of leading private and public sector fleets in Canada and the United States.

Background
As described in its RFP 2019-79-OPS-F, the Town of Aurora, Fleet Services operates as a division of Operational Services with the primary responsibility being the procurement and maintenance of Roads, Water, Parks, Facilities and Bylaw Division vehicles. The program is under direction of Parks Management with a head mechanic and three additional mechanics. All four mechanics are unionized and possess 310S and/or 310T certifications. Parks management is responsible for the development of specifications used in the tendering process as well as managing the vehicle replacement program and new capital purchases.

Fleet Services has approximately 140 pieces of rolling stock and an approximate annual operating budget of $760,000.

A Fleet Management Review was completed in 2005 and over the years a few of the recommendations have been implemented as a direct result of growth, including additional staff, equipment and additional mechanical garage bays. However, most of the suggested improvements in the report were not brought forward for deliberation with the financial considerations that may be necessary for implementation. For this reason, in preparing the Fleet Management Strategy in this report, Richmond Sustainability Initiatives has strived to ensure that our recommendations are both practicable and cost-effective to ensure maximum success.

Objectives
The stated objective of the Fleet Management Review was to complete an organizational and best practices review. The comprehensive study was intended to deliver a set of recommendations designed to streamline current asset management practices and create a more efficient and cohesive fleet management approach built on a corporate fleet governance model.

As defined in its RFP, the Town identified 12 focal points for inclusion in the review. They are:

1. Recommendations on optimal asset lifecycle for vehicles/equipment and attachments
2. Review current vehicle/equipment inventory and provide recommendations

3. Review and make recommendations on the preventive maintenance programs to ensure best practices in terms of quality, frequency, cost and warranty maintenance specific to in house maintenance and third party provider
4. Evaluate the current fleet equipment use and function, appropriate number of vehicles and specific models based on service level standards for each division
5. Provide recommendations for future capital equipment/vehicle purchases based on current service level standards for each division
6. Develop criteria to identify a vehicle that may require early decommissioning due to unfavorable operational performance outside the expected life cycle
7. Determine optimal spare ratio for fleet resources
8. Investigate and make recommendations for greening the fleet and reducing carbon footprint
9. Assess mechanic bays and available equipment and provide recommendations for improvement, where necessary
10. Make recommendations on necessary fleet storage and protection needs, including type and size of building
11. Review current fleet maintenance management systems to track work orders/assets/financials and provide recommendations for improvement
12. Review the Town's budget allocation process as it relates to operating budget and provide recommendations

Approach and Methodology

In completing our review of the Town of Aurora Fleet Services, and developing recommendations contained of this Fleet Management Strategy, we systematically reviewed each of the above 12 focal points. The approach included:

- Site visits to inspect the fleet garage and vehicles
- Stakeholder meetings with user groups, administrative and management personnel, fleet mechanics and executive
- Analysis and preparation of current-day baseline fleet data by means of our Fleet Analytics Review™ (FAR) software
- A best management practices review (BMPR)
- Completion of lifecycle analysis (LCA) for all vehicle categories
- Data-modeling the impacts of various go-forward capital budgeting strategies
- Completion of several long-term capital planning (LTCP) scenarios
- A fleet mechanic's labour demand-versus-capacity study
- A fleet garage workspace / mechanical repair bay demand-versus-capacity study

Recommendations for a Fleet Management Strategy

From the learnings attained from staff meetings and discussions, review and data analysis, and within the framework of the RFP, we prepared detailed recommendations for a Fleet Management Strategy. Consistent with the 12 focal points set out in the RFP, the following are our high-level recommendations for the Town's Fleet Management Strategy. Details and full recommendations around each are provided within this report.

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RICHMOND
Sustainability Initiatives

Table of Contents

1.0 Optimal Asset Lifecycle for Vehicles and Equipment

In 2019, the Town of Aurora engaged Richmond Sustainability Initiatives – Fleet Challenge team (RSI-FC) to review the on-road vehicle fleet, apply Life Cycle Analysis and provide vehicle replacement recommendations in a five-year horizon. RSI-FC prepared a separate report *"Life Cycle Analysis and Long-Term Capital Plan"* for the Town. The following section summarizes our findings and recommendations from that report.

1.0.1 Methodology and Approach

In general, as commercial vehicle fleets age, higher operating expenses are incurred due to increasing levels of 'reactive' repairs (unplanned, breakdowns). As well, due to decreased reliability, downtime costs for spare/loaner vehicles will increase, including the cost of loss of productivity for the drivers who are dependent on fleet vehicles to perform their daily work routines.

The Town of Aurora Fleet Dept. and its mechanics strive to maintain the fleet in a safe and reliable condition and in doing so, reduce downtime costs. Nevertheless, even when minimized, downtime costs are unavoidable; for a municipality costs can be substantial. Ongoing, uninterrupted capital re-investment in modernizing the fleet is critical to any organization that depends on a reliable fleet of vehicles to achieve its objectives, as is the case for all municipalities including the Town of Aurora.

Fleet management is a complex juggling act. Capital investment, operating expenses and depreciation, preventive maintenance levels, fuel consumption, aging of the fleet, availability, utilization, emissions and inflation are interconnected issues. Making a change to any one of these key considerations impacts all of them.

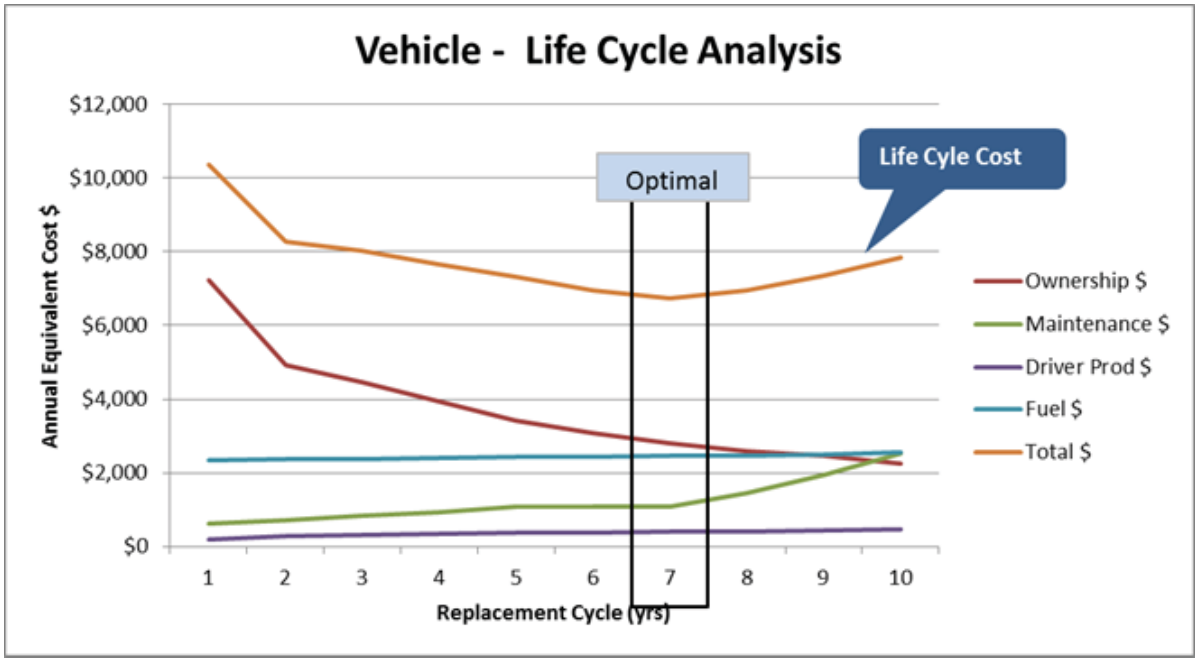
For example, deferred capital spending will result in an aging fleet. An aging fleet will result in higher reactive repair (i.e., breakdowns) rates, more downtime, higher fuel consumption, increased operating costs and ultimately a larger overall fleet size to allow for more spare vehicles to compensate for the reduced reliability of the primary vehicles. Counter to this, if vehicles are replaced too soon, value may be lost.

Leading fleets understand the critical importance of knowing, with a high degree of certainty, how long commercial vehicles can remain in service and continue to be cost-effective. For this purpose, Life Cycle Analysis (LCA) modeling is used to illustrate the total life cycle cost of owning and operating a fleet vehicle type or category.

Life cycle analysis (LCA) is a structured approach to determine the best time to replace vehicles and equipment in terms of age, mileage or other pertinent factors. LCA provides the empirical justification for replacement policies and facilitates the analysis and communication of future replacement costs.

Figure 1: Life Cycle Analysis Example (below) illustrates the concept of LCA. As a vehicle's age at retirement increases, ownership costs decrease and operating costs increase. The ideal time to replace vehicles is when the rise in operating costs begins to outweigh the decline in ownership costs.

Figure 1: Life Cycle Analysis Example



As shown in *Figure 1,* as the age of a vehicle at retirement increases, ownership costs decline and operating costs increase. In this example, operating cost includes maintenance, loss of driver productivity caused by reduced vehicle reliability and the impact of increased fuel consumption by delaying the purchase of a new vehicle.

The sum of these costs represents the "Life Cycle Cost Curve". The ideal time to replace vehicles is before the rise in operating costs begins to outweigh the decline in ownership costs.

1.0.2 The Life Cycle Cost Curve

The "Life Cycle Cost Curve" and the ideal replacement cycle will be different for various types of vehicles and possibly even individual vehicles of the same type. This variability can be caused by differences in the vehicle make, model year, equipment design, operating environment or even by how the operator uses the vehicle. Recommended replacement cycles for a class of vehicles is thus an approximation of the optimal time to replace most units within that class.

LCA is based on average costs and utilization rates for each category of vehicles and as so provides a credible guideline to optimal vehicle replacement cycles. LCA does have limitations, since it's outcomes are based on average cost data for each category of vehicles. Some vehicles that are in poor or unsafe condition may require replacement before the LCA-calculated age criteria is met. Conversely, some vehicles that exceed the criteria may still be in good condition and not warrant replacement due to low usage, or recent refurbishment, therefore the recommended replacement criteria should be used as a guideline.

For fleets without the benefit of LCA modeling, vehicles are often replaced on cycles based on management's familiarity, knowledge and intuition – their 'gut feelings' instead of actual historical data around each vehicle's age, condition and reliability. That intuitive approach may be effective when there are only a few units but the practice is untenable for a fleet of any size and can lead to very costly mistakes.

1.0.3 Long-Term Capital Budgeting

As described, LCA assists fleet managers to analyze their operations and prioritize strategies that optimize vehicle life and return on investment. Vehicles in poor or unsafe condition may require replacement before LCA replacement criteria is met. Conversely, some vehicles may still be in good condition because of low mileage, or perhaps may have recently been refurbished and so could exceed the criteria and not warrant replacement. Therefore, recommended LCA replacement criteria should be used as a guide, and reviewed carefully by fleet staff who are familiar with the condition of each vehicle, and before committing to replacing specific units.

The LCA process reduces annual capital budget cost spikes and keeps the average age of the fleet at an acceptable level, providing the lowest cost and highest uptime. LCA should be re-run at regular intervals – ideally annually – using updated operating cost metrics, to inform vehicle retention decisions. Optimizing vehicle retention rates is a data intensive practice and a proper vehicle LCA will return significantly higher end-of-life return on investment. This can then be cycled back into fleet purchasing budgets or utilized to offset other costs.

The key to success is knowing the optimal economic lifecycle for each type of vehicle in the fleet, then with that information, balancing go-forward capital spending to align with service level (uptime) targets, operating expense and other important success measures. RSI-FC has prepared a separate report and findings on LCA and Long-Term Capital Planning (LTCP) for Aurora. The report, named *"Life Cycle Analysis and Long-Term Capital Plan"* for the Town should be used for long-term capital budget planning. Our LTCP is based on a five-year horizon but can be configured to longer periods, but we suggest caution when budgeting beyond five years due to uncertainties around inflation and costs.

By following the LCA guidelines, the physical condition of each unit should be assessed case by case by trained and knowledgeable staff who are familiar with each unit's usage and maintenance history before replacement decisions are finalized.

1.0.4 Impacts of New Fleet Vehicles

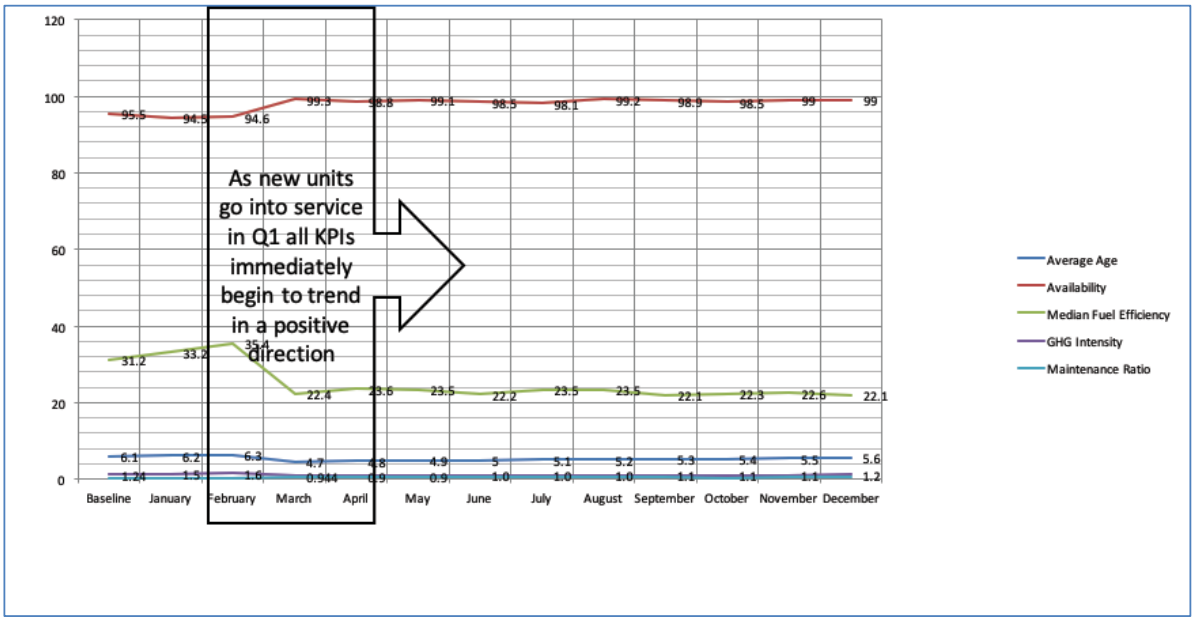
Older fleets will almost always have lower reliability and higher levels of costly downtime, higher repair costs, decreased safety, poorer fuel economy and an increased cost of fuel due to old-technology vehicles. Continuing to invest capital in new vehicles will refresh the fleet and help the organization reap the benefits, while heading off the negative issues associated with fleet aging.

There are additional benefits to a newer, more fuel-efficient fleet and these include increased vehicle uptime, a lower risk level, and quite possibly improved employee morale. Through consistent,

ongoing capital investment in the fleet, fuel usage, operating expenses and emissions will be reduced.

As shown in *Table 1.1: Impacts of New Fleet Vehicles (below)*, several new vehicles went into service in our client's fleet in the first quarter of the fiscal year. As their new units went into service, the average age of the client's fleet went from 6.3 to 4.7 years. Concurrently, median fuel efficiency improved (reduced from 35.4 down to 22.4 liters/100 km), while availability (uptime) increased from 94.5% to 99.3% and greenhouse gas (GHG) emissions intensity decreased from 1.6 MT CO_2e/km. to 0.944. As shown in this example, these are all positive benefits that directly resulted from the fleet being modernized with new vehicles.

Table 0-1 Impacts of New Fleet Vehicles



1.0.5 Data Challenges

The discipline of completing fleet lifecycle analysis is wholly dependent on actual historical cost data. LCA modeling software is designed and intended to be populated with a fleet's actual historical cost data. Without having a fleet's actual cost data and LCA, vehicle replacements decisions are often based on intuition and personal observations - essentially the sentiments of someone who has a high degree of familiarity with the fleet.

Oftentimes, we've observed that "guesstimates" made by seasoned fleet staff can have a high degree of accuracy, but in today's business world, 'gut' feelings do not stand up to scrutiny and must be backed up by analytical data.

The Town of Aurora does not currently make it a practice to record, track or tally its vehicle repair and maintenance costs for each vehicle. This is a gap that presents a formidable challenge to completing lifecycle analysis. As a workaround, RSI-FC employed Canadian municipal peer fleet average cost data from our proprietary database. This data has been accumulated by our team over more than 14 years and represents the results of fleet reviews and analyses we have completed for dozens of Canadian cities, towns and regions. Being the amalgam of data from almost 50,000 municipal vehicles it was determined to be a suitable proxy for the Town's actual information.

Our recommendation to the Town is that staff should, as soon as possible, resume the best management practice of tracking cost data for each unit as soon as possible. Such cost information can then be used for future LCA profiling of the fleet, to assess progress in terms of cost management and for many other reasons *(as described more fully in our separate "Best Management Practices Review" report)*.

1.0.6 Modern Vehicles

Today's vehicles are built better and last longer than ever before. With the right levels of preventive maintenance, operating conditions and driver behaviors, vehicle service lives can often be extended longer than in the past.

The recommended vehicle replacement criteria based on the analysis completed is detailed within this report. Where recommendations are made to consider extending lifecycles we suggest a cautious approach. Vehicles approaching end of life should be assessed case by case – a thorough ground-up and top-down physical assessment of vehicle condition, and this would serve to inform and confirm decisions around their life cycles.

1.0.7 Vehicle Replacement at the Rate of Depreciation

A guideline for fleet replacement is to invest capital at the rate of depreciation. For example, if new vehicles are amortized over five years, then 1/5th (20%) of the fleet's current NPV would be required each year to maintain the average age of the fleet at the desirable level.

Nb: This guideline is only valid if performance indicators such as uptime and fuel-efficiency are satisfactory – if not, then a one-time increased capital expenditure would help to bring the fleet's average age and performance up to an acceptable level.

1.0.8 Lifecycle Recommendations

The life cycle analysis completed in this report optimizes vehicle life cycle costs based on vehicle age. Vehicle age is the best replacement criteria for the Town of Aurora, given its low average utilization rates.

For high mileage vehicles, regardless of their age in model-years, it is recommended that the Town of Aurora should evaluate vehicle condition at thresholds of 20,000 km/yr. for light-duty vehicles and 25,000 km/yr. for medium and heavy-duty vehicles with a view to potential early replacement. This should take place on a case-by-case basis as vehicles approach these thresholds.

1.1 Strategy – Optimal Vehicle Life Cycles

Re-invest in ongoing modernization of the fleet through optimized lifecycle practices. The fleet is a primary resource for the Town of Aurora and a modern, safe and reliable fleet in essential for providing municipal services to the residents of the Town of Aurora.

1.2 Recommendations - Optimal Vehicle Life Cycles

- Resume annual capital investment in the fleet to ensure ongoing modernization and reliability of vehicle fleet assets
- Adopt the recommended lifecycle strategy shown in *Table 1- Recommended Lifecycle Strategy (below)* to extract maximum value from each vehicle.
- Balance go-forward capital budgets in the long-term capital budget plan for the fleet, by deferring replacement of any units evaluated as being in above average, serviceable condition to later fiscal years.
- Revisit Life Cycle Analysis (LCA) models when fleet data becomes available.
- When the fleet's average age and uptime rates are determined to be at acceptable levels consider re-investing in the fleet at the rate of depreciation.

Based on lifecycle analysis completed by RSI-FC and described in greater detail in our separate report "*Life Cycle Analysis and Long-Term Capital Plan*", the recommended lifecycle strategy is summarized in the *Table 1 - Recommended Lifecycle Strategy (below).*

Table 1 - Recommended Lifecycle Strategy

Vehicle Category	Current Life Cycle	Recommended Life Cycle Strategy
Pickup Trucks	8 years	Consider increasing the planned lifecycle by 1 to 3 years
Vans	8 years	Consider extending the planned lifecycles by 2 years
Class 3 Trucks	8 years	Consider extending the planned lifecycles by 2 to 3 years
Class 4 and 5 Trucks	8 years	Consider extending the planned lifecycles by 1 to 3 years
Class 7 and 8 Trucks	8 years	Consider extending the planned lifecycles of by 3 to 4 years

Full details on how the recommended life cycles were determined and charts supporting that analysis are contained in detail in our separate report entitled *"Life Cycle Analysis and Long-Term Capital Plan".*

2.0 Current Vehicle and Equipment Inventory

RSI-FC conducted a review of the Town of Aurora's vehicle and equipment inventory. Town staff provided a listing of all vehicles and equipment units. That information was input into the RSI-FC Fleet Analytics Review (FAR) software tool for analysis.

Within FAR, data was segmented into industry-standard categories for review. Aurora's fleet makeup and unit counts were compared to data for peer Canadian municipal fleets. Essentially, RSI-FC's team observed that the town of Aurora's fleet is comprised of the same types and categories of vehicles that typically make up municipal fleets across Canada and the United States.

2.0.1 Fleet Makeup

The Aurora fleet data for our review included 121 active vehicles and equipment units. In *Table 2 - Aurora Fleet Mix (below)*, the breakdown of those units is shown.

Table 2 - Aurora Fleet Mix

Vehicle Category	Number of Aurora Units	Percentage of Total Aurora Fleet
Cars	1	1%
Pickups	30	25%
Vans	7	6%
SUVs	3	3%
Class 3 and 4 Trucks (medium duty)	5	4%
Class 7 and 8 Trucks (heavy-duty)	10	8%
Work Equipment and Trailers	65	53%

As shown in *Table 2- Aurora Fleet Mix (above),* 65 units – a category which includes more than 50% of the total fleet, is made up of trailers and off-road work equipment. This grouping of fleet units is a typical municipal mix that includes mowers, forklifts, tractors, loaders and ice resurfacers.

The second largest grouping of units, and making up a full 25% of the Town's total fleet is the category of pickup trucks. This statistic is closely aligned with the typical makeup of most municipal fleets. Pickups are the versatile workhorses of every municipal fleet and used for transporting crews, their gear and personal protective equipment, plus materials and they are used for towing utility, cargo and other trailers. On average, almost 40% of all Canadian municipally-owned on-road vehicles are pickups.

Nb: Aurora's fleet of pickups includes Parks Dept. units. Parks units are subject to seasonal usage patterns (lower usage in Winter) and as so, the average usage rates for all units in the category of pickups is reduced.

Making up 12% of the Aurora's vehicles, and the third largest group in the Town's fleet is the category of medium-duty trucks with a gross vehicle weight rating of more than 4,536 kg (10,001

lb.). Trucks of this weight range in the Town's fleet include class 3 up to class 8. They are equipped as dumps, sanders, plows, sewer flusher, sign and arborist trucks; also, a very typical mix for municipal needs. On average, medium-duty trucks of these categories in RSI-FC's Canadian municipal database make up 32% of total on-road vehicles[1].

2.0.2 User Group Feedback

RSI-FC met with Aurora's user group representatives to obtain their feedback about the types of vehicles assigned to their areas of responsibility. Our team met with user groups to hear their opinions around their vehicles and their appropriateness and suitability for the work to be done. Resoundingly, their feedback was positive in that they felt the vehicles their staff were provided by Fleet Services are appropriate for the work at hand and matched to vocational requirements.

From user group representatives, we received positive comments. These comments were about Fleet's current practice of obtaining end-user feedback around new vehicle specifications and design as part of the new vehicle procurement process.

- *"Aurora Fleet Services is now going down the right path regarding vehicle specifications"*
- *"The front line is asked for their input on vehicle specifications"*

We also heard comments regarding the need for new safety equipment enhancements[2]:

- *"More lighting is needed for safety"*
- *"Should have backup cameras on salter/sanders"*

2.0.3 Vehicle Standardization

Leading fleets strive to standardize their specifications wherever possible, thereby minimizing spares inventory, increasing driver and mechanic familiarity (and hence safety), and increasing their buying power with OEM vendors. Standardization may also reduce vehicle acquisition costs through volume buying. However, we acknowledge that standardization may be challenging within municipal procurement guidelines.

2.0.4 Right-Sizing of Vehicles

In the past some fleet managers subscribed to the adage *"identify the size of truck you really need for the job — and then buy one bigger*". This anachronistic thinking resulted in fleets with oversized vehicles, poor fuel economy and high emissions. Today's savvy fleet managers know that old approach is wrong. The correct approach is to right-size the fleet vehicles – that is, correctly specify the right sized vehicles for the job at hand, which will lead to optimal fuel efficiency and lower overall operating costs.

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[1] Note: the database includes refuse/recycling trucks, which are not part of Aurora's fleet.

[2] Commercial vehicle safety lighting has improved greatly in recent years with the advent of new LED (light emitting diode) safety lighting. Backup cameras are another safety enhancement for trucks that has emerged in the past 2-3 years.

Fleet managers should always prepare detailed specifications for new vehicles with consideration for past performance of similar vehicles (i.e., the past predicts the future). For go-forward vehicle procurement of vehicles and vehicle components (such as engines and drivetrains), fleet managers should give preference to units that have demonstrated the lowest historical total cost of ownership and highest reliability and they should avoid the pitfall of buying vehicles that simply cost the least to acquire.

This highlights the need for a robust fleet management software solution (FMS) that will identify the units with lowest operating costs and highest uptime. Historical cost information about each make, model, and component should be known and frequently reviewed thereby enabling fleet management to make informed procurement decisions based on Total Cost of Ownership (TCO) concepts - instead of purchasing vehicles/makes based on lowest initial acquisition cost.

2.0.5 Synopsis – Vehicle Mix

RSI-FC reviewed the current vehicle mix in the Aurora fleet in terms of vehicle gross vehicle weight ratings and sizes and note that vehicles are in our assessment, right-sized and appropriate relative to vocational requirements, and reflective of the typical mix of vehicles in Canadian municipal fleets.

2.0.6 Fleet Size

Utilization, in terms of kilometres-driven annually for Aurora's fleet is lower than peer fleet averages[3]. Aurora's average utilization is 8,421 versus the average for Canadian municipalities in the RSI-FC database which is 14,889 km.

We compared two additional factors:

- Area ratio (the number of square kilometers served by each fleet vehicle)
- Population ratio (the number of residents served by each fleet vehicle)

The average area ratio for municipalities in the RSI-FC database is 5.9 km^2 and for the Town of Aurora it is 0.4 km^2 per vehicle. On average, this data suggests that the peer group of Canadian municipalities is serving larger areas with each vehicle than Aurora.

The average population ratio in the RSI-FC database is 884 residents per vehicle[4] and for the Town of Aurora it is 458. From this data, on average, peer group municipalities are serving more residents with each vehicle than Aurora.

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[3] Important note: In presenting this information, RSI-FC does not purport that utilization by kilometers-driven annually is a relevant measure for a municipal fleet. A more meaningful measure would be one tied to productivity but to our knowledge, no such statistics are available for comparative purposes.

[4] In assessing this statistic, it is important to consider that the RSI-FC municipal database includes densely populated cities such as Toronto, Brampton, Mississauga, and Hamilton.

On reviewing the three statistics (annual average kilometers, area and population ratios) *we are not suggesting that these should not be interpreted as absolute measures*. Rather, they should be considered as *signals* to initiate further review. For example, vehicle count is often directly tied to staff headcount, and the mobility needs of the community's personnel to complete their duties. Many municipal activities and job functions necessitate mobility for staff to get out into the community they serve, and this means that more fleet vehicles are essential.

A review of headcount to vehicle size ratio is beyond the scope of this report but we present our perspectives on fleet size to stimulate and encourage the Town of Aurora's interest in the necessity for a review of this type. After reviewing (1) average annual kilometres-driven, (2) area ratio and (3) population ratio, the data suggests that a departmental review of fleet vehicle assignments should be undertaken by Aurora's user groups to determine if some fleet vehicles can be eliminated.

When historical data as we have presented demonstrates that units have been utilized at a rate less than an acceptable threshold minimum vehicle usage for the organization, unless they have some redeeming value i.e., special-purpose or backup vehicles for emergencies, or units reserved for peak periods, it will cost the organization money without serving a purpose, and hence a liability. For example, we note that the Town of Aurora operates and maintains four large outdoor skating rinks yet owns and maintains six ice-resurfacers. We suspect the extra machines are kept in the fleet to provide backups in the event of breakdowns. Since the ice resurfacing machines are older units and thus have low annual operating costs, retaining them ensures staff that problems caused by ice rink equipment failures can be averted. However, perhaps only one spare unit would suffice, or perhaps a short-term rental unit is available from a local vendor on short notice in the event of a breakdown. We bring this example to management's attention and suggest that this type of re-evaluation of all fleet assets should take place from time to time by *each user department*[5] to ensure appropriate fleet size.

Low utilization units should be reviewed to determine if there are more cost-effective ways of accomplishing the corporate end-goal. If a specific vehicle is used only infrequently, management should consider creative solutions as to whether a less costly mode of travel could be employed, for instance, an inter-departmental vehicle sharing arrangement, a 3rd party service-provider, video conferencing, use of employee's personal vehicles, etc.

NB: Fleet downsizing, by reducing the total number of low-utilization vehicles, is a common first step in cost reduction. While downsizing a fleet by eliminating vehicles can yield tremendous savings it must be approached and undertaken cautiously to minimize the possibility of loss or disruption of service during peak periods.

[5] User departments should be required to assess their assigned vehicle count regularly. Fleet Dept. should not be expected to make fleet vehicle count assessments and determinations on behalf of the user groups as this creates a potentially contentious relationship.

2.1 Strategy – Current Vehicle and Equipment Inventory

The Town of Aurora should conduct, as soon as possible or practical, a departmental right-sizing review of its corporate fleet, with regular reviews thereafter. Fleet Services Dept. should maintain the correct mix and numbers of vehicles and equipment, aligned with its user group's requirements.

2.2 Recommendations – Current Vehicle and Equipment Inventory

- Avoid 'runaway' fleet size by considering a Town policy requiring user-groups to conduct regular departmental reviews of their assigned vehicles.
- User departments should conduct a review of their under-utilized units and surrender any such units to Fleet Services.
- Instead of retaining under-utilized spare units in the fleet, determine if other options are available in reasonable time and cost, such as local rental providers.
- Under-utilized, surplus units returned to Fleet Services Dept. should either be re-deployed to another user group that has determined the (approved) need for additional vehicle(s), used in a Fleet spare pool that is accessible to all user groups, or disposed of entirely.
- Right-size vehicles for the tasks they are intended to perform.
- Continue the practice of vehicle standardization.

3.0 Preventive Maintenance Programs

3.0.1 About Preventive Maintenance Programs

By means of preventive maintenance (PM) procedures, vehicles are inspected, repaired and maintained in such a way that defects are prevented from surfacing in the first place, and before a failure, violation, or accident may occur. If preventive maintenance is not performed regularly, vehicle life span will be greatly reduced. Some vehicles may be prone to excessive breakdowns requiring expensive repairs causing a vehicle to be out of service when least expected and possibly when needed most. Vehicles may become unsafe due to lack of PM.

3.0.2 Reactive Repairs vs. Preventive Maintenance

When a vehicle is brought into a garage needing something unexpected or unplanned, it is a *reactive* repair. Reactive repairs are based on failures, which result in downtime and the costs of idle equipment.

A PM program, on the other hand, brings vehicles in for inspection and maintenance on a schedule, and repairs any items that are at, or approaching, an established cutoff point. This means making repairs on the fleet's own schedule, preventing violations and accidents, and keeping the vehicles rolling.

In leading fleets, management uses its fleet management software (FMS) system to determine which, and when, vehicles are due for preventive maintenance. Frequency is determined through legal requirements, manufacturer's recommendations, observation of past vehicle reliability histories relative to preventive maintenance inspection scheduling (i.e., when inspections are not completed frequently enough, or with insufficient thoroughness) failures/breakdowns will occur. In leading commercial fleets, the highest level of importance is placed on preventive maintenance (PM).

Effective PM programs are designed to avoid reactive repairs and the resultant downtime. Reactive repairs include vehicle breakdowns and other unexpected failures which are costly – not just because they necessitate the need for unplanned repairs but they also incur the cost of spare vehicles and/or rentals, plus the costs associated with the loss of productivity (such as the driver – or an entire crew – who are unable to complete his/her/their work that day).

Aurora fleet maintenance staff now record their fleet maintenance and repair activities on hand written, hard-copy work orders. We support and encourage tracking repair histories, even if they are paper-based, but note the critical shortcoming is that reactive repair and preventive maintenance (PM) costs are not being tracked. We emphasize the importance of Aurora Fleet Services having a user-friendly FMS to track fleet costs.

Tracking PM and reactive costs separately is another easily-adaptable, world-class best management practice that we strongly recommend. By separating reactive repair and PM costs, analysis and decision-making can be enabled around the effectiveness of PM programs:

- Are the frequency and intensity of PM inspections adequate to reduce downtime?

- Are reactive repairs increasing as vehicle(s) age, and causing increased downtime costs?

Other factors determining PM intervals include oil sampling. Oil analysis test labs will advise exactly how far each unit can travel between oil changes based on engine oil samples.

Another PM scheduling consideration is the matter of truck air brake adjustments. Although Aurora's MD and HD trucks are likely equipped with automatic air brake slack adjusters, the air brakes still need to be inspected and manually adjusted from time to time and this is a basic operation in a fleet's "A" and "B" PM routines.

3.0.3 Vehicle Uptime (Availability)

A prime indicator of fleet management success is a high level of vehicle uptime. In fleet management there are just two ways to increase uptime rates: (1) acquire newer vehicles or, (2) implement an effective preventive maintenance (PM) program.

If capital funds are not available for purchasing newer vehicles, fleet management must ramp up PM activities, otherwise availability and reliability will drop while operating costs increase. Safety may also be affected as vehicles age despite having good PM programs in place

3.0.4 Preventive Maintenance and Safety

Proper maintenance will also help prevent litigation from negligence[6]. Preventive maintenance is as important as a driver safety program. If a vehicle becomes unsafe due to lack of maintenance or repair, the fleet manager can be held liable for negligent entrustment. As defined, liability is premised upon providing an employee with a dangerous tool or instrument, such as a vehicle, while knowing or having reason to know, that use of the vehicle creates unreasonable risk or harm to others. Simply stated, the vehicle must be safe to operate. Should, for example, the brakes fail causing a serious crash or fatality, authorities may impound the vehicle for investigation.

Should the investigation determine bad brakes or other vehicle malfunctions contributed to the accident, authorities can seek a court order to obtain vehicle maintenance records. If the fleet manager fails to produce evidence that they practiced preventive maintenance, under these circumstances he/she could be prosecuted for negligence.

For these reasons and without exception, *all* leading fleets employ a system of minor and major PM inspections. PM events are usually designated as A, B, C, D, etc. As one moves down the alphabet from A to B and so on, the PM (and completion time required) increases in complexity. The actual maintenance portion of PM is composed of scheduled, standardized inspections and maintenance.

