



Committee of the Whole Meeting Agenda

Date: July 8, 2019
Time: 9:30 a.m., reconvening at 1:00 p.m. and 6:30 p.m.
Location: Council Chambers Level 2, City Hall

Pages

1. Declarations of Interest:

2. Delegation(s):

In order to speak at a Committee of the Whole meeting, individuals must register no later than 9:30 on the day of the meeting. To register, complete the online application at www.burlington.ca/delegation, email cityclerks@burlington.ca or phone 905-335-7600, ext. 7481.

3. Consent Items:

Reports of a routine nature, which are not expected to require discussion and/or debate. Staff may not be in attendance to respond to queries on items contained in the Consent Agenda.

3.1	Update to emergency and continuity management program by-law (BFD-01-19)	1 - 46
3.2	Assumption of Multinational Five Investments Limited Phase 2B Subdivision (CW-35-19)	47 - 53
3.3	2019 Capital budget variance and project closure (F-32-19)	54 - 60
3.4	Santa 5 K road race 2019 (COW-09-19)	61 - 62
3.5	Waterfront Centre roof replacement (PR-08-19)	63 - 65
3.6	Enterprise Resource Planning (ERP) program update (IT-03-19)	66 - 70
3.7	Federation of Canadian Municipalities (FCM) Conference (M0-05-19)	71 - 73

4. Regular Items:

4.1	2018-2022 Burlington's plan from vision to focus (V2F) (CM-15-19)	74 - 140
	Note: this item to be discussed at 9:30 a.m.	
4.2	Approval to expropriate - Waterdown Road from Craven Avenue to Mountain Brow Road (L-19-19)	141 - 163
4.3	Burlington Transit's five-year business plan update (TR-03-19)	164 - 185
	Note: delegations will not be registered for this item. Delegations can register for this item at the December 2, 2019 Committee of the Whole meeting.	
4.4	Alternative transit service delivery models (COW-10-19)	186 - 186
4.5	Tree removal – 3061 Balmoral Ave (RPF-11-19)	187 - 193
4.6	Tree removal – 5209 Stonehaven Drive (RPF-12-19)	194 - 199
4.7	Enterprise risk – labour market (HR-02-19)	200 - 209
4.8	2020 Budget framework (F-28-19)	210 - 219
4.9	Financial condition assessment (F-29-19)	220 - 302
	Note: appendix A can be accessed at www.burlington.ca/calendar .	
4.10	Update to the corporate energy and emissions management plan (CW-08-19)	303 - 408
	Note: appendix A can be accessed at www.burlington.ca/calendar .	
4.11	Construction & Mobility Management Policy (CW-27-19)	409 - 418
	Note: delegations will not be registered for this item. Delegations can register for this item at the September 9, 2019 Committee of the Whole meeting.	
4.12	Spray pad at Tansley Woods Park (COW-08-19)	419 - 419
4.13	Review of citizens' committee recommendations on council compensation (MO-08-19)	
	Note: this item will be distributed under separate cover.	

4.14	Burlington Economic Development Corporation (BEDC) and consideration of Municipal Development Corporation (MDC) (MO-04-19)	420 - 429
4.15	D-Day Anniversary - Juno Beach trip (MO-03-19)	430 - 441
4.16	Award of RFP-204-19 design build and install LaSalle Marina floating wave break (CW-31-19)	442 - 446
	Note: this item to be discussed at 6:30 p.m.	
4.17	LaSalle Park Marina Agreement and Operating Model (CM-05-19)	447 - 545
	Note: this item to be discussed at 6:30 p.m.	
	Note: appendix B can be accessed at www.burlington.ca/calendar	

5. Confidential Items:

Confidential reports may require a closed meeting in accordance with the Municipal Act, 2001. Meeting attendees may be required to leave during the discussion.

- 5.1 Confidential appendix E of Legal department report L-19-19 regarding approval to expropriate - Waterdown Road from Craven Avenue to Mountain Brow Road (L-19-19)
- 5.2 Confidential appendix A of City Manager report CM-05-19 regarding LaSalle Park Marina agreement and operating model (CM-05-19)
- 5.3 Confidential appendices B and C of Human Resources report HR-02-19 regarding enterprise risk - labour market (HR-02-19)

6. Procedural Motions:

7. Information Items:

8. Staff Remarks:

9. Committee Remarks:

10. Adjournment:



SUBJECT: Approve By-Law XX-2019

TO: Committee of the Whole

FROM: Fire Department

Report Number: BFD-01-19

Wards Affected: All

File Numbers: 735-07

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Approve by-law XX-2019, attached as Appendix A to Burlington Fire Department report BFD-01-19, a by-law to provide for an Emergency and Continuity Management Program, Municipal Emergency Response Plan and Emergency Management Program Committee Terms of Reference; and

Repeal by-law 87-2015, a by-law to provide for an Emergency Management Program and by-law 40-2017, a by-law to amend by-law 87-2015.

Purpose:

An Engaging City

- Good Governance
- Community Building through Community Activities

Executive Summary:

All municipalities are required to have an emergency management program (EMP). The requirements for these programs are set out in the Emergency Management and Civil Protection Act. The overall legal framework for emergency management in Ontario is addressed primarily in the Act, Ontario Regulation 380/04 supports the Act by establishing the minimum requirements for mandatory emergency management programs for municipalities.

The Emergency Management and Civil Protection Act (EMCPA) and Ontario Regulation 380/04 mandates that municipalities carry out municipal emergency management program (MEMP) requirements annually to comply with legislated standards under the mandatory MEMP. All MEMP elements must be reviewed, tested, updated as required, and submitting annually to the Office of the Fire Marshal and Emergency Management (OFMEM).

The program is developed and updated using the national leading practice, which is the Canadian Standards Association (CSA) Z1600-14 Business Continuity and Emergency Management as a benchmark for continual improvement. The program supports consistent and integrated implementation and operation throughout the City of Burlington services. The elements of the continual improvement process are included in By-Law 087-15 consist of program management, planning, implementation, program evaluation, and management review.

CSA Z1600 published a 2017 version whereby integrating both emergency management and business continuity concepts into an emergency and continuity management program standard update. This integrated benchmark has prompted the repeal request to by-law 087-15 and 40-2017 and the approval of a new by-law XX-2019 request to council, to align the municipal emergency management program with the CSA standard.

To better align with the CSA integrated approach, the city's' Emergency Management Program Committee has proposed that we adopt an "Integrated Contingency Plan", also known as a "One Plan" approach, to re-configure the existing MEMP and emergency response plan structure to align with this framework outlined below:

1. **By-Law XX-2019** – Emergency and Continuity Management Program
 2. **Appendix A** – Emergency and Continuity Management Program Elements
 3. **Appendix B** – Municipal Emergency Response Plan
 - a. Annex 1 IMS Structure and Implementation
 - b. Annex 2 Notification and Reporting
 - c. Confidential Annex 3 Declaration of Emergency
 - d. Confidential Annex 4 Contacts
 - e. Annex 5 IMS Forms and Position Specific Handbook
 - f. Annex 6 Training and Exercises
 - g. Annex 7 Disaster Recovery and Rehabilitation Plan
 4. **Appendix C** –Emergency and Continuity Management Program Committee – Terms of Reference
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Background and Discussion:

The City of Burlington Emergency Management Program makes the protection of lives and property a continuing priority. The emergency management service is charged with coordinating and integrating all activities necessary to build, sustain, and improve the city's capability to mitigate against, prepare for, respond to, and recover from threatened or actual emergencies, or disasters.

As such, the existing MEMP was adopted by Council in 2015 in compliance with the Emergency Management and Civil Protection Act. In 2017, the City of Burlington Emergency Management Program Committee (EMPC) was approved and formally appointed by Council to oversee the MEMP and advise City Council to make improvements to the MEMP to align with the city's changing needs and circumstances.

The EMPC met in December 2018 following the city's 2018 annual emergency exercise to review the outcome of the exercise, the 2015 MEMP, and the updated Region of Halton's Emergency Management Program (REMP) to align the learned outcomes and draft the 2019 MEMP. Revisions were sent through to the EMPC members in February 2019 and underwent a thirty (30) day feedback period. All feedback was received by the CEMC, tracked changes and updates made and re-distribution of the final draft was provided to the EMPC in March 2019 for finalization.

The 2019 MEMP includes all EMPC recommendations, leading practice, and EMPC advisement for council's consideration and support.

A Council and Executive Committee Workshop was facilitated on April 11th at fire station #1 headquarters to provide council and the Burlington Leadership Team (BLT) with an understanding of the obligations of the City's pursuant to the Act and Regulation; and be familiar with the core concepts of emergency management within the city and the Province of Ontario.

Strategy/process

Program elements will be updated in the 2019 calendar year and communications pertaining to the updated by law will be provided on OTR for staff. Departmental workshops may be facilitated by the Community Emergency Management Coordinator throughout fall 2019.

Options considered

Status quo:

Staff are not recommending remaining status quo. This does not meet changing circumstances and leading practices within the city.

Approve by-law XX-2019 Emergency and Continuity Management Program as outlined in this report.

Whole Community emergency management is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests. By doing so, a more effective path to community resilience is built.

It is through the integration of emergency and continuity management program elements that the whole community approach is captured. This allows the corporate program to transition into a system that provides for management and coordination of disaster risk reduction initiatives, preparedness programs, comprehensive response efforts, and recovery activities. The system encompasses all organizations, agencies, departments, and individuals having responsibilities for these activities.

Financial Matters:

All MEMP budgetary requirements are provided through the city's capital and operating budget. Any future budgetary needs will be submitted through the city's budgetary approval process for council's consideration.

Connections:

Sustainable Development Committee
Region of Halton Emergency Management Group
City of Burlington Services
Emergency Management Program Committee
Halton Environmental Network
Greening Sacred Spaces
Various Established Community Groups

Conclusion:

Staff are recommending council approve the following:

Adopt the CSA Z1600-17 Standard on Emergency and Continuity Management practices into the city's Emergency and Continuity Management Program to align with current leading practices

Approve by-law XX-2019, a by-law to provide for an Emergency and Continuity Management Program

Repeal by-law 87-2015, a by-law to provide for an Emergency Management Program and by-law 40-2017, a by-law to amend by-law 87-2015.

Respectfully submitted,

Amber Rushton

Community Emergency Management Coordinator

Tel 905-333-0772 ext. 6204

Appendices:

- A. By-law XX-2019, a by-law to provide for an Emergency and Continuity Management Program
 - a. Emergency and Continuity Management Program
 - b. Corporate Emergency Response Plan
 - c. Emergency and Continuity Management Program Committee – Terms of Reference

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

City of Burlington By-Law XX-2019

A by-law to provide for an Emergency and Continuity Management Program and repeal by-law 87-2015 and repeal by-law 40-2017 being a by-law to provide for an Emergency and Continuity Management Program
File: 735-07 (BFD-01-19)

Whereas Section 2.1 of the *Emergency Management and Civil Protection Act* R.S.O. 1990, c. E.9 as amended (the Act) requires municipalities to develop and implement an emergency management program and adopt it by by-law; and

Whereas the Act requires the municipality to formulate an emergency plan to govern the provision of necessary services during an emergency and the procedures under and the manner in which employees of the municipality and other persons will respond to the emergency and the council of the municipality shall by by-law adopt the emergency plan; and

Whereas it is deemed necessary to repeal by-law 87-2015 and by-law 40-2017 and replace with by-law XX-2019.

The Council of the Corporation of the City of Burlington hereby enacts as follows:

1. The City of Burlington adopts Appendix A – The Municipal Emergency and Continuity Program, Appendix B – The Municipal Emergency Response Plan Appendix C – The Emergency Management Program Committee Terms of Reference attached.
2. The City of Burlington by-law 87-2015 is hereby repealed.
3. The City of Burlington by-law 40-2017 is hereby repealed.
4. This by-law shall come into full force and effect on July 15th, 2019.

Enacted and passed this 15th day of July, 2019

Mayor Marianne Meed Ward _____

City Clerk Angela Morgan _____

By-law XX-2019 APPENDIX A:
MUNICIPAL EMERGENCY AND CONTINUITY MANAGEMENT PROGRAM

1. INTRODUCTION

The Emergency Management and Civil Protection Act and Ontario Regulation 380/04 require municipalities to carry out specific activities annually to comply with legislated standards. This program sets up the elements of a continual improvement process to develop, implement, maintain and evaluate emergency management and continuity of operations programs that address Disaster Risk Reduction (DRR), preparedness, response and recovery that meet and exceed all the necessary requirements of Regulation 380/04. This approach includes a complete systematic process aimed at the continuity of the City of Burlington's functionality in all types, and through all phases, of disruptions utilizing a risk-based approach. The program is developed and updated using Canadian Standards Association (CSA) Z1600 as a benchmark for continual improvement. The program supports consistent and integrated implementation and operation within the City of Burlington's management system(s). The elements of the continual improvement process included herein consist of program management, planning, implementation, program evaluation, and management review.

2. PROGRAM MANAGEMENT

The City of Burlington (hereby referred to as the Corporation) Emergency and Continuity Management Program includes the following principles and components:

a) Program Administration

The Program is the Corporation's Emergency and Continuity Management Program, developed, implemented and updated in accordance with the Emergency Management and Civil Protection Act and Ontario Regulation 380/04. The content herein encompasses all elements of the program plan.

i. Program Committee

The Corporation will establish an Emergency Management Program Committee, members of which will provide strategic input in coordinating the development, implementation, evaluation, maintenance and continual improvement of the program.

ii. Goals, Objectives, and Performance Measures

The Corporation will establish program goals, objectives and performance measures annually, to be integrated into the city's overarching goals and objectives, in the form of a service business plan.

iii. Budget and Controls

The Corporation will establish a program budget allocated to the following program elements: disaster risk reduction, preparedness, response, and recovery efforts. The Corporation will develop financial procedures and controls to support the program before, during and after an emergency/disaster.

iv. Records Management

The Corporation will document and maintain logs and records of activities and decisions related to the Program and establish an effective records management process.

v. Program Review

The Program will be updated to respond to changes to applicable legislation, policies, regulatory requirements, directives, standards and codes of practice made at various levels of government and by other decision-making authorities as deemed necessary by the program committee.

b) Compliance with Laws and Authorities

The Corporation will ensure the program complies with applicable legislation, regulatory requirements, orders, directives, and policies.

3. PLANNING

a) Planning Process

The Corporation will assign a planning coordinator (the primary Community Emergency Management Coordinator - CEMC) to oversee the development, implementation, evaluation and maintenance of the emergency and continuity management program. The planning coordinator will work with the program committee to develop and document a municipal emergency response plan, hazard specific sub-plans and emergency operational procedures, including considerations for crisis and information management and business continuity / continuity of operations. The Corporation will include key stakeholders in the planning process where applicable and engage in such process on a regularly scheduled basis, or when the situation has changed in such a way that the existing plan(s) are put into question.

b) Common Plan Elements

The Corporation will establish plans that include a stated purpose, scope, and objectives. Plans will identify and assign the Corporation's internal

- i. Functional roles and responsibilities;
- ii. Lines of authority; and
- iii. Designated alternates.

Plans will identify external organizations with mutually agreed-to

- i. Functional roles and responsibilities; and
- ii. Lines of authority.

Plans will identify logistics support and resource requirements. Plans will identify the process for managing the communication and flow of information, both internally and externally. The Corporation will make appropriate sections of the plans available to those individuals or teams assigned specific tasks and responsibilities therein, and to other stakeholders as required. The plan will identify the process for maintenance.

c) Hazard Identification and Risk Assessment

The Corporation will identify and monitor the hazards that can have an impact on its operations and areas of responsibility. Hazards from the following three categories will be considered:

1. Natural,
2. Human Caused (Intentional), and
3. Technological.

The Corporation will conduct an annual risk assessment that will include risk identification, risk analysis and evaluation. The risk identification will encompass finding, recognizing, and describing risk sources that could disrupt the Corporation's products and services. The risk analysis will consider the causes and sources of risk, their positive and negative consequences, and the likelihood of those consequences, should they occur, on business operations, community, associated stakeholders, related infrastructure, and the environment. The risk evaluation will compare the risk analysis with internal and external risk criteria to determine whether the risk impact or its likelihood is acceptable or tolerable to the Corporation.

The Hazard Identification and Risk Assessment results will serve as the foundational component driving all hazard specific sub-plan elements and emergency operational procedures.

d) Business Impact Analysis (BIA)

The Corporation will perform a Business Impact Analysis to evaluate the potential impact, damage, or loss over time, which might be experienced as a result of a disruption of its activities supporting the Corporation's products and services and will identify dependencies. The Corporation will identify its critical activities and set prioritized timeframes for resuming its activities at a specified minimum acceptable level, taking into consideration the time within which the impacts of not resuming them would be unacceptable (establishing a maximum tolerable period of disruption).

The Corporation will identify supporting resources required to attain recovery time objectives and to sustain critical activities (including people, facilities, suppliers and technology).

e) Critical Infrastructure Identification

The Corporation will identify Critical Infrastructure (CI) within the city boundaries in order to manage risks, reduce vulnerabilities and strengthen the resilience of critical infrastructure across the ten CI sectors defined by Public Safety Canada (PSC):

- i. **Health** – healthcare and public health sector facilities
- ii. **Food** – production, distribution and retail
- iii. **Finance** – depository institutions, providers of investment products, insurance companies, other credit and financing organizations, and the providers of the critical financial utilities and services that support these functions
- iv. **Water** – public drinking water, waste water
- v. **Information and Communication Technology** – telecommunications
- vi. **Safety** – security and intelligence
- vii. **Energy and utilities** – electricity, oil, and natural gas
- viii. **Manufacturing** – basic chemicals, specialty chemicals, agricultural chemicals, pharmaceuticals, consumer products; primary metals, machinery, electrical equipment, appliance and component, and transportation equipment manufacturing
- ix. **Government** – educational facilities, institutions of higher education, and business and trade schools, government owned facilities
- x. **Transportation** – pipeline systems, freight rail, mass transit and passenger rail, highway and motor carrier, aviation, postal and shipping

The Corporation will use this information to develop procedures under the Emergency and Continuity Management Program with the following objectives in mind:

- i. To build partnerships – to support and enhance CI resiliency;
- ii. Implement an all-hazards risk management approach – promotes the application of risk management and sound business continuity planning; and
- iii. Advance the timely sharing and protection of information among partners and key stakeholders.

f) Strategies

The Corporation will develop and maintain strategies based on the information obtained from the hazard assessment and risk assessment and the business impact analysis with a focus on

- i. disaster risk reduction (incident prevention and strategies to mitigate, limit, or control the consequences, extent, or severity of an incident);

- ii. strategies to prepare effective response, continuity and recovery operations;
- iii. strategies to respond to incidents that threaten people, property, the environment, and/or the continuity of operations;
- iv. strategies to continue critical activities;
- v. strategies to recover to an acceptable level;
- vi. strategies for effective communication throughout the components of the program; and
- vii. strategies for competency-based training and education.

4. IMPLEMENTATION

i. Disaster Risk Reduction

The Corporation will implement strategies, plans and procedures which aim to prevent an incident, including short-term and long-term measures to avoid incidents or stop them from occurring. The Corporation will implement strategies to limit or control the consequences, extent, or severity of an incident that cannot be reasonably prevented. Mitigation plans will include short-term and long-term procedures and actions to limit or control the consequences, extent, or severity of an incident that cannot be reasonably prevented.

ii. Preparedness

The Corporation will implement strategies and activities to prepare for and respond to incidents that threaten people, property, the environment, and/or continuity of operations.

i. Incident Management System (IMS)

To manage an incident, the Corporation will establish:

- A primary and alternative Emergency Operations Centre(s) (EOCs) able to manage continuity, response and recovery operations; and
- An incident management system to direct, control and coordinate response, continuity, and recovery activities. The incident management system will assign specific organizational hierarchy, roles, titles and responsibilities for each incident management function, and procedures for coordinating response, continuity and recovery activities.

ii. Emergency Communication and Warning

The Emergency Response and Information Management System will include the setup of:

- Telecommunications and other communications systems that are regularly tested. Consideration will be given to the need for redundancy, interoperability, and security of communications systems;
- Emergency communication and warning systems to alert people who may be impacted by an actual or impending emergency and to advise the public of threats to people, property, and the environment, either directly, or through authorized agencies, will be developed and periodically tested; and
- Communication procedures inclusive of protective action guidelines for emergencies where potentially impacted populations can be advised to shelter-in-place, evacuate or take any other actions as directed.

The Corporation will establish and maintain procedures to provide emergency information that includes the following:

- A central point of contact for the media;
- Procedures to gather, monitor, and disseminate emergency information;
- Pre-scripted information bulletins;
- Procedures to coordinate and approve information for release;
- Procedures to communicate with special needs populations; and
- Protective action guidelines for shelter-in-place and evacuation.

The Corporation will establish and maintain the capability to provide crisis information through enhanced communications with all stakeholders during an incident. The Corporation will develop emergency communication and warning capability to advise the affected populations of hazards and threats to people, property, the environment, and/or the continuity of services either directly, indirectly, or through authorized agencies.

iii. Public Awareness and Education

The Corporation will develop and implement public awareness and education programs where the public is potentially impacted by an incident.

iv. Training and Exercises

The Corporation will develop, implement and maintain or provide a competency-based training and educational curriculum to support the program. The objective of the curriculum will be to create awareness and enhance the skills required to develop, implement and execute the program. Exercises will be designed to test individual essential elements, interrelated elements, or the entire plan(s). Evaluations will be based on post-incident analyses and reports, lessons learned and performance evaluations. Procedures will be established to correct and improve on any areas identified during evaluation. Training records will be maintained.

v. Business Continuity / Continuity of Operations

The Corporation will implement documented plan(s) that detail how the city will manage a disruptive event and how it will recover or maintain its critical activities to a predetermined level, based on management approval. The Corporation will develop, maintain, and exercise information technology (IT) disaster recovery plans for the recovery of technology used to support essential municipal operations.

The Corporation will implement a decentralized approach to business continuity in order to maintain business continuity ownership at a foundational level and to ensure standards are mandated and every department appoints a central agent as a resource for plan administration, education, workshops and templates. Each department will:

- i. Develop and validate business continuity plans;
- ii. Update their plans on an annual basis or more frequently if a significant operational change occurred in the interim; and
- iii. Appoint a representative to sit on the Continuity of Operations Planning (COOP) Committee.

The Corporation will establish a continuity management structure (operations recovery group within the crisis management team) that provides for capabilities to:

- i. Confirm the nature and extent of an incident;
- ii. Implement appropriate actions;
- iii. Have processes and procedures for the activation, operation, coordination, and communication of continuity strategies and plans;
- iv. Have resources available to support the processes and procedures to manage an incident; and
- v. Communicate with stakeholders.

5. RESPONSE

The Corporation will implement Emergency Operational Procedures (EOPs) to support the activation and execution of the Corporate Emergency Response Plan (CERP) and / or the Corporate Continuity of Governance and Operations Plan (COGOP), along with hazard specific sub-plans.

a) Situation Analysis

The Corporation will implement procedures to conduct a situational analysis that includes a damage and impact assessment and identification of the resources needed to support and manage emergency and continuity operations.

b) Continuity

The Corporation will implement procedures to allow for continuity and mitigation activities to be carried out concurrently during response.

c) Transfer of Leadership

The Corporation will implement procedures to allow for transfer of leadership during an incident.

d) Communications / Emergency Information

The Corporation will provide communications and emergency information during a response by implementing the systems and procedures developed during the preparedness phase and as documented in the response plan(s).

e) Public Awareness

The Corporation will evaluate, and if required, modify public awareness and public education programs based on incident specific information.

6. RECOVERY AND REHABILITATION

The Corporation will develop and implement a recovery and rehabilitation plan to support short-term and long-term priorities for recovery of functions, services, resources, facilities, programs and infrastructure. The recovery and rehabilitation plan will be based on the results of the hazard identification and risk assessment, the business impact analysis, continuity of operations strategies, program constraints, operational experience, and ongoing cost-benefit-analysis. The recovery and rehabilitation plan will include measures to reduce vulnerability of the Corporation prior to and during the recovery period.

a) Resource Management

The Corporation will implement resource management procedures to ensure that adequate human, physical, financial, and information resources are provided. The Corporation will implement mutual aid, mutual assistance, reciprocal, and/or service level agreements as required.

b) Facilities

The Corporation will establish primary and alternative Emergency Operations Centers (EOCs) and alternate work locations (physical or virtual), capable of supporting the management of emergency and continuity response operations.

c) Recovery and Rehabilitation Procedures

The Corporation will execute procedures to restore and return operations from the temporary measures adopted during an incident to support normal business/operations requirements after an incident.

d) Recovery Assessment

The Corporation will identify and assess emerging risk/hazard, incident impact, and capability assessment responsibilities and processes.

e) Communications

The Corporation will provide communications during the recovery phase of a response by implementing the systems and procedures developed during the preparedness phase and as documented in the recovery plans.

f) Re-evaluation

The Corporation will re-evaluate the recovery plans and strategies to ensure that disaster risk reduction strategies remain valid and effective.

g) Restoration

The Corporation will provide recovery plans for short-term and long-term priorities for restoration of functions, services, resources, facilities, programs, and infrastructure.

7. MANAGEMENT REVIEW

Senior management will review and advise on continual program improvement through participation on the Emergency Management Program Committee (EMPC), as required by the Emergency Management and Civil Protection Act, which consists of representatives from city municipal services and agencies, or designated alternates. The Community Emergency Management Coordinator (CEMC) or alternate will chair the EMPC. The EMPC will assess opportunities to continually improve the program and will conduct an annual review of the program, incorporating ongoing analysis and evaluation, as well as corrective action planning and review.

By-law XX-2019 APPENDIX B: MUNICIPAL EMERGENCY RESPONSE PLAN

Table of Contents

1. INTRODUCTION.....	11
1.1. Purpose and Scope.....	11
1.2. Definition of a Crisis/Emergency/Disaster	12
1.3. Document Format.....	12
1.4. Applicable Legislation/Best Practices	13
1.5. Legal Authorities	13
1.6. Plan Custodian	14
1.7. Department Identification Information	14
1.8. Plan Structure	15
2. CORE PLAN	16
2.1 Discovery.....	16
2.1.1 Initial Assessment	17
2.1.2 Implementation – Tiered Plan Activation Protocols	18
2.1.3 PLAN ACTIVATION	24
2.1.4 DECLARATION OF AN EMERGENCY.....	25
2.2 Initial Response	25
2.2.1 Incident Management System – Establishing Organizational Control.....	26
2.2.2 City of Burlington – Incident Management System Organization	26
2.2.3 Response Objectives	31
2.3 Sustained Actions.....	31
2.3.1 Transfer of Command and ECG Personnel.....	32
2.3.2 Requests for Assistance	32
2.4 Termination and Follow Up Actions.....	34
2.4.1 Termination of a Declared Emergency	34
2.4.2 Demobilization of Resources	34
2.4.3 Demobilization of Organizational Elements	35
2.4.4 Legal Services / General Claims	35
3. Annexes.....	36

1. INTRODUCTION

The introduction section of the plan is designated to provide the City of Burlington employees with basic information about the plan and the departmental entities covered.

1.1. Purpose and Scope

The purpose of the Corporate Emergency Response Plan (CERP) provides the framework of how the City of Burlington will respond to, mitigate the impact of and recover from an emergency/disaster. It describes the legal authorities, Concept of Operations (COP) and functional roles and responsibilities that would be employed during an emergency/disaster.

The CERP was developed to provide necessary information to facilitate the effective co-ordination of human and physical resources, services and activities necessary to:

1. Protect and preserve life and property;
2. Minimize and/or mitigate the effects of the emergency/disaster on residents and physical infrastructure of the City of Burlington; and
3. Quickly and efficiently enable the recovery and return of normal services.

The CERP also affords provision for the efficient administration, coordination and implementation of extraordinary arrangements and response measures taken by the City of Burlington to protect the health, safety and welfare of the residents of Burlington during any emergency/disaster by:

1. Identifying the governance structure for emergency response within the City of Burlington;
2. Identifying roles and responsibilities required in mitigating against, preparing for, responding to and recovering from emergencies and disasters;
3. Identifying standard response goals for emergency response operations and decision making; and
4. Providing for a coordinated response by the municipality and partner agencies in managing emergencies.

The annexes are designed to provide key supporting information for conducting emergency response actions under the Core Plan.

The CERP encompasses the initial emergency/disaster assessment and activation decision tree phase.

1.2. Definition of a Crisis/Emergency/Disaster

Many standards refer to a crisis as a *‘critical event or point of decision which, if not handled in an appropriate and timely manner (or if not handled at all), may turn into a disaster or catastrophe.’*

Emergencies and disasters are distinct from the normal daily operations carried out by municipal first response agencies and City Municipal services.

The Emergency Management and Civil Protection Act defines an emergency as:

‘A situation or impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident or an act whether intentional or otherwise’.

The United Nations Office for Disaster Risk Reduction (UNISDR) defines a disaster as:

‘a serious disruption of the functioning of a community or society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope with using its own resources.’

1.3. Document Format

The CERP has been specifically organized in a modular format to ensure that new or updated information can be easily incorporated. As such, there are three primary sections that, together, comprise the CERP:

1. Introduction
2. Core Plan (Concept of Operations)
3. Annexes

The introduction includes basic information that describes the purpose and scope of the CERP, documents the legal authority for the CERP, crosswalks the

CERP's relationship to relevant legislation and best practices and documents how the CERP is amended.

The Core Plan describes the fundamental components of the initial assessment, activation, and mobilization of resources in the event of an emergency/disaster within the City of Burlington.

The annexes following the Core Plan provide additional information as referenced in other sections of the CERP.

1.4. Applicable Legislation/Best Practices

The CERP has been prepared in general accordance with the regulatory requirements for emergency planning as outlined below:

Regulatory Body	Governing Legislation or Best Practice
Ontario Ministry of Community Safety and Correctional Services	Emergency Management and Civil Protection Act, R.S.O. 1990, c.E.9 – Section 3 – Municipal Response Plan
Ontario Ministry of Community Safety and Correctional Services	Regulation 380/04 – Part II Municipal Standards
Canadian Standards Association	CSA Z1600 2017 – Standard on Emergency and Continuity Management
United Nations Office for Disaster Risk Reduction (UNISDR)	Sendai Framework

***Declaration of a municipal emergency will be completed in accordance with provincial requirements and is detailed in Confidential Annex 3.**

1.5. Legal Authorities

The legislation under which the municipality and its employees are authorized to respond to an emergency is listed below:

- The Emergency Management and Civil Protection Act, R. S. O. 1990, c.E.9, as amended (the “Act”)
- The City of Burlington Emergency Management Program By-Law 87-2019

1.6. Plan Custodian

The CERP will be maintained and updated by the Community Emergency Management Coordinator (CEMC) and/or alternate in consultation with the Emergency Management Program Committee (EMPC). Updates will be presented and approved by Council.

1.7. Department Identification Information

Each municipal department will develop and maintain their own Emergency Operations Procedure (EOP) that are outlined in the table below. All departments within City Hall and Sims Square will develop one EOP for each location. The CEMC will provide the template(s) and guidance tools to assist in the development thereof.

***The department EOPs will be made available through each custodian and is specific to department emergency protocols.**

Department Name	EOP Custodian
Fire Department	Fire Chief
Information Technology Services (City Hall EOP)	Director of ITS
City Managers Office (City Hall EOP)	City Manager
Capital Works (City Hall EOP)	Director of Capital Works
Roads, Parks, Forestry	Director of Roads, Parks and Forestry
Clerks (City Hall EOP)	Director, Clerks
Human Resources (Sims Square EOP)	Director of Human Resources
Parks and Recreation (City Hall EOP)	Director of Parks and Recreation
Transit	Director of Transit
Legal (Sims Square EOP)	Director of Legal Services

Finance (Sims Square EOP)	Director of Finance
Planning and Building (City Hall EOP)	Director of Planning and Building
Transportation Services	Director of Transportation

1.8. Plan Structure

This CERP has been organized in a modular framework. The plan structure ensures minimal duplication between emergency plans and departmental EOPs incorporating a combination of pre-existing emergency plan documentation and existing EOPs into the modular format. The plan structure is interconnected through the following three primary sections:

1. Introduction
2. Concept of Operations (Core Plan)
3. Annexes

The Core Plan contains an overview of Emergency Response Procedures and information that is consistent with City of Burlington operations. Specific hazard information, internal protocols and contact information will also be found in the appropriate annexes.

2. CORE PLAN

The Concept of Operations (also known as the Core Plan) is intended to reflect the essential steps necessary to initiate, conduct, and terminate an emergency/disaster response action. The Core Plan provides information that is time critical in the earliest stages of a response and serves as a framework to guide departments and agencies through key steps necessary to mount an effective response. The Core Plan outlines the City of Burlington's overall approach to the CERP following the wake of an emergency/disaster where a situation or impending situation constitutes a danger of major proportions and/or a serious disruption of daily operations exceeds the ability of the municipality to cope with using its own resources.

2.1 Discovery

This section addresses the initial assessment criteria and response action(s) the person(s) discovering the emergency/disaster will take to assess the problem at hand and initiate appropriate notification and response protocols. Recognition, basic assessment, source control (as appropriate) and initial notification of proper personnel is addressed and is contextualized further in each Department EOP.

IMPORTANT!

Report all emergencies that are beyond the response capability of the department to:

Your immediate supervisor/manager
&

The Community Emergency Management Coordinator
cemc@burlington.ca 289-208-3681

Once you have identified that an incident has occurred, and is beyond your control, remember:

1. **SAFETY:** Protect yourself
2. **ISOLATE:** Control access to protect employees and the public
3. **NOTIFY:** Contact the CEMC and your supervisor/manager

2.1.1 Initial Assessment

The following matrix is the initial assessment matrix for classifying a level of emergency pertaining to the ongoing monitoring of potential crisis/emergency events that may escalate to a disaster.

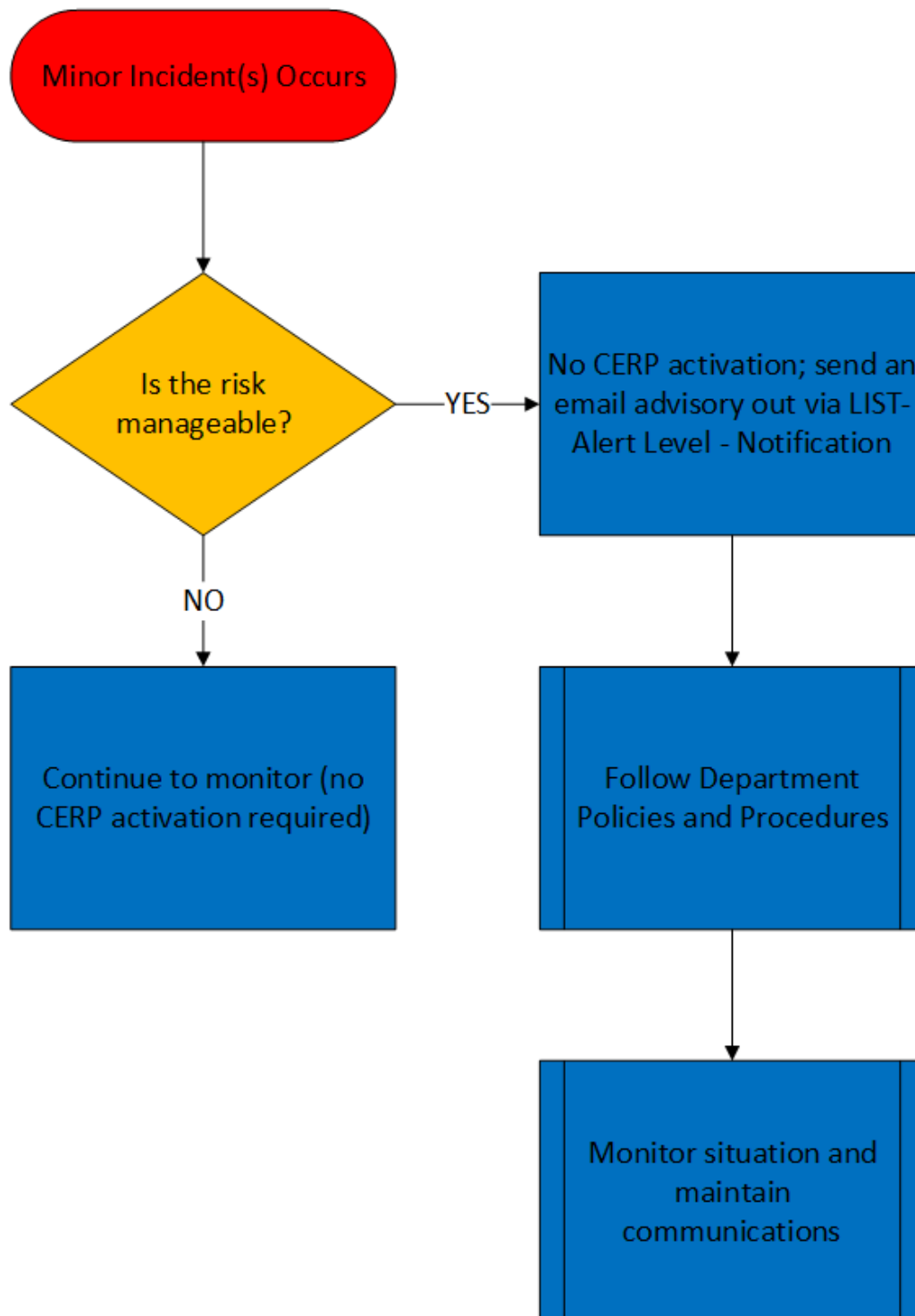
Level of Activation	Personnel Monitoring / Call Out List	Activation Triggers	Risk Level
Alert Level	COB Emergency Management (CEMC & EM staff); H&S Coordinators; Corporate Comms. (Senior Manager); Regional EM Group <i>(to receive routine monitoring updates from our neighboring agencies)</i>	<ul style="list-style-type: none"> ✓ Local weather advisories ✓ Minor traffic/transit disruptions (pulled from BT alerts) ✓ MTO Compass Alerts 	Very Low – Manageable – has no immediate impact on service operations or resources
Level 1 – Enhanced Monitoring	City Manager & Deputy; CEMC & EM Staff; RPF – Management; CW – Management; Transit – Management; Transportation – Management; BFD – Management; Burlington Hydro – CEO & VP; Parks & Recreation – Management; Corporate Comm. – Management; ITS – Management; HR / H&S – Coordinators; Region EM Group	<ul style="list-style-type: none"> ✓ Isolated / localized incident that may impact more than one department; <li style="text-align: center;">OR ✓ Isolated / localized incident (s) that may result in a disruption to one or more service line 	Low – Disruptive Impacts a small subset of essential services or a broad range of essential services for a short period of time or has no immediate impact but impacts will grow if not addressed in a timely manner
Level 2 – Partial Activation	Crisis Management Team (CMT) 1,2 Region EM Group CMT Operations Recovery Group 1,2	<ul style="list-style-type: none"> ✓ Issue(s) identified that if unchecked or unresolved, may lead to a Crisis; and/or ✓ Crisis Communications Plan needs to be activated ✓ A Corporate/Department Impact Disaster occurs either as a standalone incident or in addition to the ongoing Crisis 	Medium – Issue/Crisis Management and/or Disaster Management An event, procedure, practice or action that may trigger a crisis community centric (public facing) and / or a corporate /department impact

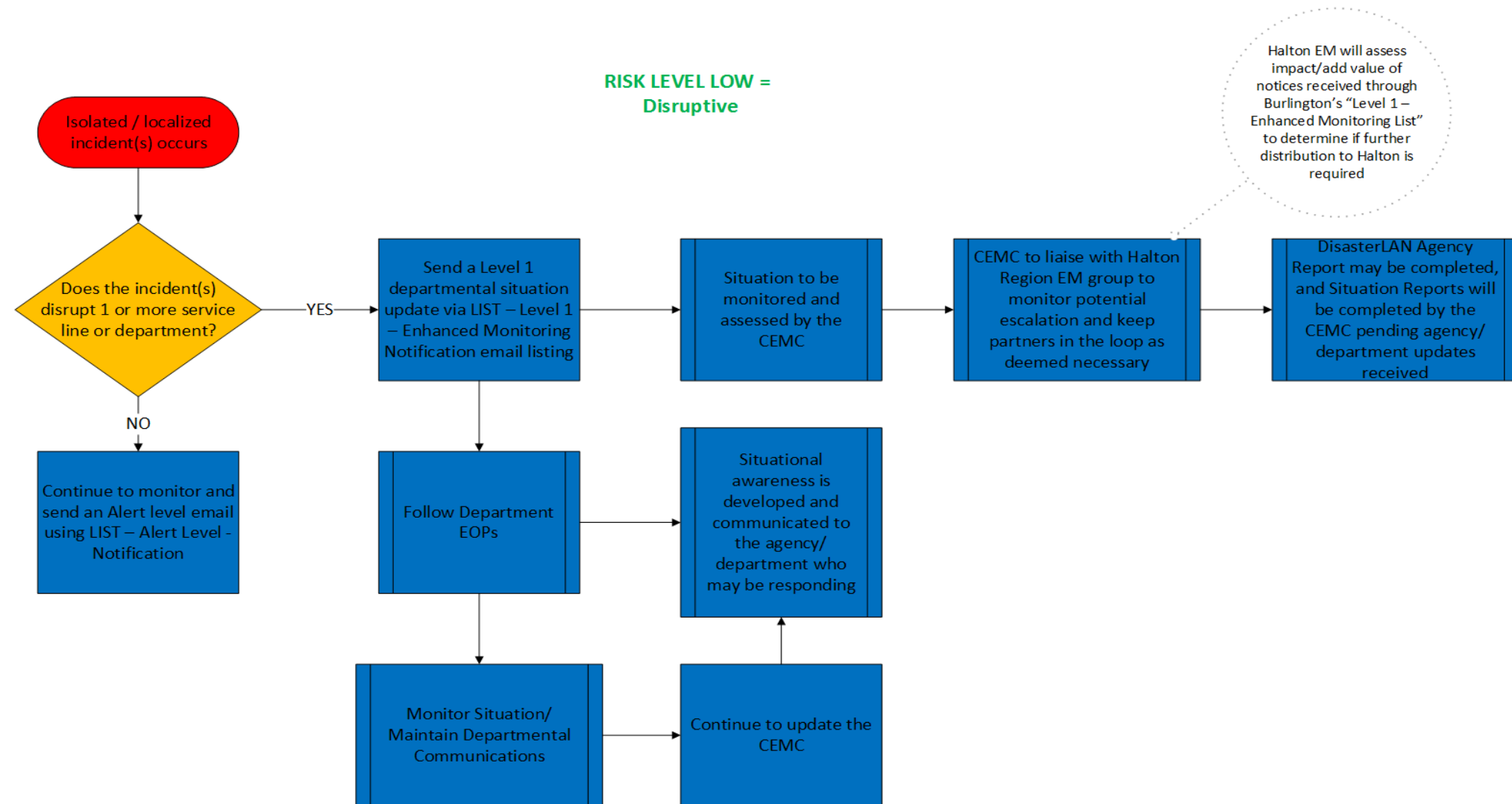
		<ul style="list-style-type: none"> - Incident > RTO; - Impacts are extensive and outside of control; and/or - A need to activate the Continuity of Governance and Operations Plan (COGOP) exists or any Departmental COOP(s) 	disaster that occurs (internal facing with service line impact(s))
Level 3 – Full Activation	Emergency Control Group (ECG) 1,2 Region EM Group	<ul style="list-style-type: none"> ✓ Multiple City resources are required to manage or mitigate the effects of the emergency event ✓ Regularly scheduled Municipal programs and operations have been suspended or altered due to the emergency event impacts ✓ Full activation response activities need to be supported by most Municipal departments and external stakeholders, including Halton Region 	High – Crisis – Mission Critical Impacts the ability for the Corporation and/or Department or other service areas to deliver essential services and/or impacts the community on a large scale

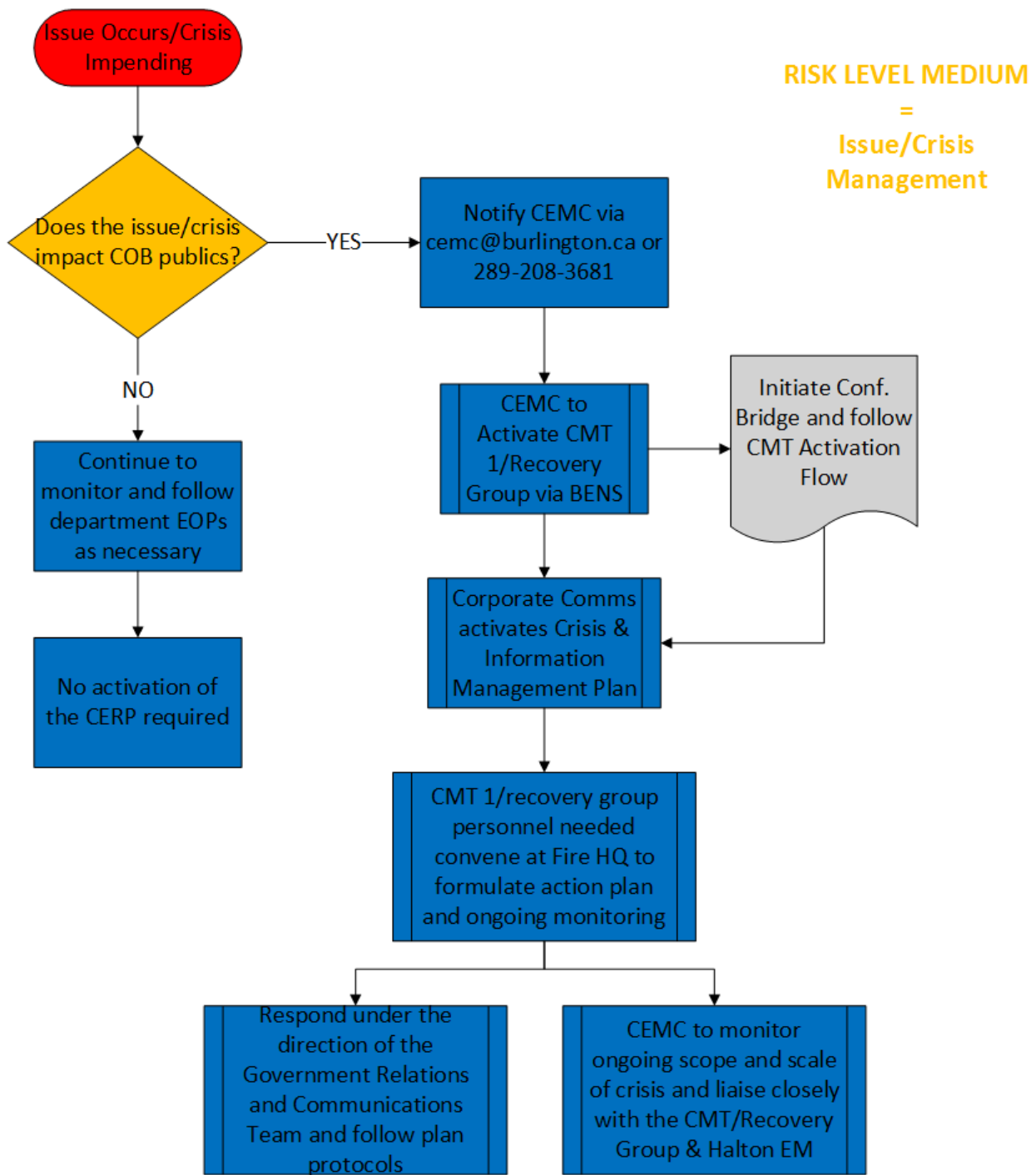
2.1.2 Implementation – Tiered Plan Activation Protocols

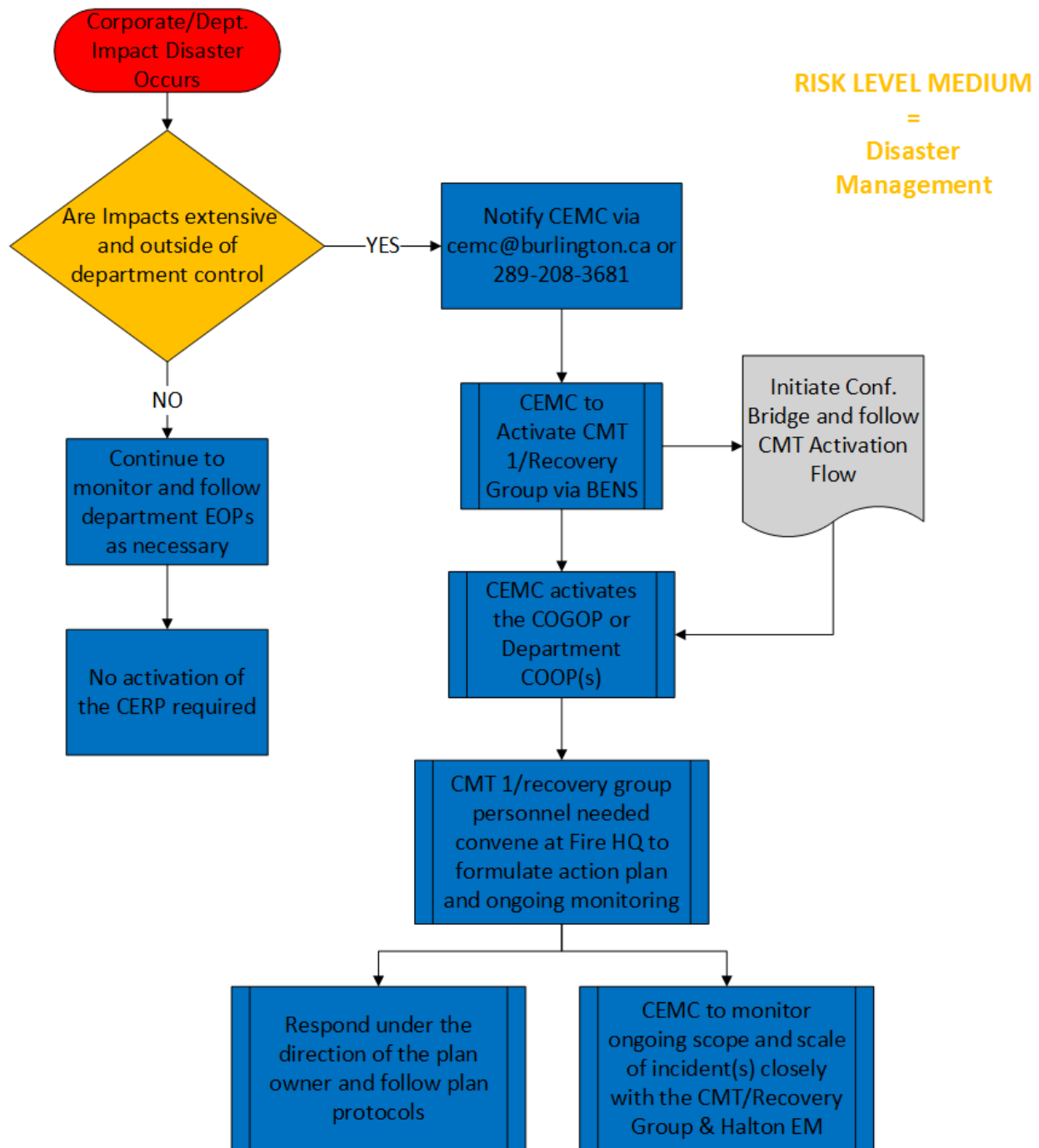
The following decision trees are based on a tiered plan activation protocol that is driven by the risk level identified. The tiered approach ensures plan activation scalability and flexibility in critical incident response is achieved.

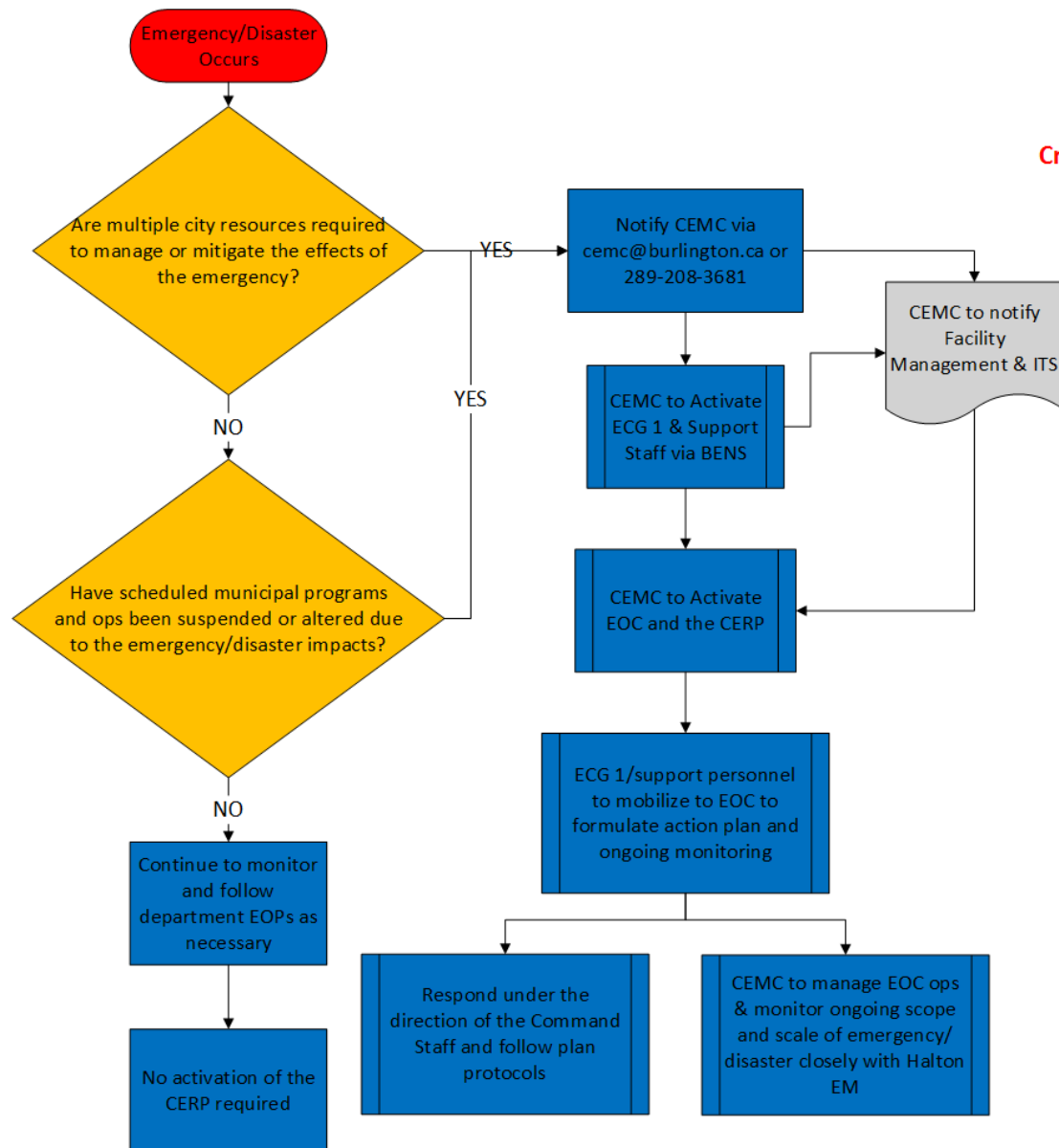
**RISK LEVEL VERY
LOW =
Manageable**











**RISK LEVEL HIGH =
Crisis – Mission Critical**

2.1.3 PLAN ACTIVATION

The CERP can be implemented as soon as a Level 2 (pending forecasted increased magnitude) or a Level 3 emergency/disaster occurs, or is expected to occur, which is of such magnitude as to warrant its implementation. An official declaration of an “Emergency” does not have to be made for this Plan to be implemented to protect the lives and property of the inhabitants of the City of Burlington.

When an emergency/disaster has been confirmed, but formal declaration of emergency has not yet been declared, the City of Burlington employees and first responders may take such action(s) under the authority of this Plan and their respective legislated authorities to protect lives, property and the impacted environment.

CITY OF BURLINGTON EMERGENCY OPERATIONS CENTER (EOC) NOTIFICATION SYSTEM - (FAN OUT)

The CEMC and alternate(s) have the authority to implement the Plan through the municipal emergency response management system.

All notifications are received by each member of the Emergency Control Group and EOC support staff. All notifications will be sent through using the following methods of communication:

1. Office Line
2. Cell Phone
3. Home Phone (if provided)
4. COB Email

All members of the ECG and support staff will receive an initial warning notification that an emergency/disaster has been reported and the group is then placed on stand-by. This allows for ECG members and support staff to coordinate personal logistics prior to mobilizing to the EOC for the initial operational period.

A second notification will be sent through instructing members of the ECG and support staff to mobilize to the EOC and assume position specific responsibilities for the next twelve (12) hours until stand down triggers are identified and/or the

next operational period begins, and the second ECG members and support staff are notified to respond and assume transfer or position.

2.1.4 DECLARATION OF AN EMERGENCY

The Mayor or Acting Mayor, as Head of the Council, is responsible for declaring that an emergency exists within the boundaries of the City of Burlington. In declaring an emergency, the Head of Council will identify the geographical boundaries of the emergency/disaster area. The decision whether to declare an emergency and the designation of geographical boundaries of the emergency/disaster area will be made on the recommendation of the CEMC and the EOC Director.

The Head of Council, the EOC Director and the CEMC will ensure that all personnel and Supporting Agencies concerned are advised of the declaration of the emergency.

Upon declaration of an emergency in Burlington, the Head of the Council will notify:

1. The Ministry of Community Safety and Correctional Services and Office of the Fire Marshal and Emergency Management (OFMEM) by email and fax, through the Provincial Emergency Operations Centre (PEOC);
2. Members of Burlington City Council; and
3. The Regional Chairperson of the Regional Municipality of Halton.

The following may also be notified of a declaration of emergency:

4. Local Member(s) of Provincial Parliament (MPPs);
5. Local Member(s) of Federal Parliament (MPs);
6. Local media; and
7. The public.

***For the Declaration of Emergency Procedure, refer to Confidential Annex 3.**

2.2 Initial Response

Initial response will vary significantly depending on the magnitude of the incident. Most minor incidents (alert level or level 1) will not necessitate the execution of all activities described in this part.

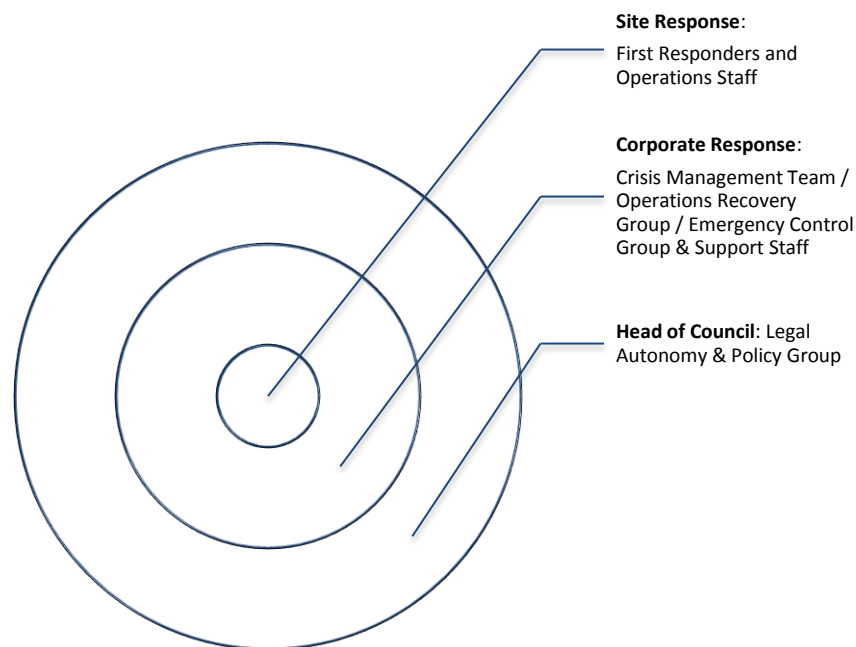
2.2.1 Incident Management System – Establishing Organizational Control

This part describes the Ontario's Incident Management System (IMS) which is a system for emergency response management and the Unified Command System, which brings together, as partners, all response organization to work cooperatively to resolve the emergency/disaster.

The City of Burlington and its CERP adopts the principles of the Ontario Incident Management System (IMS). The IMS can be used in any size or type of emergency to manage response personnel, facilities and equipment. IMS principles include the use of common terminology, modular organization, integrated communications, unified command structure, action planning, manageable span-of-control, pre-designated facilities and comprehensive resource management. The basic functional modules of the IMS (Command, Operations, Planning, Logistics and Finance & Administration) can be expanded or contracted to meet requirements as an emergency/disaster progresses.

2.2.2 City of Burlington – Incident Management System Organization

There are multiple response areas to any type of emergency or impending disaster within the City of Burlington. The response areas employed are pending scope and scale of emergency.



Site Response:

The emergency responders at the site or sites of the emergency/disaster provide tactical response to the emergency/disaster as they attempt to mitigate its effects and bring the emergency/disaster under control.

Two-Tiered Corporate Response:

The Crisis Management Team (CMT) / Operations Recovery Group is responsible for the provision of advice and the activation of the following plans pending scope and scale of an issue/crisis whereby a disruptive and unexpected event(s) that threatens to harm the municipality or its stakeholders is evident:

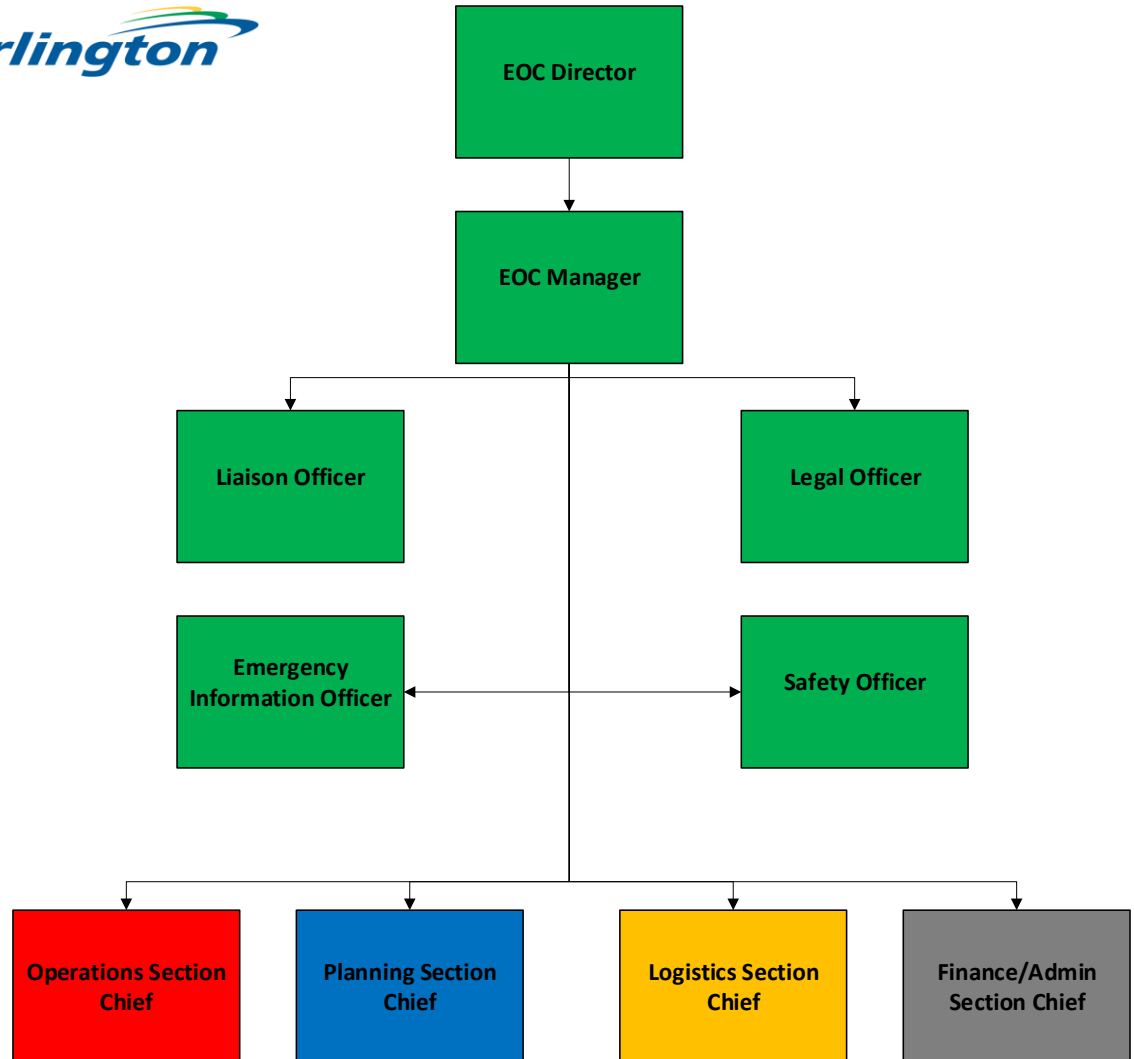
1. Crisis and Information Management Plan;
2. Corporate Continuity of Governance and Operations Plan; and/or
3. Disaster Recovery Plan (ITS).

The Emergency Control Group (ECG):

The primary responsibility of the ECG is to provide for the overall management and coordination of site support activities and consequence management issues. It is the responsibility of the ECG to ensure that response priorities are established, and that planning, and response activities are coordinated, both between sections within the Emergency Operations Centre (EOC) and between sites and other EOCs.

The ECG configuration is provided below:

Emergency Control Group



***A listing of the Emergency Control Group and all support staff job titles, EOC position and contact information is detailed in Confidential Annex 4.**

Head of Council:

The Head of Council (HOC) has the power under the Emergency and Civil Protection Act to declare or terminate a state of emergency. The HOC is the Mayor during an emergency notification or declared emergency, though may be the Acting HOC for relief of the Mayor in an extended emergency or during any period of absence, inability or refusal of the Mayor to act as HOC or where the Office of Mayor is vacant. The HOC would have all the powers set out in the Act and Emergency Plan for purposes of an emergency and declared emergency.

The Incident Management System divides an emergency response into five manageable functions that are essential for emergency response operations:

1. Command;
2. Operations;
3. Planning;
4. Logistics; and
5. Finance/Administration.

These five major management functions are the foundation upon which the IMS organization develops. They apply for handling a routine emergency, organizing a major event, or managing a major response to an emergency/disaster. The IMS provides maximum flexibility to activate as many positions within the functional areas as are necessary to handle the magnitude of an incident.

On small incidents, one, or all, of the five major functions may be managed by the Incident Commander (IC). Large incidents usually require that each function be set up as a separate section within the system. There is no one “best” way to organize, thus the City of Burlington should adapt to meet the needs of the incident.

INCIDENT COMMANDER (SITE):

The Incident Commander at site is responsible for and/or has the authority to:

1. Establish a Unified Command structure for the purpose of information sharing, establishing objectives regarding emergency site management and prioritizing resources where applicable between the responding agency Incident Commander(s);
2. Designate an emergency site media coordinator;
3. Implement the strategy established by the ECG at the emergency site(s), if required;
4. Ensure that responding agencies make available the human and material resources that are required at the emergency site;
5. Maintain a communication link with the ECG for the flow of information regarding the management of the emergency site;
6. Maintain a record of events, decisions made, and actions taken as Incident Commander;
7. Participate in a debriefing with ECG regarding the emergency, if required; and
8. Assist the CEMC in creating an after-action report post emergency/disaster.

EMERGENCY CONTROL GROUP

The EOC Command Staff consists of the following positions:

- EOC Director
- EOC Manager
- Emergency Information Officer
- Safety Officer
- Liaison Officer

The EOC General Staff may as needed consist of the following positions:

- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance and Administration Section Chief

EOC DIRECTOR – PRIMARY RESPONSIBILITIES

1. Exercise overall executive management responsibility for the coordination between emergency response and supporting agencies in the Emergency Operations Centre (EOC).
2. Oversee the establishment of the appropriate staffing level for the EOC and continuously monitor organizational effectiveness to ensure that appropriate modifications occur as required.
3. Ensure that inter-agency coordination is accomplished effectively within the EOC.
4. Direct, in consultation with the Emergency Information Officer (EIO), appropriate emergency public information actions using the best methods of dissemination. Approve the issuance of press releases, and other public information materials as required.
5. Liaise with Executive Group and / or Elected Officials.
6. Ensure risk management principles and procedures are applied for all EOC activities.

EOC Manager – Primary Responsibilities

1. Undertake special assignments at the request of the EOC Director.
2. Ensure the efficient and effective flow of information within the EOC.
3. Ensure resource requests are prioritized and tracked.

4. Support EOC management by communicating executive direction and action priorities to all staff.
5. Coordinate internal functions of EOC for effective operational capability.
6. Monitor the health and welfare of EOC staff. Mediate and resolve any personnel conflicts.
7. Facilitate shift change briefings and operational debriefings.

***For the City of Burlington EOC position specific responsibilities refer to Annex 5.**

2.2.3 Response Objectives

This part identifies the City of Burlington's response priorities.

All City of Burlington employees that are a part of the ECG and support staff in conjunction with first responders and field operations, must understand their role at an emergency/disaster is to work with all responding organizations to bring the emergency/disaster to a safe conclusion and continue to work with the community to rehabilitate/restore the impacted environment (both physical and socio-economic). City of Burlington personnel will manage their own resources, while striving to interact and cooperate effectively with other responding entities through the principles of the IMS / Unified Command.

The City of Burlington response priorities are:

- Immediate life safety;
- Health of affected persons;
- Protection of public, property and the environment; and
- Continuity of Operations.

2.3 Sustained Actions

This part describes the process of transition from the initial emergency/disaster stage to the sustained action stage involving more prolonged mitigation and recovery actions. This includes transferring command, shift rotations and obtaining logistical support.

Almost every emergency/disaster will require that activity transition from the initial emergency response stage to the sustained action stage involving more prolonged

mitigation and recovery actions. When this occurs, it is often necessary to provide shift rotations to relieve the ECG and support staff.

2.3.1 Transfer of Command and ECG Personnel

Transfer of command and ECG personnel may only take place at the end of the operational period (maximum 12 hours). Prior to command transfer, the EOC Director must ensure that:

- ✓ The Incident Action Plan has been completed, approved and implemented;
- ✓ Transfer of command will take place face-to-face;
- ✓ A briefing or status report is provided to the incoming Director; and
- ✓ Appropriate notifications are made to the EOC Manager and ECG/Support Personnel.

Briefings between outgoing and incoming personnel should be performed to cover relevant issues such as:

- ✓ The situation status
- ✓ Objectives and priorities
- ✓ The current organization
- ✓ Resource assignments
- ✓ Resources en-route and/or ordered
- ✓ Facilities established
- ✓ Communications plan
- ✓ Prognosis, concerns, related issues

2.3.2 Requests for Assistance

It is possible that assistance from other levels of government, or external partner agencies with specialized knowledge or expertise, may be required by the City of

Burlington to help successfully respond to an emergency/disaster and continue to assist with rehabilitation/recovery efforts.

Depending on the nature of the emergency and the assistance required, these agencies may be requested to attend the emergency site(s) and/or EOC to assist or provide information and advice to the ECG through the Liaison Officer.

Where provincial assistance is required, which is outside of the normal Municipal service or service working agreements, the request will be made to the Office of the Fire Marshal and Emergency Management (OFMEM) through the Provincial Emergency Operations Centre (PEOC).

NOTE: Requests for personnel or resources from the Federal Government are requested through the PEOC who in turn liaises with the Federal Government Operations Centre.

SUPPORT AGENCIES

When requested by the ECG, many support agencies are situated within the Region EOC (REOC) and may work in support of the EOC and site and include, but are not limited to the following representatives of external groups and organizations:

- GO Transit Service,
- Conservation Halton (CH),
- Joseph Brant Hospital (JBH),
- Non-Governmental Organizations (NGOs),
- Ontario Provincial Police (OPP),
- Provincial and Federal Ministries as required,
- Regional Municipality of Halton,
- School Boards,
- Transit Operators,
- Halton Region Police Service,
- Utility Providers,
- Local Businesses, and / or

- Representatives from any City of Burlington Municipal service or any other service organization or agency deemed necessary by the ECG.

***For a complete listing of support services, refer to Disaster Local Area Network (D-LAN) Resource Stock-Pile.**

2.4 Termination and Follow Up Actions

This section describes the process for terminating an emergency and details the demobilization of response recourse, organizational elements, including follow up actions.

2.4.1 Termination of a Declared Emergency

When it has been determined by the ECG that the emergency should be terminated, the Head of Council and/or Council will make an official termination of declared emergency in writing. The Premier of Ontario may also terminate an emergency at any time. The EOC Director will ensure that all personnel and Supporting Agencies concerned are advised of the termination of the emergency.

Upon termination of an emergency in Burlington, the Mayor will notify:

1. The Ministry of Community Safety and Correctional Services and Office of the Fire Marshal and Emergency Management (OFMEM) by fax, through the Provincial Emergency Operations Centre (PEOC);
2. Members of Burlington City Council;
3. The Regional Chairperson of the Regional Municipality of Halton; and
4. The public.

The following may also be notified of a termination of emergency:

5. Local Member(s) of Provincial Parliament (MPPs);
6. Local Member(s) of Federal Parliament (MPs); and
7. Local media.

2.4.2 Demobilization of Resources

At all times during an emergency/disaster and at the conclusion of response activities, the IC and ECG and support staff must determine when assigned resources are no

longer required to meet emergency/disaster objectives. Excess resources must be released in a timely manner to reduce emergency/disaster-related costs, and to free up resources for other assignments. It is important that prior to resource release, the IC and the ECG along with the EOC support personnel coordinate the development and the communication of a detailed demobilization plan to all stakeholders in order to release resources expediently and effectively.

NOTE: Demobilization of resources shall be recorded in the respective IMS Form. See Annex 5 for a detailed listing and description of all IMS Forms.

2.4.3 Demobilization of Organizational Elements

As the response nears conclusion, it is appropriate to demobilize units, branches and sections as conditions warrant. Anytime a unit, branch or section is demobilized, the function it was performing goes to the next higher level in the chain of command. This process must be communicated to all stakeholders.

2.4.4 Legal Services / General Claims

Many legal issues may arise out of an emergency/disaster. The Legal Department is to be contacted for all litigation, contractual and regulatory issues including recovery of expenses where appropriate.

***For ongoing recovery/rehabilitation efforts, refer to Section 3 - Annex 7.**

3. Annexes

The supporting annexes are designed to provide key supporting information for conducting a response under the core plan as well as document compliance with regulatory requirements not addressed anywhere else in the Corporate Emergency Response Plan. Information provided herein will augment core plan information.

Annex 1 IMS Structure and Implementation

Annex 2 Notification and Reporting

Confidential Annex 3 Declaration of Emergency

Confidential Annex 4 Contacts

Annex 5 IMS Forms and Position Specific Handbook

Annex 6 Training and Exercises

Annex 7 Disaster Recovery and Rehabilitation Plan

1. TERMS OF REFERENCE

1.1. Council Mandate

The Burlington Emergency and Continuity Management Program Committee is an Advisory Committee authorized by Burlington City Council. The Committee has been established by Burlington City Council in accordance with these adopted Terms of Reference and Subsection 11(1) of Ontario Regulation 380/04 under the *Emergency Management and Civil Protection Act*. The Committee shall report to Burlington City Council through the Committee of the Whole.

1.2. Goal

The goal of the Burlington Emergency and Continuity Management Program Committee is to advise and assist The City of Burlington with respect to the Municipal Emergency and Continuity Management Program.

1.3. Scope and Purpose

The purposes of the Burlington Emergency and Continuity Management Program Committee are:

- ✓ To provide guidance and assistance in setting priorities and goals for the Emergency and Continuity Management Program.
- ✓ To share information and build upon identified synergies with the Continuity of Operations Planning (COOP) Committee.
- ✓ To provide recommendations on personnel, resources and equipment for the Program.
- ✓ To ensure that all agencies, volunteers, groups, staff and other programs are aware of the goals of the Program.
- ✓ To ensure the co-operation and coordination of all emergency and continuity management initiatives in areas under their influence.
- ✓ To monitor, evaluate and provide feedback on various Emergency Management Programs.
- ✓ To approve in principle all emergency program policies and emergency response plan annexes prior to corporate implementation, submission to Burlington City Council for approval or, where Council approval is not required, prior to finalization.
- ✓ To consider emergency and continuity management issues and receive

updates as may be brought forward by Municipal Departments and the other organizations represented on the Committee from time to time.

1.4. Composition

The Committee shall be comprised of the following members (or their designates):

- a. City Manager / Deputy City Manager
- b. Manager, Forestry Operations or designate
- c. Manager, Infrastructure and Data or designate
- d. Supervisor, Traffic Operations or designate
- e. Associate Director, Conservation Halton or designate
- f. Manager, Transit or designate
- g. Human Resources, Wellness Consultant or designate
- h. City Clerk
- i. City Solicitor
- j. Manager, Facility Operations or designate
- k. Manager, IT Infrastructure and Data or designate
- l. Deputy Chief, Burlington Fire Department or designate
- m. Senior Manager of Government Relations and Strategic Communications or designate
- n. Community Emergency Management Coordinator and/or alternate
- o. Joseph Brant Hospital – Coordinator, Patient Relations / Patient Safety (Emergency Disaster Planning)
- p. Halton Regional Police Service representative
- q. Halton Region Paramedic Service representative
- r. Canadian Red Cross representative
- s. Burlington Hydro representative

- t. Senior Emergency Management Coordinator, Halton Region or designate

1.5. Frequency of Meetings

Committee meetings should generally be scheduled two times per year, and at a minimum shall meet once in the calendar year. The Chair may call a meeting at any other time deemed necessary.

1.6. Committee Chair

The Chair of the Committee will be the City Manager or designate.

1.7. Role of the Chair

The Chair shall preside over the meetings of the Committee and assist the Committee in reaching consensus on fundamental policy issues of concern to the Committee.

1.8. Support Staff

Clerks shall provide secretarial support, including the taking of minutes, the distribution of minutes and agendas, and the general administrative co-ordination of meetings. Staff shall only be responsible to support working groups that are expressly established and agreed upon at the committee meeting held in Q1 of any given year.

a) Committee Records

Clerks will coordinate with staff to retain committee records including Agendas, Minutes, Subcommittee Reports, Annual Reports and Aims and Objectives. All reports shall be submitted to the Office of the Fire Marshal and Emergency Management (OFMEM) as part of the municipal annual compliance submission under the Municipal Emergency and Continuity Management Program.

The Committee shall prepare, at minimum, an annual report including, but not limited to, achievements reached during the year and a work plan for the upcoming year, all of which shall be forwarded to the Burlington Leadership Team (BLT) annually.

b) Maintenance and Refinement of Terms of Reference

These Terms of Reference shall be maintained by Staff and shall be reviewed at the end of each term by the Burlington Leadership Team (BLT).

Amendments to these Terms of Reference may be proposed by the Committee, through Staff, to Burlington City Council. Only Burlington City Council may approve changes to these Terms of Reference.



**SUBJECT: Assumption of Multinational Five Investments Limited
Phase 2B Subdivision (Registered Plan 20M-1110)**

TO: Committee of the Whole

FROM: Capital Works

Report Number: CW-35-19

Wards Affected: 6

File Numbers: 510-02/05-2B

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Assume the Multinational Five Investments Limited Phase 2B Subdivision, registered as Plan 20M-1110, File 510-02/05-2B; and

Accept all works and services under the jurisdiction of the city within the subdivision to become the property of the City of Burlington; and

Direct the City Clerk to notify the Region of Halton of this assumption; and

Release Subdivision Agreement Instrument Number HR1020308 from title save and except for the following conditions:

- Condition 25 a) to h) inclusive, affecting all lots and blocks; and

Authorize the City Solicitor to prepare any necessary documents and authorize the Mayor and City Clerk to sign them; and

Direct the City Clerk to present the necessary by-law to Council to accept all works and services of the said plan of subdivision and assume the following streets as public highways:

<u>STREET</u>	<u>PARCEL</u>	<u>PIN NUMBER</u>
Walkway Block 125	20M-1110	07202-3821

Velebit Park Boulevard	20M-1110	07202-3822
Adobe Gate	20M-1110	07202-3823
Ryan Lane	20M-1110	07202-3824; and

Authorize the City Solicitor or her designate, to amend the parcel designation in the by-law, if necessary, upon registration of the by-law.

Purpose:

The purpose of this report is to recommend that Multinational Five Investments Limited Phase 2B Subdivision be assumed.

Background and Discussion:

This subdivision was registered as Plan 20M-1110 on May 29, 2012. The majority of the work in this subdivision has been completed for approximately three years.

This subdivision includes the following infrastructure that will be this city's future maintenance and reconstruction responsibility:

- 1.7 lane kilometres of road;
- 300 metres of storm sewers, along with catch basins and other appurtenances;
- 1,645 metres of curb and gutter;
- 1,980 metres of 1.5 metre wide sidewalk;
- 595 metres of 1.5 metre high black vinyl coated chain link fence;
- 5 metres of 1.2 metre high wood privacy fence;
- 195 metres of 1.8 metre high wood privacy fence;
- 105 boulevard trees;
- 107 shrubs;
- 370 square metres of sod;
- 25 street lights; and
- 95 metres of 3 metres wide concrete walkway.

All works in the Multinational Five Investments Limited Phase 2B Subdivision have been completed. The underground and aboveground services have been accepted. It therefore remains for Council to accept the works and services in the subdivision and relieve the developer of his obligations under the subdivision agreement.

Subdivision Agreement Instrument Number HR1020308 may be released from title save and except for the following conditions:

Condition 25 a), affecting Lots 1 to 15 inclusive, 34, 35 and 46 and Blocks 119 to 121 inclusive, advising purchasers/tenants that the dwellings have been fitted with a forced air heating system and the fan, ducts, etc. are sized to accommodate the installation of a central air conditioning system if it is found necessary by the owner/occupant at any time in the future. If the air conditioning is to be provided at a later date, the outdoor unit shall be located in a noise insensitive location. The final installation shall meet the Ministry of the Environment criteria in Publication NPC-216 and other applicable levels specified by the municipality.

Condition 25 b), affecting Lots 1 to 15 inclusive, advising purchasers/tenants that despite the inclusion of noise control features in the development and within the building units, sound levels due to the increasing road traffic on Dundas Street may on occasion interfere with some activities of the dwelling occupants as the sound levels exceeds the Municipality's and the Ministry of the Environment noise criteria.

Condition 25 c), affecting Lots 34, 35 and 46 and Blocks 119 to 120 inclusive, advising purchasers/tenants that despite the inclusion of noise control features in the development and within the building units, sound levels due to the increasing road traffic on Thomas Alton Boulevard may on occasion interfere with some activities of the dwelling occupants as the sound levels exceeds the Municipality's and the Ministry of the Environment noise criteria.

Condition 25 d), affecting Lots 15 to 38 inclusive and Block 124, advising purchasers/tenants that notwithstanding By-law 2020, as amended, as per the policies of Conservation Halton, no buildings or building additions will be permitted within 7.5 metres of the Creek Block without the prior approval of Conservation Halton. Furthermore, the area within 3 metres of the Creek Block shall only be used as an unoccupied area of land that is to be used for the growth, maintenance, and conservation of grass, flowers, trees, shrubs or similar landscaping. Accordingly, no building or structures including but not limited to building additions, swimming pools, decks, sheds, gazebos, paved areas, are permitted within 3 metres of the Creek Block. These setbacks are intended to help ensure the protection of life and property from flooding and erosion hazards and the protection of water quality, quantity and fish habitat. Purchasers/tenants are further advised that the creek block abutting the property has been vegetated to create a natural setting. Be advised that the City will not carry out routine

maintenance such as grass and weed cutting for areas that are developed by the City for public walkways and trails.

Condition 25 e), affecting Lots 1, 34, 35 and 46 and Blocks 107, 108 and 119 to 121 inclusive, advising purchasers/tenants that Thomas Alton Boulevard and Tim Dobbie Drive are to be used as future transit routes and that bus stops and passenger shelters may be located adjacent to any property along these routes.

Conditions 25 f), affecting Lots 1 to 21 inclusive, 68 to 84 inclusive, 91 to 106 inclusive and Blocks 107 to 110 inclusive, advising purchasers/tenants that the park will be an active park and will have facilities such as sports and lighting. Additional facilities may be considered such as a skateboard park and a leash-free dog park.

Condition 25 g), affecting Lots 14 to 38 inclusive and Block 124, advising purchasers/tenants that the Creek Block and Walkway Block will be used for general active and passive recreation and leisure uses, including walkways and bikeways.

Condition 25 h) i), affecting all lots and blocks, advising purchasers/tenants that a 1.5 to 2 metre wide sidewalk may be constructed along the street adjacent to the property line and that this will limit the parking space in front of the unit to one vehicle in the driveway between the garage and the sidewalk.

Condition 25 h) ii), affecting all lots and blocks, advising purchasers/tenants that there may be aboveground utility facilities

Condition 25 h) iii), affecting all lots and blocks, advising purchasers/tenants that a drainage swale may existing across the rear of the property and that the drainage swale as indicated on the approved engineering drawings is not to be altered or blocked in any way, nor are any structures, sheds, etc. (fencing excepted) to be erected within the drainage swale area without the prior approval of the City of Burlington.

Condition 25 h) iv), affecting all lots and blocks, advising purchasers/tenants that due to limited on street parking, the City of Burlington will not issue driveway curb cut widening permits.

Condition 25 h) v), affecting all lots and blocks, advising purchasers/tenants that the City of Burlington Zoning By-law standards for Alton Community require a

minimum of two parking spaces to be provided per dwelling units, one of which may be provided in the garage. Furthermore, the City of Burlington Parking By-law limits on street parking to 5 hours.

Financial Matters:

It is the understanding of staff that a condition of the agreement of purchase and sale between the builder and homeowner was that the builder collected grading deposits from their purchasers which would not be returned until the subdivision was assumed. Assumption of this subdivision would begin the process of returning those grading deposits to the original purchasers.

Once Council approves the assumption of this subdivision, grading deposits, securities and inspection fees deposited with the City by the developer will also be released.

Total Financial Impact

The estimated annual maintenance cost for the assumed infrastructure and urban forestry assets within this subdivision is \$16,600 per year, based on 2019 operating budget projected costs. The costs of maintaining additional roadway assets are included annually in the Roads, Parks and Forestry Department's current budget proposal.

Conclusion:

Staff has confirmed with all City departments, Region of Halton, Conservation Halton, public utilities (including Burlington Hydro Inc.), and the Halton School Boards that all subdivision agreement requirements have been fulfilled. It is therefore recommended that this subdivision be assumed.

Respectfully submitted,

Jeff McIsaac

Senior Engineering Technologist

905-335-7600 ext. 7834

Appendices:

A. Detail Sketch – Sketch No. 1

Notifications: (after Council decision)

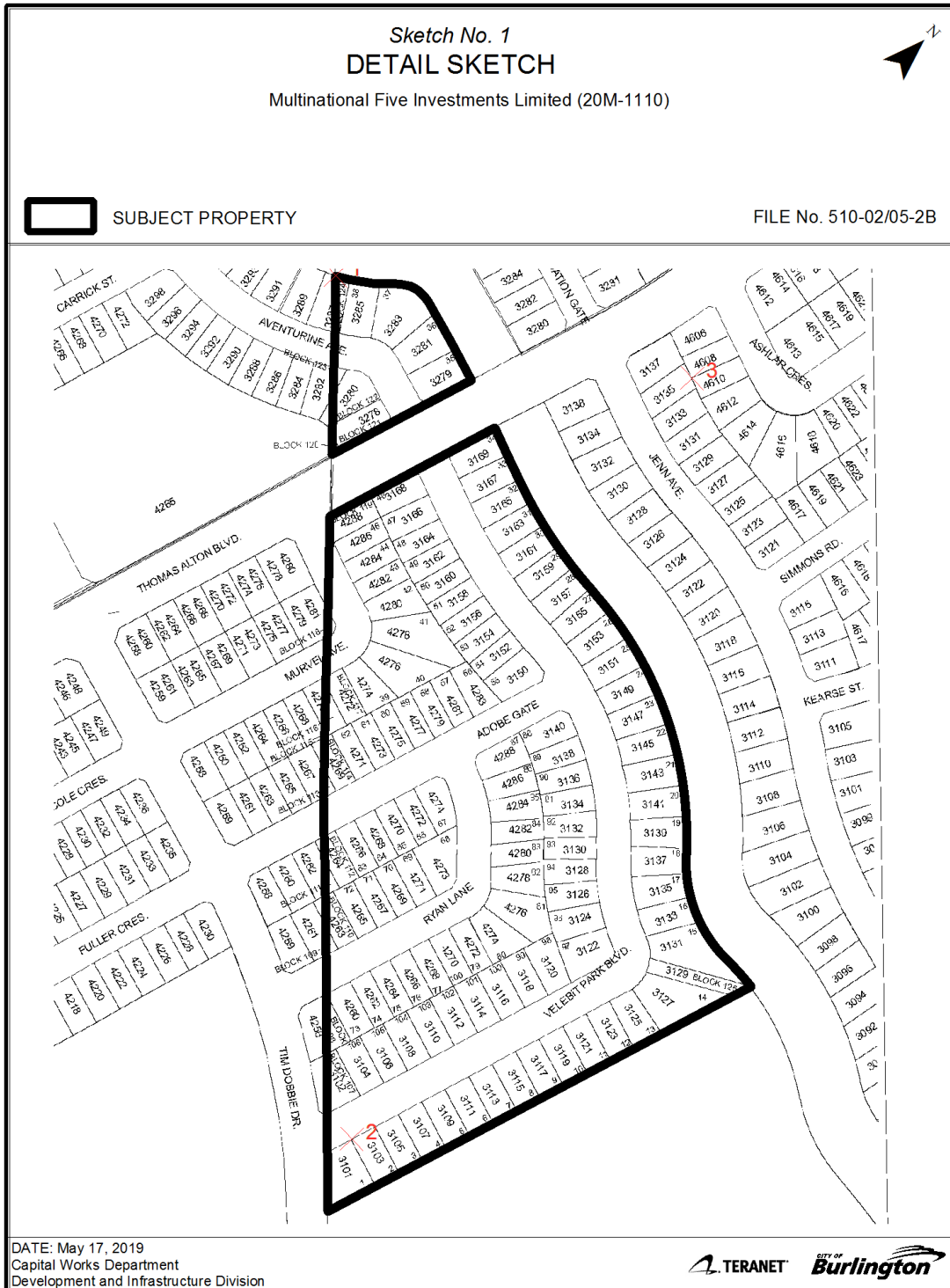
Steve Malovic – smalovic@krpangroup.com

David Luc – dluc@urbantech.com

John Kisneris – john.kisneris@halton.ca

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.





SUBJECT: 2019 Capital Budget Variance and Project Closure

TO: Committee of the Whole

FROM: Finance Department

Report Number: F-32-19

Wards Affected: All

File Numbers: 435-06

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Direct the Director of Finance to proceed with the closure of 77 capital projects identified as being completed in finance department report F-32-19.

Purpose:

An Engaging City

- Good Governance

The purpose of this report is to provide a summary of capital project closures and associated variances.

Background and Discussion:

Unlike expenditures reflected in the operating budget, capital projects do not close off on an annual basis. The capital projects are closed following the completion of all work and when all costs and financing have been finalized. The time between identifying the need for a capital project to its final completion can span a number of years for a major project.

Capital Project Analysis

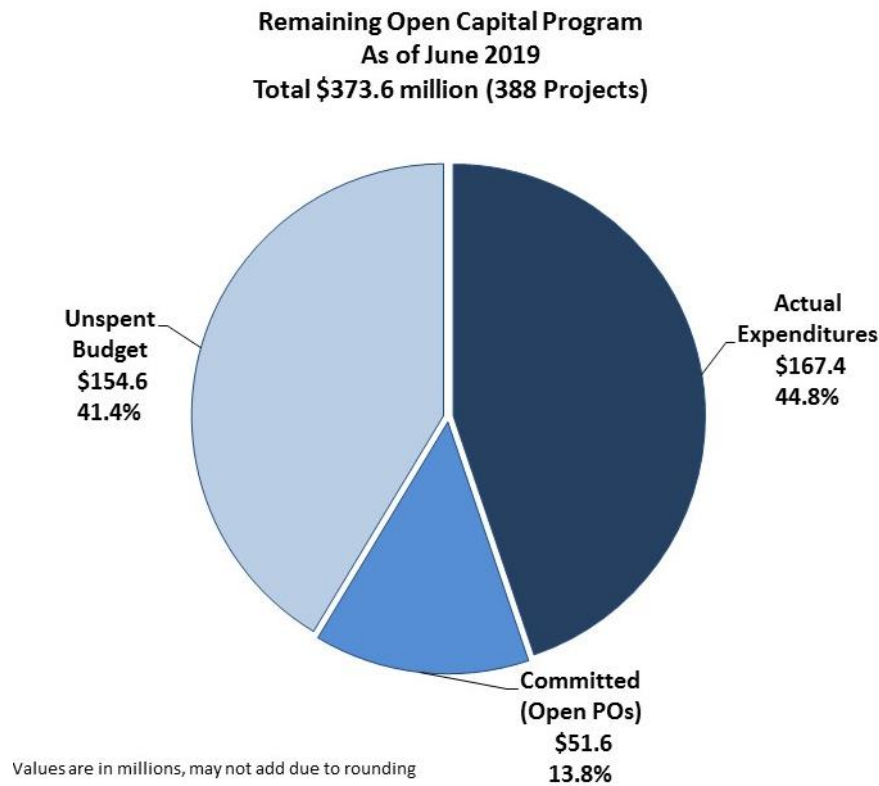
As part of the ongoing capital project management, staff review the status of all open projects to ensure that as projects are completed, and an asset goes into service, they are closed. The reporting of capital variances is in accordance with Delegated Authority By-law 99-2012.

As of June 2019, the City had 465 open capital projects with a total approved capital budget of \$428.7 million as identified in Appendix A. Roadways, Facilities and Buildings, and Parks and Open Space asset categories combined make up 338 of the total number of projects underway in the City and accounts for \$326.6 million or 76.2% of the total value of the capital program.

Of the 465 (\$428.7 million) open capital projects, staff have identified 77 capital projects or 16.6% with a total approved budget of \$55.0 million to be closed.

Staff continue to support the closure of capital projects which have not commenced after three years from budget approval. As part of this closure process, staff have recognized four capital projects that fall under this category, of which one is being closed and three will remain open as the project managers have indicated they will commence in 2019. The project being closed was intended to construct a lunchroom at the Burlington GO Station, it has been determined that staff can utilize the existing space and the project can be cancelled.

The following chart provides the status of the approved \$373.6 million budget of the 388 remaining open projects. Of the total, \$219.1 million or 58.6% of the approved budget has been either spent (\$167.4 million) or committed through purchase orders (POs) (\$51.6 million). Therefore, the total unspent balance in open capital projects is \$154.6 million or 41.4% as of June 2019, reflecting the multi-year nature of the capital projects.



Financial Matters:

Variance Analysis

A summary of the net transfer of approved project funding is presented in Appendix B. The 77 capital projects ready for closure are categorized into favourable and unfavourable variances by asset category. There are 60 capital projects (77.9%) for closure with favourable variances totaling \$4.8 million. Roadways, Facilities and Buildings and Parks and Open Space combined account for \$4.1 million of this favourable variance.

The favourable variance of \$4.8 million is partially offset by the remaining 17 capital projects having unfavourable variances totaling approximately \$0.1 million, resulting in an overall net positive variance of \$4.7 million.

Appendix C summarizes the net funding transfers back to reserve funds to close the 77 capital projects.

One of the 77 projects identified for closure was related to the emergency work required as a result of the August 2014 flood. Immediately after the flood, a significant amount of work was completed to repair flood damage to city infrastructure. Capital expenditures were incurred prior to budget funding approved as part of the 2015 budget for flood mitigation. The project in the amount of \$685,142 is now being closed with funding applied from the 2015 project.

Conclusion:

Finance report F-32-19 was prepared in keeping with the Capital Project Monitoring and Control Policy and Council Delegation of Authority report. Staff in various departments who have capital project responsibilities conducted a diligent review of their capital projects, resulting in the recommended closure of 77 capital projects or 16.6% of all projects.

Respectfully submitted,

Andrea Hagley

Financial Analyst – Budgets and Policies

(905) 335-7600 ext. 7390

Christopher Schneider

Financial Analyst – Budgets and Policies

(905) 335-7600 ext. 7852

Appendices:

Appendix A: All Capital Projects by Asset Category

Appendix B: Capital Project Variances by Asset Category for Closure

Appendix C: Funding Sources for Capital Project Variances by Asset Category
for Closure

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

City of Burlington
2019 Capital Budget Variance and Project Closure
All Capital Projects by Asset Category

Appendix A
of F-32-19

Asset Category	Total Projects		Project Closures		Remaining Open Projects	
Roadways	143	\$ 228,778,129	23	\$ 28,915,289	120	\$ 199,862,841
Storm Water Management	39	31,139,110	8	3,221,742	31	27,917,368
Facilities and Buildings	108	55,602,696	25	12,090,060	83	43,512,636
Parks and Open Space	87	42,199,146	10	4,524,975	77	37,674,171
Parking	8	2,852,894	-	-	8	2,852,894
Fleet Vehicles, Accessories and Equipment	37	32,887,521	8	5,417,310	29	27,470,211
Information Technology	28	19,414,954	2	652,200	26	18,762,754
Local Boards	15	15,781,638	1	227,900	14	15,553,738
Total	465	\$ 428,656,088	77	\$ 55,049,476	388	\$ 373,606,612

Asset Category Directory

Roadways	Roads - Arterial/ Collector/ Local, Bridges & Culverts, Joint Road Projects with Region, Sidewalks/ Multiuse Pathways, Storm Sewers, Street Lights, Transit Shelters, Traffic Control and Traffic Signals
Storm Water Management	Storm Water Infrastructure and Storm Drainage
Facilities and Buildings	Arenas and Auditoriums, Buildings and Operations, Community Centres, Fire, Miscellaneous Buildings, Pools and Tyandaga
Parks and Open Space	Park Development, Park Renewal and Parkland Acquisition
Parking	Downtown Parking
Fleet Vehicles, Accessories and Equipment	New Vehicle/ Equipment Acquisition and Vehicle/ Equipment Replacements
Information Technology	Corporate and Departmental Applications and Technology Infrastructure
Local Boards	Art Gallery of Burlington, Burlington Public Library, Burlington Museums and Burlington Performing Arts Centre

City of Burlington
2019 Capital Budget Variance and Project Closure
Capital Project Variances by Asset Category for Closure

Appendix B
of F-32-19

Asset Category	Favourable Variances		Unfavourable Variances		Total Variances	
Roadways	21	\$ 3,555,300	2	\$ (13,758)	23	\$ 3,541,542
Storm Water Management	7	456,435	1	-	8	456,435
Facilities and Buildings	17	343,556	8	(20,811)	25	322,745
Parks and Open Space	8	175,317	2	(2,128)	10	173,189
Parking	-	-	-	-	-	-
Fleet Vehicles, Accessories and Equipment	5	157,814	3	(67,812)	8	90,002
Information Technology	1	145,738	1	(6,751)	2	138,987
Local Boards	1	-	-	-	1	-
Total	60	\$ 4,834,160	17	\$ (111,260)	77	\$ 4,722,900

City of Burlington
2019 Capital Budget Variance and Project Closure
Funding Sources for Capital Project Variances by Asset Category for Closure

Appendix C
of F-32-19

Asset Category	Development Charges	Capital Purposes	Park Dedication	Infrastructure Renewal	Federal / Provincial Gas Tax	Other Reserve Funds	Total
Roadways	\$ 1,218,465	\$ 692,555	\$ -	\$ 903,571	\$ 551,951	\$ 175,000	\$ 3,541,542
Storm Water Management	161,747	225,945	-	-	-	68,743	456,435
Facilities and Buildings	-	255,885	-	16,911	49,950	-	322,745
Parks and Open Space	-	87,347	71,599	14,244	-	-	173,189
Parking	-	-	-	-	-	-	-
Fleet Vehicles, Accessories and Equipment	76,540	738	(45,501)	(19,278)	65,989	11,516	90,002
Information Technology	-	-	-	138,987	-	-	138,987
Local Boards	-	-	-	-	-	-	-
Total	\$ 1,456,752	\$ 1,262,469	\$ 26,098	\$ 1,054,434	\$ 667,890	\$ 255,259	\$ 4,722,900

Note:

- Negative figures reported in the table above indicate the amount of additional funding required from the relevant funding source
- Positive figures reported in the table above represent available funding to the relevant funding source

Funding Sources Directory

Development Charges	Transportation Development Charges Reserve Fund, Storm Drainage Development Charges Reserve Fund and Transit Development Charges Reserve Fund
Capital Purposes	Capital Purposes Reserve Fund
Park Dedication	Park Dedication Reserve Fund
Infrastructure Renewal	Infrastructure Renewal Reserve Fund, Vehicle Depreciation Reserve Funds and Information Technology Renewal Reserve Fund
Federal / Provincial Gas Tax	Federal Gas Tax Reserve Fund and Provincial Gas Tax Reserve Fund
Other Reserve Funds	Transit Inter-Regional Capital Projects Reserve Fund and Future Services Reserve Fund

To: Mayor and Members of Council
From: Councillor Lisa Kearns
Date: June 25, 2019
Re: Santa 5K Road Race Revised Date

Discussions between the 2014-2018 Council, Staff, Downtown BIA (BDBA), Santa 5K Road Race organizer, run participants, and the community sought to determine a suitable date to host the Road Race. This event requires closure to portions of the local roads and access to businesses for a period of time for a themed race.