[6] Source: www.fleetowner.com

3.0.5 National Safety Code

Safety and other violations can result in reduced National Safety Code ratings which may result in sanctions and/or restrictions imposed on a fleet's operations.

3.0.6 Minor and Major Preventive Maintenance Inspections

An "A" level PM ("A" is usually a minor PM) generally consists of a safety check and lubrication as well as checks of key components such as brakes, lights, steering, tire condition and inflation, diesel fuel filter changes and fluid levels. It also includes checking and adjusting high-wear components.

A "B" inspection is more major and includes all aspects of an "A", but is a deeper level of checks that may include a wheels-off brake inspection, battery and alternator testing, transmission and differential servicing, filter changes and/or breather servicing and fuel filter changes among other procedures determined by the vehicle's manufacturer.

A "B" level PM may also include a download of the vehicle's Electronic Control Module (ECM) and action on any trouble codes or problems reported by the ECM (if applicable).

3.0.7 PM Scheduling

Most fleets synchronize their "A" and "B" PMs with routine oil changes to avoid multiple trips to the shop and extra downtime. Typically, a minor "A" inspection is carried out several times per year. For light-duty vehicles the usual interval for "A" level PM is between 2,500 to 5,000 kilometers, coupled to a time interval not to exceed a pre-determined threshold (such as 30-120 days depending on utilization levels), and between 8,000 and 16,000 kilometers for medium and heavy-duty vehicles - also coupled with a time-interval (days/weeks/months) threshold.

In some settings, such as utilities, municipalities and other low mileage applications, km-based PM intervals may take a very long time to accrue. Therefore, if kms-travelled are the primary (or only) maintenance trigger, insufficient PM events may be scheduled and failures (reactive repairs) will result.

Conversely, if time intervals are used as the sole maintenance trigger, some high-usage vehicles may be under-maintained while for low usage units the interval could possibly be extended. A second, or even third, parameter must be used. Most often this is based on the number of days/weeks/months since the last PM. For this reason, some low-mileage fleets will base their PM scheduling on engine hours operated and on a second parameter of time (days/weeks/month) since the last PM, to prevent some units "falling through the cracks".

Maintenance scheduling is an elaborate and exacting science: under-maintaining or over-maintaining vehicles can both be very costly. That is why leading fleets employ fleet management software systems with robust and complex PM scheduling capabilities. For example, if a large fleet of 500 trucks conducts just one premature PM per year per truck at a cost of say, $1,000 including downtime, the cost would be one-half million dollars. Under maintaining brings its own costs which could include failed engines, breakdowns, or worse.

Scheduling PMs based on engine hours can make sense for fleets with widely variable usage patterns, but again should be based on dual parameters (such as a time-interval) to ensure no PM inspections are missed.

3.0.8 Maintenance Ratio

Maintenance ratio is a key performance indicator that describes the ratio between the cost of preventive maintenance (PM) and reactive repairs (i.e., breakdowns). This KPI is used to determine whether sufficient levels of PM are being completed to avoid costly and unplanned reactive repairs and breakdowns.

While there is no perfect ratio, RSI-FC has studied this statistic over the past years and concluded that, from our experience in conducting fleet reviews, a ratio of .5 (50 cents spent on PM work for every $1 spent on reactive repairs) results in the highest levels of vehicle uptime.

If reactive repair costs and vehicle downtime are seen to be increasing, this is an indicator that PM's need to be completed more frequently or more thoroughly (or both) to reduce the reactive repair rate and increase uptime.

3.0.9 Engine Oil Sampling & Lab Analysis

By tracking downtime and maintenance ratio as described in the previous section, fleet managers can assess the frequency with which specific units need PM inspections and oil changes. But there is another consideration that can help reduce waste and cost. We recommend that engine oil sample analysis for vehicles and equipment be completed. Laboratory oil sampling is inexpensive and will pinpoint exactly when oil and filter replacements should be done to reduce engine wear and extend life.

Laboratory oil analysis could mean extending the intervals between oil changes, which would save considerable resources and money. Once sampling has been completed, maintenance personnel can compare the laboratory's oil change frequency recommendation to the fleet's own planned intervals for PM inspections (based on maintenance ratio and downtime assessment as previously described) and make well-informed decisions regarding optimal maintenance intervals.

3.0.9.1 PM Worksheets

Leading fleets employ standardized PM worksheets that have been designed to guide their technicians (whether they are in-house or outsourced) in completing a fleet's "A" and "B" inspections.

A good PM worksheet should be a "living document" which evolves over time and at minimum includes all vehicle manufacturer recommended inspection tasks. In a leading fleet, tasks that are set out on the PM worksheets will include inspection of, and making corrections to, items that have been troublesome in the past. PM worksheets provide a documentation trail for due diligence purposes and give mechanics and technicians cues that guide their inspections to ensure nothing is overlooked.

By carefully reviewing repair histories trends will emerge that may predicate the need to add additional tasks to PM worksheets. This is the essence and science of preventive maintenance – *heading off problems before they happen*.

3.0.9.2 Predictive Maintenance

Once adequate historical data exists in a fleet management system (FMS), fleet managers can perform database searches and run reports to identify repetitive equipment failures and pinpoint when they are likely to occur. In this way, failures can therefore be predicted with some degree of certainty and repairs executed in advance to head off imminent breakdowns (hence the name "predictive" maintenance).

An example of predictive maintenance might be having the ability to forecast an alternator failure prior to a costly and disruptive breakdown. Another is replacing a heavy truck's brake linings before the very costly brake drums become scored and requires replacement. In time, the FMS will contain a wealth of historical data and predictive maintenance will become an option to explore.

3.0.9.3 PM Scheduling Limitations

The current method of planning fleet PM workflow for both routine maintenance and government-mandated safety inspections at Aurora is an archaic (but effective) manual process via a fleet garage whiteboard, and usually based on single-parameter PM scheduling (i.e., the time interval/number of days since the last PM event).

The potential problem of single parameter for PM scheduling is that not all fleet vehicles travel the same number of kilometres each day; some receive heavy utilization (i.e., more kms-driven and/or engine hours) while others will have only minimal usage (few kms-driven/hours). Therefore, the risk in single parameter PM scheduling (such as being based on time intervals alone) is that heavily used vehicles could potentially be *under*-maintained and low usage units can be *over*-maintained. Either of these scenarios is costly – if a vehicle is under-maintained it can lead to costly failures and potential safety issues. If a unit is over-maintained it means that premature, and unnecessary costly inspections may be occurring while wasting resources. Aurora's mechanics now manage this issue manually– if they feel a vehicle has not travelled far since its last PM, the next event will be delayed to an extent based on their intuition and experience. This degree of effort is commendable but not recommended given the information age in which we live. The current practice is uneconomical considering effort-spent versus return on investment (ROI) and the inefficient use of human resources.

The solution is to use two (or more) parameters for PM scheduling. An example is to schedule a vehicle's next PM event when it reaches the first of "x" thousand kilometres or "y" months. In this way, vehicles will not be over-maintained or under-maintained.

In one 'real-world' example, a large utility fleet found it was over-aggressively scheduling PMs on its Medium-Duty (MD) and Heavy-Duty (HD) trucks. By tailoring its PM schedule using multiple parameters (including time, distance-travelled and engine hours operated) the fleet calculated it would save more than $200k per year. As well, by avoiding over-maintaining the fleet, the waste of

natural resources including engine oil and paper/aluminum/steel used in air, oil and fuel filters will be avoided.

A good, well-designed FMS would automate and streamline the process of multi-parameter PM scheduling and consequently save the Town money.

3.0.9.4 Downtime

Leading fleets track downtime and its associated cost impacts on a per vehicle basis, both direct and indirect (e.g., direct costs include towing, service calls, rental/loaner vehicles, etc. and indirect costs include the cost of work disruption and loss of productivity for the user department/division, the wages of the vehicles driver, etc.).

This practice is especially important to measure the effects of PM efforts relative to fleet aging and provides essential information for fleet managers since it directly reflects the effectiveness of fleet management decisions, and vehicle age and preventive maintenance activities.

Once a history of downtime and maintenance ratios is available for all vehicles in the fleet over a period, management can then make well-informed decisions as to the level of downtime that is acceptable to maintain good service for internal vehicle user-departments.

By comparing the downtime and maintenance ratio for each vehicle, trends will emerge and show which units are less reliable and costlier. Fleet management will then be able to complete causal analysis. In some cases, preventive maintenance may need to be ramped up with more intensive PM inspections and/or intervals of a higher frequency.

3.1 Strategy - Preventive Maintenance

The Town of Aurora Fleet Services Department should review and enhance its preventive maintenance (PM) procedures, to ensure that all fleet units are inspected, repaired and maintained in such a way that defects are prevented from surfacing in the first place, and before a failure, violation, or accident may occur.

3.2 Recommendations – Preventive Maintenance

- A ground-up review of Aurora's current PM programs and practices is recommended to ensure effectiveness and legislative compliance under the National Safety Code and standard fleet maintenance management best practices, as described herein, are observed.
- Follow-up reviews should be undertaken periodically to ensure continued compliance.
- We strongly recommend the use of standardized PM worksheets that will aid, assist, instruct and guide personnel (including any outsourced service providers as well) in making their inspections more thorough and complete while providing full documentation of each vehicle's PM history in case of a government compliance safety audit.

- Retain and file all completed hard copy PM worksheets to provide an audit trail. If a computerized fleet maintenance system (FMS) is eventually used, ensure regular backups are made in the event of a safety audit.

- Consider tracking the ratio of PM: reactive repairs as a way of determining the optimum frequency / intensity of PM activities. If reactive repair costs and downtime are trending upwards, review PM procedures and frequencies.

- Consider engine oil analysis with a view to safely and prudently extending oil drain intervals.

4.0 Current Fleet Use and Function

RSI-FC completed a review of the Town of Aurora's fleet to assess the current use and function. Our review processes included:

- Site visits to inspect the fleet garage and vehicles
- Stakeholder meetings with user groups, administrative and management personnel, fleet mechanics and executive
- Analysis and preparation of current-day baseline fleet data
- A best management practices review
- Completion of lifecycle analysis for all vehicle categories
- Data-modeling the impacts of various go-forward capital budgeting strategies
- A fleet mechanics' labour demand-versus-capacity study
- A fleet garage workspace / mechanical repair bay demand-versus-capacity study

4.0.1 Disparities in Municipal Fleet Makeup

RSI-FC's team has completed fleet reviews for over 150 Canadian municipalities and, in doing so acquired a significant degree of competency in understanding the structure, makeup, fleet use and function of municipal fleets. In some municipalities, we have noted that the Fleet department may have a broader mandate than Aurora, being responsible for most everything transportation related including Police, EMS, Fire and Transit fleets. In other municipalities we've observed that Fleet's responsibilities and the types of vehicles it operates are more limited in scope.

In completing our review of the Town of Aurora's fleet, we attained a level of understanding and familiarization with the current use and function of the Aurora fleet. We have learned that the Operational Services department is responsible for[7] the Roads, Fleet, Parks, Solid Waste, Water, and Waste Water divisions. Given that transit, police, EMS, are outside of the Aurora Fleet Services mandate, the current fleet use and function, and thusly the mix of vehicles in the fleet, seem appropriate and in alignment with user group requirements.

4.1 Strategy - Current Fleet Use and Function

Aurora Fleet Services should continue to ensure that fleet vehicle use and function, and the vehicles it provides and maintains are in good alignment with, and supportive of the Town of Aurora Operational Services departments responsibilities and mandate.

[7] https://www.aurora.ca/TownHall/Pages/Departments/operational-services.aspx

4.2 Recommendations - Current Fleet Use and Function

- Conduct regular reviews of current fleet use and function to assess consistency and alignment with the user group requirements and mandate.

5.0 Future Capital Equipment and Vehicle Purchases

5.0.1 LCA and Long-Term Capital Planning

As explained in detail in our separate report entitled *"Life Cycle Analysis and Long-Term Capital Planning"*, optimal fleet economic lifecycles were calculated based on historical operating data by means of Lifecycle Analysis (LCA). RSI-FC then employed its Fleet Analytics Review™ (FAR) software to prepare baseline analysis plus three long-term Capex planning scenarios to demonstrate the impacts of future capital planning.

5.0.2 Baseline Analysis

The FAR software tool was used to plot Aurora's current-day baseline relative to the fleet's age and operating statistics in a one-year review period. This baseline included data on service levels (uptime and utilization), operating costs, fuel consumption and GHG emissions.

5.0.3 Scenario 1 - Business as Usual

FAR modeling was used to forecast go-forward outcomes based on Aurora's present-day (8-year) vehicle replacement practices. These business-as-usual (BAU) outcomes included the impacts of current-day vehicle replacement cycles on operating expenses (increase/decrease), vehicle replacement capital requirements in a five-year horizon, GHG reduction, and service levels.

Based on current-day replacement practices, it was determined that 32 units are currently either due or past-due for replacement. To replace all 32 would require $2,087,563 (net, based on estimated new replacement vehicle cost minus residual market value remaining in existing units). If all 32 units were replaced, an annual operating expense reduction of $46,271 was forecasted (once all new units were in service).

5.0.4 Scenario 2 – LCA Optimized Vehicle Replacements

With LCA-optimized vehicle lifecycles calculated, RSI-FC then completed two new FAR scenarios. These scenarios calculated the operating expenses (increase/decrease), and vehicle replacement capital requirements (in a five-year horizon), GHG reduction, and service levels, for both (1) the minimum optimal economic lifecycles and (2) maximum vehicle ages as determined by LCA.

Based on *optimized* LCA modeling, Capex of $1,519,182 would be required based on *minimum* LCA replacement cycles. Capex of $1,334,534 would be required to extend lifecycles to the *maximum* LCA-optimized economic replacement cycles.

Operating expense reductions were determined to be $47,193 and $47,721 respectively for the two scenarios.

5.0.5 Scenario 3 - Return on Investment

FAR was next used to determine the potential and actual return on investment (ROI) for each fleet vehicle due/overdue for replacement. This determination was made by comparing the cost of similar one-year older vehicles (using model-year and vehicle type data from RSI-FC's peer fleet database) to the operating costs of new, replacement vehicles.

For this scenario, to reduce the overall capital spend in one fiscal year, any units that did not show our analysts that a reasonable amount of positive ROI were deferred to the following budget year.

By selectively and strategically deferring the purchase of nine units to a later year based on low/nil level of ROI, the capital budget requirement was reduced to $667,451 in year one of the five-year capital plan.

With this reduced level of Capex, and by deferring units that showed little or no ROI if replaced, an Opex reduction of $48,436 was determined to be possible.

Important Note Regarding Scenario 3
Scenario 3 *(above)* was prepared *for demonstration purposes only.* RSI-FC analysts prepared this scenario without *any degree of knowledge regarding the mechanical condition of Aurora's vehicles.* In preparing Scenario 3 in FAR, our analysts deferred replacement of all vehicles where a significantly positive business case for replacement did not exist. Therefore, the amount of capital required for vehicle replacement in Scenario 3 is reflective of all vehicles due (or past-due) for replacement for which the investment in replacement vehicles was determined to potentially provide ROI on the capital expenditure.

LCA is not a guarantee of performance. It is only an averaging of operational costs by model year for groups of like vehicles within a fleet, to enable fleet managers to assess average annual economic costs by vehicle age. Within a fleet, some vehicles may have had lighter usage than average; other units may have recently been refurbished – either of these situations may enable extending life cycles beyond the optimal life calculated by LCA.

For this reason, we recommend that long-term vehicle replacement planning should be a two-step process. It should begin with determining an initial list of units due/past-due for replacement via LCA-optimized life cycles. Then, the actual condition of each vehicle due for replacement should be assessed case-by-case by fleet personnel (the fleet mechanics) who are knowledgeable and familiar with the condition of each unit. This process may allow safely extending vehicle lifecycles by deferring replacement of some units to ensuing years, thereby enabling the balancing of long-term capital plans.

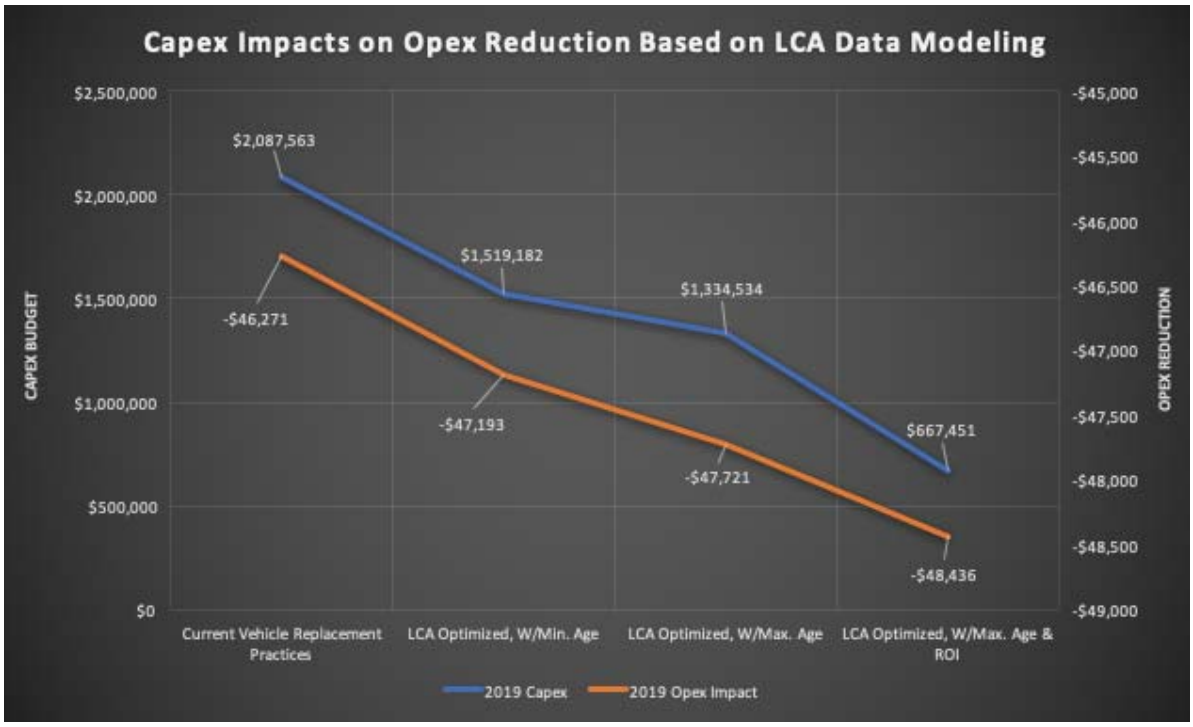
5.0.6 Summary of Scenarios 1-3

As discussed in this section of our report, capital spending and the resultant operating expense impacts vary when the current-day baseline period and the three capital planning approaches are compared. All vehicle replacement scenarios that were studied were determined to deliver significant operating expense reductions, confirming that a newer fleet is less costly to operate.

The high-level impacts of the scenarios are shown in *Table 3: Capex Impacts on Opex Reduction (below).*

As shown, by *selectively* reducing Capex spending through LCA and ROI analysis, a net operating expense reduction of more than $48k or 6% of current annual Opex is also achievable, and this includes the additional cost of capital for new, replacement vehicles.

Table 3: Capex Impacts on Opex Reduction



5.0.7 LCA Data Modelling Overview

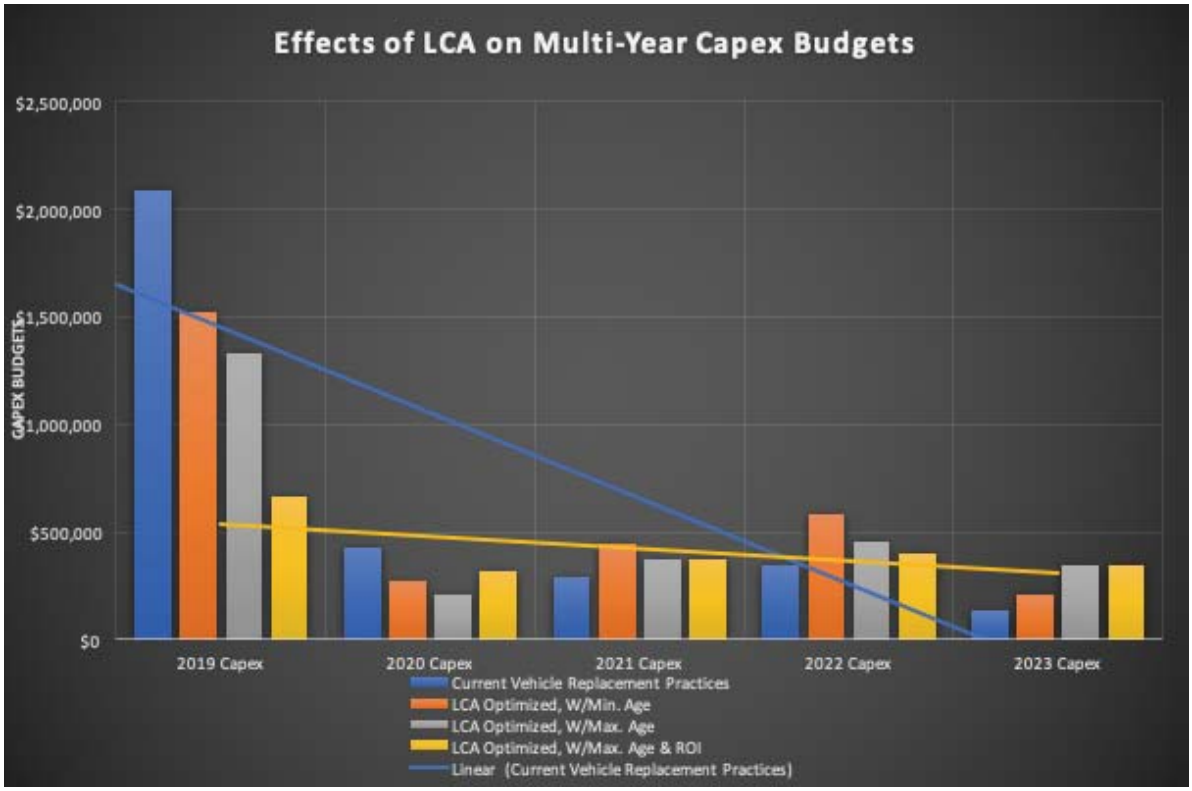
The impacts of the three scenarios over baseline are shown in *Table 4 - Summary of Capex Impacts on Operating Expenses (below).* Capex requirements for 2019 are significantly higher because of the many (32) units that are due or past-due for replacement and the current 8-year replacement cycle practice.

Table 4 - Summary of Capex Impacts on Operating Expenses

Capital Strategy	2019 Capex	2020 Capex	2021 Capex	2022 Capex	2023 Capex
Current Vehicle Replacement Practices (8 yrs.)	$2,087,563	$423,897	$288,625	$344,950	$136,899
LCA Optimized, W/Min. Age	$1,519,182	$273,099	$444,381	$582,946	$207,804
LCA Optimized, W/Max. Age	$1,334,534	$212,594	$378,224	$459,093	$346,110
LCA Optimized, W/Max. Age & ROI	$667,451	$321,308	$378,224	$399,482	$346,110

In *Table 5 - Effects of LCA on Multi Year Capex (below),* the data presented in the preceding table (above) is displayed in graphical format. After an initial "catch-up" period of Capex spending that is recommended, Scenario 3 *(LCA Optimized, W/Max. Age & ROI)* delivers a more balanced approach to long-term capital spending along with a potential for significant operating expense reductions.

Table 5 - Effects of LCA on Multi-Year Capital Budgets



As shown in Table 5 - Effects of LCA on Multi Year Capex (above), Scenario 1 would be an unbalanced approach to long-term capital budget planning and not our recommended vehicle replacement strategy for several reasons including that a massive "spike" would occur in the first capital budget year to replace all 32 due/past due units, followed by a significant drop in Capex, which plateaus in ensuing years (the "saw tooth" effect). It may also mean that value could be lost by replacing some units with remaining service life.

RSI-FC suggests that the appropriate level of capital spending lies between the second and third scenarios. It can be determined through combining LCA analysis recommendations, followed by unit-by-unit vehicle condition assessments for all vehicles due for replacement, to determine if lifecycles can be extended.

The process should begin by determining an initial list of units due/past-due for replacement via LCA-optimized life cycles (as we have done in FAR). The actual condition of each vehicle due for replacement should then be assessed case-by-case, by fleet personnel who are knowledgeable and familiar with the condition of each unit. This process will allow safely extending vehicle lifecycles by deferring replacement of some units to ensuing years, thereby enabling the balancing of capital plans.

While historical data in LTCP will demonstrate whether a business case exists for vehicle replacement, the final step in long term capital planning depends on the expertise of the organization's fleet management personnel. *No software tool can supplant this key role in capital budget planning.*

Typically, when a fleet manager uses LTCP for the first time, year one will show a cost spike caused by previously deferred vehicles. Some of these units can be again deferred because they are still in good serviceable condition, have low mileage, or perhaps have just received a costly refurbishment that will extend the unit's life.

Other vehicles may no longer have a purpose in the organization and can be eliminated altogether. For these reasons, each vehicle that is shown as due for replacement in the LTCP should be reviewed one-by-one and decisions made whether to extend the unit's life by one (or more) years or eliminate it from the fleet altogether – these decisions are aided by the LTCP tool by displaying to the user whether a cost savings is possible by replacing it.

5.0.8 Downtime and Fleet Reliability

Aging fleets almost always have decreased reliability and high levels of costly downtime, higher repair costs, decreased safety, poor fuel economy and the resultant increased costs of fuel because of old technology vehicles. There are additional benefits of a newer, more fuel-efficient fleet and these include increased vehicle uptime; a lower risk level and quite possibly, improved employee morale as well.

Downtime costs increase exponentially when more than one person is dependent on a single vehicle to complete their work routines. Adding to the total cost associated with less reliable, aging vehicles and downtime is the additional expense of owning, maintaining, licensing, insuring and parking spare, back-up vehicles. When a fleet is more modern and reliable, fleet size is generally reduced in numbers since less spares are necessary.

Providing capital to refresh the fleet each year with new vehicles is essential in any business that relies on the fleet to provide its core services to customers. A good guideline for fleet replacement is to invest capital at the rate of depreciation. For example, if vehicles are depreciated over five years, then 20% of NPV would be required each year to maintain the average age of the fleet at the desirable level. However, this guideline is only valid if performance indicators such as uptime and fuel-efficiency are satisfactory – if not, then a one-time increased spend would help to bring the fleet's average age, and performance up to an acceptable level.

5.0.9 Synopsis - Future Capital Equipment and Vehicle Purchases

As demonstrated in this report, capital and operating expense impacts vary using the three long-term capital planning approaches we prepared. However, each of the scenarios reduces forecasted total controllable operating expenses, demonstrating the positive financial benefits of fleet modernization.

5.1 Strategy - Future Capital Purchases

Invest capital to continually refresh and modernize the Town's fleet with new vehicles. In doing so, the Town will reap operating cost reductions while heading off the many negative issues associated with an aging fleet.

5.2 Recommendations - Future Capital Purchases

- Resume and continue capital investment in new vehicles to refresh and modernize the fleet
- Make vehicle replacement decisions based on lifecycle analysis (LCA)
- Using LCA, prepare, long-term capital budget plans (5-yrs.+)
- Balance go-forward long-term capital plans by reviewing, for each unit due for replacement, it's (a) physical condition, and (b) potential for cost savings that would result from its replacement.
- Adhere to, without deviation, the long-term capital plan.
- Revisit LCA models as Aurora fleet historical data becomes available

6.0 Early Decommissioning

6.0.1 Exception Management

Exception management is a valuable tool to achieve peak performance. Every fleet has top performing vehicles and poor performers – these are the exception units (or outliers). Exception vehicles include units with low utilization and those with high repair costs, among other performance indicators.

A robust fleet management system (FMS) is essential to provide reports that identify individual vehicles that exceed the acceptable thresholds of performance, as compared to units in like-categories within the fleet. When vehicles repeatedly perform at unacceptable levels, they may be candidates for early decommissioning.

Once the exception vehicles have been identified, fleet management's next task is to take appropriate action(s). For example, if a certain vehicle is under-utilized it can potentially be re-deployed, or eliminated from the fleet altogether.

6.0.2 Continuous Improvement

The utilization of exception management practices will in time move up and improve the fleet's baseline performance. How far it moves up depends on fleet management's effectiveness and its choices of corrective actions. The reality is that every fleet will always have outliers, regardless of how finely tuned the fleet becomes, and therefore exception management is a valuable tool for continuous improvement of fleet operations. Without an FMS, it is, at best, challenging to determine if progress toward cost-reduction targets is being made via exception management techniques.

6.0.3 Low Utilization Vehicles

When exception data demonstrates that a vehicle's usage has been at a rate less than an organization's acceptable minimum threshold, it means the organization has a cost without serving a purpose, and hence the vehicle is a liability, unless it has some redeeming value i.e., a special-purpose or backup vehicle for emergencies, or a unit reserved for peak periods.

Low usage units should be routinely and regularly reviewed to determine if there are more cost-effective ways of accomplishing the corporate end-goal. If a specific vehicle is used only infrequently, management should consider creative solutions for a less costly mode of travel, i.e., an inter-departmental vehicle sharing arrangement, a 3rd party service-provider, video conferencing, use of employee's personal vehicles, etc.

A fleet's first step in cost reduction is often fleet downsizing the total number of low-utilization vehicles. In section 2.0 of this report, we presented statistics that may point to the need for a fleet size review. If that review is undertaken and determines that some vehicles can be eliminated through early decommissioning, an operating cost reduction would be possible.

6.0.4 Early Decommissioning Process

When a vehicle is earmarked for an early decommission, whether because of poor vehicle performance and/or excessive repair requirements, or any other reason(s), including that the unit is simply no longer required, the assigned user department manager and fleet manager should both 'sign off' on the decision to dispose of it.

In the case of a vehicle that is no longer needed yet in good condition with remaining service life, a review of other departments within the organization should be undertaken to confirm if any additional vehicle requirements could be met by re-deploying the surplus vehicle.

When the decision for an early decommission and disposal is finalized, personal and departmental possessions and equipment should be removed from it, including any additional gear the unit was fitted with (such as communications radio(s), emergency equipment, rotating/flashing lights, directional arrow boards, traffic cones, first-aid equipment, GPS devices, laptop and peripheral equipment etc.).

The vehicle should be de-identified by removing all corporate markings, graphics, logos, unit numbers etc. If the vehicle is in reasonably good condition, it may be a good investment to have it cleaned, re-conditioned, detailed and possibly even having paint touch-ups completed before it is sold, to maximize the sale price.

Once the vehicle has been decommissioned, it can be either traded-in on a future new fleet vehicle purchase or sold through the usual channels, such as public auction, or sealed bids.

6.0.5 Employee Purchases of Surplus Vehicles

To prevent potential conflicts, a corporate policy should clearly define the matter of surplus vehicles. We do not recommend that vehicles be sold to past or present employees or their immediate families.

6.1 Strategy - Early Decommissioning

Under-utilized, redundant vehicles are liabilities and serve no purpose in fulfilling the corporate mission or objectives and therefore should be considered for early decommissioning.

6.2 Recommendations - Early Decommissioning

- Fleet Services and the vehicle's assigned user department should sign off on early decommissioning of surplus vehicles or equipment.
- Fleet Services should attempt to confirm if additional vehicle requirements of other user groups could be met by re-deploying the surplus vehicle.

- The surplus unit(s) should be de-branded and all accessory or ancillary equipment removed (and potentially re-used).
- A policy that prevents Aurora's staff or family from purchasing surplus units should be implemented.
- Surplus units should be traded-in on a future new fleet vehicle purchase or sold through the usual channels, such as public auction, or sealed bids.

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7.0 Optimal Spare Ratio

7.0.1 Availability

Availability (also referred to as uptime) is a prime success indicator of fleet management. Availability is the opposite of downtime. It is a fleet manager's key responsibility to ensure that vehicles have maximum availability during business hours. When availability and the fleet's reliability are low, user groups will tend to retain additional fleet vehicles – spares to allow for breakdowns. Key to successful fleet management is maximizing uptime, which will reduce the need for spares.

There are just two ways to increase fleet availability:

1. Reduce the fleet's age by investing in newer, more reliable vehicles, or
2. Increase the frequency and/or intensity of preventive maintenance

For many fleets, spare vehicle requirements are met by retaining end-of-lifecycle, fully-depreciated older units for use on a standby basis in the eventuality of breakdowns or during peak periods. As so, spares are typically under-utilized assets. An alternate method for backup vehicles is the use of local vehicle rental providers although, unfortunately rentals are not available in all types of vehicles in the Aurora fleet.

Fleet managers should act on reducing the number of low utilization units in their fleets on an ongoing basis - including spares. Reducing fleet size by disposing of under-utilized units, including low utilization spares, will free up capital that could be re-applied to acquire newer and more fuel-efficient vehicles, thereby reducing the fleet's average age, emissions and operating costs. It's essentially a holistic solution: a modern fleet with high levels of uptime reduces the need for spares.

But what about peak times? What if there is an emergency, an inclement weather event, if extra or temporary staff are hired, or if primary vehicles experience breakdowns or accidents? Typically, fleets that have low levels of reliability (uptime) – usually older fleets - ensure they have spare units available.

7.0.2 Spare Vehicle Options

Sometimes referred to by fleet management professionals as the "just in case" fleet, spare vehicles will drive up operating expenses markedly. Even though their usage is minimal, spares must still be maintained and repaired, fueled, washed, licensed, insured and parking must be provided, all of which adds to the fleets operating expenses.

Spare units are in some cases unavoidable, such as may be the case where a fleet cannot depend on a local source for short-term rental vehicles. However, in the case of light-duty vehicles used solely for transportation and without specialized or safety equipment, a local rental vehicle outlet or the use of employee's own vehicles may be viable solutions.

For some types of specialized vehicles such as trucks with aerial devices, cranes, dump bodies etc., in southern Ontario, being a major market area, short-term rental units may be available. There will undoubtedly be a degree of difficulty, inconvenience and work disruption in making such

arrangements on short notice. Vehicle breakdowns are always disruptive whether the backup vehicle comes from within the spare fleet or from an external provider. The cost of an occasional rental will almost always be less than retaining an under-utilized spare truck in the fleet. The optimal solution is having a modern, reliable and well-maintained fleet thereby reducing the need for dependency on spares or rentals.

In the case of specially-equipped essential service vehicles such as police, EMS, paratransit, transit buses, and other emergency service vehicles (such as snow plows), having spare(s) available may be unavoidable since rentals are simply unavailable.

7.0.3 Decision Matrix Approach

In making difficult decisions, such as whether to retain costly spare vehicles or not, one approach is the use of a decision matrix. We have prepared an example *Illustration 1 – Example of a Decision Matrix for Spare Fleet (below)* to help assess the viability and necessity of retaining spares in the fleet.