In July 2018, discussions on the matter resulted in the following Staff direction:

Proceed with the 2018 Santa 5K road race on Saturday, December 8, 2018; and Direct the Director of Parks and Recreation to consult with downtown churches and businesses, the event organizer and past race participants to determine future race dates and report back in November 2018. (SD-23-18)

A city led Get Involved Survey informed the Staff report to Committee of the Whole on November 5, 2018 with Report PR-05-18 recommending that Council approve the Santa 5K Road Race to occur on an annual basis in the downtown on the second Saturday in December with race time to commence prior to 9:00 a.m. This was ratified at the November 12, 2018 Council Meeting.

A 2018 post-race debrief by the BDBA and extracted survey results indicated that members would be supportive of a different date than had been determined in 2018. The race organizer continued to support the determined date of the second Saturday of December.

Councillor led consultation across all stakeholder groups in 2019 led to aligning the Santa 5K Road Race with the annual Santa Claus Parade, traditionally held on the first Sunday of December from 2 p.m. to 4 p.m. Stakeholder groups include: BDBA, VR Pro, race participants, downtown religious institutions, Burlington Special Events, and the local community.

In reviewing the various holiday events scheduled for the downtown, it was evident that the opportunity to harmonize events and enhance the overall downtown experience was fully supported by all stakeholders, the vision to deliver a complete holiday experience will come forward for the December 2020 holiday season. Including, but not limited to

additional downtown activations, sponsorships, community engagement, tourism opportunities, and vibrancy during a main festive and commercial period. These supporting elements will be strategized over the next ~18 months collaboratively with leadership from the stakeholder groups.

Previous concerns have been mitigated and support for the following motion is widespread:

Approve the Santa 5K Road Race event starting in 2020 and in subsequent years on the same day as the Burlington Santa Claus Parade.

Lisa Kearns
Ward 2 Councillor



SUBJECT: Waterfront Centre roof replacement

TO: Committee of the Whole

FROM: Parks & Recreation Department

Report Number: PR-08-19

Wards Affected: 2

File Numbers: 925-19

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Authorize the Mayor and City Clerk to enter into Phase II of the agreement for the roof replacement at the Waterfront Centre between the City of Burlington and Spencer's at the Waterfront Inc., to the satisfaction of the Director of Parks and Recreation, City Solicitor, Director of Finance and the Executive Director of Capital Works subject to 2020 Capital Budget approval.

Purpose:

A Healthy and Greener City

- Environmental and Energy Leadership

An Engaging City

- Good Governance

Background and Discussion:

Through report PR-10-17 dated October 30, 2017, council approved recommendation to;

Authorize the Mayor and City Clerk to enter into an agreement to the satisfaction of the Director of Parks and Recreation, City Solicitor, Director of Finance and the Executive Director of Capital Works with Spencer's Restaurant for the roof and roof top equipment replacement at the Waterfront Centre.

The Letter of Agreement for the Alteration to the Waterfront Centre between the City of Burlington and Spencer's at the Waterfront Inc., dated February 12, 2018, identified a Phase I and a Phase II of the roof replacement.

The agreement was created to identify two Phases:

- Phase I for the Observatory roof and HVAC equipment replacement (successfully completed in April 2018), and
- Phase II is to complete the roof and HVAC equipment replacement above the restaurant (to be completed in 2020 with the cost of the project to be determined by December 31, 2019).

Strategy/process

Parks and Recreation along with Capital Works staff have worked closely to determine scope of work and costs for the roof replacement above the restaurant. In order to mitigate operational impacts for both the outdoor amenities and the restaurant, we are entering into Phase II of the agreement with construction work scheduled for March 16 – April 8, 2020. The work will begin after the outdoor ice rink is closed for the season and will require the restaurant to be closed for approximately 3 weeks.

Through discussions with Spencer's, staff are recommending the replacement of the roof and all of the roof top equipment at the same time. This will ensure that warranties are not voided by the installation of equipment which could penetrate the new roof once installed.

Similar to the 2018 Observatory roof replacement, Spencer's will take lead on this project with the City providing building specifications and requirements. The recommendation of this report allows for a formal agreement to be in place for this project. It is advantageous for Spencer's to lead this project due to the heavy coordination efforts needed between the construction and the services provided at the Waterfront Centre.

Financial Matters:

Through the capital budget process in 2018, \$480,000 was approved for the roof and equipment replacement of both the observatory and the restaurant. Once quotes were received for the project it was determined that an additional \$408,000 is required (total project \$888,000). It was identified by the roof assessment reports lead by Capital Works that the Waterfront Centre roof renewal was more extensive than originally projected. The additional funds required to complete the restaurant roof replacement will be submitted through the capital budget process in 2019 for the 2020 budget. The

capital renewal for the Waterfront Centre is funded from the Waterfront Reserve Fund and does not impact the general tax-base.

Conclusion:

Staff are looking for permission to enter into an agreement for Phase II with Spencer's at the Waterfront for the replacement of the restaurant roof and roof top equipment. Spencer's will take lead on the project including procurement and upfront financing. Allowing Spencer's to take lead on this project is staff's recommendation to ensure the best possible coordination of construction, at the earliest possible time.

Respectfully submitted,

Rebecca Holmes

Planner – Recreation Services

905-335-7600 ext 7531

Notifications:

Aaron Ciancone, Pearle Hospitality

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.



SUBJECT: Enterprise Resource Planning (ERP) program update

TO: Committee of the Whole

FROM: Information Technology Services

Report Number: IT-03-19

Wards Affected: Not Applicable

File Numbers: 200-6

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Receive and file information technology services report IT-03-19 providing an update on the Enterprise Resource Planning (ERP) program.

Purpose:

To provide an update on the ERP program as requested at the April 1, 2019 Committee of the Whole meeting.

Background and Discussion:

At the April 1, 2019 Committee of the Whole meeting, a request was made to provide a monthly update on the status of the ERP Program. The following documents provide background information:

- Report IT-01-19: Enterprise Resource Planning (ERP) Update
- Memo to Council: Report IT-01-19 (ERP Update) Follow-Up Items (dated April 3, 2019)

The ERP Program is focused on procuring and implementing an integrated software solution that supports business functions and processes in the following areas: Financials, Human Capital Management, Payroll, Budgets, Forecasts, and Reporting.

The value from ERP programs and initiatives comes from the adoption of new and/or improved ways of working. A properly implemented ERP system will enable digital business and deliver a measurable business impact. The goal is to reduce the number of peripheral, disconnected, outdated, siloed data systems and in doing so deliver a fully integrated, flexible, intuitive solution that facilitates service delivery improvements.

Overall Status of Project

Overall, the project is on track. Outlined below are updates in the areas of procurement, project planning, staffing, and governance.

Procurement

The City is planning a phased procurement process:

- Phase 1: Procure a software solution
- Phase 2: Procure professional services to assist the City in implementing the software solution.

Phase 1 is currently underway, and it is expected that the Request for Proposal (RFP) will be released in July. Staff continue to work with Deloitte to develop the RFP packages, assist with the evaluation process, and advise the City on best practices and industry updates.

The original release date for the Phase 1 RFP was May 2019, but staff has taken the opportunity to update the City's RFP template so that both the Maintenance Management System project and ERP are using the updated template. This revised RFP provides many benefits to the City:

- it addresses recent changes in trade agreement legislation;
- it better positions the City for future contract negotiations; and
- it builds on the City's desire for an open, fair, and transparent procurement process.

Releasing the RFP in July still allows us to meet our original timelines of having signed contracts in place by the end of 2019 and continues to allow us the flexibility to change course pending the province's regional government review and Council's direction.

Project Planning

During the procurement phase, staff will be preparing for the new software solution. This preparation work includes:

- Business process identification and review;
- Data identification and cleansing;

- Review and preparation of key configurations (e.g., chart of accounts, employee types, data nomenclature, workflows and approvals);
- Confirmation of project phasing and timelines;
- Recruitment of dedicated project team staff.

Project Staffing

Report IT-01-19 identified a dedicated project team of approximately 10-12 seconded staff who will phase in and out of the project as functionality is implemented.

Council approved funding for four dedicated staff as part of the 2019 budget process. The Program Manager is in place and is currently recruiting for a position to lead change management. This role is critical to the overall program's success as the new technology will impact how staff do their jobs. Effective change management increases the likelihood of meeting project objectives and builds competencies that grow the organization's capacity to tackle transformational change. The two additional staff identified in the 2019 budget will be recruited in Q4 2019.

An update on the remaining dedicated staff will be provided as part of the 2020 Budget.

Program Governance

The Enterprise Software Steering Committee is responsible for ensuring that the ERP program achieves the intended business outcomes and that those outcomes align with the corporate vision, policies and directions. The Steering Committee meets monthly. Recent work includes finalizing the Terms of Reference and developing the vision and objectives, and principles.

Updates to Council

The next update to Council will be provided at the September Committee of the Whole meeting.

Financial Matters:

As part of the 2019 Budget, Council approved \$7.5 million for the ERP Program:

- \$6.0m for the purchase and implementation of a software solution
- \$1.5m for four (4) dedicated multi-year project staff

Source of Funding

Not applicable

Other Resource Impacts

Legal Resources are required to provide review of the RFP process, potential negotiation with the preferred vendor, and contract development.

Connections:

A Corporate I.T. Strategy was developed with a vision to deliver “Innovative City Services powered by tech savvy people, modernized technology and meaningful information.”

Of the five strategic themes developed, two have direct relevance to the ERP program:

- Treat information as an asset. This theme envisions a future where the City becomes more of a data and evidence driven organization, using analytics to improve the lives of residents and enhance the efficiency of the City’s operations.
- Implement or renew core Enterprise Systems. This theme recognizes the continued importance of the major business platforms that manage the City’s core business processes. The actions directed the City to develop an approach and strategy for the consolidation and implementation of an ERP solution.

The benefits delivered through the ERP program also have a direct connection to 2018-2022 Burlington’s Plan: From Vision to Focus (“The Plan”) in Focus Area 5 – Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation.

- **We will achieve** greater organizational effectiveness and technology transformation with our commitment to enhancing City services and delivery of citizen self-service options through technology.

A modernized and integrated ERP solution will streamline administrative processes, which translates to improved City services for the citizen. Some of the newly anticipated self-service options include:

- Enhancements to on-line employment application and recruitment process;
 - On-line vendor invoice submission and review
 - Ability for staff to view their payroll and personal information at their convenience.
-

Public Engagement Matters:

Any changes that impact the public will be communicated through the appropriate channels. Opportunities for direct engagement and feedback with the community will be considered throughout the project.

Conclusion:

This report provides a status update on the ERP Program.

Respectfully submitted,

Tracie Legg

Senior Program Manager, ERP

905-335-7600 x7306

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.



SUBJECT: Federation of Canadian Municipalities (FCM) Conference

TO: Committee of the Whole

FROM: Office of the Mayor

Report Number: MO-05-19

Wards Affected: All

File Numbers:

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Receive and file Mayor's Office report M-05-19 regarding the 2019 Federation of Canadian Municipalities conference.

Background and Discussion:

From May 30th to June 2nd, the Mayor, City Councillors and select staff members from the City of Burlington attended the Federation of Canadian Municipalities (FCM) annual conference and trade show. This year's event was held in Quebec City and is the largest gathering of municipal elected officials in Canada. Attendance this year was the highest they have ever seen.

Being present at this event provides our leadership team with opportunities to network and partner with peers on shared issues and ideas, to attend targeted workshops on a variety of relevant municipal issues, and to participate in study tours on topics like smart mobility, assistance for people in crisis, preserving built heritage, and more. With the upcoming election this fall, we also had a very timely opportunity to hear from each federal party leader on the way they intend to work with municipalities if elected.

Funding for the Mayor and Councillors to attend is provided by Halton Region and budgeted for on a yearly basis. The cost of attendance by other relevant staff was charged to their area's related pre-approved travel allowance budget.

Councillor Rory Nisan ran in the regional board election to represent us on the Ontario Board of FCM, and won, so he will bring our local voice to the table for the next year.

From my own point of view, I appreciated the heritage building study tour where I saw how they are revitalizing their heritage sites, primarily as a tourist draw. I got a lot of value from the urban tree canopy tour and heard about their citywide tree bylaw and supporting initiatives. The emerald ash borer beetle is a problem there as well and I was interested to learn their management and mitigation approach.

Hearing every federal party leader voice their commitment to predictable, sustainable infrastructure funding was great to experience first-hand, with one speaking about giving municipalities more authority through a Charter City program (similar to what Toronto is proposing). I've asked staff to explore the prospect more deeply and report back on that possibility.

I was very impressed to see how old Quebec City had managed to put all their underground parking underneath their public parks, making their ground level public spaces beautiful and environmentally friendly. These tours really open our eyes to things that we may not know are possible in our own cities.

To provide further context on the benefits of attending, the following insights from some of our city councillors have been submitted:

Councillor Rory Nisan, Ward 3:

- a) I was honoured to be elected to the FCM Board of Directors at the Annual Meeting in Quebec City. With this role, I will be Halton's representative on this national board. We will bring Canadian municipalities to the federal government in Ottawa. Now I will be able to take Ward 3, Burlington and Halton issues to the national table.
- b) I appreciated the opportunity to meet other councillors from around the country and to learn from their experiences as locally elected leaders. I was struck by the common interests across the country and especially within Ontario.
- c) The workshops and the trade show allowed me to learn about best practices from around the country and to see some new products and technology that may become valuable to Burlington in the future.

Councillor Shawna Stolte, Ward 4:

"I felt very fortunate to be able to have attended this year's Federation of Canadian Municipalities Conference. As a new Councillor it was fascinating to have the opportunity to network and learn from municipal-level elected officials from across the country. I am a firm believer in not "re-creating the wheel" and I believe that as I learned from other communities, I was also able to share some of the awesome initiatives and best practices that we support here in Burlington/Halton.

Some of my most valuable experiences came from joining other delegates in learning about the Quebec City Public Library System and getting an inside look at the innovative strategies that incorporate heritage building enhancement, digital technology and other measures designed to help meet citizens' needs. I also gained insight by studying energy recovery and the environment by touring the Quebec City biomethanation plant, slated for construction between 2019 and 2022 that will use food waste and sewage sludge to produce renewable natural gas and fertilizer.

All in all, this was a tremendous learning opportunity and I really appreciate the opportunity to have attended and return with ideas for our community."

Councillor Paul Sharman, Ward 5, reported the following key highlights:

- a) Learning from other municipalities and industry specialists on emerging and important topics such as creative financing for heritage preservation, energy source development, etc... by participating in workshops and study tours.
 - b) It's critical to ensure Halton and Burlington have representation on the FCM board, which we now do with our own Rory Nisan representing us, in order to make sure the Federal Government shifts its priorities to align with the needs of everyday Canadians.
 - c) It's the only place to obtain perspective on matters that challenge all municipalities and Canadians across the country by meeting and learning from other elected officials, federal government leaders and trade show vendors.
-

Conclusion:

Overall, those who attended gained valuable insights, relationships, and learnings to bring back to their roles and to our city. It was a worthy use of time to attend and we look forward to participating in future years as well.

Respectfully submitted,

Mayor Marianne Meed Ward

905-335-7607



SUBJECT: Revised 2018-2022 Burlington's Plan: From Vision to Focus (V2F)

TO: Committee of the Whole

FROM: City Manager's Office

Report Number: CM-15-19

Wards Affected: All wards

File Numbers: 155-03-01

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Approve the revised 2018-2022 Burlington's Plan: From Vision to Focus (V2F) – July 2019+.

Direct the Deputy City Manager to report to Council with an implementation strategy for including and assessing "Social Implications" as part of staff reports to City Council.

Purpose:

Burlington's Strategic Plan 2015-2040

A City that Grows

- Promoting Economic Growth
- Intensification
- Focused Population Growth

A City that Moves

- Increased Transportation Flows and Connectivity

A Healthy and Greener City

- Healthy Lifestyles
- Environmental and Energy Leadership

An Engaging City

- Good Governance

- Community Building through Arts and Culture via Community Activities
-

Background and Discussion:

Process:

The revised 2018-2022 Burlington's Plan: From Vision to Focus (hereon in referred to as V2F) was tabled at the May 13th Committee of the Whole meeting. At this meeting Council provided feedback on the V2F content which was captured by the City Manager's Office (CMO) staff. Additionally, during the weeks of June 3 and 10th staff met with each councillor and the Mayor to validate the feedback which was provided at Committee and to gather any other feedback on V2F including, but not limited to, goals and related performance measures. The updated V2F and Council feedback was shared at the June 26 Burlington Leadership Team (BLT) meeting; changes have been incorporated into the revised V2F based on Council's feedback. The most significant change has been made to the revised V2F section entitled "we will know we are successful when" section. Council provided further clarification that there be targets assigned to relevant key performance measures to ensure they are specific, definitive and aspirational. This work has been in collaboration with BLT. Please refer to the section of this report on Measuring Success for more information on the key performance indicators.

Staff have also reviewed issues requiring more detailed analysis and response arising from the feedback through the engagement with Council. Detailed commentary and replies are found in Appendix C – Detailed Issues and Responses. The specific issues discussed are Advancing Permitting Solutions; Measuring Success; and Social Implications and Mental Health.

Connection to the 25 Year Strategic Plan

A request was received to provide greater detail regarding the Strategic Initiatives within the 25 Year Strategic Plan adopted in 2015. Appendix D outlines the 50+ initiatives as per the 25 Year Strategic Plan categorized in the following manner:

- 32% transitioned to Operations (initiatives part of day to day business)
- 32% included within V2F
- 25% completed
- 11% not in V2F

Implementation Process

As can be seen in Appendix A the revised V2F is presented in this report for Council's approval. Once this has been completed an implementation process will be initiated which will ensure V2F is a living document and guides decision making in the City. As can be seen in Appendix E there are various components to the implementation plan. It is expected that all implementation reports will be brought to Council this year. Further, the CMO will report to Council and BLT twice a year approximately by the end of Q2 and Q4 to provide an update on progress in implementing V2F. At the beginning of each year, the CMO will facilitate a workshop with Council and BLT to take stock of V2F and identify if there are any emerging strategic priorities and actions, which need to be added or if the timing of any initiatives needs to be changed.

City Manager's Office Review Update

In the approval of the 2019 Operating Budget, a staff direction was passed to review the organizational structure of the City Manager's office with a report due back May 31, 2019. Staff in the City Manager's Office have been working on this review with a focus on identifying key business process. CMO staff have held two sessions with additional time needed. A total of eight separate services and processes have been identified as key focus areas for the City Manager's Office. More detailed work by the CMO team is needed to confirm resourcing. As well, there is a need to engage with the Burlington Leadership Team on this work. The City Manager's Office team are pleased with the progress to date and advise a report back to Council will be ready in September.

Strategy/process

Appendix A is a copy of the final recommended 2018-2022 Burlington's Plan: From Vision to Focus which is presented for approval.

Options considered

The July 8th Committee of the Whole meeting will gather feedback from Council. It is suggested that any changes to V2F be done by resolution at the Committee of the Whole meeting so V2F can be approved at the July 15th Council meeting.

Financial Matters:

Developing a financing plan for V2F is underway and will be reviewed in detail by the Burlington Leadership Team. The Financing plan will be brought forward for Council consideration in the Fall 2019. The Leadership Team will work on integrating the priorities set in V2F into the forthcoming 2020 budget.

Connections:

V2F impacts all City departments and implements Council's strategic priorities.

Public Engagement Matters:

Upon approval the public will be informed of the approved V2F. A Communications Plan will be developed in Q3 2019 detailing the various methods of communication to the public. Residents will also have an opportunity to assess the progress of V2F through a public dashboard.

Conclusion:

The revised 2018-2022 Burlington's Plan: From Vision to Focus is presented to be approved by Council. This will initiate the implementation plan being executed to ensure V2F guides organizational decision making and is aligned to the City operational processes.

Respectfully submitted,

Mary Lou Tanner

Deputy City Manager

ext. 7340

Thomas Plant

Manager Strategic

Initiatives & PMO

ext. 7873

Stephanie Venimore

Business Performance Advisor

ext. 7696

Appendices:

- A. 2018-2022 Burlington's Plan: From Vision to Focus
- B. Councillor Feedback Summary
- C. Detailed Issues and Responses to Feedback
- D. Implementation Plan Timeline
- E. 25-year Strategic Plan Status Information

F. City of Burlington Principles and Objectives for Sustainable Development

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

2018-2022 Burlington's Plan

FROM VISION TO FOCUS

July 2019



burlington.ca



Mayor's Message



There are many new faces around the table at City Council and I'm excited and proud of what we are committing to accomplish for the people of Burlington over the coming four years.

The City's long-term 25-year strategic plan reflects many of the priorities we identified in our respective campaign platforms. The plan will continue to evolve as our city changes, and our new council responds with new ideas. We are also committed to taking action in our four-year term to begin to implement the plan, where it aligns with our collective vision for Burlington.

That is why we have created a four-year work plan: to focus on what actions we can take in this term of council to deliver on the commitments we made during our respective election campaigns, many of which are captured in the strategic plan. The good news is that there is already a high degree of alignment among our individual campaign platforms, and with the elements in the 25-year Strategic Plan. This will allow us to hit the ground running with actions that benefit our residents.

The citizens of our community voted for change in the last election. They told us on the campaign trail, and through their votes, that they wanted to see limits to overdevelopment and intensification, better traffic management, protection of our green spaces, and more respect and civility at City Hall.

In the short time we've been privileged to serve you, we have implemented an Interim Control Bylaw to pause development in our downtown core and around the Burlington Go Station to better evaluate the long-term vision we have for growth in this area and ensure it represents the wants and needs of our community. We launched the Roseland Private Tree Bylaw to help protect and preserve the tree canopy in one of the oldest parts of our city. We passed motions at City Council to make it clear to the Provincial Government that we would not support development in our greenbelt, and that we are opposed to

amalgamation with neighbouring municipalities. We debated the hot topic of allowing retail cannabis stores to operate in our city and voted how our constituents asked us to, with respectful debate as we reached a final decision together.

We launched the Red Tape Red Carpet Task Force to bring together business owners across all industries to identify obstacles to relocation and growth here in Burlington, and work together to remove them. We worked together to pass a new budget that provided the lowest tax increase for our residents in 8 years while still adding new services that add value to our city.

Most importantly, we have prioritized connecting with our constituents and making sure everyone feels that their voice matters. We attend community fundraisers, local sporting events, flag raisings and proclamations, new business openings and school tours, and meet 1 on 1 with constituents every day to help engage people from every corner of our city.

Our vision for the next four years is to continue on this very path. We will focus on key priorities like the environment and climate change, transit, and the health and well-being of our residents and businesses. We'll deliver the customer service levels you deserve and ensure every voice in our community is heard and valued. We'll do it all while operating with integrity, transparency and respect in everything we do.

Burlington is an amazing city, and we look forward to supporting its ongoing success and evolution... together.



- Mayor Marianne Meed Ward

A Commitment From Our Leaders – We Will...

The City of Burlington is a place where people, nature and business thrive. Burlington Council and the Burlington Leadership Team will work towards common objectives in partnership with our community to address our changing city and contribute to the quality of life for residents.

This 2018 to 2022 Plan: From Vision to Focus is our corporate work plan that prioritizes key strategic directions from Burlington's long-term 25-year Strategic Plan and details key goals and strategic actions required to move these priorities forward during this term of Council. It is important to note that some initiatives identified in this plan may go beyond the 4-year term and will be carried over into future years for continued implementation.

Together, we will build on the vision from the 25-year plan and focus in on the specific initiatives and actions that bring us closer to achieving the vision; A City that Grows, A City that Moves, A Healthy and Greener City and An Engaging City. To make that happen, this plan takes into consideration the wide range of programs and 39 City Services delivered to the community and the commitment we have in delivering trusted, effective and efficient services to everyone.

A series of joint workshops and engagements were held with the 2018-2022 Burlington Council and the Burlington Leadership Team to reconfirm the specific focus areas and define goals and actions required to execute on the plan.

We will align resources to ensure we make progress in these focus areas:

1. Increasing economic prosperity and community responsive city growth
2. Improving integrated city mobility
3. Supporting sustainable infrastructure and a resilient environment
4. Building more citizen engagement, community health and culture
5. Delivering customer centric services with a focus on efficiency and technology transformation

We will share regular updates on the implementation and progress of the plan with the citizens of Burlington. We will let our community know our achievements and progress on the 2018 to 2022 Burlington Plan: From Vision to Focus that helps realize our long-term vision for the City of Burlington.

Together we commit.



Ward 1 -
Councillor
Kelvin Galbraith

Ward 2 -
Councillor
Lisa Kearns

Ward 3 -
Councillor
Rory Nisan

Mayor
Marianne
Meed Ward

Ward 4 -
Councillor
Shawna Stolte

Ward 5 -
Councillor
Paul Sharman

Ward 6 -
Councillor
Angelo Bentivegna

Our Organization's Values

At the City of Burlington, trust, respect, honesty and integrity are considered foundational values of our organization. All employees will not only promote and live these values, they will also receive them in return.

Our organizational values express what is important to us and will guide our behaviour and how we work together.



Table of Contents

About the Plan 6

City Services 7

Corporate Alignment and Accountability 8

Reading the Plan 9

2018-2022 – Focus Areas and Actions

Top Priorities of the City of Burlington Vision to Focus 2018-2022 Plan 10

Increasing economic prosperity and community responsive city growth 12

Improving integrated city mobility 14

Supporting sustainable infrastructure and a resilient environment 15

Building more citizen engagement, community health and culture 16

Delivering customer centric services with a focus on efficiency and technology transformation 17

Monitoring, Measuring and Reporting 22

Progress on Burlington’s Strategic Plan 2015-2040 23

2018-2022 Burlington’s Plan Vision to Focus - Summary of Goals to Achieve 26

Appendix A – Action Plan at a Glance 27

About the Plan

Our Focus 2018-2022

- Increasing economic prosperity and community responsive city growth.
- Improving integrated city mobility.
- Supporting sustainable infrastructure and resilient environment.
- Building more citizen engagement, community health and culture.
- Delivering customer centric services with a focus on efficiency and technology transformation.

Our Vision 2040+

Where People, Nature and Business Thrive

- **A City that Grows**
- **A City that Moves**
- **A Healthy and Greener City**
- **An Engaged City**

Building the Vision



City Services



Public Safety

- Animal Control
- Emergency Management
- Fire Emergency Response
- Fire 911 Communication
- Fire Prevention and Public Education
- Halton Court Services
- Municipal Law Enforcement and Licensing



Maintenance

- Cemetery
- Environment and Energy
- Parks and Open Space Maintenance
- Road and Sidewalk Maintenance
- Surface Water Drainage
- Tree Management



Roads and Transportation

- Parking Management
- Roads and Structures - Design and Construction
- Specialized Transit
- Traffic Operations Management
- Transit
- Transportation Planning



Leisure

- Arts and Culture
- Organized Sport Support
- Recreation



Design and Build

- Building Code Permits and Inspection
- Community Design and Development Review
- Facilities and Buildings-Design and Construction
- Parks and Open Space-Design and Development



Customer Relations and Citizen Representation

- Council and Citizen Committee
- Service Burlington



Internal Support and Administration

- Asset Management
- Corporate Legal
- Corporate Management
- Financial Management
- Fleet Management
- Geographic Information and Mapping
- Human Resources
- Information Technology
- Internal Audit
- Sign Production
- Strategic Communications and Government Relations

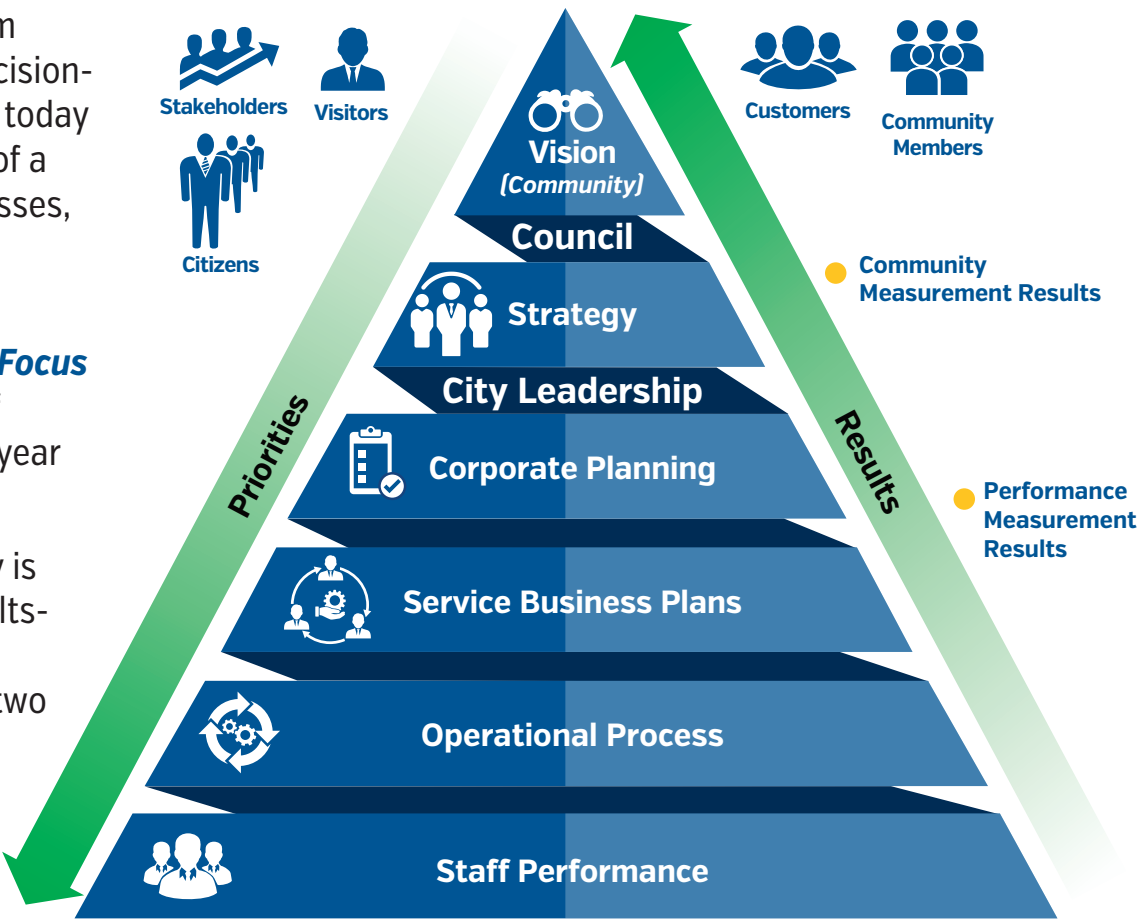
Corporate Alignment and Accountability

Burlington’s 2015-2040 Strategic Plan is a long-term vision for the future. It is a framework for critical decision-making and guide to how we manage our resources today to position Burlington for the future. It is the result of a year of engagement that included residents, businesses, community groups, city employees and members of Burlington City Council.

This 2018-2022 Burlington’s Plan: From Vision to Focus document is the corporate work plan for the term of Council to align with the long-term vision of the 25-year Strategic Plan.

Burlington’s corporate alignment and accountability is built on Service Management [see page 7] and Results-Based Accountability Frameworks. A Results-Based Accountability Framework takes into consideration two types of accountability:

- Community Measurement Results
- Performance Measurement Results



Community Measurement Results	
Community Result Area	A condition of well-being for a selected population/community.
Community Indicator	A measure that helps quantify the achievement of a community result area. Multiple partners are involved with improving the results of community indicators. Community indicators are important to monitor over time and are part of the long range 25-year plan for Burlington.
Performance Measurement Results	
Performance Measure	A direct measurement of the performance of city service delivery. These measures are captured in strategic plans, master plans, corporate plans and service business plans.

How To Read The Plan

This document is divided into 5 focus areas which are aligned to the 25-year Strategic Plan and the delivery of city services to the community.



Focus Area 1 - Increasing Economic Prosperity and Community Responsive City Growth



Focus Area 2 - Improving Integrated City Mobility



Focus Area 3 - Supporting Sustainable Infrastructure and a Resilient Environment



Focus Area 4 - Building More Citizen Engagement, Community Health and Culture



Focus Area 5 - Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation

When reading through each of the focus areas, there are goals outlined for each with key actions that will be executed within the 4-year term of Council. There are multiple success indicators (such as key performance indicators or progress expectations) identified for the goal area.

- **Top Priorities** of the City of Burlington are identified in this From Vision to Focus Plan on page 10 and include key actions, 4-year performance targets and the 25-year aspirational targets. These priorities are critical to achieving the 25-year vision of Burlington.
- To ensure accountability and continued focus on **Key Actions** that are time sensitive and significant to the progress of the Plan, an additional appendix (**Appendix A: Action Plan at a Glance**) has been included. This Appendix includes assigned Department accountabilities and target dates for completion. **Key Actions** are also highlighted throughout the document.

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
These are specific goals that will be accomplished.	These are the actions, projects or initiatives to be accomplished within the 4-year term of Council to either maintain, change or advance the situation, circumstances or behaviours.	These are measures of how well a service, circumstance, situation or behavior are working to contribute to our community well-being. These measures can also answer the question “How will we know we have reached the intended progress or completion?”.

Top Priorities | 2018-2022 Burlington's Plan From Vision to Focus

As the City works towards achieving the 25-year strategic vision, there are top priorities that significantly impact and enable the City for success. Keeping a focus on achieving these targets and measuring progress of the key actions is critical to the success of the plan. Below are the Top Priorities that have been identified by Council and Leadership.

Top Priorities for Focus Area 1 - Increasing Economic Prosperity and Community Responsive City Growth

Top Priority and Goal		Key Action	Achievable Performance Target (4-year workplan)	Aspirational Performance Target (25-year Strategic Plan)
Business Growth	Increasing options for employment opportunities across the City	Implement the recommendations of the Red Tape Red Carpet Taskforce to make it easier for businesses to locate and thrive in Burlington, attracting more investment Q4-2019	Annually increase the overall growth of businesses by 1% = to 55 new businesses per year	Overall Commercial and Industrial split in assessment is 25%
Housing	Increasing options for housing across the city	Complete the scoped Official Plan Review and Interim Control By-law Studies by Q1-2020 Complete the City's Housing Strategy and implement the plan to address the needs related to young families, senior's housing, affordable housing, special need's housing, and newcomers by Q2-2022	Approve 1 affordable housing project per year	Housing targets by 2041 are: <ul style="list-style-type: none"> • Min of 50% to be townhouses and multi-story buildings • Min of 30% to be affordable or assisted housing

Top Priorities for Focus Area 2 - Improving Integrated City Mobility

Top Priority and Goal		Key Action	Achievable Performance Target (4-year workplan)	Aspirational Performance Target (25-year Strategic Plan)
Transit Utilization	Increasing Burlington Transit service levels and growing overall ridership	Complete the Burlington Transit 5-Year Business Plan by Q4-2019	Annually increase transit ridership by 1%	Transit Modal Split is 15%
Modal Split	Improving the transit and transportation modal split	Complete the Integrated Mobility Plan and implementation schedule by Q4-2020	Annually increase modal split between car use [82%], transit [10%] and active transportation [8%] by 2022	Modal split is 70% car; 15% transit; 15% active transportation

Top Priorities for Focus Area 3 - Supporting Sustainable Infrastructure and a Resilient Environment				
Top Priority and Goal		Key Action	Achievable Performance Target [4-year workplan]	Aspirational Performance Target [25-year Strategic Plan]
Infrastructure Gap	Reducing the infrastructure funding gap for all city owned assets	Implement the Asset Management Financial Strategy starting in Q3-2019	Decrease the City's infrastructure funding gap by 25% by 2022	Eliminate the City's infrastructure funding gap by 2027
Climate Action	Promoting and working towards a lower carbon footprint community	Develop Burlington's Climate Action Plan, addressing Burlington's Climate Emergency declaration and focusing on reducing the community's greenhouse gas emissions by Q4-2019	Reduce the greenhouse gas emissions from City operations and in the community overall by 21% over the next 4 years	Reduce the greenhouse gas emissions from City operations and in the community overall by 100%
Top Priorities for Focus Area 4 - Building More Citizen Engagement, Community Health and Culture				
Top Priority and Goal		Key Action	Achievable Performance Target [4-year workplan]	Aspirational Performance Target [25-year Strategic Plan]
Tree Canopy	Increase the tree canopy city wide	Complete the Urban Forestry Master Plan Update by Q4-2020	Achieve a 1:1 tree removal/tree replacement ratio by 2022	Increase the City's tree canopy by 50% of 2020 baseline by 2041
Community Engagement	Being a municipal leader in community engagement, collaboration and volunteerism	Annually employ a range of communication and engagement tactics to ensure citizen engagement represents all residents while also focusing on diverse demographic groups and communities starting in Q3-2019	Increase the number of residents using the City's online engagement tool getinvolvedburlington.ca by 10% each year	Residents consistently feel that meaningful engagement occurs where community input would help shape decisions
Top Priorities for Focus Area 5 - Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation				
Top Priority and Goal		Key Action	Achievable Performance Target [4-year workplan]	Aspirational Performance Target [25-year Strategic Plan]
Service Excellence	Ensuring efficient, effective and economical service delivery	Initiate a corporate-wide service review program in Q3-2019	Increase the tax rate at the rate of inflation (excluding infrastructure and increase in services)	Minimum of \$1.0 M net operating savings annually
Customer First Approach	Enhancing and emphasizing a customer first approach in all city service areas	Establish innovative techniques, processes, locations and technology for connecting with customers and delivering service options starting in Q3-2019	Increase the community satisfaction with City services by 5% by 2022	Citizens have a full range of customer service options including digital service delivery (to be confirmed)
Digital Transformation	Invest in customer centric digital technologies	Continue implementation of the Corporate IT Strategy	Increase number of on-line self service options by 10% (to be confirmed)	50% of total IT investment directed towards service delivery improvements and efficiencies (to be confirmed)

Focus Areas and Actions | 2018-2022 Burlington's Plan From Vision to Focus



Focus Area 1 - Increasing Economic Prosperity and Community Responsive City Growth

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
Economic prosperity with our commitment to... <ol style="list-style-type: none"> 1. Supporting and maintaining a diverse economy in small business, commercial, industrial, and office sectors 2. Creating a competitive business investment environment in Burlington (e.g. taxes, incentives) 3. Increasing options for employment opportunities in Burlington 	<div> KEY ACTIONS <ul style="list-style-type: none"> • Implement the recommendations of the Red Tape Red Carpet Taskforce to make it easier for businesses to locate and thrive in Burlington, attracting more investment. First priorities will be grading and drainage; Committee of Adjustment; and Zoning business process reviews • Work with Burlington Economic Development Corporation to create and implement strategies to focus on: <ul style="list-style-type: none"> • Creating jobs and achieving long term economic vision for the City of Burlington </div> <div> <ul style="list-style-type: none"> • Reducing commercial and industrial office vacancies and reducing barriers in attracting businesses • Developing attraction and retention strategies for knowledge-based/technology-intensive industries • Developing and implement a Retail Strategy • Supporting small business and tech incubators • Assess the use of one or more Community Improvement Plans including options for incentive programs for business development • Remove constraints on availability of employment lands • Develop a plan to activate key parcels of vacant employment lands and facilitate vacant employment lands being shovel ready </div>	<ul style="list-style-type: none"> • Annually increase employment by 1,000 jobs • Strive for a weighted assessment ratio of non-residential to residential of 25/75 • Maintain the industrial rate at less than 10% and reduce the office rate to 10% by 2030 • Annually increase the overall growth of businesses by 1% = to 55 new businesses per year • Increase by 23% residents working and living in Burlington by 2025 • Improve ratio of knowledge-based technology intensive business to manufacturing business by 1.06 by 2023 • Increase available employment lands to 50 hectares by 2022 • Annually attract 10 companies to Burlington • Annually 400,000 square feet leased office and commercial space • Annually 100,000 square feet of industrial supply added



Focus Area 1 - Increasing Economic Prosperity and Community Responsive City Growth

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
Responsible city growth management with our commitment to... <ol style="list-style-type: none"> 1. Increasing options for housing in Burlington 2. Increasing options for learning institutions 3. Maintaining and continually developing a safe city 	KEY ACTIONS <ul style="list-style-type: none"> • Determine the future vision for the downtown by completing the review of the Official Plan policies and the Interim Control Bylaw land use study • Define Burlington's expectations for population and jobs to 2041 as part of the Halton Region's Municipal Comprehensive Review • Complete the area specific plans for Mobility Hubs • Complete the City's Housing Strategy and implement the plan to address the needs related to young families, senior's housing, affordable housing, special need's housing, and newcomers. • Develop a Fire Master Plan to support the growth and change within the city 	<ul style="list-style-type: none"> • Approve 1 affordable housing project per year • An updated Council and Halton Region approved Official Plan is in force and effect by Q2- 2020 • Attract 1 new post-secondary institution by 2030 • Initiate the Zoning By-law Review by Q1-2022 • Complete and ensure the implementation plans are in progress for; <ul style="list-style-type: none"> • The Fire Master Plan by Q2-2020 • The Housing Strategy by Q2-2022 • The plan for attracting a post-secondary education institution by Q1-2020
	<ul style="list-style-type: none"> • Initiate the Zoning By-Law Review • Start the process of reviewing the next Official Plan • Develop a strategy and implementation plan to attract a post-secondary education institution(s) (e.g. university, college, and technical institute) primary or secondary campus 	



Focus Area 2 - Improving Integrated City Mobility

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
Integrated city mobility with our commitment to... <ol style="list-style-type: none"> 1. Being a vision zero city that strives to create safe streets for all users and eliminates fatalities and serious injuries on streets 2. Improving traffic flow 3. Increasing Burlington Transit service levels and growing overall ridership 4. Improving the transit modal split 5. Improving access to Burlington Transit service 	KEY ACTIONS <ul style="list-style-type: none"> • Complete the Integrated Mobility Plan and implementation schedule • Review snow clearing service levels for all mobility modes (e.g. trails, sidewalks, bike lanes and roads) before the 2020 budget • Complete the Burlington Transit 5 Year Business Plan • Complete the Rural Active Transportation Strategy and implementation schedule • In collaboration with Halton Region complete the QEW Prosperity Corridor Study and implement recommendations • Use new technology and street design to reduce congestion and increase traffic flow • Develop annual transit service plans to implement a frequent grid-based network • Assess an alternative method of transit service delivery to move people more efficiently during off-peak times • Continue to review, develop and deliver incentive programs to encourage transit ridership <ul style="list-style-type: none"> • Provide free transit for SPLIT Pass Program participants • Provide free transit service pilot program for seniors (65+) during off-peak hours • Assess and implement changes to increase connectivity of transportation modes and options • Assess and implement changes to improve the state of good repair on all mobility modes • Assess the feasibility of bike sharing opportunities and costing before the 2020 budget 	<ul style="list-style-type: none"> • Improve travel times and recovery from QEW spillover incidents * • Decrease the number of fatalities and serious injuries on streets in Burlington * • Annually increase transit ridership by 1% • Increase by 8.3 % modal split between car use and transit by 2024 • Increase modal split to the following by 2022: <ul style="list-style-type: none"> • Transit - 10% • Active Transportation - 8% • Auto - 82% • Reduce the average household per day car trips from 10 to 8 by 2022 • Complete and ensure the implementation plans are in progress for; <ul style="list-style-type: none"> • The Burlington Transit 5-Year Business Plan by Q4-2019 • The Integrated Mobility Plan by Q4-2020 • The QEW Prosperity Plan by Q4-2020 • The Rural Active Transportation Strategy by Q3-2020 <p>NOTE: *Key Performance Indicators that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist.</p>



Focus Area 3 - Supporting Sustainable Infrastructure and a Resilient Environment

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
Responsible and sustainable Infrastructure with our commitment to... <ol style="list-style-type: none"> 1. Including citizen engagement; to be responsive to citizen's needs in infrastructure and new infrastructure growth 2. Ensuring growth is financially sustainable and pays for new infrastructure 3. Reducing the infrastructure funding gap for all city owned assets 	KEY ACTIONS	<ul style="list-style-type: none"> • Decrease by 25% the City's infrastructure funding gap by 2022 • Annually increase 1 new revenue opportunity to support infrastructure • Complete the development charges Background Study and By-law by Q2-2019 • Complete the update to the Asset Management Plan and Financial Strategy by Q4-2021
	<ul style="list-style-type: none"> • Implement the Asset Management Financial Strategy and update the Asset Management Plan • Update the development charges Background Study and By-law • Increase advocacy with other levels of government • Develop partnerships to assist with revenue generation to support infrastructure 	



Focus Area 3 - Supporting Sustainable Infrastructure and a Resilient Environment

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
A more resilient environment with our commitment to... <ol style="list-style-type: none"> Promoting and working towards a lower carbon footprint community Delivering on carbon neutral initiatives Expectation of increasing the use of sustainable development materials Protecting and enhancing the city's creeks, streams and waterfront Increasing the tree canopy city wide Maintaining the current urban/rural boundary 	KEY ACTIONS <ul style="list-style-type: none"> Develop Burlington's Climate Action Plan, addressing Burlington's Climate Emergency declaration and focusing on reducing the community's greenhouse gas emissions Develop Burlington's Climate Change Adaptation Plan Review and update the Sustainable Building and Development Guidelines Update the Corporate Energy Management Plan to recognize achievements and identify new initiatives for implementation Update the Storm Water Management Plan while continuing to implement the current flood and storm management actions Complete and implement the Urban Forestry Management Plan Update Update the City's Green Fleet Strategy and develop an action plan to reduce the City's carbon footprint through alternative fuel sources Use the results and outcomes of the Roseland Private Tree By-law Pilot to determine where tree by-laws are appropriate Update the Community Energy Plan in partnership with key stakeholders to recognize achievements and identify new initiatives for implementation Assess the Home Retrofit Program with key stakeholders Use city growth as an opportunity to enhance creeks, streams and water quality 	<ul style="list-style-type: none"> Reduce by 21% the greenhouse gas emissions from City operations by 2023 Reduce the community greenhouse gas emissions* Achieve a 1:1 tree removal/tree replacement ratio by 2022 Increase the tree canopy percentage overall city-wide* Increase the viability of the urban forest by ensuring biodiversity of Family/Genus/Species of trees* Increase the viability of the urban forest by ensuring appropriate age class distribution* Complete and ensure the implementation plans are in progress for; <ul style="list-style-type: none"> The Climate Action Plan by Q1-2020 The Climate Change Adaptation Plan by Q1-2021 The Corporate Energy Management Plan by Q3-2019 Urban Forestry Management Plan update by Q1-2020 The Flood and Storm Water Management Plan by Q4-2019 The Sustainable Building and Development Guidelines by Q1-2021 The City's Green Fleet Strategy by Q2-2021 <p>NOTE: *Key Performance Indicators that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist.</p>



Focus Area 4 - Building More Citizen Engagement, Community Health and Culture

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
Healthier communities with our commitment to... <ol style="list-style-type: none"> 1. Ensure citizen wellbeing through walkable and bikeable access to green space 2. Building more parks associated with development in new growth areas across the city 3. Focusing on the health and wellbeing of older adults 4. Focusing on increasing recreational programming for our growing and diverse communities across the entire City 	KEY ACTIONS <ul style="list-style-type: none"> • Complete the Parks Master Plan update and implement new actions, while continuing to act on current parks initiatives • Complete a strategic review of the Joint Venture Policy • Complete a Recreation visionary framework of principles, goals and an operating model to align with the changing needs of recreation • in the community ensuring the inclusion of all diverse demographics • Complete a Neighbourhood Development Strategy • Complete the priorities identified in the Community Trails Strategy • Advocate for the Greenbelt Plan at all opportunities to support the urban/rural boundary • Explore partnerships to expand recreation and social participation for older adults including individuals facing isolation or other participation barriers • Ensure all new residential developments and renewal of City infrastructure provides quality amenity space in close proximity to meet the needs of the neighbourhood 	<ul style="list-style-type: none"> • Increase park and green space city wide* • Increase length and connectivity of multi-use trails by 5 kilometers by 2024 • Maintain the standard, that homes are within a 15-20 minute walk of a park • Increase by 2% programming opportunities for all ages by 2022 • Annually ensure that 90% of recreation program participant satisfaction survey results are good to excellent • Annually increase by 1% the total number of participant visits to city recreation programs • Complete and ensure the implementation plans are in progress for; <ul style="list-style-type: none"> • The Recreation Visionary Framework by Q4-2019 • The Joint Venture Policy Q2-2020 • The Neighbourhood Strategy by Q4-020 • The Parks Master Plan update by Q4-2020 <p>NOTE: *Key Performance Indicators that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist.</p>



Focus Area 4 - Building More Citizen Engagement, Community Health and Culture

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
Citizen Engagement with our commitment to... <ol style="list-style-type: none"> 1. Being a municipal leader in community engagement, collaboration and volunteerism 2. Improving satisfaction rates of City Services with all residents with an interest on connecting better with newcomers to Burlington 3. Improving citizen advocacy and satisfaction with Citizen's Advisory Committees, Standing Committees, and public meetings 4. Increasing advocacy to other levels of government to ensure Burlington's voice is heard 5. Improving community engagement with diverse communities 	KEY ACTIONS <ul style="list-style-type: none"> • Conduct a review of citizen committees including structure and format. Through this review, consider alternative methods of engaging the community on subject matters other than just the traditional citizen committee format • Create and implement a strategy for advocacy with senior levels of government • Initiate and implement a Corporate Volunteer Strategy based on recommendations from the Mohawk Future Ready Leadership Team to create a simple and seamless system for residents to volunteer their time with the city • Implement the recommendations of the Welcome to Burlington for Newcomers project from the Mohawk Future Ready Leadership Team • Employ a range of communication and engagement tactics to ensure citizen engagement represents all residents while also focusing on diverse demographic groups and communities • Provide different opportunities for residents to engage and contribute to the decision-making process, whether it be in-person, online, telephone or other means 	<ul style="list-style-type: none"> • Increase by 5% Burlington newcomer's satisfaction rates with City Services by 2022 • Annually increase by 10% the number of residents using the City's online engagement tool getinvolvedburlington.ca • Increase in the number of volunteers supporting City Service delivery* • Increase the satisfaction rating of volunteers* • Recognition as a municipal leader in public engagement by winning another Core Values Award from IAP2 by 2022 • Complete and ensure the implementation plans are in progress for; <ul style="list-style-type: none"> • The Citizen Advisory Committees Review by Q4-2019 • A Strategy for senior levels of government by Q3-2019 • A Corporate Volunteer Strategy by Q2-2020 <p>NOTE: *Key Performance Indicators that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist.</p>
Community Building through Arts and Culture with our commitment to... <ol style="list-style-type: none"> 1. Increasing our commitment to arts and culture to be a welcoming city 	<ul style="list-style-type: none"> • Burlington will become a member of the Intercultural Cities Programme and do the work necessary to apply the principles in our policies and practices • Review City policies with an intercultural lens and develop intercultural strategies to broaden Burlington's inclusivity 	<ul style="list-style-type: none"> • Successfully complete the Intercultural Cities Index questionnaire by Q4-2020



Focus Area 5 - Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
<p>Greater organizational effectiveness and technology transformation with our commitment to...</p> <ol style="list-style-type: none"> 1. Ensuring that strategic initiatives and corporate projects are resourced and sustained 2. Ensuring efficient, effective and economical service delivery 3. Enhancing City services and delivery of citizen self-service options through technology 4. Ensuring financial sustainability with a reasonable tax rate increase that focuses on citizen services 5. Delivering on efficient and effective project management and accountable corporate performance 	<p>KEY ACTIONS</p> <ul style="list-style-type: none"> • Complete the functional realignment of the City Manager's office • Initiate a corporate-wide service review program • Deliver on time, on budget and achieve realized benefits (outcomes) for major corporate technology projects; Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), Maintenance Management System (MMS), Business Intelligence (BI) and an upgraded case management development application system (AMANDA 7) • Continue implementation of the Corporate IT Strategy • Engage council and management to review and improve the city's budgeting processes • Assess the feasibility of multi-year budgeting • Develop corporate performance measures and a citizen dashboard to communicate the progress of the corporate workplan • Develop a monitoring, tracking and reporting process for corporate continuous improvement and major corporate initiatives • Undertake and implement the recommendations of the 2019 BMA Municipal Financial Health Report 	<ul style="list-style-type: none"> • Annually 90% of project outcomes completed on schedule and within budget • Increase by 10% the number of on-line self-service options by 2022 • Invest in technology transformation* • Ensure less than 20% of legacy systems use older than 5 years by 2022 • Annually the total IT investment directed towards service delivery improvements and efficiencies* • Complete the implementation of a corporate-wide CRM system* • Balance the ratio of funding invested for business improvements to funding invested in complete business transformation* • Increase the tax rate at the rate of inflation (excluding infrastructure and increase in services) • Ensure stabilization reserve funds as a % of net revenues between 10-15% • Ensure debt charges as a % of net revenues are below 12.5% <p>NOTE: *Key Performance Indicators that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist.</p>



Focus Area 5 - Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
<p>A customer centric service delivery approach with our commitment to...</p> <ol style="list-style-type: none"> 1. Increasing community and customer input into how the city delivers services 2. Enhancing and emphasizing a customer first approach in all city service areas 	<p>KEY ACTIONS</p> <ul style="list-style-type: none"> • Conduct a community-wide survey every three years, starting in fall 2019 to determine if residents feel they are being engaged and are part of the City's decision-making process • Implementation of a one stop customer service counter for the Department of City Building • Develop and implement online/automated submissions, processing and approvals of development applications • Communicate and engage staff and customers in the implementation of the "Launch and Cultivate" phases of the Service Brilliance Corporate Customer Service Strategy Actions, including: <ul style="list-style-type: none"> • Identify and deliver convenient community- based service options • Establish innovative techniques, process, locations and technology for connecting with customers and delivering service options 	<ul style="list-style-type: none"> • Increase by 5% community satisfaction with City services by 2022 • Increase by 2% annually the percentage of residents providing input and feedback • Complete and ensure the implementation plans are in progress for; <ul style="list-style-type: none"> • The City of Burlington's Community Survey by and address gaps and areas that need improvement by Q4-2019 <p>NOTE: *Key Performance Indicators that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist.</p>



Focus Area 5 - Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation

We will achieve...	We will need to execute on these initiatives...	We will know we are successful when...
A 21st century workplace with our commitment to... <ol style="list-style-type: none"> 1. Developing employees to fill management vacancies from within 2. Improving our employment identity to become a top employer in the Greater Toronto and Hamilton Area 3. Increasing employee engagement and workplace culture scores 4. Diversifying the employee demographics that participate in engagement activities 	KEY ACTIONS <ul style="list-style-type: none"> • Complete the assessment of salary competitiveness and implement recommendations • Complete and implement a diversity and inclusivity strategy for Burlington as an employer • Invest in employee development through succession management programs and employee development initiatives • Strengthen recruitment channels to ensure a positive candidate experience and improve inclusivity • Conduct employee surveys to measure staff engagement and staff awareness of City goals and objectives • Employ a range of communication and engagement tactics to attract diverse demographics 	<ul style="list-style-type: none"> • Decrease voluntary turnover to 4% by 2022 • Decrease to 15% the number of difficult to attract positions by 2022 • Increase the number of people leader positions filled internally* • Improve culture survey general lower scores by 5% and maintain high scores by 2022 • Increase by 7% employees participating in the succession management program and participating in employee development initiatives by 2022 • Complete and ensure the implementation plans are in progress for; <ul style="list-style-type: none"> • The Salary Assessment Review by Q4-2020 • The Diversity and Inclusivity strategy by Q3-2020 <p>NOTE: *Key Performance Indicators that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist.</p>

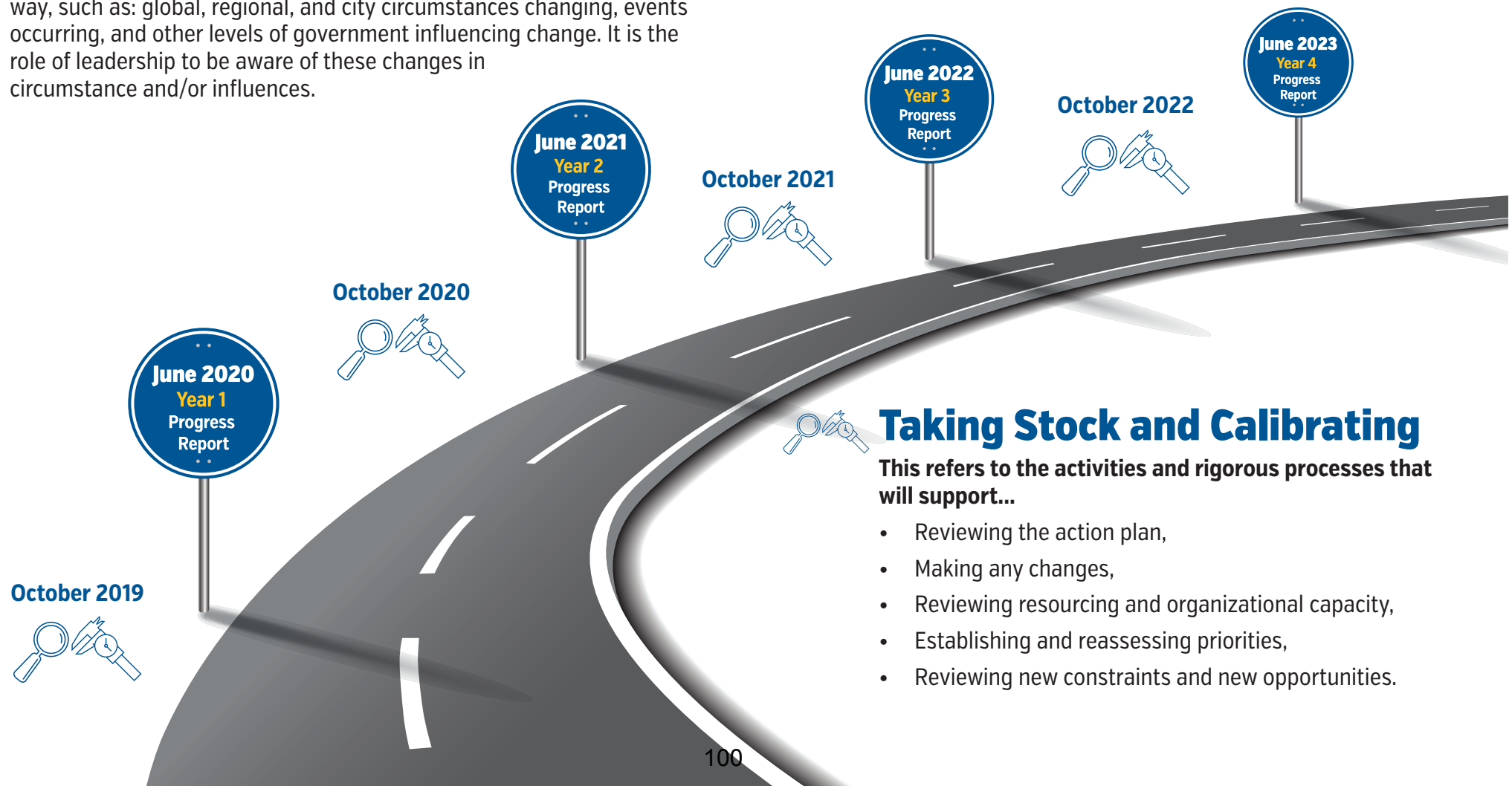
Monitoring, Measuring and Reporting - The Road to Achieving Future Success

The monitoring, measuring and reporting processes take into consideration other business processes such as budgeting and service business planning. These activities are intended to support the organization to best understand the progress of the actions and outcomes of this 4-year plan. As mentioned previously, this plan is Council and Burlington Leadership's plan of action that will bring us closer towards achieving the long-term strategic plan vision.

2018-2022 Burlington's Plan: From Vision to Focus, is a living document. It will be monitored and reported to Burlington Council on a regular basis and progress evaluated and reviewed. There may be changes along the way, such as: global, regional, and city circumstances changing, events occurring, and other levels of government influencing change. It is the role of leadership to be aware of these changes in circumstance and/or influences.

These insights will help with decision-making and adjusting the plan. Therefore, annual progress reports at a minimum are imperative to the success of working towards the long-term vision.

This process will include a major strategic initiatives progress report that will occur at least once a year to Council and Leadership and an annual community report that will highlight key successes and accomplishments. Complementary to this process will be a citizen dashboard on the City's website that will communicate the progress in achieving the outlined goals.



Progress on Burlington's Strategic Plan 2015-2040

Over the past 4 years there have been accomplishments in delivering initiatives that were identified in the 25-year long-term plan. Outlined below is a snapshot of some significant initiatives completed. As part of this 4-year plan, From Vision to Focus, we will continue to track progress and report to Council and the community on these accomplishments, in the time frames outlined on the previous page, "Monitoring, Measuring and Reporting".



Community Building Programs and Policies

Building programs and opportunities for our community to engage with our city was a focus and outlined in the 25-year long term Burlington Strategic Plan 4.2 Community Building through Arts and Culture via Community Activities. An Engaging City, "makes all residents feel welcomed and part of the cultural fabric of our city". Over the past 4 years the following actions have helped to increase Burlington's community engagement;

- Expanding the Public Arts Program through policies and programs such as art on private properties.
- Supporting initiatives that empower community building at the neighbourhood level such as the Love my Hood community led events and the development of a community matching fund.
- Building community through Arts and Culture by reaching out to new and diverse communities in events such as the Burlington Performing Arts Centre Cultural and Diversity Festival; a new festival created as part of Culture Days that showcased over 25 performers from Burlington.

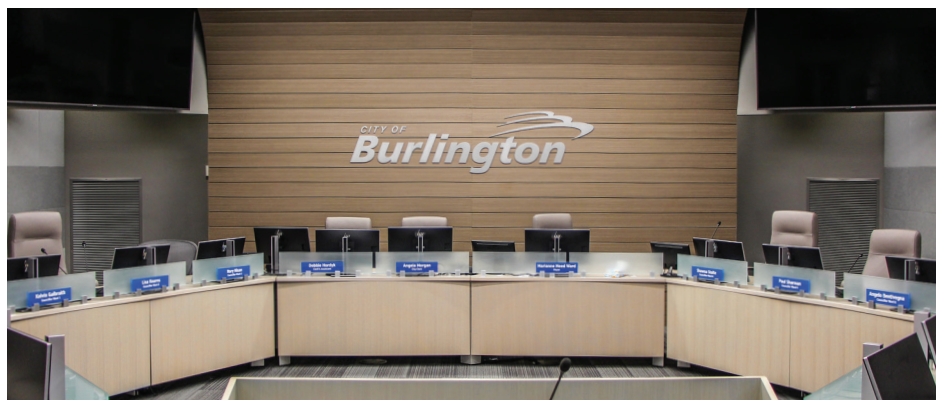


Launch of TechPlace

TechPlace was the creation and launch of a system and place that supports the startup and growth of businesses, innovation hubs and entrepreneurship to promote economic growth (Burlington Strategic Plan 1.1 Promoting Economic Growth).

A Burlington Economic Development Corporation led initiative opened the doors to businesses with the intent to help technology, talent and ideation come together under one roof.

Anchored by two co-location partners, Haltech and Angel One Investor Network, TechPlace provides tech companies (both new and growing) with access to space, resources, programming and mentorship through a growing partnership network and by creating an environment that's focused on generating opportunities for networking and growth.



A Code of Good Governance

In April of 2018, The City of Burlington Council Code of Good Governance was established and approved by Council. The Code of Good Governance is designed to achieve excellence in governance and promote public trust and confidence in Council and the City. [Burlington's Strategic Plan 2015-2040, An Engaging City: 4.1 Good Governance].

The City of Burlington's Council Code of Good Governance serves four main purposes:

1. To set out, in manner that is aspirational and proactive, clear expectations of the governance behaviour of members of Council.
2. To provide clarity to the public as to the behaviour they can expect from members of Council, and the governance responsibilities that go beyond those in the Municipal Act.
3. To provide guidance to members of Council in the conduct of their duties as elected officials.
4. To provide a mechanism for responding to alleged breaches of elements of the Code.

With the Code of Good Governance, the City of Burlington has set the tone for positive behaviours, expected conduct and reinforces Burlington's governmental responsibility and accountabilities to the community.



An Age-Friendly Strategy

An Age-Friendly strategy for seniors was identified in Burlington's Strategic Plan 2015-2040 [A City that Grows: 1.3 Focused Population Growth]. Burlington's Active Aging Plan [BAAP] was developed and adopted by the Council and Burlington staff in. This strategy includes plans and actions that promote health, recreation and transportation needs.

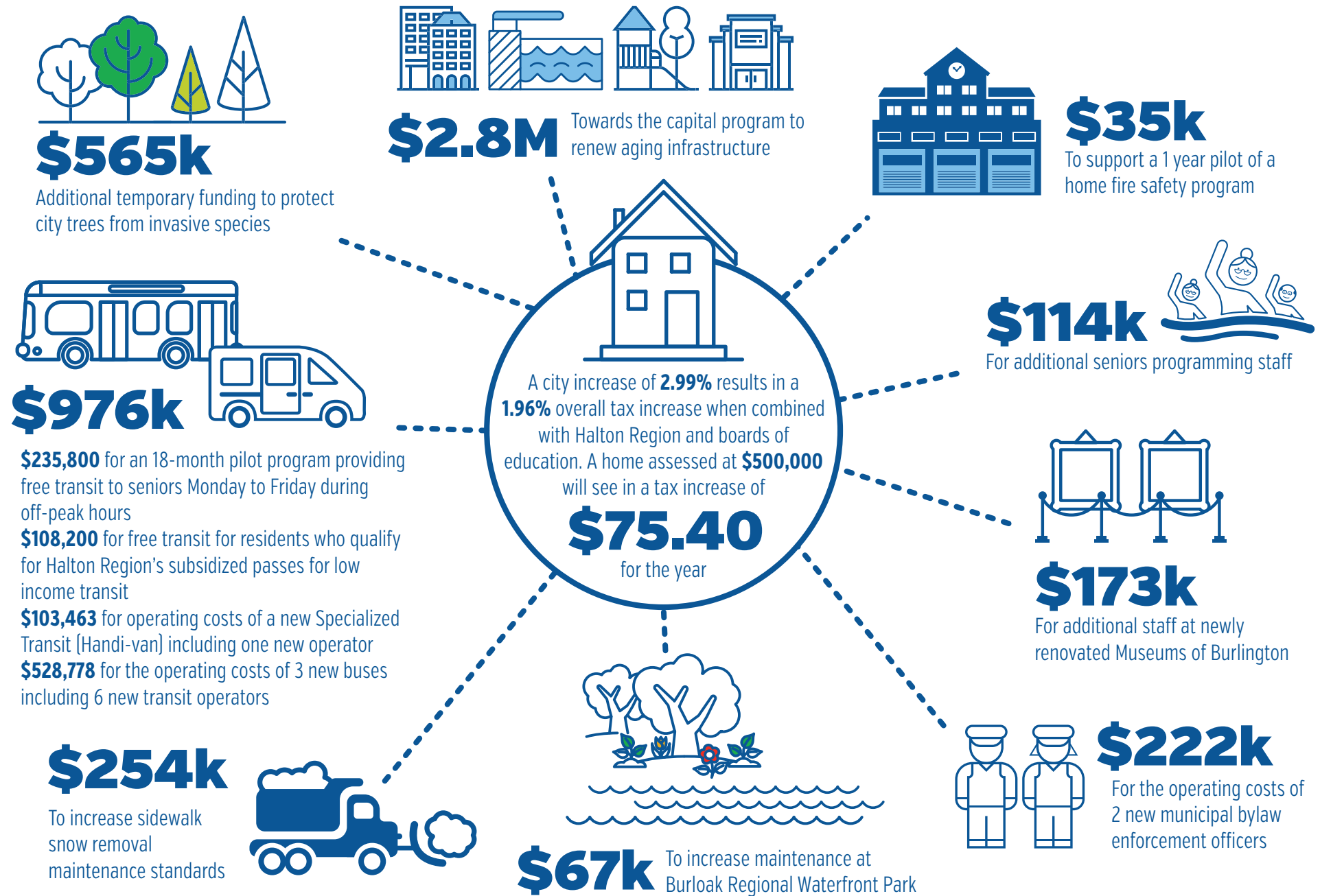
The Burlington Active Aging Plan represents a response to the growing proportion of older adults in Burlington and concentrates on:

- Transportation and transit
- Outdoor spaces and buildings
- Social inclusion which includes respect and social participation
- Civic participation
- Communication and information

The BAAP is intended to foster an accessible and equitable community, where programs and services are in place to support the values of inclusion, respect, dignity, independence and diversity for Burlington residents of all ages.

Currently, the BAAP plan continues to be part of the ongoing actions implemented in daily operations and service delivery.

2019 Making Investments into the City's Future



2018-2022 Burlington's Plan Vision to Focus - Summary of Goals to Achieve



Focus Area 1

Increasing Economic Prosperity and Community Responsive City Growth

Supporting and maintaining a diverse economy in small business, commercial, industrial, and office sectors

Creating a competitive business investment environment in Burlington (e.g. taxes, incentives)

Increasing options for employment opportunities in Burlington

Increasing options for housing in Burlington

Increasing options for learning institutions

Maintaining and continually developing a safe city



Focus Area 2

Improving Integrated City Mobility

Being a vision zero city that strives to create safe streets for all users and eliminates fatalities and serious injuries on streets

Improving traffic flow

Increasing Burlington Transit service levels and growing overall ridership

Improving the transit modal split

Improving access to Burlington Transit service



Focus Area 3

Supporting Sustainable Infrastructure and a Resilient Environment

Including citizen engagement; to be responsive to citizen's needs in infrastructure and new infrastructure growth

Ensuring growth is financially sustainable and pays for new infrastructure

Reducing the infrastructure funding gap for all city owned assets

Promoting and working towards a lower carbon footprint community

Delivering on carbon neutral initiatives

Expectation of increasing the use of sustainable development materials

Protecting and enhancing the city's creeks, streams and waterfront

Increasing the tree canopy city wide

Maintaining the current urban/rural boundary



Focus Area 4

Building More Citizen Engagement, Community Health and Culture

Ensure citizen wellbeing through walkable and bikeable access to green space.

Building more parks associated with development in new growth areas across the city

Focusing on the health and wellbeing of older adults

Focusing on increasing recreational programming for our growing and diverse communities across the entire City

Being a municipal leader in community engagement, collaboration and volunteerism

Improving satisfaction rates of City Services with all residents with an interest on connecting better with newcomers to Burlington

Improving citizen advocacy and satisfaction with Citizen's Advisory Committees, Standing Committees, and public meetings

Increasing advocacy to other levels of government to ensure Burlington's voice is heard

Improving community engagement with diverse communities

Increasing our commitment to arts and culture to be a welcoming city



Focus Area 5

Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation

Ensuring that strategic initiatives and corporate projects are resourced and sustained

Ensuring efficient, effective and economical service delivery

Enhancing City services and delivery of citizen self-service options through technology

Ensuring financial sustainability with a reasonable tax rate increase that focuses on citizen services

Delivering on efficient and effective project management and accountable corporate performance

Increasing community and customer input into how the city delivers services

Enhancing and emphasizing a customer first approach in all city service areas

Developing employees to fill management vacancies from within

Improving our employment identity to become a top employer in the Greater Toronto and Hamilton Area

Increasing employee engagement and workplace culture scores

Diversifying the employee demographics that participate in engagement activities

Appendix A – Action Plan at a Glance

The following are initiatives included in Burlington's Plan: From Vision to Focus. This list includes the Key Actions such as major corporate projects, initiatives, studies, plans and reports that are all of a time sensitive nature and that will significantly advance the organization towards the 25 year long term future strategic vision.

Focus Area 1 - Increasing Economic Prosperity and Community Responsive City Growth						
Proposed Strategic Initiatives		Lead Department	Target Date for Completion			
			2019	2020	2021	2022
1.1	Implement the recommendations of the Red Tape Red Carpet Taskforce to make it easier for businesses to locate and thrive in Burlington, attracting more investment. First priorities will be grading and drainage; Committee of Adjustment; and Zoning business process reviews	City Manager's Office	Q4-2019			
1.2	Work with Burlington Economic Development Corporation to create and implement strategies to focus on: Creating jobs and achieving long term economic vision for the City of Burlington	City Manager's Office and BEDC		Q1-2020	Q1-2021	Q1-2022
1.3	Determine the future vision for the downtown by completing the review of the Official Plan policies and the Interim Control Bylaw land use study	City Building		Q2-2020		
1.4	Define Burlington's expectations for population and jobs to 2041 as part of the Halton Region's Municipal Comprehensive Review	City Building		Q3-2020		
1.5	Complete the area specific plans for Mobility Hubs	City Building			Q4-2021	
1.6	Complete the City's Housing Strategy and implement the plan to address the needs related to young families, seniors housing, affordable housing, special needs housing, and newcomers.	City Building				Q2-2022
1.7	Develop a Fire Master Plan to support the growth and change within the city	Fire		Q2-2020		

Focus Area 2 - Improving Integrated City Mobility						
Proposed Strategic Initiatives		Lead Department	Target Date for Completion			
			2019	2020	2021	2022
2.1	Complete the Integrated Mobility Plan and implementation schedule	Transportation		Q4-2020		
2.2	Review snow clearing service levels for all mobility modes [e.g. trails, sidewalks, bike lanes and roads] before the 2020 budget	Roads, Parks and Forestry	Q4-2019			
2.3	Complete the Burlington Transit 5 Year Business Plan	Transit	Q4-2019			
2.4	Complete the Rural Active Transportation Strategy and implementation schedule	Transportation		Q3-2020		
2.5	In collaboration with Halton Region complete the QEW Prosperity Corridor Study and implement recommendations	Transportation		Q4-2020		

Focus Area 3 - Supporting Sustainable Infrastructure and a Resilient Environment

Proposed Strategic Initiatives		Lead Department	Target Date for Completion			
			2019	2020	2021	2022
3.1	Implement the Asset Management Financial Strategy and update the Asset Management Plan	Capital Works			Q4-2021	
3.2	Develop Burlington's Climate Action Plan, addressing Burlington's Climate Emergency declaration and focusing on reducing the community's greenhouse gas emissions	Capital Works		Q1-2020		
3.3	Develop Burlington's Climate Change Adaptation Plan	Capital Works			Q1-2021	
3.4	Review and update the Sustainable Building and Development Guidelines	City Building			Q1-2021	
3.5	Update the Corporate Energy Management Plan to recognize achievements and identify new initiatives for implementation	Capital Works	Q3-2019			
3.6	Update the Storm Water Management Plan while continuing to implement the current flood and storm management actions	Capital Works	Q4-2019			
3.7	Complete and implement the Urban Forestry Management Plan Update	Roads, Parks and Forestry		Q1-2020		
3.8	Update the City's Green Fleet Strategy and develop an action plan to reduce the City's carbon footprint through alternative fuel sources	Roads, Parks and Forestry			Q2-2021	

Focus Area 4 - Building More Citizen Engagement, Community Health and Culture

Proposed Strategic Initiatives		Lead Department	Target Date for Completion			
			2019	2020	2021	2022
4.1	Complete the Parks Master Plan update and implement new actions, while continuing to act on current parks initiatives	Capital Works		Q4-2020		
4.2	Complete a strategic review of the Joint Venture Policy	Parks and Recreation		Q2-2020		
4.3	Complete a Recreation visionary framework of principles, goals and an operating model to align with the changing needs of recreation in the community ensuring the inclusion of all diverse demographics	Parks and Recreation	Q4-2019			
4.4	Complete a Neighbourhood Development Strategy	Parks and Recreation		Q4-2020		
4.5	Conduct a review of citizen committees including structure and format. Through this review, consider alternative methods of engaging the community on subject matters other than just the traditional citizen committee format	Clerks	Q4-2019			
4.6	Create and implement a strategy for advocacy with senior levels of government	City Manager's Office	Q3-2019			
4.7	Initiate and implement a Corporate Volunteer Strategy based on recommendations from the Mohawk Future Ready Leadership Team to create a simple and seamless system for residents to volunteer their time with the city	City Manager's Office		Q2-2020		

Focus Area 5 - Delivering Customer Centric Services with a Focus on Efficiency and Technology Transformation

Proposed Strategic Initiatives		Lead Department	Target Date for Completion			
			2019	2020	2021	2022
5.1	Complete the functional realignment of the City Manager's office	City Manager's Office	Q4-2019			
5.2	Initiate a corporate-wide service review program	City Manager's Office	Q4-2019			
5.3	CRM (Customer Relationship Management) - Deliver on time, on budget and achieve realized benefits for major corporate technology projects	City Manager's Office		Q2-2020 (Phase 1)		
	ERP (Enterprise Resource Planning) - Deliver on time, on budget and achieve realized benefits for major corporate technology projects	Information Technology Services				Q4-2022 - 2023
	MMS (Maintenance Management System) - Deliver on time, on budget and achieve realized benefits for major corporate technology projects	City Manager's Office			Q4-2021	
	BI (Business Intelligence) - complete the implementation of a reporting and analytics tool supporting analytics, data driven decisions, and management dashboards	Information Technology Services		Q4-2020		
	Upgraded case management development application system (AMANDA 7) - Deliver on time, on budget and achieve realized benefits for major corporate technology projects	Information Technology Services/City Building		Q2-2020		
5.4	Conduct a community-wide survey every three years, starting in fall 2019 to determine if residents feel they are being engaged and are part of the City's decision-making process	City Manager's Office	Q4-2019			Q4-2022
5.5	Implementation of a one stop customer service counter for the Department of City Building	City Building				Q4-2022
5.6	Develop and implement online/automated submissions, processing and approvals of development applications	City Building				Q4-2022
5.7	Complete the assessment of salary competitiveness and implement recommendations	Human Resources		Q4-2020		
5.8	Complete and implement a diversity and inclusivity strategy for Burlington as an employer	Human Resources/ City Manager's Office		Q3-2020		

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COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion		What we heard	Response	What changes are made to the Plan
Focus Area 1 Economic Prosperity and City Growth				
Initiative	Remove constraints on availability of employment lands	Is this out of the control of the City? Can we execute on it?	Retain - City control of lands in partnership with Halton Region; City needs to focus on development of employment lands	No change
	Develop a strategy and implementation plan to attract a post-secondary education institution(s)	Is implementation plan in progress?	Yes	No change
	Complete the Housing Strategy	Where is the demographic composition of community in the plan?	This will be part of the Housing Strategy	No change
KPI	Increase employment by 1,000 jobs per year	What is the rationale behind this measure? Why not 500 or 5000?	Reasonable target set by BEDC customer data	No change
	Attract 10 companies per year to Burlington	Is this realistic? What was previous year target?	Reasonable target set by BEDC customer data	No change
	An updated Council and Halton Region approved Official Plan is in force and effect	Is this a measure or a mandatory process?	Measuring success is inclusive of completing initiatives as well as performance measures	No change

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion	What we heard	Response	What changes are made to the Plan
Need measures on reasonable growth development	1) growth will not exceed 2031 targets 2) 2041 commitments are in scope for what infrastructure can handle i.e Region alignment	1) The City cannot control population growth to the extent requested. For example, as seniors age and move out of neighbourhoods, families move in. This benefits the City and the neighbourhood by ensuring schools remain open, for example.	No change
		2) This would be addressed in the Measuring Success Section in Focus Area 1 where the City is providing input into Halton Region's Integrated Growth Management Study process - infrastructure is integral to growth management.	No change
Affordable housing	Need goals on increased affordable housing	KPI's have been added in the Plan on affordable housing and other forms of housing.	Changes made
Bill 108 and streamlined development processes	Add goal stating 100% of development applications will be processed within the standard timeline	This would best be addressed through the City Manager's report responding to the Red Tape Red Carpet Task Force.	No change

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion		What we heard	Response	What changes are made to the Plan
		Improve winning rates at LPAT	This is difficult to measure because the decisions are out of the City's control.	No change
Focus Area 2 Integrated City Mobility				
KPI	Add measuring Integrated City Mobility	How are we measuring Improving Integrated City Mobility?	Collectively all KPI's in focus area will indicate whether we have achieved integrated city mobility (please see report)	No change
	Increase transit ridership	What is the baseline you are increasing from?	A target has been identified	Please see KPI's in Plan
	Develop transit ridership targets	Targets for seniors, youth and handi-van users	Information is not available at this time	This requires more detailed analysis. In the first monitoring report staff will report on a target.
	Increase modal split between car use and active transportation/transit	What is the 5 year target?	Please see revised measure regarding active transportation	Please see revised measure
	Decrease the number of fatalities and serious injuries on streets in Burlington	What is the current baseline?	Information is not available at this time	Please see KPI's in Plan - this is a KPI requiring further research

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

	Area of Discussion	What we heard	Response	What changes are made to the Plan
	Focus Area 3 Sustainable Infrastructure-Resilient Environment			
Strategic Goal	Add new goal on regarding community carbon footprint	New wording: Promoting and working towards a lower carbon footprint community	Agree wording should be modified to incorporate vision	Wording modified
	Increasing use of sustainable development materials	Add "Expectation" of increased use of sustainable development materials	Agree with adding word to clarify vision	Wording modified
	Move strategic goal "To continue to maintain the number of residents who live within a 15-20 minute walk from parks or green	Move strategic goal from from Focus Area 4 to 3	The strategic goal is related to a healthy community which is why it is Focus Area 4.	No change
Initiative	Increase the advocacy with other levels of government	Identify the different levels of government. What is the funding goal/target?	The Government Relations Strategy is being prepared and the focus of advocacy will be discussed in that strategy.	No changes
KPI	Reduce the community greenhouse gas emissions	What is the 5 year goal? What is the target?	The community target will be set in the Climate Adaptation Plan.	No change at this time
	Flood risk	Add target to "reduce flood risk"	This requires more detailed analysis. Individual projects will report on this; in the first monitoring report staff will report on a target.	No change at this time

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion		What we heard	Response	What changes are made to the Plan
Focus Area 4 Citizen Engagement, Community Health and Culture				
Strategic Goal	Use of term increased public engagement	Public engagement should be re-framed as about improved accountability to the public and more welcoming - eliminate the language of increased public engagement (too vague).	The measuring success column has identified specific KPI's for improving accountability. This is the preferred approach - Building More Citizen Engagement is language most understood.	No change
	Need to add strategic goal and initiatives on mental health	We need to focus on our services and our work as an employer to make meaningful contributions to addressing mental health in Burlington.	Agree- please see staff report	No changes to plan; please see staff report for suggested future work
	Add "in all wards" to Goal #4	The importance of recreational programming across the entire City is important	This will be added	Added
	To continue to maintain the number of residents who live within a 15-20 minute walk from parks or green spaces	Strategic goal and KPI are repeated-Oakville has better target	Reword strategic goal to "Ensure citizen wellbeing through walkable and bikeable access to green space" Keep KPI	Include reworded goal in document
	Focusing on health and wellbeing of older adults	Change to focusing on the health and wellbeing of all ages	If older adults is a strategic focus for City keep in. If not chance wording to all ages	No change - youth programming is working well and more attention is needed on health and wellbeing of older adults

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

	Area of Discussion	What we heard	Response	What changes are made to the Plan
	Complete a Recreation visionary framework	Add "special needs" to initiative	Change wording to "inclusion of all diverse demographics"	Include rewording in document
Initiative	Conduct a review of citizen committees	Look at changing the delegation process to obtain the direct voice of the community	Keep wording of initiative.	Through the review of citizen committees and this fall's procedural by-law review, this item will be considered (please see staff report).
	311 Service	Include a review of the 311 service.	Focus Area 5 under customer centric service delivery includes an initiative to review the City's Customer Service Strategy.	No change
	Maintain the standard that homes are within a 15-20 minute walk of a park	Can the target be 5 min?	This will be reviewed as part of the Parks Master Plan Update which will also address the financial implications of this initiative.	No change
KPI	Service Performance Measures	Should include much more on service performance measures.	Each of the City's 39 services has performance measures in their business plans. As this is a strategic workplan for Council; the service business plans are prepared separately and are part of the budget.	No change

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion		What we heard	Response	What changes are made to the Plan
Add new KPI		Amount of park hectares per population	This will be reviewed as part of the Parks Master Plan Update which will also address the financial implications of this initiative.	No change
Focus Area 5 Delivering Customer Centric Services				
Initiative	Initiative- Implement one stop shop and develop and implement automated submissions	Timeline needs to be moved up	Please refer to the response in the staff report	No change - please see staff report
KPI	Invest (time/money) in IT as a percentage of overall budget	Not a measure	Need to add target and align to strategic goal of citizen self-service options	Identify budget and citizen self-service outcomes (for example, CRM; AMAMDA) in Plan; include updates in monitoring reports and annual budget.
	Invest dollars in IT asset renewal	Invest in what plan?	This has been removed and revised measures are included in the document.	Changes made
	Increase the percentage of corporate project outcomes being achieved	Delete measure	Further modify first measure to add "outcomes" to the 90% target.	Further modify wording in first measure in Plan to add "outcomes" to the 90% target.

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion		What we heard	Response	What changes are made to the Plan
Complete strategic initiatives and major corporate projects on schedule and on budget 90% of time		Good measure	Keep measure	No change
Increase the tax rate at the rate of inflation (excluding infrastructure and increase in services)		Delete-what is excluded in this measure?	KPI is aligned to strategic goal so it will be kept in	No change
General				
Performance KPI's Measures		Need specific aspirational targets for performance measures	Where confirmed KPI's are known, these are included in the Plan.	Please refer to KPI's in Plan
		Performance measures need to be more specific and detailed-targets	Where confirmed KPI's are known, these are included in the Plan.	
		Set aspirational goal to 2041 for measures i.e. to reach 40% tree canopy by 2041 need to plant x number of trees in this term of council	KPI's have been added that provide a more complete assessment of tree health in the City. The last itree survey provided data that has not been updated to reflect Emerald Ash Borer, the flood, and the ice storm. The Urban Forestry Master Plan will update the baseline data.	No change

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion		What we heard	Response	What changes are made to the Plan
Performance Measures	KPI's	<p>Include KPI's focused on :</p> <p>Housing (# of affordable housing units; # special needs housing beds/units; # seniors housing units/beds)</p> <p>Transit Modal Split and Active Transportation %</p> <p>Tree Canopy %</p> <p>GHG's from community and city operations</p>	Targets to be added	Please refer to KPI's in Plan
Performance Measures	KPI's	Add asterisk in KPI column to state more measures to come later	Agreed- where KPI's require more research this has been noted.	Document adjusted to reflect this comment.
V2F	Document Clarity	Make more pronounced in document why there is a shaded area in the initiative column	Comment in document pg 9 clarifies this	No change
V2F	Understanding who is leading what initiative	When tracking and reporting initiative identify who is the project lead and internal and external stakeholders	This information will be part of the forthcoming monitoring and reporting work	No change
V2F	Item not in Council Workplan	Strategic Plan item relative to busking and zoning for cultural events not in Burlington Plan	It is not possible to pursue this independently. Zoning for cultural events will be addressed through the Comprehensive Zoning By-law Project which will start in this term of Council and will conclude beyond this term of Council.	No change

COUNCILLOR FEEDBACK ON COUNCIL WORKPLAN

Area of Discussion		What we heard	Response	What changes are made to the Plan
V2F	Business Process Reviews	Business Process Review for Development Processing	Process and timelines for implementing the Red Tape Red Carpet Task Force recommendations will be included as actions in the Vision to Focus Plan.	First priorities will be grading and drainage; Committee of Adjustment; and Zoning.
V2F	Climate Emergency	On improved greenspace, the document needs to take account of the Climate Emergency.	The reference to the Climate Change Adaptation Plan in Focus Area 3 (Resilient Environment) will add language regarding the Climate Emergency.	Changes made to reference climate emergency.
V2F	Focus Area 5	This includes a lot of initiatives for staff - as this is Council's action plan is this appropriate?	Staff focus is a key driver of delivering the work plan so the initiatives are appropriate for the document.	No change
V2F	Focus Area 5	This should be about finding efficiencies to deliver the same or more services at lower costs; its about keeping tax increases low; focus on IT should be a means to an end.	Service reviews are part of the direction from Council and incorporated into this workplan.	No change
Financial Plan	Financing of Workplan	Identify resourcing and financial impact of initiatives to prioritize	Please refer to staff report	No change - please see staff report

APPENDIX C - CM 15-19

DETAILED ISSUES and RESPONSES TO FEEDBACK

Issue 1: A request for further information on advancing the timelines for online submission of development and building applications

Response:

Staff have met internally to review this request. As a reminder, the May 13th report identified key deliverables as follows:

- Upgraded case management development application system – Q4 2020 (this is an upgrade of the City's permitting software – AMANDA – to version 7 – referenced as "AMANDA7")
- Implementation of a one stop customer service counter for the Department of City Building – Q4 2022
- Develop and implement online/automated submissions, processing and approvals of development applications – Q4 2022

In addition to the above, City staff are currently undertaking business process reviews of development processing and permitting. This is now included in V2F as an initiative under Focus Area 5. AMANDA 7 is an important upgrade that will deliver improved functionality and will position the City to move to online permitting applications. This project is approximately \$500,000, involves 4 seconded staff, and will be implemented by Q2 2020.

Staff have reviewed the feedback from Council at the May 13th Committee of the Whole Session. Additional information for Council is as follows:

- The AMANDA upgrade to Version 7 must proceed. The current versions do not effectively support the automation that the City wishes to implement.
- The business process work that staff are proceeding with is critical work that is a very high priority. The business processes that are currently in place are largely based on the initial implementation of AMANDA at the City in the late 1990's. Updating the business processes will be done from a customer perspective including the recognition that different customers will have different requirements. This is a significant and critical body of work. Experience with similar projects, such as the Maintenance Management System Project, is that the business process work will take 15-18 months to document and implement changes – the work will be implemented on an incremental basis – as the work is completed implementation will occur (as opposed to doing all implementation at once). This

work cannot be rushed as defining new business processes from a customer perspective, integrating change management, and transitioning to new processes takes time. Both staff and customers must be supported through this.

- Bill 108 is driving certain changes in timelines, processing, and permitting. Staff must work to understand and implement the changes related to Bill 108. The draft regulations are in the process of being released so the impact of Bill 108, in its entirety, is not known (relative to the permitting and AMANDA requirements).
- The software vendor environment is changing. The marketplace for an e-plans module must be understood.
- The City has major technology upgrades underway now and for the next 3 years:
 - Customer Relationship Management (CRM)
 - Maintenance Management System (MMS)
 - Enterprise Resource Planning (ERP)
 - Business Intelligence (BI)

The City's ability to finance and resource (staff) a major technology upgrade in permitting to e-plans is not available at this time.

The above information leads staff to conclude that we are not able to advance the timeline for e-plans and online permitting to December 2019 as was requested at the Committee of the Whole meeting on May 13th. However, there is an opportunity to work on a project charter for this initiative which would include a more detailed assessment of the technology options, a financial analysis, and a staff resourcing plan. This could work in parallel with the other major initiatives (AMANDA 7 upgrade and the business process project). Council should be aware that project charter development of this nature will require staff resources with knowledge of the City Building processes and customers as well as technology solutions and technology integration. The process and resourcing will be reviewed as part of the 2020 budget preparation by a collaborative team of the City Manager's Office, the Departments of City Building, Information Technology, and Finance.

Issue 2: Measuring Success

Response:

A number of members of Council identified, as a priority, having specific Key Performance Indicators (KPI's) identified in V2F. The first version of V2F referenced KPI's as (for example) "increase". Staff have reviewed all KPI's and this version of V2F now segments KPI's into the following:

- KPI's where there is a known benchmark and for which the City has credible and reliable data (example: increase the City's employment by 1,000 jobs per year);

- KPI's that are specific to completion of a project (example: complete the Burlington Transit 5 Year Business Plan by Q4 2019);
- KPI's that require further research as there is either work to undertake to determine an appropriate benchmark or target; or there are data quality or availability issues; or both circumstances exist. These KPI's are marked with an asterisk (*) in V2F.

Where further work on KPI's is required (those with an asterisk) staff will be bringing a further report on these at a later date (see Implementation Process of this report for more detail).

Additionally, staff have identified key priority initiatives and key priority KPI's for Council and the community. This is a new one-page component of Burlington's Plan: From Vision to Focus.

Issue 3: Addressing Social Implications in Staff Reports and addressing Mental Health

Response:

The issue of Social Implications in Staff Reports arose from discussion at the June 10th Committee of the Whole Meeting on two reports (Take Action Burlington; Climate Action Update Report). At the June 10th COW meeting, Committee members added "Environmental Implications" as a new area of staff reports. A suggestion arose to include "Social Implications" in staff reports and staff committed to following up on this in the report on V2F. The second issue is addressing Mental Health as part of V2F which was feedback received at the May 13th Committee of the Whole meeting. Both issues are addressed in this section of the commentary as there are relationships between the two.

- Social Implications in Staff Reports – staff support the inclusion of this section as a new component of staff reports. Social implications are one of the four pillars of Sustainable Development (economy, environment, social, culture). Burlington has adopted a document related to Sustainable Development entitled "Principles and Objectives for Sustainable Development" which was last updated in June 2017 (see Appendix F of CM 15-19). Principle 5 states:
5 Affirm and promote practices that provide a safe and healthy environment and build resilience and engage our community in not only meeting the economic and social needs of all citizens but enhancing quality of life.

Objective p. states:

p. Healthy Lifestyles: Promote and support healthy and active lifestyles through the development of complete neighbourhoods, active transportation infrastructure, recreational facilities and parks.

Research into Social Implications is highly linked to the Social Pillar of Sustainable Development. More recently, work on the Social Pillar by the United Nations and the Sustainable Cities Network identifies key areas where organizations need to focus:

- Complete neighbourhoods – access to services; income distribution; crime rates
- Housing – affordable housing; breakdown of housing by needs group
- Quality Public Space – parks availability and accessibility
- Social Inclusion – Gender equity; voter participation; service provision for targeted demographic groups (youth, seniors, newcomers are examples)
- Safety – fire service availability and response times

There are also factors for which the City is not the service provider – education, waste management, public health – so although these are noted in the research they are not areas where the City can impact outcomes at the City level. Further discussion with Halton Region and the School Boards is required.

What is clear from the research is defining what Social Implications are priorities becomes critical. In this regard, implementation needs to include a strategy for development of the priority focus areas. For example, research into the use of Social Implications and the Social Pillar of Sustainability has not identified any approach that incorporates Equity, Diversity, Inclusivity, and Reconciliation (beyond Gender Equity). These goals are important priorities for the City of Burlington. It is important to initiate this work and it is also equally important that the strategy development includes conversation with key partners such as the Sustainable Development Committee, Community Development Halton, Halton Region, and community residents and businesses. Internal work also needs to occur to develop tools and resources to assist staff in implementing this new direction. It is suggested that a further detailed implementation report with a strategy be developed and brought forward to Council at a later date.

- Addressing Mental Health – Staff have researched other municipal organizations including Halton Region. Typically, the focus of work for other municipal organizations is within the areas of Public Health (examples: childhood bullying; post partum depression in new moms; connecting community based services such as ROCK); housing; and social services such as income assistance. Mental Health as an area of focus for the City and in researching this issue, it became clear that the City currently provides services that positively impact mental health through initiatives such as:

- physical activity programs through Parks and Recreation;
- arts and culture programs both offered by the City and the City's cultural partners;
- parks, open space, trails – there is a growing well-founded body of research that access to nature is a critical component of mental health and well being;
- Initiatives that the City undertakes for and on behalf of employees – for example, Employee Assistance Program; Burst Your Bubble and Mental Wellness initiatives; Firefighter Mental Wellness; Puppy Therapy (this is not an exhaustive list).

The connection to Social Implications in staff reports regarding mental health is clearly aligned. Where there is a difference is that mental health must also focus on what the City provides as an employer to its employees. There is some clear relationship as well to the Culture Pillar in Sustainability. At this point, it is suggested that the work on Social Implications for staff reports described above include mental health together with a more broad-based review, in concert with key partners like Halton Region, Joseph Brant Hospital, and more to understand what a mental health strategy for City services could be.

Further, there are many important components of mental health that many Public Health Units have undertaken such as Waterloo Region's Integrated Drug Strategy, Community Mental Health Strategies such as New York City's THRIVE report, and more. Supporting public health work on mental health is very important work.

It is recommended that Council support further work and reporting back on the inclusion of Social Implications in staff reports. This provides the opportunity to engage the City's community partners on what Social Implications means to a level of detail that is consistent, well understood analysis can occur, and reflective of the City's services.

2015 - 2040 STRATEGIC PLAN INITIATIVES & STATUS

STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
A City that Grows	Promoting Economic Growth	Create an employment lands vision that drives investment and growth in Prosperity Corridors	City Building	Complete	Official Plan, Employment Lands Vision
A City that Grows	Promoting Economic Growth	Develop and put in place a redevelopment and intensification strategy for the Prosperity Corridors	BEDC	Complete	Official Plan
A City that Grows	Promoting Economic Growth	Build one brand for the City of Burlington to attract both business and people	BEDC	Not included in 2018-2022 workplan	Requires future Marketing Strategy
A City that Grows	Promoting Economic Growth	Initiate and develop a strategy for Burlington's rural areas. This strategy will consider economic, social, cultural and environmental factors in support of the rural community, agricultural industry, natural heritage and water resources.	City Building	Complete	Rural Active Transportation Strategy
A City that Grows	Promoting Economic Growth	Develop and implement a strategy to attract post-secondary institutions to Burlington. Encourage connections between future employees and employers to help grow Burlington's economy.	BEDC	2018-2022 workplan	Post-Secondary Strategy and Framework (upcoming)
A City that Grows	Promoting Economic Growth	Make it easier for businesses to locate in Burlington, attracting more investment.	BEDC	2018-2022 workplan	BEDC Workplan; Red Tape Red Carpet Task Force
A City that Grows	Promoting Economic Growth	Create and invest in a system that supports the startup and growth of business, innovation hubs and entrepreneurship.	BEDC	Complete	Opening of Tech Place in 2017
A City that Grows	Intensification	The city will include growth targets and their related opportunities in its Official Plan. This will be completed by the end of 2018.	City Building	Complete	Official Plan
A City that Grows	Intensification	Through policy, the city will influence the redevelopment of aging commercial plazas and transform them into mixed-use neighborhood hubs.	City Building	Complete	Official Plan

STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
A City that Grows	Intensification	The City will work with Halton Region and other partners to develop a servicing plan for intensification areas.	Capital Works	2018-2022 workplan	Halton Region Integrated Growth Management Strategy
A City that Grows	Intensification	The city will conduct and implement an intensification plan that will include a specific focus on the Urban Growth Centre and will develop a strategy for the downtown core that will promote residential and appropriate niche/boutique office development.	City Building	2018-2022 workplan	Scoped Review of OP; Mobility Hubs restart Q4-2020
A City that Grows	Intensification	The city will develop energy and sustainable site feature guidelines to require new/renewed buildings to promote energy-efficient technologies.	City Building	Complete	Sustainable Building and Development Guidelines
A City that Grows	Intensification	The city will analyze the costs of all forms of development	Finance	Complete	Fiscal Impact Study completed by Watson & Associates
A City that Grows	Intensification	The city will put in place the recommendations of the strategic action plan for the downtown (known as Core Commitment) and extend, where possible, recommendations to other urban centers.	City Building	2018-2022 Workplan	Mobility Hub Master Plans
A City that Grows	Intensification	The city will create and implement an awards program to recognize and celebrate excellence in architecture, urban design, streetscaping, landscaping and sustainability in all developments.	City Building	Complete	Burlington Urban Design Awards Plan is complete
A City that Grows	Focused Population Growth	Future development will be higher density, walkable and accessible, transit-oriented with appealing streetscapes. The city will become a leader in walkability and bike ability scores in the province and will be fully aligned with provincial strategy and goals.	City Building	Transitioned to Operations	City Building Operations

STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
A City that Grows	Focused Population Growth	The city will prioritize the planning for each mobility hub. The plan for each mobility hub will consider/include design, jobs and housing, servicing, public transportation, parks and green space.	City Building	2018-2022 workplan	Scoped Review of OP; Mobility Hubs restart Q4-2020
A City that Grows	Focused Population Growth	The city will develop and implement a strategy in co-operation with other levels of government to support young families:	City Building	2018-2022 workplan	Housing Strategy
A City that Grows	Focused Population Growth	By 2020, the city will develop a liaison office to attract immigrants, while remaining a destination of choice for all newcomers.	CMO	Not included in 2018-2022 workplan	Newcomer Strategy
A City that Grows	Focused Population Growth	An Age-Friendly strategy for seniors will be developed by the end of 2019. This will include addressing the need to have sufficient seniors' programming space.	Parks & Recreation	Complete	The Age Friendly Strategy is complete and is being implemented
A City that Grows	Focused Population Growth	The city will improve its ability to monitor, track and understand Burlington's demographic growth trends and profile.	City Building	2018-2022 Workplan	This is an ongoing initiative.
A City that Grows	Increased Transportation Flows and Connectivity	The city will prepare master plans along with implementation strategies for each mobility hub. These plans will consider urban design, land use, servicing, public transportation parking and parks and open space needs. The city will work with Metrolinx to create hubs that align with intensification and objectives.	City Building	2018-2022 workplan	Scoped Review of OP; Mobility Hubs restart Q4-2020
A City that Grows	Increased Transportation Flows and Connectivity	The city will work with Metrolinx, Halton Region and the province to fin multi-modal, flexible and affordable solutions to accommodate the projected traffic generation from growing employment lands.	Transportation	2018-2022 Workplan	QEW Prosperity Corridor Plan

STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
A City that Moves	Increased Transportation Flows and Connectivity	The city will shift a greater proportion of inbound and outbound traffic to public transportation and prepare a long-term strategy to support the growth of public transportation.	Transit	2018-2022 Workplan	Transit Business Plan, Integrated Mobility Plan
A City that Moves	Increased Transportation Flows and Connectivity	As the city grows, light rail and bus rapid transit systems will be evaluated.	Transit	Not included in 2018-2022 workplan	This will require further review beyond this term of Council.
A City that Moves	Increased Transportation Flows and Connectivity	Future development in key mixed nodes will be higher density, walkable, accessible and well-serviced by public transportation. The city will become a leader in walkability in the province and will be fully aligned with provincial strategy and goals.	City Building	Transitioned to Operations	City Building Operations
A City that Moves	Increased Transportation Flows and Connectivity	Future development in higher densities will consider car-share and bike-share options.	Transportation	Transitioned to Operations	City Building Operations

STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
A Healthy and Green City	Healthy Lifestyles	The Parks Master Plan will be updated to reflect growth objectives and changing density in the City.	Capital Works	2018-2022 workplan	Parks Master Plan
A Healthy and Green City	Healthy Lifestyles	Major developments will be required to provide public space.	City Building	Transitioned to Operations	City Building Operations
A Healthy and Green City	Healthy Lifestyles	The city will engage with Halton Region, Bruce Trail Association, Conservation Halton and other partners to develop the Bruce Trail to promote access and awareness, with the goal of creating new entry points to trails and improving safety.	Transportation	2018-2022 workplan	Parks Master Plan, Integrated Mobility Plan
A Healthy and Green City	Healthy Lifestyles	The city, working with the community, will lead the development of 10 or more self-sustaining community gardens by 2018.	Capital Works	Transitioned to Operations	Community Gardens are planned to increase over the next 10 years
A Healthy and Green City	Healthy Lifestyles	In the context of the Transportation Master Plan, the city will complete a plan and put in place initiatives that create connectivity of trails, parks and streets.	Capital Works	2018-2022 workplan	Integrated Mobility Plan
A Healthy and Green City	Healthy Lifestyles	The city will develop and adopt walkability scores.	Transportation	2018-2022 workplan	Integrated Mobility Plan
A Healthy and Green City	Healthy Lifestyles	The city will explore opportunities to support the conversion of former local quarries into recreational areas. These will maintain the objectives contained within the Niagara Escarpment Plan and Halton Region Official Plan.	City Building	Not included in 2018-2022 workplan	This will require further review beyond this term of Council.
A Healthy and Green City	Healthy Lifestyles	The city will work with public, private and community groups to provide recreation programs that reflect the city's residents.	Parks & Recreation	Transitioned to Operations	P&R Operations
A Healthy and Green City	Environmental and Energy Leadership	The city will develop and implement a plan to make city operations net carbon-neutral.	Capital Works	2018-2022 workplan	Corporate Energy Plan
A Healthy and Green City	Environmental and Energy Leadership	In partnership with others including the community, provincial and federal levels of government, the city will undertake research in order to make Burlington net-carbon neutral.	Capital Works	Transitioned to Operations	Bay Area Climate Change Partnership
A Healthy and Green City	Environmental and Energy Leadership	The city will complete and implement a climate change adaptation plan.	Capital Works	2018-2022 workplan	Climate Adaptation Plan

STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
A Healthy and Green City	Environmental and Energy Leadership	The city will update and implement the Community Energy Plan so that it is efficient, resilient and economically viable.	Capital Works	Complete	Community Energy Plan Update
A Healthy and Green City	Environmental and Energy Leadership	Working with Burlington Hydro, the city will explore district energy, micro-generation and new storage technologies.	Capital Works	Not included in 2018-2022 workplan	This will require further review beyond this term of Council.
A Healthy and Green City	Environmental and Energy Leadership	The city will advocate that the Cootes to Escarpment Ecopark System will be recognized, within four years, in provincial or federal legislation and will receive the appropriate funding to complete the required land assembly.	City Building	Complete	HAPP Submission Completed during Provincial Plan Review
A Healthy and Green City	Environmental and Energy Leadership	The streetscape plans and private development will increase the city's tree canopy.	Roads, Parks, & Forestry	Transitioned to Operations	City Building & RPF Operations

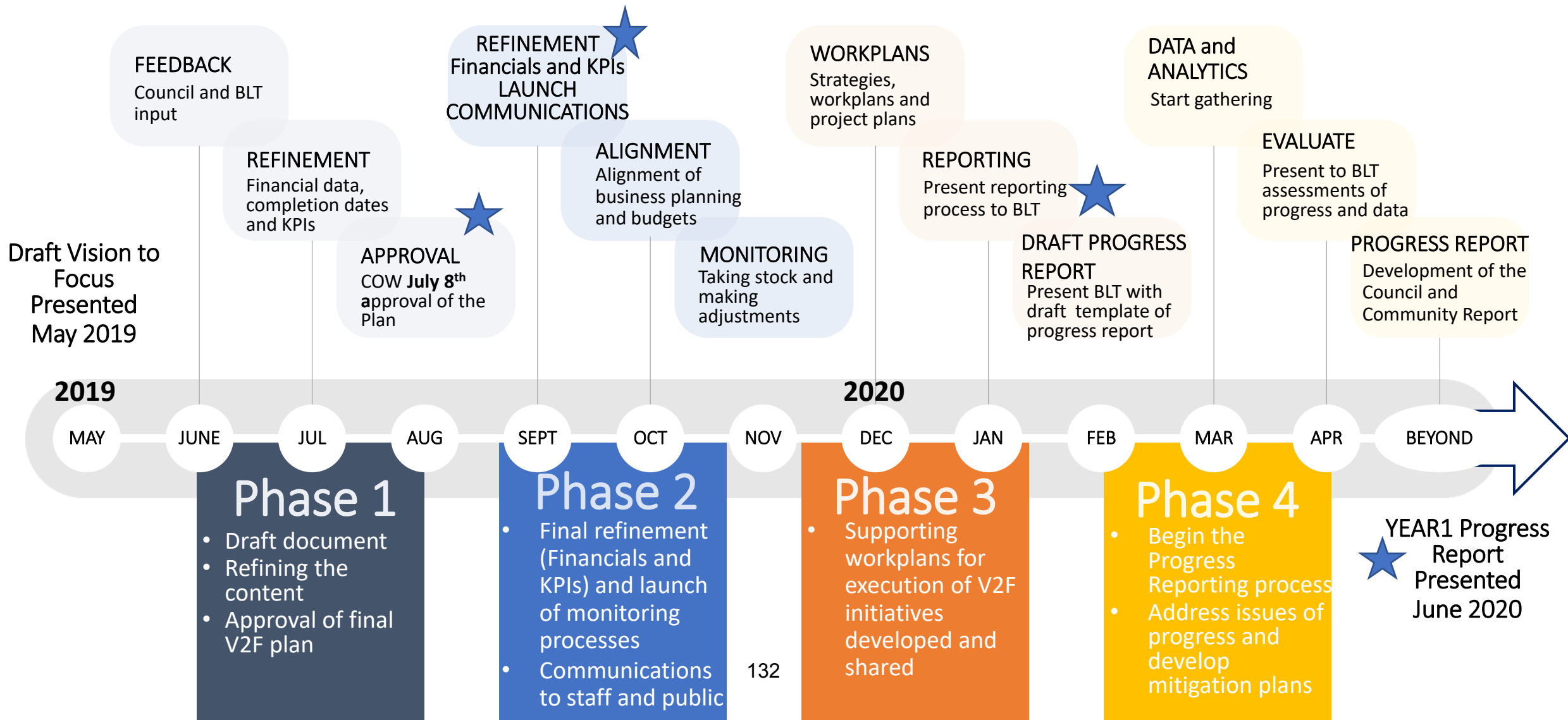
STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
An Engaging City	Good Governance	The city will create a Charter of Good Governance. This charter will be a framework for excellent decision-making.	Clerks	Complete	Code of Good Governance Completed
An Engaging City	Good Governance	The city, working with key community partners, will develop a report card that will outline the status of the economic, social, and environmental well-being of residents and report on overall community health.	CMO	2018-2022 workplan	Community Dashboard will be prepared
An Engaging City	Good Governance	The city will build government outreach capacity to engage with, liaise with and influence relevant governments.	CMO	Complete	Creation of Government Relations Office
An Engaging City	Good Governance	Annual property tax increases will reflect inflationary increases, infrastructure renewal financing and increased service commitments.	Finance	Transitioned to Operations	Finance Operations
An Engaging City	Good Governance	The city will continue to implement initiatives in the Community Engagement Charter.	CMO	Transitioned to Operations	Get Involved Burlington; Mindmixer
An Engaging City	Good Governance	By the third quarter of 2017, the city will develop and start to implement a strategy to increase outreach and inclusivity through an approach at both the staff and political level.	CMO	Transitioned to Operations	Welcome to Burlington Mohawk Future Ready Leadership Report
An Engaging City	Community Building through Arts and Culture via Community Activities	The city will develop and put in place initiatives that support and empower community building at the neighborhood level. An initial report will be provided to Council in the context of the 2016 budget.	Culture	Transitioned to Operations	Love My Hood Program
An Engaging City	Community Building through Arts and Culture via Community Activities	The city will continue to implement initiatives in the Cultural Action Plan.	Culture	Transitioned to Operations	Cultural Grant Program
An Engaging City	Community Building through Arts and Culture via Community Activities	The city will encourage better collaboration and co-ordination among existing and new cultural partners	Culture	Transitioned to Operations	Partnership of Cultural Boards established

STRATEGIC DIRECTION	GOAL	STRATEGIC INITIATIVES	LEAD DEPARTMENT	STATUS	What's Been Done
An Engaging City	Community Building through Arts and Culture via Community Activities	The city will adopt an approach to the planning, design and management of public spaces to ensure they are inviting people places. This will be accomplished by using the power of arts, culture, architecture and design.	Culture	Transitioned to Operations	Arts & Culture transitioned to City Building
An Engaging City	Community Building through Arts and Culture via Community Activities	The city will expand the Public Art Program by developing policies and programs such as public art on private property.	Culture	Transitioned to Operations	Public Art Master Plan Update
An Engaging City	Community Building through Arts and Culture via Community Activities	The city will revise policies related to culture activities and programs such as busking, zoning, event permitting to allow for easier and more accessible initiatives.	Culture	Not included in 2018-2022 workplan	This is work that will be initiated as part of the Zoning By-law Review and will be completed beyond 2022.
An Engaging City	Community Building through Arts and Culture via Community Activities	The City will better align strategies, resources, and goals of current cultural partners with broader city objectives including Youth and Newcomer Strategy; Intensification and Mobility Hubs.	Culture	Transitioned to Operations	Welcome to Burlington Mohawk Future Ready Leadership Report
An Engaging City	Community Building through Arts and Culture via Community Activities	The city will encourage targeted cultural programming that engages newcomers and a more diverse audience with the goal of promoting cultural diversity.	Culture	Transitioned to Operations	Partnership of Cultural Boards established; Cultural Diversity Festival (BPAC)

Vision to Focus Roadmap

★ Back to Council

Organizations Key Milestones and Related Activities in Phases



Principles and Objectives for Sustainable Development

In 1990, the City of Burlington declared itself a sustainable development community and established the Sustainable Development Committee as an advisory body to City Council. The role of this volunteer citizens' committee is to foster dialogue and awareness of sustainable development.

The Principles and Objectives were drafted by the committee and first endorsed by Council in 1994 to provide guidance to the City of Burlington and citizens in their discussions about how to achieve sustainable development. The following Principles and Objectives are the second edition and were endorsed by Council in June 2017.

The goal of sustainable development is to create the built form and systems that support the kinds of communities and connections that provide social, economic and environmental well-being now and in the future.

.....

‘Think Globally, Act Locally’

.....

Endorsed by Council: June 2017

Principles

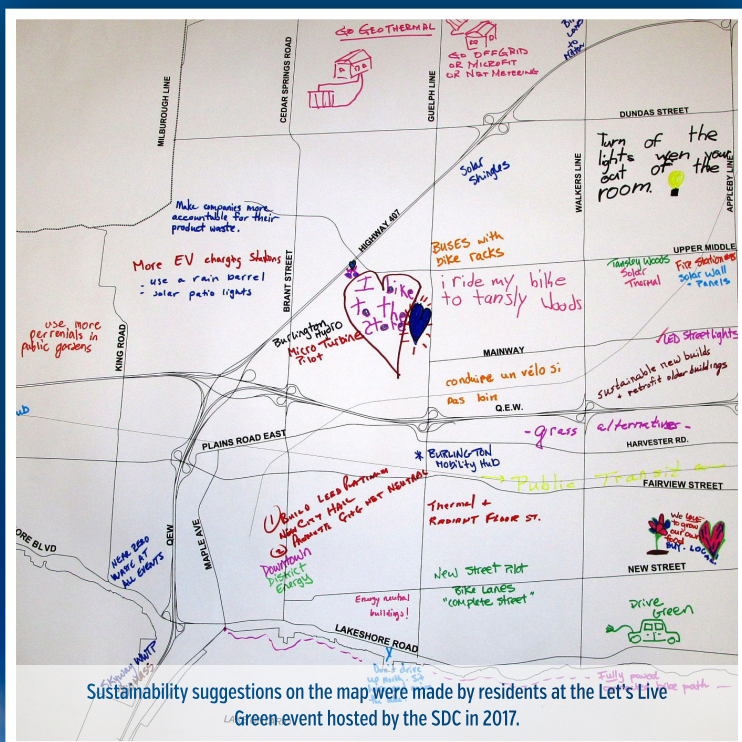
1. Recognize the interdependence of humans and the rest of nature in a common ecosystem; seek to prevent and reverse degradation of the earth, air, water, plants and animals by human activity.
2. Recognize the urgency of climate change and take measures to reduce greenhouse gas emissions and to adapt.
3. Promote conservation, stewardship and responsible use of resources. Discourage processes and practices that result in natural resources being consumed at a rate faster than they can be replenished.
4. Discourage the production and use of persistent and harmful substances. Reinforce proper disposal practices for such substances.
5. Affirm and promote practices that provide a safe and healthy environment and build resilience, and engage our community in not only meeting the economic and social needs of all citizens but enhancing quality of life.

Objectives

- a. **Leadership:** Take a leadership position on sustainability issues both within and outside of the City of Burlington. Recognize that our local actions can have global implications.
- b. **Protection and Enhancement of Natural Features:** Protect and enhance Burlington's natural features to ensure that shorelines, natural water courses, wetlands, flood plains, woodlands and forestry tracts, as well as notable landmarks such as the Niagara Escarpment, are preserved for future generations. Improve the connectivity of natural features to enhance the natural heritage system. Preserve habitat to maintain and increase biodiversity and protect species at risk.
- c. **Protection of Natural Resources:** Sustainably manage and protect natural resources such as water, minerals and fertile lands. Reverse degradation of natural resources when feasible.
- d. **Responsible Use of Natural Resources:** Reduce the consumption of natural resources and ensure users are responsible for the full local costs of services such as water, electricity and sanitary sewers. Provide educational programs to encourage conservation of natural resources and increase awareness of the full costs of services.
- e. **Waste Reduction:** Reduce waste generation and increase resource recovery. Minimize waste in designing, building, operating, renovating, demolishing and re-purposing buildings.
- f. **Greening of the City:** Promote the preservation, management and planting of trees and other vegetation on private and public property within the City. Encourage the use of native, non-invasive and diverse species.
- g. **Natural Features and Green Space:** Ensure natural features and greenspace are fundamental components of the City including new developments and redevelopments.

- h. **Superior Neighbourhood Design:** Make land-use decisions considering the natural features, site characteristics and location relative to employment, transportation and amenities. Apply an ecosystem approach to assess the impacts of development and to ensure environmental integrity, diversity and resiliency. Create vibrant, equitable communities that are healthy, walkable and transit supportive.
- i. **Sense of Community:** Create sustainable and appropriate forms of development that reflect the human scale, promote a sense of community, and connect and integrate urban development and natural surroundings.
- j. **Neighbourhood Connectivity:** Promote community development where residents can easily access necessities and amenities, such as housing, employment, locally produced food, retail, green spaces, education, recreation, and arts and culture through active transportation or transit.
- k. **Sustainable Transportation System:** Prioritize walking, cycling and transit and make the best use of the existing road system for the safe movement of goods and people. Support multi-modal connectivity within the City and with neighbouring municipalities.
- l. **Efficient Urban Design:** Increase the efficiency of land use in the urban community with the goal of reducing greenhouse gas and other air emissions and provide efficient, well connected routes for active transportation and transit. Promote urban intensification and development policies, rather than suburban policies that generate sprawl.
- m. **Natural Storm Water Management:** Protect water courses in their natural state and encourage the restoration of water courses that have been degraded. Encourage low impact development design and use of best practices to improve storm water quality and reduce the quantity of storm water sent to traditional storm water infrastructure.

- n. **Energy Conservation, Efficiency and Generation:** Promote net zero carbon energy generation and usage. Increase energy conservation through efficient land use planning and building design. Encourage sustainable local thermal and electrical energy generation and the supporting distribution network. Adopt low emission forms of transportation. Take all opportunities to switch from fossil fuel to renewable and electricity-based technologies.
- o. **Agriculture and Food:** Promote policies that improve long-term food security with sustainable local agriculture in urban and rural communities. Increase the supply of local, accessible, affordable, culturally diverse and nutritious food. Protect agricultural land from loss and fragmentation.
- p. **Healthy Lifestyles:** Promote and support healthy and active lifestyles through the development of complete neighbourhoods, active transportation infrastructure, recreational facilities and parks.
- q. **Community Engagement:** Seek and encourage public participation and education, and consider public input in city decision-making. The economic, environmental and social aspects of proposed developments should be considered. Decisions should address all aspects and build consensus among stakeholders.
- r. **Evaluation of Development:** Continuously monitor and evaluate community development to assess its sustainability in relation to social, environmental or economic impacts.
- s. **Sustainability Assessment:** To assess progress towards sustainability, the City of Burlington should prepare a performance review of the entire municipality at regular intervals and develop and implement an action plan based on the findings.



My sustainable Burlington is...

Contact Us

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Burlington City Hall

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Burlington, ON

L7R 3Z6

17-486-CW



Endorsed by Council: June 2017





SUBJECT: Approval to Expropriate - Waterdown Road from Craven Avenue to Mountain Brow Road

TO: Committee of the Whole

FROM: Legal Department

Report Number: L-19-19

Wards Affected: Ward 1

File Numbers: 575-03-W.47

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Receive and consider the Inquiry Officer's Report enclosed as Appendix 'A' of this report.

Adopt the reasons for approval set out in Appendix 'B' of this report, entitled Decision and Reasons for Approval to Expropriate Land.

As approving authority under the *Expropriations Act*, approve the expropriation of the lands set out in Appendix 'C' of this report (the "Subject Lands"), which are required for the reconstruction, realignment, widening and improvement of Waterdown Road from Craven Avenue to Mountain Brow Road, and works ancillary thereto.

Enact a By-law as set out in Appendix 'D' of this report.

Purpose:

A City that Moves

- Increased Transportation Flows and Connectivity

Background and Discussion:

The City is undertaking works to upgrade Waterdown Road from a rural two-lane road to a fully-illuminated urban four-lane platform from north of Craven Avenue to Mountain Brow Road. The project will include construction of a multi-use asphalt pathway on the

west side of Waterdown Road, an auxiliary northbound left turn lane at Flatt Road, as well as the installation of traffic signals at Mountain Brow Road.

On July 16, 2018 Council approved the commencement of expropriation proceedings to acquire the lands necessary to facilitate the Waterdown Road project. Following Council approval, an Application for Approval to Expropriate Land was obtained and a Notice of Application for Approval to Expropriate Land was served on the registered owners of the Subject Lands. A Notice of Application for Approval to Expropriate Land was also published once a week for three consecutive weeks in the Burlington Post. Pursuant to section 6 of the *Expropriations Act*, each owner had 30 days from the date of service of the Notice to request an Inquiry to determine whether the proposed expropriations were fair, sound and reasonably necessary.

2362302 Ontario Inc., the owner of the properties known municipally as 48 Flatt Road and 1664 Waterdown Road, was the only property owner to request an Inquiry. The Inquiry was held on May 15, 2019. The lands that were the subject of this Inquiry are part of the proposed residential development known as 'Eagle Heights' along the west side of Waterdown Road.

The *Expropriations Act* provides that an Inquiry of this nature shall determine whether the proposed expropriation is "fair, sound and reasonably necessary in the achievement of the objectives of the expropriating authority". The Hearing Officer considered the evidence of the City with respect to the proposed expropriation, as well as the evidence of the land owner, which focused primarily on issues related to sanitary servicing to the proposed Eagle Heights development. The Hearing Officer concluded that the proposed expropriation is fair, sound and reasonably necessary in the achievement of the City's objectives.

The report of the Hearing Officer is attached at Appendix 'A'. It is recommended that Council receive and consider this report in its capacity as approving authority under the *Expropriations Act*.

Additional confidential legal matters related to the lands owned by 2362302 Ontario Inc. are addressed in Appendix 'E' to Report L-19-19.

Strategy/process

It is recommended that the expropriation of the Subject Lands proceed in accordance with the Application for Approval to Expropriate Land served on the owners, particularly in light of the Inquiry Officer's report.

Upon approval by Council of the recommendations in this report, staff will proceed with all necessary steps to give effect to the expropriation in accordance with the *Expropriations Act*. This includes preparing and registering Plans of Expropriation, serving Notices of Expropriation, Notices of Election, statutory offers of compensation and

Notices of Possession. All such steps will proceed in accordance with timelines and other requirements prescribed by the *Expropriations Act*.

Options considered

Before initiating expropriation proceedings, staff were successful in acquiring the vast majority of the property interests required to facilitate the Waterdown Road project through amicable negotiations. Efforts at acquiring the Subject Lands have thus far been unsuccessful. Further delay with respect to the acquisition of the Subject Lands will adversely impact project timing, while allowing the deficiencies along Waterdown Road to remain unaddressed.

Financial Matters:

Total Financial Impact

The *Expropriations Act* provides a mechanism for the determination of compensation payable to owners, including a mechanism for claims to be arbitrated by the Local Planning Appeals Tribunal where parties cannot agree. Accordingly, total financial impact of these expropriations cannot be fully determined at this time. Staff will report back further to Committee and Council as necessary once the scope of compensation claims is known.

Source of Funding

The acquisition of property interests contemplated in this report will be 100% funded by the City of Hamilton in accordance with a 2012 cost sharing agreement that has been entered into between the City of Burlington and City of Hamilton for the Waterdown Road project.

The Waterdown Road North Rehabilitation and Capacity Improvement project was approved as part of the 2019 Capital Budget.

Public Engagement Matters:

Staff have previously met directly with owners of the Subject Lands in an effort to find common ground for the acquisition of properties required for the project.

Notices of Application for Approval to Expropriate were served on all affected owners and notices were also published in the Burlington Post as described in this report. A Hearing of Necessity took place on May 15, 2019 as described in this report.

On a go forward basis, affected owners will be provided with all such notices, appraisals, offers and other documents as are prescribed by the *Expropriations Act*.

Conclusion:

The expropriation of the Subject Lands is required to allow the construction of necessary improvements to Waterdown Road. It is recommended that Council authorize the recommendations in this report, which will allow these matters to move forward.

Respectfully submitted,

David Klacko
Solicitor
905-335-7600 Ext. 7612

Appendices:

- A. Inquiry Officer's Report
- B. Decision and Reasons for Approval to Expropriate Land
- C. Description of the Subject Lands
- D. Expropriation By-Law XX-2019
- E. Confidential appendix re: legal matters associated with lands owned by 2362302 Ontario Inc.

Notifications:

After Council's decision the City Solicitor will send all notices required by the *Expropriations Act* to affected parties.

A copy of Council's reasons for decision will be provided to the Inquiry Officer and 2362302 Ontario Inc. as prescribed by the *Expropriations Act*.

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

Expropriations Act, R.S.O. 1990, c. E.26 (as am.)

IN THE MATTER OF the proposed expropriation by the City of Burlington of land for the purpose of reconstruction, realignment, widening and improvement of Waterdown Road from Craven Avenue to Mountain Brow Road and works ancillary thereto, being:

1. a fee simple interest in the following lands:

- A. Part of Lot 7, Concession 1, Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, as described in 552801, PIN 07193-0175 (LT), designated as Part 10, Plan 20R-21016;
- B. Part of Lot 7, Concession 2, Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, as described in 612791, PIN 07193-0095 (LT), designated as Parts 2 and 5 on Plan 20R-21016; and

2. a temporary easement in Part of Lot 7, Concession 2, Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, designated as Parts 1, 3 and 4 on Plan 20R-21016, further described as follows:

temporary easement or rights in the nature of a temporary easement for a period of sixty six (66) months commencing upon registration of an expropriation plan, for the purpose of entering on the lands with all vehicles, machinery, workers and other material for construction purposes, which may include (1) relocation of existing services and utilities, (2) work that supports the construction of municipal infrastructure within the City's permanent takings, (3) staging and storage of materials and equipment, (4) geotech testing, borehole testing, archaeological investigations and other investigative works, (5) removal, relocation and/or installation of signage, (6) hard and soft landscaping, paving, grading, regrading and reshaping the lands together with the removal of any and all trees and other landscaping located on the lands to the limit of the reconstruction of Waterdown Road, (7) the installation and removal of temporary (i) pedestrian access and walkways, (ii) parking measures including re-striping of aisles, lanes, and parking stalls, (iii) shoring and formwork, (iv) drainage and erosion/ sediment control measures, (v) traffic signals, (vi) fencing, (vii) handrails, and (8) works ancillary to any of the foregoing.

Date of Hearing

May 15, 2019

Appearances:

City of Burlington

Guillaume Lavictoire

2362302 Ontario Inc.

Herman Turkstra
Jennifer J. Meader

REPORT

This Inquiry was established pursuant to section 7 of the *Expropriations Act*, R.S.O. 1990, c. E.26 (as amended) (the Act) to determine whether the proposed taking by the City of Burlington of the interests set out above in the property owned by the requester is “fair, sound and reasonably necessary in the achievement of the objectives of the expropriating authority” as the Act states, or is “reasonably defensible” as the courts have interpreted this test.

The stated purpose of the proposed taking is for the “reconstruction, realignment, widening and improvement of Waterdown Road from Craven Avenue to Mountain Brow Road and works ancillary thereto.”

PARTIES

Mr. Guillaume Lavictoire represented the City of Burlington, and Mr. Herman Turkstra and Ms. Jennifer Meader the landowner numbered company.

THE PROPERTY

All of the segments (6 in total) that are proposed to be taken from the owner are on the west side of present Waterdown Road, in the area north of the interchange of Waterdown Road and Highway 403 and south of Mountain Brow Road. They are either thin strips or small portions of the property. The segments have two different street addresses. One is municipally known as 1664 Waterdown Road, and the second is 48 Flatt Rd. Although Part 10 on Plan 20R-21016 is south of Flatt Road, it appears to have a Flatt Road address. All of the segments are close to or part of a residential subdivision known as Eagle Heights (EH). They are best seen on Plan 20R-21016 (Exhibit 1, Tab 12). The lands on the east side of Waterdown Road here are within the Greenbelt Plan Area, and there are significant natural areas to the north and south as designated by the appropriate authorities.

THE OBJECTIVE OF THE EXPROPRIATING AUTHORITY

The City of Burlington intends to upgrade Waterdown Road, a project of long standing as the number of residents and the traffic increase in the area. Waterdown is now a two-lane rural cross section with ditches, sharp curves and substandard sections. The preferred redesign would be a four lane, urbanized road with a multi-use asphalt pathway on the west side. In the short term the City intends improvements to the existing road width and cross section, as well as drainage, safety and intersection improvements. The result would be four lanes of pavement, but a three-lane design at present, with a dedicated northbound left turn lane into the new development of Eagle Heights. The City would incorporate some of the portions of the owner/requester’s land into the widened roadway, and as well, construct an addition to the storm water retention facility at Flatt Rd. and Waterdown Rd. The takings from this owner would total .3 H.

REQUEST TO RECORD HEARING

Just prior to the hearing of this inquiry, Mr. Turkstra requested that a court reporter be permitted to attend the hearing to create what he later termed “an official transcript” (message of May 14, 2019). His reasons were not immediately clear. Mr. Lavictoire objected, arguing that “There is nothing procedurally unfair in barring the use of a court reporter at an Inquiry. If this were a civil matter before the courts, there would be no recording of the proceedings. The Supreme Court of Canada has held that in analogous circumstances, there was no requirement to allow a

recording, and that this rule generally applies even where there exists a statutory right to a recording. In *S.C.F.P., Local 301 c. Québec (Conseil des services essentiels)*, the Court held at paragraphs 75-77, that

“[i]n the absence of any express statutory requirements, the traditional common law requirements for a record of an administrative tribunal's proceedings include the document which initiated the proceedings and the document containing the tribunal's adjudication. Neither the reasons for the ruling, nor evidence presented at the hearing, have been considered necessary elements of the record to be presented to the superior tribunal upon appeal or review. “

(Mr. Lavictoire continued): Even in cases where the statute creates a right to a recording of the hearing, courts have found that the applicant must show a "serious possibility" of an error on the record or an error regarding which the lack of recording deprived the applicant of his or her grounds of review.

The *Expropriations Act* does not create a right to a recording of an Inquiry. There would be no use for such a recording under the legislation. The only written record prescribed by the *Act* is the report of the Inquiry Officer, which is to be considered by the approving authority.

Since there can be no use for the transcripts inside these Inquiry proceedings, the only possible uses for the transcripts are outside of the Inquiry. Accordingly, the City objects to the creation of a transcript in the context of this Inquiry that could only be utilized to serve alternative purposes.”

Mr. Turkstra responded (I am paraphrasing):

1. without a transcript parties cannot know for sure what the witness said, even if under oath (it would “keep the evidence honest”, he said). Notes may not be reliable.
2. transcripts can assist in writing decisions, and are “essential” to a judicial review, if desired.
3. staff can and do take shorthand notes of evidence without objection.

Mr. Turkstra continued:

“4. There is no question that an official transcript can have life beyond this hearing. There are concurrent planning appeals before LPAT regarding the area in question and a verbatim transcript will ensure consistency of evidence between the two processes.

If Mr. Lavictoire continues to oppose an official transcript, I assume the hearing officer will not object if the reporter is retained by me and sits in the hearing room or beside me producing an unofficial transcript which will be available only to myself during the proceedings.”

(Message, May 14, 2019)

I sent the following message to the parties the night before the hearing:

“Having carefully considered the submissions on the issue of a court reporter attending tomorrow’s Hearing of Necessity, I have made the following decision, reasons to follow in the Report following the Hearing:

1. There should be no qualified court reporter officially recording the Hearing, or parts thereof.
2. Should Mr. Turkstra require a law clerk or secretary or even a qualified court reporter to, as he mentions, take an "unofficial verbatim set of notes”, he is free to do so. I rely on his assertion that this would be an “unofficial transcript which will be available only to myself during the proceedings”.

My reasons for denying an official recording are:

As Mr. Lavictoire argues, the Act does not require the recording of a hearing for any purpose. I find an inherent insult to an expert witness in Mr. Turkstra's phrase "keep the evidence honest". A professional witness, qualified by the tribunal as such, even if not formally under oath, is presumed to give a professional and objective assessment in his/her testimony before a tribunal. This possible aspersion upon such testimony seems to validate Mr. Lavictoire's assertion that a transcript here "could only be utilized to serve alternative purposes." The implication in Mr. Turkstra's submissions is that a witness or others taking part in the hearing might deviate from prior testimony, or fail to tell the truth. This conclusion is reinforced by his phrase "consistency of evidence between the two processes" – i.e. this Inquiry and existing LPAT appeals.

It is for this reason that I permitted a court reporter to transcribe the proceeding, but ONLY for Mr. Turkstra's personal use. I take it as a matter of honour that he will not attempt to use the recording for challenging this decision on judicial review, or in LPAT or other proceedings.

EVIDENCE

The City of Burlington

The City's evidence was provided by Mr. Jeff Thompson, Project Manager, Design and Construction, Capital Works. He has expertise in water and sewer projects and has been involved in this proposed road redesign for many years. He was qualified to give expert evidence in this hearing.

He provided an overview of the redesign project. A Class Environmental Assessment was conducted in 2012 (Exhibit 1, Tab 11). In the Environmental Study Report (ESR), the subject segment of Waterdown Road is expressed to be a two-lane rural cross section with ditches, sharp curves and substandard sections. The general area is often described as environmentally sensitive. The traffic demand studies prior to the ESR illustrated delays in the AM and PM peaks.

The ESR describes the location of the EH development as north of Flatt Road along the west side of Waterdown Road. The short term solution for the improvements to Waterdown would be its use as three lanes, with a dedicated left turn lane northbound to Flatt Road where the subdivision is located. Use of a four-lane construction (to be built but not yet used) was anticipated in 2020 or 2021. The three lane configuration would better retain the rural nature of the area here in the short term.

It was determined at the time of the ESR to position the new road just to the west of the existing. This would prevent the taking of additional subdivision lands to the west. It would also permit some separation from the residences and the Sassafra Woods ESA/ANSI on the east side. The new lanes would be a minimum of 3.3 m in width, less than the usual width of up to 3.7 m. The usual arterial road speed of 60 km/h would be only 50 km/h, to accommodate traffic increases yet preserve the area character. There would be a sidewalk on the east side, and a multi-use pathway on the left side. (In Ex. 1, Tab 12, this path has been designed as 2.5 m wide, increasing to 3 m. north of Flatt Rd.)

Mr. Thompson identified the Parts on the R-Plan that are required for this widening. Part 11 (beside Part 10) is already owned by the City, and is the site of a storm water retention facility. There are three proposed acquisitions in fee simple, Parts 5, 10 and 2. Part 10 is a rectangular segment to the west of the storm water retention facility. This would be an outlet for the facility, consisting of a Storm Trap and Stormceptor (the design may be seen in Ex. 1, Tab 12, Sheet 181). Part 2 on the Plan, a long and narrow piece of land would be taken for the widened road.

Part 5, on the northwest corner of Waterdown and Flatt Road, will provide a daylight triangle at the intersection.

Temporary easements are required for construction of the widened roadway. These would be over Parts 1, 3 and 4 on Plan 20R-21016. Details of the uses are set out in the description in the style of cause above.

In cross examination Mr. Thompson was questioned as to the history of the development since the EA in 2012, the nature of the cost-sharing and the budget support for it. There was also close scrutiny of the interjurisdictional planning and design since the EA. The consultant Hatch is responsible for the ultimate designs. A watermain is to be located under the pavement. The Region of Halton is responsible for the location of the watermain and the supply to Eagle Heights, even though the road project is the City of Burlington's. Mr. Turkstra saw no sanitary sewers in the Hatch designs. He suggested that the proposed takings might not be appropriate, given this defect.

Since the OMB had approved the subdivision, and the City and EH had signed an agreement resolving many issues, Mr. Turkstra stated that full servicing must be extended to EH. He finds that the Hatch designs should have dealt with all servicing, as in his view this is key to the actual segments to be expropriated. Lack of sanitary sewers in the designs means EH cannot move ahead.

Mr. Lavictore emphasized that the Region was responsible for the provision and location of the sanitary sewers.

Respecting the temporary easement, it is needed for orderly, cost-effective construction. The location was selected by a team led by Mr. Thompson, as were all the portions to be taken, either temporary or permanent. Construction would proceed to the greatest extent possible before the pavement is installed.

Mr. Turkstra then asked Mr. Thompson many questions about a settlement agreement entered into between the City of Burlington and the owner of EH, Paletta International Corporation (PIC) on June 2, 2009 (MOS, Exhibit 7). Mr. Thompson indicated that the design team discussed this agreement but that the team was governed only by the EA recommendation in developing the final design, as is usual. He had not seen the settlement agreement. He was then asked to consider a series of email messages by several parties, including the Region (Exhibit 6). One of these, dated Sept. 1, 2017, from John Kisneris of the Region of Halton, mentioned a future Regional development charges sanitary sewer in the second paragraph. It referred to lack of interest in the abutting owners here in extending local sanitary sewers at their cost. The email then appears to hand nominal responsibility for a sanitary sewer extension along Waterdown to the City, at their cost or convenience.

Mr. Thompson then repeated that recourse respecting water and sanitary sewers must be had to the Region, not the City. The road designs now had a reference to a notional "running line" kept generally at the middle of the right of way, to accommodate a future sanitary sewer, "if and when they are required". Mr. Turkstra argued that since the subdivision lots were approved as "fully serviced", any takings now where servicing is not clearly indicated does not meet the statutory test of "fair and sound". He took Mr. Thompson back to an earlier message in the chain in Exhibit 6, where Mr. Thompson had responded to the owner's proposed "pre-installation" of sanitary sewers at its cost, by stating that the Region does not normally do this. Mr. Thompson suggested there that "they are still years away with regards to the environmentally problematic site." This refers to the EH site.

Mr. Thompson testified that the location of the notional "running line" has no effect whatsoever

on the proposed takings. The road width, or the proposed segments themselves would not be narrower without it. It merely protects the idea of a sanitary sewer if the EH development proceeds. Regard must be had to ensuring adequate land for all of the widening, the multi-use trail on the west side, and necessary grading.

The Owner

Mr. Karl Gonnensen, a licensed professional engineer and land use planner, Director of Engineering for the City of Burlington (this was not confirmed as no curriculum vitae was introduced prior to his testimony) testified for the owner. His responsibilities and expertise involve transportation, traffic and necessary construction. He had been advising EH since 1998 via his engineering and planning consulting firm, now Metropolitan Consulting Inc. He provided a history of the development from 1996 on, pointing to the elimination of an institutional and a school block 5 years ago, and the preparation of a new draft plan.

He referred to the Minutes of Settlement (MOS- Exhibit 7) between PIC and P & L Livestock Ltd (then owner of lands south of PIC lands, having the same principal as PIC), and the City of Burlington. The then-configuration of the subject lands is illustrated by Figures 6A and 6B, attached to the MOS. By Paragraph 10, the parties agreed to settle remaining disputes in accordance with Schedules A to O attached. He referred to the owner's offer to front end the cost of a sanitary sewer from the North Service Road to the intersection of Craven Avenue, which has been constructed. (Craven is shown on Exhibit 5, "Eagle Heights – Proposed Servicing Works", prepared by Metropolitan Consulting). Schedule D of the MOS dealt with Eagle Heights, where the City approved an increase in residential units up to 870. It did not approve of a realignment of Waterdown Road across EH lands, as had been proposed as one option in the EA. The City then promised to support the PIC appeal to the then OMB (paras. 6 and 7).

References to "pods" are clarified in Exhibit 8, where "2b" denotes the original proposal for the subject land which was incorporated into the Official Plan (OP, Ex. 9) as the "North Aldershot Planning Area", with Sub-Areas, this being Sub-Area 2 in the Central Sector. More detail may be seen in Schedule D-C2b. On p. 27 of the OP, clause d) states that "Sub-Area 2 shall be fully serviced." Mr. Gonnensen testified that a regional water reservoir at Horning Rd. to the north would be extended, leaving it unclear what servicing would be extended to the pods. Since the developer had contributed a sanitary sewer up from the interchange at the North Service Road to Craven Ave., it suggested that it pay for another extension for the development. The Region had supported this plan but then, he said, the Region "fell silent". He is left wondering how the subdivision will obtain sanitary sewers. He views the proposed expropriation drawings as inadequate since there is no exact location for the sanitary sewers. Thus, the precise takings cannot and should not be determined at this time.

In argument Mr. Turkstra suggested that this inquiry had insufficient evidence before it to determine the appropriateness of the takings. As Inquiry Officer, he stated, I should require the City to provide clear documentation respecting the location of these vital services. The City had promised in the MOS to assist the owner in resolving all issues (Ex. 7, p. 13). At para. 6, the City had promised not to accept modifications to the proposal without referring them to the OMB. Mr. Turkstra argued that the City would be contravening the MOS if it inhibits the installation of the essential services. He pointed to the sanitary sewers installed by the owner up to Craven Ave., at 29 feet below the road, and at a 45-degree angle for safety. This required a very wide area. He is concerned that the City considered every necessary service except the sanitary sewer when determining the portions needed here. The proposed road might well need to be wider to accommodate it. Uncertainty about the sewer location when the City conducted its scoping exercise for the land required means that the intention to move forward now could create a real obstacle. If the new pavement must be removed to install the sewer line, the cost

could be in the 13-million dollar range. He pointed to the interagency emails (Ex. 6) as proof that there was no answer to the location of the sewers. The City approved the design without considering the MOS, he said. The Notice of Grounds here (Ex. 10) referred in No. 5 to “works ancillary thereto”, but this was not enough specificity.

He submitted that this lack means that the test of fairness in the Act has not been met. The promise in the MOS of the City’s cooperation, which he said was part of the plan, has been breached. The Region had pointed out that the City had the obligation to deal with sanitary sewers. This proposed expropriation process is flawed because of the lack of location for them in the plans.

Mr. Lavictoire emphasized that the City’s professional evidence did indeed support the specific segments proposed. Both Parts 5 and 10 are needed for purposes other than for sanitary sewers. The ESR had set out the final requirements for the road widening, multi-use path, northbound left turn lane, and new illumination and signals. As is usual, it had not deal with utilities. The road reconstruction, which is the City’s objective (especially from the safety perspective), cannot be completed if less land is taken, as the owner seems to suggest.

FINDINGS AND OPINION

There was an early reference to the owner’s concerns about storm and sanitary sewers, as seen in Ex. 6, Tyler Fowler’s memo to Tom Eichenbaum of Hatch, July and August 2017. Hatch, the City’s consultants for this project, were then preparing the preliminary designs. Mr. Eichenbaum’s email of August 30, 2017, referred to the developer’s offer to install a sanitary sewer at its expense, prior to the road construction. It then stated that “We would also have to check that all required Road widenings etc that might be necessary for the Sanitary Sewer are in place.....” (Ex. 6, p. 3). It is not difficult to see early evidence of the owner’s concerns about this service that is vital to the subdivision. The sanitary sewer line previously provided by the owner(s) is shown south of Craven Avenue on Exhibit 5. North of it is only the notation of a replacement watermain.

However, I heard assurance from the City’s witness that the inclusion of a notional “running line” for sewer installation is the norm for final designs, when its exact location has not been finalized. The inclusion of this running line, Mr. Thompson testified, had no effect at all on the amount and location of the proposed expropriations. It is not evidence of an unfair process, but merely evidence of the usual process. I rely upon the expert evidence from the City witness here. There was no countervailing evidence from the owner’s witness. The City has made efforts to take only the bare minimum required for road reconstruction in this immediate area. The owner presented no alternatives to the proposed expropriation, except effectively to redraw the design to show a sewer line. I am satisfied that this cannot yet be done. The public interest in completing the reconstruction, for safety reasons if not others, must override this uncertainty for the owner. I traveled the road segment in question, as permitted by the Act. I agree even from a lay perspective that the road is in need of extensive repair.

The argument that the MOS prevented the City from proceeding on its own to design the road reconstruction is not a valid one. The Region (with ultimate responsibility for sewers) indicated no interest in arranging for a sewer line (Ex. 6, Message from John Kisneris to Jeff Thompson et al., September 1, 2017). While servicing of the EH subdivision is required in the OP, explicit locations are not. (See Ex. 9, Part V, (j), “North Aldershot Central Sector shall develop on full municipal services.” “Shall” is defined in the Plan as: “Shall – It is mandatory or required to comply with an Official Plan policy.”) In my view this imposes an obligation on the owner of a development, not upon the City. Nor was there any specific promise or location addressed in the MOS.

I accept Mr. Thompson's evidence that retention of a "running line" for the desired sewer line suffices to permit the proposed portions to be taken, even if the sewer line is not shown. From the evidence there has never been an explicit promise or design for the exact location of the sewer. Since Mr. Kisneris essentially handed the planning for such a line back to the City (Ex. 6, p.1), the City now is doing what it has long proposed, and is proceeding to construct the road. The Region did not offer assistance with the sewer line, it was clear; the City had to manage it on its own. The portions proposed to be taken are essential, Mr. Thompson testified, for this reconstruction.

I take it that the owner is in effect saying that while the takings may be reasonably necessary for the City's project, they do not meet the tests of fairness or soundness because of the uncertainty of the sewer's location. Since on the evidence this is a factor that will be built in later, and will not cause any extra land to be required, I am satisfied that the tests are met.

The lengthy and convoluted history of the subdivision and other construction in this area of Waterdown Road resulted in issues being raised at the hearing that I find not to be relevant to the statutory test that must be applied to this proposed taking. The policy decision behind the proposed expropriation is beyond my jurisdiction. I can only consider whether the taking of these specific portions of the property in furtherance of the accepted policy is or is not, in my opinion, reasonably defensible, as they are needed for it. I consider that the existence of the MOS between the parties is not relevant for the narrow test to be applied. It has no effect on whether the takings for the expressed purpose is fair. Road reconstruction including widenings almost inevitably requires that there be takings from adjacent parcels as well as construction easements for regrading and other purposes. Land is also required here for a daylight triangle and an outlet for the storm water retention facility. The Act provides remedies for disruptions that are caused by expropriations. These may not be what owners desire, but the public interest must prevail in these matters. In my view this is such a case. From the professional evidence provided, the need for these portions of the owner's property to be included within the new road boundaries and for other purposes is irrefutable. The specificity in the plans requested by the owner cannot be accommodated.

After considering all of the evidence and arguments, I conclude that the proposal meets the test in the *Expropriations Act* and the summation of it as set out by the courts. The test in subsection 7(5) of the Act is whether the proposed taking is "fair, sound and reasonably necessary in the achievement of the objectives of the expropriating authority". Court decisions such as *Re Parkins and the Queen* (1977), 13 L.C.R. 327 (O.C.A.) conclude that the test that the inquiry officer must apply can be expressed as whether the proposal is "reasonably defensible in the achievement of the authority's objectives."

For the reasons given above, I find that the proposed taking by the City of Burlington of the land proposed for the purpose of reconstruction, realignment, widening and improvement of Waterdown Road from Craven Avenue to Mountain Brow Road and works ancillary thereto, being a fee simple interest in Part of Lot 7, Concession 1, Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, as described in 552801, PIN 07193-0175 (LT), designated as Part 10, Plan 20R-21016; **and** Part of Lot 7, Concession 2, Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, as described in 612791, PIN 07193-0095 (LT), designated as Parts 2 and 5 on Plan 20R-21016; **and** a temporary easement in Part of Lot 7, Concession 2, Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, designated as Parts 1, 3 and 4 on Plan 20R-21016, is reasonably defensible in the achievement of the City's stated objective.

X 

Inquiry Officer

APPENDIX

1. Document Book – City of Burlington
2. Curriculum Vitae – Jeff Thompson
- 3 A and 3 B – Property Maps
4. Alternate Design Concepts - ESR – Sections of Waterdown Rd.
5. Eagle Heights – Proposed Servicing Works – April 17, 2019
6. Email messages, 2017 – various – respecting Eagle Heights servicing
7. Minutes of Settlement
8. Key Maps – North Aldershot Central Sector
9. Official Plan – Burlington Planning Area
10. Notice of Grounds

Expropriations Act

**DECISION AND REASONS
FOR APPROVAL TO EXPROPRIATE LAND**

To: **2362302 Ontario Inc.**
 c/o Jennifer Meader
 Turkstra Mazza Associates
 15 Bold Street
 Hamilton, ON L8P 1T3
 Telephone: 905-529-3476 x 274
 Email: jmeader@tmalaw.ca

And to: Gillian M. Burton
 44 Charles Street West, Suite 4305
 Toronto, ON M4Y 1R8
 Inquiry Officer

In the matter of the proposed expropriation of land, defined in Schedule ‘A’ attached hereto (hereinafter the “Lands”), by the Corporation of the City of Burlington, for the purposes of the reconstruction, realignment, widening and improvement of Waterdown Road, and works ancillary thereto.

And in the matter of a Hearing of Necessity (Inquiry) having been conducted on Wednesday, the 15th day of May, 2019, at the hour of 10 o’clock at Hearing Room 202, Halton Court Services, 4085 Palladium Way, Burlington, ON L7M 2A6.

And in the matter of a Report of Inquiry Officer Gillian M. Burton, issued on June 14, 2019.

The Council of the Corporation of the City of Burlington has received the Report of the Inquiry Officer and has considered the Report, including the findings and opinions therein.

The Council of the Corporation of the City of Burlington has granted to the Corporation of the City of Burlington, on July 15, 2019, approval to expropriate the Lands for the following reasons:

1. The objective of the City is to reconstruct, realign, widen and improve Waterdown Road from Craven Avenue to Mountain Brow Road, and works ancillary thereto, and the Lands are required for this objective.
2. The proposed works are necessary to improve transportation capacity and to address long-term travel demands along Waterdown Road.

3. The area in the vicinity of Waterdown Road has experienced significant population increases and significant development is currently planned or underway. It is anticipated that traffic volumes will exceed the capacity of the existing road network.
4. The City's project will upgrade Waterdown Road from a rural two-lane road to a fully-illuminated urban four-lane platform from north of Craven Avenue to Mountain Brow Road. The project will include construction of a multi-use asphalt pathway on the west side of Waterdown Road, an auxiliary northbound left turn lane at Flatt Road as well as the installation of traffic signals at Mountain Brow Road.
5. The Report of the Inquiry Officer contains the finding that the proposed taking of the Lands is reasonably defensible.
6. To date, attempts by the City to acquire the Lands by means of amicable negotiations with the owners have been unsuccessful.
7. Further delay with respect to the acquisition of the Lands will adversely impact the construction schedule for the planned project, while prolonging and intensifying the deficiencies affecting Waterdown Road.

DATED at Burlington, this ____ day of _____, 2019.

Marianne Meed Ward, MAYOR

Angela Morgan, CITY CLERK

Schedule A

- (1) Owner: 2362302 Ontario Inc.
Municipal Address: **48 Flatt Road**
Property Owner: 2362302 Ontario Inc.
Proposed Expropriation: **Fee Simple:** Part of Lot 7, Concession 1 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, designated as **Part 10 on Plan 20R-21016**
(Notice of Application Reference #1)
- (2) Owner: 2362302 Ontario Inc.
Municipal Address: **1664 Waterdown Road**
Property Owner: 2362302 Ontario Inc.
Proposed Expropriation: **Fee Simple:** Part of Lot 7, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, designated as **Parts 2 & 5 on Plan 20R-21016**
Temporary Easement: Part of Lot 7, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, designated as **Parts 1, 3, and 4 on Plan 20R-21016**
(Notice of Application Reference #2)

Appendix C to L-19-19

The proposed expropriation of lands by The Corporation of the City of Burlington in the City of Burlington, including the acquisition of:

Fee simple interests (“**Fee Simple**”); and

Temporary easements or rights in the nature of temporary easements for a period of sixty six (66) months commencing upon registration of an expropriation plan, for the purpose of entering on the lands with all vehicles, machinery, workers and other material for construction purposes, which may include (1) relocation of existing services and utilities, (2) work that supports the construction of municipal infrastructure within the City’s permanent takings, (3) staging and storage of materials and equipment, (4) geotech testing, borehole testing, archaeological investigations and other investigative works, (5) removal, relocation and/or installation of signage, (6) hard and soft landscaping, paving, grading, regrading and reshaping the lands together with the removal of any and all trees and other landscaping located on the lands to the limit of the reconstruction of Waterdown Road, (7) the installation and removal of temporary (i) pedestrian access and walkways, (ii) parking measures including re-striping of aisles, lanes, and parking stalls, (iii) shoring and formwork, (iv) drainage and erosion / sediment control measures, (v) traffic signals, (vi) fencing, (vii) handrails, and (8) works ancillary to any of the foregoing (“**Temporary Easement**”)

1. **Fee Simple**

Part of Lot 7, Concession 1 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton designated as Part 10, Plan 20R-21016

2. **Fee Simple**

Part of Lot 7, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton designated as Parts 2 and 5 on Plan 20R-21016

Temporary Easement

Part of Lot 7, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton designated as Parts 1, 3, and 4 on Plan 20R-21016

3. **Fee Simple**

Part of Lots 6 and 7, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton designated as Part 1 on Plan 20R-21017

Temporary Easement

Part of Lots 6 and 7, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton designated as Part 2 on Plan 20R-21017

4. **Fee Simple**

Part of Lot 6, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, designated as Part 11 on 20R-21015

Temporary Easement

Part of Lot 6, Concession 2 Geographic Township of East Flamborough, City of Burlington, Regional Municipality of Halton, designated as Part 12 on Plan 20R-21015

THE CORPORATION OF THE CITY OF BURLINGTON

BY-LAW NUMBER ●●-2019

A by-law to authorize the expropriation of lands for the the purposes of the reconstruction, realignment, widening and improvement of Waterdown Road from Craven Avenue to Mountain Brow Road and works ancillary thereto.

File: 575-03-W47

WHEREAS The Corporation of the City of Burlington has applied for approval to expropriate certain lands required for the reconstruction, realignment, widening and improvement of Waterdown Road between Craven Avenue and Mountain Brow Road and works ancillary thereto;

AND WHEREAS section 5 of the *Expropriations Act* R.S.O. 1990 c. C.26 as amended provides that the municipal council is the approving authority for expropriations by a municipality;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE CITY OF BURLINGTON HEREBY ENACTS AS FOLLOWS:

1. That Council has received and considered the Inquiry Officer's Report dated June 14, 2019, and enclosed as Appendix A.
2. That Council adopts the reasons for approval set out in Appendix B, entitled Decision and Reasons for Approval to Expropriate Land, and that the Mayor and Clerk are hereby directed and authorized to execute the said document.
3. That the expropriation of the lands described in Appendix C (hereinafter the "Subject Lands") for the reconstruction, realignment, widening and improvement of Waterdown Road between Craven Avenue and Mountain Brow Road is hereby approved.

4. That the City Solicitor is hereby authorized to obtain Plans of Expropriation for the Subject Lands, and register said Plans on title of the Subject Lands.
5. That the City Solicitor is hereby authorized and directed to serve any notices or any other documents required under the *Expropriations Act* to give effect to the expropriation of the Subject Lands.
6. That appraisal reports be prepared by an accredited appraiser to appraise the market value of the Subject Lands and, if applicable, damages for injurious affection under the *Expropriations Act*.
7. That offers of compensation be served upon the registered owners of the Subject Lands in accordance with section 25 of the *Expropriations Act*.
8. That payment of compensation be made to the registered owners of the Subject Lands pursuant to section 25 of the *Expropriations Act*, upon acceptance of the offers by the registered owners.
9. That all necessary steps to obtain possession of the Subject Lands be taken in accordance with the *Expropriations Act*.
10. That the Mayor and City Clerk are hereby authorized to execute any and all plans, notices, offers, certificates, settlements, agreements and any other documents necessary to complete the expropriation of the Subject Lands and take possession of the Subject Lands, subject to the satisfaction of the City Solicitor.

ENACTED AND PASSED THIS • day of • 2019.

Marianne Meed Ward, MAYOR

Angela Morgan, CITY CLERK

APPENDIX A to BY-LAW NUMBER ●●-2019

[Inquiry Officer's Report dated June 14, 2019, being Appendix 'A' to Report L-19-19]

APPENDIX B to BY-LAW NUMBER ●●-2019

[Decision and Reasons for Approval to Expropriate Land, being Appendix 'B' to Report
L-19-19]

APPENDIX C to BY-LAW NUMBER ●●-2019

[Description of Subject Lands, being Appendix 'C' to Report L-19-19]



SUBJECT: Transit's five-year business plan update

TO: Committee of the Whole

FROM: Transit Department

Report Number: TR-03-19

Wards Affected: All

File Numbers: 770-09

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Table transit department report TR-03-19 regarding the transit five-year business plan to the Committee of the Whole meeting to be held December 2, 2019 for debate and approval.

Purpose:

This report outlines the key elements of the Five-Year Business Plan completed to-date. It includes the proposed transit growth strategy initiatives.

A City that Moves

- Increased Transportation Flows and Connectivity

The purpose of this report is to provide an update to Burlington Committee of the Whole on the proposed transit growth strategies.

Background and Discussion:

The 2020 – 2024 Burlington Transit Business Plan will guide the implementation of transit service improvements over the next five years. Burlington Transit hired Dillon Consulting to conduct a peer and policy review, develop vision and mission statements, outline strategic directions, and develop a growth strategy for the next five years.

Strategy/process

Appendix A includes a summary of the key strategies and recommendations that are being proposed within the Five-Year Business Plan. Internal consultation (Transit and City staff) has helped guide the development of these strategies.

Options considered

Not Applicable.

Financial Matters:

The final business plan will include a financial and phasing plan for each growth strategy and will be brought to Committee of the Whole in November 2019.

Connections:

This five-year business plan will provide insight as to the growth of Burlington Transit over the next five years which will impact mobility hubs, transit service planning, and the Integrated Mobility Plan.

Public Engagement Matters:

City staff and Burlington Transit staff (including operators) were engaged in the development of these growth strategies, as well as the vision and mission statements. Council is being engaged in the proposed growth strategy through this report.

Conclusion:

Burlington Transit will continue to develop the financial and implementation plans that coincide with the growth strategy, for a full five-year business plan to be brought forward to Committee of the Whole in November 2019.

Respectfully submitted,

Sue Connor

Director of Transit

905-335-7869 ext.7845

Appendices:

- A. Transit's Five-Year Business Plan Update

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

This is a summary of the Burlington Transit Five-Year Business Plan peer review, vision and growth plan initiatives. The Business Plan document will be based on the details in this summary, with a focus on the implementation of the growth plan initiatives, including their phasing and financial impacts.

Dillon Consulting requests the City of Burlington Council provide feedback on these sections, so that any changes may be incorporated into the final Business Plan.

1. Introduction

The 2020 – 2024 Burlington Transit Business Plan will guide the implementation of transit service improvements over the next five years. The Business Plan starts with a policy framework that defines a clear direction for Burlington Transit, and clear steps on how to get there. Burlington Transit is working on a vision statement that will be part of the final Five-Year Business Plan.

It is important to note that a Business Plan does not provide details service or operational planning. The primary purpose of the plan is to ensure individual strategies, projects and activities are aligned and contributing to the Burlington Transit's vision and policy objectives. This includes prioritizing and staging key decisions to fit within the City's financial guidelines. The Business Plan is also an important communication tool for Burlington Transit that will clearly set out steps required to move towards the long-term direction of the City. Over the next five-years, the Business Plan will form the guiding document in which all other operational decisions and financial budgets should be built around.

2. Growth Forecast

The Path Forward

A key focus of the business plan is to identify the strategies and resources required to meet transit ridership growth targets. Ridership growth objectives for Burlington were identified in the 2011 Halton Region Transportation Master Plan, which targets a morning peak period internal transit mode share of 13.4 percent within the City of Burlington by 2031. This represents a significant growth from the 4.6 percent transit mode share that is forecasted to be achieved by the end of 2019 (a 216 percent increase in ridership, from 3,209,091 annual rides in 2019 to 10,763,637 annual rides in 2031).

Over the five year life of this business plan, transit mode share is targeted to reach 8.3 percent by 2024, translating to 6,356,818 annual rides (a 98 percent growth in ridership from 2019; or 19.6 percent per year). To put this into context, over the past five years, Burlington Transit's ridership growth averaged 1.9 percent per year, while other systems in Burlington Transit's peer group averaged 4.3 percent per year. The 2024 target identified for Burlington represents a significant rate of growth over past performance and above what Burlington Transit's peers have achieved over the past five years. This will be difficult to achieve in a short period of time without significant investment in transit, a focus on customer service and culture change, including a change in how transit services are delivered.

As illustrated in **Table 1**, the ridership growth target will move Burlington Transit ahead of many of its peers and in line with peer systems that have U-Pass agreements with post-secondary institutions (e.g. Kingston Transit, Guelph Transit and St. Catharines Transit). This suggests that the growth strategy should not only focus on supply-based solutions (e.g. increasing service levels), but also on solutions that influence demand.

TABLE 1: PEER COMPARISON OF BURLINGTON TRANSIT 2024 RIDERSHIP GROWTH

	2024	2017				
	Burlington	Oakville	Barrie	Kingston	Guelph	St. Catharines
Peak Bus	64	72	37	55	65	55
Revenue Hours	280,800	212,008	171,130	238,688	205,820	168,774
Revenue Hours per Capita	1.48	1.09	1.26	1.97	1.56	1.11
Ridership	6,356,818	2,945,877	2,677,396	6,145,809	6,476,108	5,124,463
Ridership per Capita	33.6	15.18	19.75	50.74	49.14	33.73
Riders / Hour	20.3	13.9	15.6	25.7	31.5	30.4

While population growth will also help grow ridership, Burlington's population is only projected to grow by 3.7 percent by 2031¹. Between 2019 and 2024, the population is projected to grow by 3,259 people (from 185,911 in 2019 to 189,170 in 2024). If the existing trip rate (boardings per capita) is applied to new residents over this period, this would only result in 56,255 new rides (1.8 percent of the ridership growth target) being attributed to new residents. This means that to achieve this ridership target, existing and new residents will need to ride transit much more, creating a greater culture of transit use in the city.

Service Hour and Fleet Investment (2020 – 2024)

To accommodate the planned growth in ridership, Burlington will need to invest in the level of service provided to accommodate both an increased demand for service and to change travel behaviour. This will require an increase in the amount of service and the fleet required to deliver the service.

The City of Burlington Development Charges Transit Background Study (2019) identifies that Burlington Transit's fleet will need to grow by 38 vehicles between 2019 and 2028 to meet transit mode share target. Phased in over the five-year life of this business plan, this represents a growth in 19 vehicles by 2024 (from 60 to 79). Service hours will also need to grow to reach the mode share target. Work by Burlington Transit to support the Development Charges Study estimated that an investment in 100,800 annual revenue service hours is required over the next five years. This represents a 56 percent growth

¹ Note: Population forecasts to 2031 provided in the 2018 Burlington Development Charges Transit Background Study

in service levels, which is a little lower than the 66 percent ridership growth, recognizing that ridership growth can lag behind investment by two to three years. The projected fleet, service hour and utilization growth is detailed in **Table 2**. Ridership numbers were calculated based on achieving Burlington Transit's 13.37 percent mode share target in 2031, based on the ridership figures used in the Development Charges Study. These targets were used as a guide to determine the growth strategy for transit.

TABLE 2: PLANNED INVESTMENT IN BURLINGTON TRANSIT (2020 – 2024)

Year	2020	2021	2022	2023	2024
Peak Buses	50	54	58	62	65
Mode Share	5.34%	6.07%	6.80%	7.53%	8.26%
PM Peak Rides	24,377	27,708	31,039	34,370	37,700
Annual Revenue Hours	214,240	230,880	247,520	264,160	280,800
Annual Ridership	3,838,636	4,468,182	5,097,727	5,727,273	6,356,818
Rides per Revenue Hour	20.8	18.6	18.6	19.3	20.3

3. Growth Strategies

One of the primary purposes of a business plan is to focus actions taken by an organization so they are aligned with the vision, goals and strategies directions of a system. Burlington Transit has a mandate to significantly expand ridership in line with the mode share targets identified in the 2011 Halton Transportation Master Plan. As identified in **Section 2**, forecast ridership is targeted to increase from 3,209,091 trips in 2019 to 6,356,818 trips by 2024. To achieve this growth target, Burlington Transit must provide mobility to residents, employees and visitors of the city. In doing so, Burlington Transit must:

- be Customer-Focused in every aspect of how service is delivered
- be Forward-Thinking in how services are planned and delivered
- be Business-Minded and aligned with municipal directions

The following section identifies a number of growth strategies that will be the focus for staff over the next five years. These reflect the Burlington Transit the vision, mission and strategic directions noted in the policy framework and will be supported by an updated organizational structure and an implementation and financial plan. These growth strategies are organized into the following themes:

1. Service Structure and Delivery
2. Mobility Management
3. Customer Experience
4. Travel Demand Management

1. Streamline Service Structure and Delivery

The way services are structured and delivered defines the primary customer aspects of any transit system. Where services go, how often vehicles are scheduled, how long the trip takes, how accessible are stops, and how the service is delivered (focus on customer service) are all key factors in residents choosing not only which services to take, but if transit is an option for them at all.

There are a number of strategic directions that will be implemented over the next five years to move towards this ridership growth target. These are described in more detail below:

Strategy 1A: Move to a More Direct Grid-Based System

Burlington Transit has already recognised the benefits that grid-based systems can bring and is making its first steps towards this goal in its September 2019 service change. In order for the grid network to be successful, there must be continued emphasis on:

- Intensification of land use along the arterial roadway network;
- Connectivity to the arterial grid to expand the market within a five-minute walk of the network;
- Improvements to the pedestrian environment at and connected to bus stops; and
- Investments in service levels to limit waiting times for customers that must now transfer between two arterial routes.

The remaining Burlington Transit network was developed largely on a grid arterial system, focused on key population and employment areas, with links to the GO Rail network. Key north-south corridors like Brant and Walkers link the established southern areas to growing northern areas. Such grid systems allow for more direct routes on arterial roads that are faster, resulting in quicker journeys that attract more riders. While there is a role for local services, the focus of Burlington Transit's future investment should be on services where they can generate the greatest ridership per invested service hour.

This service realignment works towards Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.1 (Effectiveness), in ensuring that services operated are as effective as possible. Where gaps are left in the network, alternative service delivery options (Strategy 1A) should be explored as a more cost-effective solution to fill them in.

Recommendations:

- Delete circuitous peak-only and after-hours only routes.
- Consider the deletion of circuitous local routes. The removal of these routes should only be considered in concert with the exploration of alternative service delivery options (Strategy 1A).
- Strengthen key arterial corridors and connections to GO Transit stations. Focus on east-west connectivity, with strategic north-south corridors.

Strategy 1B: Increase Service Levels to Support Higher Ridership Growth

Implementing high-frequency service on Burlington's arterial network may be a challenge given the limited pedestrian connectivity. A number of arterial roads are characterised by rear-lot residential, or long blocks with limited pedestrian connections into interior neighbourhoods. This makes providing a frequent service on all of the grid-routes a challenge. Since frequency improvements are necessary to facilitate transfers between north-south and east-west routes, Burlington Transit should work with the City's Planning and Development Department to improve pedestrian connectivity (including road crossings) between arterial transit routes and local neighbourhoods and identify opportunities for mixed-use intensification.

This increase in service levels aligns with Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.1 (Investment), in acknowledging that investment in mobility can improve broader quality of life, achieve economic development and produce environmental benefits.

Recommendations:

- Continue to improve frequencies on Burlington's arterial grid roads, particularly on the east-west corridors of Plains / Fairview and New, as well as the north-south corridor along Brant. These corridors are planned to see the most mixed-use, commercial and high density development in Burlington's Official Plan (2018).
- Work with the City of Burlington Planning and Development Department to increase and enhance pedestrian connectivity between arterial transit routes and local neighbourhoods and identify opportunities for mixed-use intensification along arterial routes.

Strategy 1C: Introduce Transit Priority Features to Improve System Reliability

Transit signal priority works by prioritising the flow of transit vehicles at controlled intersections. Transponders are fitted to vehicles, which notify traffic light systems of their presence, and request that a green light be extended when transit vehicles are delayed (passive transit signal priority) or that a dedicated signal phase is dedicated to an approaching transit vehicle (active transit signal priority).

Queue jump lanes are transit-only lanes on the approach to, and immediately after, intersections. These lanes allow transit vehicles to 'jump the queue' at intersections when they are paired with an active transit signal priority features.

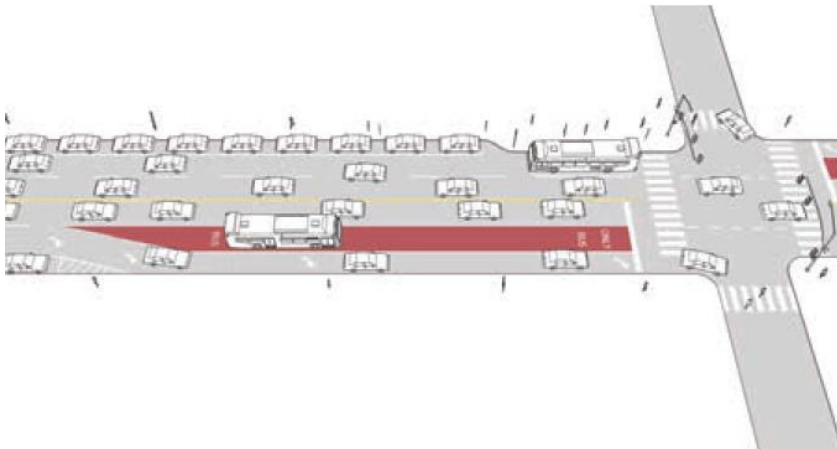


FIGURE 1: TRANSIT QUEUE JUMP LANE (SOURCE: NACTO TRANSIT STREET DESIGN GUIDE)

Queue jump lanes and signal priority would be appropriate treatments for important transit arterial routes that see less delays and travel time variability, or operate less frequently. Such corridors include Guelph Line north of the QEW or Appleby Line.

Burlington Transit has already undertaken investigations to pilot transit signal priority on the Plains / Fairview corridor. It is intended that this corridor will act as a pilot for the future implementation of such a system across the broader network. This pilot will be implemented in the first year of the business plan and it is expected that an expansion of transit priority measures will occur within the five year life of the plan.

In addition to potential transit priority measures for Burlington Transit services, Metrolinx's 2041 Regional Transportation Plan includes transit priority along Dundas Street to central Burlington and Frequent Regional Bus services using HOV lanes on Highway 407. While these measures are focused on regional trips, the Dundas Street priority will also provide direct benefits to Burlington Transit.

This increase in service levels aligns with Burlington Transit's Strategic Direction #1 (Be Customer-Focused in every aspect of how service is delivered), particularly Objective 1.1 (Service Excellence) and Objective 1.3 (Travel Time) by exploring transit priority measures to achieve faster and more reliable journeys. It also aligns with Burlington Transit's Strategic Direction #2 (Be Forward-Thinking about how Services are Planned and Delivered), particularly Objective 2.1. (Technology) by exploring new technology to improve reliability and travel time.

Recommendations:

- Implement currently-planned pilot transit priority project on Plains / Fairview corridor.
- Conduct a study of transit priority needs in both the short and long term in Burlington. The study should include a prioritization of potential projects following the pilot.

- Initiate discussions with Metrolinx and advocate for the implementation of transit priority on Dundas Street and Brant Street as part of the overall Dundas BRT project. Ensure that their plans align with Burlington Transit's needs and complement other transit priority projects.

Strategy 1D: Improve Connections to the GO Transit Network

Services from these stations connect Burlington to Toronto as often as every 5-10 minutes during peak periods and every 30 minutes during non-peak times. Limited peak service is also provided to Hamilton. Almost all of Burlington Transit's routes currently connect to at least one GO Station, providing a logical transfer point between Burlington Transit routes and links to destinations outside of Burlington. As noted in the Business Plan Working Paper #1, only between 3 - 12 percent of GO Rail passengers in Burlington use Burlington Transit to connect to GO Rail services at each of its stations. This suggests that there is room to grow this market to reach Burlington Transit's ridership growth targets.

By 2025, Metrolinx plans to improve all-day frequencies on the Lakeshore West Line between Aldershot GO Station and Union Station to every 15 minutes, as part of the "Regional Express Rail" initiative. This will also see travel times between Burlington GO and Union Station reduced by up to 19 minutes, as well as 2 minute savings between Burlington GO and Appleby GO. Regional Express Rail will increase the attractiveness of the service for trips to Union Station as well as other mid-line stations along the Lakeshore West line.

This partnership works towards Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.2 (Partnerships) as it seeks to achieve better and more cost effective options for passengers by working with other transit providers.

Recommendations:

- Improve frequency of direct connections to GO Rail stations with the introduction of RER.
- Explore on-demand alternative service delivery strategies to connect to all GO Train trips that do not conveniently connect to a fixed-route Burlington Transit bus.
- Explore integration opportunities to better utilize the RER network for local express trips within the City. This should include improvements to trip planning tools, marketing and communications and well as service integration.
- Investigate the implementation of a fully-integrated single fare with GO Transit. This would require local trips to be priced on the basis of distance.

Strategy 1E: Increase Service Integration with Neighbouring Transit Systems

There is also a significant travel demand between Burlington and Hamilton and Burlington and Oakville that should be addressed as a key strategy to grow ridership. This can be done through improved coordination and service integration that will reduce duplication of service and create a more seamless experience for the customer.

Burlington Transit already offers a level of fare integration with its neighbouring systems. Transfers from Hamilton Street Railway and Oakville Transit are accepted on some services, both in paper form or automatically calculated by Presto. As part of increased utilization of and integration with GO Train services, there exists the opportunity to further reduce fare friction in the region, by adopting a single fare system across multiple systems.

There is an opportunity to strengthen and add to these links with Hamilton and Oakville through service integration. Such a shared service model could provide Burlington with cost savings for the provision of services at its borders and improve seamless passenger connections.

This initiative aligns with Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.2 (Partnerships) as it seeks to achieve better and more cost effective options for passengers through working with other transit providers.

Recommendations:

- Meet with HSR and Oakville Transit to identify opportunities to further integrate services through sharing and coordinated timetabling and routing.
- Investigate the implementation of a fully-integrated single fare with neighbouring systems and GO Transit (see Strategy 2D). This would require local trips to be priced on the basis of distance.

2. Mobility Management

Mobility Management acknowledges all the ways that people can travel in a community and all of the different ways that these modes can be operated; bringing them together for the benefit of the customer. While Burlington Transit primary focus over the next years will be the delivery of public transit services, it is important to start investing and rethinking how Burlington Transit thinks about mobility as a whole.

Strategy 2A: Implement On-demand Alternative Service Delivery Models

On-demand transit (or microtransit) is a traditional form of mobility that is experiencing a resurgence with the help of technology. On-demand transit has four components that differentiate it from conventional fixed-route transit:

- Flexible routing and/or scheduling designed based on customer demand;
- Newly-emerged "mobility brokers" who use mobile apps to connect supply and demand;
- Use of smaller, more flexible vehicles; and
- Connecting multiple transportation services to complete a trip (using a mobile app).

On-demand transit can be differentiated from conventional transit in the way that it caters to individual needs. In an On-demand Transit model, the transit service adapts to its customers, while in conventional transit service models, transit customers must adapt to the service offered. In many cases, this provides

greater convenience and customization – moving towards some of the favourable characteristics of private automobile travel. On-demand transit offers a level of flexibility, convenience, and individualism somewhere between regular fixed-route transit (“public collective transport”) and private individual transport.

There are several advantages to exploring the implementation of On-demand transit services:

- **Cost Effective:** On-demand transit services are typically planned in areas where there is low ridership in a larger geographic area. This allows the transit agency to reduce the number of resources required to provide service.
- **Improved Coverage:** On-demand transit services offer a significant advantage in terms of coverage area. Since the vehicle is not tied to a fixed-route, this increases the number of residents within a five-minute walk of an on-demand transit pick-up or drop-off point.
- **Early Introduction of Service:** On-demand transit service allows for early introduction of transit service in newly developing areas without committing significant resources to provide mobility for new residents.

On-demand transit services do not entirely replace the need for fixed-route services. Fixed-route transit services require customers to make travel decisions based on pre-set transit routes and schedules. This model is effective when:

- Residents are in close proximity to a service;
- The route provides relatively direct service with minimal deviations that increase travel times;
- Higher frequencies are provided to increase the flexibility of the service; and
- There is a high demand for service between similar origins and destinations, which requires a high capacity vehicle to service.

This initiative works towards Burlington Transit's Strategic Direction #2 (Be Forward-Thinking in how services are planned and delivered), particularly Objective 2.2 (Alternative Service Delivery), by exploring and seeking to implement on-demand alternative services.

Recommendations:

- Further explore the use of On-demand transit services as a replacement of certain fixed-route services. This should include a review of both dedicated and non-dedicated service models.
- Develop an On-demand transit service model and business case for low demand areas and operating periods, allowing customers to use a mobile app to book a shared-ride demand-responsive service to connect to the fixed-route service. This should coincide with the modifications to the existing route network to more of a grid-like structure (see Strategy 2A).

Strategic Direction 2B: Explore Partnerships with Other Mobility Providers

To address this expanding world of mobility, Burlington Transit needs to continue to evolve and see themselves as not only an operator of transit services, but as a partner and collaborator of sustainable mobility services. This means making it easier for customers to take all sustainable mobility options available to them or integrating services to allow customers to easily transfer between multiple modes.

Over the next five years, it is recommended that Burlington Transit continue to explore partnerships with TNCs, bike sharing companies, carpooling companies, taxi operators and other sustainable mobility providers to promote integration with Burlington Transit services. This could include:

1. Information Sharing and Promotion
2. Data Sharing
3. Trip Planning Integration
4. Service Integration
5. Fare Integration

This strategy aligns with Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.2 (Partnerships), by seeking to partner with providers to improve efficiency, systems and lower cost.

Recommendations:

- Expand the role of a senior member of the Burlington Transit administration and management team to include the exploration of partnership approaches with other sustainable mobility service providers.
- Promote sustainable mobility services through awareness, marketing and education campaigns to inform residents of alternatives to driving alone in private vehicles.

Strategic Direction 2C: Integration of Specialized Transit and On-demand Transit Service

A key strategic direction will be to better integrate specialized transit trips with On-demand transit trips. If Burlington Transit uses its own fleet to deliver On-demand transit services, it is recommended that the Specialized Transit logo be removed from all its specialized transit vehicles, replaced with a Burlington Transit logo. This will allow the same vehicle to be used to provide both specialized transit and On-demand Transit Services. The goal is to provide more flexibility in utilizing the right vehicle for the right type of trip, irrespective of whether a customer is registered for specialized transit service. This strategy helps support the integration of customers on vehicles that were traditionally reserved for specialized transit customers and will allow for more efficient scheduling and increase the available capacity to all Burlington Transit customers.

Under the integrated service model, a vehicle used to provide specialized transit service can also be used to provide On-demand transit service, and vice versa. This means that the services would be

“comingled”, and specialized transit and On-demand transit service customers may share vehicles if it provides greater efficiency in the delivery of their trips. The decision to integrate trips will be based on the ability to utilize existing in-vehicle capacity and provide a better level of service to customers.

It should be noted that specialized transit will continue to operate as a core service for registered customers and any integration with On-demand transit service should not reduce the level of service for registered specialized transit customers.

Integration helps to achieve Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.3 (Efficiency), as it allows for the delivery of similar on-demand services to combined, thereby reducing unnecessary administrative and operational duplication.

Recommendations:

- Explore the concept of integrating specialized transit services with On-demand transit services. A prerequisite of this approach is demand-response software in place to support the functions required by customers and staff.

3. Customer Experience

Burlington Transit already offers real-time trip information and an acceptable level of comfort, accessibility and shelter. However, more in-depth real-time operational information and proactive communication would give passengers certainty and a sense of reliability. Improved accessibility and increasing the provision of shelters help to remove barriers to transit use, making it an option for more members of the community. Finally, enhanced digital connectivity builds on one of transit's competitive advantages – the ability to dedicate attention to digital devices to get work done and stay connected while travelling.

Customer experience enhancements can encourage new customers to transit and, importantly, keep existing customers on the system.

Strategy 3A: Improve Communications

Beyond real-time trip information, communications regarding planned and unplanned disruptions is the next most important information that passengers need to improve their comfort in using the service. Burlington Transit currently publishes their planned disruptions on their website, but there is little integration of this information with trip planning services. An analysis of Burlington Transit's staffing levels and discussions with key staff members have indicated that there are less on-road operations supervisors than necessary to provide full coverage of all services.

While operational recovery from disruptions is paramount, affected passengers need to be made aware of the problem, its outlook and their alternatives as soon as possible. To ensure that customers are aware of the actual operating environment on the routes and services they need to take, a service

standard should be set to publish unplanned disruptions on the Burlington Transit website and provide the information to the open data (Google Transit) API within 15 minutes of them occurring. This will require additional operations staff to address disruptions and better communication with Customer Service.

These initiatives align with Burlington Transit's Strategic Direction #2 (Be Forward-Thinking in how services are planned and delivered), particularly Objective 2.1 (Technology) as they work to harness existing and new technologies to deliver a better customer experience.

Recommendations:

- Establish a new service standard to ensure that all disruptions and unplanned events are published on Burlington Transit's website, to the open data (Google Transit) disruptions API and social feeds within 15 minutes of them occurring.
- Hire operations administrative dispatch clerks to support on-road operations supervisors and enhance communications with Customer Service.
- Investigate partnerships with third-party trip planning apps to provide riding assistance to new customers.

Strategy 3B: Improve Comfort and Accessibility at the Stop

To continue to progress towards a more accessible system, Burlington Transit is finalizing a 2019 Accessibility Plan, which forms part of the City of Burlington's Multi-Year Accessibility Plan 2019-2024. The Accessibility Plan outlines actions to remove barriers and improve accessibility. Many items in this business plan echo initiatives in the accessibility plan, including improved frequency, improved communications and improved links with neighbouring municipalities. The plan also includes a bus stop upgrade program and the additional of real-time information screens at the Burlington GO Station and the Downtown Terminal. In addition, Burlington Transit has recently formalized new bus stop design standards (see Strategy 3C), which define dimensions, access, orientation and other requirements for accessible transit stops and shelters.

Recommendations:

- Continue to implement key actions in the 2019-2020 Accessibility Plan.
- Develop updates to the Accessibility Plan for each year subsequent year during the business plan period.
- Expand the bus stop upgrade program to include accessible shelters (see Strategy 3C).

Strategy 3C: Shelters

A customer's perception of the transit experience starts before they board a vehicle. One of the first interactions with the system on the day of travel is waiting for the service at a stop. Shelters provide customers with a place to take refuge during inclement weather (rain, snow and strong winds) or shade during hot summer days. They also provide a source of information about the service and a sense of permanency of a transit system, particularly on routes that provide direct, frequent and rapid service.

As Burlington Transit continues to expand its service and build on the grid-network, the expansion of shelters should be considered as a key part of improving the customer experience prior to boarding the bus. This could involve a number of key actions:

1. Improve Existing Shelters
2. Develop Shelter Placement Criteria
3. Work with the Burlington Parks and Recreation Department to Increase Natural Shelters at Stops

Shelter improvements work towards Burlington Transit's Strategic Direction #1 (Be Customer-Focused in every aspect of how service is delivered), particularly Objective 1.6 (Accessibility) as can improve the customer experience and accessibility at the qualifying stops.

Recommendations:

- Continue to conduct bus shelter condition assessments for all existing stops with shelters.
- Create a shelter policy, dictating how stops qualify for shelters and how to prioritize the roll-out of new shelters.
- Work with Burlington Parks and Recreation Department to increase natural shelters at stops.

Strategy 3D: Digital Connectivity

One of the benefits to taking transit is that riders are free to engage in activities that are not possible when driving. Staying connected is increasingly important and it is common to see transit passengers using smartphones and tablets during their journeys. To improve the experience of customers using electronic devices during their travels, Burlington Transit could consider providing charging facilities and wifi. This allows customers to use their time more productively while on longer transit routes, access social media and music streaming services and use their mobile devices to access trip planning tools and be informed in real-time of disruptions in the system.

In the shorter term, implementing USB power outlets on buses and wifi at facilities are relatively simple and effective ways to encourage passenger connectivity when using transit. The implementation of these amenities should be on a pilot basis and focused on routes and facilities with higher ridership, to maximize their usefulness and the amount of feedback received.

Connectivity improvements align with Burlington Transit's Strategic Direction #2 (Be Forward-Thinking in how services are planned and delivered), particularly Objective 2.1 (Technology) as they work to harness existing and new technologies to deliver a better customer experience.

Recommendation:

- Include USB charging points on all new bus deliveries. Charging ports should be located strategically throughout buses, which could be assigned to a single longer-distance route or used

- throughout the network. Customer feedback and uptake by route and time of day should be collected to optimize the number and location of charging points on future deliveries.
- Implement a wifi pilot at major stations and transfer points (excluding GO Transit stations).

4. Travel Demand Management

Travel demand management are the tools that transit agencies can employ to encourage and influence demand, through affordability, incentivisation and holistic land use planning.

Travel demand management can be used to move demand or encourage growth during non-peak times, such as the midday, evenings and weekends. This frees up peak capacity and increases resource utilization during those less busy periods. In this way, growth can be accommodated at a lower cost and overall efficiency improved.

Strategy 4A: Free Midday Travel for Seniors

In March 2019 the City of Burlington Council directed Burlington Transit to implement a pilot program of offering seniors free travel between 9:00am and 2:30pm on weekdays. This pilot has become effective in June 2019 and run until 31 December 2020.

It should be noted that free transit also applies to seniors who use specialized transit. The AODA requires fare parity between conventional and specialized services, which will see an increase in demand on the specialized transit system. Unlike conventional transit, specialized transit peaks during the midday period and has less capacity to accommodate an increase in demand (due to the small vehicle size and on-demand door-to-door service delivery model). Therefore, the introduction of this policy is expected to see an increase in specialized transit service hours and vehicle requirements, including an increased operating and capital cost. The extent of this increase is currently unknown, but should be monitored over the course of the pilot, with a plan in place to increase operations during the midday period to maintain an acceptable trip accommodation rate.

This fare change aligns with Burlington Transit's Strategic Direction #1 (Be Customer-Focused in every aspect of how service is delivered), particularly Objective 1.8 (Affordability), in promoting access to transit for all residents of Burlington.

Recommendations:

- Monitor the impacts of the free midday travel for senior's pilot project on ridership, technology, customer service, revenue and operating costs for the course of the pilot before implementing further changes or mitigation measures.
- Budget to increase specialized transit service levels during the pilot project to maintain an acceptable trip accommodation rate.

Strategy 4B: Affordability

In conjunction with the City's decision on senior's fares, Council also agreed to change the Subsidized Passes for Low-Income Transit (SPLIT) subsidized pass program from a 50 percent fare reduction to a free monthly pass, effective May 1, 2019.

The existing SPLIT pass has been in place for almost nine years and has provided a 50 percent fare subsidy to residents of Burlington that are low income. The program is administered and initially funded by Halton Region Social Services. The change in the program to a free pass will see the City of Burlington cover the remaining 50 percent difference in the pass. Since the number of pass holders are relatively small, this change is not expected to have a significant impact on Burlington Transit's operations or revenue. However, Burlington Transit should report to Council how this has affected their budget and seek additional funding to cover lost revenue.

This fare change aligns with Burlington Transit's Strategic Direction #1 (Be Customer-Focused in every aspect of how service is delivered), particularly Objective 1.8 (Affordability), in ensuring access to transit for all residents of Burlington.

Recommendation:

- Monitor the usage of the new SPLIT pass and report the amount of lost revenue to Council.

Strategy 4C: Free Transit for Children

As of March 9, 2019, kids 12 and under were permitted to ride for free on GO Transit. The program has an estimated cost of \$8 million dollars of lost revenue. This does not take into account an increase in ridership and revenue from adults that use the service more often as it is more affordable to travel as a family unit. Much of this additional ridership occurs during the off-peak periods such as weekend family travel or school trips during the day.

Currently in Burlington, children under 5 ride for free whereas children between 6 and 12 pay \$3.50 cash or \$1.90 with Presto. Currently, children 6 to 12 represents 0.05 percent of total ridership on Burlington Transit. Using Presto data, it is estimated that 16,723 children under 12 are current Burlington Transit customers, with an estimated revenue of \$30,938.

Having a similar fare structure is important to improve the legibility of the system of passengers travelling with children using both GO Transit and Burlington Transit, as the same fare rules would apply between the two systems. This will become increasingly important with the introduction of RER, when the GO Rail network is further integrated with Burlington Transit routes and services (see Strategy 3D). In the short-term passengers travelling with children connecting between the two systems still receive a reduced fare through the co-fare agreement between Metrolinx and Burlington Transit (70 cents), allowing Burlington Transit to maintain an important revenue source. The challenge will be to integrate the service with Presto and to identify which passengers boarding a Burlington Transit bus as a GO Rail station are eligible for the co-fare payment between Burlington Transit and GO Transit.

This fare change aligns with Burlington Transit's Strategic Direction #1 (Be Customer-Focused in every aspect of how service is delivered), particularly Objective 1.8 (Affordability), in ensuring access to transit for all residents of Burlington.

Recommendations:

- Continue to maintain same child fare policy in the short-term to maintain revenue stream from the co-fare agreement.
- Monitor ridership and revenue changes that have occurred on other GTHA systems that have implemented a similar child fare policy (e.g. Durham Region Transit).
- Implement the child fare policy in the medium-term, with the introduction of RER and subject to Strategy 1D, or prior, depending on the results of the review of the impact from other GTHA systems noted above.

Strategy 4D: Discount Student Pass

Secondary school students offer a significant opportunity to encourage transit familiarity, increase ridership and establish travel patterns that may continue into post-secondary student and adult life. To maximize this opportunity, Burlington Transit, Council and the school boards within the City of Burlington are in the process of investigating a secondary student strategy. This strategy should include transit familiarization outreach for grade 7, 8 and/or 9 students and a discount secondary student pass. If the 'free child fare' program is extended to age 12, this student pass program should begin at age 13 (grade 7 students) for ease of administration and to ensure a continuous fare program during middle school years.

Ridership growth that occurs with these types of programs may also result in service improvements required to accommodate an increase in demand, particularly around school bell times. The ridership growth plan does account for increases in service frequency over the five year business plan (Strategy 1B), which should provide enough capacity to meet increased peak demands. If demand does exceed the planned increase in service, some strategies to off-set potential operating and capital cost increases include:

- a. Only allow free or discounted travel on weekends, holidays or after 4:00pm on weekdays (so that students do not use the service to go to/from school);
- b. Partner with school boards to receive partial funding for lost revenue;
- c. Work with the school board to ensure there is no reduction in yellow-school bus services without a corresponding increase in funding to support the student pass program; and/or
- d. Develop a formal booking process for formal school group excursions to ensure Burlington Transit is aware of these trips and that it occurs during periods or on routes where there is sufficient capacity to accommodate the trip.

This program will help to achieve Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.8 (Demand Management), by promoting long term behaviour change with younger transit users.

Recommendations:

- Implement a grade 9 transit outreach program in the short term to ensure transit literacy. If the free child fare program is extended to age 12, consideration should be made to extend this to grade 7 or 8.
- Further investigate a discounted or free middle and secondary student program, involving financial contributions from local school boards to cover a portion of predicted lost revenue. If the 'free child pass' program is extended to age 12, this program should be started for grade 7 students (13 years of age and older).
- Monitor program for a year-long period and extend to other grades for subsequent years.
- Partner with school boards to receive partial funding for lost revenue.

Strategy 4E: Employer Partnerships

Targeting employees that regularly commute represents a good opportunity to increase ridership on Burlington Transit. Employers that have standard office hours are typically located along key arterial corridors that have direct service, with start and end times that typically coincide with peak transit frequencies. Since service levels are high, the strategy for office employees is typically to target communications and marketing of the service and work with employers to offer an emergency ride home program if midday or evening service levels are not attractive.

Large industrial/warehousing employers, retail service employers and other employers located in areas not well serviced by Burlington Transit provide another employer partnership opportunity. These types of opportunities typically involve some degree of employer funding to provide more tailored service to meet employee requirements. This could include free or discounted transit passes, emergency ride home programs, and/or shuttle or on-demand services from transit hubs to work locations.

Burlington Transit staff time would be required to develop these programs and establish partnership with key employers. It is recommended that Burlington Transit staff first target a key employment area (e.g. the industrial area along Harvester Road) prior to developing a city-wide employer strategy.

This initiative aligns with Burlington Transit's Strategic Direction #3 (Be Business-Minded and aligned with municipal directions), particularly Objective 3.2 (Partnerships), by working with employers to generate mutually beneficial outcomes.

Recommendations:

- Explore opportunities for partnerships with employers and evaluate alternative service delivery models to provide service to employees (Strategy 2A). Target one employment area first for a year to assess level of effort relative to uptake and ridership growth.

- Look at whether regular service can be supplemented by on-demand alternatives during off-peak travel times and/or emergency ride home programs (see Strategy 2A and 2B).
- In the longer term, explore an Employee Pass Program that offers discounts on transit passes based on enrollment in the program.

Strategy 4G: Improve Coordination with Other City Departments

Transit's biggest asset is the land use and community design it operates in. Transit services that operate along mixed-use high density corridors with good connectivity to the places where people live, work and play offer the highest potential to grow ridership. In this way, transit and land use development are inexorably linked and therefore land use planning should always give strong consideration to transit needs, and vice versa. Ensuring the alignment of land use and transit will help create sustainable, mixed-use communities and also drive ridership by placing transit where residents and employees are located.

The City of Burlington has a number of plans to intensify around key transit corridors and mobility hubs. This is primarily focussed around the Burlington and Appleby GO Stations and the downtown terminal. In addition, the City of Burlington Official Plan (2018) identifies several corridors for mixed-use development and increased intensification. These include Brant Street south of Highway 407, the Plains Road and Fairview Street corridor and Appleby Line. The City is also currently conducting an Interim Control Bylaw review to assess the appropriate density and land use around downtown Burlington, the Burlington GO Station and the section of Brant Street connecting these two nodes.

Burlington Transit's growth should largely be focussed on these corridors, which aligns with the arterial focus of Strategy 1A. As recognised in Strategy 1A, access between transit stops and this increased development will be key to ensuring that the potential transit ridership growth is achieved.

While improved planning integration between land use, roadway planning and transit is unlikely to result in measurable ridership growth in the short-term, it will pay dividends as development patterns evolve over time.

Improved integration with land use planning is the core of Burlington Transit's Strategic Direction #2 (Be Forward-Thinking in how services are planned and delivered), particularly Objective 2.6 (Transit Oriented Development), as it facilitates better planning and delivery of transit services.

Recommendations:

- Play an active role in strategic land-use planning decisions, highlighting the need for high levels of pedestrian amenity and access to the arterial grid network.
- Continue to work with City of Burlington staff on the alignment of development, growth and employment areas with transit investment and service by reviewing development applications and secondary plans.
- Develop and formalize a Service Development Plan for Burlington Transit that outlines where service investment is expected in the future. This should be a living document that can help inform land use planning decisions to support transit.

Appendix A: Transit's Five-Year Business Plan Update

Report: TR-03-19

- Develop a proximity service standard with the City of Burlington's Planning and Development Department. This standard should define a five-year target from proximity to transit once the grid-network has been established and place to onus on the Planning and Development Department to achieve the target based on growth.
- Continue to work with Transportation Services Department to coordinate transit interests in roadway capital improvement programs (e.g. new stops, shelters, accessibility improvements, transit priority features).
- Work with Transportation Services Department as a key stakeholder in the Integrated Mobility Master Plan and identify strategies to help meet the transit mode share target.

To: Members of Burlington City Council/ Committee of the Whole

From: Councillor Paul Sharman

Cc: Tim Commisso, Mary Lou Tanner, Sue Connor, Vito Tolone, Lisa Palermo, Angela Morgan

Date: June 27, 2019

Re: Staff direction to explore alternative transit service delivery models including On-Demand Transit

Dear colleagues,

Recently at the Federation of Canadian Municipalities' Trade Show, I met Michael Roschlau, a former President of the Canadian Transit Association (CUTA), now strategic adviser in public transit and urban mobility with bus manufacturer, Grande West Transportation International.

Michael and I discussed the challenges associated with serving the City of Burlington with a traditional business model. When we discussed the possibilities of on-demand (OD) transit, he described the success experienced by Belleville, Ontario with OD transit, which has increased ridership by 300% as a result.

Michael sent the names of some companies that provide reputable software to facilitate OD. Accordingly, I asked staff if the City of Burlington might consider implementing OD Transit. It seems there is a willingness to do so.

Staff are in process of preparing both a Transportation Master Plan and a Transit Master Plan for consideration, however, I expect it would help staff to receive some determination of Council's interest on the subject of OD transit and what the relative benefits might be for Burlington.

My request is that Council receive a briefing or perhaps a mini workshop before we receive the Transportation and Transit Master Plans. Accordingly, here is the staff direction I propose, for your consideration and approval.