The values we have input into the decision matrix are based on our knowledge and assessment of the available options for spare vehicles from the local rental vehicle market. The assessment by Aurora's fleet management team may, and likely will, vary from ours. However, from our assessment, the greatest need in the Aurora fleet is for a spare salter/sander/plow truck.

As stated earlier, it is far better, more convenient and less costly to have a modern and reliable fleet that would reduce the need and dependency on retaining spare units.

Illustration 1- Example of a Decision Matrix for Spare Fleet

Spare Fleet Vehicle - Decision Matrix Vehicle Types	Short-term Rental Availability (1 = good & 5 = poor	Cost (1 = low & 5 = high	Inconvenience & Disruption (1 = good & 5 = poor)	Total (higher = greater need for spares)
Light-duty (no specialized equipment, transportation only)	1	1	1	3
Dump	1	3	3	7
Hydra Vac Truck	2	3	2	7
Aerial	2	3	3	8
Light-duty, with specialized equipment	3	3	3	9
Salt/sander/plow	5	3	5	13

As described in this section, while local service providers may reduce the need for owning spares, there are applications where it is still prudent to retain spare units, such as the types of vehicles we have described where suitable rental units are not available.

Unfortunately, there are no known probability models or analytical methods of determining the correct number of spare units, particularly when the fleet's current levels of uptime are unknown or nebulous as is the current situation for Aurora.

In the future, and by analyzing trends pertaining to downtime using historical data from a fleet management system (FMS) should Aurora decide to implement an FMS, a correlation could eventually be made. It would provide answers as to the optimal number of spares in the categories we have defined via the decision-matrix. In the meantime, this is a risk-management decision that must be managed; there are no simple "black/white" answers. What is known is that a less reliable fleet dictates a higher need for spares while the opposite applies to a modern, optimally maintained and more reliable fleet. We therefore suggest that the highest priority should be to increase uptime as we've described, to diminish the need and dependency on spare vehicles.

7.1 Strategy – Optimal Spare Ratio

Aurora Fleet Services should strive to minimize the number of spare vehicles in the fleet, but also ensure that all eventualities are considered, and that options for replacement vehicles are available to ensure loss of critical service is avoided.

7.2 Recommendations – Optimal Spare Ratio

- Modernize the fleet to increase availability and uptime, thereby reducing dependency on retaining spare units.
- Assess the need for spare units using a decision matrix as described (or another structured approach).
- Seek alternate methods of providing back up vehicles (such as local rentals etc.)
- Regularly identify all under-utilized units and encourage user departments to voluntarily take actions around reducing spares.
- User group managers wish to ensure their vehicle needs are met and may resist surrendering spares. To encourage user group managers to free up surplus, low utilization units, employ a "top-down" policy approach to minimizing spare units with a corporative directive or policy from the senior-most level of authority in the municipality.

8.0 Greening the Fleet

As stated on the Aurora website[8], the Town has a Corporate Environmental Action Plan (CEAP), and a five-year plan that will allow the Town meet its environmental goals. The plan serves to protect and enhance the natural environment, promote environmental sustainability, integrity and conservation of resources and create a practice of environmental stewardship within the community.
This section is based on our observations of current environmental practices and contains many recommendations for the fleet vehicles, their operation and the Aurora fleet maintenance garage.

8.0.1 About Green Fleet Plans

In Canada and around the world, many public and private organizations have developed Green Fleet Plans to set out their short and long term carbon reduction and some may also include strategies for air/land/water pollution reduction.

A Green Fleet Plan may also include the fleets' green initiatives for its maintenance and/or parking garages. Some plans, for fleets that outsource maintenance, may also define eco-standards for contractors, such as third-party fleet suppliers. In this section we describe some options for fleet operations.

8.0.2 Eco-Friendly Fleet Maintenance Operations

Whether maintaining vehicles in-house or outsourcing this activity, the following are some eco-friendly procedures to consider:

Aqueous Parts Cleaners
Aqueous parts washers are a new generation of water-based small parts cleaning equipment that are safe and biodegradable yet have the cleaning power of traditional cleaning solvents.

Filter Recycling
Used oil, fuel, coolant and air filters should be recycled. Local service providers may be available for this task.

Waste Oil Recycling
Waste oils are used in the creation of new products from the recycled oils, including the recycling of motor oil and hydraulic oil. Oil recycling benefits the environment and lessens the likelihood of used oil being dumped on lands and in waterways. Service providers will pick up and recycle waste oils.

Vehicle Washing
Vehicle washing processes can contain contaminants that may be released into the groundwater, rivers, lakes and streams. Preferences should be for washing vehicles only in designated vehicle wash areas equipped with an interceptor, re-using wash water and utilizing eco-friendly products.
Tire Recapping

[8] https://www.aurora.ca/Live/Pages/Environment-and-Sustainabilty.aspx

Quality tire casings can be re-capped, extending their life cycle and saving money. Ensure that all end-of-cycle scrap tires are disposed of in an environmentally friendly way.

Synthetic Oils
Most engines today are compatible with synthetic oils. Synthetic oil is used as a substitute for lubricants refined from petroleum when operating in extremes of temperatures because, in general, it provides superior mechanical and chemical properties versus traditional mineral oils. Synthetics typically cost more but may extend oil drain intervals, thereby potentially reducing expense and wasting fewer natural resources.

Green Technologies
Green vehicle technologies such as idle shutdown devices, battery backup systems for DC loads, auxiliary heaters and others, will deliver fuel-efficiency increases.

Driver Behaviors – Excess Idling
Fleet managers should be vigilant about reducing engine idling.

8.0.3 GHG Emissions Reduction – Low-Carbon Fuels

As described in this section of our report, GHG emissions can be reduced by using low-carbon fuels, such as alternate and renewable fuels. Low-carbon fuels should be used when/where available and wherever operationally practical. Low-carbon fuel switching away from fossil fuels will have the greatest impact on vehicle greenhouse gas emissions.

Compressed Natural Gas
Compressed natural gas (CNG) can be used in place of gasoline or diesel fuel. CNG combustion produces fewer undesirable gases than fossil fuels. It is thought to be safer than traditional fuels since, in the event of a spill, natural gas is lighter than air and disperses quickly when released.

CNG is found above oil deposits, or may be collected from landfills or wastewater treatment plants where it is known as biogas. CNG is used in traditional gasoline internal combustion engine vehicles that have been modified, or in vehicles which were manufactured for CNG use, either alone ('dedicated'), with a segregated gasoline system to extend range (dual fuel) or in conjunction with another fuel such as diesel ('bi-fuel').

The cost and placement of fuel storage tanks is the major barrier to wider and quicker adoption of CNG as a fuel. CNG offers many advantages for fleets and although there are major upfront capital costs, savings may ensue.

Construction of fast-fill CNG fueling stations can be a very expensive consideration, should Aurora choose this option. Slow-fill refuelers may be an option but caution must be exercised to ensure protracted filling time does not create operational challenges.

Renewable Natural Gas/Biogas

Renewable natural gas (RNG) consists of biogas (methane) from landfill recovery, wastewater treatment plants, anaerobic digesters at dairies, food processing plants, or waste processing facilities that are cleaned to meet natural gas pipeline standards.

Biodiesel
Biodiesel refers to a vegetable oil - or animal fat-based diesel fuel consisting of long-chain alkyl (methyl, ethyl, or propyl) esters. Biodiesel is typically made by chemically reacting lipids (e.g., vegetable oil, soybean oil, animal fat) with alcohol producing fatty acid esters.

Blends of biodiesel and conventional hydrocarbon-based diesel fuel are products most commonly distributed for use in the retail diesel fuel marketplace. Much of the world uses a system known as the "B" factor to state the amount of biodiesel in any fuel mix:

- 100% biodiesel is referred to as B100
- 20% biodiesel, 80% petro diesel is labeled B20
- 5% biodiesel, 95% petro diesel is labeled B5

Blends of 20% biodiesel and lower can be used in diesel equipment with no, or only minor modifications, although certain manufacturers do not extend warranty coverage if equipment is damaged by these blends.

Biodiesel can also be used in its pure form (B100) but may require certain engine modifications to avoid maintenance and performance problems.

Biodiesel is produced from a diverse mix of feedstocks including recycled cooking oil, agricultural oils, and animal fats.

Renewable Diesel
Hydrogenation-derived renewable diesel is made from fats or vegetable oils – alone or blended with petroleum – refined by a process called hydro treating. This fuel is cleaner and has a lower carbon footprint than petroleum-based diesel, and it can also operate at colder temperatures than standard diesel or biodiesel.

Ethanol
Ethanol is a renewable fuel made from various plant materials, primarily corn. In most North American jurisdictions, renewable fuel standards require all gasoline sold to be a 10 percent ethanol blend (E10).

A higher blend of ethanol, known as E85 (85% ethanol, 15% gas), is also available in some areas. This fuel must be used in dedicated “flex-fuel” vehicles, which can run on any combination of gasoline and ethanol blends (up to 85%). The Town of Aurora owns flex-fuel vehicles that are designed, built and ready for ethanol blends up to E85.

Several steps are involved in making ethanol available as a vehicle fuel: Feedstocks are grown, collected, and transported to an ethanol production facility. Ethanol is made from these feedstocks at a production facility along with byproducts such as animal feed and corn oil. The fuel is then transported to a blender/fuel supplier.

Ethanol is mixed with gasoline by the blender/fuel supplier and distributed to fueling stations.

We expect non-edible plant material, rather than corn, will become the dominant source of ethanol in the future. This “cellulosic” material cannot be used as food, so it wouldn’t reduce edible resources.

Propane
Otherwise known as Liquefied Petroleum Gas (LPG) is produced as part of natural gas processing and crude oil refining. In natural gas processing, the heavier hydrocarbons that naturally accompany natural gas, such as LPG, butane, ethane, and pentane, are removed prior to the natural gas entering the pipeline distribution system. In crude oil refining, LPG is the first product that results at the start of the refining process and is therefore always produced when crude oil is refined.

Propane is a gas that can be turned into a liquid at a moderate pressure (160 pounds per square inch (psi)). It is stored in pressure tanks at about 200 psi at 100 degrees Fahrenheit. When propane is drawn from a tank, it changes to a gas before it is burned in an engine.

Propane has been used as a transportation fuel since 1912 and is the third most commonly used fuel in the United States, behind gasoline and diesel. More than four million vehicles fueled by propane are in use around the world in light, medium and heavy-duty applications. Propane holds approximately 86 percent of the energy of gasoline and so requires more storage volume to drive a range equivalent to gasoline, but it is usually price-competitive on a cents-per-mile-driven basis.

Battery-Electric, Hybrids and Plug-in Hybrids
Over the past decade, battery-electric (BEVs), hybrid (HEV) and plug-in hybrid electric (PHEV) vehicles have gained in popularity. While their upfront costs may be higher, they have increasingly proven a viable solution to rising fuel costs and emissions.

Plug-in hybrids and range-extended electric vehicles are an excellent solution for Aurora as a “return to base” fleet. PHEVs have a much larger all-electric range as compared to conventional gasoline-electric hybrids, and eliminate the "range anxiety" associated with all-electric vehicles, because the combustion engine works as a backup when the batteries are have become depleted.

For fleet managers looking to reduce their annual fuel budget and corporate emissions, battery-electric, hybrids and plug-in hybrids are a good option. However, they are not necessarily a “silver-bullet” solution, as their additional capital cost must be offset by fuel cost savings to be cost-effective. Savvy fleet managers seek applications where the level and type of vehicle usage will deliver sufficient fuel cost savings to offset their additional cost of capital and after the vehicles are fully depreciated (usually ~5 years), deliver net cost savings until the end of their economic life-cycle (often ~10 years).

While commercial hybrid (HEV and PEHV) and full battery-electric (BEV) pickups, trucks and vans are still extremely limited, options are becoming available, many options are coming soon and have the potential to significantly reduce fuel consumption and emissions. Hybrid medium-duty trucks have evolved greatly over the past decade and may be feasible for fleet use and a limited number of fully battery-electric trucks are now available.

Green vehicle technologies such as idle shutdown devices, battery backup systems for DC loads, auxiliary heaters, auxiliary power units (APU) and others, will deliver fuel-efficiency increases. Their extra cost is most often offset through fuel cost savings.

Having such technologies installed by the vehicle's selling dealers is suggested as it would mean that the cost would become a capital budget expense amortized over the entire lifecycle of the vehicle(s) instead of becoming an operating expense in a single budget year.

Diesel-Powered Vehicles
If a fleet manager's primary end-goal is fuel cost savings (as opposed to GHG emissions reduction), fleet management may opt to select the diesel option – not just for medium and heavy trucks but also for light-duty vehicles (cars and pickups). Although the upfront cost is considerably more for diesels, they are inherently more fuel-efficient than gasoline-powered equivalents.

Diesels are up to 20% or more fuel-efficient than gasoline and today's diesels produce radically reduced smog-causing emissions over earlier models. On the flipside, diesels produce more (23% more) carbon emissions (gasoline produces 2.2 kg/l and diesel 2.7 kg/l CO_2).

Unfortunately, in a GHG reduction scenario, the additional fuel economy for diesels does not (in most cases) offset the additional CO_2 emissions. That said, for those diesel vehicles now in the fleet, the use of renewable clean biodiesel is an excellent solution for carbon reduction (see Section 12 – Emissions). Otherwise, gasoline engines may be the better option today for pickups and class 3,4 and 5 trucks with lower fuel and acquisition costs and potentially less GHG emissions.

Waste Stream
Another consideration when creating specifications for acquiring new fleet vehicles includes a review of the manufacturer's handling of the waste stream (i.e., the percentage of materials used in manufacture of the vehicle that can be recycled). Most manufacturers today place a degree of emphasis on this issue and may be able to provide this information for the asking.

Paints
When creating specifications for new vehicles investigate whether environmentally friendly and compliant waterborne paint will be used for the vehicles. The government has stringent regulations regarding Volatile Organic Compounds (VOC) and it's important to know about the OEM's handling of this matter. The same applies for the repainting of in-service vehicles.

8.0.4. Green Fleet Success Measures

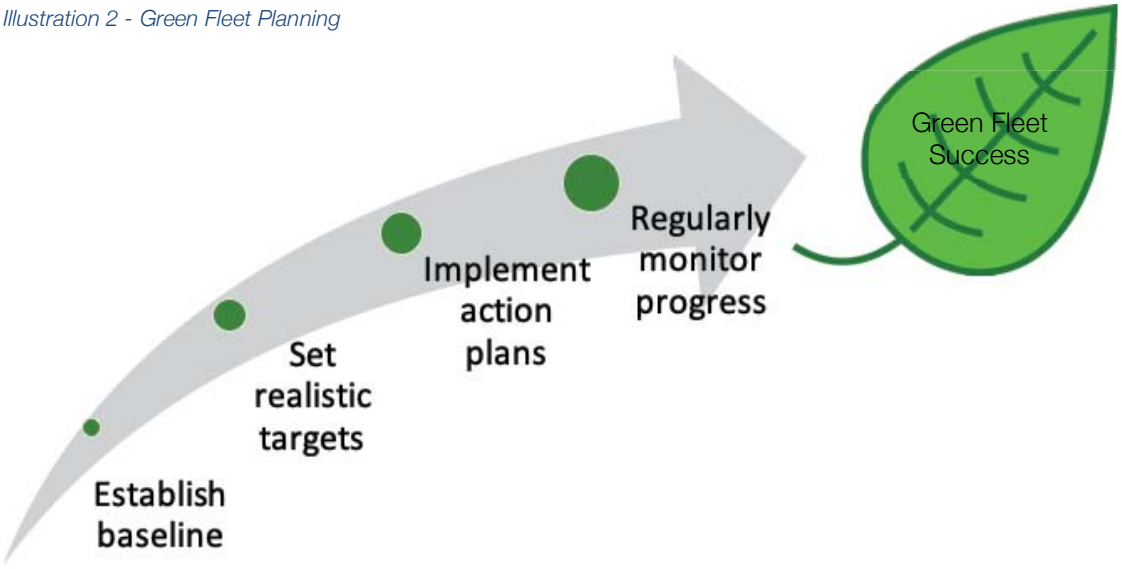
There are many green fleet success stories, but plans are not always successful. When green fleet plans have unrealistic or unachievable targets, insufficient planning or lack of support from one or more levels of the organization they may not be sustainable.

Common systemic attributes have led to their success include the following ten critical success factors:

1. A corporate culture that encourages environmental leadership
2. An internal champion
3. Commitment to greening the fleet - from the ground floor operational level up to the most senior level of the organization
4. Carefully managed risk - and a willingness to experiment
5. A strong communications team to share successes
6. Commitment, policy, clearly defined timelines, responsibilities
7. Procurement policies that take into consideration life cycle costs
8. Carefully prepared green fleet plans based in reality and practicality
9. Reliable and consistent fleet operating data
10. Measurable, measured and achievable goals (with a degree of stretch)

As shown in *Illustration 2 - Green Fleet Planning* (below), key steps to successful green fleet planning and adaptation are identified.

Illustration 2 - Green Fleet Planning



8.1 Strategy – Greening the Fleet

Develop a long-term green fleet plan with clearly defined sponsors and supporters, targets, timelines, responsibilities, costs and tracking measures.

8.2 Recommendations – Greening the Fleet

- Consider implementation of the green fleet measures and recommendations in this report.
- Consider a long-term carbon reduction target in alignment with Canada's commitment to the Paris Climate Accord.
- Make greening the fleet a standard operating procedure.
- If a vehicle parking area roof is planned for construction in the future, build on the facility's LEED gold standard by installing a solar array (see section 10- Fleet Storage and Protection) that would offset the amount and cost of electricity now used from the grid, and/or also provide electric vehicle charging.
- Review the fleet bulk fuel storage tanks and related practices and procedures around vehicle fueling, with a focus on safety and environmental compliance.
- Review vehicles washing practices. (please see our separate report *"Best Management Practices Review")*
- Prioritize the use of low carbon options for fleet replacement vehicles such as battery-electric, plug-in hybrids.
- Consider the use of renewable fuels including higher blends of biodiesel (B5>B100) and ethanol (E10>E85) than already in all fuel sold in Ontario.
- Continue the use of eco-friendly shop practices as described and explore new ways of being green in the fleet workplace.
- Prioritize the switch to aqueous based parts cleaners in the fleet garage.
- Review all products and cleaners etc. used in the fleet garage with a view to elimination of potentially toxic products and safe disposal of any such items now in use.
- Manage driver behaviors around eco-driving habits by enforcing awareness of the idling policy.
- Consider professional 3rd party idle reduction and/or eco-driver training.
- Consider installation of anti-idling devices, or activation of existing ECM functionalities to reduce idling.

9.0 Mechanic Bays and Available Equipment

In this section of our report and Fleet Management Strategy, our approach included:

- Site visits to inspect the fleet garage and vehicles
- Meetings with fleet administrative, management personnel and fleet mechanics
- A fleet mechanic's labour demand-versus-capacity study
- A fleet garage workspace/ mechanical repair bay demand-versus-capacity study

9.0.1 Site Visits and Fleet Mechanic Discussions

From our site visits and staff discussions with the fleet mechanics we heard their ideas for improvements in the Fleet Services section - including their interest in new and additional pieces of shop equipment; we also heard their concerns.

- Fleet mechanics felt their highest priority would be the addition of another four-post lift, preferably in the 18,500-lb per column size. Currently they have one four-post, plus two smaller two-post lifts. Since the Aurora fleet garage is not equipped with an in-ground pit, all vehicles must be elevated to execute repairs requiring access to vehicle undercarriages. Since such lifts are designed to be moved around the garage, therefore all open floor space can become a work area (as opposed to a pit which is in a permanently fixed location). As so, lifts of this type are an asset in any modern garage. A budget for this equipment should be around $25,000.

- The mechanics have determined that a three-ton overhead crane would be a better solution when moving plow blades and wings. Currently they use a front-end loader, which potentially presents operational challenges and quite possibly, a safety risk.

- The floor needs to be re-sloped for better drainage. Currently, water flows into the garage from outside and forms large puddles, which the mechanics feel may be a slip and fall hazard.

- A ride-on floor sweeper would improve housekeeping for the entire facility, not just the mechanical area. Karcher and Tennant sell these for about $22,000.

- The Fleet Services tire changer is only suitable for LD vehicles. The mechanics feel a larger machine would enable them to change truck tires while reducing back stress and strain.

- A ventilation hood is needed over the hydraulic bench where the mechanics operate a crimper and cutter.

- In our discussions with the mechanics, they expressed interest in an alignment machine - but agreed it is not a high priority.

9.0.2 Needs-Assessment

Following our site visit and discussions with the mechanics, our team carefully considered their observations and opinions. We are largely in concurrence with their feedback, however we also have some counter-opinions.

Mechanic's Comments

- An additional four-post lift would prevent work slowdowns and/or stoppages when the current lifts are tied up, such is the case when a vehicle has been disabled while technicians are waiting for replacement parts.

- An overhead crane would be an asset, in terms of safety, convenience and efficiency, likely with a high acquisition cost. We suggest there may be alternatives at a lower cost and the matter should be thoroughly reviewed, and discussions should take place with a materials-handling specialist before any investment is made. In the meantime, the present practice of using a front-end loader should be reviewed from a health and safety perspective.

- In terms of safety, floor re-sloping to prevent puddling, and a ventilation hood over the hydraulic bench should be prioritized as well as the acquisition of a dedicated sweeping machine to ensure cleanliness which may prevent slips and falls.

Our Assessment

The following items are, in our assessment, of questionable value and/or necessity to Fleet Services:

- Changing large truck tires brings with it an increased level of risk. Despite truck tire changers becoming far safer than years past, accidents still happen. Large truck tires are heavy and unwieldy to work with and that introduces the possibility of back strain and/or injury. Our team believes, while it is commendable that Aurora's mechanics are willing to take on changing large truck tires, this is something that is better outsourced for reasons of cost and safety. For these reasons, we do not feel acquiring a large truck tire changer would be a good decision.

- The mechanics felt a wheel alignment machine would be of value, although they felt it was a lower priority. Front-end alignment work is a specialized skillset. Medium and heavy trucks in the Aurora fleet are equipped with I-beam axles and seldom, if ever, require full caster/camber alignment. Such trucks may occasionally require just toe-in adjustments (one part of a full

alignment) and doing this does not require an alignment machine; an inexpensive toe-bar is the only tool required for making toe-in measurements.

For the fleet's light-duty vehicles, an alignment machine would be a costly addition, and it would permanently tie up one of the work bays, making the bay unsuitable for general repairs. Technicians would require upfront training on the alignment equipment and ongoing refresher training. Given the low annual kilometres-travelled by the fleet vehicles, the type of usage the vehicles receive and the types and numbers of vehicles in the fleet, the volume of alignments that would be completed each year would be low and this would translate to a high unit cost, especially when compared to the cost of external, retail alignment services. Therefore, in our assessment, aligning vehicles is something that is best outsourced.

9.0.3 Mechanic Bays - Demand and Capacity Study

To assess the capacity of the Aurora fleet garage and determine if it is appropriately sized to maintain the fleet to optimal levels of vehicle uptime, we conducted a study of the mechanic bays demand vs. garage bay capacity.

We based the mechanic bay demand vs. capacity study on:

- The number of mechanic bays in the fleet garage
- Current fleet size (numbers of each category of vehicle)
- Types of vehicles in the fleet

Business assumptions used in the study included:

- A target PM (preventive maintenance) ratio of .50 which will maximize fleet uptime and minimize downtime costs

- As explained in our best management practices review (a separate report provided to Aurora), each vehicle would receive either 2 or 3 "A" level (minor) PM inspections (we analyzed both scenarios) each year (based on kilometers-driven and time elapsed since the last A PM) and one "B" (major) inspection[9]

- Pickups, medium and heavy trucks and trailers would receive a requisite Periodic Mandatory Commercial Vehicle Inspection (PMCVI) annually

From the analysis, and based on vehicles receiving two "A' level (minor) PMs and one "B" level (major) PM, and on one-shift-per-day of a five-working day week, we calculated that three mechanic bays are the *minimum* requirement to maintain the fleet to acceptable standards of uptime. However, this assumes there are no delays and does not include a margin of time for bays tied up

[9] This PM frequency is based on industry standard best practices, and not the number of PMs now being completed by the Town of Aurora. The number now being completed by Aurora is unknown as records of this type are not available.

for any reason (such as delays waiting for parts and materials etc.) Since parts tie-ups and other delays are the reality in fleet maintenance and an unavoidable part of typical workflow, we added a 20% margin, which resulted in *four* garage mechanic bays being required (at the rate of two "A" PMs per unit/year).

If Aurora wished to increase fleet uptime to compensate for aging vehicles, we then ramped up the number of "A" level PMs to three per unit/year, and this told us that four bays would be required at minimum. Again, we added a 20% margin for parts tie-ups and other delays, which forecasted that five bays (4.5 rounded to 5) would be required for workflow and sufficient bay space.

Given that the Aurora fleet garage has four bays, with two being drive-through and two one-way bays, the capacity of the garage is therefore currently *matched to maintenance demand* but inadequately sized if PM or reactive repair demand increased.

Of further note is that only two of the four-post hoists/lifts used in the garage can lift heavy trucks and equipment, but if the garage was equipped with additional four-post hoists/lifts, the fleet mechanics felt the additional capacity could enable them to increase work to five vehicles at a time.

In the future, if the Town finds it necessary to increase fleet uptime by increasing the frequency of vehicle PM inspections, or if the fleet size increased, three options are:

1. Adding a second (afternoon) shift in addition to the current day shift
2. Extending the work week to include weekends
3. Outsourcing some fleet repairs and maintenance

9.0.4 Labour Demand and Capacity Study

We next conducted a study and analysis of the mechanic's labour demand versus their capacity, for assessing elements necessary to ensure the highest level of vehicle uptime, in terms of person-hours as needed to meet Aurora's needs.

Again, and as in the garage mechanic bay study, we based the mechanics' labour study on:

- The current number of mechanics
- Current fleet size (numbers of each category of vehicle)
- Types of vehicles in the fleet

Business assumptions used in the study included:

- Target PM (preventive maintenance) ratio of .50 to deliver maximum fleet "uptime" and minimize downtime costs

- Each vehicle receiving several "A" level (minor) PM inspections each year and one "B" (major) inspection

- Pickups, medium and heavy trucks requiring a Periodic Mandatory Commercial Vehicle Inspection (PMCVI) annually

- All vehicles receiving rustproofing inspections annually (as is the present practice)

- Each mechanic having 1,406 hours of productive, direct "wrench" time available annually that can be applied to vehicle maintenance (assumes 260 working days, 7.5 hours per day minus indirect time spent delivering vehicles, meeting with drivers to review vehicle issues, road tests, completing work orders, safety and other meetings etc.)

The mechanics labour study determined that *five* full-time mechanics would be required to increase the number of "A" (minor) PMs to three/yr. to maintain the on-road fleet in a manner that would deliver maximum fleet uptime. Since the Town of Aurora employs 4 full-time mechanics now, we feel that to increase the current level of fleet availability (uptime), more resources – whether in-house or outsourced would be required.

We then re-calculated labour demand to study the impacts if vehicles received just *two* "A" PMs per year. In this scenario, again we calculated that more than four (4.34) mechanics would be required for the level of demand.

It is unknown how many PM events are taking place currently, and it is also unknown how much reactive work is now being completed since records are not available. From our calculations, if uptime is to be optimized, we believe the mechanics' capabilities are at their maximum, within the current headcount and work schedule (four mechanics, one shift per day, five-day work week).

9.1 Strategy - Mechanic Bays & Available Equipment

Maximize the capacity of the fleet garage mechanic bays through optimized workflow planning and management techniques, the addition of a vehicle lift and if necessary, selective outsourcing during peak periods.

9.2 Recommendations - Mechanic Bays & Available Equipment

- Complete the safety improvements described in this section of the report (floor re-sloping, crane, exhaust hood, etc.)

- Review the current number of PMs being completed (ideally using a fleet management system). If the number of PMs being completed are insufficient to maintain uptime to a satisfactory level, they would need to be increased, or if legislative requirements (mandatory annual PMCVIs) are not being met 100% of the time, either (a) an additional mechanic may be required or (b) selective outsourcing may be necessary as a workaround.

- If additional mechanic(s) are engaged in the future, a second shift may be required to maximize the use of available floor space and mechanic bays.

- Prioritize the investment in an additional four-post heavy-duty vehicle lift.

- Review the current practice of rustproofing vehicles, requiring annual "inspections" by the rustproofing vendor. Today, vehicle rusting is largely a problem of the past since auto/truck manufacturers began using plastics, composites and sophisticated, advanced metal surface coatings to prevent corrosion more than two decades ago. Only severe-duty vehicles (such as salters), or vehicles that have had improperly repaired body damages are susceptible to rust. We calculate that the Town is spending more than $10k per year in labour costs to have vehicles delivered to and from the rustproofing vendor for inspections. We suggest this money could instead be applied to the occasional rust repair while freeing up mechanic's time which could be better applied to completing fleet PM inspections.

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10.0 Fleet Storage and Protection

From our discussions with Aurora staff, we learned that approximately 90% of the fleet is parked outdoors. The yard was being paved at the time of our stakeholder discussions and staff felt it would be timely to develop a parking plan.

It is known that global warming has increased temperatures and the number of severe weather events. Canadian summers are short and hot; winters long, cold and severe.

- Ultraviolet (UV) rays from the sun are damaging to vehicles and not just from an appearance standpoint – UV causes degradation of hydraulic hoses such as those used on snow plows, cranes and other truck-mounted equipment as well as rubber vehicle components (i.e., weather cracking of vehicle tires).

- When cold, vehicle engine-starting batteries lose significant power. Engine, transmission and hydraulic oils thicken, making starting and vehicle operation more difficult.

- In sub-zero temperatures, any moisture present in truck air brake systems will freeze and lock up the brakes.

- By law, commercial vehicles require daily pre-trip inspections by their drivers. For light-duty vehicles, a daily check is a recommended best-practice. Cold, severe weather, and the buildup of snow and ice that accumulates on vehicles in winter means that these vehicle checks take longer for drivers to get underway, which results in less productive to complete their daily duties.

- It is essential that municipal vehicles can be efficiently and quickly deployed each day. In the event of severe weather event, it becomes even more critical that fleet vehicles are ready to serve the needs of the community. If covered in snow and ice, deployment would be delayed.

- Vehicles stored outside may be less secure than those stored in an enclosed area. In several recent examples around the world, nefarious individuals bent on harming innocent citizens have turned commercial vehicles into “rolling weapons of mass destruction” by driving into crowds of innocent people. In some cases, the vehicles used by these terrorists have been rental trucks but what is stopping someone from stealing a municipal vehicle to commit an evil act? While it may be unlikely to happen, the possibility does exist.

10.0.1 Covered or Fully-Enclosed Fleet Parking

For the reasons we’ve described, an enclosed or covered parking area for vehicles would be beneficial. A heated, enclosed indoor parking area, which will reduce the number of cold weather vehicle starting and operational issues, is ideal but may be prohibitively expensive. If that is the case, an overhead roof enclosure over the fleet parking area would be a lower cost solution that will prevent exposure to damaging UV rays, snow and rain. When combined with engine coolant pre-heaters, vehicle starting would be assisted.

If a parking area roof also has wind protection in one or more areas of side exposure, then blowing and drifting snow may also be kept out, or at least minimized in the parking area, reducing costs for laborious (and costly) snow clearing around and between parked vehicles. As well, when a fleet parking area is enclosed, vehicles could be more securely stored overnight.

During our stakeholder discussions, staff were unanimously in favour of the vehicle parking area being protected by at minimum, a roof enclosure to help keep out the elements.

10.0.2 Solar Roof

Our understanding is Aurora's Joint Operations Centre was built to Leadership in Energy and Environmental Design (LEED) Gold standards and the Canada Green Building Council's energy efficient targets.

The addition of a covered fleet parking would, in our assessment, clearly bring about numerous operational advantages for Aurora. Given the exceptional achievement of being a LEED Gold facility, we suggest that an additional enhancement should be considered, in the form of a rooftop solar array.

A solar array of the size and capacity we envision would provide a sizable reduction in electricity usage from the grid. It could be also used for emergency backup and for charging electric vehicles.

10.1 Strategy - Fleet Storage and Protection

Constructing a weather protection enclosure or, at minimum a roof and partial/full side enclosures for Aurora's fleet parking area is essential to ensuring cold weather operational efficiency and UV ray protection. Optionally, using the roof surface for a solar array would reduce grid supplied power demand, minimize grid dependency and add to the Town's eco-friendly profile.

10.2 Recommendations - Fleet Storage and Protection

- Construction of a full-weather enclosure over the fleet parking area is recommended. If a full enclosure is deemed to be cost-prohibitive, consider building a roof initially then later adding enclosing walls in stages to spread costs our over multiple budget years.

- Consider adding a solar array to the roof of the recommended fleet parking area cover.

11.0 Fleet Maintenance Management System

11.0.1 Fleet Management Software Systems

In leading commercial vehicle fleets, asset-management decision-making and analysis at the unit level is usually achieved by using dedicated and purpose-designed "best-of-breed" fleet management software (FMS) programs. For maximum management effectiveness, good, reliable fleet data is essential for managers to make well-informed, data-driven decisions.

We understand from our discussions with the Aurora management team that IBM Maximo, an enterprise asset management (EAM) software system, was utilized previously at the Town for fleet management purposes. The system was found to be excessively onerous and for that reason is no longer in use.

RSI-FC believes that, critical to fleet asset management success is the ability to confidently know, at any point in time, each unit's original acquisition cost, current value, utilization rate, age and condition. With that basic information, fleet management should have processes in place to easily gauge the cost-effectiveness – and value to the organization – of each vehicle asset. Management can then make confident, informed assessments about the investment in each asset (vehicle/equipment) and whether each unit/asset is delivering value to the organization. Such baseline information should also be used for forecasting purposes.

To facilitate optimal asset management, fleet managers require easy access to current, real-time and reliable operating data available (including total cost of ownership, consumptions, usage rates, downtime, etc.) and mechanisms to analyze this data in order to assess each unit's performance regarding utilization, availability (uptime) rates and operating costs - hence the value of each vehicle as it aligns with the organization's corporate objectives (i.e., fleet management's responsibility to provide safe, reliable and suitable transportation for employees to carry out their daily work routines).

A central source for fleet data (a database) is essential for successful fleet operations. Leading fleet managers will employ either their enterprise's asset management (EAM) system and/or a "best-of-breed" fleet management software solutions (FMS). Regardless of the system used, it will list and track all vehicles, department/divisional assignments, cost and maintenance histories, manage fuel usage and reconciliation, schedule preventive maintenance events, track spare parts inventories, ensure audit-readiness, produce management and exception reports, prepare cost analyses, evaluate vehicle performance, provide document trail, and much more.