"Direct the Director of Transit to further explore the use of alternative service delivery models, including on-demand, as a replacement of certain fixed-routes and/or low-density areas and report back to Council with a briefing preferably by October 2019, followed by recommendations and a plan by December 2019."

Thank you for your consideration

Paul Sharman



SUBJECT: Tree removal report – 3061 Balmoral Ave

TO: Committee of the Whole

FROM: Roads, Parks and Forestry Department

Report Number: RPF-11-19

Wards Affected: 4

File Numbers: 820-02

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Approve the request by Structured Creations to remove one City-owned tree (31 cm Littleleaf Linden) from the City's road allowance at 283 Hart Ave to allow driveway access as part of development permit application GDCC-2019-050, received March 27, 2019; and

Instruct Structured Creations to provide compensation for the tree removal by providing cash in lieu of replacement totaling \$2,500.00. The approved appraisal method is Aggregate caliper.

Tree replacement will be a condition of a tree permit provided by Urban Forestry with a warranty of 2 years for replacements to be provided to the City, equivalent to the value of the replaced trees; and

Direct that all associated costs with respect to the removal of the tree will be the responsibility of Structured Creations, and the contractor hired to remove the tree will require approval by the Manager of Urban Forestry or designate.

Purpose:

Tree Removal Request

Background:

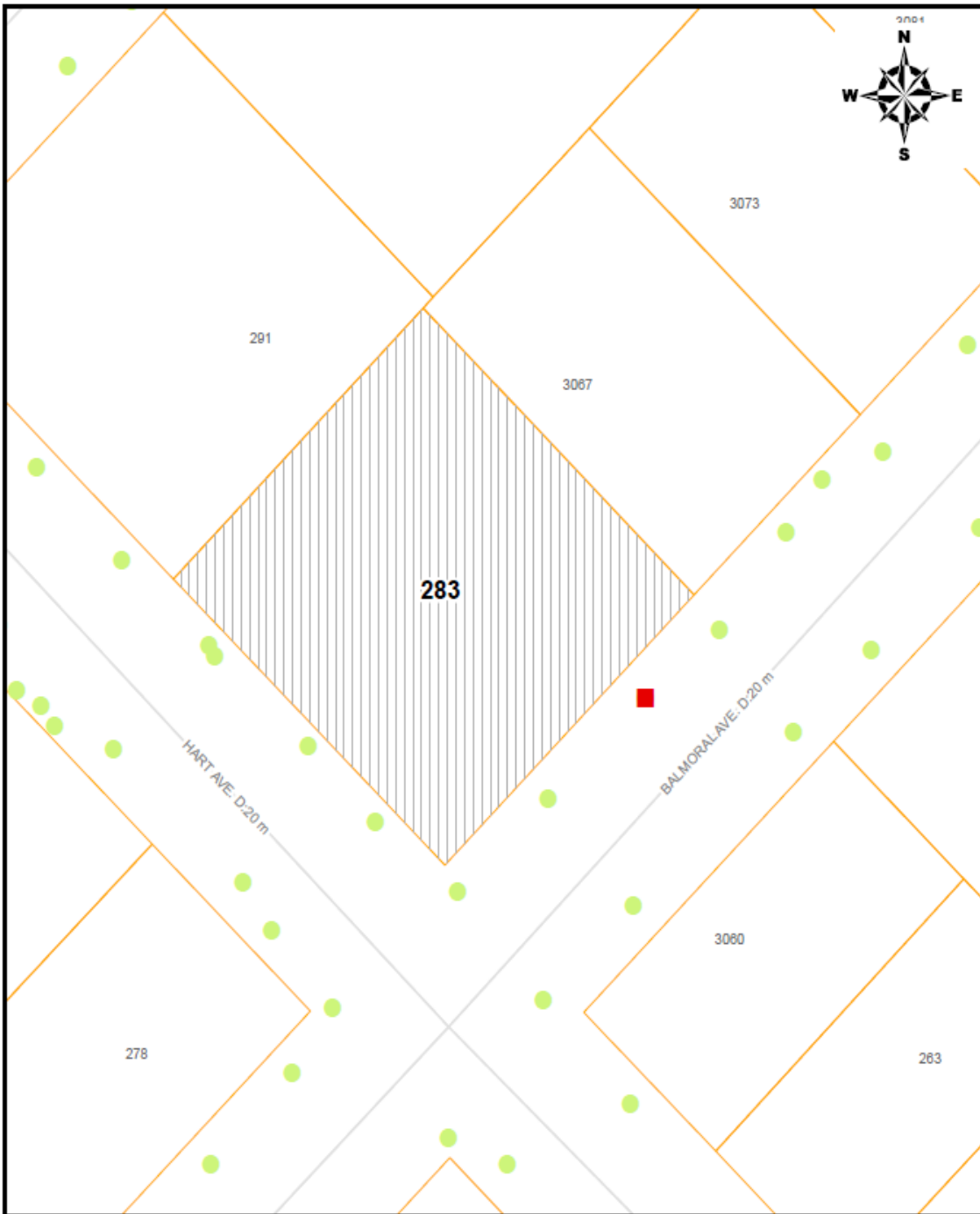
The subject property is currently known as 283 Hart Avenue, and is located at the north-westerly corner of the intersection of Hart Ave, and Balmoral Ave. (See Fig. 1). The applicant proposes to realign the driveway to front Balmoral Ave. There are currently 7 municipally owned trees fronting Hart and Balmoral Avenue: 5 are silver maples (*Acer saccharinum*), 2 are little leaf lindens (*Tilia cordata*).

On March 25th, 2019 (application received Dec. 19, 2018) the Committee of Adjustment approved a dwelling variance application (COA A-158/18). Site engineering received a development application (GDCC-2019-050) for the demolition of an existing residence and construction of a new residence at the subject property, including a realignment of the driveway March 27th, 2019. This application included a site plan of the proposed work, as well as an arborist report and tree preservation and removal plan for the site, dated January 11, 2019. An additional arborist report was commissioned by the applicant after a site meeting with City officials and submitted May 29th, 2019.

Given the application was filed with Committee of Adjustment Dec. 19th, 2018, this application pre-dates the roll out of the Pilot Private Tree Bylaw 43-2018 (March 1, 2019) and is therefore exempt of permit applications and compensation for private tree removals.

The site plan has been reviewed and based on the proposed site plan and arborist report, the City's little leaf linden must be removed to allow vehicular access from Balmoral to the new dwelling.

Figure 1: Subject Property. Red Square denotes tree to be removed.



283 Hart Ave

- City Linden Tree to be Removed
- City Trees
- ||||| Subject Site

The information contained herein is compiled from other documentation and may contain errors, omission or inaccuracies. The City of Burlington, its officers, employees and agents are not responsible for, and the users by accepting this document hereby waive as against the said City, its officers, employees, agents, any claim for damages arising from or in any way related to any errors, omissions, misrepresentation or inaccuracies contained in this document whether due to negligence or otherwise. Any user is advised to verify all information and assume all risk in relying on the information contained hereon.

Discussion:

1. Pursuant to Tree By-law 68-2013, Council approval is required to remove trees located on public property immediately abutting private property for which a development application has been submitted. Because of the proposed dwelling, one City tree will require removal in order to construct a driveway fronting Balmoral Ave.

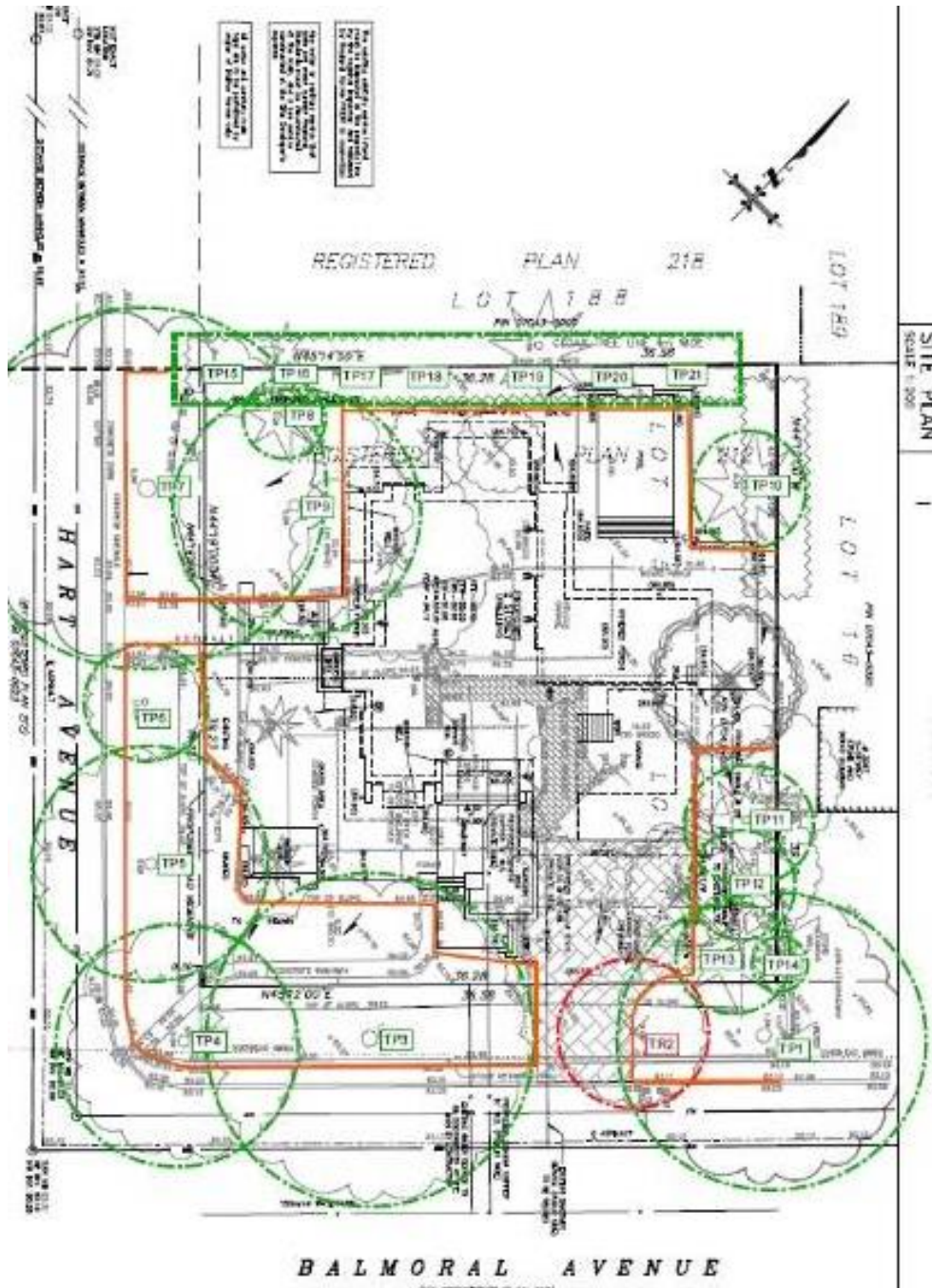


Figure 2: Proposed Development including Tree Preservation

2. The tree to be removed is a little leaf linden (*Tilia cordata*), measuring 31 cm at Diameter at Breast Height (DBH). The tree is in good health, with fair structural condition, with minor deadwood in the canopy, according to the arborist report and Tree Preservation Plan provided to the City by Structured Creations, prepared on May 29th, by ISA Certified Arborist Harry Althorpe of Arborwood Tree Service Inc.

A site meeting with the applicant was conducted by the City's Manager of Urban Forestry and Supervisor of Forest Planning & Health, who confirmed the siting of the proposed driveway was the best location to **preserve trees on both public and private property.**



Figure 3: Subject Tree, 31 cm little leaf linden (*Tilia Cordata*).

3. Monetary compensation in the amount of \$2,500.00 will be provided for the removal of the tree in accordance with the Public Tree By-law 68-2013 (Sections 1.18 & 1.19) which will contribute toward street tree planting efforts within the road allowance of the subject property, as recommended by the applicant. A replacement planting plan was provided by the applicant for consideration by the City's Forestry section.
4. The applicant has also provided a proposed tree replacement plan for the subject property, which includes the installation of four (4) caliper trees within the municipal road allowance, once construction is complete.
5. Replacement plantings shall be completed by the City's contractor, with species choice to be decided by City staff. The replacement trees are recommended to be no greater than 100 mm caliper

Options considered

During the site meeting, an alternative driveway location was discussed, from Hart Ave. which utilizes a portion of the existing driveway footprint but would need to be expanded within the minimum tree protection zone of a privately-owned red oak (*Quercus rubra*) with a 69 cm DBH, with good health and structural condition. The privately-owned tree would need to be removed in this scenario. **The preferred option is to preserve the larger oak tree in better overall condition, when the driveway location was considered.** Providing access to the proposed dwelling will necessitate the removal of one tree, and the decision was to impact the smaller, less healthy tree.

Financial Matters:

A total of \$2,500.00 will be required from Structured Creations to compensate for the removal of the tree. Costs of tree and stump removal will be borne entirely by the applicant.

Total Financial Impact

Not Applicable

Source of Funding

Not Applicable

Other Resource Impacts

Not Applicable

Public Engagement Matters:

The Manager of Urban Forestry has been in communication with Councillor Stolte's office on a number of occasions in reference to this site and has also communicated via email with the Roseland Community Organization.

Conclusion:

The City's Forestry section have reviewed the proposed tree removal and support the removal as per the recommendations listed above.

Respectfully submitted,

Steve Robinson

Manager, Urban Forestry

(905) 333-6166 ext. 6167

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.



SUBJECT: Tree removal report – 5209 Stonehaven Drive

TO: Committee of the Whole

FROM: Roads, Parks and Forestry Department

Report Number: RPF-12-19

Wards Affected: Ward 5

File Numbers: 820-02

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Approve the request by the IBI Group, acting on behalf of Mantella Corporation, to remove 3 City-owned trees (3 – honeylocust, *Gleditsia triacanthos 'inermis'*) from the City's road allowance at 5209 Stonehaven Drive as part of an ongoing Subdivision application, which received Draft Plan Approval September 24, 2018, received June 2018; and

Instruct IBI Group to provide compensation for the tree removal by providing cash in lieu of replacement totaling \$5,045.00. The approved appraisal method is Aggregate caliper; and

Direct that all associated costs with respect to the removal of the trees (including stump removal) will be the responsibility of IBI Group, and the contractor hired to remove the tree will require approval by the Manager of Urban Forestry or designate.

Purpose:

Tree Removal Request

Background:

The subject property is known as 5209 Stonehaven Drive, and is located on the north side of Stonehaven Drive, between Bird Blvd and John William Boich Parkette (See Figure 1). The applicant proposes to construct 10 detached dwellings fronting onto an extension of Bird Boulevard, and eight street townhouses fronting onto Stonehaven

Drive new residences on the vacant site. Several private and publicly owned trees have already been removed to facilitate the development of the proposed residential lots. The additional 3 removals are required to facilitate the construction of the primary road, underground infrastructure, as well as to construct a residence and driveway.

There are currently 4 municipal trees remaining in front of the subject property (3 municipally owned trees have already been removed).

On August 14, 2017, Site engineering received Plan of Subdivision and Zoning By-law Amendment applications (510-01/17 and 520-09/17) for the development of the subject property into residential dwellings. An arborist report and preservation plan was received at that time by IBI Group, (report completed by ISA certified arborist Zara Brown (ISA ON-2252A)).

The site plan has been reviewed and based on the proposed site plan and arborist report, the City's 3 trees must be removed to allow for infrastructure upgrades and site construction.

Discussion

1. Pursuant to Tree Bylaw 68-2013, Council approval is required to remove trees located on public property immediately abutting private property for which as development application has been submitted. Because of the proposed infrastructure, driveway, and residence locations, 3 City trees will require removal. Tree Locations are identified on the Vegetation Management Plan, Appendix 1.
2. The trees to be removed are as follows:

Species	(DBH)*	Overall Condition	Compensatory Value
honeylocust	16	Good	\$1,280.00
honeylocust	24	Good	\$2,280.00
honeylocust	18	Good	\$1,485.00

**DBH refers to Diameter at Breast Height (1.37 m above ground).*

3. Monetary compensation as cash in lieu of replacement in the amount of \$5,045.00 will be provided for the removal of the three trees in accordance with the Public Tree Bylaw 68-2013 (Sections 1.18 & 1.19) which will contribute toward street tree planting efforts within the road allowance of the subject property.

4. Replacement plantings shall be completed by the City's contractor, with species choice to be decided by the Manager of Urban Forestry or designate.

Options considered

Through consultation with IBI group, it was confirmed that there was no other alternative to align the roadway, underground infrastructure, and residential lots other than the submitted plan.

Financial Matters:

A total of \$5,045.00 shall be paid by the IBI Group as compensation for the loss of the tree. These funds will be utilized to replace the loss in canopy. Costs of tree and stump removal will be borne entirely by the applicant.

Total Financial Impact

None

Source of Funding

Not Applicable

Other Resource Impacts

Not Applicable

Public Engagement Matters:

The Supervisor of Forest Planning and Health and Manager of Urban Forestry have been in communication with the applicant as well as the Councillor's office via email correspondence.

Conclusion:

The City's Forestry section have reviewed the proposed tree removal and support the removal as per the recommendations listed above.

Respectfully submitted,

Steve Robinson

Manager, Urban Forestry

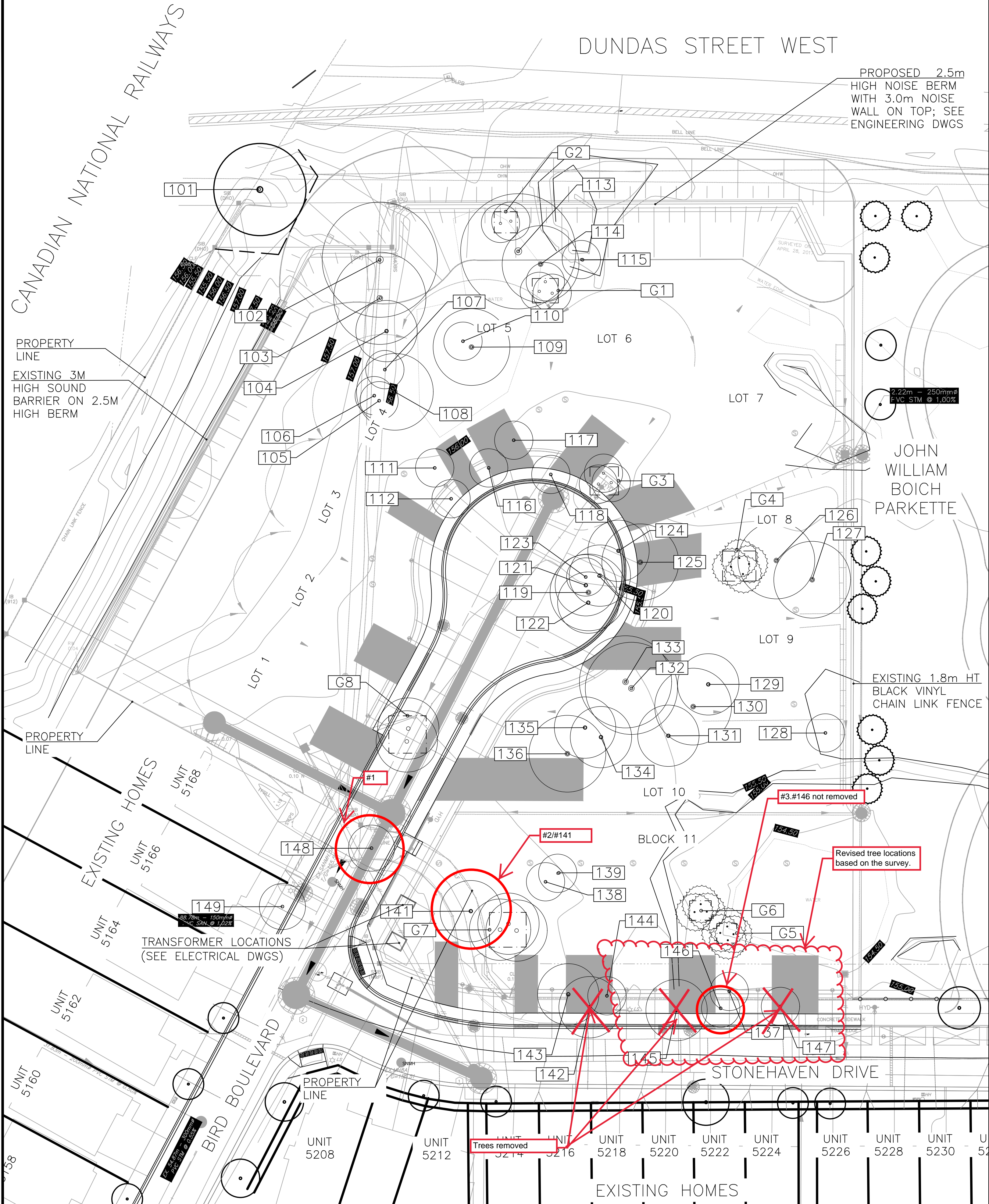
(905) 333-6166 ext. 6167

Appendices:

- A. Vegetation Management Plan
- B. Aggregate Caliper Replacement Appraisal

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.



EXISTING TREE IDENTIFICATION TABLE
D1 ON D-1

WHITE GATOR BOARD SIGN OR EQUIVALENT, SECURED TO ALL 4 SIDES OF TREE PROTECTION ZONE. MINIMUM 250 x 350mm; TEXT MAY VARY BUT MUST INCLUDE THE ILLUSTRATED TEXT AS A MINIMUM.

38x96 WOOD NAILER SECURED TO T-BAR AT 2400mm O.C. SECURED AT T-BAR USING 3.7mm DIA. GALVANIZED WIRE.

2000mm MIN. LENGTH STEEL T-BAR; SPACE AT 2400mm O.C. ATTACH 1200mm PAIGE WIRE FENCE TO 38x96 WOOD NAILER SECURED TO T-BAR.

DETAIL OF SIGN

DETAIL OF TOP OF T-BAR

TREE PROTECTION ZONE

TREE PROTECTION BARRIER AS PER COB SPEC SS-12

CRITICAL ROOT ZONE

300mm DEEP PRE-EXCAVATION SAW CUT

1000 min. PREFERRED

38x96 WOOD NAILER SECURED TO T-BAR AT 2400mm O.C. SECURED AT T-BAR USING 3.7mm DIA. GALVANIZED WIRE.

1200mm HIGH PAIGE WIRE FENCE COMPLETE WITH T-BARS INSTALLED AT 2400mm O.C.; SECURED AT T-BARS AS SHOWN.

STEEL T-BAR

EXISTING GRADE

800mm MIN.

Trunk Diameter (DBH) ²	Minimum Protection Distances Required ³	Critical Root Zone (CRZ) Distances Required ^{3&4}
<10 cm	1.8 m	1.8 m
11-40 cm	2.4 m	4.0 m
41-50 cm	3.0 m	5.0 m
51-60 cm	3.6 m	6.0 m
61-70 cm	4.2 m	7.0 m
71-80 cm	4.8 m	8.0 m
81-90 cm	5.4 m	9.0 m
91-100 + cm	6.0 m	10.0 m

NOTES:

- The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the drip line.
- Diameter at breast height (DBH) measurement of tree trunk taken at 1.4 metres above ground.
- Minimum Tree Protection Zone and Critical Root Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work and is subject to Section 6 of this specification.
- Where work is being performed beyond the Minimum Tree Protection Zone but within the Critical Root Zone the works are subject to Section 8 of City of Burlington Specification SS12A.

TREE PRESERVATION NOTES:

- ALL EXISTING TREES TO REMAIN ON SITE, OR ON ADJACENT PROPERTIES, SHALL BE TAGGED AND FULLY PROTECTED WITH FENCING BEYOND THEIR DRIPLINE TO THE SATISFACTION OF THE CITY. TREE PROTECTION ZONES MAY BE EXPANDED AS REQUIRED BASED ON THE SPECIES OF THE TREE. THESE BARRIERS ARE CREATED TO PROTECT THE ROOTS, TRUNKS AND BRANCHES DURING DEVELOPMENT, AS WELL AS THE UNDERSTOREY AND GROUNDCOVERS. SMALL LOT BY LOT TREE PROTECTION REQUIRES SNOW FENCING WITH METAL POST ENCLOSURES. LONG TERM DEVELOPMENT CONSTRUCTION REQUIRES SPECIAL PAIGE WIRE FENCING OR PLYWOOD TO A MINIMUM HEIGHT OF 1.2m.
- FENCES SHALL BE LOCATED AT A MINIMUM OF 0.5 TIMES THE CROWN RADIUS OF THE TREE FROM THE DRIPLINE, 360 DEGREES AROUND THE PERIMETER OF INDIVIDUAL OR CLUSTERED TREES.
- AREAS WITHIN THE TREE PROTECTION ZONE SHALL NOT BE USED FOR THE STORAGE OF BUILDING MATERIALS, STRUCTURES OR EQUIPMENT. THIS TREE PROTECTION ZONE SHALL BE COMPLETED PRIOR TO THE COMMENCEMENT OF SITE CLEARANCE, DEMOLITION, OR ANY TYPE OF CONSTRUCTION.
- SURPLUS SOIL, EQUIPMENT, VEHICLES, TOOLS, DEBRIS OR MATERIALS SHALL NOT BE PLACED OVER THE ROOT SYSTEMS OF THE TREES WITHIN THE TREE PROTECTION ZONE. NO CONTAMINANTS SHALL BE DUMPED OR FLUSHED WHERE FEEDER ROOTS OF TREES EXIST.
- TREE ROOTS TYPICALLY SPREAD WELL BEYOND THE DRIPLINE OF TREES, UP TO 3.5 TIMES THE DRIPLINE RADIUS, AND ARE LOCATED PREDOMINANTLY IN THE TOP 300M OF SOIL. AS THIS AREA IS NOT PROTECTED, ACTIVITY SHOULD BE KEPT TO A MINIMUM TO PREVENT ROOT DAMAGE AND SOIL COMPACTION. WHERE ROOT SYSTEMS OF TREES ARE EXPOSED OR DAMAGED BY CONSTRUCTION WORK, THE CITY MUST BE ADVISED FIRST BEFORE THE ROOTS ARE TRIMMED NEATLY AND THE AREA BACK-FILLED WITH TOPSOIL.
- EQUIPMENT SHALL NOT COMPACT SOIL OVER THE ROOT ZONE OF EXISTING TREES. TO AVOID DAMAGE TO TREES THAT AREA TO BE PROTECTED, ACCESS ROUTES MUST BE ESTABLISHED AWAY FROM PROTECTED AREAS. ALL ACCESS ROUTES REGARDLESS OF HOW TEMPORARY, MUST BE IDENTIFIED AND APPROVED BY THE CITY.
- WRITTEN PERMISSION MUST BE OBTAINED FROM THE CITY PRIOR TO COMMENCING WORK SUCH AS TUNNELING, TORPEDOING, DIGGING OR TRENCHING WITHIN THE DRIPLINE OF ANY TREE TO MINIMIZE ROOT INJURY AND AVOID SOIL COMPACTION.
- WHEREVER POSSIBLE AVOID CUTTING SURFACE ROOTS. DURING EXCAVATION IF ROOT CUTS ARE NECESSARY, IT SHOULD BE DONE QUICKLY, MAKING FLUSH CUTS WHILE SUPERVISED BY AN INSPECTING CITY FORESTRY REPRESENTATIVE. THE ROOTS SHALL BE BACKFILLED AND WATERED BEFORE THEY HAVE A CHANCE TO DRY OUT. WHERE ROOTS REQUIRE REMOVAL, THERE MAY BE A SUBSEQUENT DECLINE WITHIN THE TREE CANOPY. BRANCHES SHOULD ONLY BE REMOVED IF DIEBACK OCCURS.
- WHERE LIMBS OR PORTIONS OF TREES ARE DAMAGED OR MUST BE REMOVED FROM CITY OWNED TREES TO ACCOMMODATE CONSTRUCTION WORK, CITY FORESTRY PERSONNEL, IN ACCORDANCE WITH ACCEPTED ARBORICULTURE PRACTICES, WILL REMOVE THEM. MEASURES SHALL BE TAKEN TO PREVENT ANY FURTHER DAMAGE.
- UNLESS AUTHORIZED, ALL INDIVIDUALS SHALL AVOID DISTURBING ORIGINAL GRADES AROUND TREES IN AREAS OF THE TREE PROTECTION ZONE. IN ADDITION, ROAD GRADES SHOULD MATCH TOPOGRAPHY AT THE CURB LINES TO MAXIMIZE TREE RETENTION IN BOULEVARD AND FRONT YARDS. IF GRADES AROUND PROTECTED TREES ARE LIKELY TO CHANGE, THE DEVELOPER AND THEIR AGENTS SHALL BE REQUIRED TO TAKE SUCH PRECAUTIONS AS DRY WELLING, RETAINING WALLS AND ROOT FEEDING TO THE SATISFACTION OF THE CITY.
- NO CABLES, ROPES SHALL BE WRAPPED AROUND OR INSTALLED IN OR ON ANY TREE THAT IS TO REMAIN AFTER CONSTRUCTION. NOR SHALL IT HAVE SIGNS OR FENCES NAILED TO IT, OR SURVEY MARKINGS OR PAINT APPLIED TO IT.
- ALL VEGETATION WITHIN THE TREE PROTECTION ZONE, INCLUDING TREES, SHRUBS, GRASSES ARE TO BE WATERED, AND MAINTAINED TO AN ACCEPTABLE LEVEL AS REQUIRED.
- THE CITY SHALL BE NOTIFIED TO INSPECT ALL TREE PROTECTION ZONES. THESE MEASURES SHALL REMAIN IN EFFECT UNTIL THE COMPLETION OF THE WORK, AT WHICH TIME AUTHORIZATION FROM THE CITY MUST BE OBTAINED BEFORE REMOVAL.
- THE CITY MUST BE NOTIFIED IMMEDIATELY WHEN ANY MUNICIPALLY OWNED TREE IS INJURED OR DESTROYED DURING CONSTRUCTION OR DEVELOPMENT.

LEGEND

- EX. DECIDUOUS TREE TO REMAIN
- EX. DECIDUOUS TREE TO BE REMOVED
- EX. CONIFEROUS TREE TO BE REMOVED
- TEMPORARY TREE PROTECTION FENCING D1 ON L-1

Appendix A

REGIONAL DESIGN OF WATER &/OR WASTEWATER SERVICES APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATION APPROVAL FROM LOCAL MUNICIPALITY.

LEGISLATIVE AND PLANNING SERVICES

DATE

LEGEND

DESIGN D. MIS CHECKED DATE MAY 2017

SCALE 1:300

APPROVALS

MUNICIPAL

EXECUTIVE DIRECTOR OF CAPITAL WORKS

DATE

STAMP

ASSOCIATION OF LANDRAVERS

IBI GROUP

200 East Wing-360 James Street North

Hamilton ON L8L 1H5 Canada

tel 905 546 1010 fax 905 546 1011

ibigroup.com

REGIONAL MUNICIPALITY OF HALTON

CITY OF Burlington

5209 STONEHAVEN DRIVE

MANTELLA CORPORATION

VEGETATION MANAGEMENT PLAN

MUNICIPAL DRAWING NO. REGION OF HALTON FILE NO.: 24T-17001/DB-1011

MUNICIPAL FILE NO. 510-01/17 SHEET 17 OF 19

Site:	5209 Stonehaven Dr
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Existing Tree Information						Replacement Tree Information		Condition Factors		
Tree Number	Common Name	DBH (cm)	Condition Rating (%)		Comments	# of 50 mm trees required	Prelim tree security Value	Avg Condition Rating (Health & Structure)	Construction Risk Factor (see below)	Security Value
			Health	Structure						
1	Honey Locust	16	80%	80%	epicormic, damage to root flare on v	3	\$ 1,600.00	80%	100%	\$ 1,280.00
2	Honey Locust	24	95%	95%		5	\$ 2,400.00	95%	100%	\$ 2,280.00
3	Honey Locust	18	80%	85%	buried, epicormic	4	\$ 1,800.00	83%	100%	\$ 1,485.00
5		0	0%	0%		0	\$ -	0%	0%	\$ -
6		0	0%	0%		0	\$ -	0%	0%	\$ -
7		0	0%	0%		0	\$ -	0%	0%	\$ -
8		0	0%	0%		0	\$ -	0%	0%	\$ -
9		0	0%	0%		0	\$ -	0%	0%	\$ -
10		0	0%	0%		0	\$ -	0%	0%	\$ -

\$ 5,100.00

Security Calculation: (Aggregate Caliper Formula)

1. DBH / 5cm = # of trees req. to replace

2. # of trees req. to replace X \$500 (cost of replacement) = Preliminary Security Value

3. Preliminary Security Value X Condition of Tree Factor X Risk Factor = Final Tree Security Value

Tree Condition Considerations

Based on Tree Condition Assessment in GIS Inventory and Observations during Site Visit

Rating: Factor:

Excellent 90-100%

Good 70-89%

Fair 50-69%

Poor 25-49%

Very Poor 0-24%

*Security is rounded to the nearest \$100.

**Security Spreadsheet used at risk 100% for removals.

Construction Risk to Trees

Construction risk to trees is assessed by considering the following on a site by site basis: materials storage, existing and proposed utility and services installation, proposed grading, other impacts on critical root zone or the minimum tree protection zone.

Low Risk Factor (0-25% of Assessed Value):

- No work inside TPZ or CRZ (including grading, excavation, servicing, etc);
- No risk from construction traffic in CRZ;
- Hoarding shown on plan and installed as per SS12.
- Sliding scale based on proximity of tree (TPZ and CRZ) to construction area.

Medium Risk Factor (26-50% of Assessed Value):

- No work inside TPZ (including grading, excavation, servicing, etc);
- Minimal work occurring within the CRZ (impacting less than 10% of the CRZ area, including grading, excavation, servicing, etc)*;
- Risk from construction traffic/works within CRZ*;
- Hoarding shown on plan and installed as per SS12.

Medium-High Risk Factor (51-75% of Assessed Value):

- No work inside TPZ (including grading, excavation, servicing, etc);
- Work occurring within CRZ (impacting more than 10% of the CRZ including grading, excavation, servicing, etc)*;
- Risk from construction traffic/works within CRZ*;
- Arborist report not required but provided;
- Hoarding shown on plan and installed as per SS12.

High Risk Factor (76-100% of Assessed Value):

- Work inside TPZ (including grading, excavation, servicing, etc; only occurring under supervision of qualified ISA Certified Arborist
- Risk from construction traffic/works within TPZ and CRZ*;
- Arborist report required and provided;
- Hoarding shown on plan and installed outside of SS12 specification, with confirmation from City Arborist or Applicant's Certified Arborist.

*Risk can be reduced through use of mitigating actions (eg. Greater tree hoarding area to encompass remaining CRZ; Pre-Construction Root Pruning in the CRZ performed under the supervision of a Certified Arborist; Providing 2-4" of mulch placed on a geotextile sheet to protect soils in the CRZ from compaction caused by construction equipment and material

CRZ – Critical Root Zone

MTPZ – Minimum Tree Protection Zone

- Please refer to the City of Burlington Tree Protection and Preservation Specification SS12A, available on-line for further information and tree protection requirements.

- Please refer to the City of Burlington Public Tree Bylaw 68-2013 for further information on your responsibility to protect city trees.



SUBJECT: Enterprise risk – labour market

TO: Committee of the Whole

FROM: Human Resources Department

Report Number: HR-02-19

Wards Affected: Not Applicable

File Numbers: 301-01

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Receive and file human resources department report HR-02-19 regarding enterprise risk – labour market.

Purpose:

- An Engaging City
- Good Governance

Background and Discussion:

With Council in the process of finalizing the 2018 to 2022 workplan, focus is on the implementation of many strategic initiatives by the Burlington Leadership Team (BLT) through the development of performance measures and completion by dates. These are all vital steps to ensure the successful execution of the plan however, in addition to goals, resources, and budgets, we also must consider the staff team who will execute the strategy.

A well-known quote from management consultant Peter Drucker states “Culture eats strategy for breakfast” - a simple yet powerful statement. What this means is that while targets and performance measurements have been identified, it is workplace culture and focused leadership that will drive the execution of strategy. Culture will either strengthen or undermine our ability to attract and retain quality employees to execute this strategy.

Therefore, the purpose of this report is to review those attributes which make up a healthy workplace culture; identify risks to our own culture; and map out the steps required to move forward.

What is Culture?

Culture is described as:

- The critical organizational element that will attract talent, drive engagement, impact satisfaction and affect performance
- The personality of the business;
- The City's employment brand;
- The sum of its values, traditions, beliefs, interactions, behaviour and attitudes;

Simply put – culture is the difference between having a performance driven, highly engaged organization which executes ongoing strategy and an organization where goals are set, targets are generally met, and staff are performing satisfactorily overall.

The following seven attributes define those areas that influence a workplace culture. For more specific examples as to what falls under each category, please refer to Appendix A:



What does our data tell us about our workplace culture?

The following data is provided to assess our current workforce strengths and risks with regards to our ability to deliver Council's priorities.

1. Culture Survey 2016:

In 2016 the City conducted its first Culture Survey. While the results are now three years old, the following were the high and low scores at that moment in time:

High scores:

- Planning the work is ongoing and involves everyone in the process to some degree;
- There is an ethical code of conduct that guides our behaviour and tells us right from wrong;
- Teamwork is used to get work done, rather than relying on orders from management
- There is continuous investment in the skills of employees
- Public input directly influences our decisions.

Low scores:

- Leadership has clearly communicated objectives we are trying to accomplish;
- There is a clear and consistent management style, so employees know what to expect;
- There is a clear and consistent culture;
- We continuously track our progress against our stated goals;
- Our people are viewed as an important source of our competitive advantage.

When the results were further analyzed, it became apparent that communication within the organization diminishes between hierarchical levels. Specifically, between the Burlington Leadership Team and the Supervisors/Manager level and then between the Supervisors/Managers level and their direct reports.

In response to the 2016 survey four employee teams were setup to identify and execute projects/programs to improve our results. Specifically, the teams organized themselves around the following themes and have been developing and implementing programs to address our survey results and improve our culture:

- **Innovation**
- **Staff Investment**
- **Organization Values**
- **Communication**

2. Turnover

Turnover is a simple retention measure. Over the past decade voluntary turnover has remained consistent between 4.2% to 5.7%. Voluntary turnover includes those staff who have quit or retired to date. From the results below, we are trending to a much higher voluntary turnover in 2019 – closer to 10%. The graph below shows full year voluntary turnover for 2017 and 2018 and up to May 31st for 2019.

	2017		2018		2019
	Jan-May	All Year	Jan-May	All Year	Jan-May
Quits	11	23	14	32	30
Retirements	10	28	9	20	18

It is important to know why we are experiencing higher turnover. When voluntary turnover for the past two and a half years was reviewed, compensation came out clearly as the most significant factor.

	Number of quits mentioning compensation as a reason for leaving	% of total employee quits
2017 (full year)	11 of 23	48%
2018 (full year)	16 of 32	50%
2019 (till May 31 st)	23 of 30	76%

Examples of other reasons provided for employees leaving varied and include promotions, job closer to home, position not the right fit and supervision to name a few.

3. Difficult to Fill Positions

A review was also completed of the positions which were advertised externally in the marketplace from the perspective of how difficult it was to fill these roles. Difficult to fill positions can occur for several reasons including compensation, not attracting qualified candidates, and being turned down by first candidates and having to offer to second or third choices. Difficult to fill positions are in both the non-union and the unionized workforce except for the unionized fire employees. For example, in our Legal Department, the position of Solicitor was advertised, our offer was turned down, even after considerable negotiation, and we have now employed an outside agency to assist in sourcing appropriate candidates.

	Number of External Postings (full-time and contract)	Number of Difficult to Fill Positions	%
2017	57	22	39%
2018	92	32	35%
2019	63 (till May 31st)	15	24%

4. Retirement Outlook

A forecasting report has been obtained from OMERS to assist us identify who can retire with an unreduced pension up to 2023. This data assists us with our Succession Management Program and will provide another view of our current employee retention risk.

Currently there are 185 employees who can retire with an unreduced pension by 2023. This represents 20% of the city's full-time workforce. Of the 185, 36% are people leaders while 64% are individual contributors.

Following is a yearly breakdown of our retirement outlook:

	2019	2020	2021	2022	2023
People Leaders	31	13	10	6	6
Individual Contributors	52	16	17	18	16

5. Non-Union Compensation – Market Review

In May of this year a non-union compensation analysis was conducted by Mercer - a copy of their results is contained in Confidential Appendix B and a summary of the results are as follows:

- Most private companies align themselves with a market position of the 50th percentile – however in the highly competitive GTA, public sector employers align with the 60th to 75th percentile to compete for employee resources.
- The City's current Council approved market position is the 65th percentile however our recently surveyed actual job rates are now aligned with the 50th percentile.

- To realign with the 65th percentile, job rates will have to be increased by approximately 3% to 8%.
- Our market competitiveness varies across the salary grades and this is likely an indication of challenges with our job evaluation system, which was developed in the 1980's, not being reflective of current workplace requirements and expectations.

While a survey has not been conducted with unionized salaries, we are experiencing similar compensation issues within our workforce represented by CUPE, especially as it relates to neighboring municipalities i.e. Oakville, and Hamilton.

6. Additional Initiatives:

Following are examples of projects and initiatives that are either in process or that have been implemented which positively impact our culture:

Corporate Culture Area	Examples of Completed and In-Progress Culture Activities
Leadership	<ul style="list-style-type: none"> • Mohawk Future Ready Leadership Program. • DeGroote Leadership Development Program • Launch of Succession Management Program • Review of the role and the function of BLT • Introduction of Leadership Competencies
Management	<ul style="list-style-type: none"> • Introduction of Mobile Workforce guidelines • Discontinuation of performance appraisal form and the introduction of Coaching and People Leader Training for the setting and management of performance expectations
Workplace Practices	<ul style="list-style-type: none"> • Introduction of BRAVOS Awards • Realignment of Performance Excellence Program and Service Awards • Focus Area 5.7 of Council's workplan: Complete an assessment of salary competitiveness and implement recommendations.
Mission Vision Values	<ul style="list-style-type: none"> • Approval of "Vision to Focus" workplan to identify corporate priorities and related strategic actions for next four years. • Development and launch of Organization Values.
Policies/Philosophies	<ul style="list-style-type: none"> • Addition of a Diversity and Inclusion strategy into Council's four-year workplan – Focus Area 5.8.

	<ul style="list-style-type: none"> • Restating the Dress Code policy to the more flexible “Dress for Your Day” guidelines.
Work Environment	<ul style="list-style-type: none"> • Corporate Accommodation study and implementation • Health and Safety Standards implementation • ITS Strategy implementation • Implementation of ERP – process transformation for all human capital management, financial and payroll practices. • Staff BBQ and holiday gathering
Communication	<ul style="list-style-type: none"> • The development and communication of Council’s four-year workplan identifying action, projects and initiatives with measurements. • Development of the BI tool to use dashboards to track progress and communicate with the community and employees.

Strategy/process

The City of Burlington has been and will continue to be a great employer however, we are exposed to considerable human resource risks. To deliver council’s workplan and to build upon our employment brand, we need to put a conscious effort into strengthening our workplace culture. We are experiencing workforce pressures not previously felt, pressures which will require targeted action to be able to retain engaged and skilled staff and to compete in the marketplace for qualified staff. We need to deliver on Council’s priorities through strategic focus and execution. Our Enterprise Risk Registry has identified our workforce as the number one risk facing this organization and the data outlined above supports this position on the registry. We are now starting to feel significant attraction and retention pressures which will impact our culture and therefore our ability and internal capacity to deliver the workplan. To address these pressures the following next steps have been identified:

1. Focus on Strategic Management

Priorities and accountability for delivery of Council’s workplan have been clearly identified and assigned to members of BLT. A review of the corporate structure, one which will assist the City Manager to strategically transition the organization into a more flexible twenty-first century organization, will occur over the next few months. In

addition, the City Manager, in keeping with the direction approved by Council during the 2019 budget, is completing the realignment of the City Manager's Office to address the overall strategic management capability of the organization. The goal of this review is to ensure our structure is aligned to retain highly skilled staff and to attract new talent entering the workforce. In support of this goal, a review of the role of the Burlington Leadership Team is also underway.

2. Culture Survey 2019

Complete a second culture survey in the Fall of 2019. A comparison of 2016 to 2019 results will assist us in determining where there are further gaps so that we can target additional efforts in those areas.

3. Diversity and Inclusivity Strategy

As identified in Council's workplan Focus Area 5.8, work will begin on a Diversity and Inclusivity strategy and implementation plan for execution over Council's term. Expanding our recruitment channels, ensuring the culture within the workplace is open, and welcoming to all and is reflective of our community will strengthen the City as an employer now and well into the future.

4. Non-Union Compensation System

While this report has provided some information about the city's current competitiveness to the marketplace, a follow-up report with detailed compensation system recommendations and potential cost impacts will be brought to Council in the early fall. The following items will need to be considered and approved by council in this follow-up report:

- The City's competitive market position;
- Appropriate municipal comparators; and
- Development and implementation of a new job evaluation system.

In the meantime, the leadership team will be considering where temporary market premiums are required to retain highly skilled or at-risk employees and implementing these premiums as appropriate.

5. Please refer to Confidential Appendix C

Financial Matters:

Not applicable

Conclusion:

It is important to appropriately align the City's resources, both budgets and staff, to ensure the successful execution of Council's workplan. This report outlines the human resource and workforce pressures we are currently experiencing which puts at risk our ability to successfully implement Council's workplan.

Respectfully submitted,

Laura Boyd

Director of Human Resources

Ext. 7631

Appendices: (if none delete section)

- A. Workplace Culture Attributes
- B. Confidential Mercer – Non-Union Compensation Executive Summary
- C. Confidential Strategy 5

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

HR-2-19 Appendix A – Examples of Workplace Culture Attributes

Mission, Vision, Values	<ul style="list-style-type: none"> • Does workplace behaviour reflect the values? • How are values reinforced through other practices? • Clarity • Priority setting • Transparency 	Leadership	<ul style="list-style-type: none"> • Do they inspire? • What do they celebrate and recognize? • Vision for the future. • What are their expectations? • The stories they tell. • The decisions they make. • Beliefs and perceptions, they reinforce • Respectful interactions • The extent to which they are trusted.
Management	<ul style="list-style-type: none"> • Organizational Design • Degree to which management empowers employees to make decisions • Degree to which managers interact with staff. • Controls • Measurement • Goals setting 	Workplace Practices	<ul style="list-style-type: none"> • Practices that relate to: <ul style="list-style-type: none"> • Selection • Recruitment channels • On-boarding • Compensation • Benefits • Training and development • Promotions • Wellness • Traditions • Safety • Attendance • Do practices attract the generation entering the workforce?
Policies/Philosophies	<ul style="list-style-type: none"> • Diversity and inclusion • Code of conduct • Hiring from within • Compensation philosophy • Dress code 	Work Environment	<ul style="list-style-type: none"> • Physical environment • Safety • Technology
Communication	<ul style="list-style-type: none"> • Frequency • Transparency • Timing • Between layers within the organization 		



SUBJECT: 2020 Budget framework

TO: Committee of the Whole

FROM: Finance Department

Report Number: F-28-19

Wards Affected: All

File Numbers: 435-03

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Receive and file finance department report F-28-19 regarding the 2020 budget framework.

Purpose:

- An Engaging City
- Good Governance

Background and Discussion:

This report provides Council with the parameters on which staff will prepare the 2020 budget. The framework presented in this report will outline principles that have been recognized by Council as important policy decisions, as well as highlight budget drivers that will impact the 2020 budget.

In November 2012, Council approved the City of Burlington's Long-Term Financial Plan which outlined strategic objectives and policies to ensure financial sustainability and responsible financial management. In May 2017, the Asset Management Financing Plan maintained the recommended increases to the dedicated infrastructure renewal levy.

On this same agenda is the 2019 Financial Condition Assessment report which provides a recommendation to enhance existing financial policies to continue to ensure fiscal sustainability and maintain flexibility to address changing conditions.

Council has also recently reviewed the draft Vision to Focus 4-year Workplan (CM-06-19). Work is currently underway to develop a related financing plan for these initiatives which will be brought forward this fall.

The 2020 budget will align with the objectives and updated policies of these reports, as they represent important and prudent policy decisions of this council.

In addition, in February 2019, Council received the 20-Year Simulation of Forecasted Budget Drivers (F-03-19), which provided a high-level overview of major budget drivers and expected future tax rate impacts. Inherent in the annual operating budget process are the normal pressures of inflation, growth, fluctuating revenues, as well as infrastructure renewal costs.

The 20-year simulation presented to Council in February 2019 (updated to reflect the 2019 Approved Budget) is attached for your reference as Appendix A, to provide a forward-looking outlook on the city's budget impacts. Since the 2019 budget approval, minor adjustments have been made to estimates resulting in a forecasted city tax increase of 4.27% for 2020. As part of the 2020 budget development process staff will continue to look for opportunities to mitigate increases where possible.

Increases beyond inflationary pressures will be presented as separate business cases which will include commentary as to how the requested change is the result of one or more of the following items:

- 4-year Workplan (From Vision to Focus)
- A new regulation or change in legislation
- An operating impact from the implementation of a capital project
- An enhancement to a service

Related reports:

F-29-19: 2019 Financial Condition Assessment
CM-06-19: 2018-2022 Burlington's Plan: From Vision to Focus
F-03-19: 20-Year Simulation of Forecasted Budget Drivers
F-12-17 2016 Asset Management Financing Plan
F-22-12: The City of Burlington Long Term Financial Plan

Strategy/process

Redesign of the Budget

During the approval of the 2019 Budget the following staff direction was passed:

“Direct the Director of Finance to schedule a committee workshop focusing on how to retool, rethink and reinvent the capital and operating budget process, management and delivery.”

Process

Some of the concerns raised by Council was that the existing budget review process was challenging as budget related information was presented in three different documents (Operating Budget Book, Capital Budget Book, and Service Business Plan Book). In addition, decisions that impacted both capital and operating expenses were reviewed and approved at different times. As an example, a decision to expand Transit service would require the approval of additional buses in the Capital Budget and additional Transit Operators in the Operating Budget.

Staff conducted a review of budget processes internally as well as from other municipalities. In many municipalities it is common practice to present annual budgets as a consolidated document of operating and capital. For those municipalities that present their budgets in a service-based perspective they also typically include Service Business Plans in the same document. For the 2020 Budget Process Staff are recommending that we follow a similar approach with the consolidation of Business Plans, Operating and Capital Budgets.

The operating budget will continue to be presented in a service-based format with two years history for comparison. Historically City Services were grouped into Service Categories. These groupings were generally based on keeping services aligned with similar functions together. As an example, all maintenance services were grouped into a Maintenance Service Category.

We are proposing that the existing Service budgets be realigned to more closely follow the City's Strategic Plan. By doing so we will be better positioned to demonstrate how investments made by the city deliver on key initiatives in the 4-year workplan and overall Strategic Plan.

The capital budget will continue to remain a 10-year program, with projects further categorized as new / enhanced, renewal, or growth infrastructure. However, capital

projects will now be grouped under the respective realigned Service Categories they support. This will result in a more refined and customer focused approach to budgeting.

Budget Pressures

Tax Supported Capital Funding

As part of the 2019 Budget, \$929,000 of tax supported capital funding was removed to mitigate the 2019 tax increase. This results in a \$9.3 million reduction to the financing guidelines provided to the 2020-2029 capital program.

Transit Funding

Provincial Gas Tax

In 2017, the province announced the doubling of the gas tax from the current 2 cents per litre to 4 cents per litre. It was projected to increase to 2.5 cents per litre in 2019-20, 3 cents in 2020-21 and 4 cents in 2021-22.

This planned increase was cancelled in April as part of the 2019 Provincial Budget. Under the current 2 cents per litre program the city receives approximately \$2.2 million of annual funding from Provincial Gas Tax. Over the 10-year capital program based on the former planned increases this would have amounted to an additional \$19.25 million of revenue to fund transit priority projects.

Public Transit Infrastructure Fund

Under the Investing in Canada Infrastructure Program the Federal and Provincial government signed an Integrated Bilateral Agreement with \$8.3 billion of funding from the Federal Government and \$7.3 billion in Provincial funding for public transit projects over 10 years. Costs of eligible projects under the program were to be shared as follows:

- Federal – up to 40%
- Province – up to 33 %
- Municipalities – up to 27%

In March 2019, the Province announced the first intake of the public transit stream of \$1.62 billion over 10 years in joint provincial and federal funding. This allocation was for municipalities outside of the GTHA.

There has been no word yet on an intake for municipalities within the GTHA. The Mayor will be meeting with our local MPP to determine the status of the infrastructure funding program as it relates to the City of Burlington. The Federal Election on October 21, 2019 may further delay a second intake process. Finance staff is working with the City's government relations team to monitor this program.

Development Related

- Bill 108 Impacts (More Homes, More Choice Act, 2019 passed and received Royal Assent on June 6, 2019)

As noted in report CM-11-19 there are significant financial implications to the City as a result of the Bill 108, however it is difficult to quantify the full extent of the impacts at this time given the limited information available in the legislation and lack of clarity currently provided. At a high level there will be financial implications resulting in the following areas at minimum:

- Administrative costs, changes in technology, and appraisal costs for land values
 - Increased use of debt financing for growth infrastructure, impacting the city's debt capacity and the DC quantum
 - Changes to the collection of the Community Benefit Charge (CBC) that cannot be predicted or forecasted
 - Increased exemptions will result in increased costs to the taxpayer to the growth-related cost
 - Reduced funding available for community needs for "soft services" such as parks, recreations centres and libraries as a result of their exclusion from the DCs and dependent on the calculation of the CBC
- Development Charges (DC)
The city has recently approved a new Development Charges By-law which came into effect on June 1, 2019. The growth-related capital infrastructure included in the 2019 DC Background study will be identified for inclusion in the 2020 Budget and Forecast.

Spending of development charges is based on the City's policy that expenditures in any year do not exceed the uncommitted balance in the reserve fund at the end of the preceding year.

Development Charge revenues received to date in 2019 have been considerably less than prior years. This may be a result of delays in development due to Bill 108. Staff will continue to closely monitor this revenue source and related implications.

- **Park Dedication**

Bill 108 consolidates funding of parkland dedication, public benefits through density as well as soft services (parks and recreation and library services) currently financed through development charges into a Community Benefits Charge. It is very difficult to determine the full impact of the change and creates uncertainty in forecasting funding for growth.

- **Assessment Growth**

The weighted assessment growth for the 2020 budget is estimated to be 0.6% which provides approximately \$1 million of additional revenue to offset inflation and growth-related costs in the base budget.

Over the past 4 years, assessment growth has ranged from a high of 1.16% to a low of 0.15% for an average of 0.59%.

Year	Assessment Growth
2016	1.16%
2017	0.15%
2018	0.41%
2019	0.64%
2016-2019 Average	0.59%

Budget Timelines

Budget timelines have been compressed from last year as part of the retool, rethink, reinvent the process, management and delivery of the budget. Both the Operating and Capital Proposed Budgets will be presented in a consolidated document to Committee in November 2019. It is anticipated that budget review will occur in December allowing both budgets to be approved by Council before year-end.

Below is a brief timeline of the 2020 budget process.

- COW - Budget Overview November 4, 2019
- 2020 Budget Telephone Townhall November 19, 2019 (TBC)
- Council Budget Information Session Mid – November 2019
- COW – Budget Review & Approval December 10 & 12, 2019
- Council - Budget Approval December 16, 2019

Financial Matters:

Staff will prepare the 2020 budget on the framework presented above, representing the city's long-term financial plan, and the important policy decisions of this council.

The following table outlines the forecasted tax increase for 2020:

	20 Year Simulation (Appendix A)	Forecasted City Tax Increase
Base Budget*	1.75%	1.75%
Infrastructure	1.25%	1.25%
Sub-total	3.0%	3.0%
"Net" Service Enhancements	1.27%	1.0%
Total City Increase	4.27%	4.0%
Estimated Overall Increase	2.67%	2.45%

* Includes estimated assesment growth of 0.6%

For 2018, the Toronto 12-month CPI average was 2.54%

Staff will be working closely with Services during the development of the 2020 budget to mitigate the simulated 4.27% city increase (2.67% overall).

To do this, budget targets have been established which will require \$1 million of efficiencies to be found.

On May 21, 2019 the province announced the creation of the Audit & Accountability Fund for municipalities interested in conducting service delivery expenditure reviews with the goal of finding efficiencies. Council approved the city applying to the province for funding the following service / sub-service reviews:

- corporate fleet
- leaf collection
- winter maintenance
- prebuilding permit development approval process

This process will assist us in realizing efficiency savings.

With \$1 million of efficiencies realized the overall tax increase may be mitigated below inflation of 2.5%. Should these savings not be able to be fully realized then the number of forecasted service enhancements will need to be reduced.

The chart below highlights the historical results of Council's comprehensive budget deliberations at both the City and the Region;

Year	City* Tax Increase	Total (City, Region, Education)
2011	0.91%	0.94%
2012	3.29%	1.79%
2013	4.46%	1.81%
2014	3.50%	1.49%
2015	3.64%	2.08%
2016	3.14%	2.01%
2017	4.42%	2.60%
2018	4.36%	2.64%
2019	2.99%	1.96%
4-yr Avg.	3.73%	2.30%
9-yr Avg.	3.41%	1.92%

Over the last four years the average city tax change is 3.73% and the overall tax change is 2.30%. For the last nine years the city tax change is 3.41% with an overall tax rate change of 1.92%.

Connections to City Plans

Staff will ensure the 2020 Budget development is aligned to the strategic initiatives within the Vision to Focus 4-year Workplan.

As well, staff will ensure that the objectives of the city's Asset Management Plan are being adhered to during the development of the 2020 budget.

Public Engagement Matters:

The city will continue to use existing online engagement tools such as survey opportunities. The results of all public engagement will be reported back to Council in advance of the budget review process. Similar to prior years, a telephone townhall will be scheduled in the fall. Finance staff are also available to attend Councillor Ward meetings where requested. The Open Book platform will also be used again to display the budget and allow the public to view the budget in an interactive and intuitive format.

Conclusion:

Financial sustainability will continue to be our key strategic priority. The budget will continue to face rising pressure from infrastructure renewal costs, limited revenue growth, and completion of the 4-year workplan initiatives representing visions to meet important community needs. These factors ultimately impact property taxes and reserve fund balances to maintain / enhance existing service levels and quality of life.

Respectfully submitted,

Lori Jivan

Coordinator of Budgets and Policy

905-335-7600 ext. 7798

Appendices:

A. 20-Year Simulation of Forecasted Budget Drivers

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

	3-Year History					2020 - 2023 Forecast				2024 - 2038 Forecast (Average over period)		
Description	2016	2017	2018	2019 Proposed Budget	2019 Approved Budget	2020	2021	2022	2023	2024 - 2028	2029 - 2033	2034 - 2038
City Tax Levy				\$ 160,104	\$ 160,104	\$ 165,961	\$ 174,048	\$ 182,578	\$ 191,455	\$ 218,768	\$ 267,521	\$ 318,820
Inflationary Pressures & User Fees				\$ 4,244	\$ 3,948	\$ 4,524	\$ 4,827	\$ 4,846	\$ 4,917	\$ 5,132	\$ 5,878	\$ 6,842
Corporate Expenditures/Revenues				\$ (38)	\$ (238)	\$ 225	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
Efficiencies				\$ -	\$ -	\$ (1,000)	\$ (800)	\$ (500)	\$ (300)	\$ (30)	\$ -	\$ -
Base Budget				\$ 4,206	\$ 3,710	\$ 3,749	\$ 4,127	\$ 4,446	\$ 4,717	\$ 5,202	\$ 5,978	\$ 6,942
Assessment Growth (%)				0.64%	0.64%	0.60%	0.60%	0.60%	0.60%	0.50%	0.50%	0.50%
Incremental Tax Impact (%)				1.97%	1.66%	1.65%	1.76%	1.82%	1.85%	1.87%	1.73%	1.67%
Other Expenditures/Revenues												
Infrastructure Renewal				\$ 3,701	\$ 2,772	\$ 2,229	\$ 2,336	\$ 2,452	\$ 2,571	\$ 3,209	\$ 2,907	\$ 1,877
Repurposing the levy for JBH				\$ (1,700)	\$ (1,700)	\$ -	\$ -	\$ -	\$ -	\$ (620)	\$ -	\$ -
Transit Sustainability				\$ 500	\$ -	\$ 350	\$ 350	\$ 300	\$ -	\$ -	\$ -	\$ -
Transit Enhancements				\$ 529	\$ 976	\$ 648	\$ 595	\$ 595	\$ 491	\$ 780	\$ 380	\$ 380
Business Cases (Excluding Transit)				\$ 214	\$ 98	\$ 1,012	\$ 973	\$ 884	\$ 625	\$ 515	\$ 515	\$ 515
Total Other Expenditures/Revenues				\$ 3,244	\$ 2,146	\$ 4,239	\$ 4,253	\$ 4,231	\$ 3,687	\$ 3,884	\$ 3,802	\$ 2,772
Allowance for Unknown Factors				\$ -	\$ -	\$ 100	\$ 150	\$ 200	\$ 250	\$ 400	\$ 500	\$ 500
Total Net Taxes	\$ 146,119	\$ 152,795	\$ 160,104	\$ 167,554	\$ 165,961	\$ 174,048	\$ 182,578	\$ 191,455	\$ 200,109	\$ 228,253	\$ 277,801	\$ 329,035
City Tax Increase (%)	3.14%	4.42%	4.36%	3.99%	2.99%	4.27%	4.30%	4.26%	3.92%	3.85%	3.35%	2.71%
Overall Tax Bill Impact (%) *	2.01%	2.60%	2.64%	2.42%	1.96%	2.67%	2.71%	2.71%	2.58%	2.58%	2.42%	2.15%



SUBJECT: BMA Financial Condition Assessment

TO: Committee of the Whole

FROM: Finance Department

Report Number: F-29-19

Wards Affected: All

File Numbers: 100-01

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Receive the BMA Financial Condition Assessment Report dated June 2019; and

Approve the Capital Reserve fund Financial Policy to target a consolidated reserve fund balance of 2% of the city's total asset replacement value; and

Direct the Director of Finance to undertake an update to the City of Burlington's Financial Condition Assessment every four years with each new term of Council.

Purpose:

An Engaging City

- Good Governance

The purpose of this report is to provide Committee and Council with a summary of the Financial Condition Assessment for the City of Burlington prepared by BMA Management Consulting Inc. (copy provided under separate cover). The consultant will be providing a presentation to the Committee of the Whole.

Background and Discussion:

A financial condition assessment of the City has been undertaken and completed by BMA Management Consulting Inc. (BMA) and presents an analysis of the City's current financial health and position, observations and review of the city's existing financial policies and comparison to the last financial condition assessment, which was completed in 2015.

Financial Condition Assessment

The intent of the BMA report is to provide a systematic process to monitor and evaluate a municipality's financial outlook and performance. The report provides an analysis of the city's financial position using several recognized financial indicators, which are structured into the following three sections:

1. Growth and Socio-Economic indicators
2. Municipal Levy, Property Taxes and Affordability
3. Financial Position

The analysis includes a comparison of Burlington's results against recognized industry standards, provides historical trend information, as well as a comparison to seven peer municipalities, being Oakville, Milton, Markham, Whitby, Oshawa, Kitchener and St. Catharines. The same municipalities were also used in the previous study as comparators.

For each of the three sections, this report summarizes in a table the financial indicators for Burlington based on the consultants' review. In addition, a comparison to the 2015 results is provided to denote changes. The summary tables reflect the City's financial position as follows:

- **Positive:** an alignment with the City's goals, policies and industry standards. At or above the targeted performance indicator and/ or trending positively
- **Neutral:** a situation where the City is not yet fully aligned with the City's goals, policies and industry standards. No target indicator and/ or stable trend.
- **Caution:** indicates that a trend has changed from a positive direction and is going in a direction that may have an adverse effect on the City's financial condition and/ or trending negatively. This is also used to indicate that, although a trend may appear to be positive, it is not yet in conformance with the City's goals, policies or industry standards

Below are some highlights of BMA's evaluation and a summary of reserves and reserve funds that the City uses to assist with long term financial stability and planning.

1. Growth and Socio-Economic Indicators – Summary

Growth and socio-economic indicators encompass various economic and demographic characteristics including population, employment, household income, assessment and construction and business activities.

Indicator	2018 Result	Comments	2015 Result
Unemployment rate	Positive	Aligned with full employment targets of 6% or less. Continues to be below the Provincial average.	Positive
Construction activity	Positive	Good mix between residential/ non-residential development but lower than peer average.	Positive
Assessment growth	Neutral	Growth is lower than the peer average	Neutral
Household income	Positive	Higher than the average of municipal comparators	Positive
Assessment Composition	Positive	Good mix between residential/ non-residential assessment, proportions remained consistent over time.	Positive
Richness of assessment base	Positive	Strong assessment base upon which to raise taxes	Positive

Highlights

- Over the five-year period 2013-2017 the City had lower than average construction activity per capita in comparison to the other municipalities in the comparator group
- Residential / non-residential construction activity is a 58/42 split (over the last five years), representing a good balance between these two types of development
- Residential/non-residential split of assessment of approximately 80/20 respectively indicates that the city has a well-diversified assessment base to support municipal programs
- The City's weighted assessment per capita is the third highest in the survey, an indicator of the community's ability to pay for services and support municipal programs
- Assessment increase in the City was lower than the peer average (consistent with trends identified in the relative growth of construction activity), which may pose to be an ongoing challenge

2. Municipal Levy, Property Taxes and Affordability – Summary

This section provides an overview of the cost of municipal services (property taxes) in the City and affordability compared to peer municipalities.

Indicator	2018 Result	Comments	2015 Result
Municipal Levy per \$100,000 Weighted Assessment	Positive	Levy is lower than peer average	Positive
Property Taxes on a Residential (bungalow)	Positive	Below the comparator average	Positive
Property Taxes on a Two Storey Residential House	Positive	Below the comparator average	Positive
Property Taxes on a Multi-Residential High-Rise Unit	Warning	Above the comparator average	Neutral
Property Taxes on Neighborhood Shopping per sq. ft.	Warning	Above the comparator average	Warning
Property Taxes on an Industrial Building per sq. ft.	Warning	Above the comparator average	Warning
Residential Affordability	Positive	Third lowest in the comparator average	Positive

Highlights

- The Municipal tax burden tends to be low for all property classes except for multi-residential, commercial shopping and industrial in comparison to the other municipalities in the comparator group
- The levy per \$100,000 of weighted assessment is less than the average of the municipal comparator group, reflecting a lower level of municipal spending in relation to the assessment base.
- Property taxes as a percentage of household income in Burlington are the third lowest in the survey average of municipal comparators, reflecting residential affordability
- The city has roughly the same level of tax spending as the peer average on a per capital basis

3. Financial Position – Summary

Reserves and reserve funds when used in conjunction with debt policies are a critical component of a municipality's long-term financial plan and financial health.

Reserves and reserve funds provide tax rate and cash flow stability when the City is faced with unforeseen or uncontrollable events. It ensures cash flows are sustained and allows for internal financing for temporary or one-time expenditures. Furthermore, these funds provide the City flexibility to manage debt levels and allows for planning future liabilities.

The City has four categories of reserves and reserve funds;

- Stabilization Reserves and Reserve Funds
- Capital Reserve Funds
- Corporate Reserves and Reserve Funds
- Program Specific Reserves and Reserve Funds

The city also maintains reserve funds for Local Boards, which were established in response to specific programs for each board. Their operating surpluses are used to fund their respective reserve funds.

Stabilization Reserves & Reserve Funds

These types of reserves and reserve funds are used to mitigate the risk of raising taxes or reducing service levels due to temporary revenue shortfalls or unanticipated expenditures. It is restricted to unforeseen or temporary events, which can include the previous year's operating deficits.

Overall, the target balance for the consolidated stabilization reserve funds (excluding Building Permit Stabilization Reserve Fund) is set at 10%-15% of the City's own source revenues. As of 2018, the consolidated balance of these reserve funds is below target at 8.9%. Furthermore, in the 2019 budget, there was \$2.4 million of commitments approved, which was partially offset with a provision amount of \$1.6 million from 2018 operations.

The city maintains seven stabilization reserve funds as summarized below including relevant financial policies.

Reserve Fund	Policy/ Description
Contingency	<ul style="list-style-type: none"> Used to address confidential legal and human resource matters
Severe Weather	<ul style="list-style-type: none"> To mitigate financial strain caused by severe storms and weather activity Target balance is equal to one year's expenditure requirements. A minimum balance of 25% of the five-year average of winter maintenance costs should be maintained (adjusted for inflation) City has a balance of \$3.9 million above the target balance of \$1.5 million, recognizing greater frequency of climate change impacts
Tax Stabilization	<ul style="list-style-type: none"> Used to address tax stability by funding operating deficits and one-time expenditures Funded through operating surpluses
Building Permit Stabilization	<ul style="list-style-type: none"> To stabilize building permit revenues and expenditures, which can vary from year-to-year based on development activity level Target balance of 163% of total direct operating expenditures When the reserve fund exceeds the target and remains above the ceiling for two years or more, the city will undertake a review to determine whether the balance should remain above the target City has a balance of \$2.8 million slightly below the target balance of \$2.9 million
Planning Fee and Engineering Fee Stabilization	<ul style="list-style-type: none"> Used to stabilize Planning and Engineering revenues, which can vary from year-to-year based on level of development activity Funded by revenue surpluses and used to fund revenue shortfalls when they occur
Commodity Stabilization	<ul style="list-style-type: none"> To alleviate the financial impact of uncontrollable or unexpected fluctuations in commodity costs

Capital Reserve Funds

As stated in the City's Strategic Plan, all city infrastructure will be maintained in a state of good condition. Annual contributions that are consistent and predictable to capital

reserve funds is vital for the future rehabilitation and replacement of assets to be able to meet this goal.

BMA recommends that as a general principle a consolidated target for capital reserve funds should be with a minimum balance of 2% of the total asset replacement value. Based on the City's total asset replacement value of \$3 billion, this equates to an estimated \$60 million. As of 2018, the City's uncommitted consolidated year-end balance in capital reserve funds is approximately \$40.7 million, below the intended target. Furthermore, the consolidated balance in capital reserve funds has decreased by 11% over the last five years.

To ensure sufficient funds exist for future asset replacement, staff recommends adopting the following Capital reserve fund policy;

Recommended Policy	
Capital Reserve Funds (Consolidated)	<ul style="list-style-type: none"> • Target balance is equal to 2% of the total asset replacement value. • Currently equates to approximately \$60 million

Other existing policies regarding capital reserve funds are summarized below:

Existing Assets (Infrastructure Renewal):

- Capital reserve funds will be used;
 - to fund the replacement or refurbishment of existing assets through calculated annual contributions from the operating budget and other sources based on replacement costs and guided by the city's asset management financing plan
 - All assets will be maintained at a level that protects capital investment and minimizes future maintenance and replacement costs.

New Assets (Growth)

- Capital reserve funds will be used;
 - to fund new assets related to growth or program enhancements by developing a multi-year forecast to identify the impact of new facilities and infrastructure
- As new assets are acquired, contributions will be made based on annual amortization and lifecycle costing
- If new assets are funded through debt, annual contributions to the reserve funds will be made once the debt repayments have been completed.

Repayment to Capital Reserve Fund

- Any new assets financed from Capital Reserve Funds will be repaid, including interest, from future operating budgets over the life of the asset for its replacement (depending on affordability)

Corporate Reserves & Reserve Funds

These reserve and reserve funds are used to manage current costs that will be transferred to future generations, as the City incurs liabilities that do not have to be paid immediately. Reserve funds in this category include the Employee Accident, Benefits and Insurance reserve funds.

Contributions to Corporate Reserve/Reserve Funds should take into consideration the liability associated with these funds. A sufficient budget allocation is required to fund the WSIB costs and employee benefits so that the Employee Accident Reserve Fund and Benefits Reserve Fund can eventually be replenished to cover the liabilities. (Based on affordability)

Reserve Fund	Policy/ Description
Employee Accident and Benefits Reserve Funds	<ul style="list-style-type: none"> • Used to fund WSIB claims, post-retirement benefits and other related expenses • Combined associated liabilities and reserve fund balance as of 2018 is \$20.7 million and \$6 million respectively • City should gradually address the liabilities over a period of 5-10 years and by ensuring annual contributions are reflective of historical and forecast requirements
Insurance Reserve	<ul style="list-style-type: none"> • Replenished from annual current budget contributions • Provides for Insurance premiums and payment of deductibles not covered by city policies and helps stabilize annual fluctuations

Program Specific Reserves & Reserve Funds

Program specific funds are established from time to time by Council based on needs of the community. A financial plan will be prepared for all Program Specific Reserves/Reserve Funds to ensure that there are adequate funds to sustain the program requirements. Plans will be reviewed annually in conjunction with the budget process or as conditions change.

Some examples are the Community Heritage, Culture, Forestry and numerous Parks & Recreation related reserve funds.

Use	Spending from any Program Specific Reserves/Reserve Funds in any one year will not exceed the uncommitted balance in the reserve fund at the end of the preceding year
Closure	Upon conclusion of program specific projects, recommendations will be made to close the Program Specific Reserves/Reserve Funds and transfer any remaining balance to a Reserve(s) with the greatest need or as permitted by legislation

Development Charge (DC) Reserve Funds

Development charges will be applied to the full extent permitted by legislation. Currently, there are seven DC reserve funds under the city's existing by-law for transportation, storm drainage, fire, transit, library, parks and recreation, and development related studies.

Use	Spending from Development Charges reserve funds for capital projects directly related to growth as approved in the city's development charges background study.
Funding	On a consolidated basis, Development Charge Reserve Funds must maintain a positive balance
Borrowing	Borrowing internally first between growth related development charge reserve funds and then external debt as a last resort based on the growth-related debt policy Where debentures are issued on behalf of development charges, the City will separately track the repayments to be recovered from future DC revenues (including interest)

Debt Management

The city's debt policy limits the total debt charges as a percentage of net revenues to 12.5% (provincial legislated limit is 25%). As of March 31, 2019, the City's total debt charges as a percentage of own source revenue is estimated to be 10.3% (as per report F-14-19 – Quarterly Status Report).

Types of Debt	
Tax Supported (TSD)	<ul style="list-style-type: none"> • Debt charges are repaid from the city's annual operating budget • Debt limit shall not exceed 10% of city's own source revenues
Non-Tax Supported (NTSD)	<ul style="list-style-type: none"> • Debt charges are repaid from revenues and fees from user groups • Issued on behalf of community groups • Excluded from the City's guidelines for tax supported debt
Special Circumstances (SCD)	<ul style="list-style-type: none"> • Debt charges are repaid annually from the Hydro Reserve Fund • Excluded from the City's guidelines for tax supported debt • The city is no longer issuing further waves of SCD • To date the city has issued \$47 million in SCD

The City makes every effort to minimize the impact of debt-servicing costs and manage future debt levels. Debt financing should be considered only as a last resort for asset replacement and be limited to specific project types and employed as a means of financing projects related to:

- New capital initiatives
- Projects tied to third-party matching funds
- Project costs not recovered from development charges
- Projects where the cost of deferring expenditures exceeds debt servicing costs
- Projects where the asset life extends beyond the term of the debt

Debt Policy Guidelines	
Term of Debt (Length)	<ul style="list-style-type: none"> • The term will not exceed the useful life of the asset • The preferred term of debt is 10 or 15 years, taking into consideration debt repayment impact
Monitoring	<ul style="list-style-type: none"> • The City will monitor all forms of debt and report on a quarterly basis
Retirement of Debt	<ul style="list-style-type: none"> • As debt charges decline, the City will apply savings to accelerate achievement of full lifecycle costing of the City's infrastructure

As per the BMA report, a municipality's financial position is defined as the total fund balances, which includes equity in business enterprises, less the amount to be

recovered in future years associated with long-term liabilities. Burlington's financial position has remained stable over the last five years and is above the peer average.

Indicator	2018 Result	Comments	2015 Result
Discretionary Reserves/Reserve Funds as a % of Taxation	Warning	Relatively flat over the last 5 years and not keeping up with inflation	Warning
Stabilization Reserve Funds	Warning	Below the target policy levels	Positive
Other Capital Reserve Funds	Warning	Downward trend, with policies in place to help address the infrastructure gap	Warning
Vehicle & Equipment Reserve Funds	Warning	Downward trend, with policy in place to increase contributions	Positive
Transit related Reserve Funds	Neutral	No target indicator, balance relatively stable	Positive
Corporate Reserves & Reserve Funds	Warning	Liabilities increasing at a faster rate than reserve balances	Warning
Program Specific Reserves & Reserve Funds	Neutral	Several new reserves created that align with the City's strategic directions	Neutral
Local Boards Reserve Funds	Neutral	Available to support local boards	Neutral
Debt Outstanding per \$100,000 of weighted assessment	Positive	Relatively low levels of debt and below the peer comparator group	Positive
Debt to Reserve ratio	Positive	Healthy ratio and better positioned than the peer average	Positive
Financial position	Positive	Relatively flat position and slightly higher than municipal comparator average	Positive
Taxes Receivable	Positive	Well within the recommended range and lowest of peer comparator group	Positive

Highlights

- The City's reserves and reserve funds (excluding obligatory reserve funds) have increased by 15% since 2014. The increase is offset by decreases across capital reserve funds (11%)
 - Discretionary reserves (including commitments) as a percentage of taxation has remained relatively flat and is slightly above the survey average
 - The consolidated 2018 stabilization reserve fund balance as a percentage of own source revenues (excluding the Building Permit reserve fund) is below the targeted range of 10-15%, and currently at 8.9%
 - Unfunded liabilities continue to exist in the city's corporate reserves. Since liabilities do not come due at the same time, it is reasonable to have some unfunded liabilities, yet gradually address the liabilities to ensure it does not continue to grow
-

Financial Matters:

The Financial Health Report prepared by BMA Management Consulting Inc. was completed at a cost of \$20,000, which was funded by Financial Management Services.

Connections:

The financial condition assessment continues to provide a framework to enhance financial policies for the City of Burlington. The City is proactive in financial planning, developing forecast models and utilizes several tools which provides council with surety that financial policies are adhered to, including;

- Annual operating and capital budget and forecast
 - 20-year simulation of forecasted budget drivers
 - Quarterly Financial status report
 - Semi annual budget performance
 - Annual capital closure
 - Long-term financial plan
 - Asset management financing plan
-

Public Engagement Matters:

The results of this study will be shared with the Treasurer/Director of Finance from each of the seven comparator municipalities and the Region of Halton.

Conclusion:

This report provides an overview of the City of Burlington's Financial Condition Assessment as prepared by BMA Management Consulting Inc. which uses several recognized financial indicators to monitor and evaluate the City's financial outlook and performance.

As the City has made some improvements to the financial indicators, there continues to specific reserve and reserve fund trends that reflect a warning indication. Some key areas that the City will need to monitor is its ability to maintain and replace capital assets and continue, if not increase, contributions to certain reserve funds to meet established targets. This will improve the City's sustainability and flexibility while minimizing risk and ensures the City's financial and service commitments to residents and stakeholders are met.

Respectfully submitted,

Ann Marie Coulson

Manager of Financial Planning and Taxation

905-335-7600 x7655

Appendices:

A. BMA Report – June 2019 Financial Condition Assessment

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

Appendix A of F-29-19



Financial Condition Assessment

June 2019



Table of Contents

Executive Summary			
City of Burlington - Financial Condition Assessment - Introduction	1	Section 3: Financial Position	28
Section 1: Growth and Socio-Economic Indicators	6	Introduction to Reserves and Reserve Funds	30
Population Changes	8	Reserves as a % of Taxation	32
Peer Municipal Comparisons - Population Growth	9	Asset Consumption Ratio	33
Population Density	9	Summary of Reserves and Reserve Funds	34
Age Demographics	10	Stabilization Reserves and Reserve Funds	35
Employment and Labour Force Indicators	11	Asset Management	39
Commercial and Industrial Vacancy Rates	12	Capital Reserves and Reserve Funds	42
Construction Activity	13	Corporate Reserves/Reserve Funds	46
Assessment Composition	16	Program Specific Operating Reserves/Reserve Funds	49
Changes in Assessment	16	Local Boards Reserves/Reserve Funds	50
Richness of the Assessment Base	17	Development Related Reserves/Reserve Funds	51
Household Income	17	Debt Management	53
Summary - Growth and Socio-Economic Indicators	18	Financial Position	58
Section 2: Municipal Levy, Property Taxes and Affordability	19	Taxes Receivables	60
Municipal and Education Property Taxes	20	Summary - Financial Position	61
Municipal Levy per Capita and per \$100,000 of Assessment Comparison	21		
Municipal Tax Ratios	22		
Residential Municipal Taxes	23		
Non-Residential Municipal Taxes	25		
Affordability	26		
Summary - Municipal Levy, Property Taxes and Affordability	27		



Executive Summary

Executive Summary

BMA Management Consulting Inc. (BMA) was engaged by the City of Burlington to undertake an update to the **Financial Condition Assessment**. As described by CPA Canada the intent of providing an evaluation of a municipality's financial condition is to evaluate a municipality's financial outlook and past performance. The Financial Condition Assessment was evaluated using the CPA Canada guidelines which recommend consideration of the following:



The report is structured to include three main sections as follows:

Growth and Socio-Economic Indicators

Municipal Levy, Property Taxes & Affordability Indicators

Financial Position Indicators

The report includes trend analysis to consider how the City of Burlington's financial and socio-economic conditions have changed over time. It also includes a comparison to peer municipalities and the average of the GTA municipalities.



At the conclusion of each section, a performance dashboard has been included to summarize the results of the key metrics. This includes the rating from the 2015 study and the updated rating for 2018.




Summary—Growth and Socio-Economic Indicators

Growth and socio-economic indicators:

- describe and quantify a community's wealth and economic condition; and
- provide insight into the community's collective ability to generate revenue relative to the community's demand for public services.
- **Population growth** from 2001 to 2018 was a 23.3% total increase, with an average annual increase of 1.4% which has resulted in substantial new capital infrastructure which ultimately has to be replaced.
- Population is forecast to exceed 193,401 by 2031 which is equivalent to approximately a 0.3% annual growth rate (from 2018-2031). This reflects a planned and manageable level of growth.
- Much of the new growth is through intensification which can have implications on the way services are delivered.
- The **age profile** of a population has an impact on spending plans, especially around the type and level of service required. The number of residents that are ages 65+ has increased 23.3% over the 5-year period, compared with the Ontario average increase of 18.3%. Conversely, the number of residents age 0-19 has increased by only 2%.
- These demographic changes may exert pressure on the City to provide new or increased services to reflect the changing needs of the residents while still keeping taxes affordable.
- Monitoring assessment is important because taxation is the largest source of revenues to support City programs, services and the replacement of assets. A strong assessment base provides a stable long-term funding source.
- The City's property **assessment** base is strong and is well diversified which helps support the delivery of municipal programs and services. However, assessment growth has been slower in the past several years, due, in part, to a decline in available greenfield land. Assessment growth has also been below the peer and GTA average from 2013-2018. Future low assessment growth may be an ongoing challenge.
- Burlington's weighted assessment per capita is above the survey average and median of the peer municipal comparison, reflecting a strong base upon which to raise taxes.
- Average **household income** in Burlington is above the peer municipal average, reflective of a diverse and skilled labour force.
- The City has experienced an excellent balance in **construction growth** between residential and non-residential development over the past 10 years.
- **Employment rates** are only available at the Halton Region level. Labour market conditions in the Halton Region reflect a lower level of unemployment than the Ontario average. At the end of 2018, the unemployment rate was 4.8% compared with Ontario average of 6.4%.

- Low **commercial and industrial vacancy rates** are a sign that market conditions for business are good. Businesses have the confidence to invest in expanding and upgrading, and new businesses are starting up. The industrial vacancy rate has declined from 6.8% in 2014 to 3.0% in 2018. The office vacancy rate also declined from 16.6% in 2014 to 14.3% in 2018.

Legend

	Positive		Caution		Neutral
At or above targeted performance indicator and/or trending positively		below targeted performance indicator and/or trending negatively		No target indicator and/or stable trend	

The following table provides a summary overview of the findings from the 2015 study and the 2018 update:

<i>Socio-Economic Indicator</i>	<i>2015 Rating</i>	<i>2018 Rating</i>
<i>Population Growth</i>		
<i>Population Density</i>		
<i>Demographics</i>		
<i>Unemployment Rate</i>		
<i>Commercial Office Vacancy Rate</i>		
<i>Industrial Vacancy Rate</i>		
<i>Construction Activity</i>		
<i>Assessment Composition</i>		
<i>Richness of the Assessment Base</i>		
<i>Assessment Growth</i>		
<i>Household Income</i>		

Summary—Municipal Levy, Property Taxes and Affordability

- This section provides an overview of the 2018 municipal tax levy in Burlington and in relation to peer municipalities.
- The 2018 municipal levy in relation to the assessment base reflects positively for the City of Burlington in relation to the peer average.
- Taxes paid by residents in Burlington are lower for similar properties in other jurisdictions. However, Multi-Residential taxes are above the survey average, due in part to a higher Multi-Residential tax ratio.
- Commercial and Industrial taxes are above the survey average.
- The average municipal property taxes paid in relation to household income in Burlington are below the survey average, reflecting affordable taxes.



The following table provides a summary overview of the findings from the 2015 study and the 2018 update:

<i>Indicator</i>	<i>2015 Rating</i>	<i>2018 Rating</i>
<i>Municipal Levy Per Capita</i>	⚠	✓
<i>Municipal Levy Per \$100,000 of Weighted Assessment</i>	✓	✓
<i>Property Taxes on a Residential House (Bungalow)</i>	✓	✓
<i>Property Taxes on a Two Storey Residential House</i>	✓	✓
<i>Property Taxes on a Multi-Residential High Rise</i>	⊖	⚠
<i>Property Taxes on a Commercial Shopping Centre</i>	⚠	⚠
<i>Property Taxes on an Industrial Building</i>	⚠	⚠
<i>Multi-Residential Tax Ratio</i>	⚠	⚠
<i>Commercial Tax Ratio</i>	✓	✓
<i>Industrial Tax Ratio</i>	⚠	⚠
<i>Residential Affordability</i>	✓	✓

Summary—Financial Position

This section of the report includes an assessment of reserves, debt and the City's overall financial position.

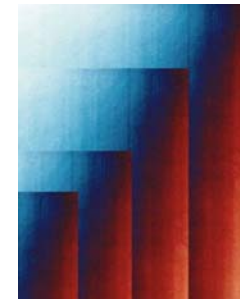
Reserves/Reserve Funds assist with long term financial stability and financial planning. By maintaining reserves, the City can accumulate funds for future or contingent liabilities; a key link to long-term financial planning practices. They also provide a cushion to absorb unexpected shifts in revenues and expenditures.

- The City of Burlington's discretionary reserves as a percentage of taxation are above the peer survey average but growth in the reserves has been less than inflation and trending downward in relation to taxation.
- Burlington has established a number of targets and policies for **Stabilization Reserves**. On a consolidated basis, these reserves have not met targets.

Capital Reserve Funds (Excluding Growth Reserve Funds) decreased by 11% (\$5 million) from 2013 to 2018. The City has an estimated unfunded infrastructure gap of \$126.5 million (2016). Strategies have been put in place to increase the contribution to capital replacement needs including special infrastructure levies.

- The City has a Dedicated Infrastructure Levy of 1.25% with reductions planned.
- Additional 0.2% levy to address the renewal needs of a growing asset inventory.
- An annual increase of 4% to the Vehicle Depreciation Reserve Fund to sustain the City's fleet and equipment inventory.

- Planned repurposing of the hospital levy to infrastructure renewal.
- **Debt** is an important indicator of the City's financial health and is an appropriate way of financing longer life capital infrastructure. Based on the current debt outstanding the City has flexibility to issue additional debt in accordance with the City's debt policy. Debt to reserve ratio is well within industry standards.
- **Financial Position** of the City is important to consider as this takes into consideration the City's total assets and liabilities. Burlington's financial position has been trending up since 2013 and is above the peer average.
- **Taxes Receivable** is well below the peer municipal average and has continued to reflect a downward trend since 2014.



The following table provides a summary overview of the findings from the 2015 study and the 2018 update:

Indicator	2015 Rating	2018 Rating
Discretionary Reserves as a % of Taxation		
Asset Consumption Ratio		
Stabilization Reserve Funds		
Other Capital Reserve Funds		
Vehicle and Equipment Reserve Funds		
Transit Related Reserve Funds		
Corporate Reserve and Reserve Funds		
Program Specific Reserve and Reserve Funds		
Local Boards Reserve Funds		
Debt as % of Own Source Revenues		
Debt Outstanding per \$100,000 of Weighted Assessment		
Debt to Reserve Ratio		
Financial Position		
Taxes Receivable		

Introduction—Financial Condition Assessment

Ongoing evaluation of the City’s financial health is imperative. It provides an assessment of how the City is performing and provides valuable information on the current and future state of the City’s finances.

Regular and timely financial condition assessments can provide an early warning of potential fiscal problems and provide information necessary for timely corrective action. To this end, BMA Management Consulting Inc. (BMA) was engaged by the City of Burlington to undertake a financial condition assessment in 2011 and 2015. BMA was engaged in 2019 to provide an update on the results and to provide observations in terms of overall trends, comparison to leading practices and peer municipalities.



As described by CPA Canada, a municipality’s financial condition considers an evaluation of the following elements:

Financial Condition

Sustainability

The ability to provide and maintain existing programs without resorting to unplanned tax increases or cuts to services.

Flexibility

The ability to issue debt responsibly without impacting the Region’s credit rating which takes into consideration the financial health of the area municipalities. Flexibility is also, the ability to generate required revenues.

Vulnerability

Focuses on minimizing the level of risk that could impact its ability to meet financial obligations and commitments including the delivery of services.

Source Materials Used to Prepare the Financial Condition Assessment

Numerous reports and sources of data were used to undertake an assessment of the City's financial condition and continued commitment to financial sustainability including:

- *2019 Approved Operating Budget*
- *2016 and 2017 Financial Reports*
- *Burlington's Strategic Plan 2015-2040*
- *Burlington Economic Development Corporation—Burlington Economic Indicators—2018*
- *Reserve/Reserve Fund Year End Reports 2013-2018*
- *Existing Debt Schedules*
- *Financial Information Returns 2013-2017*
- *Building Construction Year End Reports*
- *Financial Policies*
- *Asset Management Plan*



Burlington's Policies and Practices Contribute to its Strong Financial Position

The following provides highlights that reflect the City's strong commitment to financial sustainability and the provision of services in the most efficient and effective way.

AAA Credit Rating

Halton's AAA credit rating, praising Halton's superior budgetary performance, low exposure to risks and high-quality financial plans, policies and reports. Earning the highest possible credit rating provides the Region, the City of Burlington and the Towns of Halton Hills, Milton and Oakville with access to the best capital financing rates available.



To support its decision, Standard and Poor's Credit Rating Agency provided the following rationale:

- very strong and well-diversified economy integrated within the GTA with consistent growth;
- very strong financial management with well-defined prudent and conservative financial policies, well-documented financial plan, and stable and well-qualified management team;
- very strong and stable budget performance, very low debt burden and very low contingent liabilities; and
- exceptional internal liquidity support, access to external liquidity for refinancing needs and very robust internal cash flow generation capability.

Positive Financial Trends and Prudent Financial Policies

As will be shown in this report, the City tracks numerous financial and economic indicators. Analysis of trends over the past 10 years reflects *improvements on the majority of financial indicators*. Further, the City tracks performance on an ongoing basis and incorporates new strategies into the budget.



Strategic Plan



A City that Grows

>> The City of Burlington attracts talent, good jobs and economic opportunity while having achieved intensification and balanced, targeted population growth for youth, families, newcomers and seniors.



A City that Moves

>> People and goods move throughout the city more efficiently and safely. A variety of convenient, affordable and green forms of transportation that align with regional patterns are the norm. Walkability within new/transitioning neighbourhoods and the downtown are a reality.



A Healthy and Greener City

>> The City of Burlington is a leader in the stewardship of the environment while encouraging healthy lifestyles.



An Engaging City

>> Community members are engaged, empowered, welcomed and well-served by their city. Culture and community activities thrive, creating a positive sense of place, inclusivity and community.

Trend Analysis

The problems that create fiscal challenges seldom emerge overnight, rather they develop slowly, thus making potential problems less obvious. Analyzing the trends of the City's key financial performance and socio-economic indicators offer several benefits including:

- Information on changes in the City's financial health, revealing the most current trends;
- How quickly a trend is changing;
- Forms the basis for future forecasting; and
- Builds awareness and helps identify the potential need to modify existing policies or develop new strategies.

Better Information = Better Decisions



Peer Analysis

Peer analysis has also been included to gain perspective on the City's financial health in relation to other municipalities. Figure 1 summarizes the peer municipalities selected. This is the same peer group used in the previous study.

Figure 1—Peer Municipal Comparator Group

Municipality	Estimate 2016 Population	Land Area (sq. km.)	Density per sq. km.
Kitchener	233,222	137	1,705
Markham	328,966	212	1,549
Milton	110,128	363	303
Oakville	193,832	139	1,396
Oshawa	159,458	146	1,095
St. Catharines	133,113	96	1,385
Whitby	128,377	147	875
Average	183,871	177	1,187
Median	159,458	146	1,385
Burlington	183,314	186	987

Source: Stats Canada (2016),
excluding Census undercount



Financial Condition Assessment—Key Indicators

The Financial Condition Assessment includes the following:

Growth and Socio-Economic Indicators

These are largely external to the City’s control but important to understand from a planning and forecasting perspective.

Population
Employment Statistics
Building Construction Activity
Commercial and Industrial Vacancy Rates
Property Assessment
Household Income

Municipal Levy, Property Taxes & Affordability Indicators

Evaluation of the cost of municipal programs and services and how these costs translate into municipal property taxes.

Municipal Levy
Comparison of Relative Taxes
Municipal Property Taxes as a % of Income
Tax Ratios

Financial Position Indicators

Evaluation of the City’s financial framework helps determine if modifications are needed to the City’s existing financial policies and strategies.

Reserves & Reserve Funds
Debt
Municipal Financial Position
Asset and Liabilities
Taxes Receivable



Section 1: Growth and Socio-Economic Indicators

Growth and Socio-Economic Indicators

Growth and socio-economic indicators:

- describe and quantify a community's wealth and economic condition; and
- provide insight into the community's collective ability to generate revenue relative to the community's demand for public services.

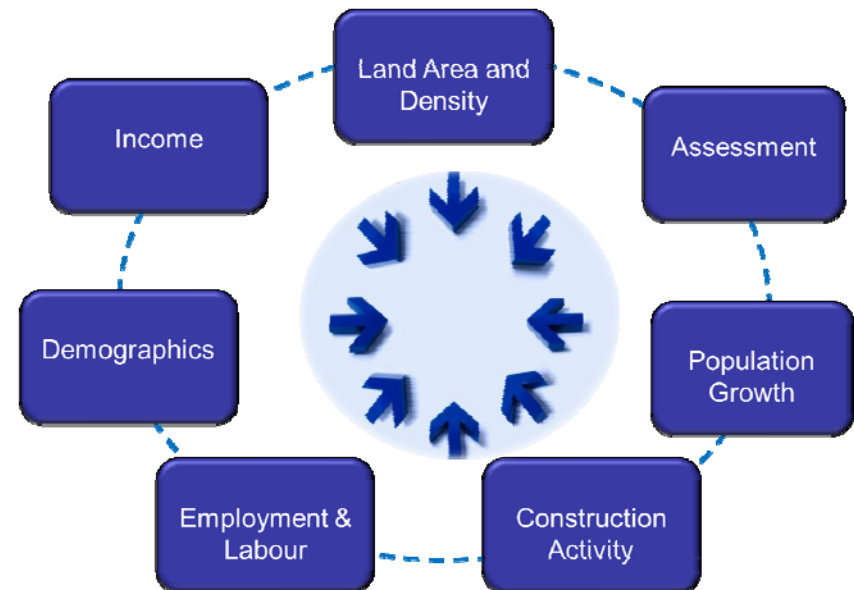
As noted by Standard & Poor's bond rating agency, "demographic characteristics factor heavily into economic analysis". An examination of economic and demographic characteristics can identify, for example, the following types of situations:

- An inclining tax base and correspondingly, the community's ability to pay for public services;
- A need to shift public service priorities because of demographic changes in the community; and
- A need to shift public policies because of changes in economic and legislative conditions.



Growth and Socio-Economic Indicators

Growth and socio-economic indicators are closely inter-related and affect each other in a continuous cycle of cause and effect. Also important are the City's plans and potential for future development.

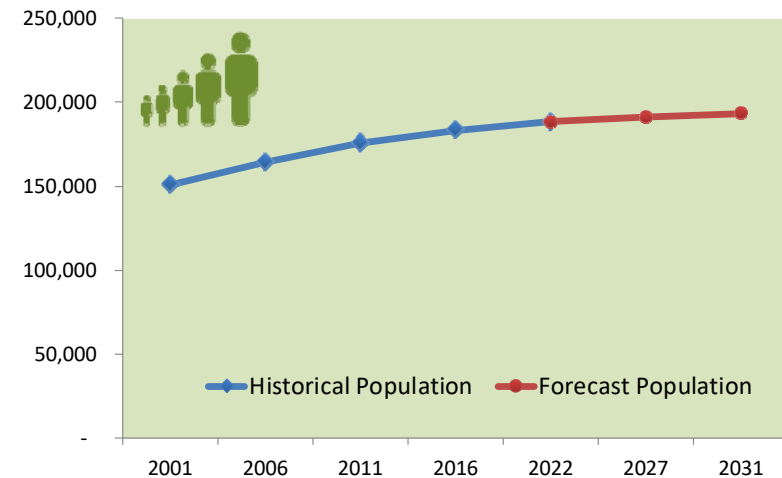


Population Changes

Strong population growth drives the economic health of a municipality and creates an environment that supports business. Also, it provides an evolving and vibrant labour force that the business community relies on to produce goods and services. Changes in population directly impact both revenues (assessment base) and expenditures (service demand). The following summarizes key findings related to the City's population growth:

- With a population of approximately 185,911, the City of Burlington is the 12th largest municipality in Ontario.
- Burlington has grown from a population of 150,836 in 2001 to over 185,911 in 2018 (23.3% increase), with an average annual increase of 1.4%.
- Population is forecast to exceed 193,401 by 2031 which is equivalent to approximately a 0.3% annual growth rate (from 2018-2031). This reflects a planned and manageable level of growth.
- The continued population growth will lead to increased demand for services and new capital infrastructure. While the majority of growth related capital expenditures are funded through development charges, there are mandatory exemptions and discounts not eligible under the *Development Charges Act* and therefore must be funded from the tax base. Funding new infrastructure increases operating expenditures and places pressure on the tax base.
- The continued need for additional infrastructure to accommodate further growth will take place at the same time that the existing assets are reaching an age where their renewal/replacement is becoming critical and more costly.