Some fleets will opt to use the enterprise's asset management (EAM) system that features fleet management capabilities. Regardless of whether using a dedicated fleet management software program or the organization's EAM, the system - at its most basic level - must include detailed and granular profiles for each unit. These detailed vehicle profiles can then be used to drill down to evaluate the performance of each unit sorted by vehicle's profile and attributes.

Vehicle attributes include basic specifications (make, model, year, engine, transmission, axles, capacity, etc.), acquisition cost, and other relevant data. With this degree of vehicle profiling, fleet managers are then able to quickly and easily run complex queries to (for example) find the costs of

operation for trucks with brand "x" engines, or compare the fuel consumption rates for a specific category of vehicle, etc. The system should have the functionality to quickly and easily launch ad-hoc database queries and report vehicle downtime, repair/PM costs, utilization, availability (uptime), fuel use, and all relevant operating costs, in detail.

While some organizations have had success in using EAM software solutions that have built-in fleet functionalities, others will, with a degree of effort, derive satisfactory results through user-designed spreadsheets; while a few fleet managers still rely on paper-based records. Our team's experience using EAM systems for fleet has shown that some of these systems are overly burdensome and not a good fit for the unique requirements of fleet management.

Regardless of any method(s) used, the critical factor is having a good fleet management system (FMS) to capture fleet data, conduct analysis and prepare reports based on real information. An FMS enables managers to routinely and expeditiously run reports to analyse the performance of each fleet unit in the context of costs and service levels. Empowered with this level of information, managers can make confident and informed go-forward decisions around operating, maintaining and disposing of fleet assets.

There are numerous advantages and due-diligence reasons for a purpose-designed FMS but at minimum, it would greatly facilitate and automate the important process of PM scheduling at Aurora. The system would also reduce time, duplication of effort and costs by using FMS-generated work orders for mechanics. The FMS would capture and store vehicle repair and maintenance histories in the event of a government safety audit.

11.0.2 Preventive Maintenance Scheduling

Currently, preventive maintenance (PM) scheduling at Aurora takes place using a grid drawn on a large whiteboard located in the garage office. While the rigour involved in creating and maintaining a manual system like this is commendable, we suspect it is prone to error, which could result in the possibility of missed PM events and/or mandatory safety inspections. Missed PM or safety events could have serious consequences. Preventing PM or safety inspections from "falling through the cracks" should be treated with the highest priority.

A good FMS data system will automate PM scheduling and reduce the possibility of error regarding missed vehicle inspections. Today's leading fleets seamlessly and efficiently capture their fleet's kilometre and/or engine hour readings and track the amount of fuel-used by each unit by integrating their FMS with a fuel island transaction system (such as Aurora's Coencorp system or other). Such systems will also enable easy reconciliation of fuel inventories, ensuring that all bulk fuel purchased is properly accounted for.

11.0.3 Fuel Tracking

Fuel island transaction data from the FMS would auto-schedule PM events well in advance, thereby reducing the possibility of errors and missed PM events, while also helping to balance the mechanics' work flow.

11.0.4 Parts and Inventory

A good FMS can be configured to track (and auto re-order) fleet spare parts inventories and reconcile parts inventories, ensuring accountability for public funds (such as in the case of public sector fleets). The FMS will track all costs associated with each unit and that information can be uploaded and/or used to inform the Town's accounting system to calculate vehicle charge-back rates that would provide full-cost recovery and a reserve fund to provide for future new vehicle purchases.

Fleet maintenance/management software solutions help fleet managers manage operations specific to maintaining a fleet. Key features include a central database of all units – whether active, retired or planned (data that could be shared between other departments including the Accounting Department for their own purposes), a dashboard, preventive/predictive maintenance scheduling and maintenance and performance analysis.

FMS solutions are designed to help fleet managers and line staff capture, measure and analyze the dynamics of their fleet maintenance and operating costs. They also provide reporting capabilities with decision support tools. Such systems help manage other aspects of fleet maintenance that include cost and inventory management; they will track and manage different types of vehicles and equipment.

A good FMS, properly configured, is said to save a fleet up to 20% in operating expenses while ensuring due diligence with asset and inventory cost control.

11.0.5 Data Integrity and Accountability

Managers of 'best-in-class' fleets often will opt to assign a staff member the responsibility and accountability for ensuring regular, accurate data input, updates and database quality control to avoid the classic problem of "garbage in, garbage out".

The FMS should include all active vehicles assigned to internal department/divisions, as well as, vehicles on order, vehicles being prepared for service, surplus units and retired units.

Each unit's acquisition cost and date-in-service should be entered in the unit's profile and the system should be capable of calculating depreciation for reporting purposes. In doing so, the system should also be able to calculate each vehicle's current book value in real-time.

Fleet management systems should include interface(s) with any/all in-house fuel supply systems, and any retail fuel vendors. These interfaces would be used to upload, for example, all fuel data, and post fuel costs and usage quantities, to each vehicle. Interface(s) should also be developed to enterprise systems to facilitate internal financial transactions at the general ledger (GL) level (for example, transferring vehicle, fuel and accident costs to user department/divisions).

Fleet management software should be sufficiently robust to track costs at the vehicle level, and be capable of benchmarking individual units to similar category vehicles within the fleet, for exception

management purposes. The system should also support tracking of relevant Key Performance Indicators (KPIs).

11.0.6 Fleet Data System Key Attributes

When considering a fleet management software system considerations should include:

- Preventive maintenance (PM) scheduling: What are the options and capabilities of the system?
- Does the software support multiple triggers for scheduling PM and other events?
- Management reports: Does the software provide exception reporting?
- Maintenance histories: What is included in each unit's maintenance history?
- Fuel tracking: does the system report fuel usage and statistics per unit, categories of units and entire fleet?
- Does the software support fuel system reconciliation i.e., litres of fuel purchased vs. litres dispensed?
- Parts inventories: What are the capabilities of the system for tracking and managing spare parts?
- Cost reporting: Does the system provide detailed cost reporting on a unit by unit basis and does it provide exception reporting?
- How does the system track fixed overhead or indirect costs? It is important to include fixed costs such as salaries and wages, insurances, other overhead costs to determine total cost recovery and pass-through costs for end user department/divisions.
- Does the system calculate vehicle book value in real-time? (an asset-management best practice, essential for vehicle cost vs. age analysis)
- Does the system track vehicle assignments and stored location data?
- Does the system report on utilization rates per vehicle?
- Does the system track vehicle downtime?
- Is the system capable of categorizing maintenance and repair costs using industry standard terms of reference e.g., and industry-standard ATA Vehicle Maintenance Repair Standard (VMRS) codes? (for benchmarking purposes)
- Is the system user-friendly for creating reports "on the fly" such as calculating historical operating costs by vehicle type, brand, year etc., and by unique vehicle configurations e.g., the ability to calculate historical operating costs of vehicles with a certain engine/drivetrain configuration for comparative analysis?
- Does the system provide internal and/or external benchmarking functionality?
- Is the system capable of being configured to generate reports on specific KPIs?

11.0.7 Data Management

Whichever FMS under consideration should be capable of tracking current vehicle assignment information e.g., departments /divisions/cost centers to which units are assigned.

Vehicle categorization protocols ought to be consistent with industry standards for benchmarking purposes e.g., Ministry of Transportation, DOT or APWA standard categories. The system should

track each unit's full acquisition cost at time of purchase, data on each unit's current book value, and data on the entire fleet's current book value and mileage.

Engine & PTO hour readings must be maintained in real-time using uploads from the fuel system interface and/or shop work order entries posted into the FMS.

11.0.8 Mileage/KM Readings

The adage: "you can't manage what you don't measure" is particularly relevant to fleet management. Mileage and/or engine & P.T.O hour readings form the foundation for cost comparisons and benchmarking, which are critical success factors for a leading fleet. It is imperative to capture vehicle mileage readings promptly and accurately.

Leading fleets are vigilant about recording every unit's mileage reading regularly – at minimum monthly to ensure 'short interval control' of the fleet. Readings can be recorded manually or captured via other methods i.e., telematics, fuel dispensing systems, work orders, driver reports, etc.

11.1 Strategy - Fleet Maintenance Management System

A Fleet Maintenance Management System (FMS) is essential to optimal fleet management and cost reduction. Without delay, the Town's Fleet Services Dept. should identify its system requirements, including touchpoints with other corporate systems, review its business processes and invest in an FMS as a top priority.

11.2 Recommendations – Fleet Maintenance Management System

- Aurora's fleet size has outgrown reliance on manual, paper-based records and the use of and multiple, outdated methods (the current whiteboard and paper-based files) of tracking fleet data. For these reasons, as a highest-priority issue, we recommend that Aurora should consider the investment in, and use of, an automated computer-based "best of breed" fleet management software system for which there are numerous excellent, proven, and easy to use offerings available.

- Consider investment in a dedicated "best-of-breed" fleet management software system that would interface with either the Coencorp or other pump island fuel system and other corporate systems such as those used by accounting/finance, procurement etc.

- Consolidate all fleet data now being tracked on paper, Excel spreadsheets, and any other methods, into one purpose-designed fleet management system.

- Additional, detailed recommendations around the recommended FMS are contained in our separate report "Aurora Best Management Practices Review".

12.0 Budget Allocation Process

12.0.1 Aurora Operating Budgets

RSI-FC reviewed the Town of Aurora's Fleet Services fiscal year 2018 and 2019 operating budgets and we note that the budgets are typical of most municipality's allocations. During the fiscal year, it is common to experience budget variances for line items such as fuel. Fuel costs are very difficult to forecast since they are highly dependent on market conditions. Further, we note that vehicle cost recovery to Aurora's user groups do not fully recover the actual expenses of maintaining the fleet.

12.0.2 Budget Allocations

Overall, we feel that the Fleet's current operating budget allocations could be improved, and better management control of costs possible by expanding the granularity of the budgeted expense line items to include more of the fleet's operating expenses.

Examples:

- Budget category 1-4-03410-2000 SALARIES - F/T (and all other labour costs categories such as OT etc.) could be segmented into separate expense line items for the head mechanic and the general mechanics to assess and evaluate the associated costs for each position.

- Budget category 1-4-03410-2000 SALARIES - F/T (and all other labour costs categories such as OT etc.) should be separated into expense line items for preventive maintenance and reactive repairs. This would enable better management control and facilitate decision-making around the effectiveness and costs associated with preventive maintenance activities (versus reactive repairs).

- Budget category 1-4-03410-2000 SALARIES - F/T (and all other labour costs categories such as OT etc.) should be separated to include an additional expense line item for accident repairs. Again, this would enable better management control and allow for recovery of at-fault accident costs from (for example) user departments, vehicle warranty and/or insurance claims.

- Budget category 1-4-03410-4019 VEHICLE SUPPLIES could be segmented into separate line items for key items like tires, repair and preventive maintenance parts, accidents etc. This would enable improved management control of these expenses.

- Budget category 1-4-03410-4048 FUEL COSTS should be divided into the various fuel types used by the fleet (gas, diesel, etc.) – also for improved management control over a top expense item.

The increased granularity of budget allocations we've described would be beneficial in providing greatly enhanced management control of spending. However, it would be challenging and onerous to implement without the aid of a fleet management system (FMS) or some other type of time and materials capture system. In an FMS, labour and parts costs per vehicle would be captured on fleet garage work orders, then transferred to the accounting system via an interface.

12.0.3 Cost-Neutral Fleet Services Department

RSI-FC feels strongly that a cost-neutral Fleet Services department will deliver many advantages to an organization. In this business model, the Fleet Department prepares its annual operating and capital budgets, then throughout the fiscal year, apportioned vehicle charges are applied to user departments to fully offset the fleet's Opex through vehicle charges, making Fleet Services Dept. cost-neutral. A portion of the vehicle charges that are transferred to user departments are used to build a reserve fund for vehicle replacements. It is a best practice to determine the amount that must be retained in the reserve fund through lifecycle analysis, plus a factor for inflation, to ensure that sufficient reserve funds accrue over each vehicles service life and that funds are in place at the end of each vehicles lifecycles for their replacement.

In a fully-bundled total cost recovery vehicle costs as described, all fixed and variable costs are passed on to user departments/cost centres each month for their directly-assigned vehicles. In turn, user departments then post hourly vehicle charges to work orders for their projects. In that sense, fully-bundled, total cost recovery vehicle charges as described, resemble a traditional 'reserve fund' in that assigned vehicle operating costs are calculated to fully offset the fleet department's costs for all vehicles and provide capital funding for replacements at the end of their useful life cycles.

There are many advantages to this business structure. Key features of the 'fully-bundled, total cost recovery' business model concept are mainly centred on cost reduction and the prevention of budget over-runs:

- The concept/business structure tends to create awareness of fleet costs in vehicle user-department managers, and this instills a desire to surrender vehicles that are under-utilized
- User-department managers will feel less entitled to receive new, replacement vehicles when their assigned unit(s) are at the end of their lifecycles, and this encourages them to shed low-usage units
- User-department managers will share in the goal of keeping capital costs down for new, replacement units because vehicle acquisition costs will translate into higher direct costs for their own departments/divisions
- The concept empowers user-department/division managers to take responsibility for Opex and Capex cost containment of their assigned units
- The concept encourages fuel conservation by placing responsibility for fuel costs within the user-department/division to which the vehicle's drivers report
- The concept encourages accident and damage reduction by placing responsibility for costs within the user-department/division to which the vehicle's drivers report
- User-department/division managers who more carefully manage their assigned fleet vehicles can decrease their department/divisions' operating budgets
- The Fleet Department can become cost-neutral

12.0.4 Reserve Funds

Reserve funds are typically topped up through hourly charge-out rates as captured on work orders and/or time tickets. Often though, department(s) may tie up vehicles from the use of others by holding the keys to vehicle(s) for full days yet they may only charge an hour or so each day on work

order/time tickets for the vehicles. Naturally, when this happens frequently enough there will be a shortfall in the reserve fund when the time comes for replacement of the vehicle(s). In the fully-bundled, total cost recovery vehicle charges concept we've described, the Fleet Department continues to 'own' all units, but transfers bundled vehicle costs to user departments/divisions each month, as a third-party vehicle full service lease provider would.

12.0.5 Fuel Costs

In addition to their assigned vehicle charges, it is RSI-FC's position that it is a best practice to charge user departments/divisions for the direct costs of fuel consumed by their assigned vehicles. Fuel usage reports issued monthly to each user department/division help inform managers about the fuel efficiency of their assigned vehicle(s) and this highlights their exception units. These reports will ensure buy-in for reducing fuel costs at the end-user group levels of the municipality.

Via this accounting practice, department/division managers become acutely aware of the fuel-efficiency of their vehicle assignment and fuel costs - and in doing so, tend to become keenly interested in, and empowered to help reduce their assigned vehicles' fuel usage, which in turn positively impacts their department's profitability – and as so, the entire organization becomes a beneficiary.

12.0.6 At-Fault Accidents and Negligent Damages

In the case of at-fault accidents and/or negligent damages to vehicles it is a best practice to charge these costs directly to the user department/division whose driver caused the damages. Because these costs are deemed to be preventable they are not included in the fully-bundled, total cost recovery vehicle charges.

This best management practice encourages line managers to take responsibility for their own drivers who display bad driving behaviours or those who may be abusive toward vehicles and equipment. This practice places responsibility for driver behaviours where it belongs - in the hands of managers who are best-positioned to deal with the issue of their driver's poor driving habits.

12.1 Strategy - Budget Allocation Process

To help reduce operating budget over-runs, implement a total cost recovery business model. Once a fleet management system and cost-tracking by vehicle categories are in place, by using lifecycle analysis to pinpoint optimal retention cycles for vehicles, full-cost recovery vehicle charge out rates can be allocated for vehicles assigned to user groups to fully offset Fleet Services operating expenses and provide a reserve fund for vehicle replacements.

12.2 Recommendations – Budget Allocation Process

- Consider adopting the Fleet Services Department cost-neutral business model by allocating all vehicle costs back to assigned user departments.

- Usage of all fleet vehicles, whether by unionized or management personnel, should be charged to the user's cost centers. This would enable each department and/or user group to have a big-picture perspective of their own area of responsibility's vehicle costs in delivering their services to the Town of Aurora.

- Consider allocating the direct cost of fuel used by each assigned vehicle, and at-fault accidents and negligent damages costs, as pass-through costs to user departments with directly assigned vehicles. This practice empowers line managers to take responsibility for these costs and empowers them to reduce their direct vehicle costs.

Conclusion

This concludes our Fleet Management Strategy report for the Town of Aurora.

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Town of Aurora
General Committee Report No. OPS19-019

Subject:	Hallmark Baseball Diamonds – Additional Funding
Prepared by:	Sara Tienkamp, Manager Parks & Fleet
Department:	Operational Services
Date:	December 3, 2019

Recommendation

1. **That Report No. OPS19-019 be received; and**

2. **That the total approved budget for Capital Project No. 73287- Hallmark Lands Baseball Diamonds be increased to $3,942,000, representing an increase of $942,200 to be funded from the Parks DC reserve.**

Executive Summary

This report seeks Council approval to increase funding for Capital Project No. 73287 for the construction of a new municipal park with two (2) baseball diamonds:

- Earthworks and site servicing significantly impact approved budget.

Background

On July 24, 2018, the following motion was carried by Council:

> That the construction of two baseball diamonds be approved.

Approved budget for Capital Project No. 73287 – Hallmark Lands – Baseball Diamonds is $3,000,000.

Staff generated a Terms of Reference for Consulting Services, for the design and contract administration for the project commencing September 2018, releasing RFP 2018-94-OPS-P. After the review process/evaluation, contract was awarded in December 2018.

In early January 2019, design works were initiated with the engagement of Aurora-King Baseball Association (AKBA). Following the redesign of the park to accommodate site challenges, tender 2019-86-OPS-P for the Construction of a New Municipal Park with two (2) Baseball Diamonds was released for competitive bid July 11, 2019.

Analysis

Earthworks and site servicing significantly impact approved budget.

The initial $275,000 cost estimate utilized to set budget for grading/earthworks was based on an approximate quantity subject to a detailed grading plan for the facility and geotechnical investigations to determine soil composition.

Following the completion of the grading plan, geotechnical analysis and preliminary design by the consultant, it was determined that a significant amount of fill required removal from the site to facilitate the design. Cost estimate for fill removal was approximately $1,000,000. Staff worked with the consultant to accommodate fill on site, creating berms and keeping the current elevation of the land. The land is elevated approximately 3m above the surrounding property frontages. This exercise substantially reduced the earthwork cost estimate; however, geotechnical results indicating unstable soils, increased the need for over excavation in areas where asphalt is to be laid (pathways, driveway and parking lot).

The site servicing allowance prepared for budget purposes was $260,000.

Drainage of this site is a challenge. A drainage easement is in the northeast corner of the lands, requiring park drainage to flow to this catchment area, maintaining the existing drainage pattern. As we are obligated not to increase the storm runoff from the site, bio swales and a storm water management area need to be incorporated. The drainage design for the site is quite extensive, resulting in a considerable funding increase over and above the original allowance.

In addition, there is no electrical service on the frontage of the lands. Electrical power needs to be accessed from the opposite side of the street, under the road, further increasing electrical funding required as part of site servicing.

Between the earthworks and site servicing components, necessary parts of the construction contract, costs are approximately $500,000 over the initial budgeted allotments.

Advisory Committee Review

None.

Legal Considerations

None.

Financial Implications

The following chart summarizes the additional funding required to construct the two (2) baseball diamonds:

Approved Budget	
Capital Project 73287	$3,000,000
Total Approved Budget	**$3,000,000**
Less previous commitments (Design/Construction Consultant)	$130,065
Funding available for subject contract	**$2,869,935**
Contract Award excluding HST	$3,235,187
Provisional Items (landscaping)	$170,453
Contingency (10%)	$340,564
Non-refundable taxes (1.76%)	$65,933
Total Funding Required	**$3,942,200**
Budget Variance	-($942,200)

Contingency and non-refundable taxes $406,497 of the total budget variance.

Communications Considerations

The Town of Aurora will inform the public of any construction and closures as a result of the capital project by posting to social media, the Town website and having appropriate signage at the site.

Link to Strategic Plan

The project supports the Strategic Plan Goal of Supporting an Exceptional Quality of Life for All, by encouraging an active and healthy lifestyle.

Develop a long-term needs assessment for recreation programs, services and operations to match the evolving needs of the growing and changing population.

Alternative(s) to the Recommendation

1. Council could approve Capital Project No.73287 be increased to $3,746,824, representing an increase of $746,824 and not install the Provisional Landscape Items as part of Tender No.2019-86-OPS.

2. Council provide further direction.

Conclusions

Staff recommends that this project move forward as per original approved scope, for the construction of a new community park with two (2) baseball diamonds, washroom/shade canopy and provisional landscaping. Consequently, it is recommended that Capital Project No. 73287 budget be increased to 3,942,000 to complete construction, with all incremental funding from the Parks DC Reserve.

Attachments

None.

Previous Reports

OPS18-008 100 Vandorf Sideroad – Hallmark Lands Community Park Design, April 17, 2018
OPS18-018 100 Vandorf Sideroad – Hallmark Lands Community Park, July 17, 2018

Pre-submission Review

Agenda Management Team Review on August 22, 2019.

Departmental Approval

Allan D. Downey
Director of Operations
Operational Services Department

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

Town of Aurora
General Committee Report No. PDS19-098

Subject:	**Town of Aurora Official Plan Review**
Prepared by:	**Andria Sallese, Senior Policy Planner, Policy Planning & Economic Development**
Department:	**Planning and Development**
Date:	**December 3, 2019**

Recommendations

1. **That Report No. PDS19-098 be received;**

2. **That Staff give public notice for a Special Meeting of Council regarding the initiation of the Official Plan Review in accordance with the requirements of Section 26 of the Planning Act;**

3. **That Staff report back following the Special Meeting of Council with a summary of the feedback received through the public consultation process to inform the development of a work program, for Council consideration; and,**

4. **That the Town Clerk provide a copy of this report to York Region, the Lake Simcoe Conservation Authority and Toronto Regional Conservation Authority for their information.**

Executive Summary

On May 16, 2019, the Province brought into effect A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019 (the "Growth Plan (2019)"), for which all planning matters are required to conform. This new Growth Plan replaces the previous Growth Plan (2019). The *Places to Grow Act, 2005* requires that official plans must be amended to conform to the Growth Plan by a specified time period.

Section 26(1) of the *Planning Act* requires municipalities to undertake a review of their Official Plan at least every five years to determine if an update is required to bring the Plan into conformity with provincial and regional policies. Aurora's Official Plan was adopted by Council in September 2010, and approved by York Region in June 2012. As land use planning is an evolving function driven by multiple statutes and informed by

continuous improvement of best practices, the timely and comprehensive review of the Town's Official Plan contributes to good governance that is responsive to local issues, while conforming to Regional and Provincial plans and policies.

As part of a "pre-launch", the Town hosted seven (7) informal "Planner-Pop-Up" events in accessible locations across the Town to introduce the Official Plan Review to the public prior to the Special Meeting of Council. Planner Pop-Up events are non-statutory public engagement events that do not require public notification. To date, Staff have engaged more than 300 persons.

This report introduces the Official Plan Review and presents the requirements for reviewing the 2010 Official Plan, highlights some of the policy areas within the Growth Plan (2019) that will need to be addressed and presents the draft phasing and key focus areas of the Official Plan for further analysis that will be refined through the first phase of public consultation.

- Aurora's current Official Plan (2010) is based on previous Provincial Plans that have since been updated;
- The scope of the Official Plan Review will be based on initial public and agency community input;
- The Study process is envisioned being conducted over five phases and will include strategic Focus Areas of study; and,
- Public Consultation for the Official Plan Review will be guided by a Public Engagement and Communications Strategy.

Background

Aurora's current Official Plan (2010) is based on previous Provincial Plans that have since been updated.

Places to Grow Plan for the Greater Golden Horseshoe

The Growth Plan provides a strategic framework for managing growth in the Greater Golden Horseshoe (the "GGH") region including:

- Setting minimum density targets within settlement areas and related policies directing municipalities to make more efficient use of land, resources and infrastructure to reduce sprawl, cultivating a culture of conservation and promoting

compact built form and better designed communities with high quality built form and an attractive and vibrant public realm established through site design and urban design standards; and,

- Building complete communities with a diverse range of housing options, public service facilities, recreation and green space that better connect transit to where people live and work.

The Growth Plan builds on the policy foundation provided by the PPS and provides more specific land use planning policies to address issues facing the GGH region. The Town of Aurora Official Plan must conform to the policies in the Growth Plan. On May 16, 2019, the Province brought into effect A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019 (the "Growth Plan (2019)"), for which all planning matters are required to conform. This new Growth Plan (2019) replaces the previous Growth Plan (2017).

The *Places to Grow Act, 2005* requires that Official Plans must be amended to conform to the Growth Plan by a specified time period. In 2017, the Minister of Municipal Affairs directed that by July 1, 2022 Official Plans be brought into conformity with the previous Growth Plan (2017). With the release of the new plan in May 2019, a new date to achieve conformity was not set. It is Staff's understanding that the Town's Official Plan must be brought into conformity by July 1, 2022.

Provincial Policy Statement (PPS)

On May 2, 2019, the Province of Ontario (the "Province") released "More Homes, More Choice: Ontario's Housing Supply Action Plan". The Action Plan included a series of initiatives intended to address housing supply in the Province, including a review of the PPS. On July 22, 2019, the Province released proposed changes to the PPS. The PPS provides direction on matters of provincial interest as it relates to land use planning. The current version of the PPS came into effect April 2014.

The Town of Aurora uses the PPS to guide its Official Plan and inform decisions on planning and development matters. The PPS is issued under Section 3 of the *Planning Act* and all decisions of Council affecting land use planning matters shall be consistent with the PPS.

Greenbelt Plan and Oak Ridges Moraine Conservation Plan

The Oak Ridges Moraine Conservation Act, 2001 and the accompanying Oak Ridges Moraine Conservation Plan (ORMCP) (2017), is the policy framework for protecting and enhancing the Oak Ridges Moraine's ecological and hydrological features and functions that support the health and well-being of the Region's residents and ecosystems. Municipal planning decisions are required to conform to the Oak Ridges Moraine Conservation Plan, which prevails over Official Plans.

Through the MCR process, the Town's Official Plan will be reviewed to ensure conformity with the Oak Ridges Moraine Conservation Plan (2017).

York Region Official Plan

York Region is currently in the process of a Municipal Comprehensive Review (the "MCR") conformity exercise. A draft Regional Official Plan (the "ROP") is not expected until late 2020, and anticipated Council adoption in 2021. The Region's work plan involves a number of thematic Focus Areas for analysis and review, which include:

- Intensification and Employment Strategies, including population and employment forecasts to 2041 and direction for Major Transit Station Areas and Strategic Growth Areas;
- Complete & Healthy Built Environment;
- Natural Heritage;
- Implementing the Agricultural System;
- A Housing Strategy;
- A Climate Change Action Plan;
- Indigenous Communities Consultation & Vision;
- Infrastructure Master Plans; and,
- A Fiscal Impact Analysis.

Staff have been actively engaged in the Regional conformity processes. Regional policy direction must be known and understood in advance of preparing the Town's policies to conform to the Regional Plan. Aurora's Official Plan will need to be brought into conformity with the ROP once it is approved by the Province.

Analysis

The scope of the Official Plan Review will be based on initial public and agency community input.

An Official Plan is a strategic document, a blue print that guides land use and infrastructure planning within a municipality. Official Plans contain goals and objectives of the community and establish policies to direct the form, extent, nature and rate of growth and change. Official Plans are generally designed to guide community decisions for a certain time horizon (e.g. to 2041). Official Plans have legal status and derive their authority from the *Planning Act.*

The review of the Town's 2010 Official Plan represents a major undertaking. The scope of the review must be carefully defined in order to identify the resources that will be required to undertake the review and analysis in a timely manner.

The minimum content requirements for Official Plans are established under Section 16(1) of the *Planning Act.* The *Act* identifies the basic scope of the Official Plan Review by listing matters of Provincial Interest. In addition to minimum Official Plan content requirements under the *Planning Act,* and consideration of matters of Provincial Interest, the decision to engage in an Official Plan review involves two primary considerations. The first consideration is the review of the Official Plan. The second consideration is determining the scope of the review.

Special Meeting of Council

The purpose of the Special Meeting, required by the *Planning Act,* is to determine the scope of the review. The Town will also host an open house in early 2020 to introduce the Official Plan review and provide the community and stakeholders an opportunity to provide their feedback on the draft work program. Notice of the Public Open House will be provided in accordance with the requirements of the *Planning Act.*

Determining Scope

It is important to recognize that this is a review of the Town's existing Official Plan to consider what policies are working, what policies need to be updated, revised or deleted, and what new policies are required to be added. The purpose of this review is not to create a new Official Plan from first principles.

Staff have undertaken an internal scan to understand the potential scope of the review of the 2010 Official Plan with the Town's Departments, residents, business owners, and York Region, and will continue to reach out to other commenting partners, such as public agencies, advisory committees and conservation authorities.

A Technical Advisory Committee (TAC) comprising of staff from the Town's Departments and York Region has been established and will act as a resource for the Study Project Team on key issues and provide input at various stages during the review.

Once the scope of the Official Plan has been clearly determined, Staff will report back to Council on the issues to be addressed as part of the review, including whether a comprehensive review of the 2010 Official Plan is necessary to fully conform with Provincial Policy and the Region of York Official Plan, or if the review will require a scoped approach targeting specific issues.

The Study process is envisioned being conducted over five phases and will include strategic Focus Areas of study.

The draft work program for the MCR and Official Plan Review envisions the Study process being conducted over five phases (see Attachment 2). Each phase of the Study process will include strategic Focus Areas of study (see Attachment 3), will be iterative, and will include a process of generating, testing and confirming ideas, concluding with a discussion paper synthesizing the policy recommendations. The Study will be complemented by a series of consultation events, which are described in the Public Consultation section below.

Municipal Comprehensive Review

A Municipal Comprehensive Review is a conformity exercise that all municipalities within the Greater Golden Horseshoe area are to conduct as required by Provincial legislation. The four major Growth Plan (2019) policy matters that are required to be addressed through the conformity exercise for the Town, which will form part of the Official Plan Review include:

- Managing forecasted growth through intensification;
- Protecting Employment lands;
- Considering requests to convert employment lands; and,
- Developing environmental policies and update natural heritage mapping.

A future report will outline a detailed work program and associated timing to achieve conformity with the Growth Plan (2019) in the context of the Region of York's MCR and reporting timelines. This report will also describe the Study process, the Public Engagement Strategy, and the feedback received thus far on the Town-wide public engagement strategy that is underway.

Managing forecasted growth through intensification

The Growth Plan (2019) sets out the requirement for municipalities to develop an intensification strategy to achieve minimum intensification targets that are both set out in the Growth Plan (2019) or that will be determined through an upper tier's MCR. This intensification strategy will be informed by the Region's Lands Needs Assessment, which is intended to assess the quantity of land required to accommodate forecasted growth to the 2041 horizon of the Growth Plan (2019).

York Region is currently in the process of determining the distribution of the revised population and employment forecasts of the Growth Plan to each local municipality based on a 2041 planning horizon. The growth forecast for Aurora will inform the Town's MCR and Growth Strategy.

Minimum Density Targets set out in the Growth Plan (2019) and determined through the Region's MCR.

The Growth Plan (2019) sets out minimum density targets for Major Transit Station Areas (MTSAs). MTSAs are the lands around transit stations generally defined as the areas within an approximate 500-800 metre radius of a transit station, representing about a 10-minute walk. Through the MCR, the Region is required to delineate the boundaries of each MTSA and to demonstrate that each MTSA is planned to meet the prescribed minimum density targets (200 residents and jobs per hectare for subways; 160 residents and jobs per hectare for light rail transit; and 150 residents and jobs per hectare for GO Transit rail).

The Growth Plan (2019) requires municipalities to delineate strategic growth areas and the delineated built-up areas within the City. Strategic Growth Areas (SGAs) are generally defined as areas to be the focus for accommodating intensification and higher-density mixed uses in a more compact built form, which may include MTSAs and other major opportunities that may include infill. The MCR may also identify lands along major roads or other areas with existing or planned frequent transit as potential SGAs.

The Growth Plan (2019) defines the delineated built-up areas as the limits of the developed urban area for the purpose of measuring minimum intensification targets. The Growth Plan (2019) encourages intensification generally throughout the delineated built-up area, which will be addressed through the MCR.

As per Council's resolution of October 22, 2019, the Official Plan Review will consider adding policies to establish the framework for a Community Planning Permit to cover the Aurora Promenade.

As part of the York Region's ongoing Municipal Comprehensive Review, Town Staff have been working with the Region to delineate the Aurora GO MTSA. Within Aurora's policy context, the Aurora Promenade meets the criteria to be identified as an SGA. Staff will continue to engage the Region in its MCR process.

Planning for Employment Lands

The Growth Plan (2019) requires municipalities to plan for all *Employment Areas* by regulating permitted land uses and establishing minimum density targets. The Growth Plan (2019) requires that municipalities will prohibit certain land uses (residential and other sensitive land uses) within lands designated as *Employment Areas.* The Growth Plan (2019) also requires municipalities to either prohibit major retail uses or to establish size or scale thresholds for these uses.

The Growth Plan (2019) requires that municipalities establish minimum density targets for all *Employment Areas.* These density targets will be measured in jobs per hectare and will reflect the current and anticipated type and scale of employment anticipated for a specific *Employment Areas*. A future report on the Official Plan work program will describe the work necessary to accomplish the analysis needed to achieve conformity in this focus area.

Developing Environmental Policies and updated natural heritage mapping.

The Growth Plan (2019) requires municipalities to develop Official Plan policies related to conservation objectives related to: water, energy, air quality improvement, integrated waste management, and stormwater master plans. The Growth Plan (2019) also requires that municipalities develop Official Plan policies that will reduce greenhouse gas emissions and address climate change adaptation goals that are aligned with other provincial plans and policies for environmental protection.

The Staff report on the work program will identify any technical studies required to achieve conformity, in consultation with other Town departments, agencies, and the Region.

Public Consultation for the Official Plan Review will be guided by a Public Engagement and Communications Strategy

The five year review to consider any updates to the Official Plan is a statutory requirement of the *Planning Act.* The *Planning Act* sets out the minimum requirements for public consultation in undertaking the review. Meeting the legislation will require a certain amount of time and resources. The Town is planning to go beyond the minimum requirements based on best practices for Official Plan reviews and have developed a draft Public Engagement and Communications Strategy (PECS).

Effective outreach and public engagement is essential in ensuring the Study successfully acquires and integrates resident and Council's perspectives into the resulting policies that will guide the Town of Aurora's Future. The draft PECS, developed by Planning staff and Corporate Communications, will serve as the framework, as well as provide a consistent approach, for public engagement to ensure members of Council, key stakeholders and residents of the Town of Aurora are kept informed during all phases of the study process and are able to provide feedback in a variety of ways.