Figure 2—City of Burlington—Population Changes



Source: Stats Canada (Historical), Watson and Associates DC Background Study
Note: Excludes Census undercount

Excerpts—2015-2040 Strategic Plan

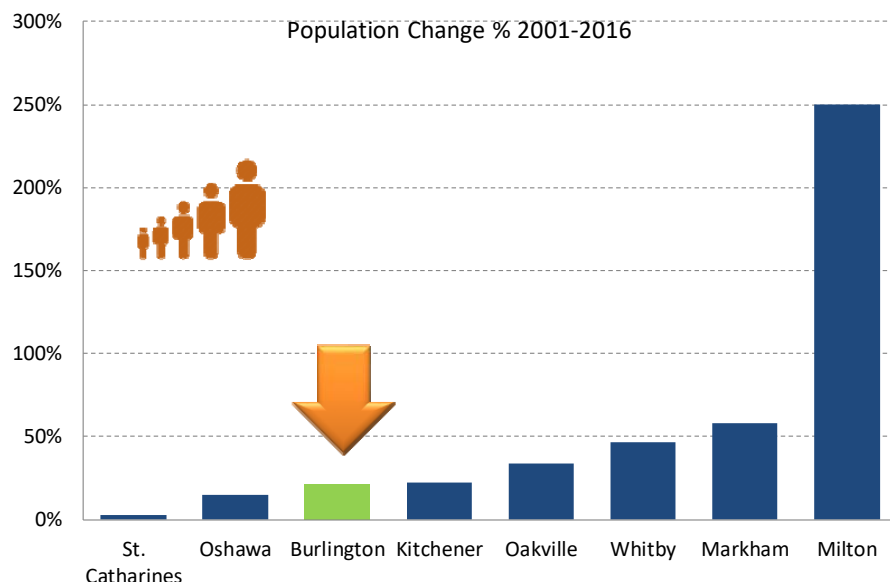
Focused and directed population growth that will lay the foundation for a larger economy, more jobs, fiscal sustainability, better infrastructure and public transportation.

- The City of Burlington has decided to maintain its urban boundary and recognize the role and function of the Urban Area, Rural Area and North Aldershot. Population and employment growth will be accommodated through development and intensification within targeted areas in the city's urban area, which will support the protection and enhancement of the rural area and natural environment. This is in keeping with the provincial policy direction in the Growth Plan for the Greater Golden Horseshoe and the Greenbelt Plan.

Peer Municipal Comparisons—Population Growth

- Milton, Markham, Whitby, Oakville, Kitchener have experienced higher percentage increases in population growth since 2001 in comparison to Burlington.

Figure 3—Population Changes—Peer Municipalities



Source: Stats Canada

Excerpts—2015-2040 Strategic Plan

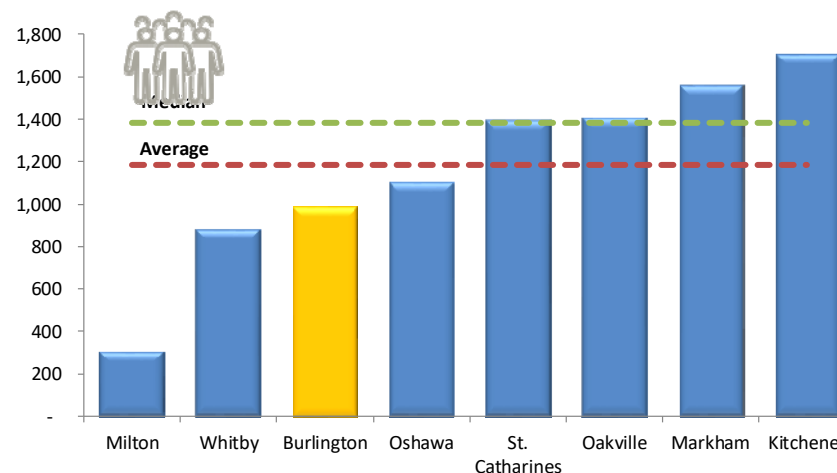
“Higher densities in key intensification areas (including mobility hubs, downtown, uptown, along major roads and commercial plazas) that will build neighbourhoods that are environmentally friendly, infrastructure-efficient, walkable, bikeable and transit-oriented.”

Much of the new growth is through intensification which can have implications on the way services are delivered. Intensification has a number of benefits, including, reducing carbon footprint, improving access to public transit, using resources such as land, buildings and infrastructure effectively, enhancing community identity and creating active streets that promote healthier patterns of activity.

Population Density

Population density indicates the number of residents living in an area (usually measured by square kilometre). Density readings can lend insight into the age of a city, growth patterns, zoning practices, new development opportunities and the level of multi-family unit housing. Of 186 km², only approximately 89 kms² is within the urban boundary. The remainder is environmentally sensitive and agricultural land which is protected by the *Greenbelt Act*, 2005 from urban development and sprawl. As illustrated in Figure 4, Burlington has the third lowest population density per km.

Figure 4—Population Density per km² —Peer Municipalities



Source: Stats Canada

Age Demographics

The age profile of a population has an impact on spending plans, especially around the type and level of service required. The needs of residents shift over the course of their lives.

An analysis was undertaken of the five year trend in Burlington in relation to the Ontario average.

- In the City of Burlington, the number of residents that are age 65+ has increased 23% over the five year period, compared with the Ontario average increase of 18.3%. This cohort is expected to continue to grow.
- Conversely, the number of residents age 0-19 has increased by 2% compared with a reduction of 2.2% across Ontario.

Figure 5—Age Profile Trend

Age Profile	Burlington			Ontario		
	2011	2016	% change	2011	2016	% change
Age 0-19	40,605	41,400	↑ 2.0%	3,167,813	3,096,780	↓ -2.2%
Age 20-44	54,850	54,890	↑ 0.1%	4,410,879	4,458,936	↑ 1.1%
Age 45-64	51,672	51,710	↓ 0.1%	3,836,128	3,927,160	↑ 2.4%
Age 65+	28,652	35,315	↑ 23.3%	1,951,480	2,309,176	↑ 18.3%
Total	175,779	183,314		13,366,300	13,792,052	

Source: Stats Canada, excluding Census undercount

- These demographic changes may put pressure on the City to provide different services that reflect the changing demographic needs while still keeping taxes affordable.

Figure 6—2016 Age Profile Comparison

Age Profile	Burlington	Ontario
	2016	2016
Age 0-19	22.6%	22.5%
Age 20-44	29.9%	32.3%
Age 45-64	28.2%	28.5%
Age 65+	19.3%	16.7%
Total	100.0%	100.0%

- As shown in figure 6, the City of Burlington has a higher proportion of residents 65+ than the Ontario average and a lower proportion of residents ages 20-44.

Excerpts—City of Burlington Strategic Plan 2015-2040

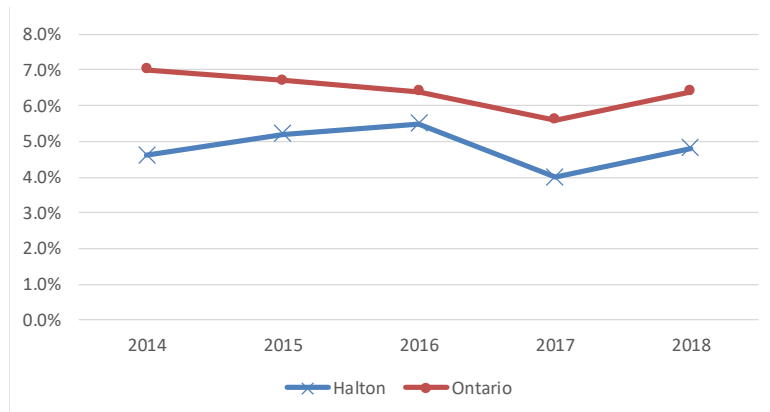
“Attraction of younger people and newcomers to help sustain the fiscal, social, environmental and cultural fabric of the city.”



Labour Force Indicators

Labour force statistics are an important measure of the economy's potential. The larger the percentage of the population that enters the labour force; the larger the potential output and standard of living. Growth in the labour force implies expanding potential.

Figure 7—Unemployment Rates



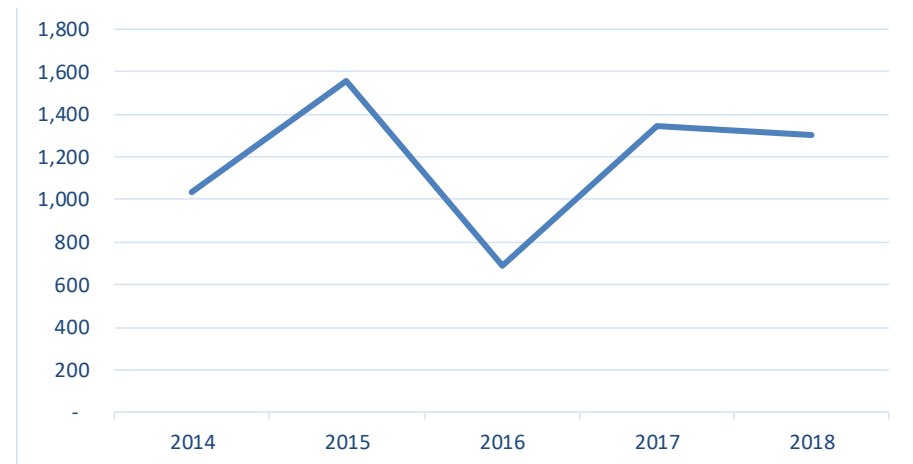
Source: Stats Canada, Labour Force Survey

- As shown in figure 7, from 2014-2018, the unemployment rate in Halton Region is consistently well below the Ontario unemployment rates. In 2018, the unemployment was 4.8% compared with Ontario average of 6.4%. Full employment is reached when unemployment is at 6% or less according to the Conference Board of Canada. Halton Region was below 6% throughout the past five years.

Excerpts—BEDC

"In Burlington, there are six jobs for every 10 people. This is amongst the highest ratio in Ontario and demonstrates Burlington's strong business base"

Figure 8—New Jobs



Source: BEDC Calculation

- From 2014-2018 there was an estimated **5,900 new jobs created**.

Excerpts—City of Burlington Strategic Plan 2015-2040

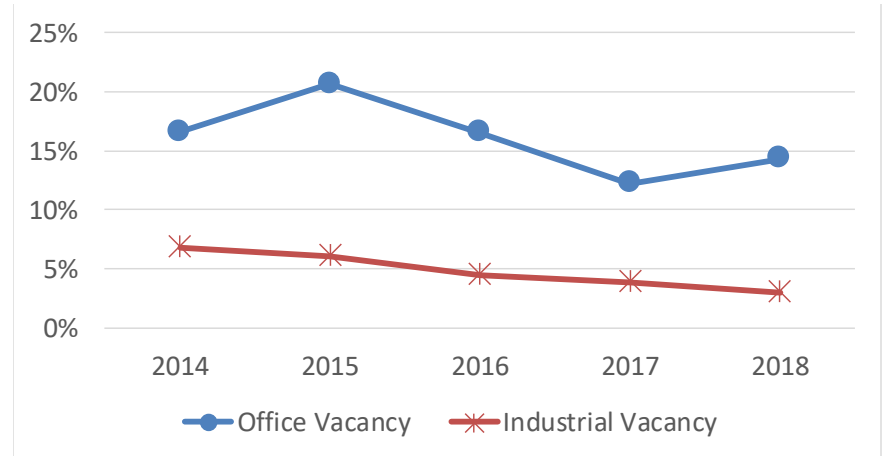
"The City of Burlington attracts talent, good jobs and economic opportunity while having achieved intensification and balanced, targeted population growth for youth, families, newcomers and seniors."

Commercial and Industrial Vacancy Rates

- Vacancy rates, the ratio of vacant space to the total amount of space available, are indicators of business demand. This provides signals to the commercial real estate sector regarding price and is an indication to developers of future demand.
- Vacancy rates are also a leading indicator of business activity. Declining vacancy rates suggest business is growing which increases the demand for non-residential space.
- Low vacancy rates are a sign that market conditions for business are good. Businesses have the confidence to invest in expanding and upgrading, and new businesses are starting up.
- Trends are also important to consider as a reflection of the overall economy.



Figure 9—Commercial Office & Industrial Vacancy Rate Trends



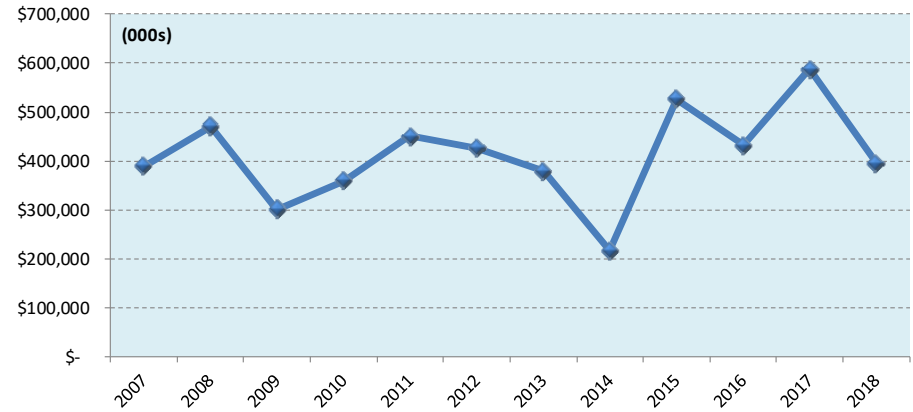
Source: Cushman & Wakefield Market Overview

- As shown in figure 9, the industrial vacancy rate has declined from 6.8% in 2014 to 3.0% in 2018. The office vacancy rate also declined from 16.6% in 2014 to 14.3% in 2018.

Construction Activity

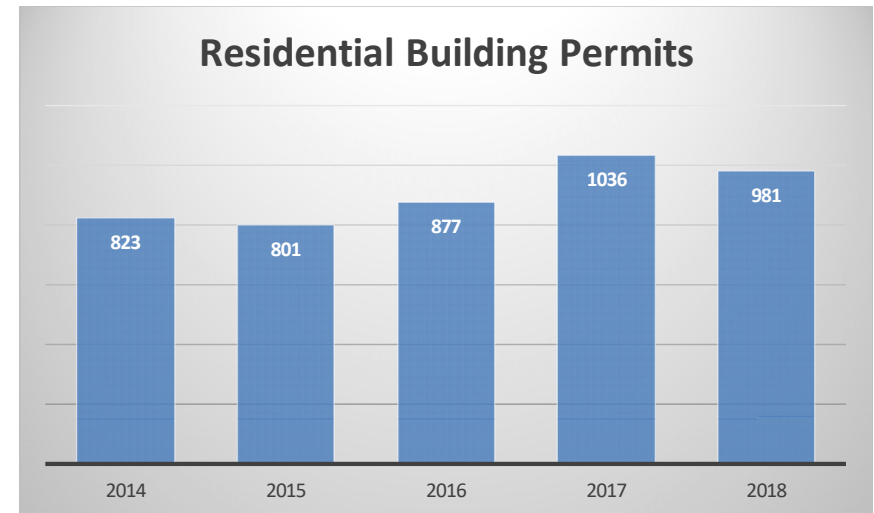
- Another growth related indicator is the construction activity within a municipality which provides information on both residential and non-residential development. Changes in building activity impact other factors such as the employment base, income and property values.
- It is important to look at building cycles over a relatively long period of time to identify trends in construction activity.
- Figure 10 provides the trends experienced in the City of Burlington for the past 12 years.
- Building construction activity is cyclical. Construction activity was at its peak in 2017. There was a notable increase in construction activity from 2014-2017.
- Construction activity in 2017 was \$573 million compared with \$395 million in 2018.
- As shown in figure 11, from 2014 to 2018, there have been in excess of 4,500 new residential permits issued, reflecting a strong housing market.

Figure 10—Total Construction Activity—City of Burlington (000's)



Source: City of Burlington Building year end reports

Figure 11—Total # of New Residential Permits Issued

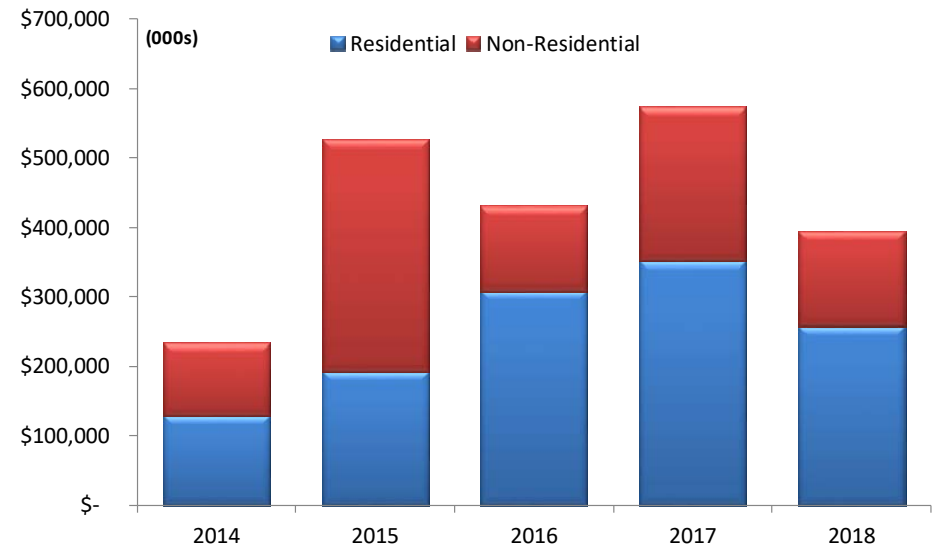


Source: City of Burlington Building year end reports

- Generally, a municipality's net operating costs to service residential development is higher than the net operating cost of servicing commercial or industrial development because many services such as recreation, libraries and parks are provided mainly for use by residents and the tax ratios are higher in non-residential properties which generates additional assessment.
- The ideal condition is to have sufficient commercial and industrial development to offset the net increase in operating costs associated with residential development. Non-residential development is desirable in terms of developing a strong assessment base upon which to raise taxes and in providing employment opportunities.
- Over the past five years, residential/non-residential construction activity (on a \$ of construction) is a 58/42 split in the City of Burlington, representing a good balance between residential and non-residential development.



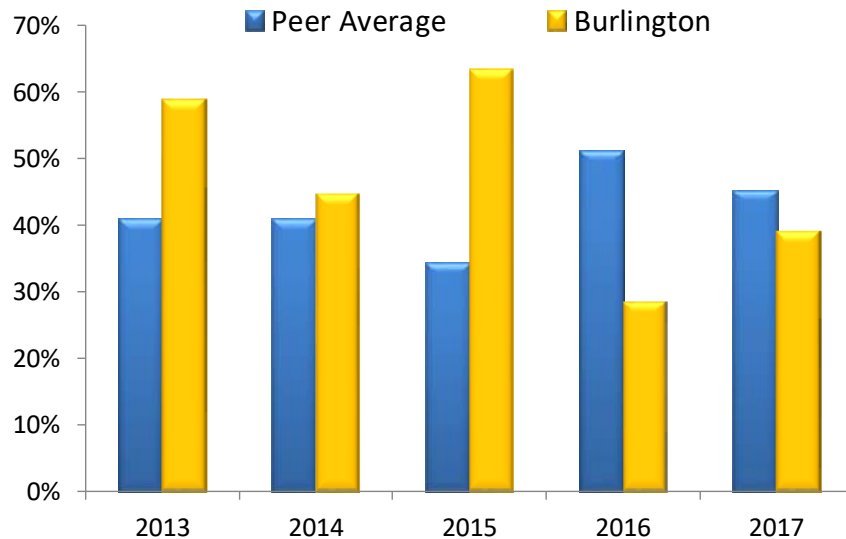
Figure 12—Residential and Non-Residential Construction Activity



Source: City of Burlington Building year end reports

- It is important to look at trends over time as well as the type of construction being undertaken.
- One large project in any year can have a significant impact of the overall construction activity.
- Industrial and Commercial activity has been very consistent and strong over the past five years, averaging over \$183 million annually.

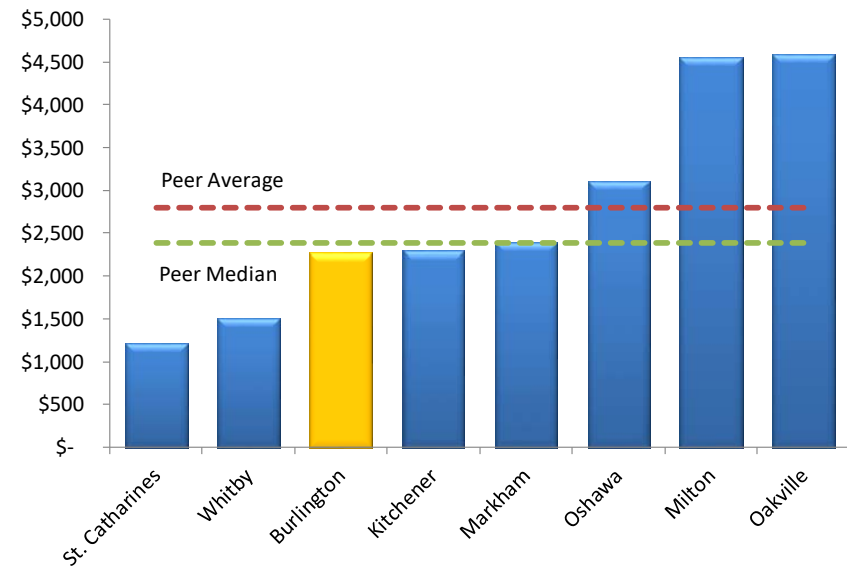
Figure 13—% Non-Residential Construction Activity—Peer Municipal Comparators



Source: BMA Municipal Studies

- A comparison was undertaken of the type of construction across the peer municipalities from 2013-2017 (note 2018 was not available for all comparators).
- As shown in figure 13, Burlington's proportion of non-residential construction activity exceeded the peer survey average from 2013-2015 but was lower than the peer average in 2016 and 2017. As explained previously, it is more beneficial to have a higher proportion of non-residential development.

Figure 14—Construction Activity Per Capita—Peer Municipal Comparators—5 Year Average



Source: City of Burlington year end construction reports

- To put building activity into context, building permit value per capita is used as an indicator of the relative construction activity within each community.
- As show in figure 14, the average building permit value per capita from 2013-2017 in Burlington was the below the peer municipal average but close to the peer median.

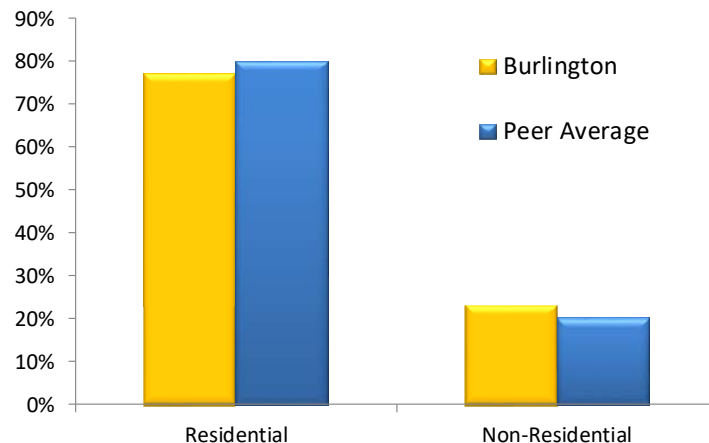
Assessment

Monitoring assessment is important because taxation is the largest source of revenues to support City programs, services and the replacement of assets. A strong assessment base provides a stable long-term funding source.

Assessment Composition

- As previously mentioned, it is more desirable to have a larger share of non-residential assessment as the municipal cost of service is generally lower than residential.
- In comparison to the peer municipalities, Burlington's assessment composition represents a good balance between residential and non-residential.
- As shown in figure 15, the 2018 combined weighted assessment in the non-residential assessment is 23.1% in Burlington compared with the peer average of 20%.

Figure 15—2018 Assessment Composition

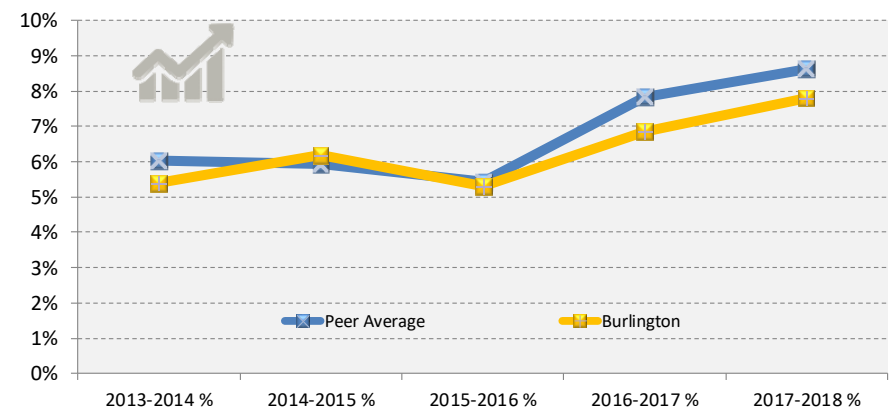


Changes in Assessment

Assessment growth, the richness of the assessment base and assessment composition are important indicators of fiscal strength.

- Assessment increases include changes in assessment related to growth as well as changes in market value of existing properties (which does not generate additional revenues).
- As shown in figure 16, from 2015-2018, the assessment increase in Burlington was lower than the peer average. This is consistent with the trends identified in the relative growth in construction activity.
- Limited future assessment growth may be an ongoing challenge.

Figure 16—Changes in Unweighted Assessment



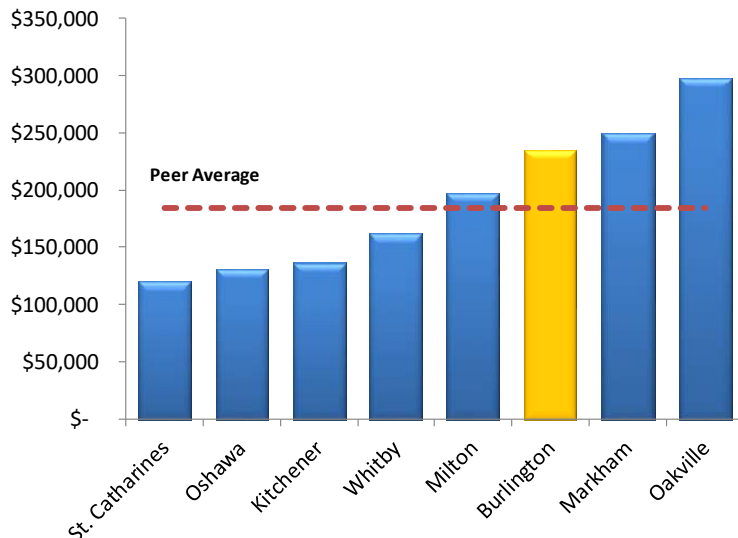
Source: BMA Municipal Studies using CVA

Richness of the Assessment Base

Assessment per capita statistics have been compared to provide an indication of the “richness” of the assessment base in each municipality.

- Weighted assessment reflects the basis upon which property taxes are levied after applying the tax ratios to the unweighted assessment.
- Burlington’s weighted assessment per capita is above the survey average and median of the peer municipal comparison, reflecting a strong base upon which to raise taxes.

Figure 17—2018 Weighted Assessment Per Capita



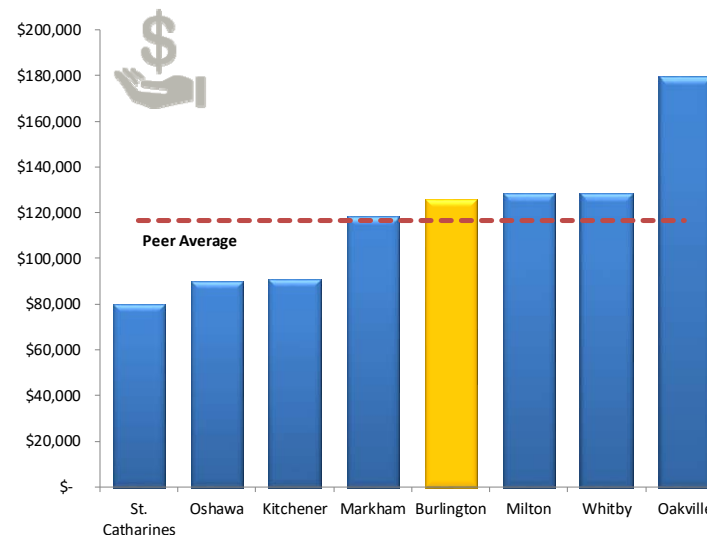
Source: BMA Municipal Studies using CVA

Household Income

Household income is one measure of a community’s ability to pay and is an indicator of the financial well-being of residents. Credit rating agencies use household income as an important measure of a municipality’s ability to repay debt. This indicator is also important to the economic health of businesses operating in Burlington.

- As shown in figure 18, in 2018, average household income in the City of Burlington is higher than the peer municipal average (\$116,531).
- While a higher relative household income is a positive indicator of the overall local economy, a higher household income tends to lead to greater expectations for quality programs and can lead to additional challenges in balancing desired levels of service with a willingness to pay for services.

Figure 18—2018 Gross Household Income



Source: Manifold Data Mining

Summary—Socio-Economic Indicators

<i>Socio-Economic Indicator</i>	<i>2015 Rating</i>	<i>2018 Rating</i>	<i>Comments</i>
<i>Population Growth</i>			Population growing but at a slower rate than peer municipalities.
<i>Population Density</i>			Population density is lower than peer average but this is impacted by urban area and environmentally sensitive land area.
<i>Demographics</i>			Higher proportion of seniors and this cohort is growing at a faster pace than the Provincial average.
<i>Unemployment Rate</i>			Continues to be below the Provincial average from 2014-2018 and aligned with full employment targets of 6% or less.
<i>Commercial Office Vacancy Rate</i>			Trending down from 2014-2017, with increase in 2018, consistent with Ontario provincial trend.
<i>Industrial Vacancy Rate</i>			Downward trend to 3% in 2018.
<i>Construction Activity</i>			Generally trending up with a good mix of residential/non-residential construction but lower than the peer average on a per capita basis.
<i>Assessment Composition</i>			Good mix of residential and non-residential assessment and the proportions have remained consistent over time.
<i>Richness of the Assessment Base</i>			Higher than the peer average over the past five years reflecting a strong assessment base upon which to raise taxes.
<i>Assessment Growth</i>			Growth in Burlington is lower than peer average.
<i>Household Income</i>			Higher than the peer average.



Section 2: Municipal Levy, Property Taxes and Affordability

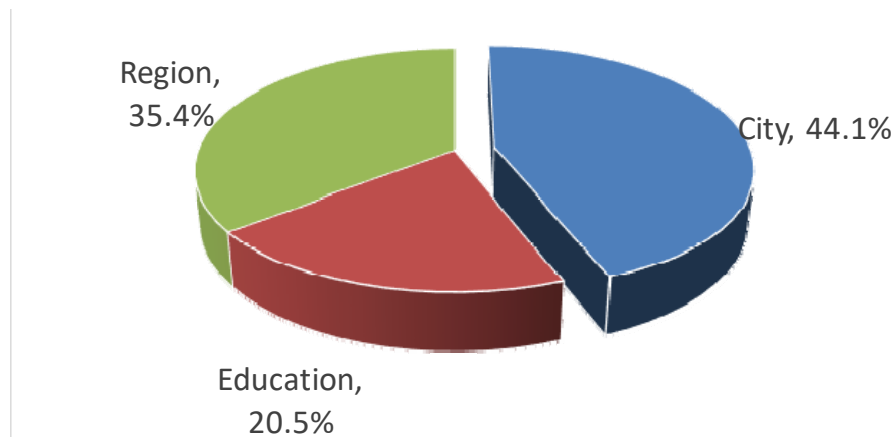
Municipal Levy, Property Taxes and Affordability

This section of the Financial Condition Assessment provides an overview of the cost of municipal services in the City of Burlington and in relation to peer municipalities. In addition, property taxes are reviewed in relation to household income to provide an indication of the affordability of services in Burlington in comparison to other municipalities. Finally, this section of the report compares the competitiveness of non-residential property taxes.

Municipal and Education Residential Property Taxes

Property taxpayers in the City of Burlington receive municipal programs and services through a two-tiered government structure: City and Regional. As shown in the following pie charts, in 2019 approximately 35.4% are related to the Regional cost of services, another 20.5% are related to education taxes, with the remaining 44.1% related to programs and services delivered by the City of Burlington.

Figure 19—2019 City of Burlington Property Tax Split



Excerpts - 2019 Operating Budget

The Budget includes the following recommendations:

- Enhanced focus on corporate strategic planning, management and strategy execution including ongoing implementation and reporting on City Council's 4 Year Workplan.
- Establishment of Corporate Innovation and Performance Improvement function including but not limited to an ongoing continuous improvement program (e.g. Lean Six Sigma).
- Development and Implementation of a City Manager led multi-year City Service Review Process focused on identifying and recommending for Council consideration in conjunction with the annual budget process, proposed changes to City services resulting in sustainable operational efficiencies and annual net budget savings.
- Establishment of an Organizational Transformation Function focused on strategic oversight and execution of major strategic initiatives and projects including citizen-centered digital service delivery.
- Development and implementation of regular corporate performance reporting on measurable outcomes related to major strategic initiatives and projects and ongoing service review efficiencies including cumulative net budget savings.



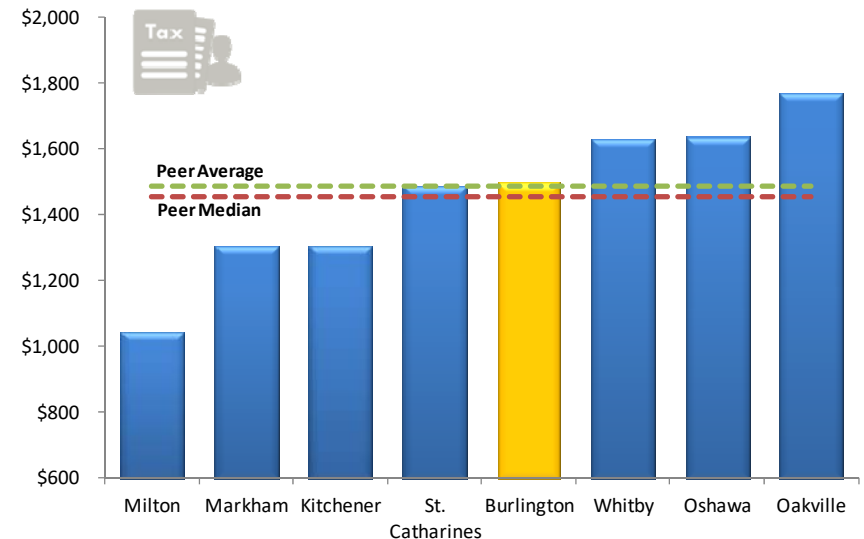
Municipal Levy Per Capita and Per \$100,000 of Assessment Comparison

In order to better understand the relative municipal tax position for the City, a comparison of net municipal levies was calculated based on a per \$100,000 of assessment as well as on a per capita levy basis. This analysis does not indicate value for money or the effectiveness in meeting community objectives as net municipal expenditures may vary as a result of:

- Different service levels;
- Variations in the types of services;
- Different methods of providing services;
- Different residential/non-residential assessment composition;
- Varying demand for services;
- Locational factors;
- Demographic differences;
- Socio-economic differences;
- Urban/rural composition differences;
- User fee policies;
- Age of infrastructure; and
- Use of reserves.

Note: These measures indicate the total net municipal levy (Regional and City) to provide services to the municipality. The City levy was not isolated for comparative purposes because there are differences in which level of government delivers the service (e.g. transit, solid waste) and includes one-tier municipalities.

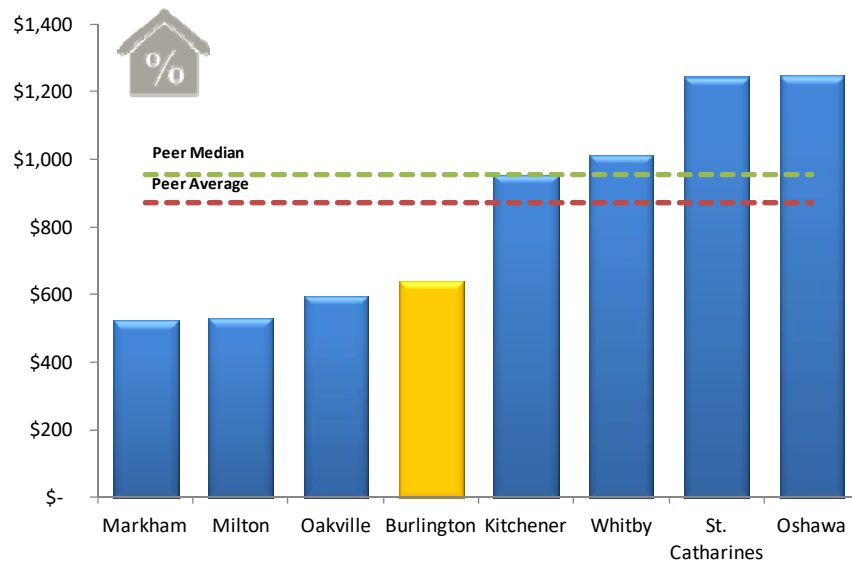
Figure 20—2018 Levy Per Capita Analysis



Source: BMA Municipal Study using 2018 Levy By-laws for each municipality

- The City of Burlington has approximately same level of spending as the peer average on a per capita basis.

Figure 21—2018 Levy Per \$100,000 of Weighted Assessment



Source: BMA Municipal Study using 2018 Levy By-laws for each municipality

- A comparison of the 2018 levy per \$100,000 of weighted assessment provides an indication of the levy in relation to the assessment base upon which taxes are raised.
- As shown in figure 21, the City of Burlington has a lower levy than average per \$100,000 of assessment. This results in lower property tax rates. This reflects a lower level of municipal spending in relation to the assessment base.

Municipal Tax Ratios

Tax ratios are set by the Region and define each property classes' rate of taxation in relation to the rate of the residential property class. The tax ratio for the residential class is set by the province at 1.00. The different relative burdens are reflected in the tax ratios. These relative burdens are used to calculate the municipal tax rate of each property class in relation to the residential class.

As shown in figure 22, the Multi-Residential tax ratio in the City of Burlington is average for peer municipalities. Efforts have been made to reduce the Multi-Residential ratio over the past several years (from 2.2619 in 2014 to 2.00 in 2018). A low commercial and industrial ratio supports economic development by providing a low property tax environment for non-residential properties. The commercial ratio is below the peer average but the industrial ratio is higher than the peer average.

Figure 22—2018 Tax Ratios

Municipality	Multi-Residential	Commercial	Industrial
York	1.00	1.23	1.50
Durham	1.87	1.45	2.19
Waterloo	1.95	1.95	1.95
Niagara	1.97	1.73	2.63
Peer Average	1.70	1.59	2.07
Median	1.91	1.59	2.07
Halton	2.00	1.46	2.36

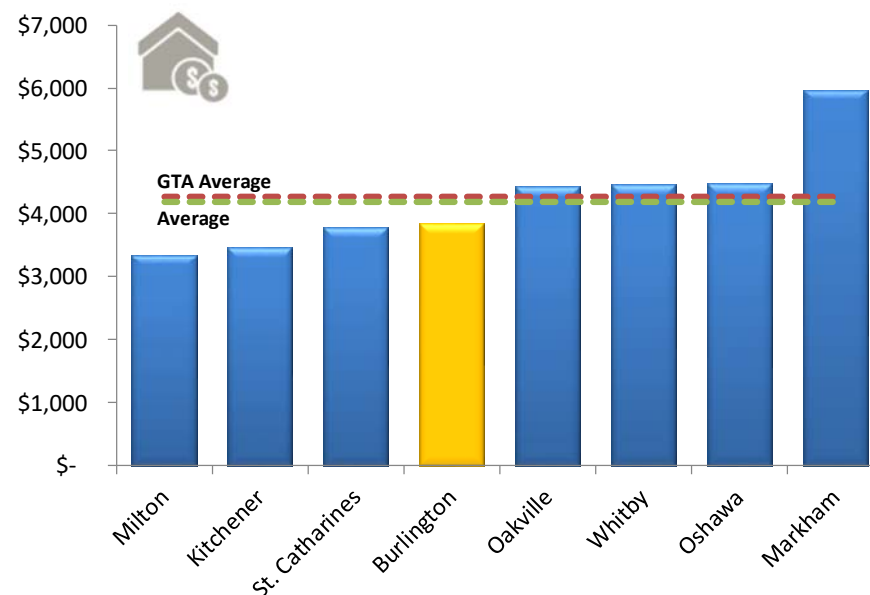
Source: 2018 BMA Municipal Study using Tax by-laws

Comparison of Relative Tax Burden

A “like” property comparison across each municipality and across various property types was undertaken. Annually BMA provides comparisons as part of a larger study which currently includes 108 Ontario municipalities. This study compares the tax burden in the Residential, Multi-Residential, Commercial and Industrial classes.

In order to calculate the relative tax burden of “like” properties, every effort is made to hold constant those factors deemed to be most critical in determining a property’s assessed value. However, given the number of factors used to calculate the assessed value for each property, and the inability to quantify each of these factors, the results should be used to provide the reader with **overall trends rather than exact differences in relative tax burdens between municipalities.**

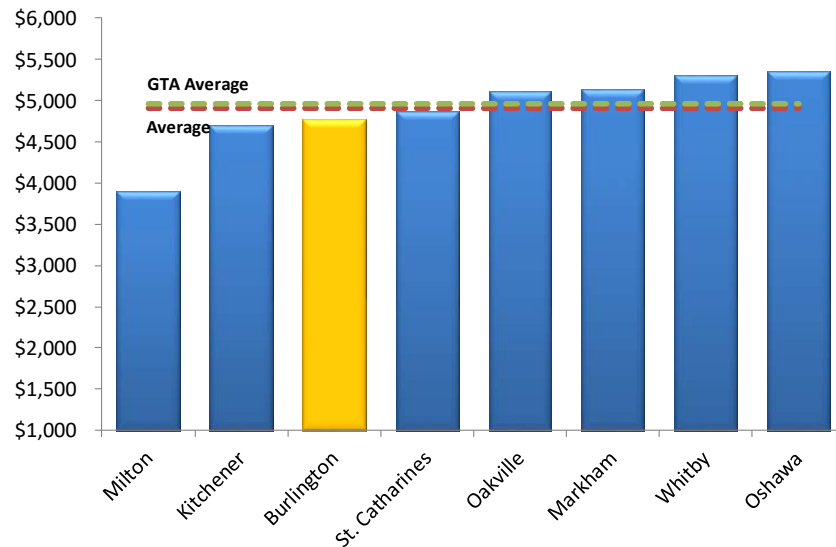
Figure 23—Tax Burden—Residential Bungalow Comparison (2018)



Source: BMA Municipal Study

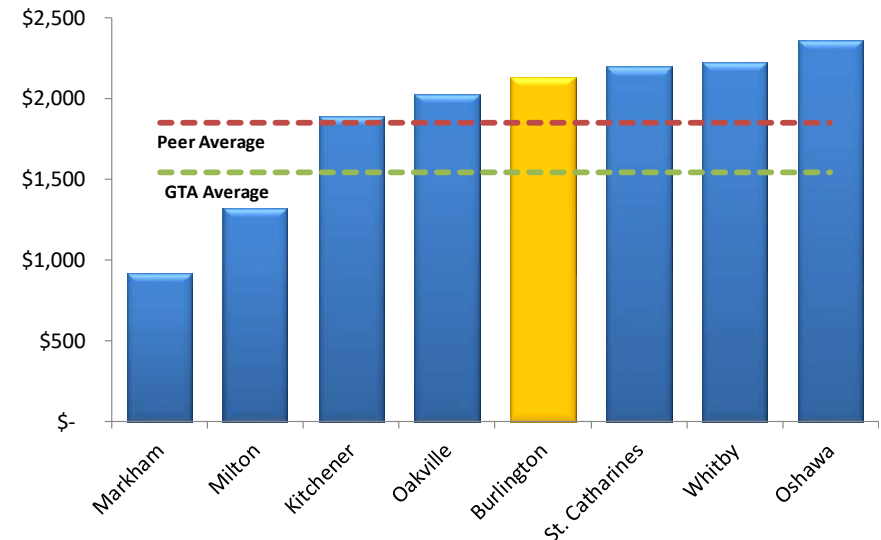
- A comparison was made of a detached three-bedroom single storey home with 1.5 bathrooms and a one car garage. Total area of the house is approximately 1,200 sq. ft. and the property is situated on a lot that is approximately 5,500 sq. ft.
- The tax burden is lower in Burlington compared with the municipal comparator group and the GTA average.

Figure 24—Tax Burden—Two Storey Residential Comparison (2018)



Source: BMA Municipal Study

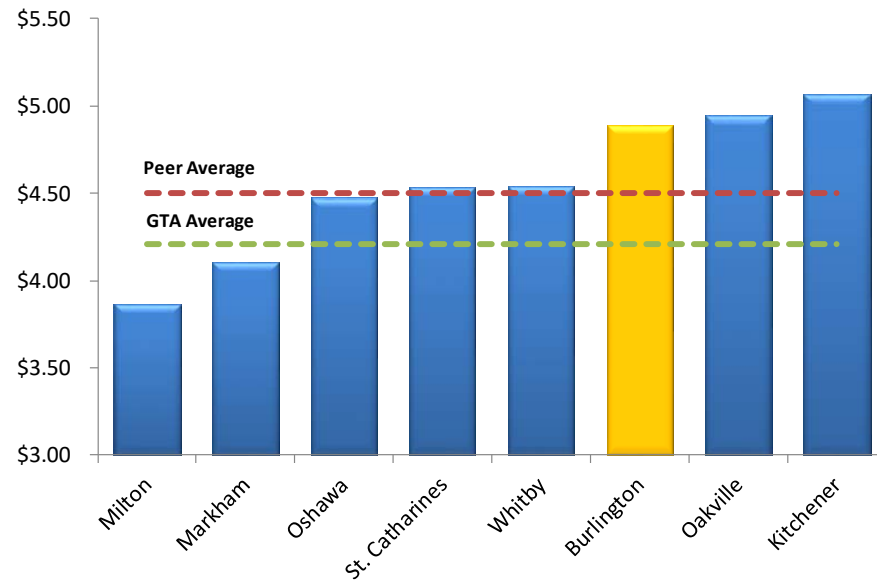
Figure 25—Tax Burden—Multi-Residential High-Rise Comparison—per unit (2018)



Source: BMA Municipal Study

- A comparison was made of the property taxes on a sample of properties in each municipality with a 2,000 square foot home on a lot of approximately 4,000-5,000 sq.ft. with an attached garage, 3 bedrooms and 2.5 bathrooms to understand the relative taxes in each community for “like properties”.
- As shown in figure 24, property taxes based on this property type in Burlington are below the survey average and GTA average.
- As shown above, taxes on a typical high-rise rental unit in Burlington is above the peer and GTA average. This is partly due to higher than average multi-residential tax ratios and higher per unit assessed values.

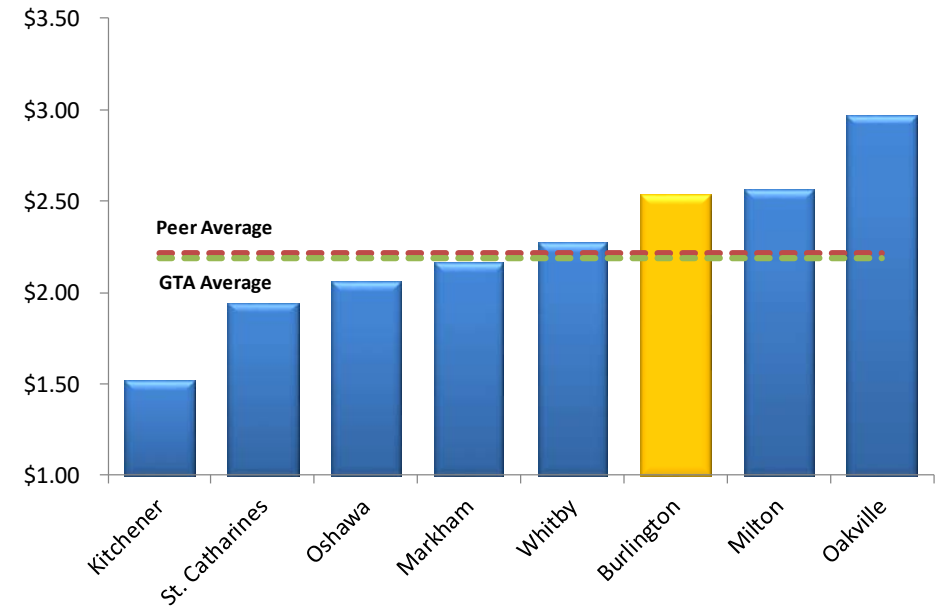
Figure 26—Tax Burden—Neighbourhood Shopping Comparison—per sq. ft. (2018)



Source: BMA Municipal Study

- As shown above, taxes on a typical neighbourhood shopping centre of a per square footage basis in Burlington is above the peer and GTA average.

Figure 27—Tax Burden—Standard Industrial Comparison (2018) - per sq.ft.



Source: BMA Municipal Study

- As shown above, taxes on a standard industrial building of a per square footage basis in Burlington is above the peer and GTA average.

Affordability

The following table compares total property taxes based on a median valued house in each of the municipalities using the MPAC database as well as the average household income to get an appreciation of the tax burden on a typical home in each municipality.

Figure 28—Affordability Comparisons

Municipality	2018 Median Value of Dwelling	2018 Total Taxes on an Average Dwelling Value	2018 Average Household Income	Property Taxes as a % of Income
Milton	\$ 502,387	\$ 3,506	\$ 128,664	2.7%
Oakville	\$ 735,956	\$ 5,636	\$ 179,132	3.1%
Kitchener	\$ 310,307	\$ 3,506	\$ 90,901	3.9%
Whitby	\$ 430,550	\$ 5,084	\$ 128,665	4.0%
Markham	\$ 709,375	\$ 4,922	\$ 118,152	4.2%
St. Catharines	\$ 240,834	\$ 3,450	\$ 80,012	4.3%
Oshawa	\$ 306,269	\$ 4,309	\$ 90,192	4.8%
Peer Average	\$ 462,240	\$ 4,345	\$ 116,531	3.8%
Median	\$ 430,550	\$ 4,309	\$ 118,152	4.0%
Burlington	\$ 507,123	\$ 4,134	\$ 125,873	3.3%

Source: MPAC (dwelling value), BMA Municipal Study (Property Taxes)

- The median dwelling value in the City of Burlington is above the average of peer municipalities.
- Property taxes on an average dwelling in Burlington are below the peer average and median.
- Municipal property taxes in relation to average household income are 3.3% in Burlington compared with the peer average of 3.8% and median of 4.0%.



Summary—Municipal Levy, Property Taxes and Affordability

Indicator	2015 Rating	2018 Rating	Comments
<i>Municipal Levy Per Capita</i>			Levy per capita is at peer average
<i>Municipal Levy Per \$100,000 of Weighted Assessment</i>			Levy per \$100,000 of assessment is lower than peer average
<i>Property Taxes on a Residential House (Bungalow)</i>			Taxes are below the comparator average
<i>Property Taxes on a Two Storey Residential House</i>			Taxes are below the comparator average
<i>Property Taxes on a Multi-Residential High Rise</i>			Taxes are above the comparator average
<i>Property Taxes on a Commercial Shopping Centre</i>			Taxes are above the comparator average
<i>Property Taxes on an Industrial Building</i>			Taxes are above the comparator average
<i>Multi-Residential Tax Ratio</i>			Ratio is above peer average but improvements have been made since 2015
<i>Commercial Tax Ratio</i>			Ratio is below the peer average
<i>Industrial Tax Ratio</i>			Ratio is above peer average. No change has been made since 2015
<i>Residential Affordability</i>			Property taxes as a percentage of household income is below the peer average, third lowest of peer municipalities



Section 3: Financial Position

Burlington's Financial Position

Reserves/Reserve Funds are established by Council to assist with long term financial stability and financial planning. Credit rating agencies consider municipalities with higher reserves more advanced in their financial planning.

Asset Consumption Ratio highlights the relative age of the assets and the potential timing of asset replacements.

Debt is an important indicator of the City's financial health. Debt is an appropriate way of financing longer life items, especially new assets or new corporate initiatives that are not fully recovered through DCs since future taxpayers, that receive the benefit, will also pay through future debt charges. However, when debt levels get too high, it compromises the City's flexibility to fund programs and services.

Financial Position of the City is important to consider as this takes into consideration the City's total financial assets and liabilities.

Taxes Receivable, as a percentage of taxes levied, is an indicator of the economic health of the community.



Summary of Financial Policies

As will be described in this section of the report, the City of Burlington has extensive financial policies including but not limited to:

- **Debt Management**
- **New/Enhanced Assets**
- **Infrastructure Renewal Assets**
- **Growth Assets**
- **Infrastructure Renewal Reserve Fund (IRRF)**
- **One-Time Funding Usage**
- **Capital from Operating Financing**
- **Development Charges Borrowing**
- **Stabilization Reserves**
- **Asset Management**

Introduction to Reserves and Reserve Funds

Maintaining sufficient reserves and reserve funds are a critical component of sound financial planning and management. The purposes for maintaining reserves are:

- ✓ To provide **stabilization** in the face of variable and uncontrollable factors and to ensure adequate and **sustainable cash flows**;
- ✓ To provide financing for **one-time** or short term requirements without permanently impacting the tax rates thereby reducing reliance on long-term debt;
- ✓ To make provisions for **replacement of capital assets** to sustain infrastructure;
- ✓ To provide **flexibility** to manage debt levels and protect the City's financial position; and
- ✓ To provide for **future liabilities** incurred in the current year, but paid for in the future.



Reserves and Reserve Funds

Authority

Funds held in a reserve can be utilized at the discretion of a Municipality, subject to the parameters defined for the reserve when it was established. By using reserves and reserve funds, municipalities retain the capability to designate funds that will be deployed for specific purposes in the future. Municipalities also retain the flexibility to allocate funds beyond the current year, which is a key link to longer-term financial planning practices.

Definitions

A Reserve and Reserve Fund is a financial provision or amount that is designated for a future purpose that extends beyond the current fiscal year. While the balance may vary over the course of a year, the funds are carried forward from one fiscal year to the next to facilitate multi-year financial planning. Reserves can be established to meet specific liabilities such as the replacement/acquisition of capital assets or to protect against known risks or unforeseen circumstances that may create financial difficulties.

Reserves

A reserve is an appropriation from net revenue, after the provision for all known expenditures. It has no reference to any specific asset and does not require the physical segregation of money or assets as is the case of a reserve fund and does not earn interest.

Reserve Funds

A reserve fund differs from a reserve in that reserve fund assets are segregated and restricted to meet the purpose of the reserve fund and it earns interest. There are two types of reserve funds: obligatory reserve funds and discretionary reserve funds.

Obligatory reserve funds are created whenever a statute requires revenue received for special purposes to be segregated from the general revenues of the municipality. Examples include:

- moneys received in lieu of land for park purposes and under a subdivision agreement as set out under Subsection 42(6), (15) and 51.1(5) respectively of the Planning Act; and
- moneys received as development charges as set out under Sections 33 to 37 of the Development Charges Act.

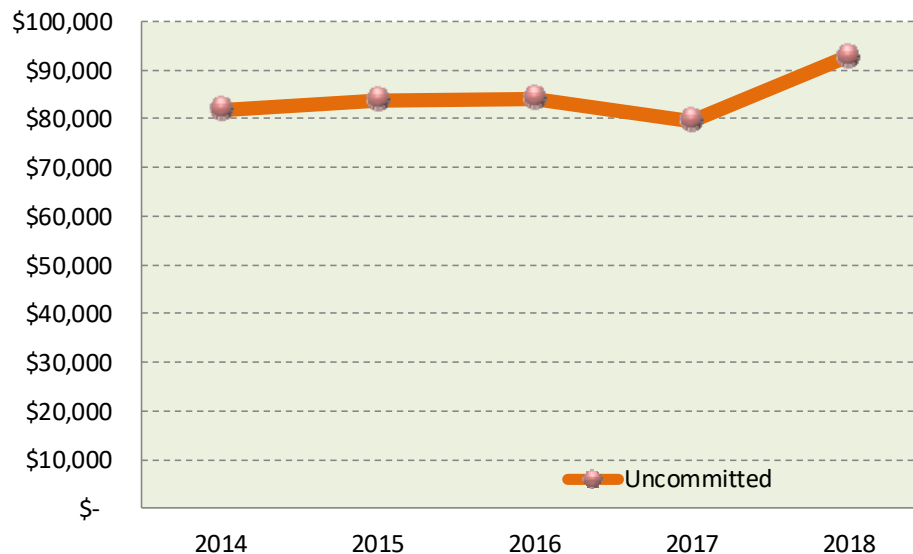
Discretionary reserve funds are created under Section 417 of the *Municipal Act*. Discretionary reserve funds are established whenever a municipal council, local board or other entity wishes to earmark revenues to finance a future expenditure for which it has the authority to spend money, and physically set aside a certain portion of any year's revenues so that the funds are available as required. The Ministry of Municipal Affairs and Housing suggests that municipalities, local boards or other entities create new reserve funds or additional allocations to a reserve fund through the budget process, including, defining the purpose for which the reserve fund is being created.



Reserves/RF (Excluding Obligatory Reserves/Reserve Funds)

- As shown in Figure 29, on a consolidated basis, the City's Reserves/Reserve Funds have experienced an upward trend from 2014–2018. The graph below reflects reserve balances (excluding DCs and Park Dedication Funds) taking into consideration commitments.
- From 2014-2018 the consolidated balance increased 15%. This is primarily driven by increases in Stabilization Reserves, Corporate Reserves, Program Specific and Local Boards and Agencies Reserves/Reserve Funds. Over the same period, all major classifications of Capital Reserves have declined which will be discussed in further detail later in the report.

Figure 29—Reserves/RF (Excluding Obligatory Reserves/Reserve Funds) (000's)

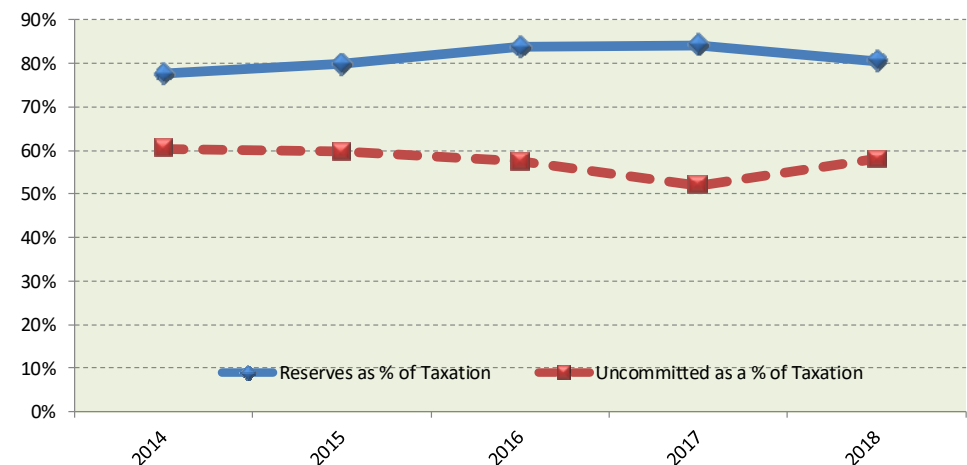


Source: Reserve Statements uncommitted balances

Reserves as a % of Taxation

- The discretionary reserves/reserve funds as a percentage of taxation was evaluated, both the trends, as well as in relation to other peer municipalities. Note that this analysis excludes obligatory reserve funds (e.g. Development Charges).
- Reserves as a % of taxation provide a measure of the financial health of a municipality. Figure 30 provides an historical representation of the City's reserves (excluding obligatory reserves) as a percentage of taxation, both the total year end balances and the uncommitted reserve balances.
- Low levels of reserves are indicative of a limited capacity to deal with cost increases or revenue losses, requiring the City to revert to taxation or user fee increases or the issuance of debt.
- As shown below, the reserves as a percentage of taxation has been relatively flat over the past five years.

Figure 30—Reserves as a % of Taxation

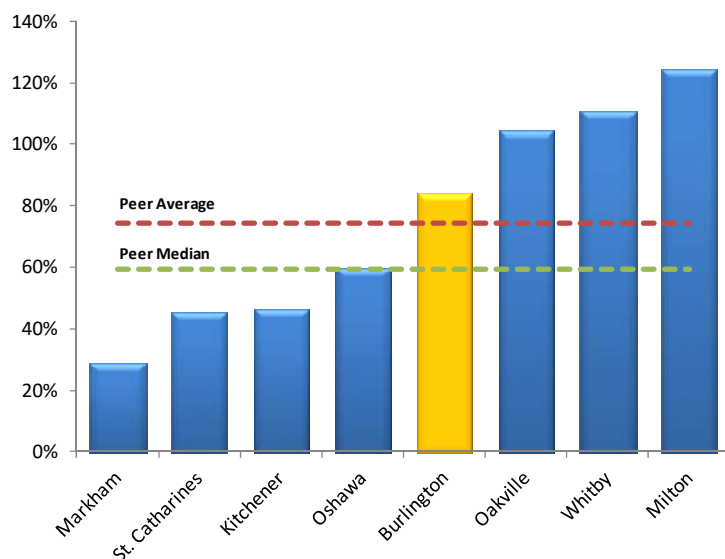


Source: Reserve Statements, year end balances and uncommitted balances

Reserves/Reserve Funds as a % of Taxation

- As shown in figure 31, the City of Burlington's discretionary reserves as a percentage of taxation are above the peer survey average and median.

Figure 31—2017 Reserves/RF as a % of Taxation

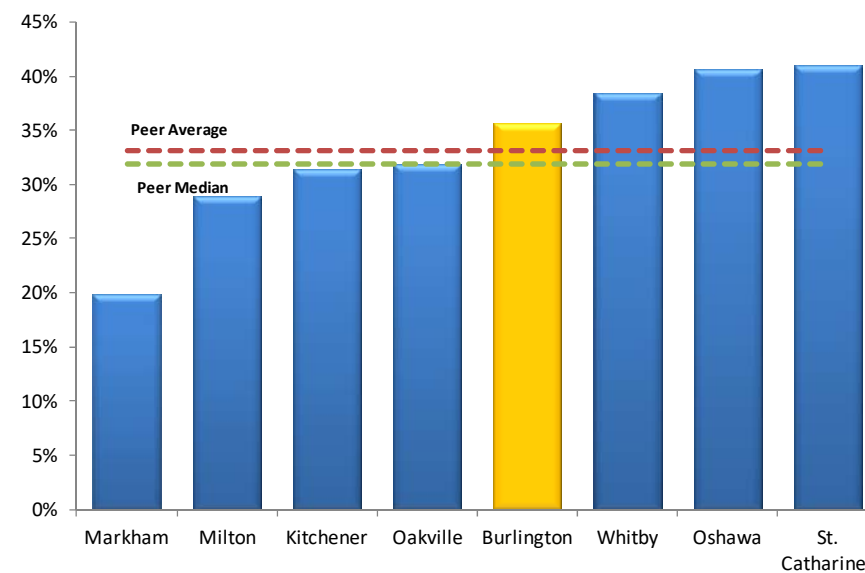


Source: FIRs

Asset Consumption Ratio

- The asset consumption ratio (see Figure 32) shows the written down value of the tangible capital assets relative to their historical costs. This ratio highlights the relative age of the assets and the potential timing of asset replacements.
- As shown below, the City's asset consumption ratio is higher than the peer average and median, reflecting potentially greater replacement needs in the short to mid term than other municipalities such as Markham, Milton, Kitchener and Oakville with a lower asset consumption ratio. This indicates a need for healthier capital replacement reserves.

Figure 32—2017 Asset Consumption Ratio



Source: FIRs

Summary of Tax Reserves and Reserve Funds 2014-2018

Figure 33—Tax Reserves/Reserve Funds 2014-2018 Balances—Major Classifications

TOTAL Reserves and Reserve Funds (excluding DCs)							
TOTAL Reserves and Reserve Funds (000s) (excluding DCs)	2014	2015	2016	2017	2018		5 Year Change
Stabilization Reserves and Reserve Funds	\$ 16,764	\$ 16,763	\$ 17,668	\$ 20,863	\$ 23,391	\$	6,628
Capital Reserve funds	\$ 45,772	\$ 46,709	\$ 41,114	\$ 32,924	\$ 40,766	\$	(5,006)
Other Capital Reserve Funds	\$ 37,846	\$ 38,818	\$ 32,100	\$ 27,012	\$ 33,140	\$	(4,706)
Vehicle and Equipment Reserve Funds	\$ 5,107	\$ 6,263	\$ 6,527	\$ 4,061	\$ 4,715	\$	(391)
Transit Related Reserve Funds	\$ 2,819	\$ 1,628	\$ 2,487	\$ 1,851	\$ 2,911	\$	92
Corporate Reserves and Reserve Funds	\$ 5,051	\$ 4,621	\$ 5,618	\$ 6,182	\$ 7,025	\$	1,975
Program Specific Reserves and Reserve Funds	\$ 3,841	\$ 5,117	\$ 7,563	\$ 6,431	\$ 6,738	\$	2,897
Local Boards Reserve Funds	\$ 9,311	\$ 10,357	\$ 12,056	\$ 13,031	\$ 14,995	\$	5,684
TOTAL Reserves and Reserve Funds (excluding DCs)	\$ 80,738	\$ 83,567	\$ 84,019	\$ 79,431	\$ 92,916	\$	12,178

Source: City's year end reserve report less commitments.

Figure 33 provides a summary of the City's reserves and reserve funds (excluding Development Charges and Park Dedication Funds). **The City's total reserves and reserve funds (excluding growth and development related reserves) have increased by 15% (\$12.2 million) since 2014.**

- **Stabilization Reserves and Reserve Funds** have increased 40% (\$6.6 million) since 2014. This category includes General Contingencies, Tax Stabilization, Severe Weather and Building, Planning and Engineering Stabilization Reserves.
- **Capital and Related Reserve Funds** have decreased 11% (\$5.0 million) since 2014. This category includes reductions in Vehicle and Equipment Reserves, Transit and Other Capital Reserves/Reserve Funds.
- **Corporate Reserve/Reserve Funds** have increased 39% (\$2.0 million) since 2014. This is primarily as a result of increases in the Employee Accident Reserve and Benefits Reserve, which are unfunded contingent liabilities.
- **Program Specific Reserves/Reserve Funds** have increased 75% (\$2.9 million) since 2014.
- **Local Boards Reserve Funds** have increased 61% (\$5.7 million) since 2014.

Figure 34—Summary of Stabilization Reserves/Reserve Funds

Stabilization Reserves and Reserve Funds							
Stabilization Reserves and Reserve Funds (000s)	2014	2015	2016	2017	2018	5 Year Change	
Contingency	\$ 6,044	\$ 3,617	\$ 4,538	\$ 5,033	\$ 6,273	\$ 228	
Severe Weather	\$ 784	\$ 2,936	\$ 3,275	\$ 3,811	\$ 3,913	\$ 3,129	
Tax Rate Stabilization	\$ 5,224	\$ 5,126	\$ 4,678	\$ 4,113	\$ 5,866	\$ 642	
Building Permit Stabilization	\$ 3,147	\$ 2,986	\$ 3,191	\$ 3,625	\$ 2,774	\$ (374)	
Planning Fee Stabilization	\$ 1,195	\$ 1,812	\$ 1,751	\$ 3,279	\$ 3,706	\$ 2,511	
Engineering Fee Stabilization	\$ 370	\$ 286	\$ 201	\$ 813	\$ 665	\$ 295	
Commodity Stabilization Reserve Fund	\$ -	\$ -	\$ 35	\$ 190	\$ 195	\$ 195	
Stabilization Reserves and Reserve Funds	\$ 16,764	\$ 16,763	\$ 17,668	\$ 20,863	\$ 23,391	\$ 6,628	

Purpose

The City holds stabilization reserves to offset extraordinary and unforeseen expenditure requirements, one-time expenditures, revenue shortfalls, to avoid wide fluctuations on the General Levy and to manage cash flows. This includes reserves and reserve funds for severe weather, tax stabilization, contingency and development application reserve funds.

Guiding Principles - Stabilization Reserves/Reserve Funds

- A prudent level of Stabilization Reserves/Reserve Funds will be maintained to protect against reducing service levels or raising taxes because of temporary revenue shortfalls or unanticipated expenditures.
- The use of Stabilization Reserves/Reserve Funds will be restricted to extraordinary or unforeseen events and will not be used to balance Operating Budgets.
- The City will segment Stabilization Reserves/Reserve Funds for those programs that are funded by user fees and permit revenues where there is significant fluctuation in activity from year to year to ensure that the funds are available to address any future revenue shortfalls.
- Minimum balances, ceilings and targets will be established, where appropriate, to provide a guideline for Stabilization Reserve balances and to balance the needs for Stabilization Reserves against Capital Reserves.

Stabilization Reserve and Reserve Fund Targets

The City has a number of Stabilization Targets that have been incorporated into their financial policies. The next several pages summarize the targets, year end uncommitted balances and trends.


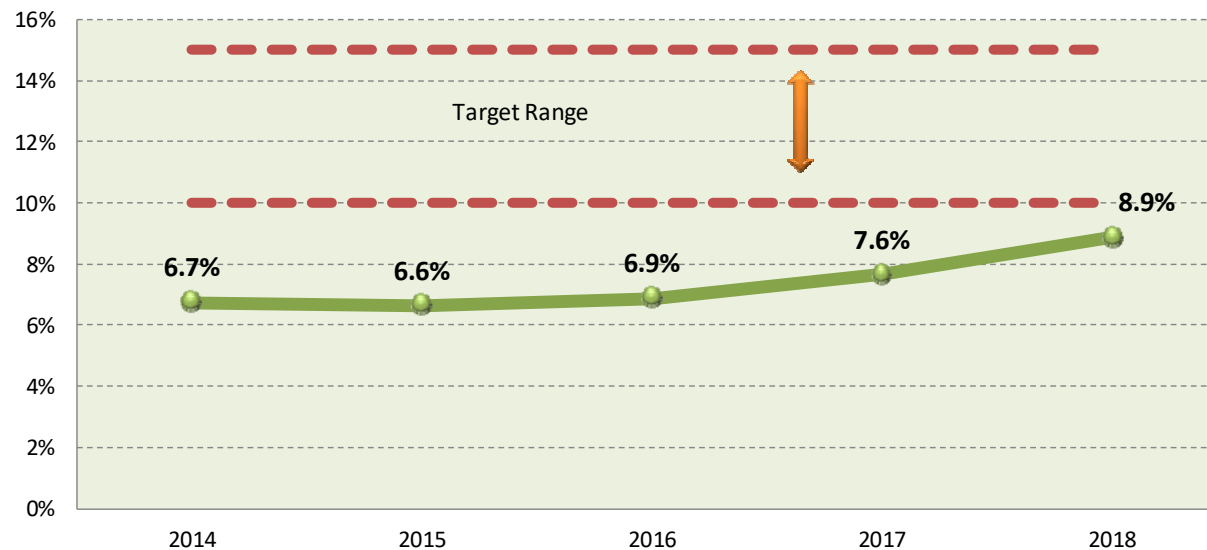




	Target/Description	2018 Available Reserves	2018 Target	Target Evaluation
Consolidated Tax Stabilization Reserves	The target balance for the consolidated Tax Stabilization Reserves/ Reserve Funds (excluding Building Permit Stabilization Reserve Fund) will be set at 10%-15% of the City's own source revenues.	\$20.6 million	\$23.2—\$34.8 million	

Figure 35—Burlington's Stabilization Reserves/Reserve Funds as a % of Own Source Revenues (2014-2018)






As shown in figure 35, the existing balance in the consolidated Tax Stabilization Reserves is below the policy target of 10%-15% of own source revenues. Note that in the 2019 Budget, there was \$2.4 million of commitment approved from the tax rate stabilization reserve fund which was partially offset with a provision amount of \$1.6 million from the 2018 operations.

Stabilization Reserve and Reserve Fund Targets

	<i>Target/Description</i>	<i>2018 Available Reserves</i>	<i>2018 Target</i>	<i>Target Evaluation</i>
<i>Contingency</i>	This Reserve is used to address confidential legal and human resource matters.	\$6.3 million	N/A part of consolidated target	
<i>Severe Weather</i>	The Severe Weather Reserve Fund target balance is equal to one year's expenditure requirements. A minimum balance of 25% of the five year average of winter maintenance costs (adjusted for inflation) should be maintained at all times. During years where the Severe Weather Reserve Fund is below the minimum balance, a budgeted transfer will be made.	\$3.9 million	\$1.5 million	
<i>Tax Stabilization</i>	Reserve Fund is used to address tax stability, to fund operating deficits and one-time expenditures. This Reserve has been used for such items as funding contract positions and special events and studies. This Reserve is funded through operating surpluses. See Consolidated Tax Stabilization Reserve/Reserve Fund target.	\$5.9 million	N/A part of consolidated target	
<i>Building Permit Stabilization</i>	The Building Fee Stabilization Reserve Fund will have a target of 163% of total direct operating expenditures. If the target is exceeded and remains above the ceiling for two years or more, the city will undertake a review to determine whether the balance should remain above the target.	\$2.8 million	\$2.9 million	

Stabilization Reserve and Reserve Fund Targets

	<i>Target/Description</i>	<i>2018 Available Reserves</i>	<i>2018 Target</i>	<i>Target Evaluation</i>
Planning Fee Stabilization	Established to stabilize program revenues and expenditures which can vary from year to year based on the level of development activity in the City. This is a sound and fiscally responsible strategy to avoid impacts on the general tax base and to avoid spikes in fees. In years where revenue surpluses occur, the balance is transferred to the respective Reserve Fund which is, in turn, used to fund revenue shortfalls in deficit years.	\$3.7 million	N/A part of consolidated target	
Engineering Fee Stabilization		\$0.6 million	N/A part of consolidated target	
Commodity Stabilization		\$0.2 million	N/A part of consolidated target	

Asset Management and Capital Reserves/Reserve Funds

Purpose

Capital Reserves/Reserve Funds are used to assist in financing the capital program. They provide flexibility and liquidity as well as enhancing the City's capacity to handle current and future capital infrastructure needs. Capital assets must be supported by contributions to Reserves/Reserve Funds to address their eventual rehabilitation and/or replacement.

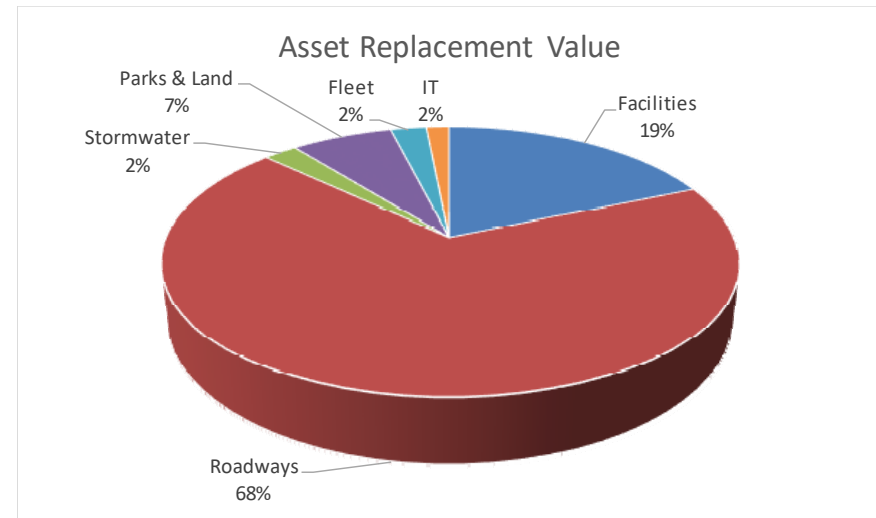
Asset Management and Capital Reserves/Reserve Funds includes the following main classifications:

Capital General

Transit

Vehicles & Equipment

Figure 36—Replacement Values by Asset Category (2016)



- The total replacement value of the City's capital assets is approximately \$3 billion. Figure 36 provides the breakdown by asset type.

Guiding Principles—Capital Reserve and Reserve Funds

- The City’s infrastructure is aging, and funds must be committed to ensure it is properly maintained and renewed. The infrastructure is subject to time-varying pressures such as aging, deterioration, increasing demand, and climate that affect the current state and overall long term performance. The City has an obligation to protect its investment and strike a balance between new/enhanced facilities and the proper maintenance of existing infrastructure.
- Asset acquisition and construction will be subject to a cost-benefit analysis that considers lifecycle costing and ongoing operating costs. All assets will be maintained at a level that protects capital investment and minimizes future maintenance and replacement costs. The City will consider the cost of delaying repairs/replacement compared to the cost to restore at the appropriate time.
- Capital Reserves and Reserve Funds form an important component of any Capital Financing Plan and are used extensively by the City in financing the capital program for maintenance and replacement of capital assets. Planned contributions to Capital Reserves/ Reserve Funds have contributed to the success of the City’s financial management program. The City will determine future capital reserve requirements based on the inventory of tangible capital assets, the condition of the assets, the useful life of the assets and their disposal value.
- Best practice is to contribute to Capital Reserves and Reserve Funds for the replacement/refurbishment of capital assets. This will reduce the reliance on debt financing.
- Capital is scarce and as a result, the City will seek to extend the life of assets where possible. For example, on road rebuild projects, sidewalks are not completely replaced. Typically, only damaged sections are replaced. Similarly, vehicles and computers are not replaced when their planned lifetime is up; their condition is evaluated and extended where possible.
- A focus on renewal could consume every available dollar. While recognizing the priority of renewal, some resources will be allocated for capacity additions reflecting the highest priority needs of the community.

Excerpts—Asset Management Program Report CW-02-19

Based on the 2016 AMP, the estimated Unfunded Renewal Need (URN) totals \$126.5M, of which roadways represents the largest backlog. Tackling the URN is a short-term objective of the financing strategy. Doing so in a timely manner will minimize total long-term renewal costs by providing the right treatment, to the right asset, at the right time. This is the optimal way of minimizing the escalating deterioration of our assets.

The **annual average renewal need is estimated to be \$67.5M**, which is the amount the City requires to sustain its existing asset inventory.

The URN has accumulated due to historical under-funding in a period of rapid and extensive growth. **Growth in assets contributes to a greater need to re-invest in City assets** and that was not occurring. The URN grows each time we do not renew an asset at the right time. This increases the likelihood of increased cost to do the same work or increased costs due to further deterioration. With the approval of the recent financing strategy, staff is correcting for the past and working towards sustainability to achieve timely renewal of assets.



Existing Policies and Capital Strategies

The following details the present day financing plan and funding the city's proposed (2019) ten-year capital renewal program;

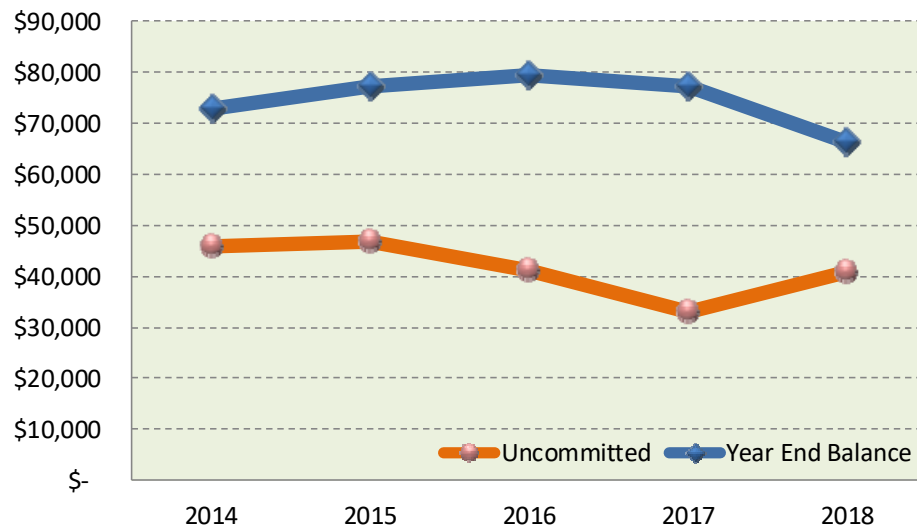
- Dedicated infrastructure levy of 1.25% with reductions planned.
- Additional 0.2% levy to address renewal needs of a growing asset inventory.
- An annual increase of 4% to the Vehicle Depreciation Reserve Fund to sustain the City's fleet and equipment inventory.
- Planned repurposing of the hospital levy.
- To ensure sustainability of the conventional bus renewal program, minimize the use of provincial gas tax revenues in the Operating Budget.
- Hydro Reserve Fund is the funding source for the Infrastructure Renewal Reserve Fund on an annual basis.

Figure 37—Total Capital Reserves/Reserve Funds (000's)

TOTAL Capital Reserves and Reserve Funds (000s)	2014	2015	2016	2017	2018	5 Year Change
Other Capital Reserve Funds	\$ 37,846	\$ 38,818	\$ 32,100	\$ 27,012	\$ 33,140	\$ (4,706)
Vehicle and Equipment Reserve Funds	\$ 5,107	\$ 6,263	\$ 6,527	\$ 4,061	\$ 4,715	\$ (391)
Transit Related Reserve Funds	\$ 2,819	\$ 1,628	\$ 2,487	\$ 1,851	\$ 2,911	\$ 92
Total Capital	\$ 45,772	\$ 46,709	\$ 41,114	\$ 32,924	\$ 40,766	\$ (5,006)

Reserve ending balance less commitments

Total Capital Reserves and Reserve Funds (000's)



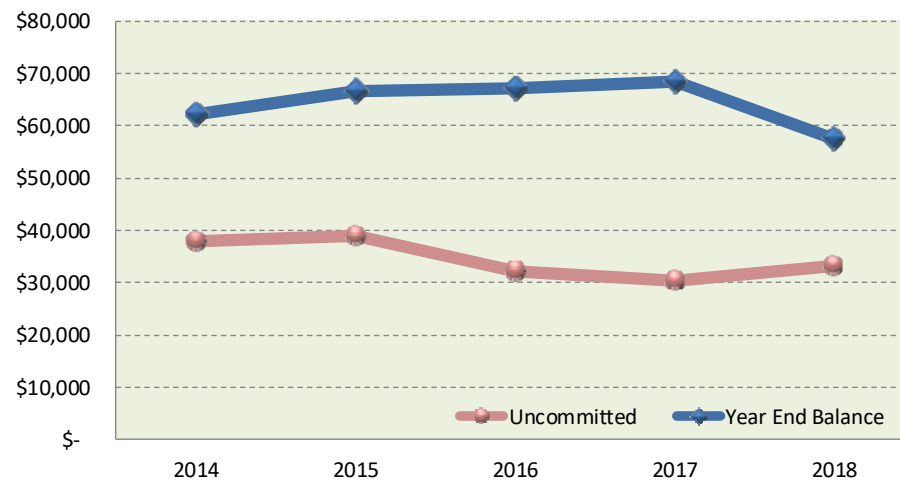
- As shown in the figure 37, the year end balance and the uncommitted balanced have declined from 2014-2018.
- Reductions have occurred in the three classifications of capital asset reserves since 2014.
- A general rule is for a municipality to maintain a minimum balance in the consolidated capital reserves of 2% of the asset replacement value to address any emergency unplanned capital replacement requirements. Based on this standard, the City should have an uncommitted balance of approximately \$60 million (\$3 billion replacement value) and the existing balance is \$40.7 million.
- **It is recommended that the City target a minimum balance of 2% of asset replacement value to be maintained in the consolidated Capital Reserves and Reserve Funds.**

Figure 38—Summary of Capital Reserves and Reserve Funds (Excluding Vehicles and Transit)

Capital Reserve Funds							
Capital Reserve Funds (000s)	2014	2015	2016	2017	2018	5 Year Change	
Burlington Hydro Proceeds	\$ 22,775	\$ 22,089	\$ 20,761	\$ 14,406	\$ 8,475	\$	(14,300)
Capital Purposes	\$ 7,066	\$ 8,861	\$ 3,866	\$ 1,767	\$ 4,842	\$	(2,224)
Infrastructure Renewal	\$ 1,534	\$ 2,558	\$ 1,240	\$ 2,577	\$ 6,628	\$	5,094
Information Technology Renewal	\$ -	\$ -	\$ 830	\$ 764	\$ 1,198	\$	1,198
Federal Gas Tax	\$ 2,782	\$ 3,858	\$ 2,761	\$ 4,573	\$ 3,530	\$	749
Public Art Reserve Fund	\$ 663	\$ 684	\$ 590	\$ 555	\$ 627	\$	(36)
Railway Crossing	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
Joseph Brant Hospital	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
Strategic Plan	\$ -	\$ -	\$ -	\$ 737	\$ 708	\$	708
Strategic Land Acquisition	\$ 3,026	\$ 768	\$ 2,053	\$ 1,634	\$ 7,133	\$	4,107
Capital Reserve Funds	\$ 37,846	\$ 38,818	\$ 32,100	\$ 27,012	\$ 33,140	\$	(4,706)

Reserve ending balance less commitments

- As shown in figure 38, the year end balance and the uncommitted balanced have declined over the past 5 years.



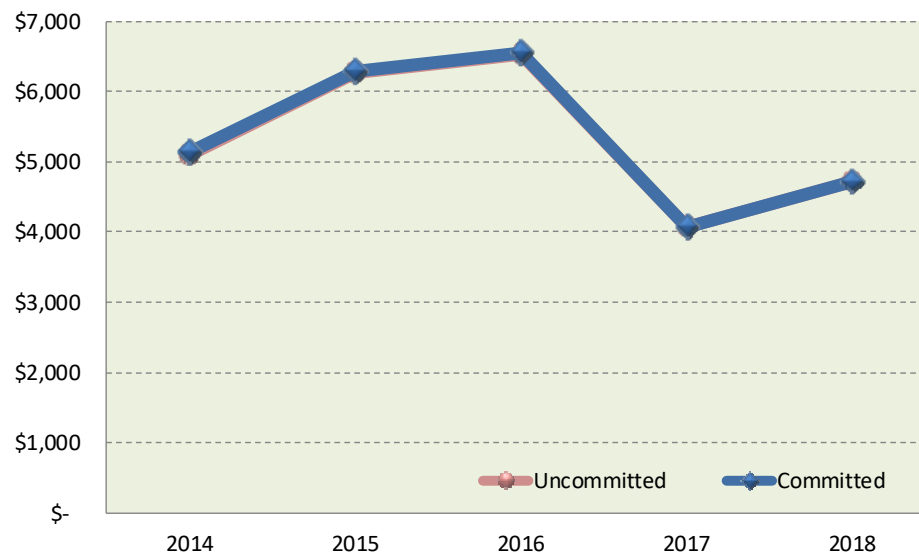
- Hydro Proceeds Reserve has been declining over the past 5 years as this reserve is being used to fund infrastructure deficits. The reserve captures the interest and dividend payments to the City as the sole shareholder.
- The infrastructure Renewal has increased significant as a result of prudent financial policies to build this reserve to support the timely replacement of assets.
- The Strategic Land Acquisition Reserve increased significantly in 2018 due to the sale of City land.
- The Railway Crossing Reserve Fund is dedicated funding for the long term construction of grade separations at level crossings. The balance is fully committed towards future planned crossings.
- The Joseph Brant Hospital Reserve Fund is dedicated funding for the expansion of the Hospital. The balance is fully committed towards future planned payments.

Figure 39—Burlington's Vehicles & Equipment Reserves & Reserve Funds

Vehicles and Equipment Reserves and Reserve Funds							
Vehicles and Equipment Reserves and Reserve Funds (000s)	2014	2015	2016	2017	2018	5 Year Change	
Vehicle Replacements - Fire	\$ 1,687	\$ 2,410	\$ 2,053	\$ 1,521	\$ 1,593	\$	(95)
Vehicle Replacements - RPM & PR	\$ 3,022	\$ 3,455	\$ 4,126	\$ 2,207	\$ 2,803	\$	(219)
Vehicle Replacements - Tyandaga	\$ 397	\$ 398	\$ 348	\$ 333	\$ 319	\$	(78)
Vehicles and Equipment Reserves and Reserve Funds	\$ 5,107	\$ 6,263	\$ 6,527	\$ 4,061	\$ 4,715	\$	(391)

Reserve ending balance less commitments

Vehicle and Equipment Reserves and Reserve Funds (000's)



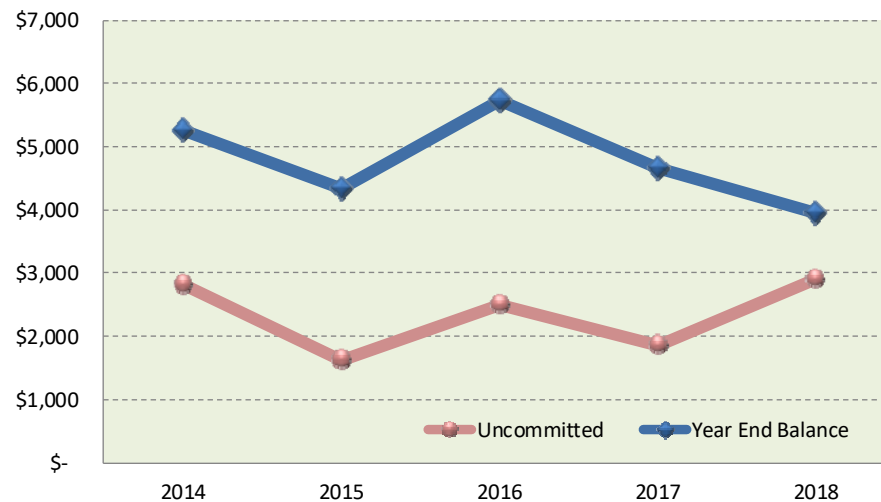
- As shown in figure 39, the year end balance and the un-committed balance have declined from 2014-2018.
- An annual increase of 4% to the Vehicle Depreciation Reserve Fund to sustain the City's fleet and equipment inventory was implemented in 2018 to address the need for additional funds to ensure that vehicles and equipment are replaced on a timely basis.

Figure 40—Burlington's Transit Reserves & Reserve Funds

Transit Related Reserves Funds						
Transit Related Reserves Funds (000s)	2014	2015	2016	2017	2018	5 Year Change
Transit Inter-Regional/Capital	\$ -	\$ 275	\$ 215	\$ 6	\$ 0	\$ 0
Transit Capital	\$ -	\$ 1,054	\$ 534	\$ 181	\$ 117	\$ 117
Provincial Gas Tax	\$ 1,465	\$ 164	\$ 1,395	\$ 607	\$ 1,822	\$ 358
Federal Gas Tax - Transit Dedicated	\$ 1,353	\$ 133	\$ 340	\$ 1,055	\$ 970	\$ (383)
Transit Shelters	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 0
Transit Related Reserves Funds	\$ 2,819	\$ 1,628	\$ 2,487	\$ 1,851	\$ 2,911	\$ 92

Reserve ending balance less commitments

Transit Reserves and Reserve Funds (000's)



- As shown in figure 40, the uncommitted balance have remained relatively flat when comparing 2014 to 2018.
- The Provincial Gas Tax Reserve is funded through the accumulation of monies received from the Provincial Government under the Dedicated Gas Tax Funds for Public Transportation Programs.

Corporate Reserves and Reserve Funds

Purpose

One of the measures of financial sustainability is that future generations are not forced to pay for services provided to the current generation. The City incurs liabilities that do not have to be paid immediately. For instance, the City will face future budget pressures as the City's workforce ages and post-retirement or post-employment benefits start to be paid out in larger quantities. Prudent and sustainable financial management strategies are needed to ensure future generations are not required to absorb a disproportionate share of these costs. As such, the City has a number of Corporate Reserves to protect against the consequences of certain risks, liabilities and corporate programs in such areas as insurance, WSIB and employee benefits.

Guiding Principles - Corporate Reserves/Reserve Funds

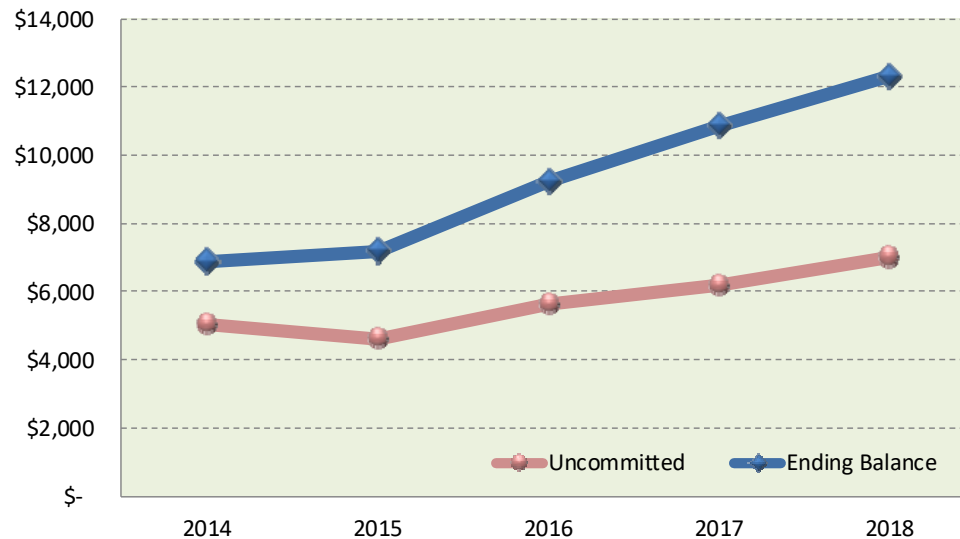
- Contributions to the Corporate Reserves/Reserve Fund will take into consideration the liability associated with the Reserves/Reserve Fund.
- A sufficient budget allocation is required to fund the WSIB costs and benefits so that the Employee Accident Reserve Fund and Benefits Reserve Fund can eventually be replenished to cover the liabilities.

Figure 41—Corporate Reserves and Reserve Funds

Corporate Reserves and Reserve Funds						
Corporate Reserves and Reserve Funds (000s)	2014	2015	2016	2017	2018	5 Year Change
Employee Accident	\$ 2,416	\$ 2,582	\$ 3,051	\$ 3,472	\$ 3,919	\$ 1,503
Benefits	\$ 1,273	\$ 1,246	\$ 1,738	\$ 1,813	\$ 2,106	\$ 833
Other Corporate Reserves	\$ 1,362	\$ 793	\$ 829	\$ 897	\$ 1,000	\$ (362)
Corporate Reserves and Reserve Funds	\$ 5,051	\$ 4,621	\$ 5,618	\$ 6,182	\$ 7,025	\$ 1,975

Reserve ending balance less commitments

Corporate Reserves and Reserve Funds (000's)



- As shown in figure 41, the year end balance and the uncommitted balance have consistently increased from 2014-2018. This increase in reserve balances helps to reduce the City's liability exposure.
- Consistent with the practice in the City of Burlington, it is common for municipalities to establish Corporate Reserve Funds to provide for employee accident and benefit liabilities.

- In accordance with industry practices recommended by credit rating agencies, actuarial valuations have been undertaken to determine the amount of contingent liabilities associated with the Corporate Reserve Funds.
- The Employee Accident Reserve Fund is used to fund WSIB claims and related expenses incurred by the City as a Schedule II employer. As a schedule II employer, under the Workplace Safety & Insurance Act, the City assumes the liability for any award under the Act. As of December 31, 2018, the estimated liability was \$7.5 million, with a current reserve balance of \$3.9 million.
- The liability associated with the Benefits Reserve Fund as of December 31, 2018 was \$13.2 million, with a balance currently estimated at \$2.1 million.
- The following table summarizes the reserves and actuarial valuation of liabilities in 2013 (last study) compared with 2018 (most current information available):
- It is financially prudent to have sufficient Corporate Reserve Funds to cover associated liabilities. However, based on a review of municipal Corporate Reserve Funds, this is an area where unfunded liabilities exist in a number of municipalities, including Burlington.
- Because the liabilities do not come due at the same time, it is reasonable to have some unfunded liabilities, however, the challenge is to identify what a reasonable level is. An approach undertaken by a number of municipalities has been to gradually address the unfunded liability over a period of 5-10 years and by ensuring that annual contributions are made reflective of historical and forecast requirements to ensure that the liability does not continue to grow.

	2013	2018	\$ Change
<u>Employee Accident</u>			
Actuarial Valuation Liability	\$ 5,100,000	\$ 7,480,000	\$ 2,380,000
Reserve Balance	\$ 3,700,000	\$ 3,900,000	\$ 200,000
<u>Benefits</u>			
Actuarial Valuation Liability	\$ 10,300,000	\$ 13,200,000	\$ 2,900,000
Reserve Balance	\$ 1,300,000	\$ 2,100,000	\$ 800,000

Figure 42—Summary of Program Specific Reserves and Reserve Funds

<i>Program Specific</i>							
Program Specific Reserve Funds (000s)	2014	2015	2016	2017	2018	5 Year Change	
Economic Development	\$ 39	\$ 40	\$ 42	\$ 43	\$ 44	\$	4
Parks & Recreation - Paletta Mansion	\$ 275	\$ 323	\$ 401	\$ 458	\$ 587	\$	312
Parks & Recreation - Waterfront Centre	\$ 848	\$ 984	\$ 458	\$ 365	\$ 397	\$	(451)
Parks & Recreation - Senior's Centre	\$ 376	\$ 433	\$ 483	\$ 531	\$ 502	\$	126
Parks & Recreation - Tyandaga Facility	\$ 224	\$ 292	\$ 334	\$ 203	\$ 129	\$	(96)
Parks & Recreation - LaSalle Park Pavilion	\$ 793	\$ 683	\$ 560	\$ 429	\$ 415	\$	(378)
Parks & Recreation - Sports Fields	\$ 54	\$ 51	\$ 75	\$ 101	\$ 137	\$	83
Parks & Recreation - Haber Community Centre	\$ 130	\$ 170	\$ 244	\$ 321	\$ 398	\$	269
Parks & Recreation - Recreation Centre	\$ 210	\$ 343	\$ 339	\$ 138	\$ 203	\$	(6)
Parks & Recreation - Pools	\$ -	\$ 615	\$ 779	\$ 931	\$ 425	\$	425
Parks & Recreation - Arenas	\$ -	\$ 298	\$ 329	\$ 408	\$ 434	\$	434
Parks & Recreation - Culture	\$ 125	\$ 133	\$ 143	\$ 72	\$ 138	\$	13
Downtown Streetscape	\$ 45	\$ 47	\$ 48	\$ 49	\$ 51	\$	5
Community Heritage	\$ 172	\$ 163	\$ 170	\$ 273	\$ 265	\$	93
Mundialization Committee	\$ 163	\$ 170	\$ 180	\$ 189	\$ 198	\$	34
Naval Memorial	\$ 37	\$ 38	\$ 39	\$ 40	\$ 41	\$	4
LaSalle Marina	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
Policy Initiatives	\$ -	\$ 101	\$ 2,620	\$ 1,450	\$ 1,090	\$	1,090
Culture Initiatives	\$ -	\$ 101	\$ 104	\$ 108	\$ 119	\$	119
Energy Initiatives	\$ -	\$ 7	\$ 15	\$ 44	\$ 50	\$	50
Community Investment	\$ -	\$ 36	\$ 100	\$ 170	\$ 194	\$	194
Sims Square Reserve Fund	\$ -	\$ -	\$ -	\$ -	\$ 800	\$	800
Forestry Reserve Fund	\$ -	\$ -	\$ 12	\$ 19	\$ 30	\$	30
Crime Prevention	\$ 27	\$ 27	\$ 27	\$ 27	\$ 27	\$	-
Burlington International Games	\$ 64	\$ 64	\$ 64	\$ 64	\$ 64	\$	-
Ice Users	\$ 257	\$ -	\$ -	\$ -	\$ -	\$	(257)
Program Specific Reserve Funds	\$ 3,841	\$ 5,117	\$ 7,563	\$ 6,431	\$ 6,738	\$	2,897

Purpose

Program Specific Reserves/Reserve Funds are set aside for specific purposes. These reserves and reserve funds are restricted funds only to be used for their identified purpose. These types of reserves and reserve funds may also include special one time purchases or activities approved by Council.