Staff will refine the Public Engagement and Communications Strategy and present it to a Special Meeting of Council, including further information on any Steering Committees formed for the purpose of providing input into the Official Plan Review that will include members of Council. Staff will also be retaining a public engagement consultant to assist the Town in undertaking public consultation.

Next Steps

Following the General Committee Meeting, Planning Staff will prepare a future report that advises on the scope and work program for the Official Plan Review. While the Focus Areas identified in this report will continue to form the basis of the overall work program and the consultation strategy, the report will present the results of the external scan of the community, including public agencies and partners that have been consulted to date, and any refinements to the Focus Areas.

Advisory Committee Review

Not applicable.

Legal Considerations

The legal considerations are throughout the report.

Financial Implications

Council has approved a capital budget of $300,000 for the Official Plan Review in 2016. A capital budget request has been made for 2021 and there is the potential for additional capital budget requests for future years, dependent on the scope and other timing considerations to be determined in detailed the work plan.

Communications Considerations

Public Open House Notice Requirements

Formal notice of the Special Meeting will be placed in a local newspaper and published for at least two consecutive weeks, 30 days prior to the date of the Special Meeting, in accordance with the requirements of the *Planning Act.* To supplement the newspaper notice, an announcement of the public meeting will be posted on the Town's Study webpage, emailed via the Town's monthly broadcast emails as well as to interested parties, and posted on social media.

Official Plan Review 'Pre-launch'

As part of a "pre-launch", the Town hosted seven (7) informal "Planner-Pop-Up" events in accessible locations across the Town to introduce the Municipal Comprehensive Review and review of the Official Plan to the public prior to the Special Meeting of Council. Planner Pop-Up events are non-statutory public engagement events that do not require public notification. The events consisted of one or two Staff at an information booth in various locations (see Attachment 1). A total of 337 persons visited the Pop-Up booths and many provided feedback to Planning Staff.

Comments were also provided by way of a survey on survey monkey. The link to the survey can be found here: www.surveymonkey.com/r/officialplanreview. At the date of this report, 210 people have completed the survey.

A Study webpage was created on the Town's website: www.aurora.ca/opr. Public engagement events and information panels for those events will be posted on the Official Plan Review webpage.

Link to Strategic Plan

The Municipal Comprehensive Review and review of the Official Plan supports the Strategic Plan goal of: Supporting an exceptional quality of life for all, via the objective of Strengthening the fabric of our community, specifically through the action item: Prepare and update the Town's Official Plan and Zoning By-law in accordance with the requirements of the *Planning Act*.

Alternative(s) to the Recommendation

1. That Council provide direction.

Conclusions

The Provincially legislated MCR conformity exercise, together with the review of the Town's Official Plan, represents a major undertaking that will result in a multi-year work program.

In undertaking a preliminary scan of the 2010 Official Plan, Staff have identified a number of thematic Focus Areas of study that need to be addressed in order to keep the document current, strategically relevant and in conformity with Provincial and Regional Plans.

The work program described at a high level in this report, will be described in greater detail in a future report to Council. The Public Engagement and Communications Strategy will also be refined and presented at the Special Meeting of Council.

Staff are seeking direction from Council to hold a Special Meeting to receive feedback from the public on the proposed scope of the Official Plan Review and key issues that need to be addressed through the Study process. The scope of the review will be confirmed following the Special Meeting of Council.

Attachments

Attachment 1: Table 1: Official Plan Review Planner Pop-Up Events

Attachment 2: Figure 1: Town of Aurora MCR & OPR Process

Attachment 3: Figure 2: Town of Aurora MCR & OPR Focus Areas

Previous Reports

None.

Pre-submission Review

Agenda Management Team Meeting review on November 21, 2019.

Departmental Approval

David Waters, MCIP, RPP, PLE
Director
Planning and Development Services

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

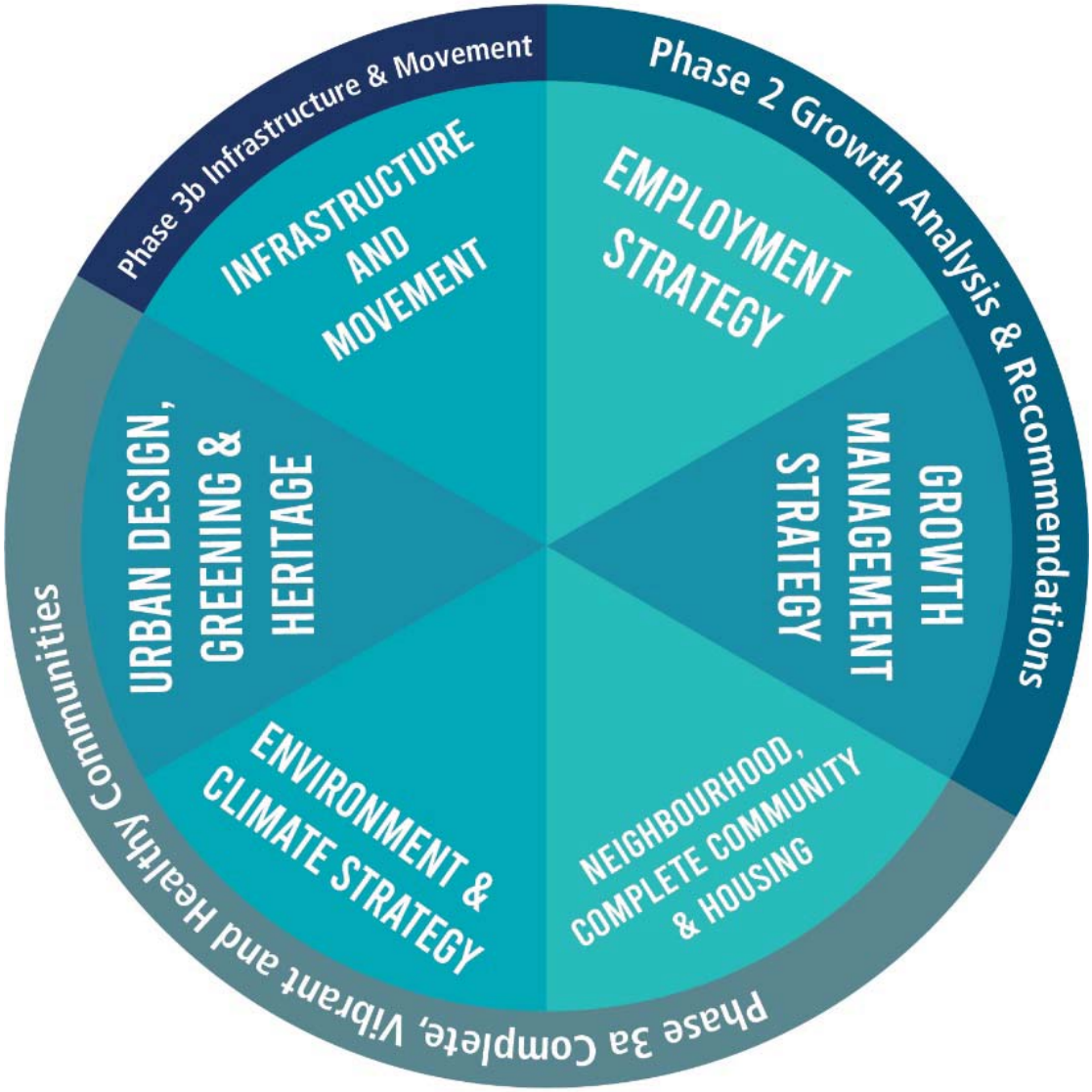
Attachment 1

Table 1: Official Plan Review Planner Pop-Up Events

Event	Date	Total Persons Engaged
Multicultural Festival	September 7th, 2019. From: 11:00 a.m. – 4:00 p.m. Town Park	**27**
Aurora Public Library	September 26th, 2019. From: 9:30 a.m. – 1:00 p.m. and 1:00 – 7:00 p.m.	**35**
Seniors Centre	September 18th, 2019. From: 10:30 a.m. – 12:00 p.m.	**23**
GO Train Station	October 4th, 2019. From: 5:45 a.m. to 9:00 a.m.	**140**
Aurora Family Leisure Complex – Youth Volunteer Fair	September 19th, 2019. From: 4:00 p.m. – 7:00 p.m.	**55**
Women's Summit	October 9th, 2019. From: 8:00 a.m. - 3:00 p.m. Royal Venetian Mansion	**25**
Concerts in the Park	October 10th, 2019. From: 6:00 p.m. to 8:00 p.m.	**32**
	Total persons engaged	**337**

Attachment 2: Figure 1: Town of Aurora MCR & OPR Process

Attachment 3: Figure 2: Town of Aurora MCR & OPR Focus Areas



Town of Aurora
General Committee Report No. PDS19-069

Subject:	**Regional MCR Update: Aurora Employment Land Conversion Requests**
Prepared by:	Anthony Ierullo, Manager, Policy Planning and Economic Development
Department:	Planning and Development Services
Date:	December 3, 2019

Recommendations

1. **That Report No. PDS19-069 be received; and,**
2. **That this report be forwarded to York Region as the Town of Aurora position on the proposed employment land conversions.**

Executive Summary

As part of the Regional Municipal Comprehensive Review (MCR) process, property owners are permitted to submit a request to convert lands in designated employment areas. Seven employment land conversion requests in Aurora have been received by the Region to date, totalling 25 hectares (62 acres). Two of the seven employment conversion requests are supported by the Region. Broader consideration for employment land designations and the potential for mixed uses will be considered through a second phase of evaluations by the Region, a unique approach not comtemplated by provincial policy. York Region is seeking Aurora Council's positions on the following proposed conversions:

- Two Magna-area conversions, one north of Wellington Street at Mavrinac Boulevard which was supported by Aurora Council in 2016, and another south of Wellington on Magna Drive, are both supported by the Region's analysis, and should proceed for residential uses;
- The proposed conversion at 180-182 Centre Crescent should be re-considered and supported by the Region;
- Support for a conversion to add residential units (retirement living) above approved retail at Smart Centres' southwest corner of Wellington Street and First Commerce Drive, adjacent the future extension of Goulding Avenue. The Region does not support this conversion;

- Smart Centres conversion request at the northwest corner of Wellington Street and Highway-404 should be supported, subject to conditions for the delivery of office development and no net loss of jobs. The Region does not support this conversion;
- A recreational/institutional use at 1588 St. John's Sideroad does not require an employment conversion; and,
- It is premature to make a recommendation on the latest request at 240 Edward Street, in advance of it being analysed against the Region's conversion criteria.

Retaining prime employment lands over the long-term remains a priority for staff and Council. The lands supported for conversion herein will not impact the retention and/or expansion of existing or planned manufacturing and industrial lands within the Town.

Background

Provincial policy shifts to prioritize residential development and relax employment land restrictions

Recent Ontario policy changes depict a changing planning landscape in Ontario that expedites and prioritizes residential development to encourage housing supply, mix and affordability; and, contemplates the introduction of non-employment uses to employment areas to reflect the changing nature of Ontario's increasingly knowledge-based economy.

What is an Employment Land Conversion?

Employment areas are defined in the Provincial Policy Statement (2014) as "areas designated in an Official Plan for a cluster of business and economic activities including, but not limited to manufacturing, warehousing, offices, and associated retail and ancillary facilities". Employment area conversions occur when sites within Official Plan-designated employment areas are re-designated to accommodate non-employment uses such as residential or major retail.

Converting employment lands to residential impacts land needs assessment. Every conversion request that is permitted to proceed introduces lands which will accommodate a share of the Region's population growth in areas not originally contemplated to do so, often at fairly high mixed use densities. This has implications on

regional land budgeting and may also impact the timing of, and/or need for future urban expansions and infrastructure projects.

Productive employment lands are important to maintaining a diverse and healthy economy. Jobs in employment areas account for more than half of Aurora and York Region's employment base.

A Provincially Significant Employment Zone (PSEZ) Proposed for Central York

As introduced in the new Growth Plan (2019), Aurora coordinated with Newmarket a request to the Province for a Central York PSEZ in February 2019. The request was for all employment lands along the Highway 404 corridor in Newmarket-Aurora including Aurora's Wellington-404 and St. Johns' Sideroad-404 employment areas from the 2B and 2C secondary plan areas. PSEZ's are still being considered by the Province, with final mapping expected to be released by the end of Q1 2020.

The identification of areas as Provincially-significant does not impact the employment area conversion request process described herein, as lands within PSEZ's can be converted during the Regional MCR, and the Province now permits a broader range of uses (including mixed use) in PSEZ's.

Growth Plan sets primary criteria for evaluating employment land conversions

The primary criteria for evaluating employment land conversions in Ontario come from the Growth Plan. Since York Region is currently in the middle of an MCR, the Growth Plan policy that should apply is 2.2.5.9:

> The conversion of lands within employment areas to non-employment uses may be permitted only through a municipal comprehensive review where it is demonstrated that:
>
> a. there is a need for the conversion;
>
> b. the lands are not required over the horizon of this Plan for the employment purposes for which they are designated;
>
> c. the municipality will maintain sufficient employment lands to accommodate forecasted employment growth to the horizon of this Plan;

d. the proposed uses would not adversely affect the overall viability of the employment area or the achievement of the minimum intensification and density targets in this Plan, as well as the other policies of this Plan; and

e. there are existing or planned infrastructure and public service facilities to accommodate the proposed uses.

As seen in Attachment 2, York Region has renumbered and categorized the above five criteria into four theme areas (two Supply, one Viability, one Infrastructure, one Region-wide). However, the criteria regarding need has not been determined by the Region to date, and therefore, the recommendations issued by York Region should be considered as preliminary.

York Region developed additional criteria for employment area conversion evaluations

In March 2019 York Region released a staff report, Proposed Employment Area Conversion Criteria, which outlined conversion requests received as part of their ongoing Municipal Comprehensive Review, and the criteria for evaluating those requests.

Building on the Growth Plan's five criteria for assessing employment land conversions, Regional staff developed an additional nine criteria (see Attachment 2 for full list, #'s 6-14).

These nine additional criteria expand on the existing Provincial criteria and provide further detail in a York Region context, combining for a total of fourteen criteria. A summary organized into the five theme areas is outlined in Table 1 below:

Table 1
Employment Area Conversion Criteria in York Region

Theme Area	Growth Plan	York Region	Total
Supply	2	2	**4**
Viability	1	4	**5**
Access	0	1	**1**
Infrastructure	1	0	**1**
Region-wide Interests	1	2	**3**
Total	**5**	**9**	**14**

Two criteria in particular, York Region are considering as show stoppers if a given site fails:

- Lands in recently designated and largely vacant employment areas (not applicable in Aurora); and,
- Lands in areas where the entire perimeter of the site is surrounded by lands designated and intended to remain designated for employment area purposes.

Analysis

This report provides an overview of current employment land conversion requests in Aurora, an update on York Region's position on them to date, and provides further analysis and recommendations for Council's consideration.

Updates on the seven requests for employment land conversion in Aurora

In May 2019, report PDS19-042 introduced the seven active employment land conversion requests for Aurora as part of the Regional MCR process. Since that time, there have been several revisions. A map including all seven current employment land conversion requests can be found in Attachment 1, and a full tabular list is included in Attachment 3.

More specifically, the changes reflected in the Attachment 3 since May 2019 include:

- 1289 Wellington Street East (the south-west corner of Leslie Street and Wellington) is removed, as the request for conversion has been withdrawn;
- Both Smart Centres requests, at 157 First Commerce Drive, and 1623 Wellington Street East, have been reduced in land area; and,
- A new conversion request at 240 Edward Street (the Cartright building) has been received, bringing the total number of conversion requests back to seven.

In total, approximately 25 hectares, or 62 acres, of employment land in Aurora are currently subject to conversion requests. This represents a reduction of approximately 78 acres, or 56% less than initially received, as reported in May 2019. Sixty-two acres is equivalent to 6% of Aurora's total net employment land (built and vacant), or equivalent to 16% of Aurora's current vacant employment land supply (although not all of the lands subject to the conversion requests are vacant).

York Region undertaking a two-phase approach to evaluation employment conversions

As part of planning for employment, the Growth Plan requires the Region to designate and set density targets for employment areas in the Regional Official Plan (ROP), and

to assess requests for employment land conversion. For all municipalities within the Regional Municipality of York, the Region is the ultimate authority on determining direction on employment land conversion requests.

Regional staff are undertaking the evaluation of employment area conversion requests in two phases, the first of which is a site-specific assessment based on Council approved criteria. The second phase will assess employment areas to be designated in the ROP, whether some current employment areas should have more permissive uses and if select areas would be more appropriate for mixed uses (including non-employment uses).

York has completed preliminary evaluations for all requests received by May 2019

York Region distributed letters to each landowner over the summer of 2019, informing them of Regional staff's preliminary recommendation for the first phase based on the criteria evaluation, noting that there would be a subsequent phase for consideration, and inviting them to a meeting to discuss staff's initial evaluation.

Attachment 3 summarizes York Region's preliminary Phase 1 evaluations for Aurora's employment land conversion requests.

Aurora's seven employment requests represent 12% of the 58 Region-wide employment conversion requests received as of the Region's latest report on the matter.

Region-wide, staff preliminarily supported only eight of the 58 York requests, a 14% conversion rate. Two of those eight Regionally-supported requests from Phase 1 (25% share) are in Aurora. However, regarding the criteria, the evaluation of the need for each conversion has not been completed to date.

Eight of York Region's 58 requests failed to receive Regional support for conversion due to the applicability of the two non-negotiable criteria; as per the Region's analysis, none of the sites in Aurora fall into this category.

Three of the Region's 58 requests were determined not to require an employment area conversion to proceed; one of those three is located in Aurora (Request #4, Block 5 of 1588 St. John's Sideroad).

Outside of the above, one of the remaining four requests in Aurora (#7 at 240 Edward Street) was just recently received in advance of the revised deadline for employment

conversion requests of November 29th, 2019, and has not yet been evaluated by the Region.

The remaining three requests may require further consideration prior to finalizing Phase 1 results, and otherwise are candidates for Phase 2 consideration. They are:

- #1: 180 & 182 Centre Crescent
- #5: Southwest corner of Wellington Street East and First Commerce Drive
- #6: Northwest corner of Wellington Street East and Highway-404

York Region are requesting local municipal Council positions on the conversion requests to help inform the MCR process. Therefore, Town staff have prepared the following analysis of the sites below, with a specific focus on those candidates that should be reconsidered as part of the Region's Phase 1 evaluations.

The Phase 2 evaluations of conversion requests is where staff will consider the potential for mixed-use areas, as the Region recognizes that there is greater desire for more amenities in or adjacent to some employment areas and potential for mixed use designations in certain locations. However, the Provincial Policy Statement and Growth Plan do not specify an alternative process to consider employment land conversions.

The proposed conversion at 180-182 Centre Crescent should be re-considered and supported by the Region

Conversion request #1 at 180-182 Centre Crescent, on Industrial Parkway north of Wellington Street represents the smallest land area request (less than 3% of the lands subject to employment area conversion requests in Aurora). The two lots of record each contain long-standing low density housing that predate the current employment/industrial designation.

To the north is York Spring & Rad Service at the corner of Industrial Parkway North and Scanlon Court.

To the east is self-storage facility, and a playing field for St. Maximilian Kolbe Catholic High School.

Directly south at the corner of Industrial Parkway North and Centre Street is Blower Steam Engineering, which was recently listed for sale with the intent to market the site for higher density housing as permitted by the Aurora Promenade policies of the Official Plan.

To the west/southwest is low density housing, and to the west/northwest is 6 Scanlon Court, currently home to Commport Communications. The Town is aware of the active acquisition of this property by Metrolinx.

The surrounding land uses which include residential, institutional, office, and light/service industrial represent an area in transition, directly adjacent to the Aurora Promenade and in between the GO Station property and Scanlon Court. The subject lands are within 150 metres of the GO Station property, and 250 metres of the rail station platform itself.

York Region's initial recommendation against conversion for this site was primarily due to the potential impacts to surrounding employment land uses. Since the original delineation of the Aurora Promenade boundaries more than 10 years ago, Aurora's GO Station has emerged as the northern terminus for future all-day two-way service to Toronto Union along the Barrie Rail Corridor. In relation to the new Growth Plan, this property is well within the 500-800 metre radius surrounding the GO station recommended for delineating Major Transit Station Areas (MTSA's), of which Aurora GO is one.

Staff Recommendation:

It is recommended that Regional staff re-consider this additional information as part of Phase 1, to support conversion in this case. Otherwise, there appears to be a strong planning context to remove the subject lands from employment designation and add them to the Aurora Promenade.

Two Magna-area conversions, one north of Wellington Street at Mavrinac Boulevard which was supported by Aurora Council in 2016, and another south of Wellington on Magna Drive, are both supported by the Region's analysis and should proceed for residential uses

Originally, three of the seven conversion requests in Aurora were located within the Magna lands, however one has since been withdrawn. The remaining two requests, totaling nearly 15 hectares (37 acres), represents the majority (60%) of lands subject to conversion requests in Aurora. These sites represent 64% of the Magna area itself – leaving only two parcels of employment land: the office currently housing Magna International headquarters, and the lands withdrawn from consideration at the south-west corner of Wellington Street East and Leslie Street.

Conversion request #2 at 337 Magna Drive is currently subject to a January 2018 planning application to create nine future development blocks, one natural heritage block and a public road network. A Public Planning meeting was held in March 2018, and the Town is awaiting a second submission before it is presented to General Committee.

Conversion request #3 at 20 and 25 Mavrinac Boulevard was previously presented to Council for support as future residential lands, as part of report PDS16-009 of March 1, 2016. It is also subject to an April 2017 planning application to permit 297 residential units, which was not circulated due to the ongoing Regional MCR process.

Staff Recommendation:

In recognition of the predominantly residential surrounding land use context, York Region's preliminary Phase 1 recommendations support the conversion of both these subject lands. Town staff agree with the Regional position on the Mavrinac Boulevard and Magna Drive conversion requests.

A proposed private school and athletic training facility at 1588 St. John's Sideroad does not require an employment area conversion

Conversion request #4 at 1588 St. John's Sideroad is not seeking residential permissions like the majority of other conversion requests, but to develop a commercial recreational use (hockey training facilities and private school). The Business Park was recently subject to a zoning by-law amendment and draft plan of subdivision to develop a 10-block business park which limited commercial uses to 20%, centred on the Leslie Street and St. John's Sideroad intersection.

York Region's determination through Phase 1 is that the subject lands do not require an employment conversion.

Staff Recommendation:

Town planning staff support the Regional position, as the unique land uses proposed can be considered through the local municipal planning process.

Support for a conversion to add residential units above approved retail at Southwest corner of Wellington Street East and First Commerce Drive

Conversion requests #5 and #6 are Smart Centres sites in the Wellington/404 employment area of the 2B Secondary Planning Area. The scope of these two requests

have been substantially reduced since originally reported, currently representing 5.2 hectares of land area combined, or 21% of the total land area under request for employment land conversion in Aurora.

Neither of the two revised conversion requests were supported through the Region's Phase 1 analysis, under the premise they may compromise strategically located employment areas adjacent to 400-series highways (major goods movement corridors to support employment activities that require heavy truck traffic).

The site of conversion request #5, 1623 Wellington Street East, at the southwest corner of Wellington Street East and First Commerce Drive, is subject to an April 2018 site plan application for a multi-building commercial development, which was approved in principle by Council on June 12, 2018. The intent of the request is to develop residential uses for retirement living above one of the permitted retail buildings on the site, to create a multi-storey mixed-use building. This would result in no net loss of employment uses or jobs, and has the effect of adding additional density to the lands in the form of four additional storeys of residential, to accommodate 106 retirement living units.

All lands surrounding the subject site are currently Smart Centres properties. To the north is Wellington Street and the existing Regional Commercial Centre, to the west and south are vacant lands approved for two additional retail buildings, and to the east is the future extension of Goulding Avenue, and future development lands that are zoned for a mix of additional retail and office, subject to phasing conditions. The Wellington corridor is evolving from what was first approved in OPA 30, into a mixed-use corridor including retail (Regional Commercial Centre), hotels, and planned office development.

Staff Recommendation:

Given that the conversion request impacts a predominantly commercial site, maintains the existing commercial density, and is not directly impacting an existing or planned industrial use, the conversion to add retirement living to the site should be supported. As part of the local planning process, staff will ensure that the appropriate policies are implemented to ensure that the proposed use provides the necessary supporting services on-site.

Smart Centres' conversion request at the northwest corner of Wellington Street East and Highway-404 should be supported, subject to conditions for the delivery of office development and no net loss of jobs

This request has been revised from 29.5 hectares to 4.4 hectares, a reduction of 85%. The change eliminated the request to allow residential infill within the existing Regional Commercial Centre, and instead focuses on re-designating a portion of the vacant lands that form part of 157 First Commerce Drive.

Historically, as part of approving the current Regional Commercial Centre on the north side of Wellington at 8-135 First Commerce Drive on lands designated business park, the balance of the vacant lands with Highway-404 frontage (approximately 8.9 hectares or 22 acres) were to be retained for traditional business park uses.

The current conversion request would retain a smaller land area along Highway-404 frontage for office uses, and introduce between future offices and the existing Walmart and parking lot, four six-storey rental buildings to accommodate approximately 600 apartment units. Additional surrounding land use is the Desjardins office to the north, specifically adjacent to an area for future expansion which currently contains a walking path.

To compensate for the office uses to be displaced, the proponent is proposing that the retained lands for office with Highway-404 exposure be developed more intensely. Five proposed office buildings of four storeys and 84,000 square feet each would equate to 420,000 square feet of total office - more than was contemplated previously over the entire vacant parcel which is now proposed to also accommodate the residential component. At an average rate of 250 square feet of office space per worker, the proposed office buildings could accommodate approximately 1,700 jobs. Similar to the previous request, York Region opposes the loss of employment lands along 400-series highways; although the Wellington corridor is evolving into a mixed-use area, including hotels, office, and the existing Regional Commercial Centre.

Staff Recommendation:

Staff are prepared to support this request for conversion on the basis that the proposed office uses be generally developed at the scale and density referenced above, and do not represent a reduction in office employment. This should include phasing policies that require the construction of a certain percentage of office space prior to the issuance of the first building permit for the residential uses. As part of the local planning process,

staff will ensure that the appropriate policies are implemented to address issues such as compatibility, recreational/open space, access and traffic. Any future proposed development application on this site will be thoroughly reviewed against Official Plan policy. No net loss of jobs is critical for staff to support this request.

It is premature to take a position on the latest request at 240 Edward Street, in advance of the conversion being analysed against the Region's criteria

The Region recently received an application for employment land conversion at 240 Edward Street (east of Yonge Street, on the north side of Edward Street). This site is known as the Cartright building, and is currently home to several businesses, including CHATS (Community Home Assistance to Seniors), the Alzheimers Society, and York Support Services Network.

The applicant intends to retain the newer western portion of the existing building, which will continue to house the current non-profit tenants, and to build two new six-storey buildings on the eastern portion of the site. New uses introduced in the new buildings would be a long-term care facility and a retirement home.

To the north is Dr. G.W. Williams Secondary School; to the east is an industrial building at 230 Edward Street, to the south is a major manufacturing employer, Uni-Motion Gear (a Magna company), and to the west is a Shoppers Drug Mart, Canadian Tire gas bar, and health club. The lands to the north and west are currently within the Aurora Promenade.

Staff Recommendation:

As this request was recently received, staff believe that it is premature to provide a recommendation at this time until the Region has evaluated the proposal in accordance with their conversion criteria. However, staff are concerned about the introduction of residential on the edge of an older established employment area.

Next Steps

The next steps in the employment land conversion process include finalizing Phase 1 anlaysis, including re-consideration for certain sites, and evaluation of any other requests that may be submitted prior to the revised deadline of November 29, 2019.

Phase 2 evaluations will also be taking place, where the Region will take into consideration local municipal positions, such as those contained in this report and the

criteria for need as part of their land needs assessment. Phase 2 will consider the potential servicing implications of the conversions, and will also include mail outs to properties adjacent to each conversion request, so that neighbouring landowners are notified.

A York Region growth scenarios direction report is expected Q1 2020, which will also report on Phase 2 recommendations on employment conversions.

York Region has also revised their projected timelines for final ROP adoption, to Q1 2021.

Advisory Committee Review

Not applicable.

Legal Considerations

Once the Region adopts its Official Plan, targeted for Q1 2021, these requests will be incorporated into the Town's Official Plan review process to ensure that there is conformity with the Region's Official Plan. Town Council will have the ability to make decisions on forthcoming planning applications to develop the lands, such as Official Plan Amendments, or Plans of Subdivision.

Financial Implications

Conformity to the policies of the new Regional Official Plan, once adopted, will occur through the Town's comprehensive Official Plan review process. There will be costs associated with this process, for which an amount has already been approved in the Town's Capital Budget.

Communications Considerations

Notification of this staff report will be provided to Aurora landowners and/or their consultants that have requested employment land conversions.

York Region will be engaging impacted property owners through the Regional MCR process. The Town has assisted York Region with compiling property address information for providing notices within 120 metres of conversion sites.

Link to Strategic Plan

Proposed changes to Regional Official Plan that incorporate the policies of the Provincial Growth Plan supports the Town's Strategic Plan vision for an inclusive, growing, family-oriented community that integrates green spaces, environmental sustainability, economic vitality and communal gathering spaces. It also supports the Strategic Plan's guiding principles to broaden outreach and leverage partnerships, while validating its goals and objectives to improve mobility and connectivity; invest in sustainable infrastructure; strengthen the fabric of the community; encouraging the stewardship and sustainability of Aurora's natural resources; and enabling a diverse, creative and resilient economy.

Alternative to the Recommendation

1. That Council provide direction.

Conclusions

To date, seven employment land conversion requests in Aurora have been received by the Region totaling 25 hectares (62 acres). Preliminary Phase 1 results, comparing land owner requests against the Region's conversion criteria have been released, and York Region is seeking Council feedback on the requests.

Broader consideration for employment land designations and the potential for mixed uses will be considered by the Region through the second phase of employment land conversion request evaluations.

Staff view the retention of employment lands, to support a balanced mix of non-residential growth, as a strategic priority. The lands supported for conversion herein will not impact the retention and/or expansion of existing or planned manufacturing and industrial lands. There will also be no net loss of employment as a result of the proposed conversions, wherever possible. In fact, several of the proposed conversions are intended to intensify planned office and commercial nodes in order to further strengthen the Town's employment base and activity rate.

Attachments

Attachment 1- Proposed Employment Area Conversion Requests in Aurora (map)
Attachment 2- York Region Employment Area Conversion Criteria
Attachment 3- York Region's Preliminary Phase 1 Recommendations for Employment Area Conversion Requests in Aurora

Previous Reports

General Committee Report No. PDS19-042, dated May 21, 2019.

Pre-submission Review

Agenda Management Team review on November 14, 2019.

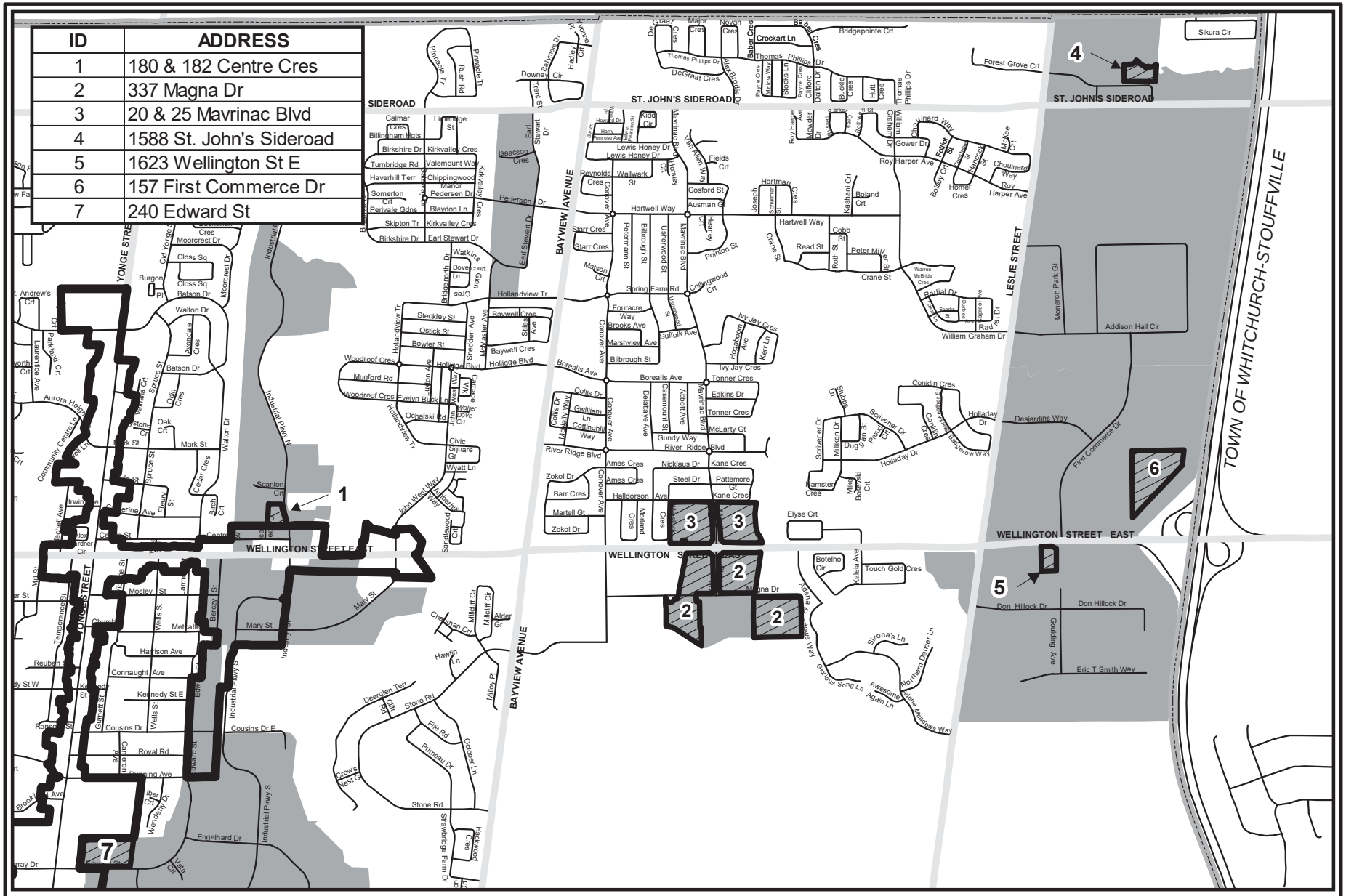
Departmental Approval

David Waters, MCIP, RPP, PLE
Director
Planning and Development Services

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

ID	ADDRESS
1	180 & 182 Centre Cres
2	337 Magna Dr
3	20 & 25 Mavrinac Blvd
4	1588 St. John's Sideroad
5	1623 Wellington St E
6	157 First Commerce Dr
7	240 Edward St



LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands

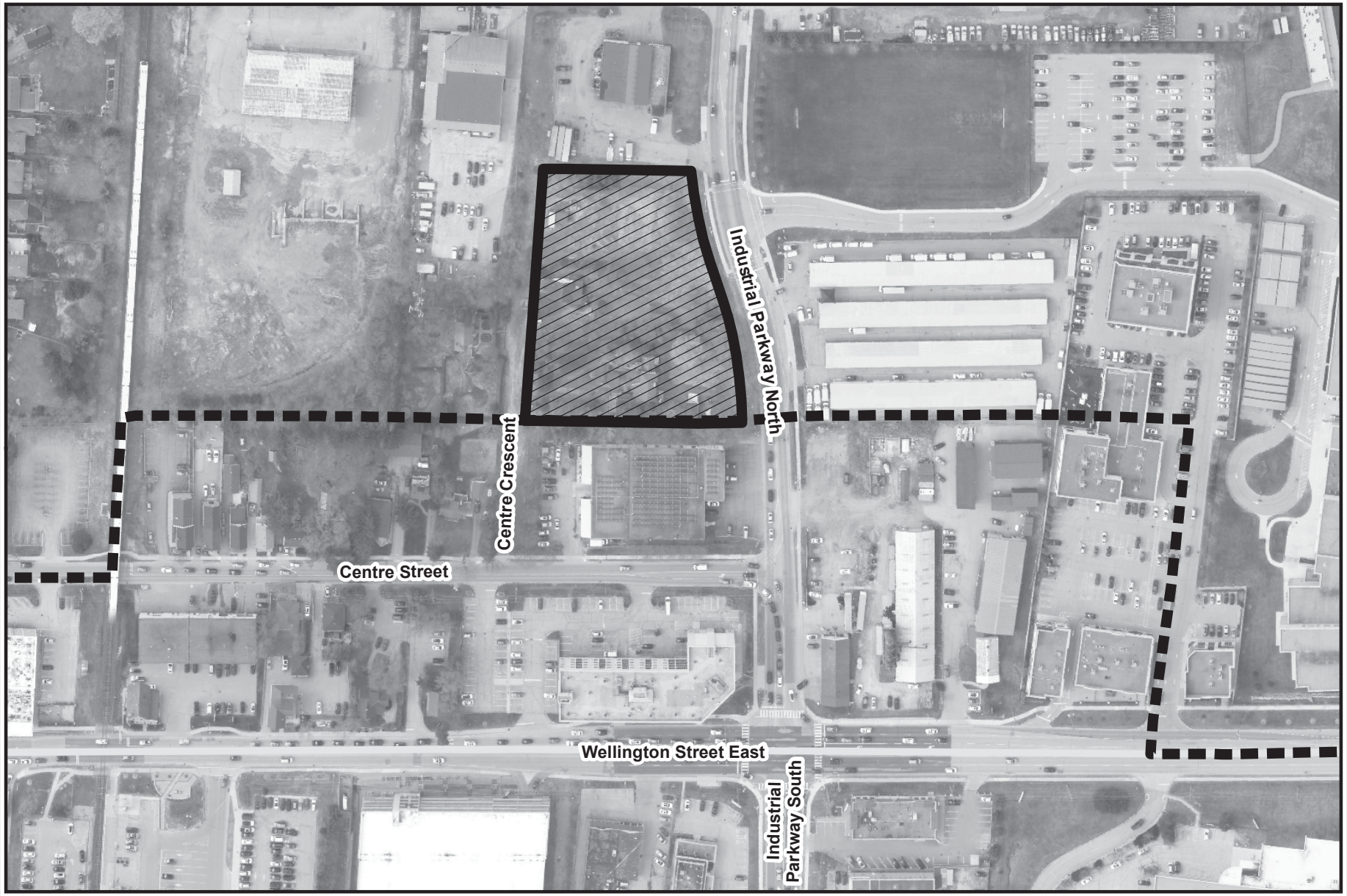
Aurora Promenade

Employment Area

N

Map 1 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 11, 2019. Base data provided by York Region and Aurora - GIS.



LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands - 180 & 182 Centre Cres

Aurora Promenade

N

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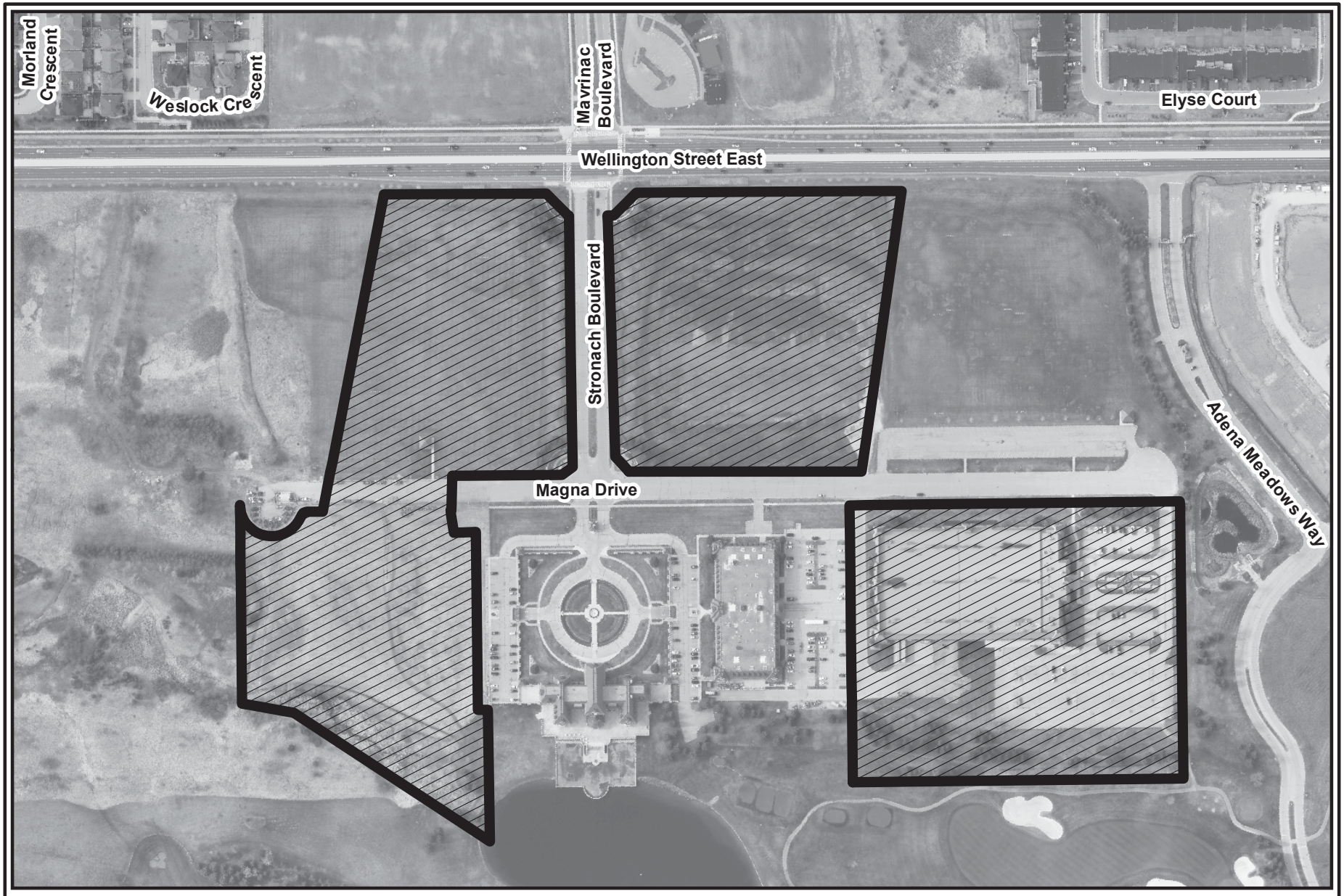
Map 2 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 22, 2019. Base data provided by York Region and Aurora - GIS.



LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands - 337 Magna Drive

N

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Map 3 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 22, 2019. Base data provided by York Region and Aurora - GIS.

LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands - 20 & 25 Mavrinac Boulevard

N

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Map 4 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 22, 2019. Base data provided by York Region and Aurora - GIS.

LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands - 1588 St. John's Sideroad

N

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Map 5 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 22, 2019. Base data provided by York Region and Aurora - GIS.

LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands - 1623 Wellington Street East

N

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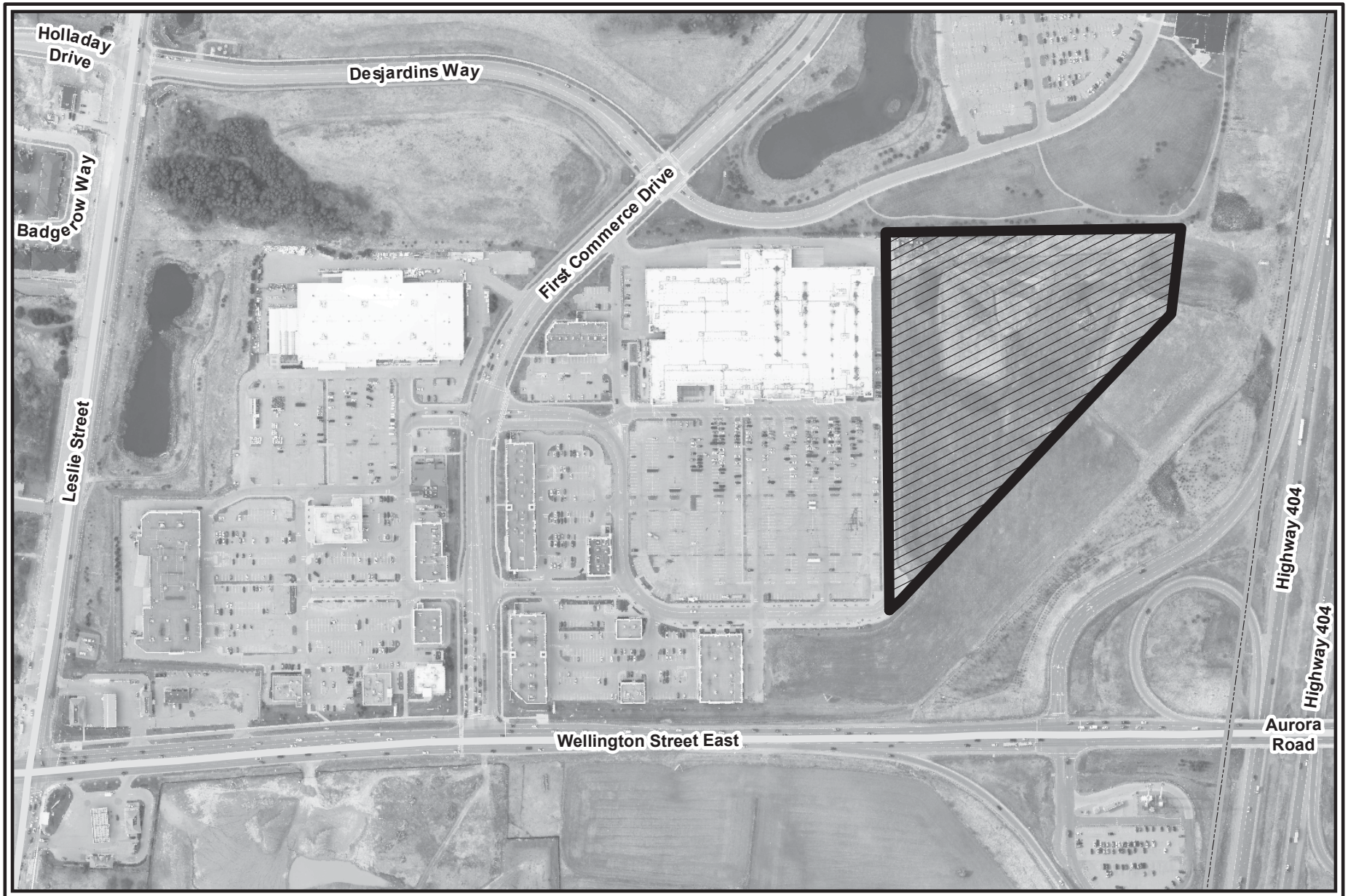
Map 6 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 22, 2019. Base data provided by York Region and Aurora - GIS.



LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands - 157 First Commerce Drive

N

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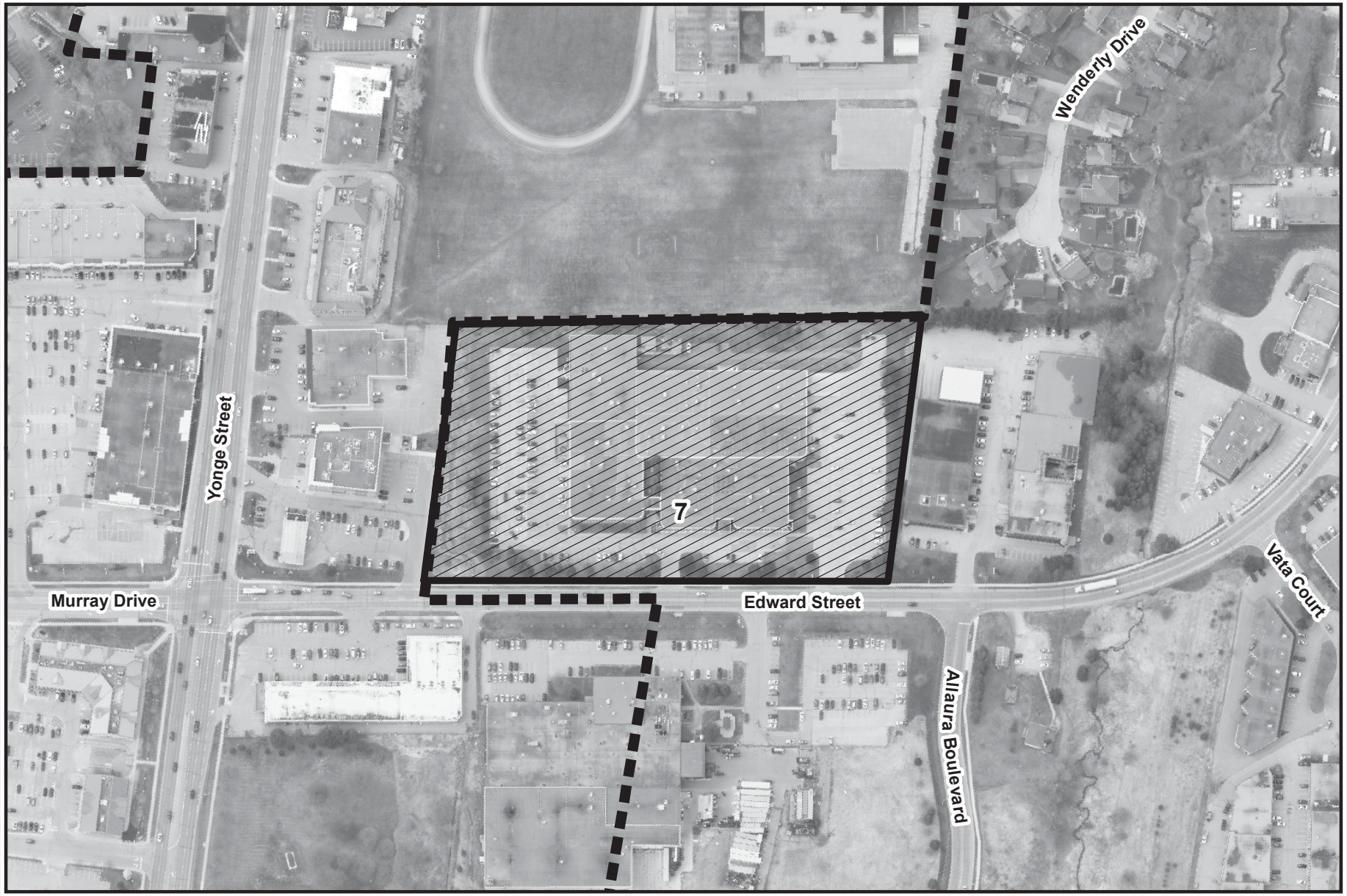
Map 7 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 22, 2019. Base data provided by York Region and Aurora - GIS.



LOCATION OF EMPLOYMENT AREA CONVERSION REQUESTS

ATTACHMENT 1

Subject Lands - 240 Edward Street

Aurora Promenade

N

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Map 8 of 8

Map created by the Town of Aurora Planning & Development Services Department, November 22, 2019. Base data provided by York Region and Aurora - GIS.

York Region Employment Area Conversion Criteria

Theme Area	Criteria	Description
Supply	1. The lands are not required over the horizon of the Growth Plan for the employment purposes for which they are designated *(GP 2.2.5.9 b).*	• Intended to ensure an appropriate amount of land designated as employment to accommodate the employment forecast over the planning horizon.
Supply	2. The Region *and local municipality* will maintain sufficient employment lands to accommodate forecasted employment growth, *including sufficient employment land employment growth*, to the horizon of the Growth Plan *(modified GP 2.2.5.9.c).*	• Intended to ensure that both York Region and the local municipal land needs assessments will be considered when evaluating conversion requests. • Additionally, the words "sufficient employment land employment growth" were added to identify that protecting ELE jobs is a Regional priority as employment lands are home to the majority of the Region's jobs.
Viability	3. Non-employment uses would not adversely affect the overall viability of the employment area or the achievement of the minimum intensification and density targets and other policies in the Growth Plan *(modified GP 2.2.5.9 d).*	• Intended to ensure that the viability of the employment area is maintained and that density (Designated Greenfield Area, Employment Area) and intensification (Urban Growth Centres, Strategic Growth Areas, and Major Transit Station Areas) targets can be met.
Infrastructure	4. There are existing or planned infrastructure and public service facilities to accommodate the non-employment uses *(e.g. sewage, water, energy, transportation) (modified GP 2.2.5.9 e).*	• When evaluating conversions consider if the existing or planned infrastructure and public service facilities are available to support the non-employment uses.

Theme Area	Criteria	Description
Region Wide	5. There is a need for the conversion *(GP 2.2.5.9 a*).	• Need can generally be defined by considering land supply and the urban structure. When applying this criteria, the following questions should be asked: • Is there not enough land to accommodate the development objectives elsewhere? • Are there specific characteristics of the proposed site that would result in a non-employment use being better integrated with the regional or local urban structure or better support Regional and local planning objectives?
Supply	6. The following employment areas will not be considered for conversion as they have not yet had the opportunity to develop due to servicing constraints or have recently been brought into the urban boundary to accommodate employment land employment growth to 2031: Keswick Business Park, Queensville, Highway 404 (ROPA 1), ROPA 3, and Highway 400 North (ROPA 52).	• Due to the nature, character, and potential success of these employment areas, time to develop should be given prior to considering these areas for conversion. • Queensville: Secondary Plan was approved for this employment area in 1998. Water/wastewater servicing is not available to this area and is contingent on the Upper York Sewage Solution – currently scheduled for 2026. • ROPA 1: Brought into the urban boundary through YROP-2010. Minimal opportunity for development exists in this employment area as full build out is contingent on the Upper York Sewage Solution – currently scheduled for 2026. • ROPA 3: Brought into the urban boundary through the YROP-2010. Additional infrastructure is required to support the full buildout of this employment area. • ROPA 52: Brought into the urban area through YROP-2010. The Northeast Vaughan sewer upgrade (currently scheduled for 2028) is required to support the full buildout of this area. • Keswick Business Park: Secondary Plan for this employment area was approved in 2004. Despite having regional servicing available, the area has no local water/ waste water servicing.
Viability	7. The conversion will not be considered if the entire perimeter of	• An important component of employment area viability is location. If a site proposed for conversion creates a “hole” in the employment

Theme Area	Criteria	Description
	the site is surrounded by lands designated for employment uses.	area, the employment area becomes disconnected. If a site becomes disconnected, it has the potential to impact a larger area than just the site being converted as well as sites immediately adjacent. • This can also impact market attractiveness and limit choice of different sized sites for new businesses or existing business expansions in the surrounding area. It can also open the door to future land use compatibility issues depending on the type of non-employment use permitted on those converted lands.
Supply	8. Conversion of the site would not compromise the Region's and/or local municipality's supply of large sized employment area sites (i.e. 10 ha or greater) which allow a range uses including but not limited to land extensive uses such as manufacturing, warehousing, distribution and logistics.	• Protecting a diverse range, size and mix of employment areas ensures a competitive economic environment as stated in policy 2.2.5.1b of the Growth Plan. The Region has been experiencing substantial growth in many land extensive sectors such as manufacturing, warehousing, distribution and logistics, a trend that is likely to continue with automation and artificial intelligence. Preserving these sites for prospective employers is important. • What is the size of the proposed site? • Does the site have the potential to accommodate land extensive uses?
Viability	9. The conversion will not destabilize or adversely affect current or future viability and/or identity of the employment area with regards to: a) Hindering the operation or expansion of existing or future businesses b) Maintaining lands abutting or in proximity to the conversion site for employment purposes over the long term	• Intended to determine if the proposed conversion will impact the current or future viability of the employment area. • There are many factors that can be used to measure the impact a conversion may have on the success of an employment area. • This criteria is supportive of Growth Plan policies 2.2.5.1a and 2.2.5.7c

Theme Area	Criteria	Description
	c) Attracting a broad range of employment opportunities and maintaining clusters of business and economic activities d) Providing appropriate buffering of employment uses from non-employment uses.	
Viability	10. The conversion to a non-employment use is compatible with the surrounding uses such as existing employment uses, residential or other sensitive land uses and will mitigate existing and/or potential land use conflicts	• The land uses adjacent to a conversion site must be considered when evaluating the conversion request. • Will the conversion potentially enhance the character and condition of that proposed site? And will it be compatible with existing and future uses in the area?
Viability	11. The site offers limited development potential for employment land uses due to factors including size, configuration, access and physical conditions	• Employment areas are not equal in their attributes and desirability. Existing functional attributes of an employment area such as size, configuration, access and physical conditions are an indication of the area's current and long-term viability.
Access	12. The proposed site is not adjacent to 400-series highways, is not located in proximity to existing or planned highways and interchanges, intermodal facilities, airports and does not have access to rail corridors	• This criteria supports the Growth Plan and Regional Official Plan policies around preserving employment areas located near major goods movement corridors to support employment activities that require heavy truck and rail traffic (OP policy 4.3.6, GP policy 2.2.5.1.b, 2.2.5.8). Additionally, these sites offer highway frontage, which is a desirable feature for attracting new investment to the Region (Goal 5 of the Economic Development Action Plan)
Region Wide	13. The proposed conversion to a non-employment use does not compromise any other planning policy objectives of the Region or local municipality.	• When evaluating conversion requests, all Regional and Local planning objectives must be met. In the event that a particular conversion request does not meet one of the planning objectives of the Official Plan, but does meet the criteria, a rationale as to why the conversion is not recommended will be considered under this criterion.

Theme Area	Criteria	Description
Region Wide	14. Cross-jurisdictional issues have been addressed	• Intended to ensure that potential conflicts / shared access/servicing with neighbouring upper- and single-tier municipalities (Peel, Toronto, Durham, Simcoe) as well as local municipalities are considered and addressed when evaluating a conversion request

Attachment 3

York Region's Preliminary Phase 1 Recommendations for Employment Area Conversion Requests in Aurora

Label	Address / Location	Nature of Request	Total Area (ha)*	Preliminary Phase One Recommendations
1	180 & 182 Centre Crescent	To re-designate from employment and light industrial uses to residential use.	0.7	Conversion Not Supported Through Phase One
2	337 Magna Drive	To re-designate from Business Park employment use to Mixed Use, Residential, and Commercial uses	8.0	Conversion Supported Through Phase One
3	20 & 25 Mavrinac Boulevard	To re-designate from Business Park employment use to Residential uses	6.9	Conversion Supported Through Phase One
4	Part of 1588 St. John's Sideroad	To permit the development of an education and sports complex on Block 5.	1.1	Employment Area Conversion Not Required
5	Southwest corner of Wellington Street East and First Commerce Drive	To re-designate to mixed-use, including residential uses.	0.8	Conversion Not Supported Through Phase One
6	Northwest corner of Wellington Street East and Highway-404	To re-designate from Business Park employment use to mixed-use.	4.4	Conversion Not Supported Through Phase One
7	240 Edward Street	To redesignate from employment to allow a long-term care facility and retirement home on part of the subject lands	3.1	Under Review. Submitted After Original Deadline

*Conversion site boundaries are based on applicants' submissions and may not reflect the extent of the area subject to conversion. Areas are subject to change.

Town of Aurora
General Committee Report No. FS19-040

Subject: **Water Meter Replacement Program Contract**

Prepared by: **Darlene Munro, Acting Manager Revenues & Accounting**

Department: **Finance**

Date: **December 3, 2019**

Recommendation

1. **That Report No. FS19-040 be received; and**

2. **That WAMCO be awarded the contract for the replacement of residential meters for five (5) years at a cost of $502,500 annually excluding taxes under the single source provisions of the Procurement By-law; and**

3. **That Council authorize the Director of Finance to execute the agreement, including any and all documents and ancillary agreements required to give effect to the same.**

Executive Summary

To seek Council's approval for the Town to enter into a five year single source contract with WAMCO for the delivery and installation of water meter replacements for capital project 43038.

- Water meter replacements are required to ensure optimal meter performance
- The replacement of the Town's aging water meters will also allow for the possibility of significantly enhancing the level of services that can be provided to residents
- WAMCO is the designated area distributor for Sensus meters which is the only brand of water meter equipment that the Town of Aurora uses

Background

The Town began replacing its in-service water meters in the early 1990's. It's water meter replacement program was reinforced by the a study it undertook in in 2014 which recommended a perpetual meter replacement program to proactively replace the Town's meters rather than waiting for them to fail and water losses to increase and

improving the average meter age within the Town. The new meters are capable of providing more accurate daily reads and far more innovative ways to receive reading data.

Analysis

Water meter replacements are required to ensure optimal meter performance

In 2014 the Town's supporting business case recommended changing out the Town's residential water meters. In a 2017 report, it was recommended that residential water meters should continue to be replaced until 2026, at which time the replacement rate could be reduced to a rate which would ensure that residential water meters are replaced every 20 years.

The replacement of the Town's aging water meters will also allow for the possibility of significantly enhancing the level of services that can be provided to residents

The replacement Sensus meter that the Town has been installing to date include technology which will enable the Town to significantly enhance the level of service that it is able to provide to its residents. These possible service enhancements may include, close to real-time monitoring of water consumption, alerts of abnormal water usage to both Town staff and residents, greatly enhanced analytical and reporting, and an enriched online self-service and e-commerce features to name a few. To do this the Town would also need to invest in the infrastructure required in order to offer these service level enhancements which was conditionally approved by Council as part of the Town's 2019 capital budget.

WAMCO is the designated area distributor for Sensus meters which is the only brand of water meter equipment that the Town of Aurora uses.

WAMCO is the designated area distributor for Sensus meters which is the only brand of water meter equipment that the Town of Aurora uses. The Town has already made a significant commitment to the installation of Sensus meters through its previous meter replacements over the past five years. For the Town to maximize its desired efficiencies and achieve its desired service enhancements, it needs to continue with its installation of Sensus meters. Consequently, it is recommended that this new contract be awarded to the designated area distributor for Sensus meters being WAMCO. In addition, the

Town has a positive past relationship with WAMCO who have assisted it in addressing all water meter needs with no identified support or quality issues.

Advisory Committee Review

There is no advisory committee related to the rate program.

Legal Considerations

In accordance with the Town's Procurement By-law No. 6076-18, Council is required to approve any single source procurements that are over $100,000.

Financial Implications

This contract is in support of the approved water meter replacement capital project 43038. Through this project, Council has approved funding up until the end of 2020. It has also endorsed further funding until 2026. This project is funded from the Water Reserve for which sufficient funding is available.

The cost per residential meter for this program is quoted at $360 excluding taxes, for the 5/8" meter mainly used by the Town. This increase of $25 from the 2017 agreement is due to the increase in the U.S. exchange rate and delivery costs over the years.

Communications Considerations

There is an ongoing communications program in place and WAMCO provides public awareness information booklets with every meter change out.

Link to Strategic Plan

The replacement of the water meters meets the strategic plan objective to invest in sustainable infrastructure.

Alternative(s) to the Recommendation

1. Council provide further direction for this program.

Conclusions

The annual residential water meter replacement program has been ongoing for five years with about 6,000 of the approximate 17,600 meters having now been replaced.

The replacement of aging meters ensures that customers are billed for only the water that they consume and that this infrastructure is of exceptional quality and supportive of technological growth. In addition, the continued replacement of the Town's water meters with the Sensus meters will enable the Town to offer significant service level enhancements to its residential users should it desire to do so.

To continue the program, it is recommended that the contract be awarded to WAMCO as a single source contract for the replacement of about 1,200 meters a year at the value of $502,500 per year excluding taxes, and that this program be awarded for five (5) years

Attachments

None.

Previous Reports

IES14-018, April 1, 2014, Water Meter Replacement Program

IES16-082, November 15, 2016, Water Meter Replacement Program Contract Renewal

IES17-009, March 21, 2017, Water Meter Replacement Program Contract Renewal Additional Information

Pre-submission Review

Agenda Management Team review on November 14, 2019

Departmental Approval

Rachel Wainwright-van Kessel, CPA,CMA
Director, Finance
- Treasurer

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

Town of Aurora
General Committee Report No. OPS019-023

Subject: Roads Infrastructure Repairs

Prepared by: Jim Tree, Manager, Roads & Water (Acting)

Department: Operational Services

Date: December 3, 2019

Recommendation

1. **That Report No. OPS19-023 be received; and**

2. **That Capital Project No. 34004 – Safety Railing – Yonge St north of Orchard Heights and Capital Project No. 34005 – Traffic Protection Guide Rail – Kennedy Street West be approved; and**

3. **That a total budget of $500,000 be approved for Capital Project No. 34004 – ($400,000) and Capital Project No. 34005 ($100,000) to be funded from the Repair & Replacement Reserve; and**

4. **That approval be given for staff to proceed with the tendering process for Capital Project No. 34004 and Capital Project No. 34005.**

Executive Summary

The purpose of this report is to provide Council with information on two (2) potential public safety infrastructure issues and to obtain the required funding to effect immediate repairs. This report will expand on the following issues and requirements:

- This type of Infrastructure degradation is a product of time, exposure to the elements and various forces of nature
- Roads Operations is modernizing its approach to be more proactive of the infrastructure they maintain.

Background

For the past four (4) years, the Engineering Services Division has retained an Engineering Firm to conduct bi-annual inspections of the Town's inventory of roadway bridges and culvert crossings. These inspections are pursuant to Section 2 (3) of the Ontario Regulation 104/97 made under the *Public Transportation and Highway*

Improvement Act, R.S.O. 1990 c. P.50, and are done in accordance with the Ontario Structures Inspection Manual (OSIM) mandated by the Ministry of Transportation for the purposes of ensuring that the structures remain safe and viable for continued public use. The most recent inspection of these bridges and culverts occurred in 2018. The Engineering Firm retained to conduct the inspections prepared a report on their findings and presented their report to the Town's Engineering Services Division on September 7, 2018 who then identified that much of the work outlined in the report is maintenance related. The report was then forwarded to the Roads Division with the expectation that Roads Operations staff would review it and take action on any recommendations in accordance with the suggested timeline.

After reviewing the September 7, 2019 report, there were two (2) high priority items requiring prompt attention. The first item was a deteriorated hand railing on Yonge Street north of Orchard Heights Boulevard. The second item is identified as a failed retaining wall and railing structure on Kennedy Street West.

Given the condition of this infrastructure, staff were moving forward with this work as an emergency repair. The original plan would involve completing the work and then reporting back to Council; however, since the design took longer than expected, staff have brought this forward to Council to request this work be added as a Capital Project funded from the Repair & Replacement Reserve. Under normal circumstances, works of this nature would be presented in an annual Capital budget. Upon receiving this direction, staff engaged the Civil Engineering Consulting firm who authored the initial infrastructure report for the purposes of providing staff with detail design and specifications for the intended works.

Unfortunately, the level of design work has taken a considerable length of time to complete and, as such, it was suggested by the Director of Finance that the matter be tabled at Council for consideration and funding approval.

Analysis

This type of Infrastructure degradation is a product of time, exposure to the elements and various forces of nature

As with any aging infrastructure, time and the forces of nature take a toll. In the case of the steel railings on Yonge Street (north of Batson Drive) they are completely corroded due to exposure to many years of winter road salt. These railings have been in state of decline for a number of years and are now beyond repair. As such, they must be

removed in order to meet the current road safety standards; however, the railing cannot simply be replaced with a similar design due to their location over the river crossing, it is necessary to install a much more robust guiderail/railing system.

Yonge Street railings:

With respect to the Kennedy Street railing and retaining wall, the same is true, repeated exposure to high water events and incremental erosion and settling has resulted in the slumping of the railing foundations and sections of the retaining walls.

Sample view of proposed railing:

This has led to deterioration of the railings, part of the sidewalk and side support walls and now requires a more significant engineering solution in order to resolve the situation and to mitigate any safety related concerns.

Kennedy Street railings support walls:

Sample view of proposed railing:

Roads Operations is modernizing its approach to be more proactive of the infrastructure they maintain

The Operational Services Department Roads Division's primary responsibility is conducting roads-related maintenance activities to ensure that the Town continues to provide the highest possible level of maintenance service and public safety. Staff also believe it is equally important to invest in preventative maintenance of Town infrastructure in an effort to maximize infrastructure life cycling and minimize premature failure that results from lack of maintenance. To this end, Roads Operations staff have established a process whereby all infrastructure under its area of responsibility is now being inspected and documented in a new software program. Engineering staff developed this software in-house and are using this program. The Roads Division has now built a database that includes much of the Town's road infrastructure requiring some level of preventative maintenance.

This has been a very effective tool in the ability to analyze this data for project prioritization, costing and preparing annual budgets. Because of this information, staff included a multi-year capital project, which was recently approved by Council to commence in 2020. This project involves both an infrastructure inspection and

preventative maintenance program that will address the backlog of repair and maintenance work that has been identified by both Town staff and external engineering consultants.

Advisory Committee Review

Not applicable.

Legal Considerations

Continuously assessing the condition of infrastructure and conducting preventative maintenance and repairs is considered prudent in managing risks and liability. Addressing these high priority infrastructure repairs is well aligned with mitigating any potential risk to the corporation.

Financial Implications

The financial estimate provided by the project consulting engineer for both the Kennedy Street and Yonge Street works is currently estimated at $410,000 exclusive of contract administration and inspection fees.