Figure 43—Summary of Local Boards Reserve Funds

Local Boards							
Local Boards Reserves & Reserve Funds (000s)	2014	2015	2016	2017	2018	5 Year Change	
Parking District	\$ 6,152	\$ 6,499	\$ 7,620	\$ 7,773	\$ 9,259	\$ 3,108	
Downtown BIA	\$ 42	\$ 95	\$ 200	\$ 230	\$ 290	\$ 248	
BEDC Operations	\$ 111	\$ 234	\$ 321	\$ 375	\$ 295	\$ 184	
BEDC Marketing	\$ 80	\$ 83	\$ 277	\$ 228	\$ 217	\$ 137	
BEDC Innovation Centre	\$ -	\$ -	\$ -	\$ -	\$ 162	\$ 162	
Library Board	\$ 1,165	\$ 1,021	\$ 1,762	\$ 2,192	\$ 1,885	\$ 720	
Tourism Burlington	\$ 79	\$ 81	\$ 83	\$ 85	\$ 88	\$ 9	
Museums Board - Joseph Brant General	\$ 31	\$ 32	\$ 33	\$ 109	\$ 132	\$ 100	
Museums Board - Joseph Brant Project	\$ 178	\$ 153	\$ 152	\$ 152	\$ 156	\$ (23)	
Museums Board - Ireland House General	\$ 8	\$ 8	\$ 8	\$ 100	\$ 176	\$ 168	
Museums Board - Ireland House Project	\$ 113	\$ 116	\$ 114	\$ 113	\$ 93	\$ (20)	
Museum Board - Joseph Brant Transformation Project	\$ 918	\$ 1,279	\$ 873	\$ 895	\$ 919	\$ 1	
PAC	\$ 433	\$ 333	\$ 61	\$ 144	\$ 613	\$ 180	
PAC - Infrastructure	\$ -	\$ 407	\$ 543	\$ 626	\$ 701	\$ 701	
PAC Donations	\$ -	\$ 17	\$ 7	\$ 8	\$ 8	\$ 8	
Local Boards Reserve Funds	\$ 9,311	\$ 10,357	\$ 12,056	\$ 13,031	\$ 14,995	\$ 5,684	

Purpose

These reserves have been established in response to specific programs to support Boards.

Development Related Reserve Funds

- The Development Charge By-law will be used to recover the costs of growth to the full extent permitted by legislation.
- Growth projects will be undertaken as development charges are collected and available.
- Before borrowing for growth related capital projects, all developer related advanced financing arrangements in accordance with the Development Charges regulations will be exhausted.
- Development charges are based on a growth forecast and growth related capital programs. Growth and resulting development charge receipts over the term of the by-law may not proceed as anticipated. It is therefore prudent to establish general guidelines for borrowing for growth related projects.
- Cash flows should be closely monitored to ensure that there are sufficient funds to fund planned growth-related projects.

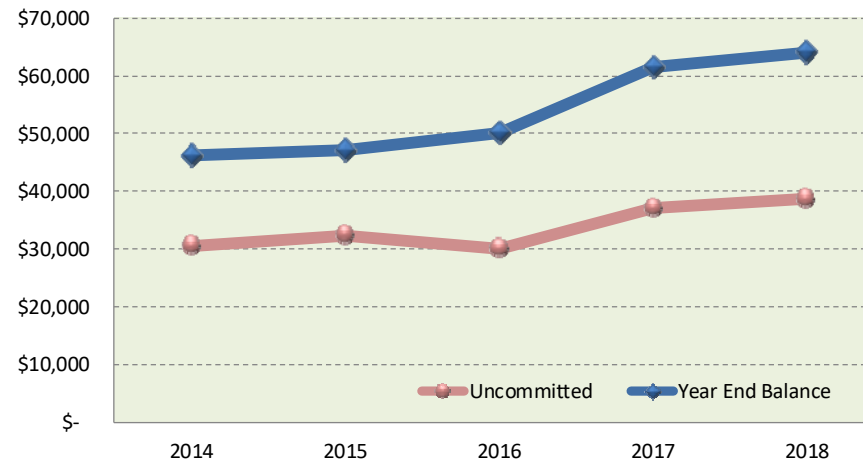
Existing Policies

Based on research conducted across Ontario municipalities, the City of Burlington has one of the most extensive DC debt borrowing policies, which includes detailed provisions and criteria that must be met before borrowing will be considered. This includes, but is not limited to, the following requirements:

- All developer related advanced financing arrangements that are in accordance with the development charges legislation have been exhausted (i.e. front ending agreement);
- All growth related financing is consistent with the Development Charges By-law in effect at that time;
- Growth is required to pay for all costs associated with the borrowing in accordance with the current Development Charges Act and associated legislation;
- Maximum term for borrowing would not exceed the life of the asset to a maximum of 10 years; and
- Development Charges debt servicing costs will not exceed 10% of the forecast reserve funds deposits and a total of all debt charges for the Development Charges borrowing as a percentage of own source revenues will be less than 1% (of the 12.5% Council approved debt limit).

Figure 44—Summary of Development Related Reserve Funds (000's)

DCs							5 Year Change
Development Related Reserve Funds (000s)	2014	2015	2016	2017	2018		
Growth Studies	\$ (44)	\$ (18)	\$ 8	\$ 59	\$ 118	\$ 161	
Library	\$ 500	\$ -	\$ 35	\$ (15)	\$ 57	\$ (443)	
Transit	\$ 1,464	\$ 1,207	\$ 1,096	\$ 992	\$ 1,202	\$ (262)	
Transportation	\$ 2,089	\$ 2,718	\$ 1,638	\$ 6,840	\$ 10,035	\$ 7,946	
Storm Drainage	\$ 7,115	\$ 7,012	\$ 6,540	\$ 5,860	\$ 4,888	\$ (2,228)	
Fire Protection	\$ (1,061)	\$ (1,053)	\$ (1,052)	\$ (1,037)	\$ (1,009)	\$ 52	
Parks & Recreation	\$ 544	\$ 969	\$ 1,620	\$ 665	\$ 1,257	\$ 713	
Park Dedication	\$ 13,026	\$ 12,788	\$ 12,992	\$ 17,460	\$ 15,062	\$ 2,036	
Public Benefits	\$ -	\$ -	\$ -	\$ 17	\$ -	\$ -	
Future Services	\$ 6,033	\$ 7,864	\$ 6,221	\$ 6,366	\$ 6,300	\$ 268	
Future Services Signs & Barricades	\$ 383	\$ 393	\$ 404	\$ 467	\$ 482	\$ 99	
Future Services Trees	\$ 329	\$ 376	\$ 415	\$ 365	\$ 195	\$ (134)	
Development Related Reserve Funds	\$ 30,378	\$ 32,257	\$ 29,917	\$ 38,040	\$ 38,587	\$ 8,208	



Purpose

The Development Charges By-law imposes development charges on new development in the City to pay for growth related net capital costs of servicing new development.

Debt Management

When local governments issue debentures, they enter into a long-term commitment that requires them to make principal and interest payments over the life of the debentures. Hence, they need to ensure that:

- future debt service payments to bondholders can be made in full and on time, without jeopardizing the provision of essential services;
- outstanding debt obligations will not threaten long-term financial stability of the municipality; and
- the amount of outstanding debt will not place undue burden on residents and businesses.

A debt management policy improves the quality of decisions, identifies policy goals and demonstrates a commitment to long-term financial planning, including a multi year plan. Adherence to a debt management plan signals to rating agencies and capital markets that the municipality is well managed and should meet its obligations in a timely manner.

The Province regulates the amount of debt that municipalities issue by setting an annual repayment limit for each municipality. This is the maximum amount by which a municipality may increase its debt. The repayment limit is set at 25% of a municipality's own source revenues. This is the upper limit. If the City were to reach the limit, future operating budgets would be severely constrained or tax and other revenues would have to increase significantly.

Debt is frequently issued and considered a standard practice in municipalities for new capital projects that are long term in nature that benefit future taxpayers, thereby spreading the costs across future years.

Under the most favorable circumstances, the City's debt should be proportionate in size and growth to the City's tax base; should not extend past the useful life of the facilities which it finances; should not be used to balance the operating budget; should not require repayment schedules that put excessive burdens on operating expenditures and should not be so high as to jeopardize credit ratings. In order to be an effective management tool, provisions of the debt policy must be compatible with the municipality's goals pertaining to the capital program and budget, the financial plan, and the operating budget. To this end, the City of Burlington has established a number of debt policies.

Guiding Principles - Debt Management

- Outstanding and planned debt levels will not exceed an amount that can be supported by the existing and projected tax revenue base. Debt policies will focus on:
 - projected debt requirement;
 - limits and benchmarks;
 - impact on credit rating; and
 - term and structure of debt.
- Long term debt for the replacement and refurbishment of existing capital assets will be reduced and a planned process will be developed whereby an annual contribution will be made to meet lifecycle needs of all assets.

Debt Management Policies

The City has an extensive debt management set of policies. The following provides excerpts from the comprehensive policy statements:

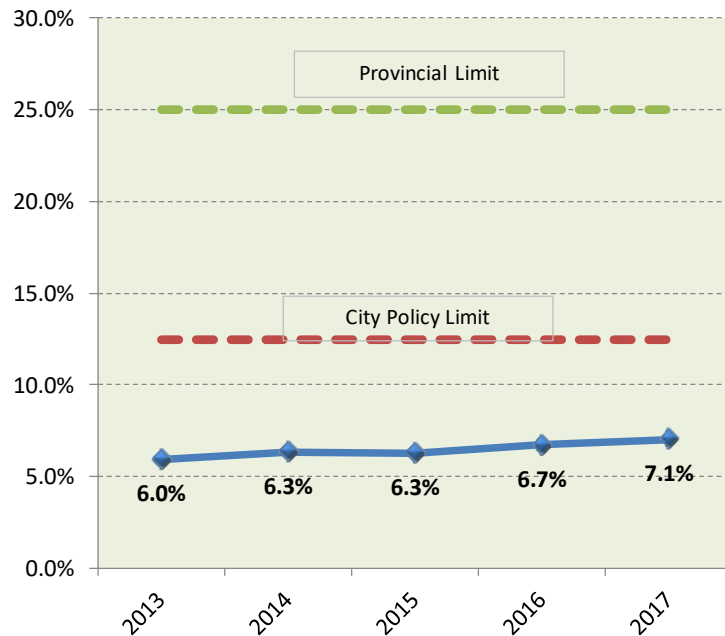
- The following items are to be considered to use debt efficiently:
 - As debt charges decline through the retirement of debt, the City will apply savings toward the achievement of full lifecycle costing of the city's infrastructure
 - The term of debt will be structured for the shortest period to reduce overall financing costs while considering current and future taxpayer benefit. The preferred term is 10 or 15 years to the extent possible
 - The current and forecasted interest rate environment
- Debt Policy - The City will prepare a comprehensive long-term capital-financing plan that combines smart debt and pay-as-you-go capital financing. Total City debt charges as a percentage of own source revenues shall not exceed 12.5%, representing 50% of the Provincial maximum limit for municipalities (all debt financing incl.). Tax supported debt charges shall not exceed 10%.



- Non-Tax Supported Debt - The City will issue debt on behalf of itself or community/stakeholders when the debt and any associated charges are to be repaid by non-tax revenues such as user fees or charges. Debenture financing shall be utilized only for capital projects where the expected life of the asset exceeds the term of the debenture with a minimum debenture amount of \$100,000.
- Special Circumstances Debt - Any special circumstances debt shall be excluded from the overall City tax-supported debt guideline. Special Circumstances Debt is permitted based on all of the following criteria:
 1. Project initiated from the corporate strategic plan
 2. Facilitates or develops a landmark feature in the community
 3. A community need exists for the capital project and is supported by a feasibility plan

All special circumstances debt charges will be repaid annually from the Hydro Reserve Fund.
- Debt financing should be considered for:
 - Increased/ new capital projects providing services to residents
 - Projects tied to third party matching funds
 - Project costs not recoverable from Development Charges
 - Projects where the cost of deferring expenditures exceeds debt servicing costs
 - Projects that have a useful life greater than ten years

Figure 45—Debt Charges as a % of Own Source Revenues



Note: Excludes long term liabilities and commitments

Debt Service is the amount of principal and interest that a municipality must pay each year to service the debt (principal and interest expenses). As debt service increases it reduces expenditure flexibility.

As shown in Figure 45, the City of Burlington's debt service ratio at 7.1% is below the Ministry threshold of 25% and has remained relatively consistent over the five year period. The City has an internal policy which states that all City debt charges as a percentage of own source revenues should not exceed 12.5%, representing 50% of the Provincial maximum limit for municipalities, with tax supported debt charges not to exceed 80% of this limit (or 10% of total own source revenues).

Figure 46—Debt Outstanding as a % of Own Source Revenues

Tax Debt Charges as % of Own Source Revenue	
Municipality	
St. Catharines	9.8%
Oshawa	5.7%
Kitchener	4.2%
Whitby	0.0%
Oakville	2.5%
Markham	0.0%
Milton	4.3%
Average	3.8%
Median	4.2%
Burlington	7.1%

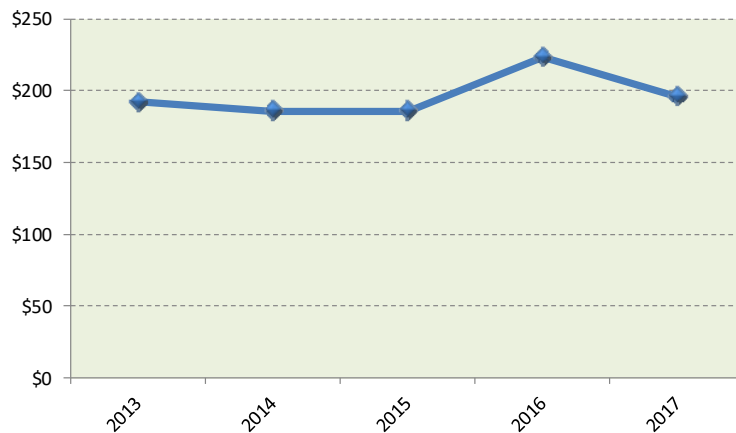
Source: 2017 FIRs

- While the City's debt charges as a percentage of own source revenues is low, it is higher than the peer municipal average of 3.8%. However, the City's debt is well below the Provincial limit and the City's policy.

Debt Outstanding per \$100,000 of Weighted Assessment

As shown in Figure 47, the debt outstanding per \$100,000 of assessment has been relatively flat from 2013-2015, with an increase in 2016.

Figure 47—Debt Outstanding Per \$100,000 Weighted Assessment



Source: FIRs and BMA Municipal Study

Figure 48—Debt Outstanding per \$100,000 of Weighted Assessment—Municipal Comparisons (2017)

Municipality	Outstanding per \$100,000 of Weighted
St. Catharines	\$ 654
Oshawa	\$ 360
Kitchener	\$ 230
Whitby	\$ -
Oakville	\$ 195
Markham	\$ 14
Milton	\$ 208
Average	\$ 237
Median	\$ 208
Burlington	\$ 196

Source: FIRs and BMA Municipal Study

Figure 48 reflects the total debt outstanding per \$100,000 of weighted assessment in 2017. Burlington's debt outstanding per \$100,000 of assessment is lower than the group average and the survey median.

Debt to Reserve Ratio

This indicator provides a comparison of the amount of debt in relation to discretionary reserves (excludes obligatory reserve funds). A ratio of 1:1 or lower reflects that the City has more reserves in relation to debt which is a positive indicator. As shown below, the City's ratio is well below the suggested target of 1.0. For every dollar of reserves, the City has \$0.68 of debt.

Figure 49—Debt to Reserve Ratio

	Debt to Reserve Ratio
2013	0.66
2014	0.66
2015	0.63
2016	0.76
2017	0.68

Source: FIRs and BMA Municipal Study

Figure 50—Debt to Reserve Ratio Comparison

Municipality	Debt to Reserve Ratio
St. Catharines	1.88
Oshawa	1.02
Kitchener	1.28
Whitby	-
Oakville	0.61
Markham	0.11
Milton	0.72
Average	0.80
Median	0.72
Burlington	0.68

Source: FIRs and BMA Municipal Study

- As shown above, the City's ratio is below the survey average.

Financial Position

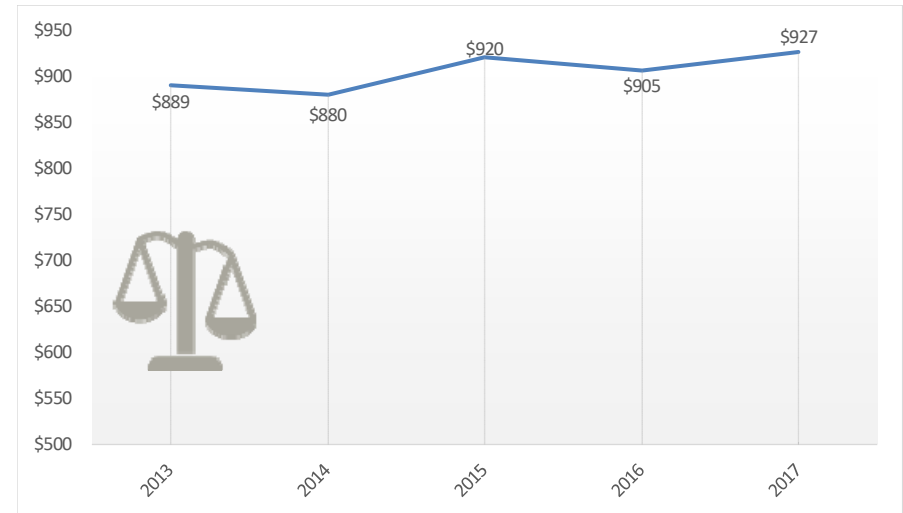
A municipality's financial position is defined as the total fund balances including equity in business government enterprises less the amount to be recovered in future years associated with long term liabilities. A comparison was made of the City's overall financial position (financial assets less liabilities) from 2013 to 2017.

- Burlington's financial position has trended up since 2013 with an increase over the five year period of 9%. Figure 51 helps to explain the City's change in financial position from 2013-2017.
- The City's financial assets increased by \$52.4 million from 2013-2017 while during the same time liabilities increased \$37.3 million for a net increase in the financial position of \$15.1 million.

Figure 51– City of Burlington—Financial Position

Financial Position (000's)					
(000's)	2013		2017		% change
Assets					
Cash & Investments	\$	318,781,933	\$	373,542,046	17.2%
Receivables	\$	31,376,149	\$	29,017,775	-7.5%
Other	\$	-	\$	-	0.0%
Total Assets	\$	350,158,082	\$	402,559,821	15.0%
Liabilities					
Accounts payable	\$	27,432,621	\$	26,605,132	-3.0%
Deferred Revenue	\$	67,946,480	\$	80,424,792	18.4%
Long Term Liabilities	\$	68,345,033	\$	88,925,373	30.1%
Post Employment Benefits	\$	21,942,266	\$	26,994,371	23.0%
Total Liabilities	\$	185,666,400	\$	222,949,668	20.1%
Net Financial Position	\$	164,491,682	\$	179,610,153	9.2%

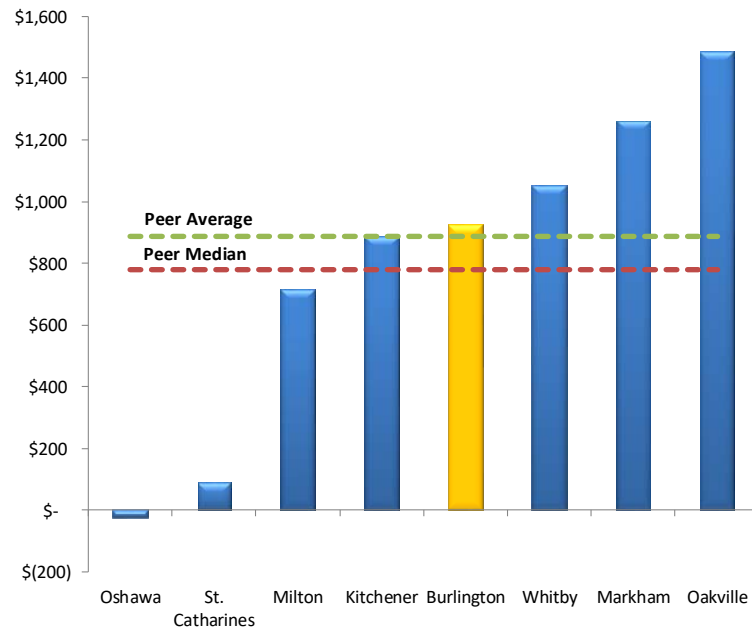
Figure 52– City of Burlington—Financial Position Per Capita



Source: 2017 FIRs

- On a per capita basis, the City's financial position increased from \$889 in 2013 to \$927 in 2017.
- It important to monitor the trend of this indicator. A declining trend signals financial liabilities are exceeding financial assets.
- It is important for a municipality to understand the factors that are driving the trend.

Figure 53 - Financial Position Per Capita



- To provide a comparison with other municipality's financial position, a per capita analysis was undertaken. As shown in figure 53, the City of Burlington's financial position per capita exceeds the survey average.

Taxes Receivable

Every year, a percentage of property owners are unable to pay property taxes. If this percentage increases over time, it may indicate an overall decline in the municipality's economic health. Credit rating agencies assume that municipalities normally will be unable to collect 2 - 5% of its property taxes within the year that taxes are due. If uncollected property taxes rise to more than 8%, credit rating firms consider this a negative factor because it may signal potential instability in the property tax base. The City of Burlington is within the range considered to be acceptable.

- Burlington's ratio has remained at or below the credit rating limit in every year.
- Taxes receivable have been trending downward since 2014 reflecting a strong and stable property tax base.

Figure 54—Taxes Receivable as a % of Taxes Levied

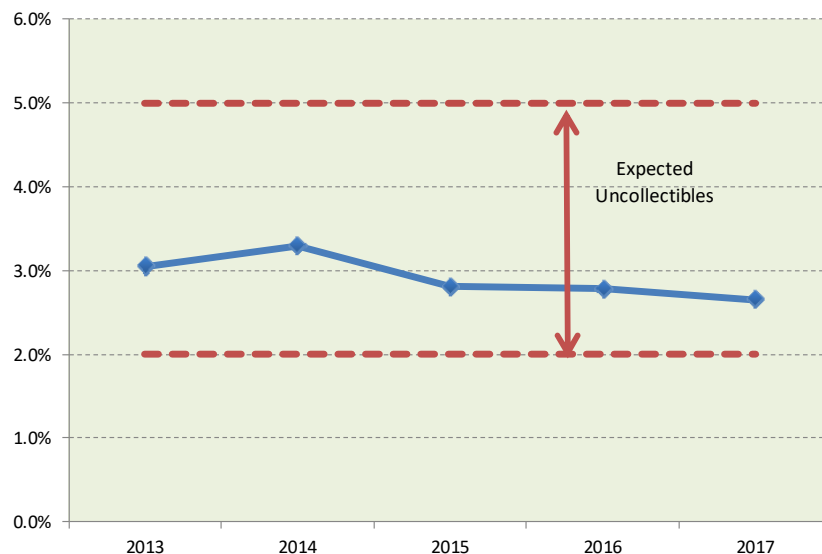
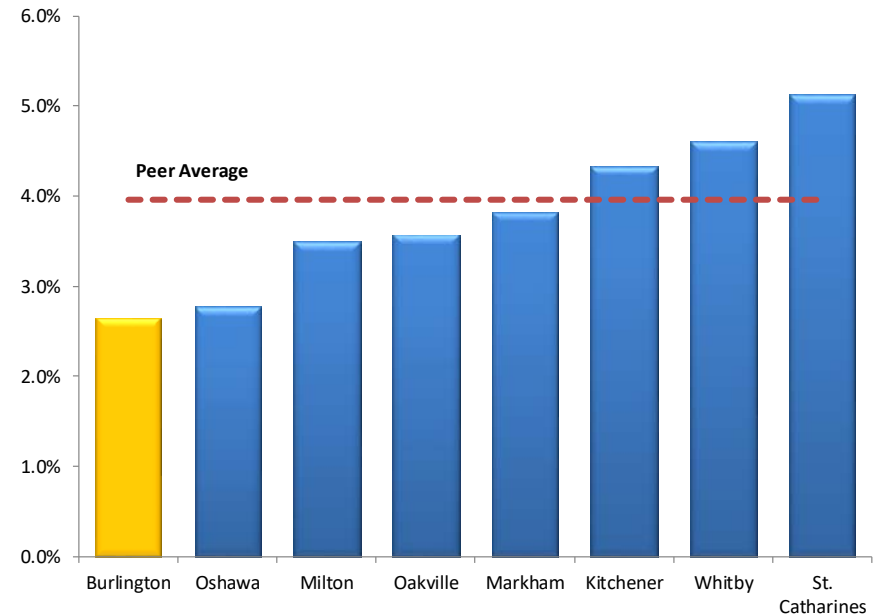
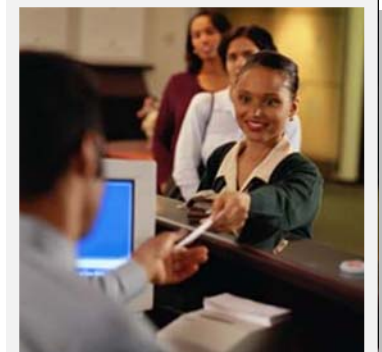


Figure 55—2017 Taxes Receivable as a % of Taxes Levied



Source: 2017 FIRs

- It should be noted that in the 2017 BMA Municipal Study, Burlington's ratio is 10th lowest in over 100 municipalities surveyed and 3rd lowest in the GTA.



Summary—Financial Position

Indicator	2015 Rating	2018 Rating	Comments
<i>Discretionary Reserves as a % of Taxation</i>			Total Reserves as a % of Taxation continue to be lower than targets and are growing at a rate lower than inflation
<i>Asset Consumption Ratio</i>			Higher than average asset consumption ratio reflects older assets and hence the need for Capital Reserves
<i>Stabilization Reserve Funds</i>			Below the target policy levels
<i>Other Capital Reserve Funds</i>			Policies are in place to address the infrastructure gap as well as dedicated funding sources
<i>Vehicle and Equipment Reserve Funds</i>			After several years of declining reserve balances, 2018 the reserves increased and a policy has been put in place to increase contributions by 4% annually
<i>Transit Related Reserve Funds</i>			There is no target indicator
<i>Corporate Reserve and Reserve Funds</i>			Liabilities are increasing at a faster rate than reserve balances
<i>Program Specific Reserve and Reserve Funds</i>			Several new reserves including Policy Initiatives, Cultural Initiatives, Energy Initiatives which align with the City's Strategic Directives
<i>Local Boards Reserve Funds</i>			Available to support Local Boards such as Library, Museums, BEDC
<i>Debt as % of Own Source Revenues</i>			Below the City's policy limit of 12.5%
<i>Debt Outstanding per \$100,000 of Weighted Assessment</i>			Relatively low levels of debt and below the peer comparator group
<i>Debt to Reserve Ratio</i>			Ratio reflects healthy ratio between debt and reserves and is better positioned than the peer average of comparable municipalities
<i>Financial Position</i>			Relatively flat positive position and exceeding peer municipal average
<i>Taxes Receivable</i>			Well within the recommended range and the lowest in the survey of peer municipalities surveyed



SUBJECT: Update to the Corporate Energy and Emissions Management Plan

TO: Committee of the Whole

FROM: Capital Works

Report Number: CW-08-19

Wards Affected: All

File Numbers: 210-01

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Approve Appendix A in capital works department report CW-08-19 – The Corporate Energy and Emissions Management Plan for submission to the Ontario Ministry of Energy, Northern Development and Mines and to be posted on the city's website as required by Ontario Regulation 507/18; and

Direct the Executive Director of Capital Works to report annually on the progress of implementing the plan in Appendix A of Report CW-08-19 including energy consumption and the carbon footprint for City operations.

Purpose:

The purpose of this report is to provide for approval a new Corporate Energy and Emissions Management Plan as per provincial legislation. It relates to the following section under the Strategic Plan:

A Healthy and Greener City

- Environmental and Energy Leadership – the city's operations are net carbon neutral (by 2040)

Background and Discussion:

In 2009, Council approved a corporate energy policy (CSI-3/09) which provides guidance and direction to staff on the development and implementation of a comprehensive corporate energy management program.

In 2009, the Green Energy Act and Green Economy Act (GEGEA) directed the broader public sector (municipalities, universities, schools, and hospitals) to develop and report their energy conservation and demand management plans. Specifically, Ontario Regulation 397/11 – Energy Conservation and Demand Management Plans enacted in August 2011, mandated:

- Completion, publication and submission to the Minister of Energy of Burlington's corporate energy consumption and greenhouse gas emission template for one year of operation (Jan 2011 to Dec 2011) by July 1, 2013 and annually thereafter (completed Mar 2013 CSI-06-13);
- Development and publication of a detailed energy conservation and demand management plan with targets approved by senior management by July 1, 2014 (completed Apr 2013 CSI-09-13); and
- By July 1, 2019 and every five years thereafter publish an update to the original plan that reviews measures implemented, their actual results and forecasted impacts of planned measures, and any changes made to achieve our targets.

In 2018, the Ontario government repealed the Green Energy Act and Green Economy Act and, in the process, moved Ontario Regulation 507/18 – Energy Conservation and Demand Management Plans to the Electricity Act. The wording of the regulation is the same as the above-mentioned Regulation 397/11 with updated dates for the next five-year period to 2024.

Energy conservation typically means reducing the total amount of energy consumed (kWh of electricity and m³ of natural gas). Demand management refers to either using efficient technologies or changing usage to reduce peak load. These are designed to help manage Ontario's total use and peak demand for electricity.

The City of Burlington has a significant energy and environmental impact associated with its own operation. This was identified in the City's Strategic Plan with a goal of having the City's operations become net carbon neutral by 2040 which was adopted in 2016. The updated Corporate Energy and Emissions Management Plan (Appendix A) meets the objectives identified in Ontario Regulation 507/18 as well as aligns and defines the City's carbon reduction target of 2040.

The City's Environment and Energy Services staff assist other City staff in identifying, implementing and reporting on opportunities that reduce the City's direct carbon footprint, reduce current and future operating costs, and generate revenue where

possible. Many projects have been completed since the adoption of the first Corporate Energy Management Plan with varying degrees of impact; some of the most important and beneficial projects include:

Implementation of an Energy Management System – Ameresco AssetPlanner was adopted as the City's Energy Management system and was rolled out in 2016; it is used to track all utility invoices by account and provide various reports to staff.

Lighting Upgrades – LED lighting upgrades have been completed at various facilities including City Hall, Mainway Recreation Centre, Appleby Ice Centre, Burlington Transit Headquarters to name a few; retrofits have included both interior and exterior as well as fixture integrated controls at various sites. The City's "Cobra Head" style street lights have also been upgraded to LED fixtures and provided the single highest energy reduction of any project. Decorative streetlights are soon to follow with upgrades in 2020.

Building Automation – Building Automation systems have been installed or upgraded at many city facilities and allow city staff to remotely adjust schedules and setpoints to minimize energy use when areas and facilities are not in use. They also now extend into remote control of refrigeration plants at several of the City's arenas. Systems are continually updated through capital renewal and recommissioning efforts.

Heating, Ventilation and Air Conditioning (HVAC) Upgrades – Various facilities have received HVAC upgrades providing increased energy efficiency as well as improved indoor air quality.

Electrical Sub Metering Systems – Implementation of electrical sub metering systems at six facilities was completed and is planned to be rolled out to more buildings and to include natural gas and water metering. These systems give staff up to the minute data at a systems level and are instrumental to the updated Corporate Energy and Emissions Management plan moving forward.

FIT Solar PV Systems – The City has rented roof space at three facilities for the purposes of electricity generation that is exported directly to the grid under the Feed-in Tariff (FIT) Program including Mountainside Recreation Centre, Burlington Transit Headquarters and Roads Parks and Forestry Headquarters. While these solar PV systems do not provide GHG reduction benefits directly to the city, they do provide a steady income to the city that can be used to offset costs for energy conservation efforts.

Strategy/process

IndEco and The Paragon Group were retained to assist staff in the preparation of the Updated Corporate Energy and Emissions Plan as well as the associated energy modeling and data review. The planning process was based on four major steps;

- **Define the preferred state** – The preferred state is a description of where the City of Burlington wants to be with energy use and fuel usage.
- **Identify the present state** – The present state gives us an indication of how far away the City’s present state of energy management is from where the City wants to be in its preferred state.
- **Identify priorities for actions** – Identifying a priority of actions was a two-step process. Actions were identified by the project team and through a strategic planning workshop. Actions were then rated against several criteria.
- **Document the results** – Action lists and priorities were refined using costs and assumptions.
- Inputs into the planning process include;
 - o Analysis of data and results of past projects,
 - o Review of existing policies and plans,
 - o Interviews with city staff at all levels,
 - o A strategic planning workshop with staff from Capital Works, RPF, Finance, Parks and Recreation, Transit and Fire,
 - o Research and interviews with technology providers
 - o Review of industry best practices both in private and public sectors.

Quick Wins

A thorough list of actions can be found in the plan in Table 11, although there are several actions that can be identified as “quick wins” that can have a major impact to energy and emissions management at the City including;

- Establishing a thorough training program that covers all staff - Training is expected to be established in different streams, more intense for those who are directly related to the operation of facilities and those who can greatly influence staff.
- Adoption of a shadow price for carbon – this will allow us to put a value to carbon reduction for the business case of various projects and decisions.
- Setting individual targets for departments and facilities – this will give staff more meaningful goals and foster a culture of conservation.
- Adopt new corporate construction standards for new facilities, major renovations as well as capital renewal projects with respect to energy and emissions.
- Design of City View Park Pavilion as well as Skyway Arena are currently underway and can be examples of the city taking action against climate change with low carbon designs.

Financial Matters:

The cost to complete the Corporate Energy and Emissions Management Plan was \$60,850.

Although this report does not seek direct approval for funds, committee should be aware that:

- Increased investment is required to achieve the City's carbon neutrality through deep energy retrofits, building to net carbon zero standards, installation of renewable energy systems and green vehicle procurement. Although additional funding will likely be required for projects, the investment should show lower operating costs over the lifecycle of the facility or vehicle and lower our carbon footprint.
- Additional resources are needed to assist in collecting, analyzing and forecasting corporate energy consumption and the carbon footprint. The resources could also assist in the analysis of fleet data as part of the city's transportation energy and carbon footprint. There is also a need for support in the analysis of community energy data to assess community wide consumption and carbon footprint related to the Climate Action Plan.

Requests for additional funding would be subject to future budget deliberations.

Connections:

Approval of this plan has several connections to plans and policies.

Staff propose to combine the Corporate Sustainable Building Policy and Corporate Energy Policy into one policy to address new builds, major renovations and capital renewal with respect to energy and carbon reduction. This update is expected in Q4 of 2019.

The Green Fleet Strategy will also play a major role in the reduction of the city's operational emission reduction and is expected to be revised in 2020.

Asset Management Plans and Facility Master Plans will drive the timing and investment required for the deep energy retrofits required by the Corporate Energy and Emissions Plan when facilities as well as major building systems have reached their end of life.

Connections with many day-to-day decisions and business cases will be impacted by this plan and the importance of the climate lens identified in the City's Climate Emergency Declaration on April 23, 2019.

Public Engagement Matters:

The City continues to participate in energy conservation events such as Earth Hour on an annual basis. The Take Action Burlington blog is also used to engage staff and the public in energy conservation initiatives. City staff are planning initiatives to make the public more aware of our corporate energy use through publishing of information on the city's website pertaining to energy consumption and the display of energy use at new facilities.

Conclusion:

While the Corporate Energy and Emissions Plan provides the framework to achieve our target of having city operations be net carbon neutral by 2040 it also needs to be very much a living document and updated on a regular basis. Technology already exists to achieve the goal of carbon neutrality but continues to improve at a rapid pace. This new plan is much more comprehensive and goes above and beyond what is required by provincial legislation. It illustrates that Burlington is very much committed to its Strategic Plan goals and Climate Emergency Declaration.

Respectfully submitted,

Tom Pedlar

Coordinator, Project Management – Energy

905-335-7600 x7354

Appendices:

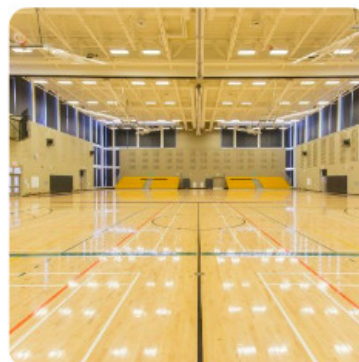
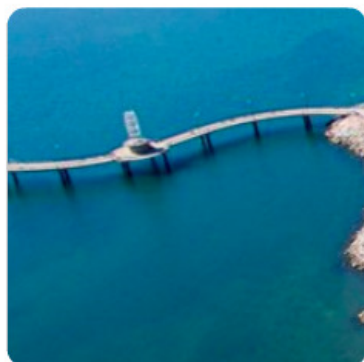
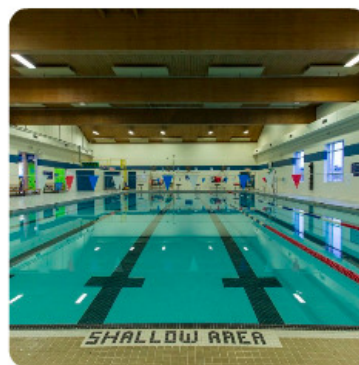
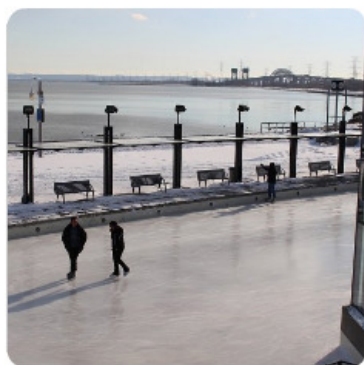
- A. Corporate Energy and Emissions Management Plan 2019-2024

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.



Corporate Energy and Emissions Management Plan: 2019-2024



Corporate Energy and Emissions Management Plan 2019-2024

The City of Burlington



Contents

Executive summary	v
Purpose	v
Scope and methods	v
Major assumptions	vi
Status of data	vii
Main findings.....	vii
Conclusions and recommendations	x
Background and context.....	1
About the City of Burlington	1
Progress since the previous plan	4
Corporate energy use and costs progress	6
Preferred state of energy management.....	8
Present state of energy management	10
Corporate energy and emissions inventory.....	10
Corporate fleet fuel consumption	15
Water Conservation.....	17
Energy management initiatives that have been implemented.....	18
Assets and plans	20
Objectives and targets	21
Objectives.....	21
Targets.....	21
Energy use versus energy intensity.....	23
Key performance indicators	23
Updating and reporting on the plan	24
Plan strategy	25
Data management	25
Training and engagement	26
Staffing.....	28
Policies and procedures	29
Technologies for facilities	30
Technologies for fleets	36
Priority actions	38
Year 1 actions	38
Years 2-5 actions	38

Years 5-20 actions	39
Costs of actions: 2019-2025	44
Getting to net zero – one possible scenario.....	47
Conclusions and recommendations	50
References.....	51
Appendix A. Present state.....	55
Existing corporate energy initiatives, policies, and plans	55
Appendix B. Global climate change and energy planning initiatives	60
C40 Cities Climate Leadership Group	60
Global Covenant of Mayors.....	60
The Under2 Coalition	61
Net Zero Building-World Green Building Council.....	62
Climate change policy developments in Ontario.....	62
Appendix C. Municipal experience and best practices	66
Appendix D. Financial incentives.....	72
Independent Electricity system Operator (IESO).....	72
Enbridge Gas Distribution	72
Federal incentives	74
The Atmospheric Fund incentives	76
Appendix E. List of acronyms	77
Appendix F. Facility energy use 2014-2018	78
Appendix G. Energy density and conversion factors, and greenhouse gas emission factors	82
Appendix H. Conservation demand management plan checklist.....	83

Executive summary

PURPOSE

Burlington's Corporate Energy and Emissions Management Plan (CEEMP) is designed to identify opportunities for reducing energy use and greenhouse gas emissions from City operations; supporting international, federal, provincial and City goals.

Historically, energy use and greenhouse gas (GHG) emissions increased over time as cities grew. We now recognize that increasing energy efficiency is vital to enhancing the social, economic and environmental well-being of all communities. Working to mitigate GHG emissions is an important strategy for reducing the scale of climate change. The CEEMP provides policy direction on energy efficient city operations and reducing GHG emissions. A separate plan, The Community Energy Plan (CEP) (transitioning to the Climate Action Plan), addresses energy use and greenhouse gas emissions in the broader community, considering not just city operations, but also the contribution of residents and businesses.

The CEEMP provides policy direction for energy management and supports Burlington's desired vision—as set out in the City's strategic plan—of being healthy and greener through environmental leadership, including by making the city's operations net carbon neutral by 2040.¹

The CEEMP updates the Corporate Energy Management Plan that was adopted in 2014 and is designed to meet the requirement of Ontario Regulation 507/18, under the *Electricity Act* that municipalities update corporate energy plans every five years.

SCOPE AND METHODS

This plan addresses corporate energy use and Scope 1 and Scope 2 GHG emissions from buildings, parks, vehicle fleets, street and traffic lights.^{2, 3} The plan does not address rental properties, joint ventures, or local boards (e.g. Burlington Public Library, the Burlington Performing Arts Centre).

¹ "Net zero" or carbon neutral means that any carbon emissions released are offset, either by providing an equivalent amount of carbon-free energy to the market, or by buying an equivalent number of offsets. In the case of electricity, 'net zero' could be achieved by sending to the grid a quantity of electricity with zero emissions equal to the quantity of electricity taken from the grid.

² Scope 1 emissions are the direct emissions associated with fuel use by Burlington. Scope 2 emissions are the emissions associated with generating the electricity used by Burlington. Other emissions not included are: upstream oil and gas emissions, methane associated with the transportation and distribution of natural gas, emissions embedded in products used by the City, and employee commuting emissions, for example.

³ Because the energy and emissions associated with transit operations are determined primarily by behaviours of citizens, it was decided that transit vehicles would be excluded from the methodology and calculations. Transit use is addressed by the community energy plan. This is consistent with the practice used in the Federation of Canadian Municipalities program, Partners for Climate Protection.

The plan is concerned with energy use and emissions over two timeframes: 2019 to 2024, and 2025-2040. The first is determined by the regulatory requirement, the second by the City's Strategic Plan.

The scope of the work has four components:

- A review of changes in energy use and emissions since the adoption of the previous Corporate Energy Management Plan in 2014, and the factors that contributed to these changes
- Clarification of the 'preferred state' of energy use in the City and the establishment of targets along the path to that preferred state
- Development of actions to be undertaken to move towards the preferred state between 2019 and 2024, and beyond 2024
- Estimating the impact of those actions on energy use and emissions

Methods employed in developing the plan included:

- Analysis of utility data, and fuel consumption by fleets
- Interviews with staff from across City departments on their practices, successes and challenges in managing energy use and suggestions for the plan
- A strategic planning workshop with staff from several departments to identify the preferred state, actions to get there and to assign priorities to those actions based on the ease and importance of the action
- A review of key documents, including the previous Corporate Energy Management Plan; City policies, reports and plans; energy plans of other jurisdictions; and literature on energy saving technologies and opportunities
- Consultation with key technology suppliers
- Modeling stock turnover and the adoption of new technologies in the City

MAJOR ASSUMPTIONS

The modest population growth projected by the City of Burlington is not anticipated to result in a significant increase in the need for municipal facilities.

The required resources will be available to execute this plan. This includes financial and human resources where applicable and the commitment of Council and staff to implement the plan.

STATUS OF DATA

- Historic data for facilities are from utility bills and are deemed to be accurate.
- Fleet data are collected from fuelling facilities. These data have limitations, including how they are distributed across specific vehicles and the duty cycle of those vehicles.
- Projected emission savings and costs are based on the interviews with suppliers, project team experience in other jurisdictions and published literature. Estimates were made about the applicability of data from these sources to Burlington and how these may change over the 21 year time horizon of the plan. These estimates become increasingly speculative the longer the time horizon.
- Costs are based on ‘typical’ costs and are not based on assessments of specific projects. Those cost estimates will need to be developed as specific projects are identified.

MAIN FINDINGS

Main findings relate to energy and greenhouse gas trends over the last five years, data management, training, staffing, policies and procedures, and technologies.

Energy and greenhouse trends 2014-2018

The City of Burlington used 208 TJ (58 GWh) at a cost of just under \$5.5 million on energy in 2018; a significant cost to the City. This energy use resulted in the release of 7,300 t CO₂eq of greenhouse gases, which contribute to climate change.⁴

The City of Burlington uses energy for a number of uses: for heating and cooling of buildings, lighting and equipment in buildings, streetlighting, and to power vehicles. The distribution of energy used for these purposes by energy source from 2014 to 2018, and the associated greenhouse gas emissions, are presented in Figure 1 and Figure 2.

⁴ “t CO₂eq” is tonnes of carbon dioxide equivalent. A tonne is one thousand kilograms. Carbon dioxide equivalents is a way of measuring the climate forcing (contribution to climate change) of all greenhouse gases – most significantly carbon dioxide, methane and nitrous oxide – as if they were all carbon dioxide (CO₂). This is done by multiplying the releases by the “Global Warming Potential” (GWP) for each gas. GWPs differ depending on the time period considered. The default assumption is a 100-year forcing. (Environment and Climate Change Canada, 2019)

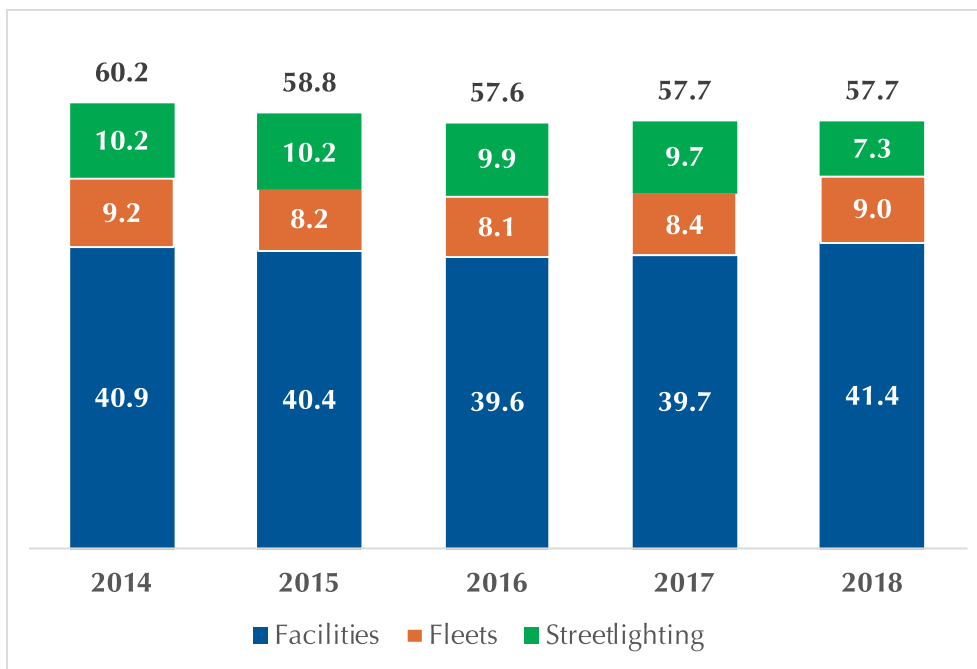


Figure 1 City of Burlington energy use 2014-2018 (eGWh)

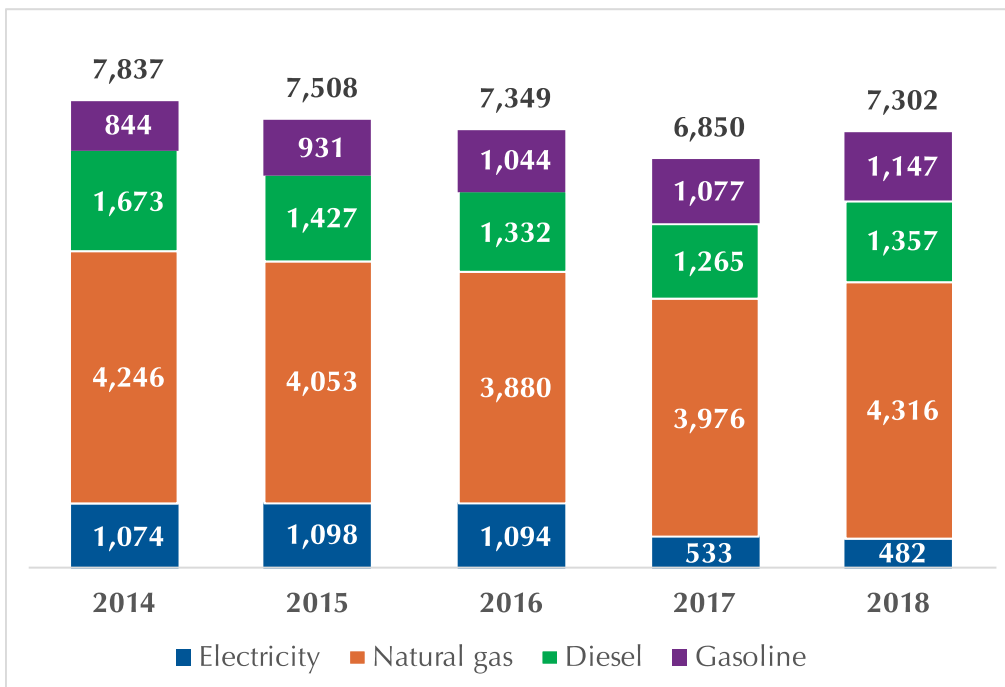


Figure 2 City of Burlington greenhouse gas emissions by energy source in 2014-2018 (t CO₂eq)

Data management

Burlington has undertaken several initiatives to ensure that energy and emissions data are tracked and managed. On the facilities side, the City has adopted AssetManager, a software platform that captures monthly energy data from utilities bills and is able to show trends in usage over time in aggregate, by facility type, or by individual facility. It also can report greenhouse gas emissions and do CUSUM analyses to identify specific changes. Several staff members have been provided with access and training to the tool. In addition, Panoramic Power has been introduced into six buildings and provides more detailed information on facility operations. On the fleet side, fuel purchases are tracked in a database, and telemetrics have been collected from 29 light duty vehicles. However numerous staff reported that they do not have access to energy information in a readily understandable format and the data on fleets is difficult to access and analyze.

Training

Staff are offered training on energy efficient operations and practices. This includes awareness programs and annual training and support for building and operations staff. Staff who will be driving vehicles receive instruction on driving for fuel efficiency at the time of hiring.

Staffing

Burlington has dedicated staff with a commitment to providing high quality service to Burlington residents and businesses. There is one person in the City with specific responsibility for energy use in facilities, as part of his responsibilities. This function is less resourced than in some other Ontario municipalities. Staff identified significant resource constraints limiting their ability to undertake additional actions. These restraints include both time to plan, manage, monitor and evaluate projects.

Policies and procedures

The City has one of the most aggressive targets of Ontario municipalities around emissions reductions. Some policies and procedures do not fully support this target. Staff mentioned the emphasis on first-cost in decision making over life-cycle costs, the commitment to LEED Silver certification (or equivalent) is dated, and there are not formal policies to encourage fleets to reduce their carbon intensity.

Technologies

Over the last five years, numerous technologies have been installed in facilities to make them more energy efficient, and to reduce their greenhouse gas emissions. These include upgrades to boilers, automated systems, HVAC systems, lighting, vehicle downsizing and purchasing of plug-in hybrid electric vehicles. Energy efficiency projects implemented produced an estimated cost saving of approximately 2.9 million dollars, and carbon reductions of more than 150 t/a. Through consultation with staff,

experience in other jurisdictions, and review of literature on opportunities, it is clear that numerous additional opportunities remain to be captured.

CONCLUSIONS AND RECOMMENDATIONS

The review of Burlington policies, and consultation with Burlington staff led to the identification of where Burlington would like to be with respect to energy management – the preferred state of energy management. The preferred state consists of ten elements: the commitment to net carbon zero and the use of renewable energy, information availability, collaboration within the City and with others outside, awareness of actions in other jurisdictions, piloting innovative solutions, decision-making based on multiple criteria including life-cycle costs, measuring and monitoring energy and emissions, information reporting to City Council and senior management, and leveraging expenditures.

Targets have been set to move towards the preferred state for 2020, 2024 and 2040. These are shown on Table 1.⁵

Table 1 City of Burlington energy and emissions targets 2020, 2024 and 2040

Target area	Current baseline	2020 target	2024 target	2040 target
Grid electricity (MWh)	24,115,335	23,500,000 (3% reduction)	18,200,000 (25% reduction)	- (100% reduction)
Natural gas (m ³)	2,272,256	2,300,000 (0% reduction)	1,800,000 (21% reduction)	- (100% reduction)
Gasoline (L)	409,133	390,000 (5% reduction)	320,000 (22% reduction)	- (100% reduction)
Diesel (L)	484,193	470,000 (3% reduction)	440,000 (9% reduction)	- (100% reduction)
Renewables capacity (MW)	-	-	4	21
GHG emissions (t CO ₂ eq)	7,302	7,200 (1% reduction)	5,800 (21% reduction)	- (100% reduction)

To realize these targets, a set of 65 actions were identified addressing each of the components of the preferred state. The primary actions driving progress towards the target are: electrification of buildings (replacing natural gas) and fleets (replacing gasoline and diesel), and installation of renewable electricity generation to replace grid electricity. Other actions support these initiatives through data management, training, staffing, and policies and procedures.

Estimates of the costs of meeting these targets are shown in Table 2. These estimates are based on the assumptions given in Table 13 on page 46 and are part of the “one possible solution” described on page 48.

⁵ Greenhouse gas reductions are somewhat dependent on the characteristics of electricity from the Ontario grid, over which the City has no control. The focus of attention should be on the specific energy targets.

Table 2 Summary of the estimated costs of meeting the targets

Year	Technology costs	Staff costs	Gross costs	Energy cost savings	Net cost
2019	\$0	\$200,000	\$200,000	\$0	\$200,000
2020	\$175,000	\$300,000	\$475,000	-\$110,000	\$365,000
2021	\$3,651,000	\$400,000	\$4,051,000	-\$389,000	\$3,662,000
2022	\$3,547,000	\$400,000	\$3,947,000	-\$623,000	\$3,324,000
2023	\$3,444,000	\$400,000	\$3,844,000	-\$899,000	\$2,945,000
2024	\$3,340,000	\$400,000	\$3,740,000	-\$1,195,000	\$2,545,000

Background and context

ABOUT THE CITY OF BURLINGTON

The City of Burlington is located at the western end of Lake Ontario, The City lies within the delineated built-up area of the Greater Golden Horseshoe in Southern Ontario. Burlington is one of the four area municipalities within the Regional Municipality of Halton (Halton Region). In 2016, the population of Burlington was 183,314 (Statistics Canada, 2019). Burlington has decided to protect the urban/rural boundary, so plans modest population growth. Burlington expects to increase its population and employment base by 2031. The 'official' forecast is that population and employment in 2031 will be 193,000 and 106,000, respectively (Burlington, City of, 2018).

Longer term population estimates are being developed by Halton Region. The rate of growth in population and employment is not anticipated to result in a significant increase in the need for municipal facilities.



Figure 3 The downtown core of the City of Burlington

The City of Burlington has a total area of 185.6 km². Burlington plans to concentrate new development in mixed-use intensification areas and accommodate new jobs in employment corridors.

The City's energy needs are supplied by Burlington Hydro for electricity, and Enbridge Gas Distribution for natural gas.⁶ Most fleet refueling is done at City-owned fueling facilities.

Burlington has implemented a variety of measures to increase energy efficiency in City operations. Some of these actions include: installation of building automation systems, energy management systems and real-time metering for tracking energy use within facilities.

Reducing energy use in city operations will reduce greenhouse gas (GHG) emissions that contribute to climate change. As stated in the strategic plan,

⁶ Prior to the merger of Union Gas and Enbridge, the city was served by Union Gas.

the City has a target for city operations to be net carbon neutral by 2040. The strategic plan also includes a community wide target to is work with the community and all levels of government towards the goal of become a net zero carbon community.⁷ The City recognizes the significant impacts of climate change and works with a number of organizations to take action on climate change, including the Federation of Canadian Municipalities' Partners for Climate Protection program, ICLEI – Local Governments for Sustainability, Sustainable Hamilton Burlington, QUEST (Quality Urban Energy Systems of Tomorrow), and the Clean Air Council.

Partners for Climate Protection Program

The City of Burlington is a member of the Partners for Climate Protection (PCP) program. The PCP program is a joint partnership between the Federation of Canadian Municipalities (FCM) and ICLEI-Local Governments for Sustainability. The PCP program was developed to help municipalities reduce greenhouse gas emissions through corporate and community local action plans. As a PCP member, the City of Burlington has enhanced its climate action through milestone achievements.

The PCP framework is comprised of five milestones for reducing GHG emissions. They are highlighted below:

Milestone 1: Create a greenhouse gas emissions inventory and forecast;

Milestone 2: Set an emissions reduction target (community and corporate);

Milestone 3: Develop a local action plan;

Milestone 4: Implement the local action plan or a set of activities; and

Milestone 5: Monitor progress and report results.

Once achieving Milestone 5, the PCP program requires members to submit a report highlighting their progress every two years. The City of Burlington completed its local action plans (milestone 3) in 2013 with the Corporate Energy Management Plan and in 2014 with the Community Energy Plan and achieved the final milestones 4 and 5 in 2017.

The Federation of Canadian Municipalities states that within Canada, half of the GHG emissions are under the direct control or influenced by local governments. Local governments and community initiatives set the foundation for change when they participate in programs such as PCP, the implications of climate change are dealt with collectively. Similarly, another example on a bigger scale that shows how collective engagement can contribute to climate protection is the Global Covenant of Mayors for Climate & Energy, whose members include cities from around the world. Examples of other global climate change initiatives are described in Appendix B.

⁷ "Net zero" or carbon neutral means that any carbon emissions released are offset, typically by buying an equivalent number of offsets. In the case of electricity, 'net zero' could be achieved by sending to the grid a quantity of electricity with zero emissions equal to the quantity of electricity taken from the grid.

THE FOUR KEY STEPS OF THE PLANNING PROCESS

Figure 4 shows the major steps in the planning process that were used to develop the City of Burlington's CEEMP.

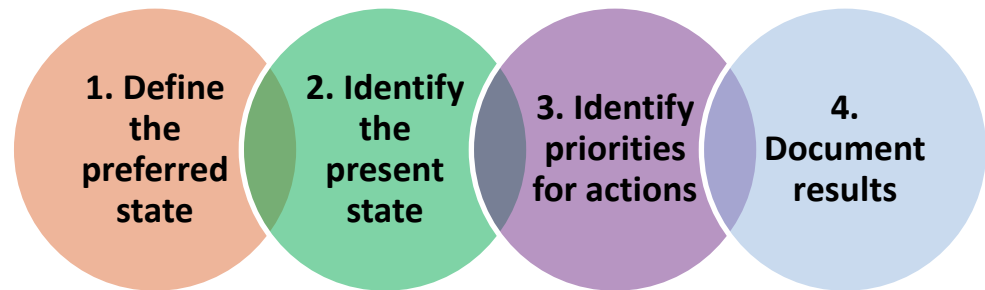


Figure 4 The key steps of the strategic approach for developing the plan

- 1) The preferred state is a description of where the City of Burlington wants to be with energy use and fuel usage. Defining the preferred state involves identifying goals, objectives, targets, actions, and measures to achieve them. Elements of the preferred state were identified through interviews with key City staff and reviewing the best practices and energy efficiency initiatives in other jurisdictions which can be found on Appendix D.
- 2) The present state gives an indication of how far away the City's present state of energy management is from where the City wants to be. To identify the present state, we reviewed utility energy data, conducted staff interviews, reviewed building audits, and reviewed Burlington's policies, plans, and past energy efficiency projects. A detailed description of the present state can be found in Appendix A.
- 3) Identifying a priority of actions was a two-step process. First actions were identified by the project team, and through a strategic planning workshop. Then the actions were rated against a number of criteria, principally the ease of implementation and the importance of the action in getting from the present to the preferred state.
- 4) Documenting our results include refining a list of actions, priorities, critical paths, costs, monitoring, and verification of actions and plan updating.

Inputs to the planning process included:

- Analysis of the City of Burlington's utility energy use data;
- Review of existing policies, plans, and previous Corporate Energy Management Plan;
- Interviews with City staff: senior management, managers, and facility operating staff;

- A strategic planning workshop with key City staff members;
- Review of energy management best practices in other jurisdictions examples of which are described in Appendix D.

Priority actions include short-term improvements to the City of Burlington's energy performance. Priority actions can be implemented and completed within the first years of the plan. Medium-term or long-term opportunities focus on deeper retrofits, building efficiency, technological innovations, and fuel switching. Medium-term and long-term actions also include the constant monitoring and reporting on implemented actions.

PROGRESS SINCE THE PREVIOUS PLAN

In 2018, a progress report for corporate energy and greenhouse gas emissions compared energy and water consumption data since 2016. The initiatives that were implemented in 2017 and those still in progress were reported on.

Table 3 provides a summary of some of the initiatives that have been undertaken.

Table 3 Energy initiatives undertaken by Burlington since the last corporate energy management plan (CEMP)

CEMP action	Type of Action	Actions completed, in progress, pending, or abandoned
Energy Management Information Systems (EMIS)	Technical	<p>Specification for new buildings and major retrofit projects are ongoing.</p> <p>Meter specifications were defined.</p> <p>Three real time electricity submetering systems were installed at Tansley Woods Community Centre, Mainway Recreation Centre, and Appleby Ice Centre.</p> <p>Installation and connection of interval meters to EMIS at 3 facilities.</p>
Smart buildings	Technical	<p>Ongoing investigation of power factor ⁸ correction for large buildings.</p> <p>Ice plant controls were integrated at each of the City's arena.</p> <p>Formal integration specifications for new buildings were developed.</p>
Monitoring and targeting	Operational and technical	<p>Targets for energy use index were developed in the previous Corporate Energy Management Plan.</p> <p>Recommissioning activities in 2017 included the use of real time circuit level metering installations at Mainway Recreation Centre, Tansley Woods Community Centre, and Appleby Ice Centre.</p>
Energy awareness program	Operational	<p>Meetings with users were scheduled to educate on energy and sustainability.</p>
Energy training	Operational	<p>Energy competitions between different facilities and additional building automation system (BAS) training has improved the understanding of energy systems.</p> <p>Building and operations staff received annual training and support. Multiple alarm points were added to notify operations staff on any equipment failure issues.</p>
Measurement and verification	Operational	<p>Updating design criteria for new buildings</p>
Building system documentation	Operational	<p>When buildings were expanded, the building systems were documented.</p>
Maintenance management software tool-HIPPO	Technical	<p>Maintenance management is ongoing for updating the remaining corporate facility data into the HIPPO software.</p>
EnergyStar® PortfolioManager	Technical	<p>AssetPlanner was adopted, providing similar functionality to Portfolio Manager</p>
Building retrofit actions	Technical	<p>Ongoing-the City coordinates on capital retrofit measures annually with the available corporate facility capital improvements funding.</p> <p>A long-term capital plan for energy measures is in progress.</p>

⁸ Power factor is the ratio of working power to apparent power. It measures how effectively electrical power is being used. A high-power factor signals efficient utilization of electrical power, while a low power factor indicates poor utilization of electrical power.

CEMP action	Type of Action	Actions completed, in progress, pending, or abandoned
		<p>Lighting at Mainway Arena and Burlington Transit Headquarters was upgraded to LEDs, including lighting controls with occupancy sensors and dimmable drivers.</p> <p>De-ox systems for Zamboni water filling were installed at Mainway Recreation Centre and at Appleby Ice Centre. These are anticipated to lower the natural gas use within the facilities.</p>
Recommissioning	Technical	A recommissioning project was completed at Fire Station 8. This was seen as a pilot for a corporate-wide plan for recommissioning facilities.
New construction	Operational	In 2010, the City of Burlington adopted a policy that all new buildings and major retrofits above a certain size should meet the criteria for Leadership in Energy and Environmental Design (LEED) silver certification.
Renewable energy (RE)	Operational and Technical	Ongoing-the feasibility of RE projects is considered when appropriate. With the City's carbon neutral operations goal, net metered solar projects and other renewables are priorities for new construction projects.
On-site generation and demand response	Technical	Ongoing-monitoring available technology and market conditions for the feasibility of on-site generation projects. Two of the City's arenas are enrolled in IESO's demand response program.
Corporate fleet energy	Operational	<p>Hybrids and plug-in hybrid electric vehicles (PHEVs) were added to the fleet.</p> <p>Fire fleet support (light duty) vehicles have been replaced with more energy efficient vehicles.</p> <p>The City engaged a consulting firm that specializes in zero emission vehicles to explore the practicality of replacing conventional vehicles with PHEVs or battery electric vehicles (BEVs).</p>
Street lighting and traffic signals	Technical	The City partnered with Burlington Hydro to update the City's streetlights to LED fixtures. (Excluding decorative fixtures.)
Corporate energy conservation culture-the city departments	Operational	Facility level reports and dashboards were developed for supervisors and operating staff.

The City of Burlington continues to capture energy opportunities through control and monitoring, staff engagement, and through equipment operation improvements. Anticipated in the near future are upgrades to the HVAC systems for City Hall and Appleby Ice Centre. Additional information about priority actions is discussed below and in Table 11 (p.40).

CORPORATE ENERGY USE AND COSTS PROGRESS

A key component in understanding the progress made since the previous Corporate Energy Management Plan is looking at the overall data on various energy sources and associated cost to the City of Burlington. A comparison of the targets set in 2014 against levels to the end of 2018 is presented in Table 4.

To consider the impacts of the plan, changes in energy use since 2014 when the last plan was adopted were assessed.⁹ The City has made progress in implementing energy efficiency measures but fell short of meeting the 2014 targets, with the exception of streetlights. Data in Table 4 show energy use per unit area in city facilities decreased over the 2014 to 2018 period by 1%. Due to a major streetlighting retrofit program, energy use by streetlights dropped by 28%. The energy cost for city facilities increased by 21% since 2014. Corporate fleet fuel consumption displays a 2% decrease.

Table 4 Assessment of progress towards targets in the 2013 plan as of end of 2018

Target type	Target reduction	Progress towards target	Target	Actual	
				2014	2018
Overall energy use in facilities (ekWh/ft ²)	15%	1%	31	36.3	36.5
Energy cost for facilities (\$/ft ²)	20%	-21%	\$1.92	\$2.40	\$2.91
Electricity use for street lighting (MWh)	20%	28%	8,151	10,189	7,307
Water use (m ³ /ft ²)	10%	-38%	0.22	0.24	0.33
Fleet fuel use (eMWh) *	10%	2%	8,239	9,154	8,960

*original target for fleets was in L/100 km. Comparable data are not available.

Table 4 provides an assessment of the City's progress in meeting the targets set in the 2013 Corporate Energy Management Plan. In part, energy use within facilities not meeting the target can be attributed to increased programming in various recreation facilities. Decreases in various buildings due to energy retrofits have been observed.

Energy costs have a significant component that is outside the control of the City. Unit electricity costs in particular have increased significantly, from an average cost of 0.13 \$/kWh to 0.17 \$/kWh. Natural gas also increased from 0.25 \$/m³ to 0.27 \$/m³, and diesel and gasoline were 0.91 \$/L and 1.01 \$/L in 2014, decreasing to 0.86 \$/L and 1.00 \$/L respectively in 2018. While Ontario inflation was about 7.2% from 2014 to 2018, electricity prices rose 25.4% and gas prices 7.7%. Fuel prices declined in absolute terms. All "cobra head" style street lights have been replaced with LED fixtures, this excludes the decorative carriage style fixtures in the downtown areas. Water usage increases can be attributed to the increased numbers of splash pads connected to facilities as well as increased programming as mentioned with the energy increases in facilities.

⁹ The earlier plan used data from a 12-month period from approximately 2012. Since it is not feasible to replicate those values and due to some issues with missing data in 2012 and 2013, comparisons are made to energy use in 2014.

Preferred state of energy management

The preferred state is defined as where the City of Burlington wants to be regarding energy management and sets out the long-term direction for energy management within the city corporation.

A major contributing factor for the preferred state is the City's Strategic Plan 2015 – 2040, a 25-year blueprint and guiding document. One of the key strategic directions for the City is to be a healthy and greener city with a goal for city operations, including city facilities and fleet, to be net carbon neutral by 2040. The preferred state was also influenced by interviews with key staff members, reviews of other corporate plans and energy efficiency best practices from other jurisdictions and a strategic planning staff workshop on January 8th, 2019.

The highlighted box below summarizes the consensus on the City of Burlington's preferred state of energy management.

Objectives and targets for making progress towards the preferred state are discussed below.

The City of Burlington's preferred state

1. The City of Burlington produces no net carbon releases from its activities and includes renewable energy, where feasible, in all of its facilities.
2. The City of Burlington manages its energy in a way that reduces the burden on ratepayers, while maintaining a high level of service for residents and businesses, and a healthy work environment.
3. City of Burlington staff members have the training and information they require to effectively and efficiently manage their energy use and emissions within their areas of responsibilities.
4. Burlington collaborates with others both inside and outside the corporation, such as technology firms, to enhance knowledge of how to use and manage operation systems to maximize efficiency and reduce emissions.
5. The City of Burlington keeps aware of initiatives in other municipalities and organizations that are designed to reduce energy use and emissions and assesses the applicability of these initiatives to the City. This includes continuing participation in the municipal energy managers community of practice and other appropriate networks.
6. The City is constantly piloting and evaluating innovative ways of increasing energy efficiency, using renewable energy, and reducing GHG emissions.
7. New equipment is chosen with a consideration of its need/necessity, energy use, emissions, and life-cycle cost.
8. The City measures and monitors energy use and greenhouse gas emissions to ensure continual improvement.
9. Council and senior management have knowledge of energy use and emissions from City operations.
10. The City leverages its expenditures on energy efficiency, renewables, and emission reduction opportunities by taking advantage of incentives offered by utilities, IESO and other levels of government.

Present state of energy management

CORPORATE ENERGY AND EMISSIONS INVENTORY

The previous Corporate Energy Management Plan was adopted in 2013. Since then, the City has undertaken a number of energy efficiency initiatives, both technological and operational. In this section, changes in energy use over time as a result of these initiatives are assessed. The data reported in this section draw on utility data for 2014 through 2018. The energy sources graphed in the following sections are electricity, natural gas (thermal energy), gasoline and diesel fuel.

In this section we review:

- Overall trends in energy use in the City of Burlington
- Trends amongst specific building types
- Changes over time in the most energy intensive buildings
- Overall trends in greenhouse gas emissions in the City of Burlington
- Fuel consumption of corporate fleets

Figure 5 shows how electricity and natural gas usage has changed since the last plan.

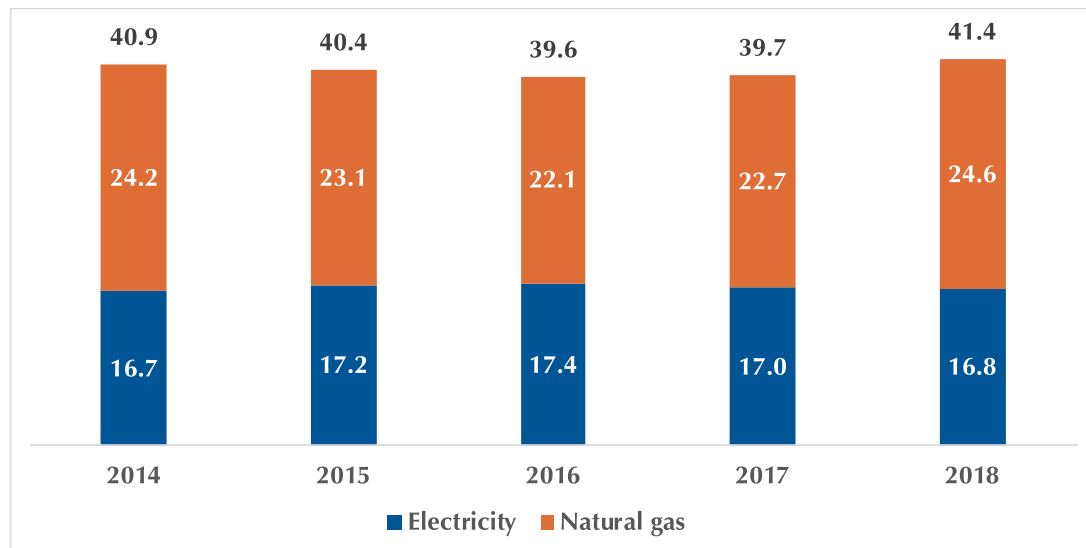


Figure 5 City of Burlington trends on corporate energy use by facilities, including buildings and parks (eGWh) 2014-2018

Although the City of Burlington has implemented both technical and behavioural measures, overall energy use has not changed significantly since 2014. One major efficiency project – retrofitting of streetlights to LEDs – resulted in savings of 2.88 GWh, more than the overall savings in facility energy use of 2.55 GWh.

The City has made good progress on reducing energy use for streetlighting, as illustrated in Figure 6.

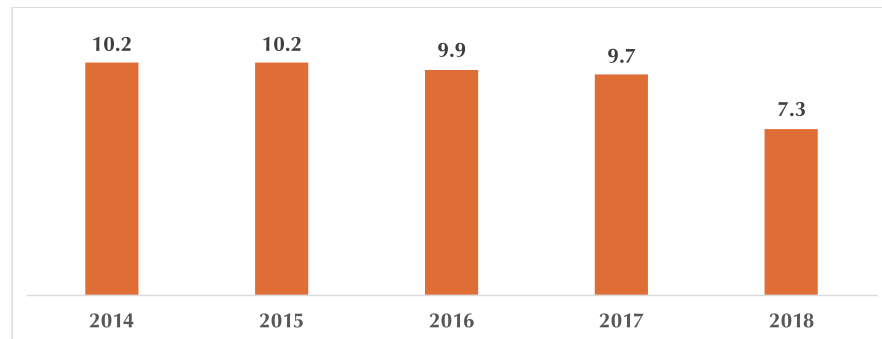


Figure 6 City of Burlington trends on energy use for streetlighting (eGWh) 2014-2018

TRENDS ACROSS SPECIFIC BUILDING TYPES

Large consumers of energy were assessed by individual buildings and facility types. There are no significant trends by facility type, and minimum and maximum use over the five-year period is often small (<10%).

Energy use in administration buildings dropped from 2014 to 2016 but has been increasing since then. In arenas, it has increased slightly each year overall, Energy use in fire stations has fallen slightly since 2016, while use in pools and other buildings has increased since then.

There are a variety of reasons why natural gas and electricity consumption could have increased across facilities. Energy use is affected by the number of hours a building is operating, the number of people using the building, and the months the building is being operated, as well as weather. Seasonal facilities such as arenas are showing an increase in energy use, based on longer operating seasons in warmer weather. For example, ice plants were operated 8% longer in 2018 than they were in 2014. Building energy use may also increase when the floor area of a building is expanded, as happened at Mountainside Recreation Centre.

The ten facilities using the most energy account for 67% of overall consumption in corporate facilities in 2018. The highest consuming facilities are: Appleby Ice Centre (18% of total facility energy use in 2018); Tansley Woods Community Centre (10%); Mainway Recreation Centre (7%), City Hall (5%); Aldershot, Angela Coughlan and Centennial pools (4% each); Burlington Transit Headquarters and Haber Recreation Centre (also 5% each); and the Roads, Parks and Forestry Headquarters (4%).

Energy usage at Mainway Recreation Centre tends to fluctuate based on the amount of ice needed in a particular year, and longer or shorter seasons of operation. This is due to running extensive equipment in order

to produce and maintain ice and the varying hours and seasons of operations.

Swimming pools tend to have high energy usage because they use large amounts of energy for heating, ventilation, and dehumidification.

Burlington Transit Headquarters and Angela Coughlan Pool made a significant improvement in reducing both electrical and natural gas consumption over time as a result of major retrofits and upgrades.

ENERGY INTENSIVE BUILDINGS IN THE CITY OF BURLINGTON

Energy intensity is a measure of the energy use per unit, for buildings, this is typically per square foot or per square metre of floor area. By accounting for floor area, it is possible to compare buildings of different sizes. This benchmarking helps to identify high energy using facilities.

Table 5 shows an overview of 2018 corporate facilities and their corresponding gross floor area. The average intensity is graphed on Figure 7.

Table 5 Corporate facilities with the highest energy use in 2018

Facility	Energy use (ekWh)	Gross floor area (ft ²)	Energy use intensity (ekWh/ft ²)
Angela Coughlan Pool	1,830,689	15,037	122
Aldershot Pool	1,725,971	16,167	107
Centennial Pool	1,714,320	17,427	98
Tansley Woods Community Centre	4,038,630	59,804	68
Appleby Ice Centre	7,586,482	140,577	54
Burlington Transit Headquarters	2,169,931	40,235	54
Haber Recreation Centre	2,058,623	53,844	38
Mainway Recreation Centre	2,931,615	79,438	37
Operations Centre	1,486,042	50,084	30
City Hall	2,243,315	91,988	24

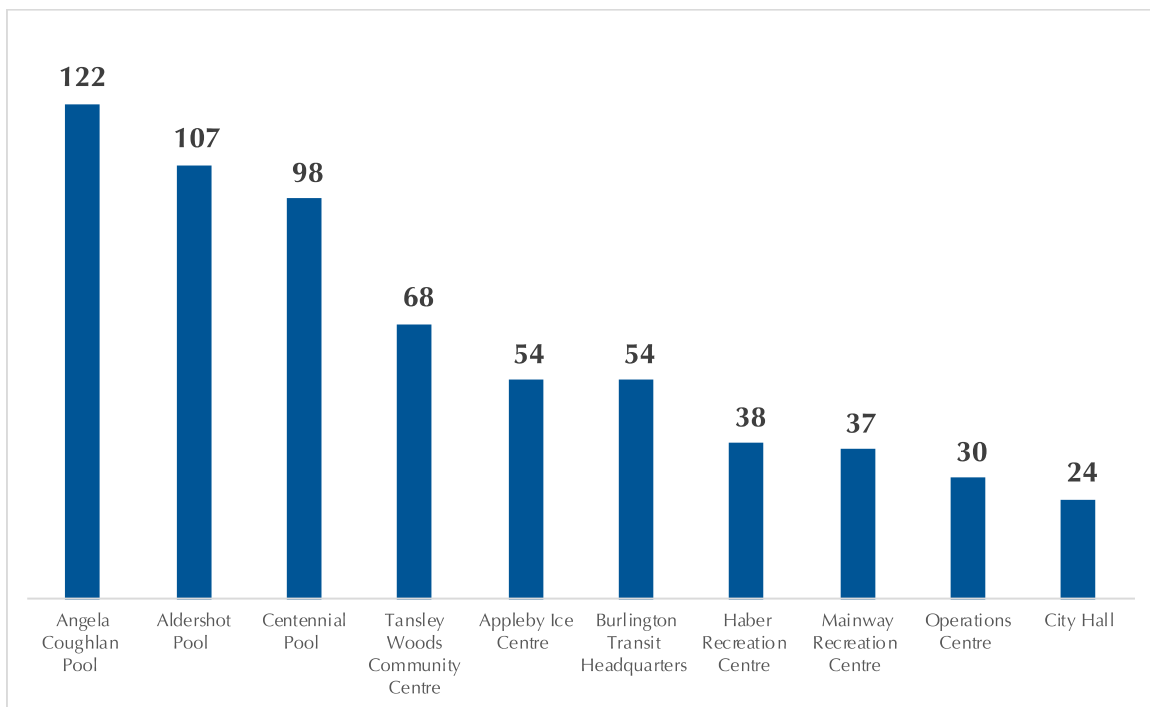


Figure 7 Energy intensity of the facilities with the highest energy use in 2018 (ekWh/ft²)

Out of the 10 facilities, Angela Coughlan Pool, Aldershot Pool, Centennial Pool, Tansley Woods Community Centre and Appleby Ice Centre use the largest quantity of energy per square foot.

OVERALL TRENDS IN GHG EMISSIONS IN THE CITY OF BURLINGTON

Figure 8 shows the greenhouse gas emissions for the City of Burlington from 2014 to 2018.

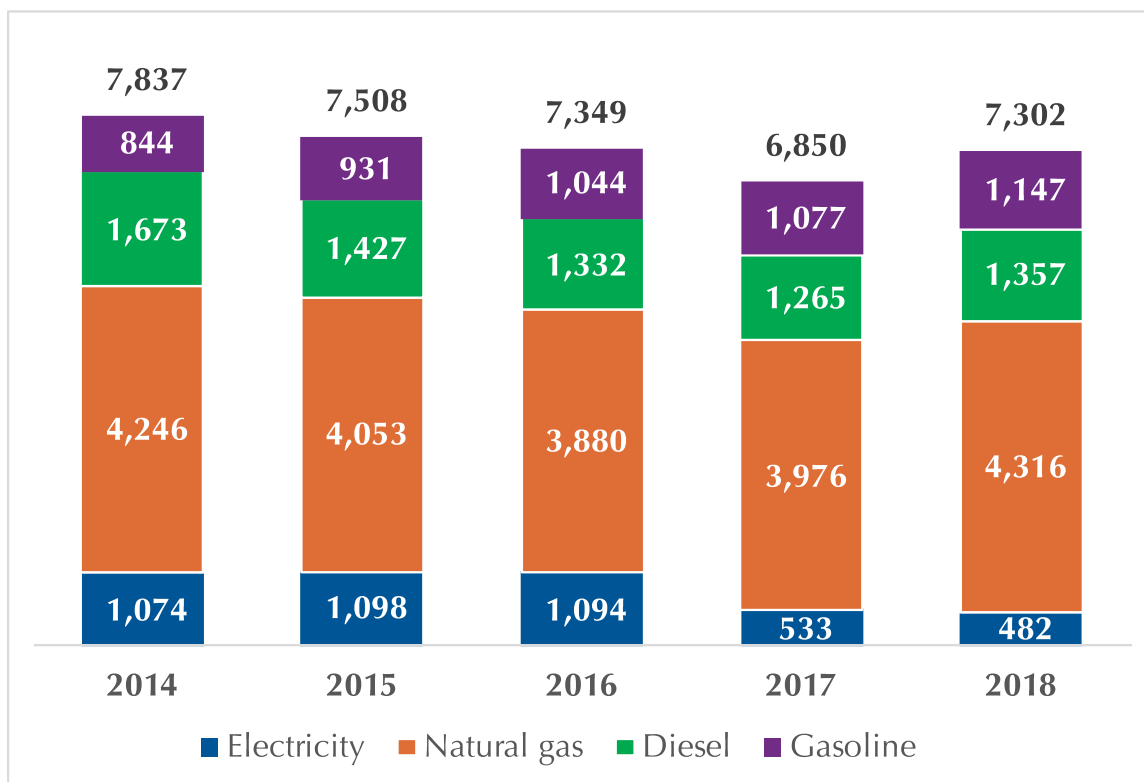


Figure 8 City of Burlington greenhouse gas emissions from 2014-2018 (t CO₂eq)

Overall emissions of greenhouse gases associated with electricity have declined significantly in Ontario since the phase out of coal-fired generation in 2014. The change in GHG emission intensity of Ontario electricity is illustrated in Table 7. Although the GHG intensity of electricity has fallen over recent years, it is expected to increase somewhat in coming years (Independent Electricity System Operator (IESO), 2018a).

Table 6 Average greenhouse gas intensity of Ontario electricity at the point of consumption (g CO₂eq/kWh)

Year	GHG intensity of electricity (g CO ₂ eq/kWh)
2012	110
2013	80
2014	40
2015	40
2016	40
2017	20

SOURCE: (Environment and Climate Change Canada, 2019)

Administrative buildings, recreational centres and pools, and arenas display the largest carbon footprint across facility types.

A closer look at City Hall reveals that the building has reduced its GHG emissions over time. Central Arena and Tansley Woods Recreation Centre also display reductions in GHG emissions from 2014 to 2018. Central Arena and Tansley Woods Recreation Centre have had recent HVAC and lighting upgrades that can account for the improvements.

CORPORATE FLEET FUEL CONSUMPTION

On average, the City's consumption of gasoline and diesel fuels has decreased modestly over the years. Since 2014, diesel consumption in corporate vehicles has decreased by 30% and consumption of gasoline has increased by the same percentage. Conversely, the fire department uses more diesel-powered vehicles than gasoline vehicles, where consumption of diesel fuel has increased by 18% and gasoline fuel has decreased by 11%.

A green fleet strategy was adopted in 2008, and there are plans to update it in 2020. The city has taken a number of steps to moderate fuel use in vehicles, including:

- Adding five plug-in hybrid electric cars to the fleet, as well as a number of gasoline hybrids
- Requiring new vehicle requests to include anticipated loading and use so that right-sizing can be done
- Incorporating anti-idling technology into some vehicles. For example, aerial trucks have technology to allow signing and use of the bucket without the need to run the truck engine

- Adopting criteria for energy efficiency as part of procurement
- Participating in the Halton Fleet Managers Group
- Programs for regularly maintaining vehicles in good operating order
- Gathering telemetric data on 29 light duty vehicles to identify opportunities for improving efficiency

There are challenges in fully understanding energy use in fleets, and where the opportunities for improving efficiency due to data limitations. Addressing these data issues is a priority in coming years.

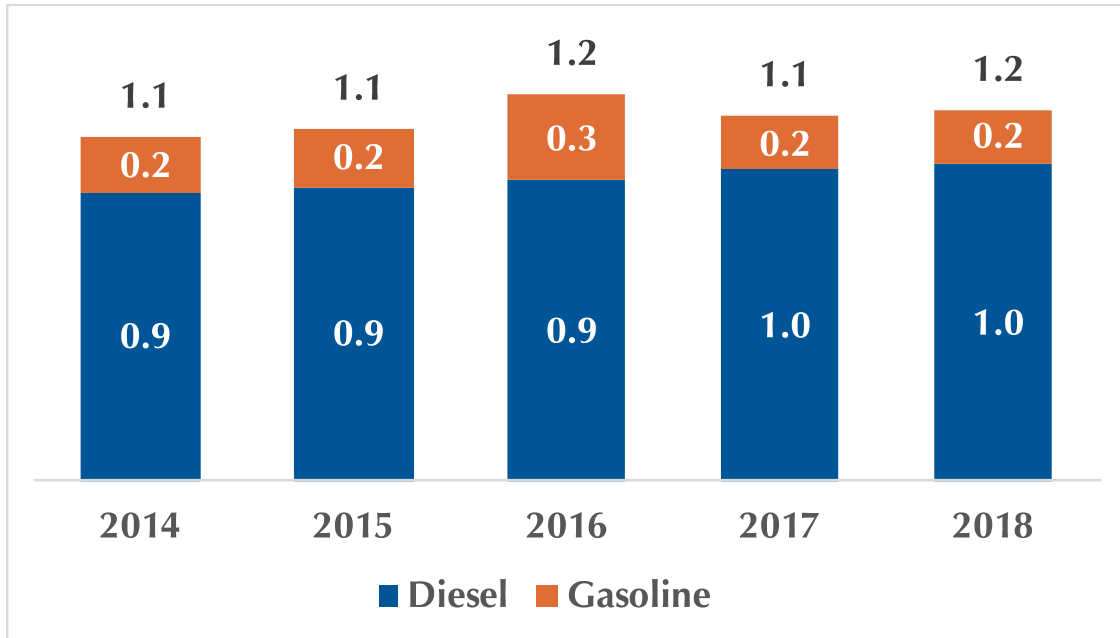


Figure 9 Fire department fleet fuel consumption data in equivalent gigawatt hours (eGWh)

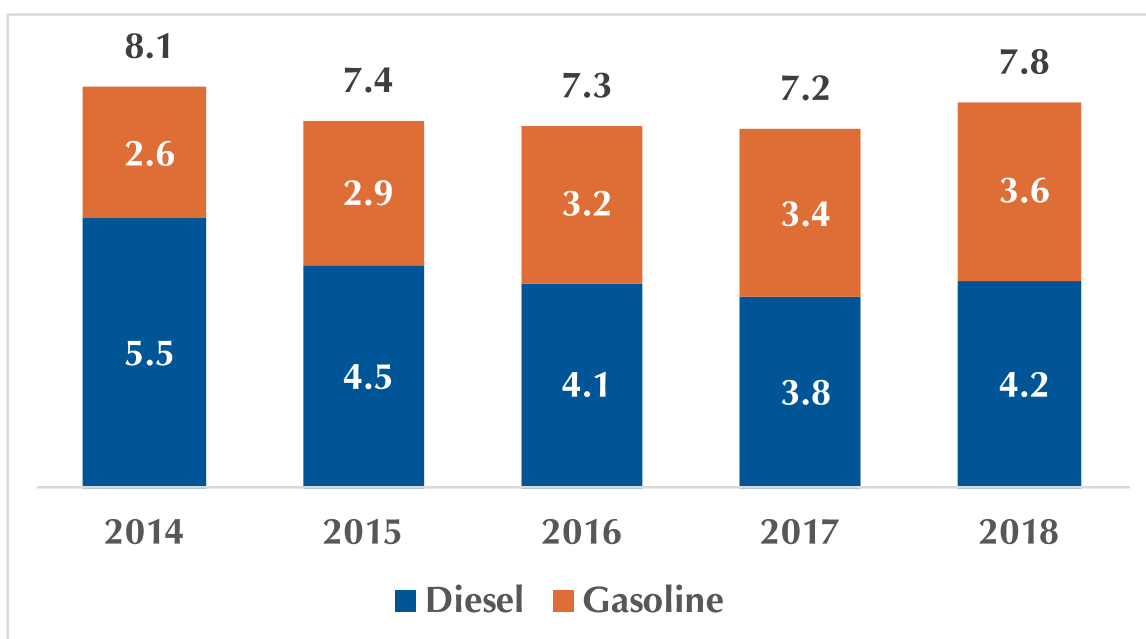


Figure 10 Corporate fleet fuel consumption in equivalent gigawatt hours (eGWh)

WATER CONSERVATION

For many municipalities, water and wastewater treatment and distribution systems are major users of energy. In Burlington's case, these are handled by the Region of Halton but Burlington still wants to avoid excessive charges for water and to use water efficiently, and hence tracks its use within city operations.

Burlington also recognizes that it takes a significant amount of energy to pump, produce and treat water and any efforts to conserve water could transfer to energy savings and therefore carbon reduction by Halton Region. Burlington continues to strive to improve water use in its facilities wherever possible during major renovations, re-builds and regular replacements by installing low flow fixtures. The use of flow-through splash pads greatly increases water use and offsets these efforts overall, the benefits of these types of systems should be re-evaluated including environmental impacts. Water use by city facilities is presented in Figure 11.

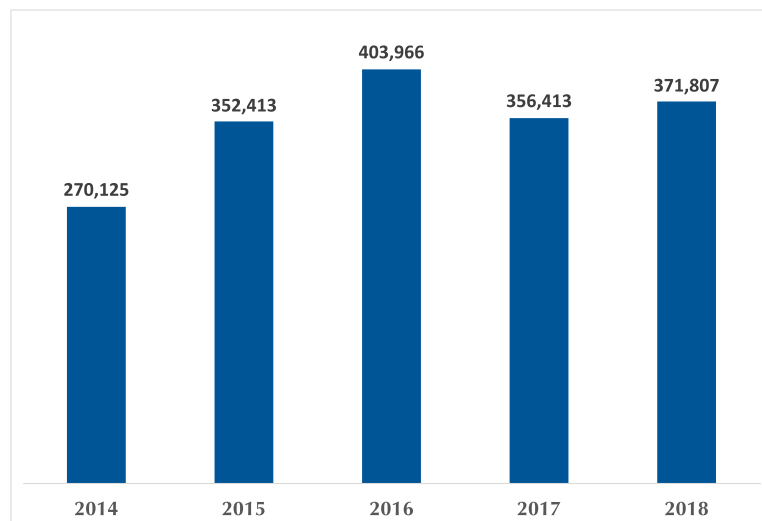


Figure 11 City of Burlington water use in city facilities, 2014-2018 (m³)

ENERGY MANAGEMENT INITIATIVES THAT HAVE BEEN IMPLEMENTED

The City of Burlington upgraded existing City facilities to make them more energy efficient, for example by adding new boilers to buildings, automated systems, HVAC (heating, ventilation and air conditioning) upgrades, new lighting with instant capability, and underwater lighting. These upgrades have projected annual savings that have made facilities easier to operate.

To consider how these initiatives support the overall goals of energy reductions, they were analyzed as part of the overall energy use of the building, for both the electricity saving projects, and the gas saving projects.

In 2018, it was estimated that the City paid approximately 0.17 \$/kWh for electricity and 0.27 \$/m³ for natural gas. The energy efficiency projects initiated since the last plan produced an estimated cost saving of \$2.8 million on electricity projects and \$75,000 on natural gas projects. Additionally, in 2018, the associated greenhouse gas reduction is estimated to be 112 t CO₂eq for electricity projects and 139 t for natural gas projects.

Analysis of retrofits undertaken

Burlington implemented a number of energy efficiency measures over the 2014 to 2018 period, which were calculated to result in savings over that period of 3.3 GWh of electricity and 1.3 million m³ of natural gas. Due to changes in activity levels, the savings representing a small percentage of overall use in some buildings, and other factors, the savings are often not visible in overall energy use in retrofitted buildings. Figure 12 shows changes in electricity use in buildings the year after electricity retrofits were undertaken. The tan line shows the pattern that would be expected in the absence of compounding factors. The blue markers show the actual change in energy use for specific buildings in specific years. Other things being equal, one would expect the blue markers to fall on the tan line. As

the figure makes clear, for many of the buildings retrofitted, usage was actually higher in the following year (above the horizontal axis), or higher than expected (above the tan line), while for other buildings the drop was greater than expected for those buildings (below the tan line).

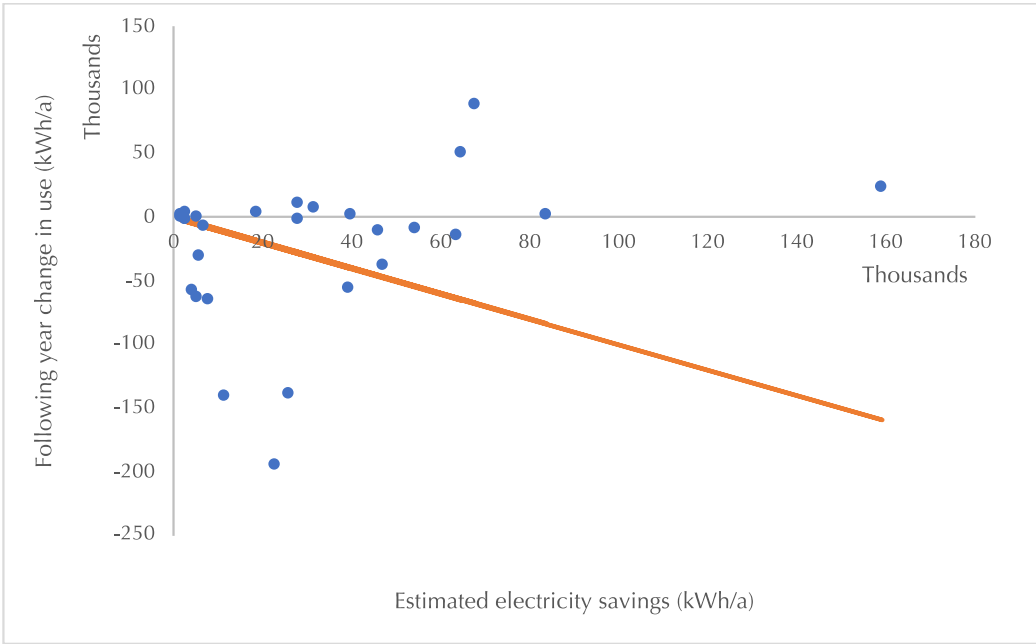


Figure 12 Changes in electricity use in the year following retrofits

A similar story applies to natural gas retrofit projects, as illustrated in Figure 13.

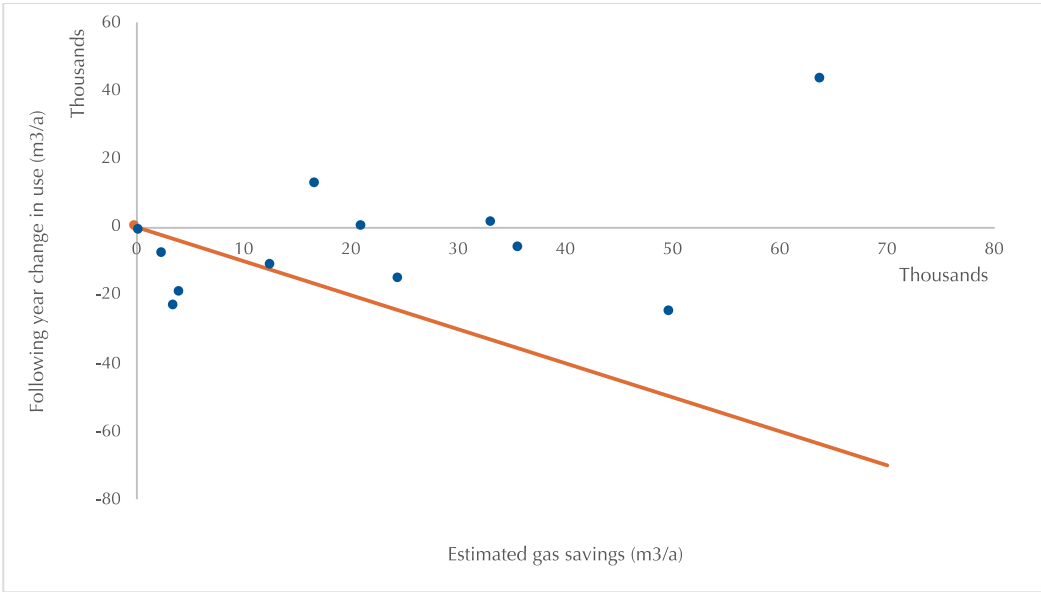


Figure 13 Changes in natural gas use in the year following retrofits

ASSETS AND PLANS

Burlington has plans to renovate many of its assets over the life of this plan. These represent an opportunity to concurrently undertake energy efficiency upgrades. Over the next five years, a number of facilities will be renovated, covering as much as 400,000 ft² to 500,000 ft² of floor area. An equivalent area could be expected to require significant renovation over the 2025-2040 time frame. The specific buildings to be renovated will be determined by the asset management plan, the needs of the corporation, and the availability of resources to undertake the renovations.

Objectives and targets

OBJECTIVES

A key driver of actions over the long-term will be the strategic plan objective of ensuring that City operations have net zero carbon releases.

Over the next five years, the primary objectives are to achieve the following:

1. To further build a culture of conservation, so that efficient use of energy and limiting greenhouse gas emissions is part of the day-to-day activities of City staff
2. To enhance the corporate structure and processes for managing all energy and greenhouse gas emissions
3. Where equipment is being replaced or refurbished, to do so in a way consistent with the long-term goals, particularly for long life assets
4. To make good progress on the long-term trajectory towards net zero greenhouse gas emissions, not just focusing on quick payback incremental projects

TARGETS

Table 8 shows near and longer-term targets for energy reductions relative to the 2018 baseline, greenhouse gas reductions¹⁰ and increase in City renewable electricity generation over three time scales: near term to 2020, over the 2019-2024 period, and from 2025 to 2040. The grid electricity targets may be met by a combination of energy efficiency measures, (estimated at 2.5% of existing electricity uses per year before accounting for electrification of existing natural gas, gasoline and diesel uses) and renewable energy generation. The 2020 target is all energy efficiency. These targets are reflective of a calendar year.

¹⁰ Greenhouse gas estimates are based on the greenhouse gas intensity of electricity in 2017 of 20 g CO₂eq/kWh. IESO data suggest that GHG intensity will increase somewhat over coming years, but IESO does not provide specific estimates (Independent Electricity System Operator (IESO), 2018a). As an example, if GHG intensity rises gradually to 60 g CO₂eq/kWh in 2024, reductions that year would only be 6%. Given that Burlington does not have control over the carbon content of grid electricity, efforts should focus on the energy targets, and in particular reduction of fossil fuels (natural gas, gasoline and diesel).