It is recommended that a total budget of $500,000 be approved for this work to be funded from the Roads Repair & Replacement Reserve. Any unused funds will be returned to source upon the conclusion of this project.

Subject to Council approval, the works will be tendered within the competitive marketplace and, as such, there will be some variation in the actual construction costs.

Communications Considerations

There is no external communication required at this time.

Link to Strategic Plan

This project supports the *Strategic Plan Goal of Supporting an Exceptional Quality of Life for All* by Investing in Sustainable Infrastructure by maintaining and expanding infrastructure to support forecasted population growth through technology, waste management, roads, emergency services and accessibility and establishing policies and

programs that enhance the accessibility and safety of new and existing facilities and infrastructure.

Alternative(s) to the Recommendation

1. Alternatives as directed by Council.

Conclusions

It can be concluded that the infrastructure identified in this report has declined to an unacceptable condition and as such, the Town should take steps to remedy the situation in a prompt manner. It can also be concluded that actions employed by the Roads Division to date are representative of due diligence on the part of the corporation regardless of the time it has taken thus far to complete the comprehensive project design work.

Attachments

None.

Previous Reports

None.

Pre-submission Review

Agenda Management Team review on November 14, 2019

Departmental Approval

Allan D. Downey
Director of Operations
Operational Services

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

Town of Aurora
General Committee Report No. PDS19-100

Subject:	Proposed Approach to Consider Backyard Swim Schools as a Permitted Home Occupation Use
Prepared by:	Anna Henriques, Senior Planner, Development
Department:	Planning and Development Services
Date:	December 3, 2019

Recommendations

1. **That Report No. PBS19-100 be received; and,**

2. **That staff initiate an Official Plan Amendment to add backyard swim schools as a Home Occupation use in the Town's Official Plan.**

Executive Summary

This report seeks Council's approval on an approach for considering back yard swim schools as a permitted Home Occupation Use:

- The Town's Official Plan does not support backyard swim schools as a Home Occupation Use.
- A Town initiated Official Plan Amendment is recommended to introduce a policy that provides the flexibility to consider, where appropriate, home occupation uses that are not conducted entirely within a dwelling unit.
- The Town's Zoning By-law does not permit backyard swim schools as a Home Occupation use since the use is not conducted entirely within a dwelling unit or permitted accessory building.
- It is recommended that backyard swim schools be considered as a permitted Home Occupation use, on a site specific basis, through the Committee of Adjustment.
- Next steps include the preparation of a Town initiated Official Plan Amendment and the scheduling of a Statutory Public Meeting to consider public input on the proposed amendment in the first quarter of 2020.

Background

On February 26, 2019, Council passed a resolution requesting that Planning staff report on revisions required to the Town's Comprehensive Zoning By-law 6000-17, as amended, to permit backyard swim schools as a home occupation use.

The purpose of this report is to clarify existing Town Official Plan policies and Zoning By-law regulations pertaining to Home Occupations and to provide information on a recommended planning approach for considering backyard swim schools as a permitted Home Occupation use.

Policy Context

Provincial Policies and Plans

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning. The PPS encourages a mix of employment opportunities and the efficient use of land, buildings and infrastructure in our communities. Home Occupations support this policy direction by utilizing existing housing stock for local employment opportunities.

The Growth Plan for the Greater Golden Horseshoe (The Plan) is a guiding document for growth management within the Greater Golden Horseshoe Area to 2041. The Plan supports the development of complete communities that provide a variety of housing, employment, services and amenities for residents. Home occupations support the development of complete communities by providing local services and employment opportunities in close proximity to residents.

The Oak Ridges Moraine Conservation Plan (ORMCP) supports home occupations and home businesses, subject to certain criteria, including the requirement that the use be conducted within a dwelling and/or an accessory building.

York Region Official Plan (YROP)

The York Region Official Plan encourages a balance of residential and employment uses throughout the Region to provide opportunities for living and working in close proximity and supports home occupations.

Town of Aurora Official Plan

The Town's Official Plan supports home occupations in single and semi-detached dwelling units subject to specific provisions, as outlined in Section 6.13. Key provisions include:

- That the use be carried out entirely within the dwelling unit;
- That the use is clearly secondary to the primary use of the property as a residence, in terms of floor space utilization;
- That the property is the principal residence of the person carrying out the Home Occupation use;
- No outdoor storage of goods, materials, equipment or service vehicles is permitted, except where permitted in accordance with the provisions of the Zoning By-law;
- The Home Occupation use, including traffic generated and hours of operation, do not adversely affect the surrounding area; and,
- Compliance with on-site parking requirements and other provisions regulating Home Occupations in the Zoning By-law.

The Official Plan also states the following with respect to Home Occupations in the "Stable Neighbourhoods" designation:

"Home Occupations may be permitted within the "Stable Neighbourhoods" designation subject to the policies of 6.13 and 8.1.4 of this Plan and provided that the use is of an accessory and subordinate nature and does nor substantially alter the residential nature of the property."

The Town's Official Plan also permits "compatible" Home Occupations in the Suburban and Estate Residential designations (Section 8.2).

Excerpts from the Town's Official Plan (Sections 6.13, 8.1.4 and 8.2) are attached as Attachment 1.

Town of Aurora Comprehensive Zoning By-law

The Town's Comprehensive Zoning By-law 6000-17, as amended, defines a Home Occupation as follows:

"means an occupation which is carried on by and includes the persons residing in a dwelling or dwelling unit and such Home Occupation uses include but are not limited to a studio; tailor; office; office of one (1) medical practitioner; (teaching) and dance or musical instruction when limited to three (3) students at a time; hair stylist; catering services; pet grooming; and a private home day-care."

Home Occupations are permitted in several residential zones subject to the Home Occupation provisions in Section 4.6. These provisions are intended to mitigate potential negative impacts on adjacent properties and require that the use be clearly secondary to the main residential use of the building and that the residential character of the dwelling be maintained. Other Home Occupation Zoning By-law provisions regulate matters such as:

- Maximum gross floor area (GFA);
- Location of home occupation use (must be entirely within dwelling or permitted accessory buildings);
- Maximum number of employees;
- Storage of mechanical equipment; and,
- Parking requirement for home occupations, in addition to residential requirements.

Excerpts from the Town's Comprehensive Zoning By-law 6000-17, as amended, (Sections 4.6 and 5.4) are attached as Attachment 2.

Majority of other municipalities reviewed do not permit backyard swim schools as home occupations

Planning staff have completed a review of Home Occupation Zoning By-law provisions from other municipalities across southern Ontario. The majority of the municipalities reviewed permit Home Occupations only if they are located entirely within a building (either the main dwelling unit or a permitted accessory building). Based on this requirement, backyard swim schools are not permitted as a Home Occupation use in the majority of the municipalities surveyed.

Local Planning Appeal Tribunal (LPAT) decisions related to backyard swim schools cite concerns with impacts on adjacent properties

Planning staff have reviewed three (3) recent LPAT decisions associated with minor variance applications requesting permission to operate a backyard swim school as a Home Occupation. These were from the Town of Caledon, Town of Whitchurch-Stouffville and the City of Oshawa.

In all cases, the Tribunal noted the primary impacts associated with the operation of a backyard swim school as a Home Occupation use on adjacent property owners. These impacts include noise, traffic and parking. In many cases the Tribunal noted noise impacts as being unacceptable and negatively impacting the ability of adjacent property owners to enjoy their outdoor amenity space due to the intensity of the school use and its hours of operation.

In a 2017 order, the Tribunal, stated that “there is a remarkable distinction between sporadic family or friend get-togethers versus a school which would run Monday to Friday between the hours of 9:00am and 5:00pm throughout July and August, typically the two warmest months of the year when most people wish to enjoy their outside amenity areas.”

All Tribunal decisions reviewed resulted in the backyard swim school not being authorized as a Home Occupation use based on potential negative impacts on surrounding properties and not meeting the intent of Official Plan policies and/or Zoning By-law regulations which require that Home Occupation uses be conducted indoors.

Analysis

An Official Plan Amendment is required to support backyard swim schools as a home occupation use

The Town’s Official Plan supports non-residential uses as home occupations provided they are clearly secondary to the primary residential use and the use is conducted entirely within the dwelling unit. Given the nature of backyard swim schools as a predominately outdoor use, they are not supported by the Town’s Official Plan policies as a Home Occupation use.

To support backyard swim schools in the Town as a Home Occupation use, an Official Plan Amendment is required to permit home occupations that are not conducted entirely within a dwelling unit.
Staff recommend that the Town initiate an Official Plan Amendment to introduce a policy that provides the flexibility to consider, where appropriate, home occupation uses that are not conducted entirely within a dwelling unit. Staff also recommend that all other current Home Occupation policies in the Plan continue to apply, such as:

- Outdoor storage of goods, materials, equipment or service vehicles associated with Home Occupations is not permitted (except where permitted in accordance with the provisions of the Zoning By-law);
- Traffic generated by Home Occupations and hours of operation not to adversely affect the surrounding area; and,
- Compliance with on-site parking requirements and other provisions in the Zoning By-law regulating Home Occupations.

The recommended Official Plan Amendment will provide the flexibility to consider backyard swim schools as a Home Occupation use from a zoning perspective, as discussed further in this report.

Amendments to local municipal Official Plans may be exempt from Regional approval if they are of local significance and no Regional interest is adversely affected. It is the opinion of staff that the proposed Official Plan Amendment is considered a local matter and as a result, if staff is directed to initiate the proposed amendment, staff will be requesting that the Region exempt the amendment from Regional approval.

A Zoning By-law amendment or Committee of Adjustment application is required to permit back yard swim schools as a home occupation use

Similar to the Town's Official Plan policies, the Town's Comprehensive Zoning By-law 6000-17, as amended, only permits home occupations if they are conducted entirely within the dwelling or a permitted accessory building.

Provided that the Town initiated Official Plan Amendment recommended above is approved by Council, there are two (2) approaches to consider backyard swim schools as a permitted home occupation use from a zoning perspective:

1) A Zoning By-law Amendment to Town's Comprehensive Zoning By-law 6000-17, as amended
   A zoning by-law Amendment would be required to amend the Home Occupation provisions to permit home occupations that are not conducted entirely within a dwelling unit or a permitted accessory building. In addition, the amendment could also introduce more stringent zoning by-law regulations to mitigate potential negative impacts of the outdoor use(s) on adjacent properties and the residential character of the area. For example, for back yard swim schools zoning by-law regulations may include a maximum number of students at any given time to mitigate potential noise, parking and traffic concerns.

   Pursuant to the Planning Act, a statutory public meeting would be held to hear input on the proposed amendment prior to Council making a decision. Once the zoning by-law amendment is approved, the effect of such amendment would be to permit back yard swim schools and potentially other outdoor based businesses as a home occupation, as of right, in the Town's Zoning By-law. The amendment would apply to all residential zones and areas where Home Occupations are currently permitted, potentially with the exception of some Oak Ridges Moraine zones.

   With this option, provided all zoning by-law regulations are met and a building permit is not required, a property owner may operate an outdoor swim school as a home occupation without any further planning approvals from the Town.

2) Committee of Adjustment application for a minor variance.

   A Committee of Adjustment application for a minor variance would be required, on a site specific basis, to permit a home occupation (backyard swim school) that is conducted outdoors (in the rear yard or side yard, as the case may be) whereas the Zoning By-law requires that home occupations be conducted entirely within a dwelling or a permitted accessory building.

   The Planning Act [S.45 (1)] provides the Committee of Adjustment with the authority to grant minor variances from the provisions of a zoning by-law in respect of the land, building, structure, or use thereof, if in the opinion of the Committee, the following four (4) tests are met:

   i) Is it minor in nature?

ii) Is it desirable for the appropriate development or use of the land, building or structure?
iii) Does it meet the general intent and purpose of the Zoning By-law?
iv) Does it meet the general intent and purpose of the Official Plan?

The Planning Act [S. 45 (9)] also provides the Committee with the authority to grant minor variances subject to any conditions the Committee deems necessary. Conditions of approval may be recommended by Town staff after review of the application or they may be imposed by Committee at the hearing to address concerns raised by residents, etc. Examples of possible conditions that may be imposed on a minor variance to approve a backyard swim school include: a limit on the months and hours of operation, maximum number of students and/or employees, time frame for approval, etc.

Committee of Adjustment applications are circulated to all property owners within a 60 metre radius of the property requesting the minor variance. This provides nearby residents who may be impacted with the opportunity to provide input. Public and stakeholder input is considered by the Committee prior to making a decision on a minor variance application and applying any conditions of approval, as deemed appropriate.

Provided that the Committee of Adjustment is satisfied that the four (4) tests have been met, they have the ability to permit backyard swim schools as home occupations on a site specific basis. In addition, the Committee has the ability to impose conditions of approval, as recommended by staff or in response to input received.

Planning staff recommend that backyard swim schools be considered as a permitted Home Occupation use, on a case by case basis, through the Committee of Adjustment

Planning staff have reviewed both options for permitting back yard swim schools as a Home Occupation use from a zoning perspective and do not support the Zoning By-law Amendment approach. The effect of the Zoning By-law Amendment would be to permit outdoor non-residential uses (home businesses) in residential areas, subject to regulations. It is the opinion of staff that a blanket permission for outdoor non-residential uses in residential areas greatly increases the potential for negative impacts, including but not limited to noise, traffic and parking, on the host neighbourhood. More

stringent zoning By-law regulations may be introduced to help mitigate impacts, however, enforcement of the regulations may be a challenge for By-law Enforcement and will likely be based on complaints received.

In addition, such an amendment may set a precedent and lead to the establishment of other outdoor non-residential and, potentially more offensive uses, in residential areas within the Town.

Staff recommend that backyard swim schools be considered as a permitted Home Occupations use, on a site specific basis, with an application for minor variance to the Committee of Adjustment. This approach provides an opportunity to consider potential impacts and public input on a site specific basis with the ability to consider each application on its own merits and take into consideration local and contextual circumstances which may vary throughout the Town. Conditions of approval may also be imposed by the Committee to address any potential impacts and concerns. Staff note that similar to Zoning By-law regulations, enforcement of imposed conditions may also be a challenge for By-law Enforcement and will likely be based on complaints received after approval of the minor variance.

To address potential safety concerns, By-law Enforcement staff recommend that that a pool enclosure permit be obtained to enclose the pool area and, where one already exists, that it be inspected for compliance with the Pool Enclosure By-law. Planning staff note that both the permit and inspection may be undertaken prior to minor variance application submission, as part of the application review process and/or as a condition of approval. Planning and By-law Enforcement staff will work together on the specific details should staff be directed to proceed based on the recommendation in the report.

It is the opinion of Planning staff that a Committee of Adjustment application to consider a backyard swim school as a permitted home occupation use is not an overly onerous process for property owners and strikes an appropriate balance between supporting local home businesses and supporting area residents in mitigating potential impacts.

Department / Agency Comments

Future planning applications related to this staff report will be circulated to internal and external agencies for review and comments.

Public Comments

Planning applications associated with this staff report have not been submitted or initiated to date. As a result, public notification has not been provided and comments have not been received. Future planning applications will be processed in accordance with the public consultation and notification requirements of the *Planning Act*. Comments received will be summarized in future staff reports to Council and will be considered as appropriate.

Advisory Committee Review

No Advisory Committee Review is required.

Legal Considerations

If staff receive direction to initiate an Official Plan Amendment, staff will be required to consult with the Region, public bodies and the public (through at least one public planning meeting) during the preparation of the plan. If the amendment is approved by Council, any person or public body who made oral submissions at a public meeting or written submissions to Council may appeal Council's decision.

The legal considerations of a zoning by-law amendment or a Committee of Adjustment minor variance application are set out in the section of this report that discusses these applications.

Financial Implications

There are no financial implications.

Communications Considerations

In accordance with the *Planning Act,* planning applications such as Official Plan Amendments, Zoning By-law Amendments and Minor Variance Applications require a public meeting or hearing to consider public and stakeholder input. Notification of these meetings is also required pursuant to the requirements of the Act. Future planning applications will be processed in accordance with the public consultation and notification requirements in the Act.

Link to Strategic Plan

The recommended approach for considering backyard swim schools as a permitted home occupation use supports the Strategic Plan goals of: Supporting an exceptional quality of life for all and enabling a diverse, creative and resilient economy. The relevant supporting objectives include: Strengthening the fabric of our community and promoting economic opportunities that facilitate the growth of Aurora as a desirable place to do business.

Alternative(s) to the Recommendation

1. That Council provide direction.

Conclusions

Planning staff recommend that the Town initiate an Official Plan Amendment to provide some flexibility to support backyard swim schools as a home occupation use, where appropriate. In addition, instead of amending the zoning by-law to permit this as of right, staff recommend that, after the Official Plan Amendment is approved, that staff consider requests to permit backyard swim schools as a permitted home occupation use, on a site specific basis through an application to the Committee of Adjustment for a minor variance.

Next steps include the preparation of a Town initiated Official Plan Amendment and the scheduling of a statutory Public Meeting to consider input on the proposed amendment in the first quarter of 2020.

Attachments

Attachment 1- Town of Aurora Official Plan Home Occupation Policies
Attachment 2- Town of Aurora Comprehensive Zoning By-law 6000-17, as amended, Home Occupation Provisions

Pre-submission Review

Agenda Management Team Meeting review on November 14, 2019

Departmental Approval

David Waters, MCIP, RPP, PLE
Director
Planning and Development Services

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

vii. municipal property maintenance standards and all other relevant municipal regulations and standards shall apply to the *Special Needs Housing*;

viii. a minimum of 2 on-*site* parking spaces or 1 on-*site* parking space per staff member on duty, whichever is greater, shall be required for Special Needs Housing Facility; and,

ix. Special Needs Housing Facility operators shall obtain a license in accordance with the requirements of the applicable authority.

d) The implementing Zoning By-law may require a minimum distance separation between *Special Needs Housing* developments.

6.13 Home Occupations

a) Home Occupations may be permitted in single detached and semi-detached residences in accordance with the following provisions:

i. the use is carried out entirely within the *dwelling unit*;

ii. the use is clearly secondary to the primary use of the property as a residence, in terms of floor space utilization;

iii. the property is the principal residence of the person carrying on the Home Occupation use;

iv. no outside storage of goods, materials, equipment or service vehicles such as trailers and commercially licensed vehicles related to the Home Occupation use shall be permitted, except where permitted in accordance with the provisions of the Zoning By-law;

v. the activities associated with the Home Occupation use, including traffic generated and hours of operation, do not *adversely affect* the surrounding area;

vi. adequate water supply and sewage disposal facilities are available and the requirements of the Ontario Building Code are satisfied;

vii. solid waste beyond the volume normally generated by a household as defined by regional and provincial data is not permitted;

viii. compliance with on-*site* parking requirements and other provisions regulating Home Occupations in the Zoning By-law; and,

ix. a permit has been obtained from the Town to operate a Home Occupation, if applicable.

The implementing Zoning By-law may provide more restrictive height limits based on the specific context of a neighbourhood or area within the Town.

g) All new townhouses, multiple-unit buildings, communal housing and *special needs housing* may only be permitted within the 'Stable Neighbourhood' designation subject to achieving the following criteria to the satisfaction of Council:

i. the *development* shall respect the *existing* character of the surrounding neighbourhood through *compatible* and complementary building siting, massing, height and scale; and,

ii. the exterior design of the proposed building or buildings, including materials, colours, architectural detail, landscaping, and streetscape elements shall be *compatible* with the proposal's immediate neighbours.

h) Home occupations may be permitted within the 'Stable Neighbourhoods' designation subject to the policies of Sections 6.13 and 8.1.4 of this Plan and provided that the use is of an accessory and subordinate nature and does not substantially alter the residential nature of the property.

i) *Bed and Breakfast establishments* may be permitted within the 'Stable Neighbourhoods' designation subject to achieving the following criteria to the satisfaction of Council:

i. the use shall not have a negative impact on the privacy of neighbouring properties;

ii. adequate parking facilities are available on the *lot* for the proposed use and parking should not be located in the front yard of any buildings; and,

iii. the building shall be *compatible* with the character of the surrounding community.

j) Elementary Schools may be permitted within the 'Stable Neighbourhoods' designation provided that the impact on adjacent developments is minimized through the provision of adequate parking, landscaping, setback and buffering provisions to be determined in the Zoning By-law.

k) Places of Worship may be permitted within the 'Stable Neighbourhoods' designation provided that:

i. the impact on adjacent developments is minimized through the provision of adequate parking, landscaping, setback and buffering provisions to be determined in the Zoning By-law; and,

ii. traffic and parking studies which demonstrate that the use will not have an adverse impact on the *existing* or proposed traffic network to the satisfaction of Council.

l) Child care facilities may be permitted within the 'Stable Neighbourhood' designation provided that the impact on adjacent developments is minimized through the provision of adequate parking, landscaping, setback and buffering provisions to be determined in the Zoning By-law; and,

m) Local convenience/service retail and office uses may be permitted in close proximity to existing commercial areas within the 'Stable Neighbourhoods' designation provided that:

i. the impact on adjacent developments is minimized through the provision of adequate parking, landscaping, setback and buffering provisions to be determined in the Zoning By-law; and,

ii. traffic and parking studies which demonstrate that the use will not have an adverse impact on the *existing* or proposed traffic network to the satisfaction of Council.

8.1.4 Design Policies

a) All new *development* within the 'Stable Neighbourhoods' designation shall respect and reinforce the *existing* physical character and uses of the surrounding area, with particular attention to the following elements:

i. the pattern of *lots*, streets and blocks;

ii. the size and configuration of nearby *lots*;

iii. the building type of nearby residential properties;

iv. the heights and scale of nearby residential properties;

v. the setback of buildings from the street;

vi. the pattern of rear and side-yard setbacks; and,

vii. conservation and enhancement of *cultural heritage resources*.

8.2 Suburban And Estate Residential Policies

a) Permitted uses in suburban and estate residential areas shall be limited to detached dwellings, an accessory dwelling and *compatible* home occupations.

b) To ensure highest standards of *development* for these extremely low density residential uses, the same policies shall apply to both suburban and estate residential densities with the exception that:

i. suburban residential density requires:

- a minimum *lot* area of 0.2 net residential hectare (or 0.5 acres) per unit; or,
- clusters of at least 10 units may be permitted provided that a minimum of 25% of the overall *lot* area is designated as common or public open space;
- full municipal water and sanitary services;

ii. estate residential density requires:

- a minimum *lot* area of 0.8 net residential hectare (or 2 acres) per unit; or,
- clusters of at least 10 units may be permitted, provided a minimum 40% of the overall *lot* area is designated as common or public open space;
- the ultimate density of *development* proposed on subsurface sewage disposal systems shall be determined through a hydrogeological study;

c) Suburban and Estate Residential *development* will be encouraged in clusters of at least 10 units, which allow for:

i. more efficient utilization of road, water and waste disposal systems,

4.6 HOME OCCUPATION

Where a *Home Occupation* is permitted in this By-law, it shall comply with the following regulations:

4.6.1 It shall be conducted entirely within the dwelling or permitted accessory buildings.

4.6.2 There shall be no mechanical equipment used or stored except where ordinarily used for domestic purposes.

4.6.3 No more than one person not resident in the dwelling shall be employed in the *Home Occupation*.

4.6.4 Such a *Home Occupation* shall be clearly secondary to the main residential use of a building and shall not change the residential character of a dwelling house or unit.

4.6.5 Not more than twenty-five (25) percent of the *gross floor area* of the dwelling shall be used for the purpose of *Home Occupation* uses, and in no case shall the home occupation exceed 45 square metres.

4.6.6 Where a single *detached dwelling unit*, *semi-detached dwelling unit*, or *link house dwelling unit* contains a *second suite dwelling unit* and is permitted to have a *Home Occupation*, the *Home Occupation* shall be permitted in only one unit.

4.7 PLANNED WIDTH OF ROAD ALLOWANCE

Where a *Lot* abuts a road under the jurisdiction of the Province of Ontario or the Regional Municipality of York, the regulations of those agencies respecting *Front Yard Setback*s shall apply unless the appropriate *Zone* provisions of this By-law is greater, in which case, the greater requirement will apply.

4.8 LANDSCAPING STRIP

Any *Lot* on lands zoned Commercial, Employment, Institutional or Multiple Residential (more than four *dwelling unit*s per *Lot*) that is adjacent to any Residential *Zone* shall require a *Landscaping Strip* in accordance with the following provisions:

4.8.1 Location:

The *Landscaping Strip* be located adjacent to the entire length of any property line which abuts a Residential Zone, which is either:

Town of Aurora
Zoning By-law #6000-17

***Dwelling unit*- Freehold & Block *Townhouses*, *Apartment Building*, Any commercial building containing residential units**	1.5 spaces per *dwelling unit*, minimum 20% of spaces provided shall be set aside for visitor parking
Dwelling, Second Suite	1.0 space for the Second Suite Dwelling in addition to the residential parking space requirements in this By-law.
Equipment Sales and Rental Establishment	5.5 spaces per 100 m^2 of GFA
Financial Institutions	8.0 spaces per 100 m^2 of GFA
Fitness Centre, Recreation Centre	6.0 spaces per 100 m^2 of GFA for exercise rooms or similar uses, plus 5.0 spaces per athletic court
Funeral Parlours	6.0 spaces per 100 m^2 of floor area or 1 space for each 5 seats capacity of the chapel, whichever is greater
Garden Centres, Greenhouses	3.3 spaces per 100 m^2 of GFA A seasonal *Garden Centre* accessory to a main use may have no additional parking requirement.
Golf Courses	24.0 spaces for each 9 holes Plus 3.5 spaces per 100 m^2 of GFA for the club house Plus 2.5 spaces per 100 m^2 of GFA for any other facility provided
Health and Wellness Centre	4.0 spaces per 100 m^2 of GFA
Home Occupation	1.0 space per 25 m^2 of GFA for *Home Occupation* purposes in addition to the residential requirement 2.0 spaces per 25 m^2 of GFA for the office of a medical practitioner in addition to the residential requirement
Hospital	3.0 spaces per 100 m^2 of GFA
Hotels, Motels	1.0 space per room plus parking requirements for any other use
Hotels, Motels* within *Business Park Zone	1.0 space per room plus 10 spaces per 100 m^2 of GFA devoted to public uses

Town of Aurora
General Committee Report No. PDS19-103

Subject:	**Capital Project No. 81021 – Additional Funding Request for Capital Project No. 81021 Engineering Design Criteria Manual**
Prepared by:	Anca Mihail, Manager of Engineering and Capital Delivery
Department:	Planning and Development Services
Date:	December 3, 2019

Recommendations

1. **That Report No. PDS19-103 be received; and,**

2. **That the total approved budget for Capital Project No. 81021 be increased from $50,000 to $68,600, representing an increase of $18,600 to be funded from the Studies and Other Reserve Fund.**

Executive Summary

This report seeks Council's approval for funding in the amount of $18,600 which will increase Capital Project No. 81021 budget from $50,000 to $68,600 enabling the Town to proceed with updating the Engineering Design Criteria Manual.

- The Request for Proposal for this project closed on October 10, 2019 with the highest ranked proposal exceeding the project's budget;

- To proceed with the project, additional funding needs to be approved by Council.

Background

Capital Project No. 81021, Engineering Design Criteria Manual Update was approved by Council in the 2019 capital plan with a budget of $50,000. The Engineering Design Criteria Manual was previously updated in 2009 and completed in-house by Engineering staff. Staff is looking at a more comprehensive review and update of the design criteria manual to consider important factors such as climate change and sustainability in addition to engineering design criteria for public roads, watermain systems, storm and sanitary sewer systems and stormwater management ponds.

The project involves the following tasks:

- Review of the current Town's engineering design criteria manual;

- Review and assess the current engineering design criteria manual from other GTA municipalities, and

- Provide a comprehensive analysis of current engineering design criteria relative with to other government agencies: e.g. the Regional Municipality of York, the Lake Simcoe Region Conservation Authority (LSRCA), the Ministry of Natural Resources and Forestry (MNRF), the Ministry of Environment Conservation and Parks (MECP), the Ministry of Transportation Ontario (MTO).

Analysis

The Request for Proposal for this project closed on October 10, 2019 with the highest ranked proposal exceeding the project's budget.

The Request for Proposal for this project was issued on September 19, 2019 and closed on October 10, 2019.

The evaluation team determined that the highest ranked proposal, submitted by the preferred bidder with a cumulative score of 97% out of 100, and total proposal price of $67,330 exceeded the project budget. To proceed with the project, additional funding needs to be approved by Council.

The project's budgeted amount, of $50,000, was based on similar projects undertaken by other municipalities, however, given the comprehensive nature of the manual's review and update and the breath of issues to be considered, such as climate change, the highest ranked proposal exceeded the budgeted amount.

To proceed with the project additional funding needs to be approved by Council

In order to proceed with the project additional funding of $18,600, as per Table 1 below, needs to be approved by Council.

Advisory Committee Review

Not applicable

Legal Considerations

Not applicable.

Financial Implications

Table 1 below summarizes the funding requirements for the project.

Table 1

Approved Budget	
Capital Project #81021	$50,000
Funds Committed to date	$0
Funding available for the project	**$50,000**
Contract Award excluding HST	$67,330
Other planned expenditures	$0
Contingency amount	$0
Non-refundable taxes (1.76%)	$1,185
Total Funding Required	$68,600
Budget Variance	($18,600)

It is recommended that the resultant project funding short-fall of $18,600 be funded from the studies and other reserve.

Communications Considerations

Not applicable.

Link to Strategic Plan

This report supports the Strategic Plan goal of ***Supporting an Exceptional Quality of Life for All*** through its accomplishment in satisfying requirements in the following key objective within this goal statement:

Invest in sustainable infrastructure: Maintain and expand infrastructure to support forecasted population growth through technology, waste management, roads, emergency services and accessibility.

Alternative(s) to the Recommendation

1. Council to provide direction.

Conclusions

Staff recommend that Council approve a budget increase for Capital Project No. 81021 from $50,000 to $68,600 and transfer additional funding in the amount of $18,600 from the studies and other reserve. This will enable the Town to proceed with the project and produce a manual which will clearly convey the Engineering Design Criteria and Construction Guidelines to the end user of the document. If Council does not approve the additional funding request, the capital project will not proceed.

Attachment

Attachment 1 – Capital Project Sheet

Previous Reports

None

Pre-submission Review

Agenda Management Team review on November 14, 2019

Departmental Approval

David Waters, MCIP, RPP, PLE
Director
Planning and Development Services

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer

REPORT PDS19-103

Town of Aurora

Capital Projects

ATTACHMENT #1 - CAPITAL PROJECT SHEET

Project	81021 Engineering Design Criteria Manual - Update		
Department	Planning & Development Services		
Version	Final Approved Budget	**Year**	2019

Description

TARGET START DATE AND END DATE: Use format Q4 2017 - Q1 2018

Q2 2019 - Q1 2020

PROJECT DESCRIPTION:

Provide a brief overview of the project and include the key goals, objectives and performance measures.

To provide funding to hire an Engineering Consultant for the review and update of the Design Criteria Manual and the General Specifications for the Construction of Buried Pipelines and Roadway Systems. The update will include format update and revisions to the engineering criteria and drawings.

These documents were last updated in 2009.

PROJECT JUSTIFICATION/CAPITAL SERVICE LEVEL IMPACT:

Provide the reasons the project should be approved and what will be the impact of the project to service levels.

LINK TO STRATEGIC PLAN: Supporting an exceptional quality of life for all, Objective 2: Invest in sustainable infrastructure - maintain and expand infrastructure.

PROJECT BENEFITS:

Explain the benefits of the project which could include Citizen/Client, compliance, financial, internal, learning & growth or utility benefits

Being up-to-date with the design criteria manual and the construction of the buried pipeline and roadway systems including format update and revisions and updates to the engineering criteria and drawings.

IMPACT TO THE ORGANIZATION IF THE PROJECT WAS NOT APPROVED:

Please provide an explanation of what the outcomes would be if the project was not approved.

Those 2 manuals will not be reviewed and updated and may become outdated.

Budget

	Total	2019	2020	2021	2022	2023	2024	Future
Expenditures								
Estimated Expenditures								
CONSULTING	50,000	50,000						
	50,000	50,000						
Expenditures Total	**50,000**	**50,000**						
Funding								
Other Funding Sources								
STUDIES & OTHER RES CONT'N	50,000	50,000						
	50,000	50,000						
Funding Total	**50,000**	**50,000**						
Total Over (Under) Funded								

Town of Aurora
General Committee Report No. PDS19-104

Subject: **Draft Plan of Condominium Application**
Gottardo 404 (Aurora) Inc.
95 Eric T Smith Way
Part of Lot 3, Plan 65M-4324
File: CDM-2019-03

Prepared by: Katherine Bibby, Planner

Department: Planning and Development Services

Date: December 3, 2019

Recommendation

1. **That Report No. PDS19-104 be received; and,**

2. **That the Draft Plan of Condominium File No. CDM-2019-03 for an office building with 10 units and a total Gross Floor Area of 4,723 square meters (50,843 square feet), subject to Schedule "A" to this report, be approved.**

Executive Summary

This report provides background information and details regarding the Draft Plan of Condominium submitted for 95 Eric T Smith Way.

- A Site Plan Application for 95 Eric T Smith Way was approved by Council in January 2019.
- A consent application was approved by the Committee of Adjustment in May 2019 to sever the lot into two parcels.
- The Draft Plan of Condominium seeks approval for condominium tenure and consists of a one-storey office building (including a daycare centre) containing a total of 10 condominium units with a total GFA of 4,723 square meters (50,837 square feet).
- Conditions of Approval are recommended based on comments received from Town of Aurora Staff and External Agencies.
- The application is consistent with the Provincial Policy Statement, Growth Plan, Lake Simcoe Protection Plan, York Region Official Plan, Town of Aurora Official Plan, and Zoning By-law 6000-17.

Background

Application History

A Site Plan Application for 95 Eric T Smith Way was approved by Council in January 2019

The Plan of Condominium application for 95 Eric T Smith Way proposes to establish a standard condominium corporation to implement the previously approved Site Plan for a one-storey building to accommodate office uses, as well as a daycare centre. The application proposes to divide the tenure of the building into ten (10) units, and identifies common elements to be managed by a condominium corporation.

The Site Plan Application (File No. SP-2018-06) was heard by Council on January 22, 2019, and Council passed the following resolution:

1. *That Report No. PDS19-011 be received; and*

2. *That site plan application number SP-2018-06 (Gottardo Construction Limited) to permit the development of the subject lands for a one storey, flex office building be approved; and*

3. *That the Mayor and Town Clerk be authorized to execute the Site Plan Agreement, including any and all documents and ancillary agreements required to give effect to same.*

The Site Plan Agreement was executed in February 2019. The building is currently under construction in accordance with the approved Site Plan (see Figure 5).

A consent application was approved by the Committee of Adjustment in May 2019 to sever the lot into two parcels

An application was made to sever the subject property (95 Eric T Smith Way) into two parcels: the subject lands (95 Eric T Smith Way) being the retained parcel, and the second parcel (125 and 175 Eric T Smith Way) being the severed parcel. The purpose of the application was to facilitate the establishment of a condominium corporation for the office building. The lands to the east (125 and 175 Eric T Smith Way) will be the subject of a future development application. The consent application was approved at the May 9, 2019 Committee of Adjustment hearing. The conditions of the consent application were cleared by the applicant on November 11, 2019.

A related minor variance application was also submitted for the lands known as 125 and 175 Eric T Smith Way (east of the subject property), for a reduced lot frontage on Eric T Smith Way. This minor variance application was approved by the Committee of Adjustment at the May 9, 2019 hearing. The minor variance and consent applications were heard together as the reduced lot frontage enabled the approval of the consent application.

Location / Land Use

The subject lands are located in the Hallgrove Business Park, on Eric T Smith Way. The subject lands are approximately 1.7 hectares in area, with a frontage of approximately 42 metres on Eric T Smith Way (Figure 1).

Surrounding Land Uses

The surrounding land uses are as follows:

North: Eric T Smith Way and Bulk Barn Headquarters;

South: Public Open Space;

East: Future Phase 2 Development (Business Park) and Highway 404;

West: Pinnacle Tool Works.

Policy Context

Provincial Policies

All Planning Act development applications are subject to provincial policies. The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest. These policies support the development of strong communities through the promotion of efficient land use and development patterns. The Growth Plan for the Greater Golden Horseshoe is a guiding document for growth management within the Greater Golden Horseshoe (GGH) Area to 2041. The Growth Plan provides a framework which guide decisions on how land will be planned, designated, zoned and designed. The Lake Simcoe Protection Plan (LSPP) is a provincial document that provides policies which addresses aquatic life, water quality, water quantity, shorelines and natural heritage, other threats and activities (including invasive species, climate change and recreational activities) and implementation.

York Region Official Plan (YROP)

The subject lands are designated as "Urban Area" within the York Region Official Plan. York Region's vision for the Urban Area is to strategically focus growth while conserving resources and to create sustainable lively communities. Under the York Region's Official Plan, one regional urbanization goal is to enhance the Region's urban structure through city building, intensification and compact, complete communities.

Town of Aurora Official Plan, OPA 30

The subject lands are designated as "Business Park" in the Official Plan (see Figure 2). The Business Park designation permits a mix of high quality employment uses that display high design standards. Permitted uses include business and professional offices, as well as daycare centres, which are the uses that were proposed in the Site Plan application. The lands to the south of the subject lands are designated "Oak Ridges Moraine Countryside Area".

Zoning By-law 2213-78, as amended

The subject lands are zoned as "Business Park E-BP(349) Exception Zone" (see Figure 3). The E-BP Zone permits the site to be used for offices and daycare centre, provided that no part of the building is used for Industrial uses or Warehouses.

Reports and Studies

The required reports were previously submitted, reviewed, and approved as part of the Site Plan application.

The Draft Plan of Condominium seeks approval for condominium tenure and consists of a one-storey office building (including a daycare centre) containing a total of 10 condominium units with a total GFA of 4,723 square meters (50,837 square feet).

The proposed draft plan of condominium (see Figure 4) proposes ten (10) units with each unit ranging in size from 455 to 488 square meters (4,800 to 5,200 square feet), with a total GFA of 4,723 square meters (50,843 square feet). The common elements include: electrical/mechanical rooms, exterior walls, roof, parking lot and retaining wall, and landscaping. A daycare centre is proposed in three of the southerly units, and the remaining units are proposed for office.

Conditions of Approval are recommended based on comments received from Town of Aurora Staff and External Agencies.

The proposed draft plan of condominium conditions of approval have been formulated in consultation with Town departments and external agencies. The conditions include standard and site-specific conditions relevant to the development. In addition to the condominium conditions of approval, the Owner will be required to adhere to the existing Draft Plan of Subdivision and Site Plan conditions of approval which apply to the subject lands. Recommended conditions of approval are provided in Appendix "A" to this report.

Analysis

Planning Considerations

The Application is consistent with the Provincial Policy Statement (PPS) 2014

The PPS encourages the development of strong communities through the promotion of efficient land use and development patterns, including providing an adequate supply of employment lands. The proposed development provides commercial units to meet the employment needs of the Town of Aurora. It is Planning Staff's opinion that the Draft Plan of Condominium application is consistent with the PPS.

The Application is consistent with the Growth Plan 2019

The Growth Plan encourages the concentration of population and employment growth to locate within built-up settlement areas, and promotes the development of complete communities that offer access to local amenities, and connections to municipal water and wastewater systems. It is Planning Staff's opinion that this application is consistent with the Growth Plan.

The Application conforms to the Lake Simcoe Protection Plan (LSPP)

It is Planning Staff's opinion that the proposed Draft Plan of Condominium conforms to the Lake Simcoe Protection Plan. The Lake Simcoe Region Conservation Authority (LSRCA) has the opportunity to review the reports and plans prepared in support of the application for Draft Plan of Condominium. The LSRCA has no objection to the approval of the Draft Plan of Condominium.

The Application conforms to the York Region Official Plan (YROP)

York Region has completed its review of the subject application and has no objection to the approval of the Draft Plan of Condominium with no conditions of approval.

The Application conforms to the Town of Aurora Official Plan (OPA 30)

Planning Staff are of the opinion that the proposed Draft Plan of Condominium conforms to the land use and development policies of the Official Plan and is compatible with the surrounding land uses. The proposed commercial uses are permitted use in accordance with the "Business Park" designation.

The Application conforms to the Zoning By-law 6000-17, as amended

The subject lands are currently zoned "Business Park E-BP(349) Exception Zone". The proposed uses of Office and a Daycare Centre are permitted within the E-BP(349) zone. Planning Staff are of the opinion that the proposed development is appropriate and conforms to the Zoning By-law.

Department/Agency Comments

The proposed applications were circulated to all internal and external agencies for review and comments. In general, all circulated agencies are satisfied and have no further comments at this time, subject to conditions of approval outlined in Appendix 'A'. All technical matters will be resolved within an implementing agreement to the satisfaction of the Town.

External Agency Comments

The Lake Simcoe Region Conservation Authority, Regional Municipality of York, Rogers, Alectra, Enbridge, Bell Canada, and Canada Post have reviewed the application and have no objection to the approval of the Draft Plan of Condominium subject to conditions of approval, outlined in Appendix 'A'. The Ministry of Transportation has not responded to the circulation of the application; however, a condition that MTO requirements be fulfilled is included as a condition in Appendix 'A'. All of MTO's comments on the site plan were adequately addressed as part of the Site Plan agreement.

Advisory Committee Review

No Communication Required.

Legal Considerations

Section 9(2) of the *Condominium Act, 1998* states that the requirements of the *Planning Act* that apply to a plan of subdivision apply to a plan of condominium with necessary modifications. Under the *Planning Act*, Council has 120 days to make a decision on subdivision applications before the owner has any appeal rights. This application was deemed complete on September 11, 2019. Therefore, Council must make a decision on this application before January 9, 2020.

Financial Implications

The development of the subject lands generated development charges at the time of building permit issuance. The proposed development will generate yearly tax assessment to the Town.

Communications Considerations

Not applicable.

Link to Strategic Plan

The Draft Plan of Condominium application supports the Strategic Plan goal of "enabling a diverse, creative and resilient economy" through the key objective of "promoting economic opportunities that facilitate the growth of Aurora as a desirable place to do business". The new office units will provide employment land opportunities.

Alternatives to the Recommendation

None

Conclusions

Staff recommend approval of the Draft Plan of Condominium application (File No. CDM-2019-03) for a ten (10) unit one-storey office building, subject to the conditions set out in Appendix "A" to this report.

Attachments

Figure 1 – Location Map

Figure 2 – Official Plan Designation Map

Figure 3 – Existing Zoning By-law

Figure 4 – Draft Plan of Condominium

Figure 5 – Approved Site Plan

Appendix "A" – Conditions of Approval

Previous Reports

General Committee Report No. PDS19-011, dated January 15, 2019.

Pre-submission Review

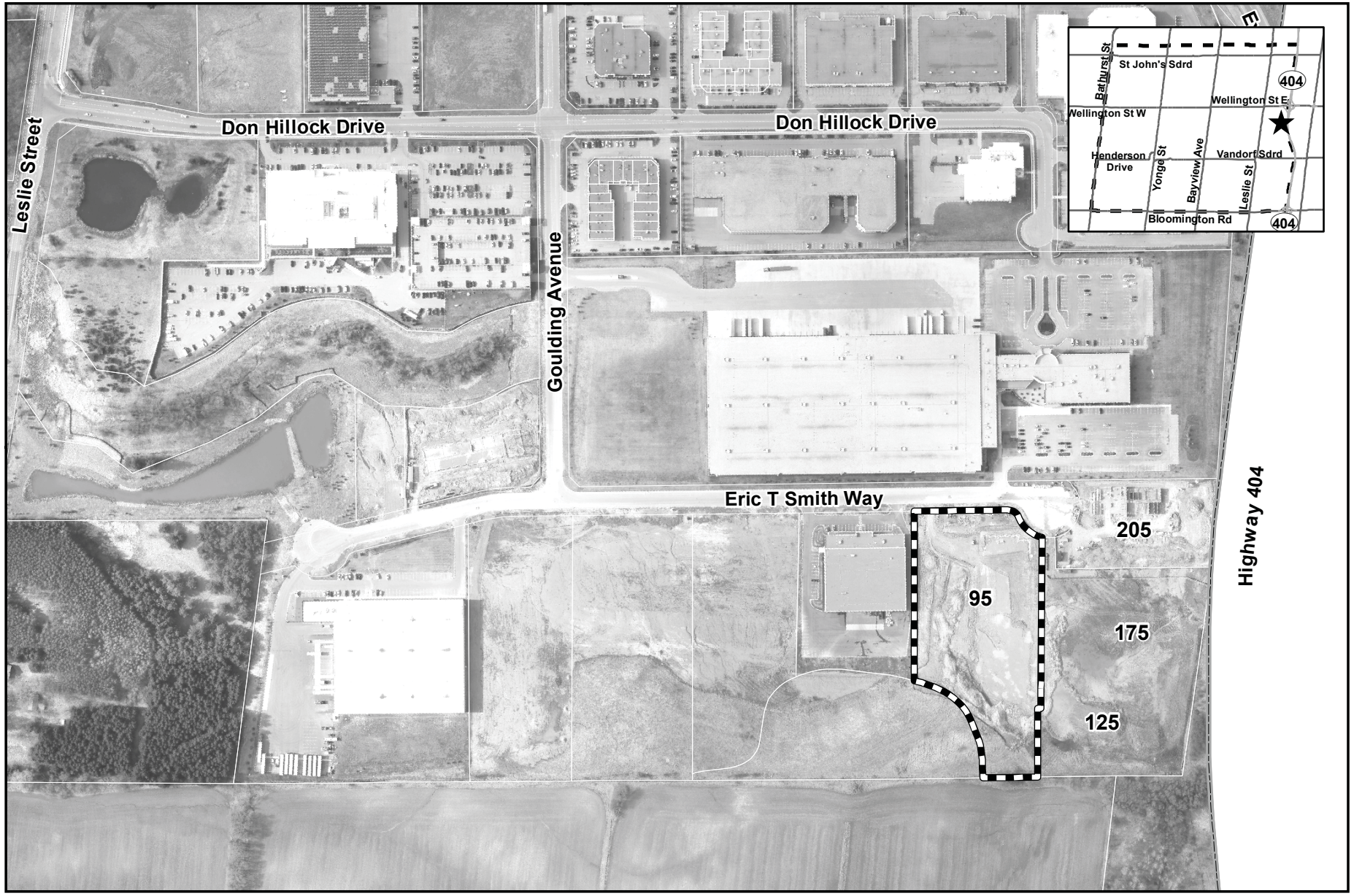
Agenda Management Team review on November 14, 2019

Departmental Approval

David Waters, MCIP, RPP, PLE
Director
Planning and Development Services

Approved for Agenda

Doug Nadorozny
Chief Administrative Officer



LOCATION MAP

APPLICANT: Gottardo 404 (Aurora) Inc.
FILES: CDM-2019-03

FIGURE 1

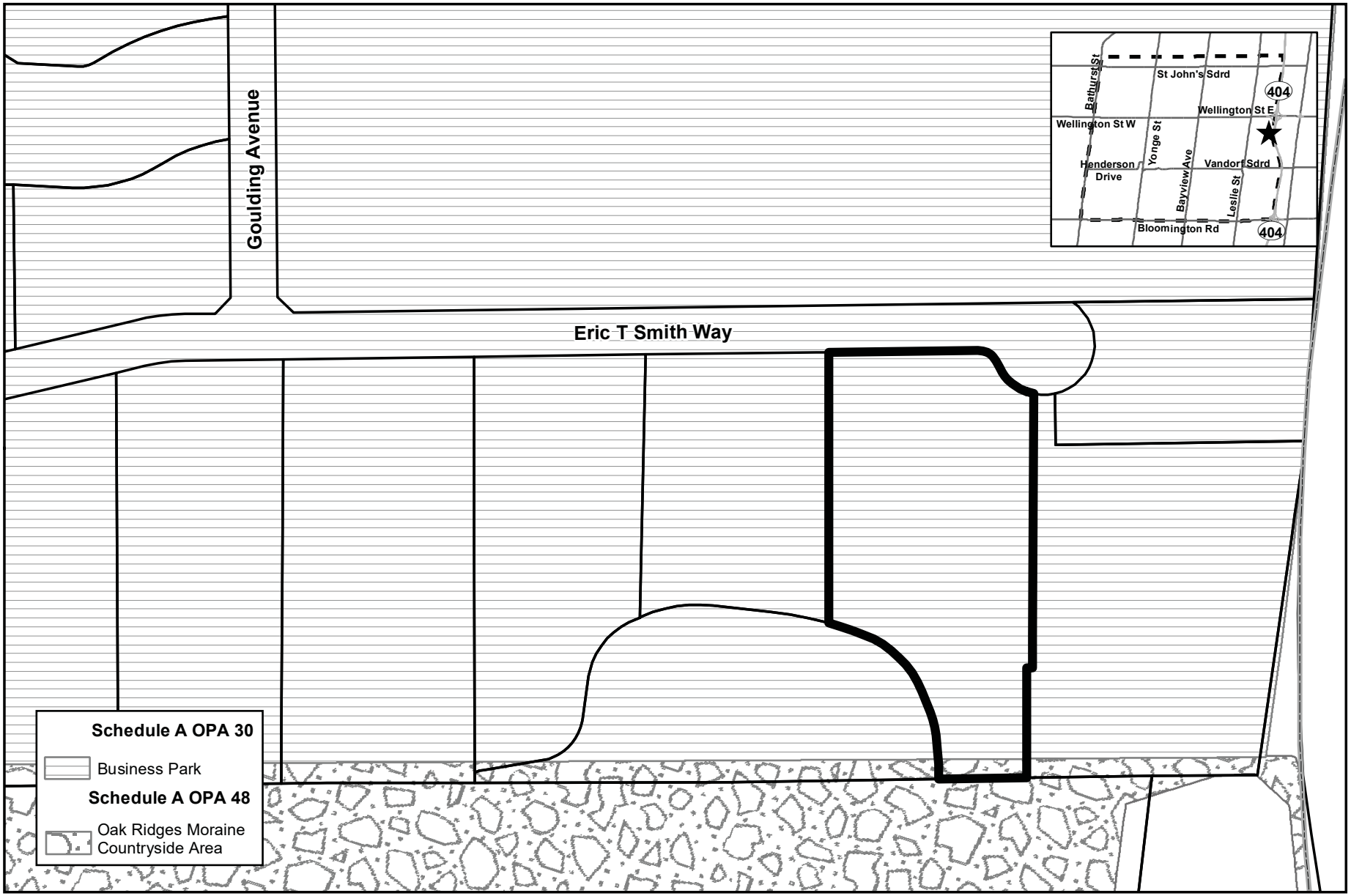
SUBJECT LANDS

0 50 100 150 200
Metres

N

AURORA
You're in Good Company

Map created by the Town of Aurora Planning & Building Services Department, November 12, 2019. Base data provided by York Region & the Town of Aurora. Air Photos taken Spring 2018, © First Base Solutions Inc., 2018 Orthophotography.



OFFICIAL PLAN DESIGNATION MAP

APPLICANT: Gottardo 404 (Aurora) Inc.
FILES: CDM-2019-03
FIGURE 2

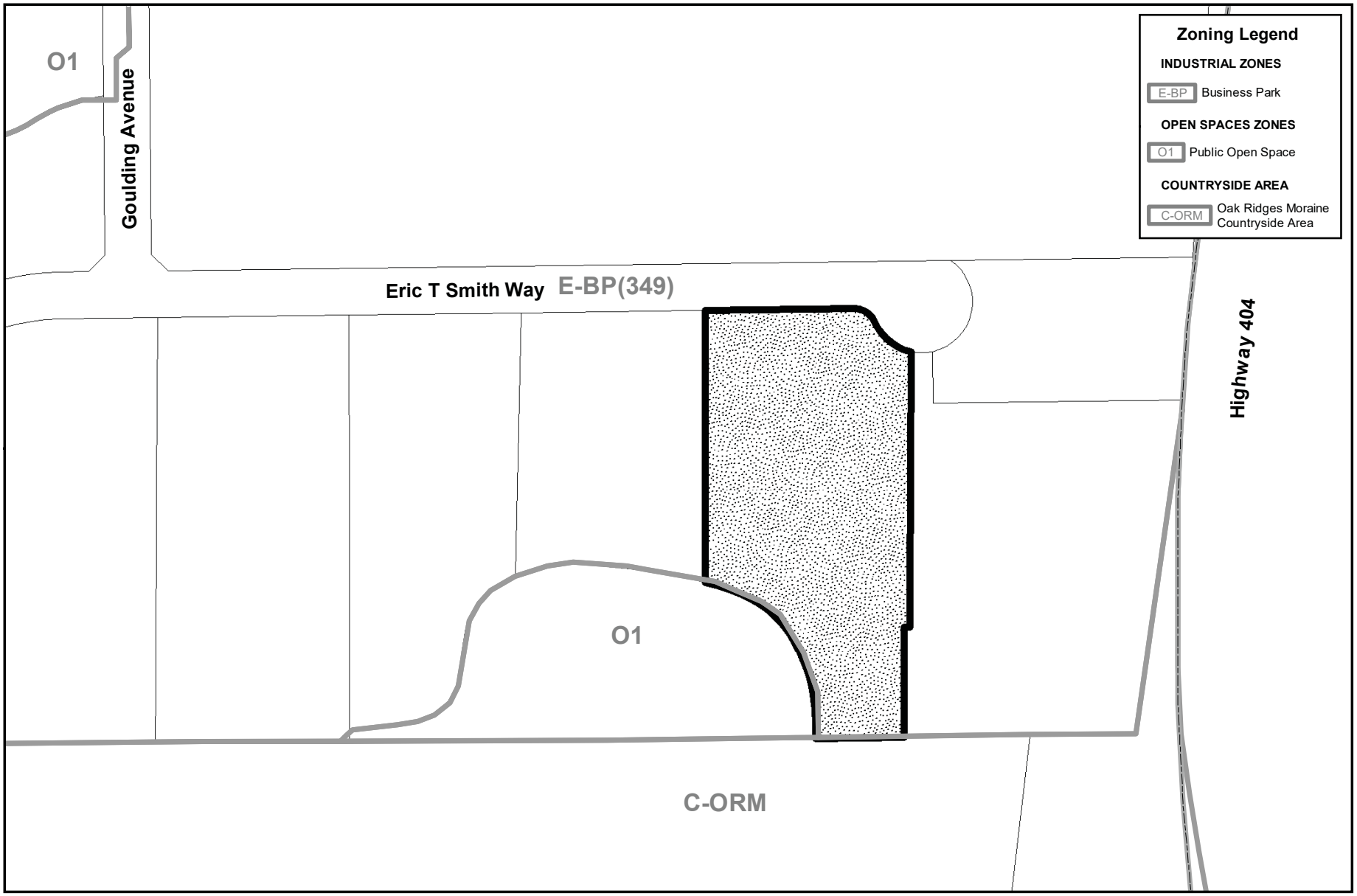
SUBJECT LANDS

0 25 50 75 100
Metres

N

AURORA
You're in Good Company

Map created by the Town of Aurora Planning & Development Services Department, November 12, 2019. Base data provided by York Region & the Town of Aurora.



ZONING MAP

APPLICANT: Gottardo 404 (Aurora) Inc.
FILES: CDM-2019-03
FIGURE 3

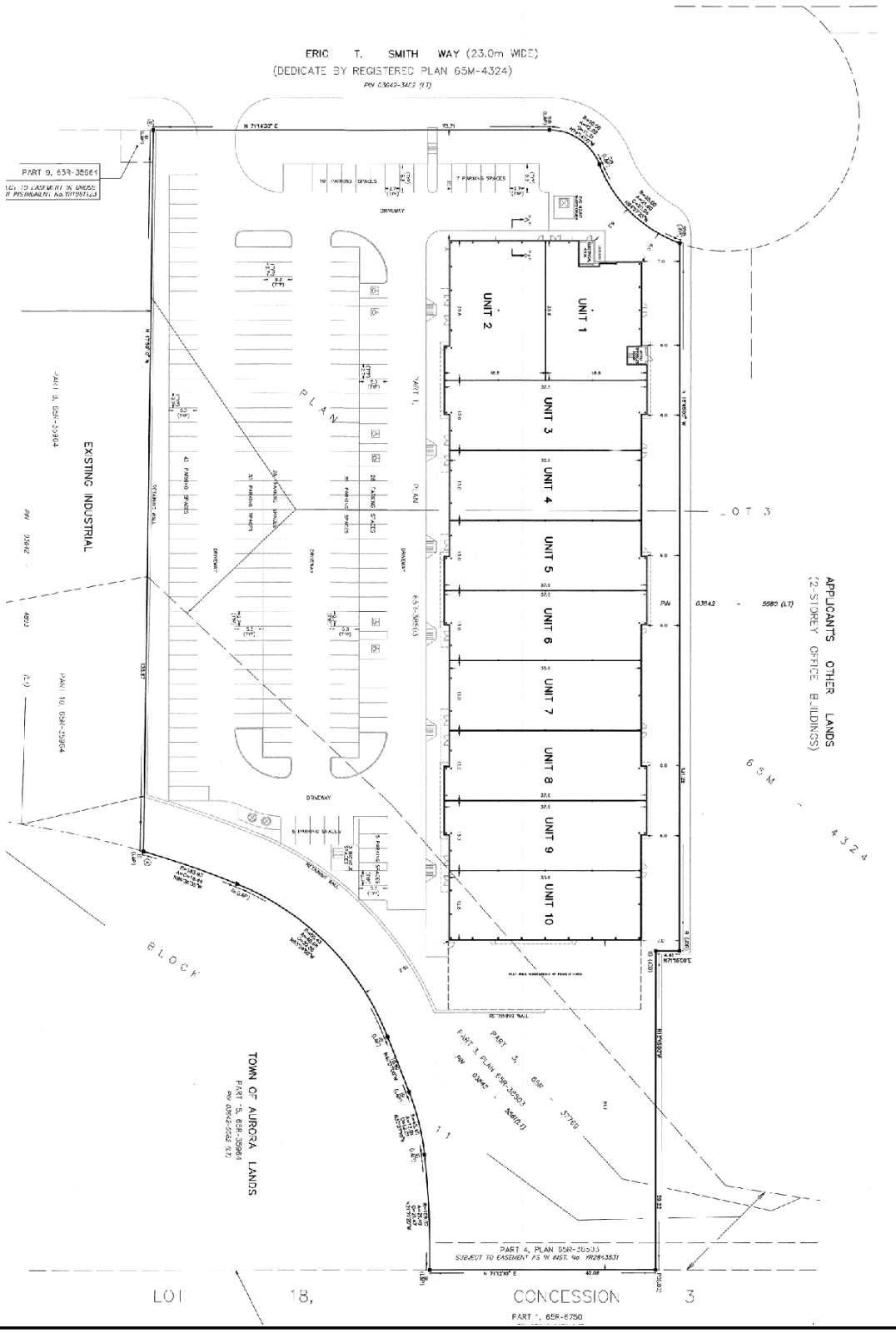
SUBJECT LANDS

0 25 50 75 100
Metres

N

AURORA
You're in Good Company

Map created by the Town of Aurora Planning & Development Services Department, November 11, 2019. Base data provided by York Region & the Town of Aurora.

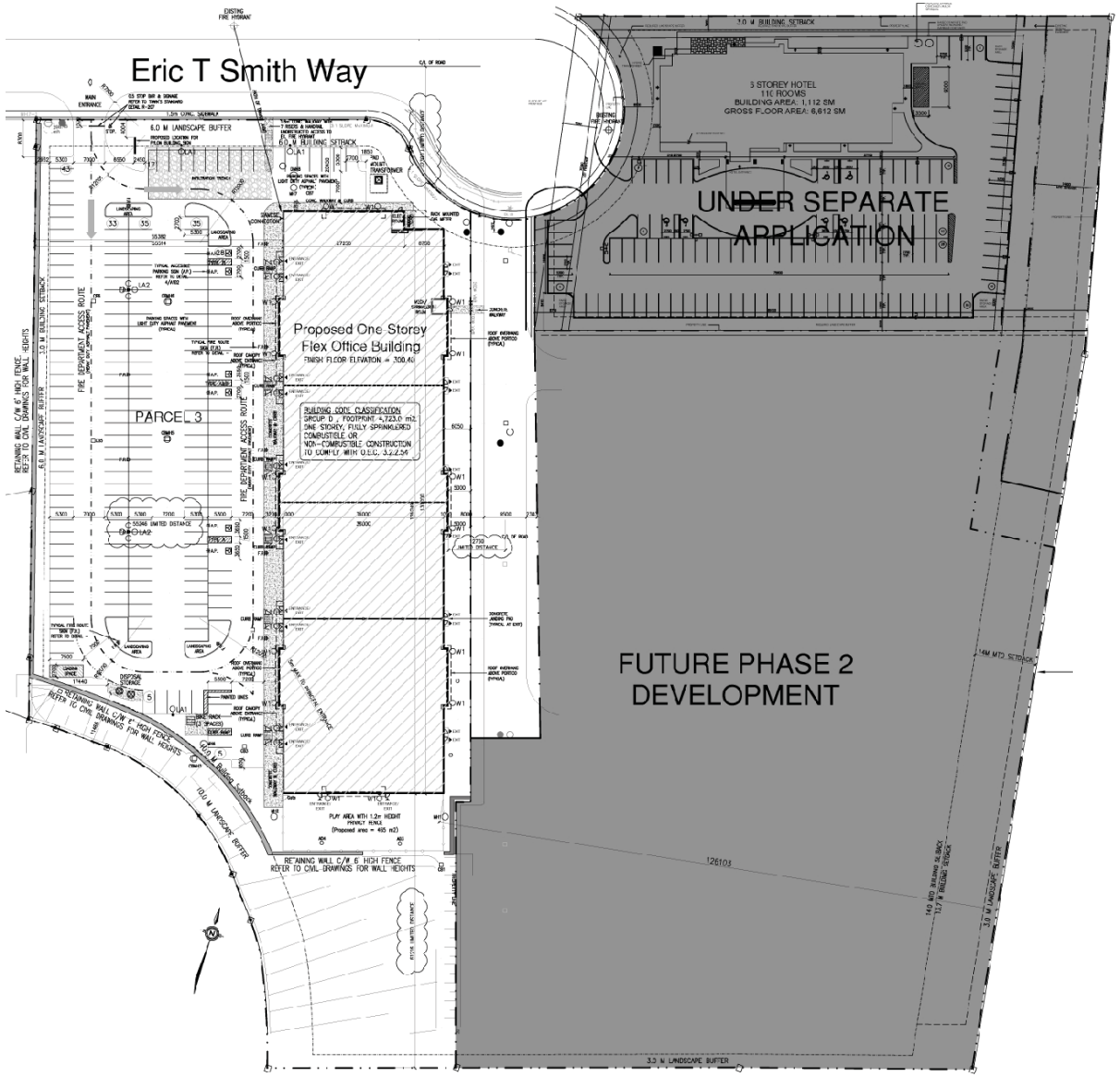


DRAFT PLAN OF CONDOMINIUM

APPLICANT: Gottardo 404 (Aurora) Inc.
FILES: CDM-2019-03

FIGURE 4

Map created by the Town of Aurora Planning & Development Services Department, November 12, 2019. Drawing provided by J.D.Barns Limited



APPROVED SITE PLAN

APPLICANT: Gottardo 404 (Aurora) Inc.
FILES: CDM-2019-03

FIGURE 5

AURORA
You're in Good Company

Map created by the Town of Aurora Planning & Development Services Department, November 11, 2019. Drawing provided by Global Architect Inc.

Appendix "A"

CONDITIONS OF APPROVAL

Draft Plan of Condominium
Gottardo 404 (Aurora) Inc.
95 Eric T. Smith Way, legally described as Part Lot 3, and Part Block 11, Plan 65M-4324, designated as Parts 1, 3 and 4, Plan 65R-38503 (the "Lands")
CDM-2019-03

THE CONDITIONS OF AURORA COUNCIL THAT SHALL BE SATISFIED BY THE OWNER OF THE LANDS (THE "OWNER") PRIOR TO THE RELEASE FOR REGISTRATION OF ANY CONDOMINIUM PLAN OF THE LANDS (THE "PLAN"), ARE AS FOLLOWS:

Planning Division Conditions

1. The draft plan prepared by J.D. Barnes Limited (the "Surveyor") dated August 19, 2019 with respect to the creation of ten (10) commercial units on a plan of condominium (the "Draft Plan") and associated conditions of Draft Plan approval shall be amended to the satisfaction of the Town's Planning Division, if revisions are required to implement or integrate any recommendations resulting from studies required as a condition of Draft Plan approval. Further, minor redline revisions to the Draft Plan may also be required to ensure property alignment with existing or proposed lots, blocks, units, streets, and/or facilities on lands adjacent to the Draft Plan.

2. Prior to the release of the Plan for registration, the Owner shall, if required by the Town, enter into and execute any agreement(s) with The Corporation of the Town of Aurora agreeing to satisfy all conditions, legal, financial (including fees and securities) and otherwise of the Town (the "Condominium Agreement").

3. The Owner shall submit to the Town for approval the draft Plan. If requested, the Owner shall incorporate any necessary amendments to the draft Plan to the satisfaction of the Planning Division. Prior to the release for registration of the draft Plan, the Owner shall provide a final version of same to the Town together with a letter from the Surveyor confirming that:

   a) the draft Plan provided to the Town is the same version to be submitted for registration as preapproved by the Land Registrar;

   b) the Town will be notified of any required changes to same prior to registration; and

   c) immediately following registration of the Plan, one (1) mylar, and one (1) whiteprint will be provided to the Town.

Legal Services Division Conditions

4. Prior to the release for registration of the Plan, the Owner shall submit to the Town for approval the Condominium Declaration and Description containing all the required provisions in accordance with the *Condominium Act, 1998* and any other provision as may be required by the Town (the "Declaration"). If requested by the Town, the Owner shall incorporate into the Declaration any right(s)-of-way and easements for vehicular access, including access for fire and emergency services, to the satisfaction of the Town. Together with the final version of the Declaration, the Owner shall provide a solicitor's undertaking indicating that:

a) the Declaration provided to the Town is the final Declaration to be submitted for registration as preapproved by the Land Registrar;

b) the Town will be notified of any required changes to the Declaration prior to registration; and

c) immediately following registration of the Declaration, an electronic copy of the registered Declaration and Plan will be provided to the Town.

Engineering Division Conditions

5. Prior to the Town's release for registration of the Plan, the Owner shall provide to the satisfaction of the Town, a certificate from the Owner's consultant stating that the buildings have been substantially completed in accordance with the *Condominium Act*, 1998, S.O. 1998, c. 19, as amended, and that they have been surveyed and built including all site works in accordance with the plans forming part of the Site Plan Agreement dated February 25, 2019 between Gottardo 404 (Aurora) Inc. and the Town registered on title to the Lands as Instrument No. YR2938538 on March 14, 2019 (the "Site Plan Agreement").

Bell Canada Conditions

6. The Owner shall indicate in the Agreement, in words satisfactory to Bell Canada, that it will grant to Bell Canada any easements that may be required, which may include a blanket easement, for communication/telecommunication infrastructure. In the event of any conflict with existing Bell Canada facilities or easements, the Owner shall be responsible for the relocation of such facilities or easements

Enbridge Gas Conditions

7. The Owner shall contact Enbridge Gas Inc. Customer Connections department for service and meter installation details and to ensure all gas piping is installed prior to the commencement of site landscaping (including, but not limited to: tree planting, silva cells, and/or soil trenches) and/or asphalt paving.

8. The Owner acknowledges that all costs are the responsibility of the Owner if the gas main needs to be relocated as a result of changes in the alignment or grade of the future road allowances or for temporary gas pipe installations pertaining to phase construction.

9. The Owner will provide easement(s) to Enbridge Gas Inc. at no cost.

10. The Owner will provide a 3 metre by 3 metre exclusive use location that cannot project into the municipal road allowance in the event a pressure reducing regulator station is required.

Ministry of Transportation Conditions

11. That the Ministry of Transportation requirements be satisfied in all documentation, including the Condominium Agreement and the Condominium Declaration.

Clearances

The Town's Planning Division shall advise that Conditions 1, 2 and 3 have been satisfied, stating briefly how each Condition has been met.

The Town's Legal Services Division shall advise that Condition 4 has been satisfied, stating briefly how each Condition has been met.

The Town's Engineering Division shall advise that Condition 5 has been satisfied, stating briefly how each Condition has been met.

Bell Canada shall advise the Town of Aurora that Condition 6 has been satisfied; the clearance letter shall include a brief statement detailing how the Condition has been met.

Enbridge Gas shall advise the Town of Aurora that Conditions 7 to 10 have been satisfied; the clearance letter shall include a brief statement detailing how each Condition has been met.

Ministry of Transportation advise the Town of Aurora that Condition 11 has been satisfied; the clearance letter shall include a brief statement detailing how the Condition has been met.

Notice of Motion

Mayor Tom Mrakas

Date: December 3, 2019

To: Members of Council

From: Mayor Mrakas

Re: **Street Name Addition – Kimberley Kerr**

Whereas the Town's Street Naming Policy allows for persons who have made outstanding, significant and/or exemplary contributions to the Town of Aurora, to be added to the Bank of Approved Street Names; and

Whereas Kimberley Kerr was a long-time and well-known Aurora resident who was a dedicated volunteer;

1. Now Therefore Be It Hereby Resolved That staff add the name "Kimberley Kerr" to the Town's Bank of Approved Street Names.