Table 7 Energy and greenhouse gas reduction targets

Target area	Current baseline	2020 target	2024 target	2040 target
Grid electricity (MWh)	24,115,335	23,500,000 (3% reduction)	18,200,000 (25% reduction)	- (100% reduction)
Natural gas (10 ³ m ³)	2,272,256	2,270,000 (0% reduction)	1,800,000 (21% reduction)	- (100% reduction)
Gasoline (L)	409,133	390,000 (5% reduction)	320,000 (22% reduction)	- (100% reduction)
Diesel (L)	484,193	470,000 (3% reduction)	440,000 (9% reduction)	- (100% reduction)
Renewables capacity (MW)	-	-	4	21
GHG emissions (t CO₂eq)	7,302	7,220 (1% reduction)	5,800 (21% reduction)	- (100% reduction)

The intermediate targets are stepping stones to the longer-term target, which requires the elimination of the use of fossil fuels for space heating and vehicles. In addition, although Ontario's grid electricity is much cleaner than it was, there are still greenhouse gas emissions associated with electricity production, particularly during the daytime when there is greater use of gas-fired generation.

In broad terms, the strategy for facilities consists of increasing energy efficiency by 45-50% by 2040, and replacing natural gas used primarily for space and water heating with alternative systems that use a mix of efficiency measures, grid electricity or local renewables based on what is appropriate for the specific building. Grid electricity is replaced (on a net basis) by City-owned renewable generation.¹¹ Where these substitutions are not practical, it may be possible to purchase renewable natural gas, or green power.¹²

For fleets, the strategy consists of lowering demand and increasing energy efficiency through both operations and purchases. Over the long term, significant changes to transportation technologies are likely, with increased electrification, and possible availability of alternative fuels, such as hydrogen or 'renewable diesel'.¹³ In the short term, electrification is

¹¹ "On a net basis" means that over the course of the calendar year, electricity used from the grid is less than or equal to electricity generated by the City's renewable energy systems.

¹² Renewable natural gas and green power may be purchased from certain suppliers in Ontario. In the case of green power, customers pay the supplier a contracted amount on top of their normal electricity charges, and the supplier contracts to have an incremental amount of green power (e.g. wind, solar, small scale hydro) equal to the amount being purchased to be supplied to the grid. The customer does not get the actual electrons from the renewable generation. Renewable gas is similar, except the supplier arranges for an equivalent amount of methane from wastewater treatment plants or landfills to be injected into the natural gas distribution system.

¹³ Renewable diesel is chemically identical to diesel fuel made from fossil fuels but is made from biomass, rather than from fossil fuels.

commercially available only for light duty vehicles, which account for a small percentage of present-day fuel use.

Additional details of proposed actions are discussed in sections below.

ENERGY USE VERSUS ENERGY INTENSITY

Targets have been set in units of total energy use, rather than energy intensity (for example kilowatt hours per square metre, or litres per 100 kilometres). This reflects Burlington's goal for an absolute reduction in emissions to zero, as well as the fact that Burlington's population is not anticipated to grow significantly over the period to 2040. Energy intensity measures will still be useful in benchmarking Burlington facilities – comparing performance of Burlington arenas and pools, for example, to those of other municipalities.

KEY PERFORMANCE INDICATORS

The targets suggest the key performance indicators below be reported annually based on calendar year consumption:

- Total GHG emissions – tonnes of carbon dioxide equivalent
- Total energy use – gigajoules or kilowatt-hours equivalent
- Total electricity demand – gigajoules and megawatt-hours
- Grid electricity demand – gigajoules and megawatt-hours
- Electricity self-generation – gigajoules and megawatt-hours
- Total fossil fuel demand for buildings – natural units and gigajoules or megawatt-hour equivalents
- Total fossil fuel demand for fleets – natural units and gigajoules or megawatt-hour equivalents
- Other fossil fuel demand – natural units and gigajoules or megawatt-hour equivalents

Secondary performance indicators include

- Energy intensity of buildings – energy use per unit floor area
- Thermal energy intensity of buildings – thermal energy (in particular fossil energy) per unit floor area
- Weather normalized energy use – weather corrected total energy use
- Total vehicle-distance travelled by fuel type
- Average fuel efficiency of the fleet (MJ/km or kWh/km, and L/100 km for fossil use)

Disaggregated data are desirable wherever possible, e.g. per building, per function, per vehicle etc.

UPDATING AND REPORTING ON THE PLAN

The Corporate Energy and Emissions Management Plan is a living document and should be reviewed at least once a year. As part of the annual review, the persons responsible for the plan should complete the following steps:

- Track the activities that have been implemented, based on a checklist of all of the actions included in the CEEMP
- Track quantitative progress towards targets, using the energy performance indicators (EnPIs) described in this plan
- Note any updates to the CEEMP, based on new audits, organizational changes, lessons from past projects, availability of new technologies or sources of funding
- Identify the priority actions for the coming year, and secure funding and resources for their implementation
- Compile an update report annually describing projects implemented, progress towards targets, updates to the CEEMP, and priority actions for the coming year
- Update the City website content to highlight projects completed, status of CEEMP, and corporate commitments to energy management
- In 2024, report on implementation of the CEEMP as required under *Regulation 507/18*. Include detail on: energy and greenhouse gas emissions to 2023, current and proposed energy efficiency and demand management measures, report on results achieved, and a revised forecast of the expected results of the current and proposed measures.

Plan strategy

The plan strategy consists of six key components:

1. Data management
2. Training and engagement
3. Staffing
4. Policies and procedures
5. Technologies for facilities
6. Technologies for vehicles/fleets

DATA MANAGEMENT

Burlington has adopted a comprehensive system for logging and tracking energy billing associated with facilities: AssetPlanner. Natural gas, electricity and water bills are entered as received, and are available to users to assess energy use and changes over time. Data from 2014 to date are fully up to date and supporting information (e.g. floor area) has been verified.

Some members of the operations staff have been trained on the use of the system, but it is not clear that it is getting used as fully as it might by staff outside of the Capital Works department.

In addition, Burlington has implemented Centrica's Panoramic Power in six of its buildings. This technology provides real-time visibility on energy use. This energy management system is key, particularly in high use buildings. An energy management system involves having a power monitoring "current transformer" [CT] on each main circuit of the building and can offer the user information on how much energy each system is using; showing various lighting systems, cooling, ventilation, and other mechanical systems all separately. It also shows which system is running the longest or at various times of the day. The result is the operator having actionable information on what each of these systems are doing "when no one is looking".

This in turn allows the operator to predict when a system is in need of repair (pumps or motors that draw increased current as their bearings fail), has gone offline entirely (drawing zero current when it should be in operation), or is in need of an adjustment to the control system (a system operating when it is not needed).

The combination of a well-trained and engaged operator with a solid energy management system is a powerful tool for energy conservation, as well as early detection of maintenance issues, reduced operational cost, and increased system uptime. It is estimated that this single change can reduce energy consumption of a building by 10-20% (Lee & Cheng, 2016).

Both the Fire and Corporate Fleet departments maintain information on fuel use by vehicle. Both are using the WinFuel package, which captures vehicle information, fuel consumption and odometer readings at the time of refueling. Staff have difficulty extracting key information that would support the management of fuel use in the City. It is unclear whether this reflects limitations of the database, staff training or the data collection process.

In addition, the AVANTIS system has been adopted to track vehicle maintenance requirements.

TRAINING AND ENGAGEMENT

There are opportunities to increase the awareness and knowledge related to energy at multiple levels of the Corporation: from Council, to the Business Leadership Team (BLT), facility operators, vehicle users and all staff in the Corporation.

City Council and the Burlington Leadership Team

City Council and the Burlington Leadership Team receive annual reports on energy use, including changes over time. Council also adopts the five-year Corporate Energy and Emissions Management Plan. Both Council and the Business Leadership Team have a critical role in creating and enhancing the ‘culture of conservation’, by reaffirming their support and encouragement of staff taking steps to reduce energy costs, usage and associated greenhouse gas emissions. They need to understand the significance of energy use to the City’s budget, how Burlington’s commitments and actions compare to those of other municipalities, and how staff are progressing towards meeting the targets set out in the City’s Strategic Plan (net carbon neutrality by 2040) and Corporate Energy and Emissions Management Plan. They need to demonstrate that there will be support and recognition of staff efforts to meet the targets that are created.

Departmental managers

Engagement is also required on the part of departmental managers. They need to understand and take responsibility for energy use in their department. In addition, there is an opportunity to establish a committee to play a key role in ensuring that specific targets set for individual facilities and vehicles or vehicle types are consistent with the overall corporate targets. It may also serve as a forum for reviewing monthly or quarterly progress towards targets, and to identify where adjustments to the plan may be required.

Operations staff

At the facility level, staff need to have good information about the systems within their facility, and the understanding to know how to interpret and act on this information. There are multiple mechanisms through which this may be achieved, including:

- **Regular training refreshment** – This is particularly important as staff turns over and operators move to other departments, buildings, and roles to allow for continuous growth in their careers. Supporting the operators with regular efficiency training in each role will improve that person’s effectiveness in every role they hold.
- **Lunch & learns** – Inviting the suppliers of various systems into the facility to offer a technical training session on how the system operates and what to watch for is a valuable and (often) free tool to gain insight that may not be available from anywhere else. It is also recommended that operators from similar buildings be invited to the lunches, so that the knowledge can be disseminated to every building of that type.
- **Building Operator Certification** – The BOC program offered by the Canadian Institute for Energy Training is a focused program on improving the energy management of buildings, specifically tailored for building operators. Having each City of Burlington operator work towards this qualification will improve the energy comprehension throughout all operators. Additionally, these courses have the benefit of facilitating dialogue and trading of ideas with operators from other jurisdictions and industries, such that attendees often finish the course with a list of exciting projects to investigate.
- **Operator-led workshops** – It is said that by teaching, we learn twice. Operators that have expertise in a particular area should be encouraged to lead training sessions with other operators. This can be within a broader subject like refrigeration or lighting, or it may focus on a particular system (i.e. a Dectron™ unit at a pool) that the operator has in-depth experience working with. Further, this will facilitate the deeper Q&A that leads to partially inactive systems being repaired and restored to full function.
- **Operator engagement** – After doing a job for years, the routine of the familiar will always set in unless it is disturbed by an outside force; systems operate the way they always have and operators stop looking for ways to improve and do things differently. Unless of course they are engaged with new ideas, systems for doing things better, or success stories shared with and by colleagues. Having an active energy training program will revitalize senior staff to look at building systems with new eyes and have fresh motivation to find ways to operate better than ever before.

The importance of this last factor cannot be understated: A person will fight for their own idea with vigor and creativity, but if that same idea comes from someone else (e.g., an outside consultant or energy auditor), it will often receive a lackluster effort at best. By promoting operator engagement, ideas will be created and tried, with the motivation to make them work.

Drivers and fleet managers

On the fleet side, regular driver training has been demonstrated to reduce fuel consumption by 5-10% (Federation of Canadian Municipalities, 2010), but needs to be repeated regularly to be effective (e.g. every six months). Natural Resources Canada (Natural Resources Canada, 2018) offers a program called *SmartDriver in the City* for professional drivers and managers in urban and municipal fleets that addresses a number of topics, including:

- Use of gears and fuel economy
- Idling
- Effective fuel-reducing devices
- Maintenance and fuel efficiency
- Tires and fuel efficiency.

There is no charge for the training.

Training is most effective when it involves feedback on specific activities, is linked to carbon reductions, and provides new ideas (Truck News, 2017) (Scott, Gossling, Hall, & Peeters, 2016).

Other City staff

As users of City facilities and other resources, all staff in the City can help contribute to the City's energy and environmental targets through good energy management actions, including turning off equipment when it is not being used, consolidating trips, and using telecommunications instead of travel.

STAFFING

Meeting energy and greenhouse gas reduction targets – particularly aggressive ones – will require a commitment of resources, including staff resources. In interviews with staff, they indicated that their existing commitments limit their ability to take on additional responsibilities related to energy efficiency.

In the immediate term, one position of energy analyst is required. The Project Manager – Energy should develop analysis of the longer term staffing needs. The energy analyst will report to the Project Manager – Energy, and will be responsible for providing support to the following activities:

Project management related to buildings and renewables

- Energy Retrofit Management: Identification, quoting, coordination, and commissioning, as well as supporting the building operators with the technical aspects of their own retrofit projects;

- Planning future projects, with required budgets to be approved by Council;
- Project management of the geo-thermal installations; and
- Oversight of renewable energy installations;

Training and employee engagement

- Planning, managing, and running the training for the building operators;
- Identifying 3rd party training opportunities;
- Coordinating lunch & learns with appropriate suppliers;
- Promoting the culture of conservation, including fun competitions/challenges that engage all members of city staff.

Analysis of fleets (in coordination with the Fleets Manager)

- Maintain fleet databases and report on performance, including analysis of telemetric and automatic vehicle location (AVL) systems;
- Support the development of energy efficiency projects related to fleets, including: the updated corporate fleet strategy, installation of charging capacity, and the driver training program;
- Provide support to the energy committee for all aspects related to buildings and vehicles;
- Monitor the evolving vehicle options and investigate their applicability to Burlington.

POLICIES AND PROCEDURES

A number of proposed policies and procedures are identified in the table that follows. Some of these merit further comment including:

- Establish sub-targets for each facility or vehicle type with relevant managers and expect staff ensure these targets are met. These persons will need to have plans for meeting their individual targets, and the tools and other resources required to implement the plans.
- Re-establish the cross-departmental energy committee and give the committee the responsibility to ensure that individual sub-targets identified in the point above will meet the overall Corporate targets.
- Ensure that new construction and major retrofits are designed to a very high standard of energy efficiency and low greenhouse gas emissions. With careful design, high performing buildings may actually have *lower* construction costs than medium performing buildings. For example, in an analysis of a base office building,

construction costs for reducing greenhouse gas emissions by 34% were estimated to increase construction costs by 3.1%, but reducing greenhouse gas emissions by 82% increased construction costs relative to the base building by only 2.2% (Provident, Morrison Hershfield, & Integral Group, 2017). Given that new buildings and buildings undergoing major renovations are likely to be in use in 2040, all new buildings will be fossil-free and designed for low electricity demand.

- Apply a climate change lens to decision making as directed by City Council on April 23, 2019 for energy management initiatives to reduce the carbon footprint of facilities and improve resiliency.
- Adopt a shadow price for greenhouse gas emissions. A shadow price adds a surcharge to the price of major projects based on their estimated greenhouse gas emissions. Treasury Board of Canada and other government organizations use this in their decision making. That price is 50 \$/t, but will be reviewed by the Treasury Board of Canada Secretariat for future carbon pricing (Treasury Board of Canada Secretariat, 2018).
- Beyond the shadow price, consideration should be given to an internal carbon tax. An internal carbon tax has been set by more than 1,200 companies worldwide (Ahluwalia, 2017) including Microsoft, Walt Disney, and the TD Bank Group. Typically the companies set a carbon price, then charge it back to business units based on their overall contribution to the company's greenhouse gas emissions. Funds are then used to fund energy saving or emissions reducing projects. Microsoft has produced a guide based on its own experience (DiCaprio, 2013). Companies using this tool report significant financial savings, and innovative solutions. In Burlington's case, such a plan – even at 50 \$/t of carbon—the level that the federal government will impose in 2022—would raise approximately a quarter of a million dollars, and would affect decision-making.
- In Ontario, numerous municipalities have established revolving funds for energy efficiency, sometimes funded by FIT revenues, sometimes by direct initial funding. Among the municipalities with revolving funds for sustainable energy policies are Caledon, Pickering, Guelph and York Region (ICF Canada, 2018).

TECHNOLOGIES FOR FACILITIES

To reduce energy use, costs and emissions associated with facilities, it is important to consider each of the components that contribute to these, including:

- Activity levels – can activity levels be reduced without compromising service to citizens or health and productivity of staff? In the case of facilities, that may mean can the floor area required

be reduced? Or can the hours of use be reduced (e.g. lights in unoccupied rooms)?

- Energy efficiency or intensity – can the efficiency of technologies be improved? In the case of lighting as an example, what technologies provide more lumens per watt? For space heating, what building technologies reduce energy use per square metre?
- Timing of use – can some energy use be shifted to times of day when resulting emissions (and costs) will be lower? In particular, grid electricity is less carbon intensive and generally cheaper at night than during the day, or during shoulder seasons (spring and fall) than during summer or winter. Can certain activities that require energy be shifted to off-peak periods?
- Greenhouse gas intensity – are there options for substituting energy technologies which result in lower emissions of greenhouse gases per joule of energy required? In practice, can natural gas use be replaced with (grid) electricity, or can grid electricity be replaced with renewable sources.

Examples of each of these are presented in Table 9. Choosing the best mix requires a good understanding of where energy is being used in facilities, which will vary by facility type.

Table 8 Strategies and savings for corporate buildings

Type of action	Description	Potential energy savings	Cost category
Activity levels	Facility planning to reduce space needed	Varies	No cost/low capital cost
	Facility scheduling, re-commissioning and operation	10-20% (Mills, 2011)	No cost/ low capital cost
	Occupant behaviour change programs	5-20% (Mulville, Jones, Huebner, & Powell-Greig, 2017)	No cost / low capital cost
	Lighting and plug load controls	Up to 20% of lighting and plug load energy (Bastian, 2018)	No cost / low capital cost
Energy efficiency	Upgrade lighting LEDs	Up to 75% of lighting energy	Low capital cost
	HVAC equipment upgrades	20-40%	Medium capital cost (2-7 year payback)
	Building automation systems	Up to 10-40% (Aste, Manfren, & Marenzi, 2017)	Medium capital cost
Timing of use	Off-peak load shifting	Demand	No cost / low capital cost
Greenhouse gas intensity	Geothermal heating systems	>90% of GHG emissions	High capital cost (>7 year payback)
	Solar generation	100% of GHG emissions	High capital cost (>7 year payback)

Further examples of some of these opportunities are provided in the examples below.

Example 1: Recommissioning

In simple terms, recommissioning is the act of restoring building systems back to the way they were intended to operate when they were new. In some cases, they have drifted from this state due to age, control systems, wear and tear, or other reasons. In other cases, the system may never have been properly commissioned from the beginning such that it has never operated correctly.

As is obvious from the list of common annual or biannual inspection activities below, many of these are low-or no-cost opportunities that can have a significant impact on both facility operation, as well as energy use. It is recommended that a regular recommissioning process be scheduled at

each facility, examining each of the major systems on an annual or bi-annual basis, for example:

- Equipment or lighting that is on when it may not need to be
- Systems that simultaneously heat and cool
- Belts and valves that are not functioning properly
- Thermostats and sensors that are out of calibration
- Air balancing systems that are less than optimal
- Economizers that are not working as designed
- Controls sequences that are functioning incorrectly
- Variable-frequency drives that operate at unnecessarily high speeds or that operate at a constant speed even though the load being served is variable
- Changing occupancy.

Example 2: Lighting retrofit

Lighting retrofits often bring one thought to mind: replacing existing fixtures with LED technology. This is for good reason – LED technology is generally much more energy efficient, directs the light to the task surface/area more effectively, and lasts longer than its predecessors, and therefore requires less maintenance. Indeed, when the existing technology is incandescent, halogen, or many types of fluorescent, a direct LED replacement can save 50-75% of energy costs as well as a substantial portion of the maintenance associated with the lighting system.

In addition to the simple LED fixture retrofit, another key element to reducing lighting energy is through the use of effective controls to minimize the lighting duty cycle to the periods when they are actually needed. These controls ensure lights are turned off when rooms are vacant. The current building code requires many of the controls and occupancy sensors that would typically be recommended to minimize wasted energy but does not apply to existing buildings in the same way.

One example where both of these strategies were incorporated was at an ice pad that was previously lit with high-bay fixtures. The energy intensity of these units was so great that the operators could see deformations in the ice below each fixture toward the end of a long day of use. After an investigation and analysis, it was decided to replace the fixtures with dimmable LED and incorporate an occupancy-based control system to minimize duty cycle.

The LED fixtures themselves reduced energy consumption by 60% over the previous lights. The control system was programmed to only operate at 100% output during the actual rented ice time. Initially, this caused problems because the lights would shut off as soon as the ice time was

over, requiring that players and spectators find their way out in the dark, but this was soon remedied with the dimming feature, whereby the occupancy system would maintain the lights at 20% output whenever the area (pad or stands) were occupied. Then once the area was empty, the lights would turn off entirely after a 15-minute delay. The addition of the controls reduced the duty cycle by an additional 30%. The final result was a total energy reduction of 72% from the previous (40% remaining from LED x 70% remaining from controls = 28% of original consumption).

Example 3: Demand response ventilation

Fresh-air ventilation is the silent energy waster. Anytime fresh air is pumped into a space, the 'stale' air must be exhausted via the air-handler, dumping conditioned air outside and losing the energy that went into initially heating or cooling that air. But how much fresh air is needed in a space? If the rate is too low, the air feels stale and clammy; most of us have been in a conference room full of people with this feeling. However, if the rate of fresh air is greater than needed, we don't notice it – and conditioned air is exhausted and wasted needlessly. Most building spaces fall into this latter category.

The good news is that the 'quality' of air can be easily measured, at least from the perspective of whether there is enough fresh air for comfort. The measurement metric is the concentration of CO₂ in the air, which is given off by people in the space. The outside air is typically 350-450 ppm CO₂. Without fresh air in a building space, the occupants will gradually contribute to the CO₂ levels until they rise above 1200 ppm; at the point the air begins to feel stale and uncomfortable.

Installing a CO₂ sensor that is tied to the makeup air system or fresh-air damper can adjust the amount of fresh air in a space to always provide the exact amount required to keep the space feeling pleasant, without wasting any unnecessary conditioned air. Further, it can maximize fresh air into the zone when there are many occupants (i.e., a large meeting) to keep the air from getting stale and uncomfortable. Depending on the current makeup air rates, this can reduce natural gas consumption by 20-40% in a building, as well as reducing the electricity consumption of the ventilation fans by 10-20%.

Thermal monitoring is another strategy for controlling demand response ventilation. This is a more recent technology being used for this purpose, with the claim being that CO₂ control is too slow, and by the time the system responds to the higher levels, the air is already uncomfortable. Thermal monitoring is able to respond more quickly. One such system has been installed in the Burlington Public Library (Feedback Solutions, 2017).

Energy conservation retrofits

The list below includes many of the common retrofits that apply to municipally owned buildings. The energy management team is already familiar with these retrofits, many of which have already been

implemented throughout various buildings. These retrofits should continue to be implemented within the broader framework described in this report.

- **Recommissioning:** Building energy systems tend to drift over time, usually resulting in more energy consumption. 10-20% of a building's energy can be saved through low/no-cost measures adjustments. An energy monitoring system and appropriate training help significantly with this.
- **Lighting retrofits:** Replacement of LED bulbs in existing fixtures, replacement of fixtures with LED fixtures, or the addition of control systems to minimize duty cycle
- **Variable frequency drives:** Should be considered for all motors, fans, and pumps – beginning with the largest units and working down to 0.25-1hp motors. Energy is proportional to the cube of the fluid moved, so reducing a flow-rate by 50% will result in an energy reduction of 75-87%.
- **Better HVAC controls and thermostats,** installation of thermostats on vestibule heaters and electric baseboards
- **Heat-recovery ventilators** for facilities that require significant exhaust (arenas, pools)
- **Regular scheduled sealing or caulking** with spray foam to reduce air leakage
- **Adding insulation** in ceilings, or walls (if they are exposed during other projects)
- **Upgrading to more efficient heating & cooling systems** during retrofit; opt for systems that include VFD motors, condensing heaters, multi-stage cooling, etc.
- **Exterior Insulated Finishing Systems (EIFS);** generally only cost effective with older buildings that need to be re-sided for aesthetic reasons
- **Triple-glazed windows:** generally only cost effective when windows are being replaced for other reasons (e.g. age)
- **Floating heat pressure controls** for arenas to reduce the duty cycle of compressors
- **Infrared ice surface temperature controlled** (rather than slab temperature control)
- **Controlling pool filtration rate** on flow using a VFD rather than on maximum flow or with valve throttling

TECHNOLOGIES FOR FLEETS

Fleets present a particular problem for greenhouse gas reduction because they are almost totally dependent on fossil fuels, and for many types of vehicles, non-fossil alternatives are nascent. The same basic approach as described for facilities applies to fleets:

- Activity levels – can activity levels be reduced without compromising service to citizens or health and productivity of staff? In the case of fleets, can the distances traveled or the hours a vehicle is operating be reduced?
- Energy efficiency or intensity – the efficiency of technologies must be improved. Smaller, more fuel efficient vehicles will be used when possible instead of larger less fuel efficient ones. More fuel efficient models are chosen over less efficient ones.
- Timing of use – energy use should be shifted to times of day when resulting emissions (and costs) are lower. Burlington does this today, and should continue. It will become more important as the fleet is electrified.
- Greenhouse gas intensity – substituting energy technologies which result in the release of fewer greenhouse gases per joule of energy are required. In practice, that may mean electric vehicles, where they are available, gaseous fuels such as compressed natural gas or propane, or liquid fuels derived from biomass, such as biodiesel.

Examples of each of these are presented in Table 10. Choosing the best mix of strategies requires a good understanding of duty cycles of each type and use. The most effective means of attaining this understanding is with telemetrics, which should be standard in all vehicles.

Table 9 Strategies and savings for corporate fleets

Type of action	Description	Potential energy savings	Cost category
Activity levels	Fleet management & logistics for maintenance activities: matching vehicle capacity with load, routing optimization, etc.	15-30% (see e.g. (Lukman, Cerinšek, Vrtič, & Horvat, 2018))	No cost/low capital cost
	Reduce idling with addition of anti-idling technologies such as auto-shutoff, auxiliary power, etc. ¹⁴	>30% during idle time of fire trucks for example (Zheng et al., 2018)	Medium to high capital cost
	Enhanced driver training – up to a 35% difference in fuel consumption between the ‘best’ and ‘poorest’ driver (Natural Resources Canada, 2018). Drivers require regular refreshing of training	5-10% typically	No cost / low capital cost
Energy efficiency	Right-sizing vehicles	10-50%	No cost / low capital cost
Greenhouse gas intensity	Electric vehicles	Typically 60% >95% of GHG emissions	Medium to high capital cost
	Renewable diesel	100% of GHG emissions	Not generally available at this time

¹⁴ A compendium of anti-idling technologies is available at (Gaines, 2018).

Priority actions

Actions under the plan are presented in Table 11 according to the time they are to be taken: in the first year, years 2-5, or later.

YEAR 1 ACTIONS

The first year actions are very important, as they directly or indirectly impact the City's energy performance. All of these actions are easy enough to be initiated and often completed in Year 1. These actions are grouped by category and are numbered for ease of identification. The numbering is not an indication of importance; however some actions will need to be completed first as they may directly impact other actions.

In the first year of the CEEMP, the City should continue to implement high priority technical actions for retrofitting the City's existing buildings, and upgrading the City's vehicle fleet with more efficient vehicles. In particular, the City should take advantage of existing incentive programs being offered by the Independent Electricity System Operator and Enbridge Gas Distribution, as these end in 2020. Although the province and the Independent Electricity System Operator are seeing increased conservation activities as important to meeting future demand through at least 2035, the specific incentives and programs available today may not be available after 2020.

YEARS 2-5 ACTIONS

In the second phase of the CEEMP (January 2020 – January 2024), the City will implement the high-priority organizational actions presented in Table 11. These actions continue initiatives begun in the first year of the plan, and involve more significant changes to facilities and fleets to realize the targets set out above.

A key initiative will be the conversion of some of the buildings to geothermal heating over this time period.

During this time period, it is also expected that solar capacity will be installed at the rate of one megawatt per year.

On the fleet front, Burlington has already begun to electrify its light duty vehicle fleet, with the addition to the fleet of five plug-in hybrids, and an investigation of opportunities by a consultant specializing in zero emission vehicles. A detailed plan for rolling out electric vehicles will be part of the analysis to be provided from the consultant's study and the updated Fleet Management Strategy. For the purposes of this plan it is assumed that half of the light duty cars will be replaced with EVs by 2024.¹⁵ Already, many analysts argue that EVs are competitive with conventional vehicles, due to their lower operating and maintenance costs, and the vehicles themselves

¹⁵ A more detailed analysis will be done as part of the green fleet strategy.

are expected to reach price parity with conventional vehicles soon (Gordon, 2018). Financial incentives, such as the iZEV incentive introduced by the federal government help address the current capital price difference between EVs and conventional vehicles. The conversion of half the light-duty car fleet does not materially impact on electricity demand in the city, requiring less than 200 MWh or about 1% of total electricity demand in 2024.

YEARS 5-20 ACTIONS

Longer-term actions are more speculative, particularly given that technologies and policies related to energy are undergoing rapid change. Nevertheless it is important to assess how Burlington will achieve its goals for net zero carbon by 2040. In the next section, one scenario for getting there is considered.

Table 10 Actions to be undertaken over year 1, years 2-5 and years 5-20

Preferred state	Action	Year 1	Year 2-5	Year 5-20
The City of Burlington produces no net carbon releases from its activities and includes renewable energy in all of its facilities and fleet.	1 Systematically upgrade lighting to the highest efficiency option to meet a particular need	x	x	
	2 Where appropriate, upgrade ventilation to demand responsive technologies	x	x	x
	3 Deploy cost-effective idle-reducing technologies, possibly including: LED lights, auxiliary batteries, automatic shut-off devices	x	x	x
	4 1 MW solar installed per year.	x	x	x
	5 Develop a plan for upgrading electric vehicle charging facilities to address near and longer-term plans for electrification of transportation	x		
	6 Gradually phase out purchase of gasoline light duty vehicles and begin to investigate phase out of medium duty vehicles.		x	x
	7 When new ice resurfacing machines are purchased, choose electric models		x	x
	8 Consider starting a bike sharing program for staff members to get around facilities.		x	
The City of Burlington manages its energy in a way that reduces the burden on ratepayers, while maintaining a high level of service for residents, businesses, and a healthy work environment.	9 Develop processes to provide departmental managers with information on the energy bills for their departments to sign approval for.	x		
	10 Provide regular information on energy usage and costs to facility and vehicle operators	x		
	11 Continually communicate with Burlington Hydro to ensure proper bill adjustments for streetlights, which are not metered.	x	x	x
	12 Assign budgetary responsibility for energy use to staff members who have the ability to reduce energy use directly.		x	
Burlington staff members have the training and information they require to effectively and efficiently manage their energy use and emissions within their areas of responsibilities.	13 Develop a plan for communicating about the City's energy reduction programs and initiatives to all staff	x		
	14 Conduct an assessment of training needs of city staff as well as building operators	x		

Preferred state	Action		Year 1	Year 2-5	Year 5-20
	15	Develop an ongoing energy training and awareness plan for all levels of staff that includes workshops, lunch and learns, building systems training, utility billing training and city energy policy training.	x	x	x
	16	Send staff with energy management and building operations responsibilities to conferences and trade shows for information sharing	x	x	x
	17	Develop resources to guide facility operators to make better (energy) choices.	x		
	18	Develop guidelines that alert operators on consumption and provides information reports to operators.		x	
	19	Install automated systems for monitoring lighting and temperature with an alert system for out-of-ordinary events.		x	
	20	Work with operators to identify specific steps to achieve facility or vehicle type specific targets		x	
	21	Develop bi-annual training program on efficient driving, awareness of environmental issues, anti-idling policy and practices, and potential cost savings for staff using Corporate vehicles		x	
Burlington collaborates with others both inside and outside the corporation, such as technology firms, to enhance knowledge of how to use and manage operation systems.	22	Establish (re-establish) a cross-departmental energy committee to monitor progress towards targets, and to ensure that targets for individual areas are collectively meeting overall corporate targets	x	x	x
	23	Consider energy and emissions impacts when other corporate plans and policies are being proposed. A mandatory section of report or business case.	x	x	x
	24	Participate in multi-municipality groups e.g. energy managers, fleet managers,	x	x	x
The City of Burlington monitors of initiatives in other municipalities and other organizations that are designed to reduce energy use and emissions and assesses the applicability of these initiates to the City.	25	Sponsor a series of lunch and learns on energy related initiatives with special guests from other jurisdictions, organizations and vendors.		x	x
	26	Identify and adopt industry best practices (e.g. ORFA).	x		
	27	Benchmark Burlington energy use and targets against other similar municipalities		x	

Preferred state	Action		Year 1	Year 2-5	Year 5-20
The City is constantly piloting and evaluating innovative ways of increasing energy efficiency, using renewable energy, and reducing GHG emissions.	28	Establish corporate standards for service provision and energy-saving equipment (e.g. light switches, ranges of acceptable temperatures).		x	
	29	Develop interdepartmental and possibly intermunicipality competitions on reducing energy use.		x	
	30	Monitor changes in technology, costs, performance and availability of alternative lower carbon fuels, including biodiesel, CNG, renewable diesel, and hydrogen for heavy duty vehicles		x	x
	31	Test out all-electric vehicles in applications where they make sense	x	x	x
New equipment is chosen with a consideration of its energy use, emissions, and life-cycle cost.	32	Establish a reserve account to reinvest energy savings, possibly funded by an internal carbon shadow price		x	
	33	Develop a clear and well-publicized process for funding smaller projects from the energy reserve		x	x
	34	Adopt the federal shadow price for carbon for the purposes of decision-making and assessing projects	x	x	x
	35	When purchasing new vehicles and other equipment consider purchasing 'best in class' options, taking into account life cycle costs and carbon intensity as per green procurement policy.	x	x	x
	36	Develop criteria for right sizing new vehicles	x		
The City has reached its preferred state by preparing a series of targets and milestones updated regularly along the way. - - -	37	Require each department to reduce their energy consumption by a certain percentage each year.	x	x	x
	38	Set annual targets for each building and category of vehicle to meet the overall efficiency targets	x	x	x
	39	Consider grading staff on energy use in their yearly review to solidify implementation.		x	
	40	Ensure operators have tools needed to achieve goals	x	x	x
	41	Re-affirm/update targets as required to reflect progress	x	x	x
	42	Evaluate the need for additional staff to meet the City's energy goals	x		
	43	Fleet and facility energy analyst		x	

Preferred state	Action		Year 1	Year 2-5	Year 5-20
Council and senior management have knowledge of energy use and emissions from City operations, and ensure sufficient resources are allocated for plan implementation.	44	Develop energy KPIs to be integrated into the Business Leadership Team dashboards	x	x	x
The City leverages its expenditures on energy efficiency, renewables, and emission reduction opportunities by taking advantage of incentives offered by utilities and other levels of government.	45	Monitor new sources of funding and incentives for energy efficiency or GHG reduction initiatives	x	x	x
	46	Advocate higher levels of government to support greening of fleets	x	x	x
Burlington ensure that it monitors and tracks energy use and GHG emissions to be able to measure progress against targets.	47	Develop annual report cards on the energy and emissions from each building and vehicle group	x	x	
	48	Track and assess progress on interim targets and short-term initiatives	x	x	x
	49	Consider certifying to ISO 50001 Energy Management Systems		x	
	50	Confirm protocols for on-going monitoring and valuation of energy saving initiatives		x	
	51	Install sub-meters on major systems in largest energy using buildings to provide real time information to operations staff.	x	x	
	52	Investigate diurnal and seasonal patterns of energy use to take advantage of load shifting opportunities and reduce use of electricity during peak times when it is expensive and more carbon intensive.		x	
	53	Ensure that data systems for fleets are capturing relevant data on distance travelled, fuel use, fuel and vehicle type, driver, etc. and that staff have knowledge in how to extract and analyze data	x		
	54	Assess results of recent project using telemetrics of a sub-set of vehicles, and determine need and desirability of increasing the number and duration of vehicles with telemetric capability	x		
	55	Survey staff compliance with anti-idling		x	

Preferred state		Action	Year 1	Year 2-5	Year 5-20
	56	Consider participating in E3 Fleet Rating System or equivalent		x	
Burlington has operating policies and procedures that ensure its energy-using equipment is maintained and operated to reduce energy use and emissions.	57	Adopt new building construction standards for corporate facilities that will support the goal of net zero carbon emissions	x		
	58	Develop a standard for major renovations to be near net carbon neutral or net carbon neutral.	x		
	59	Develop a formal commissioning or recommissioning policy for new buildings, major renovations, and additions to buildings		x	
	60	Identify options for reducing duty cycles of equipment while maintaining service performance, for example by use of occupancy sensor to adjust ventilation to occupancy.		x	
	61	Prepare an update of the 2008 Corporate Fleet Strategy addressing changes in needs, technologies and updates or creation of associated city policies, including vehicle maintenance, travelling with loads, duty cycles etc.		x	
	62	Eliminate underutilized or excess vehicles. Excess availability of vehicles tends to lead to increased use.		x	x
	63	Investigate and acquire routing software for snow clearing (and GPS)			x
	64	Accelerate replacement of oldest, least-efficient vehicles		x	x
	65	Substitute communications technology for transportation, such as virtual meetings or work from home policies			x

COSTS OF ACTIONS: 2019-2025

The estimated costs of these actions are shown on Table 12. These costs are based on the assumptions on Table 13, which reflect current costs. They are also assuming that the programs will be rolled out roughly equally over the years. In practice, depending on the size of the buildings geothermal is installed in, for example, the costs may be higher in some years and lower in others.

Table 11 Costs of plan actions 2019-2024

Year	Costs for electricity conservation	Costs for geothermal installations	Costs for renewables installations	Incremental vehicle costs	Staff & other costs	Total costs
2019	\$0	\$0	\$0	\$0	\$200,000	\$200,000
2020	\$151,000	\$0	\$0	\$24,000	\$300,000	\$475,000
2021	\$147,000	\$980,000	\$2,500,000	\$24,000	\$400,000	\$4,051,000
2022	\$143,000	\$980,000	\$2,400,000	\$24,000	\$400,000	\$3,947,000
2023	\$140,000	\$980,000	\$2,300,000	\$24,000	\$400,000	\$3,844,000
2024	\$136,000	\$980,000	\$2,200,000	\$24,000	\$400,000	\$3,740,000

Table 12 Cost assumptions

Cost/saving area	Unit costs
Cost of conservation	0.25 \$/kWh
Costs of geothermal	7200 \$/t
	70% increment
Costs of solar generation	2,500 \$/kW in 2021
falling to	2,000 \$/kW in 2025
Incremental EV cost for automobiles	13,000 \$/vehicle
EV incentive for automobiles	5,000 \$/vehicle
Electricity savings	-0.168 \$/kWh
Natural gas savings	-0.266 \$/m ³
Gasoline savings	-1 \$/L

Realistically, the costs of the technologies are likely to decline, and the costs of the energy will almost certainly rise. The analysis has not accounted for changes in non-energy operating costs such as maintenance.

Staff and other costs shown are incremental.

The capital costs need to be seen as an investment which will realize savings over their extended lifetime. Within the period of the plan, the estimated savings are shown on Table 14. These saving estimates are very conservative, assuming no increase in energy prices.

Table 13 Savings from plan actions 2019-2024

Year	Net electricity savings	Natural gas savings	Fuel savings	Total savings
2019	\$0	\$0	\$0	\$0
2020	-\$101,000	\$0	-\$9,000	-\$110,000
2021	-\$345,000	-\$27,000	-\$17,000	-\$389,000
2022	-\$504,000	-\$94,000	-\$25,000	-\$623,000
2023	-\$747,000	-\$119,000	-\$33,000	-\$899,000
2024	-			
	\$1,031,000	-\$123,000	-\$41,000	-\$1,195,000

The net costs of the plan are shown on Table 15. With an expected life of 20 years for the renewable and geothermal systems, and 10 years for the EVs, the net present value of these investments is about \$1,000,000 with a 4% discount rate.

Table 14 Net cost of plan actions, 2019-2024

Year	Total costs	Total savings	Net cost
2019	\$200,000	\$0	\$200,000
2020	\$475,000	-\$110,000	\$365,000
2021	\$4,051,000	-\$389,000	\$3,662,000
2022	\$3,947,000	-\$623,000	\$3,324,000
2023	\$3,844,000	-\$899,000	\$2,945,000
2024	\$3,740,000	-\$1,195,000	\$2,545,000

Getting to net zero – one possible scenario

The actions for the longer term are necessarily more general and will be refined over time. Initiatives begun during earlier phases continue, including renovating facilities, conversion away from natural gas, and electrifying the vehicle fleet.

As an indication of the kinds of actions and possible implications, we present a scenario that involves the following key activities:

- Continuing improvement of the efficiency of existing uses of electricity at the rate of 2.5% per year
- Conversion of buildings with gas-fired heating equipment to geothermal
- Conversion of fossil-fuel vehicles to electric vehicles as the technology becomes available, based on the average lifetime of each vehicle type
- Installation of solar generation at the rate of approximately 1 MW per year through 2040 (2 MW in 2030)

Most of the technologies required by this scenario are available today, and are cost-effective on a life-cycle basis. The technology for many of the larger zero emission vehicles is not yet commercially available, but is developing rapidly. In the absence of suitable technology, Burlington will need to purchase offsets, or – if there is a market for it – sell excess solar power to the grid. Although the city does not have enough roof space to accommodate 1MW per year until 2040, we expect to see virtual net metering technology become available in the next five years which would allow the City to install large ground-mounted systems on remote property to offset various facility accounts.

Under this scenario, the demand for energy falls quite dramatically due to the general efficiency improvements, geothermal heating requiring about one-third the energy of natural gas heating, and electric vehicles being much more efficient than conventional vehicles. (These technologies are for illustrative purposes; other options may make sense in the case of particular buildings. For example, smaller buildings may be more suited to passive design with solar; heavy-duty trucks may go to hydrogen fuel.)

The changes in demand over time are shown in Figure 14.

The supply is increasingly met by City-owned solar power, with an installed capacity in 2040 of 21 MW. The supply scenario is shown in Figure 15.

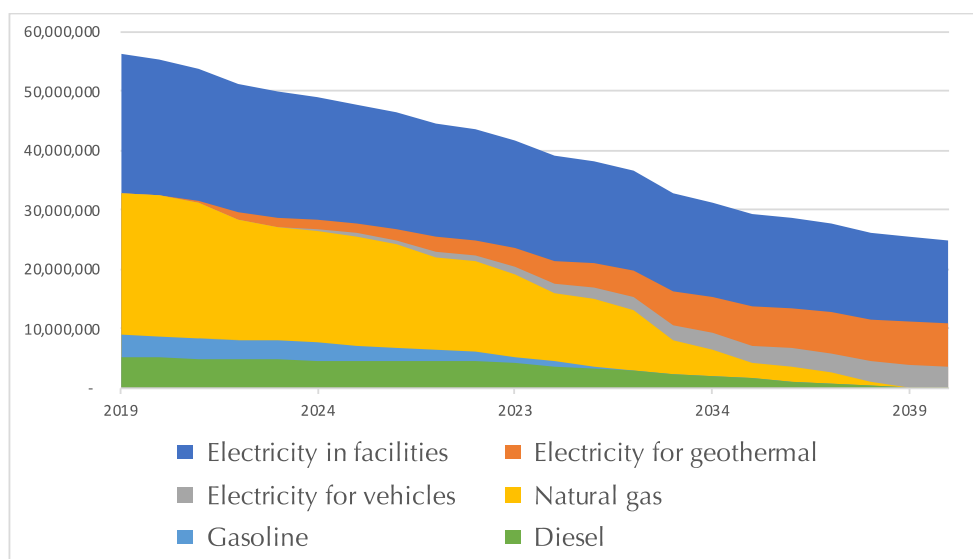


Figure 14 Changes in demand under the net zero scenario (ekWh/a)

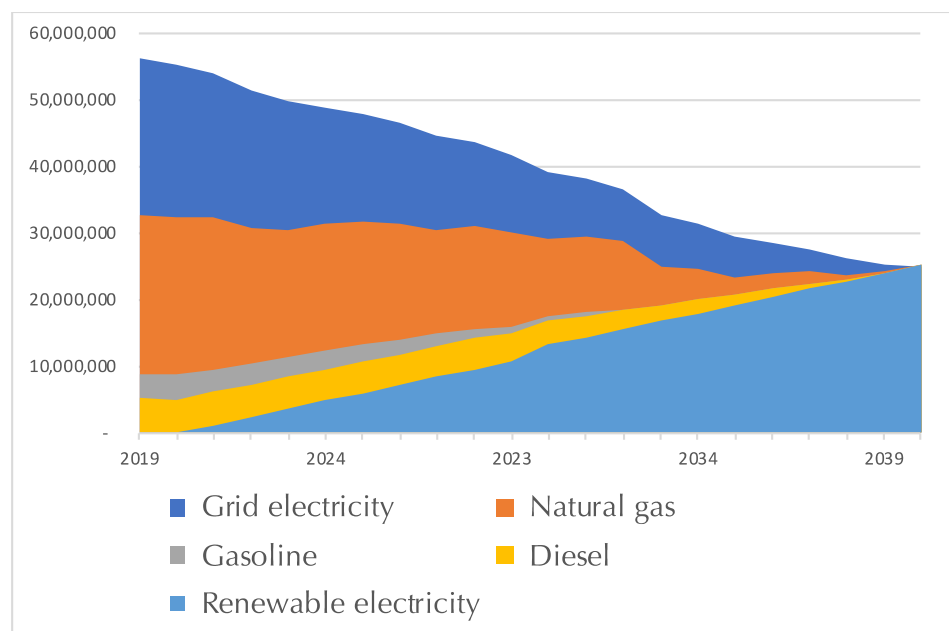


Figure 15 Changes in energy supply under the net zero scenario (ekWh/a)

Over the long term, costs and savings become more speculative, but as an indication, rough net cost estimates to 2040 are presented on Table 16. As discussed above, these savings estimates are very conservative in that they assume no increase in energy costs.

Table 15 Net cost of plan actions, 2019-2040

Year	Total costs	Total savings	Net cost
2019	\$200,000	\$0	\$200,000
2020	\$475,000	-\$110,000	\$365,000
2021	\$4,051,000	-\$389,000	\$3,662,000
2022	\$3,947,000	-\$623,000	\$3,324,000
2023	\$3,844,000	-\$899,000	\$2,945,000
2024	\$3,740,000	-\$1,195,000	\$2,545,000
2025	\$4,000,000	-\$1,510,000	\$2,490,000
2026	\$3,900,000	-\$1,810,000	\$2,090,000
2027	\$3,940,000	-\$2,100,000	\$1,840,000
2028	\$3,920,000	-\$2,420,000	\$1,500,000
2029	\$4,320,000	-\$2,740,000	\$1,580,000
2030	\$6,250,000	-\$3,220,000	\$3,030,000
2031	\$4,230,000	-\$3,580,000	\$650,000
2032	\$4,230,000	-\$3,890,000	\$340,000
2033	\$4,070,000	-\$4,110,000	-\$40,000
2034	\$3,930,000	-\$4,390,000	-\$460,000
2035	\$3,890,000	-\$4,650,000	-\$760,000
2036	\$3,880,000	-\$4,950,000	-\$1,070,000
2037	\$3,870,000	-\$5,250,000	-\$1,380,000
2038	\$3,880,000	-\$5,510,000	-\$1,630,000
2039	\$3,870,000	-\$5,800,000	-\$1,930,000
2040	\$3,470,000	-\$6,060,000	-\$2,590,000

Conclusions and recommendations

Major technological, behavioural, and operational changes need to occur within facilities and fleets to reduce energy use and help the City move towards its long-term strategic plan goal of making City operations net carbon-neutral.

On the facilities side, a major move away from natural gas is required: primarily achieved by the conversion of heating and cooling in facilities from natural gas to geothermal systems. Concurrently, Burlington will take advantage of opportunities to reduce overall electricity and natural gas use through conservation initiatives, drawing as appropriate on third-party incentives to help support these.

On the fleets side, a move away from gasoline and diesel is required to get to net zero carbon. For light duty cars, the conversion to electric vehicles can begin immediately, however they represent a small portion of the overall fleet. Low carbon technologies for trucks, and medium-and heavy-duty vehicles are emerging, but are not yet commercial.¹⁶ In the near term, the focus should be on data systems to better understand duty cycles and the patterns of vehicle use. These will also facilitate near term actions to reduce fuel use and emissions through driver education, route optimization, anti-idling actions, and other initiatives that will reduce fuel use.

These changes are essential to meeting the strategic objective of net zero carbon and need to be seen as investments.

¹⁶ Ford, Tesla and Rivian are expected to introduce all-electric pick-up trucks in 2021 (Evarts, 2019).

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Appendix A. Present state

This section provides an overview of the present state of the City of Burlington's energy use within city facilities and fleets. It draws on a review of current energy initiatives, policies and plans.

EXISTING CORPORATE ENERGY INITIATIVES, POLICIES, AND PLANS

This City of Burlington has adopted multiple corporate plans, strategies, and guidelines that demonstrate the City's commitment to the environment, energy, and sustainability by establishing goals as a community and as a corporation. These include:

- Burlington's Strategic Plan 2015-2040
- The City of Burlington Official Plan, 2018
- Sustainable Building and Design Guidelines, 2018
- Declaration of a Climate Emergency, 2019
- Greening the Corporate Fleets Transition Strategy, 2008
- The Community Energy Plan, 2014

A description of each document and how it aligns with the objectives of the corporate energy management plan is provided in this section.

Burlington's Strategic Plan 2015-2040

The City of Burlington's commitment to *A Healthy and Greener City: Visualizing 2040* is in keeping with the CEEMP through (2) two key actions related to energy management.

1. The City operations are net carbon neutral; and
2. The City will work with stakeholders to implement the CEP commitments.

Both the Strategic Plan and the CEEMP encourage energy-efficient technology and the development of sustainable energy guidelines for new and existing buildings. This 25-year plan has a key strategic objective of encouraging a healthier environment through better environmental outcomes that fight climate change, improving the quality of life, economic competitiveness, and through fostering civic pride. Active transportation such as cycling and walking, are also encouraged.

The plan identifies strategic initiatives to accommodate growth through delivering financially sustainable features, such as energy-efficient buildings and retrofitting buildings to reduce Burlington's energy and environmental footprint. Additionally, the plan discusses demonstrating leadership in its own facilities, through initiatives such as a city's awards program and a design review panel.

The City of Burlington displays environmental leadership by recognizing that climate change is a significant issue and will work with stakeholders and other levels of government towards being a net carbon neutral community, as well as to ensure that the City's operations are net

carbon-neutral. The strategic plan states the city will to continue to work with Burlington Hydro Inc. to explore district energy, micro-generation, new storage technologies, and will evaluate metrics for progress based on:

- I. Combined conservation and demand management targets resulting in an overall annual reduction of per capita community energy use of 5% or 6.7 GJ/a per person from 2014 to 2031,¹⁷
- II. Sustainable local generation (renewable and district energy): 12.5 MW by 2031, approximately 3.5% of Burlington's peak electrical demand,

and other community related goals to ensure energy reduction by 2031. The plan highlights the City of Burlington's committed behaviour to increasing energy efficient projects through local generation, retrofitting existing buildings, setting goals and monitoring metrics for progress.

The City of Burlington Official Plan, 2018

The Burlington Official Plan (OP) is a document that provides guidance on land use planning decisions and implements regional and provincial requirements. The Plan complies with the Planning Act of Ontario, and outlines the long-term community vision, and provisions that support future infrastructure, sustainable design, reduction of sprawl and mobility hubs. The OP focuses on natural resource management, transportation, economic, and environmental development within the city. The OP provides the City of Burlington with a long-term framework for establishing active and sustainable modes of travel based on complete communities, reducing environmental impacts and energy use.

The 2017 Burlington Official Plan, which is in-force and effect, is an office consolidation based on the 1994 Official Plan and includes the following policies in section 2.6.2 related to the CEMP:

- The environmental effects of City operations shall be reviewed, and alternative approaches will be encouraged that will benefit the environment and the community.
- Best Management Practices for energy conservation and efficiency shall be utilized and regularly reviewed in all facilities built, owned and operated by the City.
- Where feasible, alternative or innovative environmentally friendly energy sources will be utilized for City facilities.

The City adopted a new Official Plan in April 2018. At the time of drafting of this report City Council announced that it would be undertaking a scoped review of the building heights and densities contained within the adopted Official Plan and has approved a workplan that focuses the review on the Downtown and Neighbourhood Centres Designation. Further, the adopted Official Plan remains at the Region of Halton for approval to address all conformity issues.

As a result, the policies in the adopted Official Plan are not in force and effect, however they have been summarized below for information purposes.

Environment and sustainability initiatives connect with the corporate focus of the CEEMP in Chapter 4. Environment and Sustainability. Section 4.1.2 a) states:

¹⁷ Arguably, the corporate target should be at least as high as the community target, if the City is to show leadership to the community. However, a target of 5% per year over the long term is a very aggressive target.

The City will work to improve air quality and energy efficiency, to reduce greenhouse gas and fuel emissions, and to mitigate and adapt to climate change through land use and transportation policies related to:

- viii. encouraging energy generation from renewable sources and community energy
- ix. solutions such as micro grids, district energy, and energy storage; and encouraging sustainable, energy efficient and low carbon buildings.

Additionally, Section 7. Design Excellence includes policies directly supporting the CEEMP through the encouragement of sustainable site and building design. Section 7.1.1 includes general objectives promoting sustainable site and building design to:

- v. reduce waste, energy and water consumption; and
- vi. enhance air quality, mitigate greenhouse gas emissions and adapt to climate change.

7.4.1 Policies are on the required land use planning applications for public service facilities and states that sustainable design measures should be integrated:

- i. energy efficiency, passive design measures, renewable energy sources and other low carbon building strategies;
- iv. additional sustainable transportation measures such as electric vehicle charging stations that exceed the requirements of the Building Code;
- viii. maintenance, monitoring and communication of sustainable building features; and
- ix. other innovative sustainable design approaches or technologies.

The OP recognizes the important of incorporating low carbon building strategies into other city planning applications and sets to reduce the City's carbon footprint and greenhouse gas emissions through its policies.

Sustainable Building and Design Guidelines, 2018

In keeping with the Infrastructure, Transportation and Utilities and Design sections in the City of Burlington's OP, and in alignment with Burlington's Strategic Plan 2015-2040, and the Community Energy Plan, the Sustainable Building and Development Guidelines (SBDG) highlight Burlington's commitment to consider alternative energy systems and district energy systems and measures to achieve carbon neutrality in buildings. These guidelines address sustainable approaches to site design, transportation, the natural environment, water, energy, emissions, and waste materials.

The SBDG is a tool that assess sustainable features of development applications. The guidelines provide the rationale for sustainable building. The guidelines include both required measures and encouraged ones. Based on the number of implemented guidelines, the plan identifies awards and utility incentives for applicants.

Section 5. Energy and Emissions addresses strategies for reducing the Urban Heat Island including incorporating vegetation on impervious surfaces, light-coloured material/paving to enhance the paving landscape, and the inclusion of cool roofing materials, green roofing or a combination of both in development projects.

Other sustainable initiatives that are encouraged in projects include achieving a 10% or better energy efficiency improvements over ASHRAE 90.1-201, generating a portion of building energy needs using an on-site renewable energy supply, and demonstrating that a project has a net-zero energy footprint. SBDG encourages the use of district heating or cooling in buildings, metering of energy usage for each unit, and third-party commissioning of building systems at the completion of construction.

Declaration of a climate emergency, 2019

On April 23, 2019 Burlington's City Council unanimously passed a motion to declare a climate emergency (Burlington, City of, 2019). The climate emergency declaration provides staff and residents with clarity of purpose regarding Council's view of the importance of climate change, and directs staff to immediately increase the priority of the fight against climate change and to apply a climate lens to the plans and actions of the City of Burlington, including the Council strategic workplan and future budgets.

Greening the Corporate Fleets Transition Strategy, 2008

Greening the Corporate Fleet Transition Strategy (GCFTS) highlights Burlington's commitment to greening corporate fleet vehicles. In 2008, city council endorsed this strategy in support of low emission vehicles, cleaner fuels, and the right-sizing of vehicles. The main goal of the strategy is to improve the efficiency and greenhouse gas emission reduction within the City's corporate fleets. This strategy includes nine sections that highlight issues, city actions, and corresponding targets for each action. These actions include assisting with the correct sizing of light-duty vehicles and choosing hybrid vehicles during the sizing assessment process.

The strategy includes a comparison of emission reduction options and initiatives such as the implementation of smart driver education training. It supports best municipal practices for the use of biodiesel fuel, monitoring vehicles to track fuel consumption, fuel costs, mileage, and maintenance costs to ensure fuel efficiency targets are met. The strategy seeks to improve Burlington's fuel efficiency of city operations and reduce greenhouse gas emissions.

The Community Energy Plan, 2014

The Community Energy Plan (CEP) was endorsed by Burlington City Council in 2014. It is a 20-year plan encouraging lower community energy use. The CEP's vision aligns with Burlington's CEEMP in wanting to achieve a community that is efficient and economically viable. The plan builds support on reducing a reliance on energy use, reducing one's carbon footprint, and improving local energy security through the use of local renewable generation. The main difference between the CEP and CEEMP is that the CEEMP focuses on energy and emissions at the corporate level only. A CEP includes community actions and conservation initiatives to reduce energy use and greenhouse gas emissions.

The CEP consists of 5 overall goals with objectives, and 55 actions. The goals closely aligning with the CEEMP include:

1. Create leading edge community engagement in energy initiatives (conservation, generation and security) in order to enhance the implementation effectiveness and support sustained quality of life in Burlington;
2. Improve the energy efficiency of buildings in Burlington in ways that contribute to Burlington's overall economic competitiveness;

3. Increase sustainable local energy generation in Burlington and enhance supply security in ways that support Burlington's economic competitiveness; and
4. Optimize integrated community energy systems and efficiency opportunities through land use planning; and
5. Increase transportation efficiency.

The CEP forecasted that community energy use could reduce by approximately 27% by 2030, translating into a 26% reduction in greenhouse gas emissions from approximately 6.8 to 5 t/a per capita. The CEP identifies district energy and combined heat and power in the Energy Generation and Security section as key tools to enable Burlington to achieve its goals and targets. The plan established task groups to share progress on actions and are working together to improve energy efficiency and greenhouse gas reduction in the City of Burlington. An update of the plan is in progress.

Appendix B. Global climate change and energy planning initiatives

Burlington's plan takes place within a global context of cities committing to reduce greenhouse gas emissions. This section includes examples of current city initiatives for fighting climate change.

The final section highlights the policy changes within climate change planning in Ontario and what those mean for the City of Burlington.

C40 CITIES CLIMATE LEADERSHIP GROUP

Climate change has had detrimental effects on cities through extreme cases of heat waves, droughts, food security, sea level rises, coastal flooding, and through power supply risk. Research continuously supports a direct relationship between climate hazards and global greenhouse gas emissions. Worldwide collaboration in the form of partnerships, knowledge and data sharing is tackling energy management greenhouse gas mitigation at the global scale.

C40 is a network of the world's megacities committed to addressing climate change. C40 supports cities to collaborate effectively, share knowledge and drive meaningful, measurable and sustainable action on climate change. The C40 Cities Climate Leadership Group is a data-driven organization founded on the idea that cities can achieve more by functioning as a connected network than by working at the individual level alone. The organization was founded in 2005 and to date, C40 Cities have committed to reducing their emissions by a total of more than 4 gigatons of CO₂ by 2030. The group includes more than 85 cities from around the world. Canadian cities represented in the group are Montreal, Toronto and Vancouver.

Deadline 2020 is an analysis for C40 of how cities can deliver on climate change action through the implementation of science-based climate action plans by 2020. To limit the global temperature rise to 1.5°C, climate change plans will guide cities, help them reduce their greenhouse gas emissions, and aid with the transition of being emissions neutral by 2050. The plan aims to make cities more resilient, while simultaneously generating social, environmental, and economic benefits for all citizens. The analysis demonstrates that substantial reduction of greenhouse gases in cities is required to achieve the Paris targets, and it acknowledges that achieving these reductions will be a difficult challenge for most cities, and notes that it is important for all cities to begin reducing per capita emissions as soon as possible (C40 Cities Climate Leadership Group Inc., 2019, p. 40)

GLOBAL COVENANT OF MAYORS

The Global Covenant of Mayors for Climate and Energy is the largest global coalition for city climate leadership (Global Covenant of Mayors for Climate & Energy, 2019). As nations join to work toward the Paris Climate Agreement, cities' involvement and cooperation is urgent. Climate change has had detrimental effects on cities through extreme cases of heat waves, droughts, food security, sea level rises, coastal flooding, and through power supply risk. Research continuously supports a direct relationship between climate hazards and global

greenhouse gas emissions. Worldwide collaboration in the form of partnerships, knowledge and data sharing is tackling energy management greenhouse gas mitigation at the global scale.

The GCoM partners share a long-term vision of cooperation to combat climate change on a large scale. Cities contain more than half of the world's population and account for more than 70% of all emissions. The coalition believes that, with the help of its partners across the world, it could collectively reduce 17 billion tons of CO₂e by 2030. All levels of government have a role to play in achieving a net-zero-emission world by 2050, and the GCoM coalition includes participation and commitment from any level and any size of government. The Climate Group found that in recent years, many states and regions have adopted more ambitious targets than their national governments, a movement that is supported by GCoM.

The mission of the Global Covenant of Mayors is to serve cities and local governments by organizing and mobilizing climate and energy efforts in their communities, by working with the local governments and other partners. As of March 2019, over 9,200 cities from more than 130 countries had already committed to taking action with them. The cities register, implement, and monitor their strategic action plans, such as their *Corporate Energy and Emissions Management Plan*, and make information on their efforts and successes publicly available. The three initiatives of the coalition address the need for research, innovation, technical assistance and city-level intelligence to help cities combat climate change. These initiatives are “Innovate4Cities”, “Data4Cities”, and “Invest4Cities”.

THE UNDER2 COALITION

The Under2 Coalition is a group of subnational governments established in 2015 also illustrating that better results are achieved through good teamwork, is the Under2 Coalition. The Coalition consists of more than 220 governments across the globe committed to keeping global temperature from rising 2°C. Canadian members include Quebec, Ontario, British Columbia, the Northwest Territories, and the City of Vancouver. The Climate Group is the Secretariat to the organization and works alongside governments on climate change action. Under2 Coalition's work is achieved through three key avenues: transparency, policy action, and through the development of 2050 pathways.

The Under2 Coalition (2018) believes that climate action can be achieved through transparency, by supplying governments with the tools and expertise to assess their emissions, track progress, and ensure that policies deliver against targets. Sharing, promoting, and developing new climate policies also can ensure full decarbonization. The Coalition provides direction on what technical support and resources governments will need to establish long-term greenhouse gas reduction goals. The new technologies, infrastructure, and investments, related risks and trade-offs, required to achieve this is known as 2050 pathway analysis.

The group hosts workshops for government experts and research partners on policy challenges and solutions around community renewables, energy efficiency in buildings, and engaging with energy-intensive industries. Other initiatives the Coalition has undertaken are a series of webinars to raise awareness, and present opportunities on renewable energy, LED lighting, climate solutions in the healthcare sector, and information on how to strengthen greenhouse gas accounting capacity at the sub-national level.

In 2018, 120 states and regions from 32 countries disclosed their climate action and targets. The response to climate commitment is expected to grow, (The Climate Group, 2018) states that by 2020, 90% of states and regions in the Under2 Coalition will be disclosing their climate targets and actions annually. Globally recognized leaders of climate action are empowering economies to shift towards a 'net-zero' future and in turn, paving the way for other jurisdictions to do so as well.

NET ZERO BUILDING-WORLD GREEN BUILDING COUNCIL

The World Green Building Council (2018) defines net zero buildings as structures that are energy efficient, supply energy needs from renewable sources both off and/or on site. Green buildings are known to have environmental, economic and social benefits. Green buildings are designed to utilize less water and energy, and some buildings are able to generate their own energy. By combining practices of net zero building with green infrastructures such as green roofs, green walls, and rainwater harvesting within buildings, cities improve air quality, provide habitats for flora and fauna, and enhance human health through a better quality of living.

Data support a strong linkage between green buildings and economic benefits. In fact, a report by the Canada Green Building Council and The Delphi Group (2016) stated that Canada's green building industry generated \$23.45 billion in GDP and represented nearly 300,000 full-time jobs in 2014. At a much lower level, the building level, assets value is significantly higher than in older, traditional buildings that have not undergone major or minor retrofits improving energy efficiency.

In addition, net zero buildings can help Canada advance Paris Agreement levels of global emission reductions. Organizations such as the Global Network of Green Building Councils is committed to achieving the following by 2050:

- I. Limit global temperature rises to 2° Celsius
- II. Reduce the building and construction sector's CO₂ emissions by 84 Gt
- III. Ensure all buildings are net zero emissions.

(World Green Building Council, 2018).

The City of Burlington can lead in environmental stewardship by following in the footsteps of climate change organizations and adopt stringent standards for its buildings. The city can implement energy efficiency performance requirements within all buildings. Sustainable development can be achieved by incorporating energy management within all levels of building design, construction, and operations. Net zero building will help reduce the negative impacts of development at the global scale and lower the City of Burlington's carbon footprint.

CLIMATE CHANGE POLICY DEVELOPMENTS IN ONTARIO

The electricity system in Ontario has experienced significant changes through the falling demand for electricity and an increase in generating capacity. In general, there is less pressure to reduce electricity use than there was in 2012-2014. Despite this, governments at all levels are making a conscious effort to track and reduce greenhouse gas emissions.

In 2016, Canada ratified the Paris Agreement (PA) joining the international effort to reduce global warming to less than 2°C Celsius above pre-industrial levels and to attempt to limit

warming to 1.5 °C (Schleussner et al., 2016). The Paris Agreement limits and holds warming to well below 2°C to avoid dangerous levels of climate change. To achieve this, Canada committed to reducing greenhouse gas emission in 2030 by 30% relative to 2005 emission levels.

Under the previous Ontario government, the 2017 Ontario Long-Term Energy Plan: Delivering Fairness and Choice delivered a 20-year roadmap for the energy sector in Ontario (Ontario Ministry of Energy, 2017). The plan identified a number of objectives for making energy more affordable and for managing electricity system costs over the long term. The plan introduced new regulatory protections. Key initiatives within the plan included:

- Ensuring affordable and accessible energy
- Ensuring a flexible energy system
- Innovating to meet the future
- Improving value and performance for customers
- Strengthening a commitment to energy conservation and energy efficiency
- Responding to the challenge of climate change
- Supporting First Nation and Métis capacity and leadership
- Supporting regional solutions and infrastructure

Since the plan was prepared, the government has changed, and a new energy plan has not been released.

The outlook of electricity planning

Electricity requirements are affected by a variety of factors that range from energy form, technology, equipment purchasing decisions, behaviour, demographics, population, the economy, energy process, transportation policy, and conservation (Independent Electricity System Operator (IESO), 2018a). The key drivers of electricity demand include major economic drivers, electricity and natural gas prices, and conservation initiatives. Carbon and energy costs are expected to rise, as we continue to see above normal temperatures across Canada. The effects of climate change will put stress on Ontario's electricity system.

The Independent Electricity System Operator (IESO) predicts an increase in overall demand as electrification of the economy increases. It is expected that Ontario will continue on the path of keeping greenhouse gas emissions in the electricity sector low, though they are expected to increase during refurbishing of aging nuclear plants when other sources of supply will be drawn upon (Independent Electricity System Operator (IESO), 2018a).

Electricity conservation savings grew from 2006 to 2017. Conservation savings reached approximately 16 TWh in 2017, where 10 TWh savings were achieved through conservation programs, driven by education and financial incentives. In addition, 6 TWh savings were achieved by minimum efficiency regulations: building codes and equipment standards (Independent Electricity System Operator (IESO), 2018a). The current long-term conservation forecast of 32 TWh by 2035 reports that half of the forecasted savings are from codes and standards and the other half are from conservation programs. Figure 16 shows that as codes and standards continue to grow, historical program savings reach the end of their life cycle.

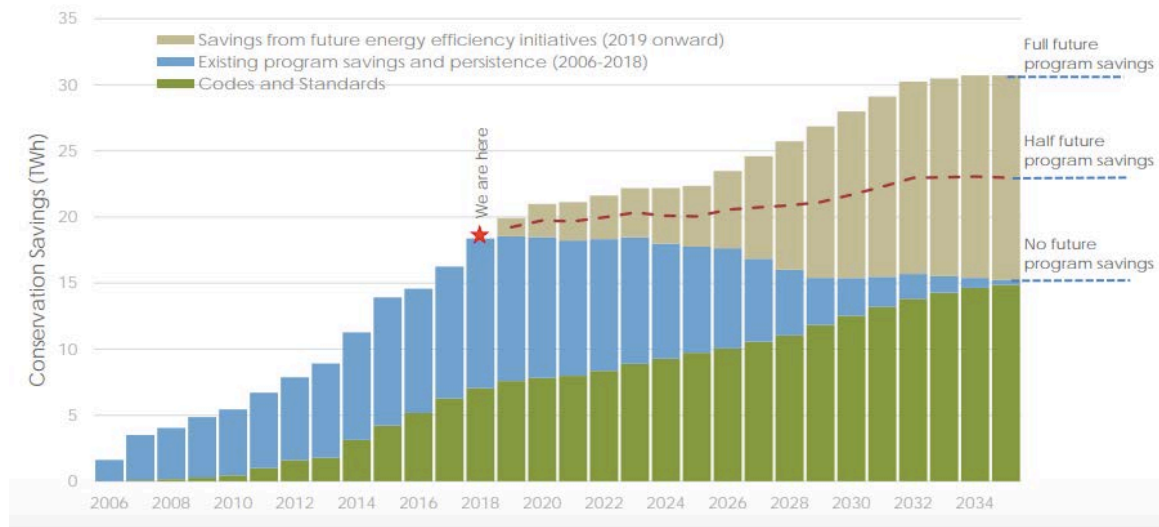


Figure 16 Forecast of Ontario electricity conservation to 2035 (Independent Electricity System Operator (IESO), 2018a)

Future conservation programs represent about 15 TWh energy savings and 2,400 MW of peak demand savings by 2035 (Independent Electricity System Operator (IESO), 2018a). Additionally, the IESO estimates savings from codes and standards to be approximately 15 TWh by 2035.

The IESO forecasts a need for new capacity of approximately 1,400 MW in 2023. The need increases to 3,700 MW in 2025 before plateauing to about 2,000 MW over the long-term. This assumes that capacity from existing resources continues to be available post contract, helping to defer and reduces the need for additional capacity (Independent Electricity System Operator (IESO), 2018b). The IESO suggests that this will be met through the continuation of acquiring capacity from demand response.

The Pan-Canadian Framework on Clean Growth and Climate Change

The 2016 Pan-Canadian Framework was designed to meet Canada's commitments under the Paris Agreement: to meet emission reduction targets and build a strong and resilient economy. A key element of the Framework is the use of market instruments to induce reductions. The Framework gives provinces the options of setting up their own carbon pricing regime, otherwise the federal government will introduce one in provinces. With the cancellation of the cap and trade program under the new government elected in 2018, Ontario became one of the provinces subject to the federal program. Most (80%) revenues collected by the federal government are being distributed to taxpayers directly. The remaining 20% is going into funds that other organizations – including municipalities – will be able to draw upon.

Preserving and protecting our environment for future generations: A made-in-Ontario environment plan

In 2018, Ontario released an environmental plan that proposes a range of initiatives to protect air, land and water, prevent and reduce litter and waste, and reduce greenhouse gas emissions and climate change (Ministry of the Environment, Conservation and Parks, 2018).

The plan does not specifically include any incentives or requirements that affect municipalities directly.

Appendix C. Municipal experience and best practices

This section reviews energy plans of neighbouring and leading jurisdictions. Jurisdictions were chosen based on proximity to Burlington and that are recognized energy plan leaders. It reviews city energy initiatives for: The Town of Oakville, the City of Guelph, the City of Vancouver, and the City of Portland, Oregon.

These jurisdictions set targets and robust metrics that exceed provincial or state requirements and align with planetary boundaries. The ACEEE publishes a report on *City Energy Efficiency Scorecard* (Ribeiro et al., 2017). This report discusses local policies and actions advancing energy efficiency. Within the report, the energy efficient scoreboard compares and ranks cities across five policy areas:

- Local government operations
- *Community-wide initiatives*
- *Building policies*
- *Energy and water utilities*
- *Transportation policies*

The city energy efficiency scorecard measures the progress of city policies and programs that save energy, benefiting the environment and economic growth. The report offers recommendations and strategies on how cities can improve on energy efficiency. The following strategies are recommended by ACEEE:

1. Adopt policies and plans to save energy in public sector buildings and fleets;
2. Include opportunities for improving energy plans, revisit timelines, set energy-saving targets, and allow the public access to energy information;
3. Ability to track, manage, and communicate energy performance;
4. Adopt stringent building codes, require energy audits, and implement energy performance requirements for building types;
5. Form partnerships with energy and water utilities to expand access to energy efficiency programs; and
6. Promote location-efficient development and improve access to decrease transportation energy usage.

Notable features of the plans reviewed are summarized in Table 9. There are municipalities that do not differentiate or fully separate between corporate and community responsibilities. Examples include the City of Vancouver and the City of Portland, Oregon. However, the overlapping of actions has allowed for effective implementation and action on energy management. After reviewing available resources within North American municipalities and cities, having a Sustainability Coordinator role that reports directly to the Chief Administrative Officer has been effective for recognizing the importance of building relationships among departments and bringing awareness to corporate energy management. Within Ontario, The City of Markham, The City of Barrie, and The City of Pickering has included this role within their city department. Most Notably, The City of Burlington joins the list of leaders when it grew to include a Sustainability Coordinator role within the Capital Works department.

Table 16 Energy conservation and best practices in the Town of Oakville, the City of Guelph, the City of Vancouver, and the City of Portland, Oregon.

Targets	Initiatives to reach goals and targets	Documents
Town of Oakville, Ontario, Canada		
<ul style="list-style-type: none"> o Achieve a 15% reduction of 2012 baseline energy use by 2019. o Under the corporate greenhouse gas emission reduction target update (2015-2050) the town set a corporate GHG emission reduction target of 80% below 2014 levels by 2050. o A corporate greenhouse gas per capita emission reduction of 20% below 2014 levels by 2030 & sub targets: <ul style="list-style-type: none"> I. 30% per capita reduction in building emissions from 2014 levels by 2030 II. 10% per capita reduction in fleet emissions from 2014 levels by 2030 III. 40% per capita reduction in streetlight emissions from 2014 levels by 2030 	<ul style="list-style-type: none"> o Started a Drive Smart campaign for all staff, and energy efficiency driver-training program. o Installed solar PV on four town facilities: Town Hall, Glen Abbey Community Centre, River Oaks Community Centre and Sixteen Mile Sports Complex. o Installed a high-efficiency vertical geothermal bore field system in the LEED certified Oakville Transit building. o Through the Ontario Power Authority's Feed-In Tariff program, a unique project of 500-kW capacity rooftop solar array was created at Oakville-Trafalgar Memorial Hospital. The power generated will provide \$6.35 million in revenue to the hospital over a 20-year period and achieved gold certification after earning 39 credits in the green building system. o Converted existing streetlights to LED bulbs, and made improvements to buildings, meeting the LEED silver certification or exceeding it. o Over the past few years, Town of Oakville Sixteen Mile sports complex and office spaces have achieved LEED Gold certifications. o Town staff and departments are required to follow the Sustainable Green Fleet Procedure on fleet greening to assist the Town's GHG emission reduction goals, reduce the use of non-renewable resources and improve fuel efficiency. 	<p>Energy Conservation and Demand Management (2014-2019) (Toth, Viridi, & Simcisko, 2014).</p> <p>Sustainable Green Fleet Procedure (Town of Oakville, 2019).</p>

City of Guelph, Ontario, Canada		
<ul style="list-style-type: none"> o City corporate operations will be powered by 100% renewable energy by 2050. 	<ul style="list-style-type: none"> o Added 10 hybrid gas-electric cars to City fleet (half of the City's fleet of cars). o From 2013-2016, the City completed 8 facility retrofits. o In 2015, The City ran a pilot to transition to LED street lights. After its success, in 2017 Council approved switching 13,119 street lights to LEDS. o The City has added a biogas-fueled cogeneration plant at the City's wastewater treatment plant. o Guelph Transit uses biodiesel in its fuel supply, and rainwater harvesting in bus washing operations. o Based on progress review, energy use and emissions are expected to remain the same in 2050 as they are today in Guelph. 	<p>Corporate Energy Business Plan (2013, City of Guelph).</p>

The City of Vancouver, BC, Canada		
<ul style="list-style-type: none"> ○ Under the Renewable City Strategy (2015-2050) the City plans to derive 100% of the energy from renewable sources before 2050. ○ Reduce greenhouse gas emissions by at least 80% below 2007 levels before 2050. ○ Buildings constructed from 2020 and onwards are to be carbon neutral in operations (To date there has been a decrease of 5% from the baseline value). ○ By 2030, 55% of energy use in Vancouver is derived from renewable sources. 	<ul style="list-style-type: none"> ○ Vancouver became the first city in Canada with a strategy that shifts to 100% renewable energy. ○ The City has implemented a comprehensive corporate waste reduction and diversion program for all City facilities ○ Achieved a 70% waste diversion in public-facing City facilities, and 90% waste diversion in all other City-owned facilities. ○ The City has implemented a program to significantly reduce greenhouse gas emissions as well as fossil fuel use in City-run buildings and vehicles and achieve carbon-neutral operations. ○ Upgrades to City facility lighting, building automation systems, and heating systems have resulted in significant energy savings and a reduction in GHG emissions. ○ The City had a 25% decrease in water use in City operations since 2006. ○ The City has fitted 107 idle-stop devices to its fleet vehicles to limit emissions from idling, and since 2008 has cut fleet emission by 10% and overall corporate emissions by 25%. ○ The City has a sustainable commuting program that offers incentives to City employees to engage in active transportation when travelling to and from work. The program is funded through a parking charge. ○ The City promotes efficient driving practices through driver training and staff education, “idle-free” signs, idle cut-offs to three minutes, a complete “no air conditioning” policy. ○ The corporate solid waste diversion program has a scope that includes zero waste meetings, zero waste and reduced consumption procurement, and waste minimization for all operations, programs and projects. 	<p>The Greenest City: 2020 Action Plan (2015, City of Vancouver).</p> <p>Renewable City Action Plan (2017, City of Vancouver).</p> <p>Renewable City Strategy (2015, City of Vancouver).</p> <p>Zero Waste 2040 (2018, City of Vancouver).</p>
The City of Portland, Oregon, United States		

<ul style="list-style-type: none"> ○ Under the 2030 Environmental Performance Objectives, the City aims to reduce carbon emissions from City operations by 53% below previous levels. ○ Set a 2030 target to annually generate or purchase 100% of all electricity for City operations from renewable resources. ○ Set a 2030 target of reducing fleet vehicle carbon emissions 10% below previous levels. ○ Set a 2030 goal of recovering 90% of waste from City operations, with a secondary goal of reducing total waste from City operations 25% below previous levels. ○ Set a target to reduce the total energy use of all buildings built before 2010 by 25%. ○ Set a target to supply 50% of all energy used in buildings from renewable resources, with 10% produced within Multnomah County from on-site renewable sources. ○ Set a target to reduce energy use in City and county government buildings by 2% annually (exceeded this goal by achieving a 2.7% reduction per year). ○ Set a target to reduce the lifecycle carbon emissions of fuels by 20% ○ Set a 2030 target to ensure that 80% of City-managed natural areas are in “healthy” or good condition. 	<ul style="list-style-type: none"> ○ The City of Portland has been working on the City Energy Challenge to cut energy use and save money in City operations. To date, completed energy efficiency improvements saved \$5.5 million dollars each year. Cumulative savings have reached \$42 million. ○ Since 2009, the City has installed 17 renewable energy systems which include biogas, solar electric, hydro, wind, solar hot water, and solar pool heating totaling 2,484 kW installed capacity. ○ In 2015, City Council adopted Resolution 37153 that added fossil fuel companies to the City’s Corporate Securities do-not-buy list, committing the City to hold no financial stake in the 200 largest fossil fuel firms. ○ The City of Portland reduced city fleet emissions to 23% below previous levels, exceeding the 2030 Environmental Performance Objective. This decrease can be attributed to: an increase in use of low carbon fuels and new sources of biofuel. ○ City policy sets an ethanol and biodiesel use standards for all corporate vehicles. ○ The City used high blends (from 20 to 99 %) of regionally produced biodiesel in their diesel-powered vehicles and equipment since 2007. ○ The City’s fleet contain flex fuel vehicles that can run on gasoline blends containing 85% ethanol. ○ Exemplary transportation policies include mode share, vehicle-miles-traveled reduction goals, as well as several efforts to increase local efficiency. 	<p>2015 Sustainable City Governance Principles and 2030 Environmental Performance Objectives (2015, City of Portland).</p> <p>Portland Climate Action Plan (2015, City of Portland).</p> <p>Climate Action Through Equity (2016, City of Portland).</p> <p>Green Building Policy (2009, City of Portland).</p> <p>Sustainable Procurement Policy (2018, City of Portland).</p> <p>Idle Reduction Policy (2009, City of Portland).</p> <p>Biofuels Requirements for Petroleum-Based Fuels Sold in Portland and City-Owned Vehicles (2006, City of Portland).</p>
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The cities and towns identified in Table 17 are leaders in energy management because their plans go above and beyond the ability to identify potential improvements, building performance and alternative forms of energy. To achieve desired targets most towns and cities have developed strategies with specific actions that are ranked based on priority. The City of Guelph for example, has integrated these actions into its annual savings. Constant monitoring and benchmarking have led to effective energy conservation and cost savings. Having defined tasks and follow-through have allowed for effective progress on energy use and greenhouse gas emissions.

In addition, having energy management responsibilities distributed within departments facilitates successful plan implementation. The Town of Oakville, with a population only slightly higher than Burlington for example, has two people that would fall under the corporate banner for energy management, and an additional staff member that manages the Community Energy Plan.

Some municipalities have drawn on their local LDCs Energy Manager program to cover a part of the salary of a staff person. (This program has been ended.)

Summary of key success factors:

- A supportive council
- Distributed energy responsibility among staff
- Full implementation of energy monitoring and tracking system
- Adopting a robust methodology for establishing realistic energy reduction targets

Appendix D. Financial incentives

This section describes the financial incentives that are available to the City of Burlington. These incentives include:

- utility incentives for electricity savings offered by the Independent Electricity System Operator (IESO)
- utility incentives for natural gas savings offered by Enbridge Gas Distribution (formerly Union Gas)
- those offered at the federal level
- incentives offered by The Atmospheric Fund

The City of Burlington can take advantage of these incentives to implement some of the suggested technical measures. Forming partnerships with energy utilities allows for the expansion and access to energy efficiency programs within the City.

On the electricity side, the Independent Electricity System Operators (IESO) has taken over the SaveOnEnergy programs previously available through Burlington Hydro. The City of Burlington can take advantage of programs such as the Retrofit Program, which provides incentives for reductions in peak electricity demand or electricity consumption.

For natural gas, all applicable technical measures fall under the Equipment Incentive Program and the Custom Engineering Incentive Program offered by Enbridge.

INDEPENDENT ELECTRICITY SYSTEM OPERATOR (IESO)

Full details are available at: <https://saveonenergy.ca>.

Retrofit Program

The Retrofit program provides incentives for electricity savings from lighting retrofits, lighting controls, HVAC redesigns, chiller replacements, variable speed drives, or improvements on thermal performance of a building envelope. There are two types of project applications: Prescriptive Track and Custom Track.

Process & Systems Program

This program provides incentives for innovative changes, equipment retrofits, financial assistance for engineering studies, technical expertise from energy managers.

Energy Performance Program

This incentive is ideal for improving the energy performance of an entire building.

ENBRIDGE GAS DISTRIBUTION

Full details are available at:

<https://www.uniongas.com/business/save-money-and-energy/equipment-incentive-program>

The Equipment Incentive Program

This program can help reduce costs, increase energy efficiency, and improve the return on investment for equipment related to space heating.

Measure	Incentive	Requirements
Air curtains	Up to \$4,000 per door	Natural gas heating, replacements not eligible
Condensing boilers	Up to \$500 per unit in new construction Up to \$6000 in existing buildings	Space or water heating, thermal efficiency >90%
Condensing make-up air units	Up to 0.40 \$/CFM per unit (for unit with variable frequency drive) VFD bonus of \$2500 for units over 5,000 CFM	Between 1500 and 14,999 CFM At least 90% thermal efficiency
Condensing unit heaters	\$750 per unit	At least 90% thermal efficiency
Condensing furnaces	\$200 per unit	AFUE \geq 95% Non-residential Not part of a system with rooftop units or make-up air units
Demand control ventilation systems	\$500 per roof top unit or make-up air unit with a CO ₂ sensor	Natural gas space heating, single zone systems
Destratification fans	\$1,000 per unit	Where there are \geq 25' ceilings with ceiling mounted natural gas forced air heating systems High-velocity low-speed fans of \geq 20 foot diameter
Energy & heat recovery ventilators (ERV)	Up to \$1.75 for new ERVs, or \$1.15 for replacement ERV or new ERV required by code	Heat recovery effectiveness of at least 65% No demand control ventilation
Infrared heaters	Up to \$400 per unit	Incentive varies with heating capacity

Custom Engineering Incentive Program

The custom engineering incentive program that helps fund studies and pilots to identify energy-saving opportunities.

Engineering Energy Efficiency Feasibility Study

This financial incentive is for studies that analyze existing buildings to determine how to optimize energy.

New & Retrofitted Equipment and Process Optimization

This incentive will help fund projects that range from implementing boilers, high efficiency process equipment, building and process controls and building envelope technologies.

The Runsmart Building Optimization

The program offers incentives for retrofits that are low cost and/or no cost energy savings measures and activities that improve a building's natural gas use such as by reducing excessive exhaust quantities.

FEDERAL INCENTIVES

Full details are available at:

<https://fcm.ca/en/programs>

<https://www.nrcan.gc.ca/cleangrowth/20254>

The Federal Government of Canada offers funding, grants and incentive programs to encourage energy innovation, a clean economy, and to promote climate change action. The Federation of Canadian Municipalities (FCM) offers programs and tools to help municipalities build stronger communities. FCM supports a variety of opportunities such as plans, studies, pilot projects, capital projects, asset management grants, and partner grants. Additionally, through Natural Resource Canada's (NRCan) Innovation and Clean Growth Programs, there are incentives for projects that support key energy innovative areas. Below is a description of each.

The Green Municipal Fund-Energy

Full details are available at:

<https://fcm.ca/en/funding/gmf/pilot-project-retrofit-municipal-facilities>

<https://fcm.ca/en/funding/gmf/study-energy-recovery-district-energy>

This program funds studies, pilot and capital projects for different environmental sectors. Both grants and loans are available for municipal projects. Recipients can receive additional grant of up to 15 percent of their loan amount. The Green Municipal Fund can fund pilot projects of retrofits that improve energy efficient by at least 30% in municipal facilities or provide the funding for capital projects where renewable thermal energy is used in new or existing facilities, to help the city reduce its greenhouse gas emissions.

The Green Municipal Fund-Reduce fossil fuel use in fleets

Full details are available at:

<https://fcm.ca/en/funding/gmf/capital-project-reduce-fossil-fuel-use-fleets>

This program is available for capital projects that avoid or reduce the use of fossil fuels in municipally owned vehicles and private vehicles delivering municipal services. Regular loans and grants can fund up to 80% of eligible costs. High-ranking projects loans and grants include a low-interest loan of up to \$10 million and a grant worth up to 15% of the loan. This program is available for projects that reduce greenhouse gas emissions by 20% compared to an existing baseline measurement. Funding from this program can help municipalities fully transition to alternative fuel consumption.

iZEV incentives (Transport Canada)

Full details are available at:

<https://www.tc.gc.ca/en/services/road/innovative-technologies/zero-emission-vehicles.html>

Transport Canada's iZEV program offers incentives for Canadians to choose zero-emission vehicles. The government will provide \$300 million over the next three years to Transport Canada for the administration of a new program. Transport Canada offers incentives of up to \$5,000 for electric battery or hydrogen fuel cell vehicles with a manufacturer's suggested retail price of less than \$55,000. This funding can aid municipalities in greening their corporate fleets.

Electric Vehicle Infrastructure Demonstrations

Full details are available at:

<https://www.nrcan.gc.ca/energy/funding/icg/18386>

The Electric Vehicle Infrastructure Demonstrations are available for projects that need to investigate and understand the impacts and potential hurdles in the deployment of the next generation of charging infrastructure for electric vehicles.

The Low Carbon Economy Fund

Full details are available at:

<https://www.canada.ca/en/environment-climate-change/services/climate-change/low-carbon-economy-fund.html>

The Low Carbon Economy Fund supports the Pan-Canadian Framework on Clean Growth and Climate Change by leveraging investments in energy efficiency projects. The fund is designed to support projects that will generate clean growth, reduce greenhouse gas emissions, and align with Canada's Paris Agreement commitments. The fund is made up of two components:

1. Low Carbon Economy Leadership Fund
2. The Low Carbon Economy Challenge

The Low Carbon Economy Leadership Fund provides up to \$1.4 billion dollars to provinces and territories that have adopted the Pan-Canadian Framework. This funding is available for projects that will help reduce greenhouse gas emissions. Based on population, both provinces and territories are eligible to receive \$30 million plus for projects.

Similarly, the Carbon Economy Challenge can fund up to \$500 million dollars for projects across Canada that adopt the Pan-Canadian Framework, reduce greenhouse gas emissions, and generate clean growth.

THE ATMOSPHERIC FUND INCENTIVES

High-Performance Buildings

Full details available at: <http://taf.ca/grants/high-performance-buildings/>

TAF furthers its goal of lowering regional emissions by offering grants. Among other criteria, the High-Performance Building program funds projects that increase the energy efficiency of existing buildings by:

- demonstrating innovative approaches to improving the energy efficiency of new construction;
- striving for near net-zero energy consumption;
- advancing policy and financing approaches to facilitate and scale energy-efficiency retrofits; and
- piloting demonstrations of promising energy efficiency and zero-emissions building technologies and management approaches.

Clean Transportation

Full details available at: <http://taf.ca/grants/clean-transportation/>

The Clean Transportation program supports high-impact solutions to electrification, shared mobility, and public transit investment. The grant is for applicants who go above and beyond and offer solutions that provide co-benefits such as improved affordability and increasing the local job market are seen as more desirable.

Appendix E. List of acronyms

ASHRAE – American Society of Heating, Refrigerating and Air Conditioning Engineers

BAS – Building automation system

BLT – Burlington Leadership Team

CDM – Conservation and Demand Management

CEEMP – Corporate Energy & Emissions Management Plan

CO₂eq – a quantity of a greenhouse gas or collection of greenhouse gases expressed as a carbon dioxide (CO₂) equivalent

ekWh – equivalent kilowatt-hour, a measure of energy. Electrical energy is typically measured in kilowatt-hours (kWh), but other forms of energy are not. ekWh is sometimes used to indicate that some or all of the energy quantity being reported is not electrical.

EnPI – Energy performance indicator

EUI – Energy use intensity, for buildings it is typically measured in energy use per unit of floor area

EV – Electric vehicle

GHG – Greenhouse gas, compounds that contribute to climate change

GJ – gigajoule, a billion joules. A measure of energy.

GWh – gigawatt-hour, a million kilowatt-hours. A measure of energy

HVAC – Heating, ventilation and air conditioning

IESO – Independent Electricity System Operator

KPI – Key performance indicator

LEED – Leadership in Energy and Environmental Design, a widely used green building rating system.

LED – Light emitting diode

NPV – Net present value

PHEV – Plug-in hybrid electric vehicle

RPF – Roads, Parks and Forestry

Appendix F. Facility energy use 2014-2018

The following table shows facility energy use both electricity and natural gas from 2014-2018 in kilowatt-hour equivalents (ekWh). The spark lines on the far right give an indication of trends in individual buildings over the 5 years. Facilities are sorted from the largest to the smallest energy users.

Table 17 Energy use from 2014-2018 based on electricity and natural gas utility data (ekWh)¹⁸

Facilities	2014	2015	2016	2017	2018	
Appleby Ice Centre	8,006,347	8,337,657	8,047,959	7,699,598	7,586,482	
Streetlights	9,637,727	9,639,306	9,315,347	9,067,149	6,693,583	
Tansley Woods Community Centre	4,610,453	3,717,221	3,491,746	3,466,912	4,038,630	
Mainway Recreation Centre	2,491,463	2,363,330	3,112,620	2,884,868	2,931,615	
City Hall	2,374,089	2,303,158	2,175,617	2,212,512	2,243,315	
Burlington Transit Headquarter	2,492,149	2,276,681	2,323,602	2,348,193	2,169,931	
Haber Recreation Centre	1,646,331	1,798,137	1,732,956	1,747,540	2,058,623	
Angela Coughlan Pool	2,112,644	1,952,623	1,677,823	1,773,201	1,830,689	
Aldershot Pool	1,497,163	1,587,976	1,545,771	1,685,947	1,725,971	
Centennial Pool	1,122,049	1,667,934	1,794,202	1,776,690	1,714,320	
Roads & Parks Maintenance Headquarter	1,506,435	1,258,759	1,117,355	1,186,092	1,486,042	
Nelson Recreation Centre	1,277,058	910,450	817,484	1,217,411	1,433,594	
Central Arena	1,907,068	1,539,550	1,275,284	1,317,973	1,395,382	
Mountainside Arena	284,416	1,102,882	1,196,124	1,359,375	1,377,266	
Burlington Seniors' Centre	1,039,465	952,502	931,850	839,989	885,199	
Fire Station 1 Headquarters	830,109	793,143	1,050,984	841,809	883,223	
Aldershot Arena	582,368	865,081	714,375	861,164	821,916	
Skyway Arena	597,390	532,132	557,865	510,096	515,879	
Traffic Lights	448,357	463,579	489,753	501,882	511,224	
Mountainside Pool	303,413	432,549	420,665	351,852	483,035	
Animal Shelter	458,908	413,870	406,046	428,511	480,820	
Brant Hills Community Centre	440,246	417,592	392,038	365,345	383,745	
Sherwood Forest Community Centre	382,885	351,290	304,600	344,438	362,916	
Fire Station 4	427,916	412,443	338,426	367,555	346,046	
Fire Station 7	339,081	272,070	270,190	267,186	269,238	
Tyandaga Golf Course - Pro shop/Restaurant	314,484	316,537	295,282	278,021	267,439	
Fire Station 8	265,459	297,813	261,485	244,883	250,539	
Music Centre	273,233	246,828	264,352	275,033	239,336	
Nelson Park BM FA/RPF Building	113,535	169,120	160,031	175,913	237,590	
Fire Station 6	331,008	267,043	251,220	235,399	219,492	
Parking Garage	278,319	256,512	159,930	182,901	198,789	
Fire Station 2	251,224	214,075	200,740	188,607	198,027	
Fire Station 3	188,402	193,147	177,556	175,041	172,063	
Student Theatre Centre	112,160	106,219	121,760	125,630	128,631	

18 All data were obtained from the City of Burlington's AssetPlanner software.

Facilities	2014	2015	2016	2017	2018	
Fire Station 5	165,141	146,393	168,305	149,220	121,860	
Rotary Youth Centre	126,480	113,790	102,801	107,640	109,493	
Drama Centre	125,040	120,916	98,010	84,936	103,840	
Norton Community Park	79,825	74,923	74,345	78,171	78,960	
Bgin Park Maintenance Building	26,078	62,413	64,277	79,634	70,320	
Paletta Lakeshore Park Gatehouse	68,991	63,591	51,155	56,787	63,336	
Tyandaga Golf Course-Maintenance Bldg	47,225	65,718	67,461	60,434	63,154	
Student Theatre Storage Building	109,827	90,611	86,489	90,548	60,725	
Greenwood Park Barn	46,456	42,265	30,698	39,810	55,918	
City View Park	24,955	49,801	49,705	53,088	55,447	
Millcroft Park Maintenance Building	56,989	55,556	50,075	57,723	55,181	
Greenwood Cemetery Office and Maintenance Building	47,376	39,674	38,137	40,110	54,185	
Ireland Park Concession	53,719	58,485	58,915	47,767	51,748	
Ireland Park Maintenance Building	55,838	51,265	53,357	49,976	50,322	
Burlington Transit Bus Terminal	56,124	50,078	47,099	50,174	48,455	
Millcroft Park	55,541	51,782	49,897	40,221	47,999	
Traffic Supervisors Office	37,925	35,447	34,691	40,013	47,128	
Brant Street Pier	44,359	56,451	56,133	50,258	44,829	
Central Park Maintenance Building	50,356	46,536	39,369	43,412	43,191	
Spencer Smith Park East 1	53,279	51,657	43,617	39,681	42,021	
Beachway Pavilion Shack Shack	43,223	46,817	53,222	44,993	41,067	
Street Lights?	46,713	45,727	46,201	47,176	40,502	
Beachway Park & Pumpouse	37,104	29,992	38,903	35,983	39,187	
Orchard Park	37,714	31,756	35,174	37,928	38,262	
Pumphouse 1	43,223	36,120	35,696	43,334	38,042	
Ella Foote Hall	47,773	44,889	41,562	41,000	32,713	
Central Park Parking Lots	29,104	29,763	30,758	27,506	28,955	
Tansley Woods Park Maintenance & Washrooms Building	24,705	15,694	23,807	22,390	26,775	
Lowville Park Pavilion	30,003	28,426	25,776	28,306	26,147	
Sherwood Forest Park Maintenance & Washrooms Building	9,337	23,819	18,090	25,162	26,104	
72 Misc Billing	25,800	25,800	25,800	25,800	25,800	
Brant Street Lighting	18,275	17,739	18,711	20,013	25,549	
Nelson Park West Baseball Diamond	28,184	28,848	25,543	26,760	25,269	
Orchard Park Maintenance Building	26,995	22,079	24,522	20,178	23,852	
Hidden Valley Park Maintenance Building	27,153	25,546	27,154	24,752	23,202	

Facilities	2014	2015	2016	2017	2018	
Roads, Parks and Forestry Northeast Compound	58,217	48,752	49,879	47,298	22,786	
City View Park Maintenance Building		14,951	21,129	19,339	19,888	
Nelson Park Washroom Building	16,364	27	21	1,323	18,760	
Maria Street and Brant Street Lighting	20,045	20,592	20,408	20,387	18,241	
Lakeshore Rd Streetlights	17,795	19,085	19,017	18,544	17,590	
Lowville Park Old School Building	16,935	16,893	13,863	21,474	16,263	
Nelson Park Braves Building	52,063	59,244	67,517	29,100	15,294	
Doug Wright Park	10,659	12,579	12,957	13,759	14,642	
Roads, Parks and Forestry West Storage	25,430	28,925	27,790	25,089	13,612	
Nelson Park East Baseball Diamond	11,483	10,196	9,724	12,546	13,555	
Sherwood Forest Park West	12,373	10,969	11,449	10,630	12,817	
Hidden Valley Park Washroom Building	6,822	15,023	18,619	15,678	12,339	
Nelson Park Baseball Building	16,902	17,475	14,225	13,036	12,330	
LaSalle Outdoor Pool	8,916	10,574	10,872	10,045	10,544	
Central Park Washroom Building	12,407	11,261	8,640	11,145	10,512	
Maple Park 2	5,484	7,673	9,859	5,153	8,771	
Ireland Park	11,273	9,162	4,202	9,695	6,518	
Palmer Park	5,801	9,326	11,513	10,000	5,440	
Greenwood Park	4,299	4,340	5,175	6,056	5,135	
Roads, Parks and Forestry East Storage	7,171	8,876	2,927	3,967	5,039	
Spencer Smith Park North	4,290	3,601	3,706	5,289	4,732	
Sioux Lookout	2,188	2,224	2,270	2,064	2,139	
6 Misc Billing	2,489	1,746	3,233	2,489	1,746	
Lowville Park Baseball Diamond	1,780	1,604	1,270	611	1,096	
Kens Park	1,127	1,274	1,206	1,025	938	
Roads, Parks and Forestry Salt Domes	10,924	20,214	9,995	10,208	897	
Maplehurst Park	484	485	488	489	436	
Roly Bird Park	123	124	122	121	113	
Bolus Community Parkette					51	
Bridgeview Park	153	319	1	-	8	
Emerson Park	4	44	6	4	3	
Berton Park	2	2	-	0	1	
Newport Park	-	1	-	-	-	
Grand Total	51,094,185	50,577,138	49,490,572	49,362,167	48,542,364	

Appendix G. Energy density and conversion factors, and greenhouse gas emission factors

This section includes constants used in the analysis throughout the plan.

Energy density of fuels

Energy source	To convert	to	multiply by	Reference
Natural gas	m ³	ekWh	10.84	
Natural gas	m ³	MJ	39.03	A
Diesel	L	ekWh	10.65	
Diesel	L	MJ	38.35	B
Gasoline	L	ekWh	9.29	
Gasoline	L	MJ	33.45	B
Any energy source	kWh	MJ	3.6	
Any energy source	MJ	ekWh	0.27777778	

Global Warming Potential

GHG	CO ₂	CH ₄	N ₂ O	Reference
GWP	1	25	298	C

Note: 100-year GWPs

Emissions of Ontario fuels

Fuel	CO ₂	CH ₄	N ₂ O	CO ₂ eq	Reference
Natural gas	1,888	0.037	0.035	1,899	D
Diesel	2,681	0.133	0.4	2,804	D
Motor gasoline	2,307	0.1	0.02	2,315	D

Note: Natural gas is marketable gas in Ontario

CO₂eq is the sum-product of the emission factor of each contaminant and the global warming potential

GHG intensity of Ontario electricity

Year	Intensity	Units	Reference
2012	110	g CO ₂ eq/kWh	E
2013	80	g CO ₂ eq/kWh	E
2014	40	g CO ₂ eq/kWh	E
2015	40	g CO ₂ eq/kWh	E
2016	40	g CO ₂ eq/kWh	E
2017	20	g CO ₂ eq/kWh	E

SOURCES:

A (Statistics Canada, 2018), p.130

B (Environment and Climate Change Canada, 2019), Part 2, p.204

C (Environment and Climate Change Canada, 2019), Part 1, p.18

D (Environment and Climate Change Canada, 2019), Part 2, pp.220-222

E (Environment and Climate Change Canada, 2019), Part 3, p.65

Appendix H. Conservation demand management plan checklist

The checklist below can be used to ensure that all of the required elements have been included in the CDM plan.

- ☐ The Energy use and Greenhouse Gas Emissions Template that is required to be submitted and published on or before July 1 of that year. For the first plan this will be the 2019 template
- ☐ A description of current and proposed measures for conserving and otherwise reducing energy use and managing demand for energy
- ☐ A revised forecast of the expected results of the current and proposed measures
- ☐ A report of the actual results achieved
- ☐ A description of any proposed changes to be made to assist the public agency in reaching any targets it has established or forecasts it has made
- ☐ Cost and saving estimates for its proposed measures
- ☐ The estimated length of time the public agency's energy conservation and demand management measures will be in place
- ☐ A description of any renewable energy generation facility operated by the public agency and the amount of energy produced on an annual basis by the facility
- ☐ A description of:
 - ☐ The ground source energy harnessed, if any, by ground source heat pump technology operated by the public agency
 - ☐ The solar energy harnessed, if any, by thermal air technology or thermal water technology operated by the public agency

- ☐ The proposed plan, if any, to operate heat pump technology, thermal air technology or thermal water technology in the future
- ☐ Confirmation that the energy conservation and demand management plan has been approved by the public agency's senior management
- ☐ The CDM plan has been made publicly available by:
 - ☐ Publishing it on the public agency's website (if there is one)
 - ☐ Publishing it on the public agency's intranet site (if there is one)
 - ☐ Making it available to the public in printed form at the head office

SOURCE: (IndEco Strategic Consulting Inc., 2013)



providing environmental and energy consulting
to private, public and non-governmental organizations

IndEco Strategic Consulting Inc

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1 888 INDECO1 416 204 0359 info@indeco.com www.indeco.com



SUBJECT: Construction & Mobility Management Policy

TO: Committee of the Whole

FROM: Capital Works

Report Number: CW-27-19

Wards Affected: All

File Numbers: 750-01

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Table capital works department report CW-27-19 containing the Construction & Mobility Policy, which defines the requirement for a Construction & Mobility Management Plan, to the Committee of the Whole meeting to be held September 9, 2019 for debate and approval; and

Table the staff direction directing the Director of Transportation to include the applicable fees in the City's Rates and Fee's By-law to support the Construction & Mobility Management Policy proposed in capital works department report CW-27-19 to the Committee of the Whole meeting to be held September 9, 2019 for debate and approval.

Purpose:

The purpose of this report is to establish new guidelines for the approval and management of construction activities associated with land development, to ensure that land development does not adversely impact public health and safety, amenity, traffic or the environment in the surrounding area. This policy will establish new details, fees and requirements for a site's Construction & Mobility Management Plan.

Background and Discussion:

As land developers attempt to maximize the developable area of their site, construction staging on private property is becoming less feasible and as a result, construction

staging is being proposed on the public road allowance which may adversely impact ones ability to use sidewalks, cycling facilities, parking and streets as intended.

The City of Burlington is developing a Construction & Mobility Management Policy that aims to:

- Minimize the impacts to sidewalks, cycling facilities, parking and streets during the construction of new development projects;
- Provide consistency in staff's review and approval of proposed developments;
- Successfully manages multiple developments, potentially in close proximity, while maintaining an active city for residents and businesses; and
- Coordinate private development with planned construction by the City, Region of Halton and Utility companies in the public road allowance.

The City's Construction & Mobility Management Policy shall require that developers provide a Construction & Mobility Management Plan (CMMP), for approval, with every development application. A CMMP shall specify how construction activity for a project will be organized to minimize disruption to the surrounding community, including but not limited to sidewalks, cycling facilities, parking and streets. Potential concerns that will need to be addressed in a CMMP are:

- Public safety, amenity and site security;
- Operating hours;
- Noise control;
- Air and dust management;
- Stormwater and sediment control;
- Waste management;
- Traffic management;
- Loss of parking;
- Site-generated parking demands (i.e. contractor / tradespeople parking); and
- Construction Schedule

There are generally three stages to a development. The CMMP shall address each of the following stages below:

- Demolition;
- Excavation; and
- Construction.

Although it will not be possible to eliminate every impact during construction (e.g. equipment and material deliveries), the appropriate design and implementation of a CMMP will ensure that common concerns associated with land developments are minimized.

Currently, the Construction & Mobility Management Plan is a typical requirement of Site Plan Approval; however, there is a need for more detailed information at the planning stage to ensure feasibility of land development. The Construction & Mobility Management Policy and the CMMP will enable Capital Works and Transportation Services to regulate construction activities associated with land development on the public road allowance.

Strategy/process

The primary purpose is to establish new guidelines for the approval and management of construction activities associated with land development, to ensure that land development does not adversely impact public health and safety, amenity, traffic or the environment in the surrounding area. This policy will enable Capital Works and Transportation Services to regulate construction activities associated with land development on the public road allowance.

The Construction & Mobility Management Policy will be similar to that of the City of Toronto's Street Occupation Permit process, for the regulation of temporarily occupying any portion of the public road allowance during a demolition, renovation and/or construction project.

Financial Matters:

Prior to developing the Construction & Mobility Management Policy, staff contacted multiple municipalities within the Greater Toronto Area (GTA) to discuss their road occupancy processes and fees. The information gathered from this review have reinforced the importance of a fee structure to support the administrative requirements of the CMMP.

Pending Council approval of the proposed CMMP, staff will include the applicable fees associated to the CMMP in an amendment to the City's Rates and Fees By-law. The proposed fees shall be based on the type of temporary occupancy required, the duration for the temporary occupancy, cost recovery for lost revenue due to the loss of City administered parking spaces and may consider compensation to local businesses related to the Downtown Parking Levy.

Other Resource Impacts

The review and approval of Construction & Mobility Management Plans will be a coordinated effort between Capital Works and Transportation Services. The additional administrative requirements associated with the review, approval and inspection of Construction & Mobility Management Plans may result in the need for additional staff resources. The impact on staff workload will be monitored and reviewed during 2019 and 2020. Any future request will be subject to regular budgetary processes and approvals.

Public Engagement Matters:

The establishment of a Construction & Mobility Management Policy was discussed with the Hamilton Halton Home Builders Association (HHHBA) and an initial draft of the Construction & Mobility Management Plan guidelines was provided to HHHBA for their review and comment.

If Council adopts the staff recommendation to establish the Construction & Mobility Management Policy, notice to the public and development industry will be required in accordance with the *Planning Act* and the City of Burlington Official Plan.

Conclusion:

The establishment of the Construction & Mobility Management Policy is to establish new guidelines for the approval and management of construction activities associated with land development, to ensure that land development does not adversely impact public health and safety, amenity, traffic or the environment in the surrounding area.

Respectfully submitted,

Angelo Capone, CET
Coordinator, Site Engineering

905-335-7600 x7679

Appendices:

A. Construction & Mobility Management Policy

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

Appendix A

Construction & Mobility Management Policy

Approved by Council; mm/dd/year

The intent of the Construction & Mobility Management Policy is to establish new guidelines for the approval and regulation of construction activities associated with land development and to ensure that land development does not adversely impact public health and safety, amenity, traffic or the environment in the surrounding area.

The policy is based on the following principles:

- Minimize the impacts to sidewalks, cycling facilities, parking and streets during the construction associated with land development; and
- Managing multiple developments, potentially in close proximity, while maintaining an active city for residents and businesses.

The Executive Director of Capital Works and the Director of Transportation Services shall be responsible for the administration of this policy. The Executive Director and Director shall be authorized to amend or revise the policy requirements and/or guidelines, from time to time, provided that the policy amendment(s) or revision(s), as the case may be, are in a form satisfactory to the City Solicitor.

Requirements

Developers will be required to provide a Construction & Mobility Management Plan (CMMP), for approval, with every development application (as identified in the City of Burlington Official Plan), such that staff are able to evaluate feasibility and impact to the public road allowance. The CMMP shall be completed in accordance with the CMMP Guidelines in Schedule A and to the satisfaction of the Executive Director of Capital Works and the Director of Transportation Services.

Schedule A

Construction & Mobility Management Guidelines

The following is an index of the Construction & Mobility Management requirements:

1. General Requirements

- 1.1 Construction Management
- 1.2 Mid-Rise and High-Rise Construction
- 1.3 Additional Requirements
- 2. Public Communication**
- 3. Road Occupancy Permit**
- 4. Securities**

1. General Requirements

An applicant shall pre-consult with Capital Works and Transportation Services staff prior to submitting a Construction & Mobility Management Plan (CMMP). Through pre-consultation, City staff shall outline CMMP constraints and restrictions, including but not limited to emergency access roads that shall not be impacted and/or sidewalks and/or driving lane closures that will not be permitted.

The CMMP shall be a drawing that is plotted on a 24" x 36" sheet and to an acceptable scale. The proposed works shall be underlain by a legal survey. The CMMP shall indicate all existing property lines as well as any required road widening(s) and/or daylight and visibility triangle(s).

1.1 Construction Management

The following construction management information shall be shown on the CMMP:

- Proposed limits of construction;
- Proposed construction staging areas, including any staging areas required on the City's road allowance for concrete pours, material deliveries, site servicing, etc and written justification for any construction staging areas on the City's road allowance;
- Show all existing above/below grade services and/or utilities;
- Show the limits of underground parking and dimension distance from the property lines. All elements of the underground parking structure (i.e. walls, foundation drains, shoring, etc.) are required to be within the limits of the subject property;
- Proposed temporary/permanent encroachments on the City's road allowance and written justification for any required encroachment on the City's road allowance;
- Should there be private encroachments onto adjacent properties, a letter (agreeing to such an encroachment from the affected party) shall be submitted to the City;
- Proposed location of mud mat and vehicle wash down area;
- Proposed location of site trailer, material storage and sanitary facilities prior to, during and following excavation for the underground parking structure;

- Written notification of construction sequence including start-finish for any occupancies/closures; and
- Proposed location of crane assembly and swing radius.
- Proposed truck haulage route, location of truck stacking and trades parking (Parking Management Plan may be required);
- Proposed traffic control measures, specifically addressing signage and/or any lane closures/restrictions (All related signing as per OTM Book 7);
- Pedestrian control measures, specifically addressing signage, sidewalk closures/restrictions and pedestrian routing; and
- Temporary and permanent asset removals and relocations (i.e. street lights, parking meters, street signs, etc.);
- Full street and/or lane closures shall be strongly discouraged and generally not permitted, unless extenuating circumstances (which have been mutually agreed to by the developer and the Director of Transportation Services) exist;
- Sidewalk closures are not permitted unless extenuating circumstances (which have been mutually agreed to by the developer and the Director of Transportation) exist. Closure of sidewalks adjacent to Arterial streets is not permitted under any circumstance;
- Loss of on-street parking is not permitted unless extenuating circumstances (which have been mutually agreed to) exist and financial compensation for loss of parking may be required;
- Hoarding and protection shall be provided to safe-guard pedestrians;
- Shoring and formwork must be contained within the limits of the development site. This will result in the potential elimination of “Zero set-backs”. No formwork encroachments will be allowed on City property or road allowances; and
- Anchor rods will be permitted to encroach into the road allowances, but will be subject to an Encroachment Agreement.

1.2 Additional Requirements

- The developer shall be responsible to provide a staging and mitigation plan, to be approved by the City and implemented by the developer;
- Coordination of closures between existing and/or proposed adjacent developments as well as other construction projects (ie...City and/or Region of Halton projects, utility company projects and City events) must occur. The developer in consultation with the City will be responsible to coordinate financial or otherwise with the above mentioned, to the satisfaction of the City;

- Any encroachments/obstructions shall be progressively removed as the project proceeds including but not limited to moving construction containers/offices/sanitary facilities into the site once construction is above ground, reinstating/repairing sidewalks, curbs and asphalt). The City may request removal of the above at its sole discretion;
- If site dewatering is required, the following shall be outlined:
 - The discharge location(s) and amount (L/s) must be clearly identified;
 - Dewatering equipment and method (quantity/quality controls) shall be specified as well as any associated processes in order to carry out the dewatering; and
 - The applicant is reminded that dewatering discharge must comply with the City of Burlington's Storm Sewer Discharge By-Law No. 086-2002. Water quality testing will be required prior to discharge approval.
- A Vibration Study prepared by a Professional Engineer outlining the following:
 - The anticipated vibration generated by the proposed construction on adjacent lands;
 - The anticipated vibration generated by the proposed construction on itself.
 - Details of the measures proposed to mitigate or reduce the anticipated negative vibration impacts.

2. Public Communication

The developer shall be responsible to submit for approval a Public Communication Plan. The Plan shall include, but not be limited to, the following:

- A preconstruction written notice shall be sent out to all adjacent properties and along the construction access routes, all Emergency agencies (fire, police, and ambulance) as well as any impacted bus authorities (Burlington Transit, GO Transit and School Boards);
- Include all project information on signs surrounding the project site (including but not limited to phone number, email address, fax, website, etc). Additionally, include project schedule (anticipated completion date) and general working hours;
- An onsite supervisor shall be appointed and a phone number shall be posted onsite and to adjacent residents;
- 48 hours of written notice shall be provided to adjacent properties should any construction operations produce impacts beyond the normal day-to-day operations of the site (including but not limited to excessive noise and/or vibration, unanticipated construction traffic including large-type deliveries, temporary road closures, any disruption to public transit, etc.);

- Informing of the Ward Councillor, business community, residents;
- A link to the development website and social media, to provide construction updates and contact information; and
- Indicate on-site emergency protocols (shall comply with the Ministry of Labour requirements).

3. Road Occupancy Permit

Prior to starting a minor or major construction or demolition project, a Road Occupancy Permit shall be obtained from Transportation Services for any temporary occupation of a City road allowance or right-of-way, including but not limited to construction staging or equipment/material storage.

4. Securities

Securities (as determined by the Executive Director of Capital Works and Director of Transportation Services) shall be deposited in cases where damage to public infrastructure and/or required maintenance may likely occur as a result of occupying the road right-of-way. Additional securities may also be taken for road damage along the proposed haulage route during excavation and construction.



. . . *Memo*

To: Chair and Members of Committee of the Whole

From: Councillor Shawna Stolte

cc: Tim Commisso, City Manager
Allan Magi, Executive Director of Capital Works
Rob Peachey, Manager of Parks & Open Spaces
Lisa Palermo, Committee Clerk

Date: June 21, 2019

Re: Tansley Woods Park Spray Pad

Staff Direction:

Direct the Executive Director of Capital Works to include for consideration the design and construction of a spray pad at Tansley Woods Community Park as part of the proposed 2020 capital budget and 2021-2029 capital forecast.

Background:

Tansley Woods Park is currently undergoing a large upgrade and renewal capital project this year, including a new playground, basketball court, three pickleball courts, benches, LED lighting, paved paths and an upgraded soccer field.

A spray pad is not part of the scope of the current project, however the implementation of a spray pad is consistent with the Parks, Recreation and Cultural Assets Master Plan for the Community Park classification. As part of the current project, staff will be installing underground infrastructure in anticipation of a future spray pad in the park.

The proposed staff direction is to direct staff to incorporate the design and construction of a spray pad at Tansley Woods Park into the capital budget and work plan.



**SUBJECT: Burlington Economic Development Corporation (BEDC)
and consideration of Municipal Development Corporation
(MDC)**

TO: Committee of the Whole

FROM: Office of the Mayor

Report Number: MO-04-19

Wards Affected: All

File Numbers:

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

1. Authorize the issuance of a Request for Proposal to an upset limit of \$100,000 from Strategic Planning Reserve Fund to review and report back to council by December 2019
 - a. on the efficiency, effectiveness and optimal structure of the Burlington Economic Development Corporation and TechPlace in achieving the city's business attraction and retention goals, including but not limited to bringing BEDC in-house under the City Manager; and
 - b. Review the opportunities and optimal structure of a Municipal Development Corporation in achieving the city's business attraction and retention goals; incorporate any changes in economic development functions arising from the provincial Regional Review, the results of which are expected in November 2019; and
2. Authorize the Mayor and City Manager to form a steering committee to develop the terms of reference, oversee the work of the consultant(s) and engage council and the BEDC/TechPlace staff & board in the process, with representation on the steering committee from: Mayor's Office, City Manager's office, Capital Works, Planning, Legal, and Finance departments, BEDC/TechPlace staff & board, Regional Economic Development department, Ward 5 Councillor appointee on BEDC Board, Ward 1 Councillor, co-chair of Red Tape Red Carpet initiative.
3. Include this strategic initiative in the Council Workplan as a priority time-dated action item under the City Manager

Background and Discussion:

The results of the Red Tape Red Carpet Task Force, coupled with the change in leadership at the Burlington Economic Development Corporation and on city council following the municipal election, provide a new opportunity to review the efficiency, effectiveness and optimal structure for the BEDC/TechPlace and the potential for a Municipal Development Corporation to ensure the city is well positioned to retain and attract business to Burlington.

Red Tape Red Carpet Task Force

The Red Tape Red Carpet (RTRC) Task Force, co-chaired by the Mayor and Ward 1 Councillor Kelvin Galbraith, was established to cut red tape and roll out the red carpet for existing or new businesses in Burlington.

Throughout the process, participants accorded high praise to the BEDC for assisting new or expanding businesses with navigating the business development process, providing timely and clear information, and advocating to the city and other levels of government on individual files, as well as providing an independent voice for business on the city's overall business attraction strategy via participation in the Official Plan Review and other studies.

A common theme that emerged from RTRC participants is the need to improve and simplify internal city processes, provide clear communications, and speed up timelines for business approvals, including development applications. The RTRC draft recommendations are contained in a companion report on this agenda: MO-06-19.

One of the recommendations is the establishment of a business advocate within City Hall, providing direct accountability to council and internal influence on process improvement.

This and other recommendations within the RTRC initiative provide an opportunity to review the efficiency, effectiveness and optimal structure of the BEDC/TechPlace in achieving the city's business attraction and retention goals.

BEDC

The previous Executive Director of the BEDC left the organization in June of 2018, prior to the municipal election, with the current Executive Director taking on an acting role since that time. A formal recruitment process for a permanent Executive Director was put on hold pending the results of the Red Tape Red Carpet Task Force, which has led to the RFP for an independent review of the efficiency, effectiveness and optimal structure of the BEDC/TechPlace requested in this report.

Currently, BEDC is a stand-alone entity, operated by a full-time staff of 7 and governed by a Board of Directors which include the Mayor, Ward 5 Councillor, City Manager and 8 Citizen appointees representing the business community.

In 2019, BEDC's approved operating budget was \$1.82 million with a city contribution of \$1.368 million. A summary of how the BEDC's budget is allocated against its strategic objectives is below and the budget of the BEDC is attached as Appendix E.

Strategic Area	Share of Resources (2018)	Share of Resources (2019-2022)
Retention and Expansion of Existing Businesses	35%	30%
Nurturing the Growth of New Firms	30%	25%
Marketing & Attracting New Investment	20%	35%
Advocacy and Policy	15%	10%
Total	100%	100%

BEDC rents space in the city-owned Team Burlington offices on Locust Street, which also house Tourism Burlington, the Burlington Downtown Business Association and the Burlington Chamber of Commerce.

BEDC is structured as an external economic development corporation delivering economic development services on behalf of the City of Burlington.

Economic development units typically fall into one of three organizational structures:

- An internal unit alongside the planning department, with both economic development and planning reporting to the same manager. This is to better tie economic development with planning & development approvals.
- An internal unit reporting to the City Manager, emphasizing the cross-functional and marketing, business attraction and business support focus of economic development, or
- An external unit, typically provided through an economic development corporation, emphasizing high responsiveness to the business community with a Board of Directors generally comprised of business leaders.

In Ontario, approximately 80% of municipalities have adopted an internal economic development function within the municipal government structure and approximately 20% have adopted an external structure.

The BEDC is unique in the region as a stand-alone entity, given economic development is operated as an in-house city department in most neighbouring municipalities including Hamilton, Oakville, Mississauga and Whitby, to name a few.

Throughout the Red Tape Red Carpet initiative, BEDC consistently received high praise for customer service, providing information for new or expanding businesses to locate in Burlington and engaging in advocacy to the city and other levels of government (including the Ministry of Transportation) to speed approvals. They have provided a unique and independent voice for economic development on planning matters, including the Mobility Hub work, and Official Plan review.

In the past, most of the BEDC's work has focused on business retention, creating a competitive policy environment and supporting business to locate in Burlington. In 2019, BEDC began a transition to create a stronger focus on business attraction and completed a workshop on the new approach to business attraction with the BEDC Board and members of city council in February 2019. A copy of this report can be found in Appendix G. There is opportunity for increased focus on business attraction. Much of the business attraction piece is focused on working with partner organizations like Halton Region and Toronto Global in addition to using the soft landing program at TechPlace.

As an external body, the BEDC has no direct accountability to the city, or direct ability to influence change within city hall on business development and process improvement, both of which have been identified through the Red Tape Red Carpet Task Force as having opportunities for improvement.

As such, there is merit in taking this opportunity to review the pros and cons of bringing the BEDC into the city as an independent department reporting directly to the City Manager, giving consideration to: a closer working relationship with Planning to ensure expedited processes, direct accountability to the city and council, potential for streamlined services and cost savings, the need to retain an independent voice, the value of retaining the expertise of an independent board of directors, and other considerations.

TechPlace

TechPlace is a program of the BEDC, with a staff of 1.5 and an average annual contribution from BEDC's core budget of approximately \$220,000 per year over the 6-year lease period. Due to landlord inducements over the 6-year lease period, gross rent over the 6-year contract varies from \$24,000 in year 1 of operations to an annual cost of \$301,000 in the final year. The budget of TechPlace is attached as Appendix F.

TechPlace rents commercial space in an office building at Burloak and the North Service Road. Angel One Network and HalTech are co-located in the space.

Led and supported by the Burlington Economic Development Corporation, TechPlace is a one-stop destination for new and growing technology companies. TechPlace was established to support Burlington's Strategic Plan 2015 – 2040 Direction 1.1.f that calls for "Innovative, entrepreneurial businesses have settled or developed in Burlington. The city has helped create the technological support, business supports, infrastructure and

educational environment to attract startups and growing businesses” and to “Create and invest in a system that supports the startup and growth of businesses, innovation hubs and entrepreneurship.”

Following best in class ecosystem research and stakeholder engagement conducted in 2017 a clear need to have a physical space to build a successful entrepreneurial ecosystem in Burlington was identified to create connectivity, vibrancy and tell our entrepreneurial story. Burlington Economic Development Corporation became the change champion and opened TechPlace to accomplish the City of Burlington Strategic Plan in a way that was aligned with community need and stakeholder input. TechPlace is focused on supporting the scale up and growth of high potential companies through its Launch Pad program and a host of wrap around services delivered through partners such as Haltech, Angel One, Mentorworks, Mohawk College, McMaster University and Halton Region Global Business Centre. In addition, BEDC has created a “Soft Landing” program to use as a unique business attraction tool that allows companies considering a location in the west GTA to establish a footprint in Burlington and begin operations while BEDC supports their long term business relocation to Burlington through its traditional business support services.

Since TechPlace launched in 2017 it has hosted over 10,000 visitors, 200 events, attracted 13 LaunchPad companies, creating a strong business attraction brand and value proposition for Burlington. Results since inception are:

Total LaunchPads -13

Total LaunchPads from outside of Burlington - 10 of 13

Graduates - 7

Graduates that stayed in Burlington - 5 of 7

There have been a number of recent changes to the local start-up support ecosystem including the launch of Nuvo Network and the review of the Regional Innovation Centre model by the provincial government including Haltech. This creates opportunities for reviewing TechPlace’s operating model and determining whether BEDC delivering TechPlace activities directly or spinning off the activities to a partner can create the same benefits for Burlington with a different operating and financial model.

As part of the overall BEDC review, it is worth reviewing the efficiency, effectiveness and optimal structure and mandate of TechPlace to determine the pros and cons of retaining it as part of BEDC or spinning it off to an independent provider. The review would include a cost-benefit analysis of the current investment in TechPlace and what it produces in business attraction, versus other strategies for business attraction (e.g., dedicated staff) that don’t rely as heavily on physical space.

MDC

During the previous term of council, the city and BEDC partnered to hire a consultant to explore the opportunity of creating a Municipal Development Corporation to buy and sell land for economic development. This background work is attached in Appendices A, B, C, and D.

Upon receiving the reports and recommendations, the previous council took no further action.

The 2018 municipal election delivered a new mayor and five new council members, which presents an opportunity to revisit this possibility. The BEDC board, including its two council appointees (the mayor and Ward 5 councillor) are interested in the potential of an MDC.

During the Red Tape Red Carpet initiative, we heard of the challenges in getting land shovel-ready in a timely manner, including the need for studies, permits from upper levels of government, and lengthy approval processes. One of the benefits of an MDC would be the ability to buy and pre-permit land, including conducting relevant studies, so that it can be put back on the market as essentially shovel-ready, significantly speeding the timelines to locate or expand business in Burlington. It would also create the opportunity to consider joint ventures or other operating models for the City of Burlington to operate industrial/commercial properties and business parks, creating long-term revenue streams for the city and providing direct control over the types of companies we can attract to Burlington.

Similar MDC initiatives can be found in Oakville, Toronto and Midland. The Oakville MDC, for example, operates within city hall, though as an independent entity governed by a board, chaired by the mayor.

Increasingly, governments are considering MDCs as a way to deal with significant public surplus lands in order to manage development and maximize value to the community. Local governments can implement this approach when dealing with real estate opportunities by establishing a MDC pursuant to the provisions of the Municipal Act, 2001.

The new composition of council, the results of the Red Tape Red Carpet Task Force and the review of BEDC and TechPlace requested here provide an opportunity to also review the merits of a Municipal Development Corporation in advancing the city's goals of business attraction and retention.

The study would not repeat the work already done on MDCs, detailed in the appendices, but would review it in light of the overall review of BEDC/TechPlace and make recommendations on the merits of implementing an MDC as part of any restructure.

Conclusion:

The change in leadership at the Burlington Economic Development Corporation and on city council, coupled with the results of the Red Tape Red Carpet Task Force, provide an opportunity and imperative to review the structure of the BEDC and TechPlace, and the possibility of establishing a Municipal Development Corporation to advance the city's goals of business attraction and retention.

An independent consultant would provide an outside, impartial perspective and resource capacity to do this study.

The study would include a review of other municipalities and how they facilitate economic development, what works and doesn't, pros and cons of different structures, cost-benefit analysis in terms of greatest bang for the buck on business attraction and retention, streamlined services and cost savings of different operating structures, and results of the Regional Review. The study would not repeat the previous work done on MDCs but would review that work and provide recommendations on an MDC as part of the overall BEDC/TechPlace review, for a comprehensive and holistic set of recommendations to council on the most efficient and effectively way to promote business development in Burlington.

Respectfully submitted,

Mayor Marianne Meed Ward

905-335-7607

Appendices:

- A. [KPMG Report: Burlington Economic Development Corporation Review of Governance and Structure, Final Report November 11, 2013](#)
- B. [Cresa Phase 1 Report – Strategic Land Framework for Burlington, Final Report October 2016](#)
- C. [Draft BEDC Employment Land Framework](#)
- D. [BEDC Board Report: Strategic Real Estate Implementation Study Joint Steering Committee and Advisory Committee Workshop Meeting May 3, 2017](#)
- E. BEDC Budget
- F. TechPlace Budget
- G. [BEDC Investment Attraction Overview & Strategy Discussion February 2019](#)

Consolidated Statement of Operations
Proposed Budget

	2019 Proposed Plan	2018 Year End Projection	2018 Original Plan	Variance 2019 Plan vs 2018 Year End	Variance 2019 Plan vs 2018 Year End %
City Contribution	1,368,050	1,341,225	1,341,225	26,825	2%
TechPlace - Rental Revenue	59,290	37,950	36,000	21,340	56% ¹
TechPlace - Corporate Sponsorships	30,000	33,912	50,000	(3,912)	-12% ¹
TechPlace - Corporate Partnerships	20,000	14,162	15,000	5,838	41% ¹
TechPlace Events	5,000			5,000	¹
TechPlace Grants	10,000			10,000	¹
Jobs Ontario Grant	7,500	7,500	7,500	-	0%
ICCI Grant	102,850			102,850	
Events	9,000	12,480	9,000	(3,480)	-28%
Other Income	420	280		140	50%
Total Revenues	1,612,110	1,447,509	1,458,725	164,601	-11%
Amortization of tangible capital assets	7,700	7,700	11,361	-	0%
Business Travel	10,000	11,200	11,200	(1,200)	-11%
Corporate Memberships	2,900	2,840	2,400	60	2%
Communication Services	2,800	3,700	2,350	(900)	-24%
Marketing Project Expenses	462,700	203,000	177,000	259,700	128% ²
Meeting Expenses	10,000	8,650	10,000	1,350	16%
Office Rent	45,100	43,000	41,000	2,100	5%
TechPlace	350,607	271,326	310,644	79,281	29%
Office Supplies	12,000	12,000	15,600	-	0%
Professional Services	4,500	4,500	4,500	-	0%
Events	7,000	8,656	7,000	(1,656)	-19%
Contracted Services	13,500	18,000	13,500	(4,500)	-25%
Salaries & Benefits	850,130	840,436	893,436	9,694	1% ³
Training & Development	15,000	15,000	15,000	-	0%
Board Development		-	5,000	-	
Board Expenses	7,000	7,000	7,000	-	0%
Network	19,580	18,000	28,000	1,580	9%
Total Expenses	1,820,517	1,475,008	1,554,991	345,509	23%
(To)/From Operations		-			
(To)/From Reserve Fund					
Net Income (Loss)	(208,407)	(27,499)	(96,266)	(180,908)	

Notes:

1. Rental Revenue, Corporate sponsorships and corporate partnerships relate to TechPlace
2. Increase in project expenditure reflects development of branding, marketing and attraction strategy. These will be one off 2019 expenses to sustain ongoing marketing and attraction activities from 2020 onwards.
3. Decrease in payroll reflects retirements and changes in staff structure

Innovation Centre Net New Costs Draft Budget Model (excludes existing staff costs)

Base Budget Assumptions:

assumption of 4 months cost to the end of the lease April 30th 2023.

- Rent \$15.40 psqft for 9,945 Gross Square feet (Actual 8,453 with 15% gross building amenities included) free rent for first 12 months
- Additional Rent \$12.90 psqft with free additional rent for 12 months exclusive of Janitorial and Utilities of \$3.62. Annual increase of 3% assumed on additional rent
- Free furniture from suites 903 and 905 has been included in the furniture budget to reduce capital expenditure for furniture
- 220K Net incremental BEDC Expenditure does not include Depreciation which is accounted for under capital expenditure

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	
	2017	2018	2019	2020	2021	2022	(4 Months) 2,023	
Operating Costs								
Net Rent	-	102,102	153,153	153,153	153,153	153,153	51,051	
Additional Rent	24,001	100,093	136,103	140,186	144,392	148,724	49,575	
Internet & Phones	9,888	14,832	14,832	14,832	14,832	14,832	4,944	
Admin Costs (security, printing, software, kitchen/bathroom supplies)	15,333	23,000	23,000	23,000	23,000	23,000	7,667	
Marketing	30,000	5,000	5,000	5,000	5,000	5,000	1,667	
Contingency	15,000	25,000	25,000	20,000	20,000	20,000	6,667	
Annual Operating Costs	94,222	270,027	357,088	356,171	360,377	364,709	121,570	
Annual Depreciation	7,550	15,100	15,100	15,100	15,100	15,100	7,550	
Total Annual Expenses	101,772	285,127	372,188	371,271	375,477	379,809	129,120	
Revenue								
Sponsorships & Partnerships	17,500	65,000	65,000	65,000	65,000	65,000	30,000	
Scale Up Rent (6 offices @ \$500 per month)	18,000	36,000	36,000	36,000	36,000	36,000	12,000	
Total Revenue	35,500	101,000	101,000	101,000	101,000	101,000	42,000	
								Average Contribution per year
Net Incremental BEDC Expenditure	58,722	169,027	256,088	255,171	259,377	263,709	79,570	223,611 excludes de
								Total Term Contribution
Annual Accrual	220,000	220,000	220,000	220,000	220,000	220,000	-	1,320,000
								Gross Term Contribution
Net Annual Contribution	(161,278)	(50,973)	36,088	35,171	39,377	43,709	79,570	21,664
Furniture & Refurbishment (Funding from reserve and depreciated back to project over 10 years)								
Design Fees	17,500							
Engineering	12,970							
Signage (Insuite & Building)	17,500							
Furniture (includes Reception & Events)	76,750							
Furniture Move (Existing Furniture)	2,330							
IT Equipment	20,000							
Contingency	3,950							
Total	151,000							
Initial Set Up Costs (Funding from 2017 Project Budget for set up)								
IT & Security Setup	25,000							
Communications setup (75 Line drops)	18,750							
Signage	-							
Contingency	6,250							
Total	50,000							

apreciation



SUBJECT: D-Day Anniversary - Juno Beach Trip

TO: Committee of the Whole

FROM: Office of the Mayor

Report Number: MO-03-19

Wards Affected: All

File Numbers:

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Receive and file Mayor's Office report MO-03-19 regarding D-Day Anniversary – Juno Beach trip; and

Express a strong interest in a twinning relationship with Courseulles-sur-Mer, France; and

Direct the City Clerk in cooperation with the Burlington Mundialization Committee to report back to Committee of the Whole in Q4 2019 with options for twinning with Courseulles-sur-Mer; and

Direct the City Clerk to provided proposed criteria, for committee's consideration, for future twinning relationships including consideration of a city in a developing contry.

Background and Discussion:

In June, the Mayor and a staff member travelled to France to represent our city for the 75th anniversary commemorative events of D-Day at Juno Beach as a result of the connection Burlington has to the Juno Beach Centre Museum and the war effort of D-Day and beyond in WWII.

Having learned of our city's significant role in preserving the memory of Canada's contributions to WWII and, at the request of the host community, I believe it is essential to formalize and continue our relationship with Courseulles-sue-Mer and the Juno Beach Centre.

For a full report on my trip, see Appendix A.
My trip itinerary can be found in Appendix B.
Costs associated with the trip can be found in Appendix C.

Conclusion:

Recommend that Council approve, in principle, a twinning relationship with Courseulles-sur-Mer, France, and direct the City Clerk in consultation with the Mundialization Committee to report back to Council by October with options and costs.

Respectfully submitted,

Mayor Marianne Meed Ward

905-335-7607

Appendices:

- A. Full trip report
- B. Trip itinerary
- C. Trip costs

APPENDIX A of MO-03-19

Juno Beach, 75th Anniversary of D-Day

Commemorative Activities Trip Report

It's been six months since I became Mayor of the City of Burlington. To say it's been a busy whirlwind is an understatement. City Council has already accomplished a great deal, and I've met more of our amazing and passionate residents at countless events and fundraisers than I ever thought possible. It's such a privilege and I'm grateful every day for the things I get to do and the people I get to work with.

This past week, however, has been the ultimate highlight so far.

On June 3rd I travelled to Normandy, France as part of a delegation of people from our great city to help commemorate the 75th anniversary of D-Day on Juno Beach. As most of you know, D-Day was a seminal moment in the liberation of Europe during WWII and a turning point in the war. Thousands of young men and women volunteered (that's right: volunteered!) to fight overseas, some only in their teens. Many of them did not return home to their families.

Their sacrifices were not in vain, as they did their job and pushed inland despite many human losses to defeat German forces hill by hill, house by house, and town by town. It was the start of the end of the war, and the world owes them an immeasurable debt of gratitude we can never repay.

Many people don't realize the strong connection Burlington has to the events of that day and the battles that followed. We have a few legendary D-Day veterans still living in our fine city who were there on June 6th, 1944, such as Jim Warford and Gordon Schottlander.

We also have an amazing group of residents who brought the Juno Beach Centre Museum to life, led by D-Day veteran and Burlington resident Garth Webb. It didn't sit right with him that other countries had a museum remembering the sacrifices their soldiers made to secure our freedoms, but Canada did not.

Story has it that the idea for the Juno Beach Centre Association was hatched in a basement on Woodward Avenue, then shared with the world. Garth had to fight for the Centre too. The first town in France wanted it to be part cultural centre, part museum. Then permission was withdrawn altogether.

Undeterred, Garth moved down the coast to Courseulles-Sur-Mer. The mayor there fought local opposition to establish the centre on a favourite local camping spot.

Then Garth, his family and many local residents spent another few years raising the funds to build the Centre, which was designed by local Burlington firm Chamberlain Architects.

The Juno Beach Centre is Canada's only museum in France that tells the story of what our soldiers did for their country and for the world in WWII. The centre is Burlington's gift to our country's memory of D-Day.

Garth's son, Don Cooper, who is now the President of the Juno Beach Centre Association, has taken the torch and continues to make it a place our whole country can be proud of. The Centre's team is full of supporters from Burlington, whether they're students spending time there as tour guides for the

summer, or local Director Pam Calvert, who first opened my eyes to this amazing connection we have when she reached out to meet with me this past February.

My family has lived in Burlington for 19 years but didn't know this story. We wondered how many other residents also didn't know? Pam and I then conceived of an idea that day in my office to tell the story of Burlington's contribution to D-Day, and the Juno Beach Centre.

Our **Juno75** event on May 6th of this year was the result. It was a sold-out night at the Burlington Performing Arts Centre and showed the dedication our residents still have to remembering the young men and women who made so many sacrifices for our freedoms.

You can read more about that special night and watch the event in its entirety via [this link](#).

When I learned our Burlington Teen Tour Band and local residents were travelling to Juno Beach for the 75th Anniversary, I knew I needed to accompany them and represent our city and our city's contribution to this national memorial and day of remembrance.

JUNE 5:

The day after we landed, I was able to tour the museum as part of a private delegation that included all the Canadian veterans who'd been able to make the trip.

In a ceremony before the tour, it was particularly moving to see Frank Godon from Manitoba, the grown son of Francis Godon, a Métis veteran from the Winnipeg Royal Rifles, presenting his dad's uniform to the Museum along with the last letter he'd written home still in his pocket.

Our tour of the Centre started in a dark room shaped like the landing craft that ferried the soldiers to land, some to their last day. A movie played on screens on three sides of us, surrounded by images of waves and the sounds of gunfire, to simulate what it must have been like to arrive on those shores and hear the words "down doors."

It was incredibly moving, and it was just a simulation. We can never fully understand what it must have been like - the terror, the uncertainty of what they were facing, and not knowing if they'd ever come home.

Some were pulled under by the weight of their bags or the depth of the water and never came up. Some were shot and killed as soon as the doors opened. Others had to swim past the lifeless bodies of their friends who'd been alive only moments before.

14,000 Canadian soldiers stormed the beaches that day. 359 were killed along with many more in the days that followed.

The Juno Beach Centre Museum tells their story.

It is full of history and memorabilia from the battle on Juno Beach and the months of battles that followed. It's an immersive and moving experience and one I will never forget. While it's an ocean away, it is absolutely worth the trip and I recommend it to any school group, lover of history, and all Canadians who want to know more about why and how we enjoy the freedoms we have today.

It is a powerful testament to what can be accomplished when people from different countries and walks of life all work together for a common goal. It seems that every day we are faced with another reason to remain vigilant in the fight for peace around the world.

The recent anti-Semitic hate crimes in Burlington are a frightening and sickening reminder that we can never rest in the fight for justice, equality and freedom.

Museums like the Juno Beach Centre are an essential part of the history we need to help us avoid past mistakes and build a better future.

The museum also has a rotating exhibit. When we were there it was dedicated to the contributions women made to the War effort, at home and on the field of battle. I wept as I read letters between mothers and their sons, some just 18, the same age as my own son and daughter.

The next scheduled exhibit will remember the Holocaust.

Later that evening I was honoured to attend the Juno Beach Centre Foundation's fundraising gala, the first of its kind. The Centre receives some government assistance but relies heavily on personal donations. I am committed to telling the story of the Juno Beach Centre and encouraging our citizens to give generously to ensure its ongoing success.

One of the fundraising initiatives is the buying of a "brick" on the concrete remembrance pillars at the Centre. The City of Burlington has a brick, as do a number of other cities, schools and businesses. Residents can also purchase a brick in the name of a soldier or otherwise. You can find out more at [this link here](#).

During the gala I had an opportunity to present the Canadian Peace Flag to Mayor Frederic Pouille of Courseulles-sur-Mer, the town that welcomed Garth Webb and his museum with open arms.

Each Peace Flag is flown on Parliament Hill for one day and there is a long list of requests to receive one. Given the importance of the Juno Beach Centre, and in honour of the 75th Anniversary of D-Day, we were able to secure a peace flag for the town of Courseulles-sur-Mer.

I was pleased to offer Mayor Pouille this flag as a gift to symbolize the friendship between our two cities and signify the start of an even deeper relationship going forward. He returned the favour by offering me the medallion of Courseulles-sur-Mer, which I will proudly display in my office at City Hall.

The entire community welcomed us with open arms and treated us like royalty. They truly appreciate the contribution Canada made to liberating France, the role that our Burlington veterans played in those battles and in securing the Centre so that we will always remember.

The gala was also attended by Canada's Governor General, Julie Payette, Canadian Army General Jonathan Vance, The Honourable Harjit Singh Sajjan, Canada's Minister of National Defence, and, among others, Mayor Brian Bowman of Winnipeg who attended the 75th Anniversary ceremony in honour of the significant contribution the Royal Winnipeg Rifles made to D-Day.

JUNE 6

Day 2 of my tour was June 6th: the official 75th anniversary of D-Day itself and included two commemorative ceremonies on the beach in front of the Museum.

Our very own global music ambassadors, the Burlington Teen Tour Band played throughout the ceremony and, as always, made us proud. Over 167 band members and their leadership team camped out on air mattresses and in sleeping bags in a local gym the entire week, many finding time to study for the high school exams they would write the week they return home.

One band member had just been released from cancer treatments and faces an operation to remove a tumor upon return but did not want to miss this special trip. Several missed their high school graduation ceremonies, and one celebrated a birthday.

The dedication and spirit of this group is beyond measure. They put everything aside to represent Burlington on this historic day.

The Canadian ceremony began at noon and was attended by Canadian dignitaries including Canada's Prime Minister, the Honourable Justin Trudeau, Canadian Army General Jonathan Vance, Minister of Defence Harjit Singh Sajjan, and the Prime Minister of the Republic of France, Édouard Philippe. In the crowd of thousands, I met people from across the world, including some familiar faces from home in Burlington.

But the real VIPs in the audience were the veterans.

There's Jim Warford, who I have had the pleasure of knowing since I became a councillor. Jim is now 96 years old and has continued to share his stories and the history of that time with residents young and old across Burlington and beyond. For our Burlington Remembers Juno75 event on May 6th, he gave us letters to read that he and his wife wrote to each other while he was in France during the war.

He knows the importance of passing on that knowledge and honouring the legacy of the friends and soldiers who are no longer with us. At his advanced age, you can imagine how tough it is to stay in good health, but despite spending many weeks in recent months in the hospital, he summoned the strength and spirit to fly back to Juno Beach this week with his grandson and the help of Veterans Affairs Canada.

Jim joined dozens of his fellow D-Day soldiers at the Canadian D-Day Commemoration Ceremony on Juno Beach. He watched a moving ceremony that took place right in front of the Juno Beach Centre along with thousands of others from all over the world who had travelled there to pay their respects and ensure that "We Will Remember Them". There were moving video and musical performances, speeches, and moments of silence that brought us to tears.

Much of the ceremony was live broadcast by CBC, and I heard from several residents who rose early at 6am to watch and were also moved to tears.

Later the same day, an International Ceremony of remembrance was held, with dignitaries, veterans and representatives from the 15 different countries that were part of Operation Overlord on D-Day. Canada's Prime Minister and the Prime Minister of the Republic of France returned, as did Nancy Pelosi, Speaker of the House from the United States among others.

Children from each country read a quote or a passage that told part of the history and stories of their soldiers. Dignitaries laid wreaths on Juno Beach for each of the 15 countries as their national anthems were beautifully played. It was, again, a great reminder of how countries can come together for the common goal of peace, and a wonderful way to end the day.

JUNE 7

On June 7th, I joined the Burlington Teen Tour Band for the morning to visit spectacular Mont Saint-Michel, a UNESCO World Heritage Site. Rising out of a rocky tidal island, this historic town is crowned by a medieval monastery in the sky and began its construction in the 10th century. It was epic in both scale and design. I felt like I was in an episode of Game of Thrones (or Lord of the Rings) exploring ramparts and archways and spiral stone stairwells. It was great to meet and spend time with some of our young band members and watch them explore this place in awe. It's an experience they will not forget.

I then accompanied the band to the Canadian war cemetery at Beny-sur-Mer. Lovingly designed and maintained by the Commonwealth War Graves Commission, it is a beautiful homage to our soldiers and their sacrifices. The 359 soldiers who died on D-Day are buried there, along with over 1600 more who died in the months of battle that followed. Each Teen Tour Band member was given a dog tag before the trip with the name of a soldier who was buried there. They found their soldiers and what I saw there made the tears flow once again. Some sat on the ground in front of their soldier's tombstone and had a quiet conversation. Some did paper rubbings of the tombstone with crayon to bring home. And some brought special gifts from the families of their soldier, having reached out to them before the trip.

I know these students will carry these stories and memories throughout their lives, and help their generation remember this important history.

Many tombstones had a loving message etched in it from each soldier's family, and they were deeply moving to read. I wept as I saw the graves of young men 18, 19, 20, 21 years old. They were just starting their lives and they were cut down in sacrifice for us. These souls came from across our country, of different nationalities and faiths, and united in a common purpose of freedom from tyranny. I noted many graves of Jewish soldiers, marked with the Star of David. They were fighting against Hitler, who was systematically exterminating Jews across Europe in the Holocaust.

Their sacrifice put an end to Hitler.

JUNE 8

On June 8th, the town of Courseulles-sur-Mer went above and beyond in creating an event to commemorate D-Day and honour our Canadian veterans. It started with a parade through the centre of town, accompanied by the Burlington Teen Tour Band, stopping at the memorial for the Royal Winnipeg Rifles, where the mayor of Courseulles-sur-Mer and I together raised the Canadian flag.

We then marched on to the memorial square for a formal ceremony with the Canadian veterans who were able to join us. This included Burlington's own Jim Warford along with others like Richard Rohmer.

I had an opportunity during the ceremony to meet Mr. Rohmer, a local veteran born and raised in Hamilton, Ontario, who is now the Honourary Lieutenant General of Canada. Mr. Rohmer flew 135 missions in WWII, including two on D-Day. His face was on the posters and banners throughout Courseulles-sur-Mer promoting the Juno75 ceremonies.

He is now age 95 and has been married for 70 years to his wife Mary. His countless medals and passionate storytelling impressed me beyond words. We are so lucky to have veterans like him to keep those important stories alive and pass them along to new generations.

Mayor Pouille and I read aloud the names of every Canadian veteran who was in attendance:

Lloyd Bentley	Art Boon	Colin Brown	Richard Brown
Hugh Buckley	Jack Burch	Bill Cameron	Emard Court
Rod Deon	Benoit Duval	Joe Edwardson	Alyre Gallant
Roy Hare	Alf Hebbes	Warner Hockin	Winston Judson
Earl Kennedy	Norman Kirby	Frank Krepps	Eugenie (Frankie) Turner
Jim Parks	Hugh Patterson	Alex Polowin	Charles Scot-Brown

John Stoyka	Jean Temple	Jack Miller	William Tymchuk
Alphonse Vautour	Jim Warford	Bill Wilson	Gérénal Richard Rohmer

Accompanied by the singing of national anthems and a moment of silence, wreaths were laid by myself, Mayor Pouille, veterans and others at each of monuments in the square:

- Royal Winnipeg Rifles Monument
- Stèle de la Combattante
- Stèle de Gaulle
- Char Bold (a DD Sherman Tank recovered after D-Day)

Other Canadian dignitaries participating in the ceremony were Stéphane Lauzon, Parliamentary Secretary to the Minister of Veterans Affairs and Associate Minister of National Defence and Charlie Angus, MP for Timmins – James Bay.

Again, Burlington residents were there in the crowd, and a few called out a greeting to me when myself and the Mayor Pouille walked by.

Mayor Pouille was a gracious host to myself and everyone from the Juno Beach Centre, and I was blown away by the level of organization and intention they had put into this event.

WWII aircraft flew overhead, and local school children gave handmade poppies to every veteran in attendance.

Courseulles-sur-Mer did so much to show us how they value our veterans, our country, the City of Burlington and the Juno Beach Centre. The mayor has asked us to twin with them and I believe this is a fitting relationship to honour Burlington's role in creating this Canadian memorial and ensuring we continue to tell that story at home and abroad.

I am looking forward to fostering this special relationship between Burlington and Courseulles-sur-Mer and seeing it deepen and evolve in the years ahead.

And with that special day, our D-Day commemorations came to an end. We drove the three hours back to Paris that night ahead of our flight to Burlington the next morning.

Some of the lighter moments during the trip:

- Rediscovered the joys of a stick shift! We arrived to pick up our rental car and found out it was a manual. Haven't driven one in 20 years but it's just like riding a bike.
- The roads through the small coastal towns of Normandy are about as big as our multi-use paths here at home. It makes everything much slower, which is probably a good thing.
- There are almost no stoplights, only roundabouts.
- Everything is closed before 10am, between 1 and 5pm, and after 10pm. And no two places have quite the same hours. I have to admire that, except when we were starving and missed our window.
- Forget coffee. Really, forget it.
- Get used to the weather changing on a moment's notice, multiple times a day, from gale-force winds and driving rain, to hot sun and everything in between. Dress in layers and always bring an umbrella.

- I rediscovered that I haven't lost all my university French, and at the end was speaking like a pro. Formidable!
- We survived the roundabout at the Arc de Triomphe including the motorbikes that come upon you unannounced between rows of traffic. Never extend your arm outside an open window! Still, we returned the car without a scratch!
- Oysters. Lots of oysters. And wine that's cheaper than water.
- Intersections in Paris have as many as 8 streets converging, and the town plan can best be described as a wheel and spoke design. Street signs are small and posted on the building across the intersection, so you need binoculars to read them. Upshot: You can't do this without navigation and a navigator beside you, and even then, you take your chances. Mastery of a 3-point turn is a must.
- They loved my pedicure. My feet were featured in many selfies. Mayor Pouille exclaimed: "C'est énorme!" (Not a reference to my feet size, but, I presume, the French way of saying "awesome!")

And most fun of all:

- The exuberant way the French greet you, on first encounter as if you're an old friend, with a kiss on the both cheeks and a giant smile.

Being away from my family that long is always tough, but I'm so grateful for the experience and the stories I now have to share with them. The stories I now have to share with all of Burlington.

I consider it one of my highest responsibilities to ensure the history of our city and the contributions of its residents – like those made to the war effort and to the Juno Beach Centre - are told and remembered. This trip made me realize that my job is not Mayor alone. It is also Chief Storyteller. What a privilege and honour it is.

~ Marianne Meed Ward



Juno Beach, 75th Anniversary of D-Day

Appendix B of MO-03-19

Full Trip Itinerary

Monday June 3rd: depart Toronto for Paris at 7pm EST via Air Canada. Fly overnight.

Tuesday June 4th: arrive in Paris, 8:30am local time. Take car rental and drive 3 hours to shared accommodations in Cabourg, 40 minutes from Courseulles-sur-Mer.

Wednesday June 5th: tour of Juno Beach Centre Museum with Canadian veterans, followed by a fundraising dinner for the Juno Beach Centre Museum.

Thursday June 6th: Canadian commemoration event at Juno Beach at noon, followed by International commemoration event at 6pm.

Friday June 7th: joined Burlington Teen Tour Band to visit Mont-Saint-Michel and visit Bény-sur-Mer Canadian War Cemetery.

Saturday June 8th: attended commemoration parade and ceremony in Courseulles-sur-Mer with Mayor Frederic Pouille and Canadian veterans. Drove back to Paris ahead of the next day's flight home.

Sunday June 9th: departed Paris for Toronto at 1pm Paris time, landing at 3pm local time.

Juno Beach, 75th Anniversary of D-Day

Appendix C of MO-03-19

Full Trip Costs

ITEM	NOTES	COST (taxes incl.)
Airfare for Mayor plus one staff member via Air Canada	Took Chief of Communications & Strategic Advisor to document trip & provide local support	\$2446.00
Car Rental from Hertz including collision insurance	Rented a car to minimize taxi costs as Paris to Normandy is a 3-hour trip and driving around Normandy once there included substantial distances on a daily basis. (460 Euro CONFIRM)	\$690.00
Parking Fees and Gas	Parking in Paris (61.14) + Gas (84.96)	\$146.10
Taxis (in Paris and from airport to home) and road tolls	Taxi to and from dinner in Paris, then taxi home from airport, plus tolls. (33.43 + 15.61 + 112.70 + 58.46 tolls)	\$220.20
Shared Accommodations in Cabourg for 4 nights total	Chose an AirBnB a 40-minute drive from Juno Beach as it was more economical than closer accommodations at time of booking.	\$440.79
Shared Accommodations in Paris	Shared same room with staff member.	\$445.00
Food	3 meals per day x 2 people x 6 full days (\$70 per diem) = budget of \$840	\$840.00
Roaming Charges (cellular)	To maintain contact with home, office, coordinate with local stakeholders, and share content on social media during trip	\$81.36
Contribution to Juno Beach Centre fundraising gala	To help support the ongoing maintenance of the Museum. Same event where gifts were formally exchanged with Mayor of Courseulles-sur-Mer.	\$1000.00
Total Costs		\$6309.45
Experience		Priceless



SUBJECT: Award of RFP-204-19 design build and install LaSalle Marina floating wave break

TO: Committee of the Whole

FROM: Capital Works

Report Number: CW-31-19

Wards Affected: All

File Numbers: 945-10

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Award of the contract to Kropf Industrial Inc., 1 Quebec Drive, Seguin, Ontario P2A 0B2, for \$3,438,914.31 including HST 13%; and

Approve the purchase of the extended warranty from Kropf Industrial Inc., for \$107,350.00 including HST 13%; and

Authorize the Manager of Procurement Services to issue a purchase order and/or sign any associated contracts/agreements with the bidder named above subject to the satisfaction of the City Solicitor; and

Direct the City Clerk to issue the debenture by-law; and

Total cost of \$4,000,000 (Net HST) to be charged to capital order PR0150, to be financed as follows; \$2 million Hydro Reserve Fund, \$2 million tax supported debt.

Purpose:

To award the Request for Proposal to Kropf Industrial Inc., for the build and installment of a new floating wave break at LaSalle Park Marina. The existing wave break has reached the end of its useful life and requires replacement. Furthermore, to respond to Council's direction to explore alternative funding options for the marina.

Background and Discussion:

Details

Advertised / Issue Date:	March 27, 2019
Advertised Methods(s):	<input checked="" type="checkbox"/> Bid & Tenders
Closing Date:	May 6, 2019
Number of Bids Received:	4
Total Number of Compliant bids:	3

No.	Name of Company	Total Bid including HST
Recommended Bidder		
1	Kropf Industrial Inc.	\$3,546,264.31*
Other Bidders		
2	Kehoe Marine Construction Ltd.	
3	Geniglace Inc.	
4	Facca Inc.	

* Price includes extended warranty to encompass eight years

Note:

- the names of all proponents will be made public.
- the ONLY price that is made public is that of the recommended proponent.

Strategy/process

Bid Results

RFP Results: The contract is awarded to the highest scoring compliant bidder (named first above) along with their Total Price. Only the company names of the other Bidders are listed above.

Options considered

Being a Design Build Proposal, the highest scoring compliant bidder is recommended from the submissions evaluated.

The proposed wave break will remain in the water year-round.

Included in the bid, Kropf Industrial Inc, offered a maintenance and inspection program that will be secured for the first four years of warranty. Staff are also recommending carrying an extended warranty of eight years, included in the award total.

Staff have secured an extension of the RFP award date to September 30, 2019 from the bidders. An option available to Council is to defer a decision on the award of this RFP until the September Committee of the Whole and Council meetings when the report on the Marina governance will be considered. Deferring the award of this RFP may delay the implementation of the new wave break by up to 2 months until the end of May 2020.

Financial Matters:

As per report CM-07-18, Council approved the design/ build of a new floating wave break at LaSalle Park Marina with a project budget of \$4 million. As part of CM-01-19, Council directed staff to explore alternative funding options for the marina, which is addressed below.

Based on the recent BMA 2019 Financial Condition Assessment (F-29-19), the Hydro reserve fund year-end balance has been declining over the last five years, experiencing a decline of 45% to a 2018 year-end balance of approximately \$12.5 million.

Furthermore, an update to the Hydro business plan forecasts a reduction in the interest we receive on our note. This coupled with the declining reserve fund balance suggests that the use of the Hydro reserve fund be re-considered for this project. The reserve fund is essential to the city's infrastructure program and for the repayment of the city's special circumstances debt, as such staff recommend using tax supported debt to fund a portion of this project.

Staff recommend that the new floating wave break be funded from the Hydro reserve fund for \$2 million, and the remaining \$2 million be funded from tax supported debt, to mitigate a further decline in the Hydro reserve fund balance. The \$2 million in tax supported debt would result in annual debt charges of approximately \$235,000 over 10 years based on an interest rate of 3%. With the inclusion of this additional debt the city remains within its debt policy limit. As part of an agreement with a future operator, the city will charge a fee in exchange for the use of the asset. Staff will consider the use of the recovery to assist with the annual debt repayment, thus contributing towards the current capital cost of the wave break. The option also exists to use the recovery to assist with the capital replacement of the future wave break, and/ or the capital maintenance as discussed below after debt repayment is complete.

Asset Management: A new floating wave break will add to the city's inventory of assets. The average annual life cycle costs are estimated to be approximately \$133,000

per year based on the capital cost of \$4 million. This is in addition to any operation and maintenance costs of the wave break estimated to be \$20,000 per year. As part of an agreement with a future operator, the city will charge a fee in exchange for the use of the asset.

Project Contingency: Staff have carried contingency monies to allow for an opportunity to request for a change to the current proposal, after award, to allow for a more robust wave breaker system to deal with the increasing potential of severe storm events. Utilizing contingency in this manner allows staff to pursue more favourable pricing as per the contract.

Public Engagement Matters:

Meetings have been held with the LaSalle Park Marina Association, the Trumpeter Swan Coalition, the Hamilton Conservation Authority and Conservation Halton. A Public Information Centre was held as part of the Revisions and Addenda to the 2013 LaSalle Park Marina Breakwater Class Environmental Assessment – Environmental Study Report November 2018.

Conclusion:

Staff recommend the award of the contract to Kropf Industrial Inc., 1 Quebec Drive, Seguin, Ontario P2A 0B2 as outlined in Report CW-31-19.

Respectfully submitted,

Craig Stevens
Senior Project Manager
905-335-7600 X7471

Appendices:

A. Financial Details

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

Appendix A – Financial Details

Contract No.: RFP-204-19	Capital Order No.: PR0150
Report No.: CW-31-19	Report Date: July 8, 2019

			TENDER AWARD
CONTRACTED CONSTRUCTION			
– Contracted Construction		\$	3,138,287.00
– HST (1.76%)		\$	55,233.05
Subtotal Contracted Construction (Net HST)		\$	3,193,520.85
Construction Contingency		\$	665,479.15
Total Contracted Construction		\$	3,859,000.00
EXTERNAL COSTS			
– Consulting Fees		\$	131,000.00
– Permits/Fixtures and Equipment		\$	10,000.00
Total External Costs		\$	141,000.00
TOTAL PROJECT COSTS (ROUNDED)		\$	4,000,000.00
TOTAL PROJECT FINANCING			
City Funding Sources			
– Hydro Reserve Fund		\$	2,000,000.00
– Tax Supported Debt		\$	2,000,000.00
TOTAL CITY FUNDING (ROUNDED)		\$	4,000,000.00



SUBJECT: LaSalle Park Marina Agreement and Operating Model

TO: Committee of the Whole

FROM: City Manager's Office

Report Number: CM-5-19

Wards Affected: 1

File Numbers: 945-10

Date to Committee: July 8, 2019

Date to Council: July 15, 2019

Recommendation:

Table report CM-5-19 on alternative operating models for the Marina at LaSalle Park to the Committee of the Whole meeting on September 9, 2019 at which time staff will provide a recommendation on a preferred operating model for the Marina.

Purpose:

The purpose of this report is to respond to two of the staff directions from report CM-01-19 that was discussed at the March 4, 2019 Committee of the Whole:

Direct the Director of Parks and Recreation to continue negotiations with the LaSalle Park Marina Association for a long-term license agreement for the operation of the Marina at LaSalle Park and report back on the results (Option A); and

Direct the Interim City Manager to report back on alternative governance and operating models and the process for continuance of a community-based public Marina at LaSalle Park and report back to Committee of the Whole on or before July 8, 2019.

A Healthy and Greener City

- Healthy Lifestyles

An Engaging City

- Good Governance
-

Background and Discussion:

The LaSalle Park Marina Association (LPMA) has a Joint Venture Agreement with the City of Burlington (City) that expires at the end of October 2019. The Marina has 219 slips and is protected by a floating wave break. The Burlington Sailing and Boating Club (BS&BC) and the Able Sail program are separate entities and offer sailing programs at the Marina. In addition, the City has a public boat launch at the Marina that is protected by the wave break.

At the Committee of the Whole meeting on March 2, 2019, staff received the following directions:

Direct the Interim City Manager to implement Option A regarding the future operation of the Marina at LaSalle Park as outlined in report CM-01-19; and

Direct the Executive Director of Capital Works to proceed with the Request for Proposal for the acquisition of a new floating wave break and report back on the results of the Request for Proposal (Option A); and

Direct the Director of Parks and Recreation to continue negotiations with the LaSalle Park Marina Association for a long-term licence agreement for the operation of the Marina at LaSalle Park and report back on the results (Option A); and

Direct the Interim City Manager to report back on alternative governance and operating models and the process for continuance of a community-based public Marina at LaSalle Park and report back to Committee of the Whole on or before July 8, 2019; and

Direct the Director of Parks and Recreation to explore alternative funding options for the Marina at LaSalle Park.

The acquisition of a new floating wave break and alternative funding options are presented in companion report CW-31-19.

Strategy/process

Licence Agreement

Following Council's direction, staff and representatives from LPMA met on a regular basis to negotiate a new licence agreement for the use and operation of the Marina. Staff and representatives from LPMA have reached an agreement in principle on a new licence agreement.

Staff anticipate bringing forward recommendations related to a new licence agreement for consideration by Committee and Council in September 2019. Further details regarding this matter are addressed in confidential Appendix A of this report.

Alternative Governance and Operating Models

In April 2019, staff secured the services of a consultant, TOURISTICS, to assess alternative governance and operating models for the Marina. Staff recently received the consultant's draft report which is included as Appendix B.

Staff will continue to review options in the consultant's report and will recommend a preferred operating model in September 2019.

Options considered

TOURISTICS undertook an analysis of potential operating models for the LaSalle Park Marina. The consultant's draft report which is included in Appendix B provides the following:

- Overview of LPMA's operation and financial information
- Comparing the LaSalle Park Marina with other marinas based on the features and values of amenities
- Outlook for future slip occupancy for LaSalle Park Marina
- Information and financial data related to all aspects of LPMA, LaSalle Park Marina, Burlington Sailing and Boating Club and Able Sail
- Financial viability of LPMA's current operating model
- Outlines several different operating models along with financial implications to the City included in the table below

A high level overview of the different operating models is outlined below in Table 1.

Table 1 Alternative Marina Operating Models

Operating Model	Description
Public Marina	<p>3 options:</p> <p>City owned and operated – City responsible for all costs (operating and capital renewal).</p> <p>Management contract – City responsible for all costs and contract the operation and management of Marina to third party.</p> <p>Profit Sharing – City is responsible for all costs, contracts out the operation and management with profit sharing.</p>
Public/Private Marina	<p>City leases Marina operation to an operator. City is not responsible for operating costs and a portion of capital renewal. City not responsible if Marina operates at a loss.</p>

Private Marina	Operator owns and operates the Marina. City incurs no costs and is not involved or responsible for the Marina.
Arm's Length Operator	City creates an agency to operate the Marina. Operational costs covered by the agency but City likely responsible for a portion of capital renewal costs.

The consultant's report identified that, based on the limited services and amenities available at LaSalle Park Marina along with the limited number of slips, a private operator would have challenges meeting its financial goals. The report also demonstrated that LPMA is financially sustainable and will be able to meet its financial commitment to the City to fund the new wave break.

Financial Matters:

Total Financial Impact

The cost for the consultant's services is \$22,871.20 (including HST).

Connections:

Ongoing staff review of Joint Venture agreements and policy including the Joint Venture Loan program.

Conclusion:

This report allows Council the opportunity to review the consultant's draft report outlining alternative governance and operating models for the LaSalle Park Marina. A report recommending a preferred operating model for the Marina will be presented to Council at the September 2019 Committee of the Whole meeting.

Respectfully submitted,

Tim Commisso

City Manager

905-335-7600 ext. 7608

Appendices:

- A. Confidential Legal Memo
- B. Draft TOURISTICS report

Notifications:

LaSalle Park Marina Association

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

Potential Operating Models for LaSalle Park Marina – *Draft Report*



TOURISTICS

June 2019

Table of Contents

SECTION 1 - INTRODUCTION	1
1.0 Introduction	1
1.1 Report Format	1
1.2 Background	1
SECTION 2 - CURRENT OPERATION OF THE MARINA	3
2.1 LaSalle Park Marina Association Memberships	3
2.2 Operation of the Marina as Outlined in the Joint Venture Agreement	4
2.3 Comparison of LaSalle Park Marina with Other Marinas in the Seasonal Market Area	4
2.4 Outlook for Future Occupancy Growth	6
2.5 Financial Viability with Current Operating Model	7
2.6 2019 Full Cost of Capital Asset and Equipment Replacement	8
2.7 Pros and Cons of Current Operating Model.....	8
SECTION 3 - POTENTIAL OPERATIONAL APPROACHES	9
3.0 Introduction	9
3.1 Public Marina Operational Model	9
3.1.1 City Owned and Operated	9
3.1.2 Direct Management Contract	11
3.1.3 Profit Sharing Management Agreement.....	13
3.2 Public/Private Marina Operational Model.....	15
3.3 Private Marina Operational Model	17
3.4 Arm's Length Operational Model	19
3.5 Financial Forecasts Under Existing, Municipally Owned and Operated and Privately Owned and Operated Models.....	21
3.5.1 LaSalle Park Marina Association Financial Forecast 2020 to 2029	21
3.5.2 Municipally Owned and Operated Marina Financial Forecast 2020 to 2029	21
3.5.3 Municipally Owned and Direct Management Contract Operated Marina Financial Forecast 2020 to 2029	22
3.5.4 Municipally Owned and Privately Operated Marina Financial Forecast 2020 to 2029	22
3.5.5 Privately Owned and Operated Marina Financial Forecast 2020 to 2029	23
3.5.6 Summary of Financial Results of LaSalle Park Marina Potential Operating Models.....	24

List of Tables

Table 1 - 2019 Associate Membership Full Seasonal Rental Fees (May to October)	3
Table 2 - 2019 No Frills Summer Seasonal Rental Fees (June 1 to September 30)	3
Table 3 - Reserve Fund	5
Table 4 - LaSalle Park Marina Association Capital and Equipment Replacement Funds	7
Table 5 - Pros and Cons of Current LaSalle Park Marina Operating Model.....	8
Table 6 - Pros and Cons for Municipally Owned and Operated Marina	11
Table 7 - Pros and Cons for Municipally Owned and Direct Management Contract Operated Marina	13
Table 8 - Importance of Amenities and Services for Transient Boaters	14
Table 9 - Pros and Cons for Municipally Owned and Profit Sharing Operated Marina	15
Table 10 - Pros and Cons for Municipally Owned and Privately Operated Marina	17

Table of Contents (Continued)

List of Tables

Table 11 - Pros and Cons for Privately Owned and Operated Marina	19
Table 12 - Power and Sail Boating Programs Available from Harbourfront Centre.....	20
Table 13 - Pros and Cons for an Arm's Length Operated Marina	21
Table 14 - Annual Rent Accruing to the City from 20 Year Marina Lease with Private Operator.....	23
Table 15 - Comparison of Profit/Loss Position before Debt Service with Potential LaSalle Park Marina Operating Models.....	24
Table 16 - Comparison of Profit/Loss Position after Debt Service with Potential LaSalle Park Marina Operating Models.....	25

List of Figures

Figure 1 - Comparison of Marinas in Seasonal Market Area Based on 17 Facilities and Services	6
Figure 2 - Residency of LaSalle Park Marina Association Members.....	7
Figure 3 - Port Elgin Harbour Organizational Chart.....	12
Figure 4 - Profit Sharing Schedule with Kincardine Yacht Club.....	13
Figure 5 - Occupancy Rates for Transient Slips in an Established Market	15

List of EXHIBITS

EXHIBIT 1A MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA - NUMBER AND SIZE OF SLIPS	29
EXHIBIT 1B MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA - FACILITIES AND SERVICES	32
EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA - FEES (2019) AND USER PATTERNS.....	35
EXHIBIT 2 MARINA FACILITIES AND SERVICES RATING	42
EXHIBIT 3 EVALUATION OF MARINA SERVICES AND FACILITIES IN LASALLE PARK MARINA SEASONAL MARKET AREA.....	43
EXHIBIT 4 RATES AND FEES COMPARISON 2014 TO 2019 BOATING SEASON FOR MARINAS WITHIN (GTA)/GOLDEN HORSESHOE AREA	44
EXHIBIT 5 HISTORICAL AND PROJECTED GROWTH BY LENGTH OF BOATS REGISTERED IN ONTARIO (2014 to 2033)	45
EXHIBIT 6 PLEASURE CRAFT LICENSES GRANTED BY TRANSPORT CANADA IN ONTARIO	46
EXHIBIT 7 PLEASURE CRAFT LICENSES CANCELLED BY TRANSPORT CANADA IN ONTARIO....	46
EXHIBIT 8 TOTAL ADDITIONAL REGISTERED PLEASURE CRAFT IN ONTARIO.....	46
EXHIBIT 9 LASALLE PARK MARINA ASSOCIATION REVENUES AND EXPENSES (2016-2018)	47
EXHIBIT 10 BURLINGTON SAILING AND BOAT CLUB REVENUES AND EXPENSES (2016-2018) ...	48

Table of Contents (Continued)

List of EXHIBITS

EXHIBIT 11	BURLINGTON ABLE SALE REVENUES AND EXPENSES (2018)	49
EXHIBIT 12	LASALLE PARK MARINA ASSOCIATION - FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT.....	50
EXHIBIT 13	BURLINGTON SAILING AND BOAT CLUB - FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT.....	52
EXHIBIT 14	BURLINGTON ABLE SAIL PROGRAM - FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT.....	54
EXHIBIT 15	CITY OF BURLINGTON - FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT	55
EXHIBIT 16A	SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO - NUMBER AND SIZE OF SLIPS.....	56
EXHIBIT 16B	SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO - FACILITIES AND SERVICES	60
EXHIBIT 16C	SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO - FEES (2019) AND USER PATTERNS.....	64
EXHIBIT 16D	SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO - MAJOR SPACE REQUIREMENTS	74
EXHIBIT 17	LASALLE PARK MARINA ASSOCIATION FINANCIAL FORECAST 2020 TO 2029	77
EXHIBIT 18A	MUNICIPALLY OWNED AND OPERATED LASALLE PARK MARINA FINANCIAL FORECAST 2020 TO 2029	78
EXHIBIT 18B	MUNICIPALLY OWNED AND DIRECT CONTRACT MANAGED LASALLE PARK MARINA FINANCIAL FORECAST 2020 TO 2029	79
EXHIBIT 18C	MUNICIPALLY OWNED AND PRIVATELY OPERATED LASALLE PARK MARINA FINANCIAL FORECAST 2020 TO 2029	80
EXHIBIT 19	PRIVATELY OPERATED LASALLE PARK MARINA FINANCIAL FORECAST 2019 TO 2028	81
EXHIBIT 20	INCOME STATEMENT RATIOS FOR ONTARIO MARINAS.....	82

EXECUTIVE SUMMARY

Introduction

TOURISTICS has been retained by the City of Burlington to undertake an analysis of potential operating models for LaSalle Park Marina. We have reviewed the current operating model outlined in the Joint Venture Agreement between the City of Burlington and the LaSalle Park Marina Association, various municipally run operating models, privately run operating models and arm's length operating models.

A description is provided for each of the potential operational approaches for the marina, as well as the pros and cons for each approach and a forecast of the financial operation over a ten year period under the current operating scenario (i.e. LPMA), publically owned and operated, and privately owned and operated models.

Background

The LaSalle Park Marina and related LaSalle Park Marina Association (LPMA) were established in 1981. Since its inception the marina has been operated and managed by the LPMA. The current operational and management terms between the City of Burlington and the LPMA are dictated by way of a joint venture agreement signed by both parties. There is also a separate joint venture agreement with the Burlington Sailing and Boating Club (BS&BC) signed by the City of Burlington and BS&BC.

LPMA is a not-for-profit organization consisting of a volunteer board of directors, an on-site manager, and seasonal labour. LPMA operates from an office in a trailer located within LaSalle Park opposite the public boat launch ramp. LPMA is responsible for all dockage of boats and the marina infrastructure.

BS&BC is also a not-for-profit organization with an elected board of directors responsible for operating a boating and sailing facility and maintaining the physical assets that are exclusive to the operation of the sailing club premises. Their clubhouse is adjacent to but separate from the marina property. The BS&BC is responsible for social aspects of the Club, events, dinghy storage, racing, cruising, sailing school, winter storage of its club member's boats in the compound at LaSalle Pier. The club's Shark Program affords associate club members the opportunity to access a mid-sized keelboat for the day without boat ownership. During July and August BS&BC operates an active sailing program for ages 5 and up. The training is offered to the community-at-large and club membership is not required. Students are taught by Canadian Yachting Association (CYA) certified instructors and CYA certificates are awarded for each level attained.

Burlington Able Sail (BAS) is a charitable organization operating within the immediate entrance of the Marina on special docks funded through Rotary Club grants. It is a program focused on the Martin 16 sailboat which is equipped to cater to physically/cognitively challenged sailors of all ages (7 and up) that operates at the Marina without LPMA access/user charge. BS&BC and LPMA boaters and members volunteer to assist in the program.

Operation of the Marina as Outlined in the Joint Venture Agreement

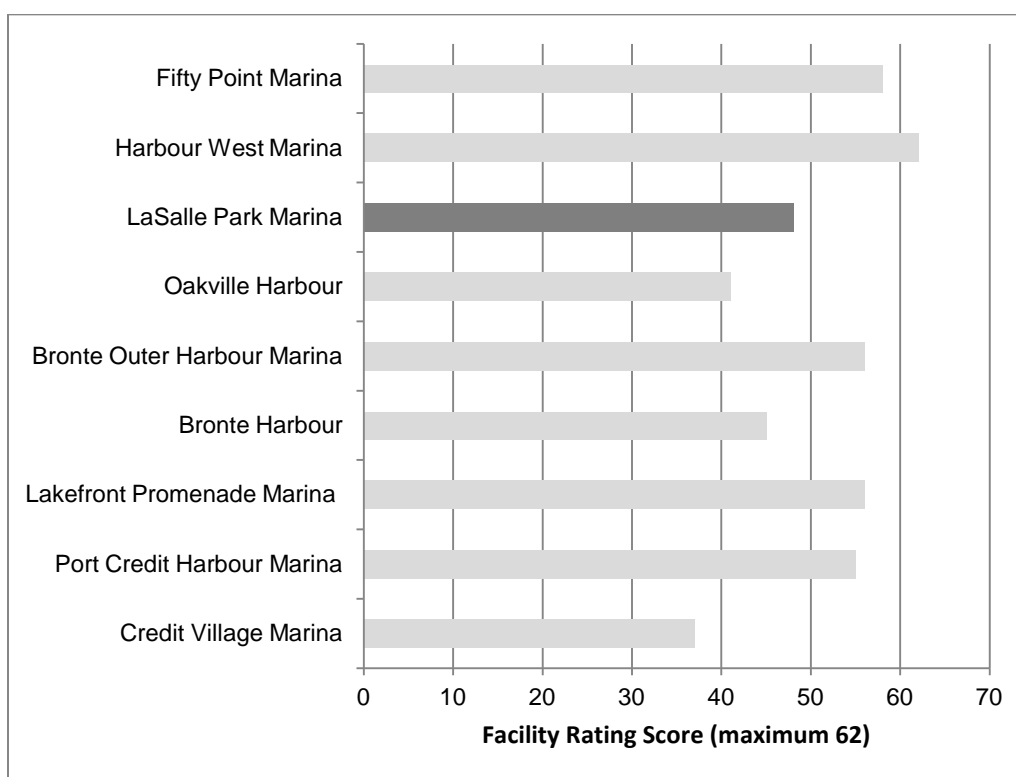
The City of Burlington is responsible for the on-shore facilities not otherwise included in the Joint Venture Agreement, namely the all internal roads leading to the Marina, the pier, the parking lot, the public boat ramp. The City will maintain these facilities to City standards as may be determined from time to time.

The LPMA undertakes all membership transactions in connection with the on-going operation of the Marina in accordance with Schedule C of the Joint Venture. The LPMA ensures that these funds are held in a separate bank account segregated from other operating funds that the LPMA possesses.

Comparison of LaSalle Park Marina with Other Marinas in the Seasonal Market Area

LaSalle Park Marina was compared with the other marinas in the seasonal market area based on 17 facilities and services considered by boaters to be the most desirable features in a marina. Each of the marinas was evaluated based on features and values. Where a marina had a feature or service, but it was considered in need of improvement a lesser value was assigned (i.e. 4 rather than 5 for docks, 2 rather than 3 for a launch ramp). Harbour West Marina received the maximum score of 62. LaSalle Park Marina received the maximum score for 10 of 17 facilities and services rated for a total score of 48. It should be noted the launch ramp is municipally owned and operated free of charge, and the mast crane is operated through the BS&BC. Lack of potable water on all docks (3 of 5 points), lack of 30 amp. power on all of the longer docks (3 of 5 points), fuel dock (4 points), on-site repair services (2 points), marine supplies (2 points), and laundry facilities (1 point) were responsible for the score of 48. Given the maximum score received for 10 of 17 facilities and services rated, LaSalle Park Marina's fees are good value for the facilities and services provided.

Comparison of Marinas in Seasonal Market Area Based on 17 Facilities and Services¹



¹ Safe piers, main & fingers docks; Vehicle parking; Washrooms; Water service on docks; Haul-out, launch & winter storage; Hydro (30 amps.) on docks; Security 24 hours; Pump out service; Fuel dock; Wi fi connection; Staff available for assistance; Launch ramp; Clean marine certification; Repair services; Marine supplies; Mast crane; Laundry facilities.

Outlook for Future Occupancy Growth

In 2018 2,416 of the 2,532 slips for rent in LaSalle Park Marina's seasonal market area (i.e. Mississauga to Winona) were occupied for an overall market occupancy of 90.4 percent. The number of slips in the market place will be reduced after 2022 when the City of Mississauga takes over operation of Port Credit Harbour Marina from the Canada Lands Corporation the current property owner, thus putting greater pressure on LaSalle Park Marina and the other area marinas to meet the increased demand. The population of the seasonal market area is projected to increase by 25.9 percent between 2018 and 2033.

In addition, the number of power and sail boats typically using a slip at a marina (i.e. 26 feet or more in length) is projected to grow by 46.5 percent between 2018 and 2033. Participation in power and sail boating is expected to increase by 12 percent during the same time period.

Financial Viability With Current Operating Model

Our examination of the financial statements for 2016, 2017, and 2018 for LPMA, BS&BC, and BAS (2018 only) indicate that the marina operation (i.e. LPMA) and the two associated organizations (i.e. BS&BC, BAS) are currently all financially viable operations. Both LPMA and BS&BC currently set aside capital and equipment replacement funds annually.

2019 Full Cost of Capital Asset and Equipment Replacement

LPMA, BS&BC, BAS and the City of Burlington have significant capital and equipment investments in areas they currently occupy or are responsible for in the marina. The 2019 full cost of capital assets and equipment is as follows: LPMA (\$1,362,500), BS&BC (\$565,400), BAS (\$175,200) and the City of Burlington (\$1,462,000) for a total of \$3,565,100. In the event that an alternative operating model for LaSalle Park Marina is chosen part or all of the replacement cost will have to be considered in the new agreement.

Potential Operational Approaches

There are a number of ways the marina could potentially operate (i.e. publically owned and operated; publically owned and contracted out for operation; privately owned and operated, a public/private partnership or an arm's length non-profit operation much like LaSalle Park Marina is currently operated. There are advantages and disadvantages for each.

Public Marina Operational Models

➤ City Owned and Operated Model

With a city owned and operated model the City would be responsible for all operational costs, and all asset and equipment replacement costs.

In order for this option to work the City would have to either own the land and water lots or lease the land and water lots. The City would be required to obtain the necessary assets and equipment to operate the marina with 100 percent of the operational and asset replacement cost carried by the City. The City could then operate the marina themselves (e.g. Lakefront Promenade Marina in Mississauga, Cobourg Marina in Cobourg). The advantage is that the City receives 100 percent of the profit and has complete control over how the marina is operated. Municipalities can usually borrow money at a better rate than a private developer. Economic spin-off would accrue to the City as the marina staff would be the first point of contact for visitors and they could be encouraged to stay longer and partake in activities away from the marina itself. The major disadvantages would be that the City would be responsible for financing the cost of acquiring the necessary assets and equipment and 100 percent of any losses would be the City's responsibility.

➤ Direct Management Contract Operational Model

With a city owned and direct management contract operated model the City would be responsible for all operational costs, and all asset and equipment replacement costs, however, labour cost would be reduced by having the marina operated by a contracted marina manager.

This is the preferred method when the municipality wants to retain ownership of the marina or when municipal, provincial or state law prevents a lease. The length of typical marina management contracts varies from three to 10 years, with 3 to 5 years the most common. Renewal is based on good revenues

and performance. Generally, the municipality pays an annual management fee to the operator, which increases each year by a certain percentage, plus in some cases a percentage of revenues.

➤ **Profit Sharing Management Agreement Operational Model**

Under this operating model the City continues to own the marina, has overall approval on how it is run, but is not responsible for its' operation. An agreement is structured so that any net profits after operating expenditures are shared between the municipality and the operator.

Public/Private Marina Operational Model

With a public/private marina operational model, the City would own the marina and lease its operation to a private operator for a specified number of years for an agreed upon annual payment to the City.

For this option to work the City would have to either own the land and water lots, or lease the land and water lots and then turn around and arrange a lease with a private operator. The City would likely have to bear a portion of any construction if required. The advantage would be that the City would not be responsible for the total capital cost of construction, the City would not be responsible for the operating costs and 100 percent of any losses would be the private developer's responsibility. The disadvantage of this approach is that the City would receive a smaller portion of any profit and the private partner could walk away if the losses grew too large. In addition, private operators tend to defer major maintenance tasks to the end of the lease agreement which may mean the City would likely incur some of the maintenance costs.

Private Marina Operational Model

Under a private marina operational model, a private individual or corporation would own and operate the marina. The City would have no involvement or responsibility for the marina operation.

A private developer/operator would either own the land and water lot or own the land and lease the water lot. The private developer/operator would build the marina with 100 percent of the cost carried by the private developer. The advantage of this approach would be that there would be a marina on the City's waterfront with no financing cost to the City and 100 percent of any losses would be the private developer's responsibility. The disadvantage would be that the City would have little control over how the marina was operated and maintained and the private operator would be more interested in ensuring that visitor expenditures remained within the marina property and not in the downtown area. A private developer building and operating the marina would be faced with higher financing costs than the City. Although the revenue generated by operating the marina would be similar to a municipally run marina, a private operator would face higher annual disbursements in the form of higher insurance cost, property taxes, and property rent. Fees and other charges are typically higher than a municipally operated marina as the desired profit margin is higher.

Virtually all privately operated marinas in Ontario include winter storage, a fuel dock, and chandlery (providing boater supplies), and more than 75 percent provide full or some form of repair service as a means of increasing their after expense profit. Winter storage can provide almost as much annual revenue as seasonal slip rentals. The profit margins for a fuel dock are (15 to 20%); for a chandlery (35 to 40%); and for a repair service (20 to 25%).

Arm's Length Operating Model

Under an arm's length operating model, the City would either create another agency to operate the marina or have it operate under an existing agency such as the Chamber of Commerce. Operational costs would be covered by the arm's length agency but the City would likely be responsible for up to 100 percent of the asset replacement costs.

The agency would require separate administration and other human resources which may currently be provided by the City which is not the case for the City of Burlington under the existing operational model. Revenue from the operation of the marina would have to cover the operational costs of the agency.

Financial Forecasts Under Existing, Municipally Owned and Operated and Privately Owned and Operated Models

The financial forecasts are provided for illustration purposes only. Before a final decision is made on an alternative operating model for LaSalle Park Marina a more detailed analysis should be completed with regard to a) how much involvement does the City want to have in the operation of the marina in terms of both personnel, and capital and operating costs; b) what terms would the City be comfortable with under a public/private operating model; and c) what price would the City be comfortable with in giving up complete control of the marina under a privately owned and operated marina.

In deriving the financial forecasts the following assumptions were applied to each forecast:

- The City of Burlington will pay for the new wave break to be installed in late 2019 or early 2020,
- The annual cost of maintenance for the wave break is \$40,000,
- The docks will remain in the water year round,
- An annual allocation will be made to the new dock capital replacement fund equal to that included in the 2020 to 2029 LPMA forecast (EXHIBIT 17), and
- Beginning in 2020 an allocation of at least \$75,000 annually shall be placed in a new wave break replacement fund.

Summary of Financial Results of LaSalle Park Marina Potential Operating Models

Due to the small number of slips (i.e. 219), the higher cost of labour (no volunteer labour), and the lack of other revenue producing services such as summer land storage, fuel dock, repair services, chandlery, and possibly winter storage, the financial results under either a public or private operating model are challenging. A private operator would want each of the following on-site services: fuel dock (15 to 20% profit margin), repair service (20 to 25 % profit margin), and chandlery (30 to 35% profit margin). In addition, the lack of potable water and 30 amp service at each of the 30 foot docks constrains the marina in its ability to increase annual rates to match those of the market place. As a result disbursements will increase faster than revenues. The two tables following compare the financial position of each operating model before and after debt service respectively.

Note: Numbers in **bold print** represent a profit and numbers in *italic print* indicate a loss.

Comparison of Profit/Loss Position before Debt Service with Potential LaSalle Park Marina Operating Models

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Current LaSalle Park Marina with LPMA ¹	1,830	5,000	220	730	1,000	900	1,290	780	1,400	14,320
Municipally Owned & Operated ²	118,390	110,870	105,610	95,570	79,640	65,840	63,530	61,940	61,660	59,180
Municipally Owned & Direct Contract Management ³	76,820	67,570	60,540	51,450	33,680	18,010	16,700	13,150	10,890	9,480
Municipally Owned & Privately Operated ⁴	28,130	30,900	30,280	27,150	18,680	11,740	4,050	3,920	9,830	17,730
Privately Owned & Operated ⁵	18,010	13,140	4,990	5,570	21,380	35,560	40,400	45,420	48,280	53,020

Source: ¹EXHIBIT 17, ²EXHIBIT 18A, ³EXHIBIT 18B, ⁴EXHIBIT 18C, ⁵EXHIBIT 19

Comparison of Profit/Loss Position after Debt Service with Potential LaSalle Park Marina Operating Models

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Current LaSalle Park Marina with LPMA ¹	1,830	5,000	220	730	1,000	900	1,290	780	1,400	14,320
Municipally Owned & Operated ^{2*}	210,130	202,610	197,350	187,310	171,380	157,580	155,270	153,680	153,400	150,920
Municipally Owned & Direct Contract Management ^{3*}	168,560	159,310	152,280	143,190	125,420	109,750	108,440	104,890	102,630	101,220
Municipally Owned & Privately Operated ^{4†}	150,440	153,210	152,590	149,460	140,990	134,050	126,360	118,390	112,480	104,580
Privately Owned & Operated ^{5†}	140,320	135,450	127,300	116,740	100,930	86,750	81,910	76,890	74,030	69,290

Source: ¹EXHIBIT 17, ²EXHIBIT 18A, ³EXHIBIT 18B, ⁴EXHIBIT 18C, ⁵EXHIBIT 19

* Includes \$91,740 in annual principal and interest payments based on a 25 year mortgage at 3.2 percent

† Includes \$122,310 in annual principal and interest payments based on a 25 year mortgage at 5.5 percent

SECTION 1 - INTRODUCTION

1.0 Introduction

TOURISTICS has been retained by the City of Burlington to undertake an analysis of potential operating models for LaSalle Park Marina. In doing so, we have reviewed the current operating model outlined in the Joint Venture Agreement between the City of Burlington and the LaSalle Park Marina Association, various municipally run operating models, privately run operating models and third party run operating models.

1.1 Report Format

The report is divided into three sections or chapters. Section 2 describes the current operation of the marina (i.e. LPMA). Section 3 describes potential operational approaches for the marina, provides the pros and cons for each approach and a forecast of the financial operation over a ten year period under the current operating scenario, publically owned and operated, and privately owned and operated.

Figures and tables are inserted in the text of the report as close to the first reference as practical. Detailed EXHIBITS are included in the appendix in the order in which they are referred.

1.2 Background

The LaSalle Park Marina and related LaSalle Park Marina Association (LPMA) were established in 1981. Since its inception the marina has been operated and managed by the LPMA. The current operational and management terms between the City of Burlington and the LPMA are dictated by way of a joint venture agreement signed by both parties. There is also separate joint venture agreement with the Burlington Sailing and Boating Club (BS&BC) signed by the City of Burlington and BS&BC. The Marina is located within Hamilton Harbour along the North Shore and adjacent to the LaSalle Park in Burlington, Ontario.

LPMA is a not-for-profit organization consisting of a volunteer board of directors, an on-site manager, and seasonal labour. LPMA operates from an office in a trailer located within LaSalle Park opposite the public boat launch ramp. LPMA is responsible for all dockage of boats and the marina infrastructure.

BS&BC is also a not-for-profit organization with an elected board of directors responsible for operating a boating and sailing facility and maintaining the physical assets that are exclusive to the operation of the sailing club premises. Their clubhouse is adjacent to but separate from the marina property. The BS&BC is responsible for social aspects of the Club, events, dinghy storage, racing, cruising, sailing school, winter storage of its club member's boats in the compound at LaSalle Pier. The club's Shark Program affords associate club members the opportunity to access a mid-sized keelboat for the day without boat ownership. During July and August BS&BC operates an active sailing program for ages 5 and up. The training is offered to the community-at-large and club membership is not required. Students are taught by Canadian Yachting Association (CYA) certified instructors and CYA certificates are awarded for each level attained.

Burlington Able Sail is a charitable organization operating within the immediate entrance of the Marina on special docks funded through Rotary Club grants. It is a program focused on the Martin 16 sailboat which is equipped to cater to physically/cognitively challenged sailors of all ages (7 and up) that operates at the Marina without LPMA access/user charge. BS&BC, LPMA and BS&BC/LPMA¹ boaters and members volunteer to assist in the program.

¹ Some boaters are members of both the BS&BC and the LPMA

The land and water lots where the Marina is situated are leased to the City from the Hamilton Port Authority (HPA) and the City of Hamilton. BS&BC and LPMA pay annual rent to the City (56% and 24% respectively), while the City is responsible for the remaining 20 percent of the annual lease agreement. The current lease with the HPA is in effect until 2020 with an option for three 10 year renewals (i.e. until 2050). The renewals are available at the option of the City. The lease requires that HPA approve all construction projects.

At the present time, the Marina consists of 219 boat slips and a floating wave break. The Marina's services include access to 107 public parking spaces, a security gate, Wi-fi internet service, shared power, fresh water, outdoor seating, pump out service, seasonal dock placements and lifts, and washroom/shower facilities for members and patrons of the Marina. LaSalle Park Marina is the first international Blue Flag Eco Certified Marina on Lake Ontario.

SECTION 2 – CURRENT OPERATION OF THE MARINA

2.1 LaSalle Park Marina Association Memberships

The primary source of revenue for the Marina is generated through the various forms of membership offered.

Charter Membership – these historical memberships were replaced with senior memberships in 2006. An initial sizable capital investment was required with lower annual slip fees, membership in LPMA, right to serve on the board, vote, and other membership benefits. To obtain a refund on their capital investment, a Charter Member is required to find a replacement member to pay the capital investment or pay an annual administration fee and be listed for sale. Charter Members must sign a “Direction” to the City and the LPMA to transfer their right to use on a one-time only basis to either their spouse as a Charter Member, or children as Senior Members upon their death.

Senior Membership – requires an initial capital investment with lower annual slip fees, membership in LPMA, right to serve on the board, vote, and other membership benefits. A partial refund of the capital investment is possible within the first seven years on a depreciating basis. The initial membership fee is an investment of \$7,000, with a \$3,000 non-refundable component. Senior Members are permitted a \$4,000 refund during the first 3 years and \$1,000 per year for the next 3 years with no refund available at the start of Year 7. The right to use continues following completion of the 7-year term of depreciation. The right to use is transferable to spouses only.

Associate Membership – full or part season membership in LPMA, no voting rights, and no obligations during or after the boating season. In 2019 Associates members will pay the dockage fees shown in Table 1 following.

Table 1 – 2019 Associate Membership Full Seasonal Rental Fees (May to October)

Boats	Fees
Up to 25 feet	\$1,549.00
Up to 30 feet	\$1,919.00
Up to 35 feet	\$2,274.00
Up to 37 feet	\$2,438.00
Over width beam surcharge in excess of 12 feet	\$319.00

No Frills – for boats under 20 feet, slip usage from June 1 to September 30, no obligations during or after the boating season. In 2019 No Frills will pay the dockage fees shown in Table 2 following.

Table 2 – 2019 No Frills Summer Seasonal Rental Fees (June 1 to September 30)

Boats	Fees
Less than 20 feet	\$1,128.00
Over width beam surcharge in excess of 8 feet	\$133.00
Personal Water Craft (PWC) on dock	\$708.00

As demonstrated in EXHIBIT 1C in the APPENDIX the rates at LaSalle Park Marina are commensurate with the available on-site facilities and services and lower than other marinas operating within LaSalle Park Marina's market area.

2.2 Operation of the Marina as Outlined in the Joint Venture Agreement

The City of Burlington is responsible for the on-shore facilities not otherwise the subject of the Joint Venture, namely the all internal roads leading to the Marina, the pier, the parking lot, the public boat ramp. The City will maintain these facilities to City standards as may be determined from time to time.

The LPMA undertakes all membership transactions in connection with the on-going operation of the Marina in accordance with Schedule C of the Joint Venture. The LPMA ensures that these funds are held in a separate bank account segregated from other operating funds that the LPMA possesses.

On a quarterly basis the LPMA pays to the City's Reserve Fund, or at such other time as may be determined by the City Treasurer, a sum equal to all Senior Membership transactions including both the refundable and non-refundable portions of the membership fee, including interest accrued thereon.

The City manages the Reserve Fund. The purposes of the Reserve Fund are as follows:

- (i) \$100,000 of the opening amount in the Reserve Fund is maintained for the potential dismantlement costs of the Marina infrastructure, subject to joint review by the Parties every three years with the first review occurring prior to the LPMA's Annual General Meeting in 2008.
- (ii) To fund the depreciating refundable portion of a Senior Member's initial membership fee as set out in greater detail in Table 3 below;
- (iii) To fund the transition from the financial operating model as it existed prior to January 1, 2005 to the financial operating model that was approved by the members of the LPMA at a special membership meeting held on January 27, 2005, and City Council on March 21, 2005 as more fully detailed in Table 3 on the following page.

In the event that there is a Winding Up of the Marina operation, the City shall use the funds held in the Marina Reserve Fund A – Dismantlement to disassemble and dispose of the Marina. In the event that the Reserve Fund A – Dismantlement has funds in excess of the amount required to disassemble and dispose of the Marina, the City shall place the excess funds in the City's Marina Reserve Fund C – Transition provided that there remain Charter members of the LPMA.

To the extent that there may be funds remaining in the Reserve Fund C – Transition at the time of the Wind Up, active LPMA Charter members having made an initial capital contribution outlay to the City for the construction of the Marina shall be entitled to share in the proceeds remaining in the Reserve Fund C – Transition on a pro rata basis up to the amount of their initial capital outlay, without interest.

In the event that any funds remain after the obligations identified above have been satisfied, the City shall in consultation with the LPMA determine how they are to be distributed or the use to which they shall be put.

2.3 Comparison of LaSalle Park Marina with Other Marinas in the Seasonal Market Area

We compared LaSalle Park Marina with the other marinas in the seasonal market area based on 17 facilities and services¹ considered by boaters to be the most desirable features in a marina (EXHIBIT 2).² Each of the marinas was evaluated based on features and values. Where a marina had a feature or service, but it was considered in need of improvement a lesser value was assigned (i.e. 4 rather than 5 for docks, 2 rather than 3 for a launch ramp) (EXHIBIT 3). Harbour West Marina received the maximum score of 62. LaSalle Park Marina received the maximum score for 10 of 17 facilities and services rated

Table 3 – Reserve Fund

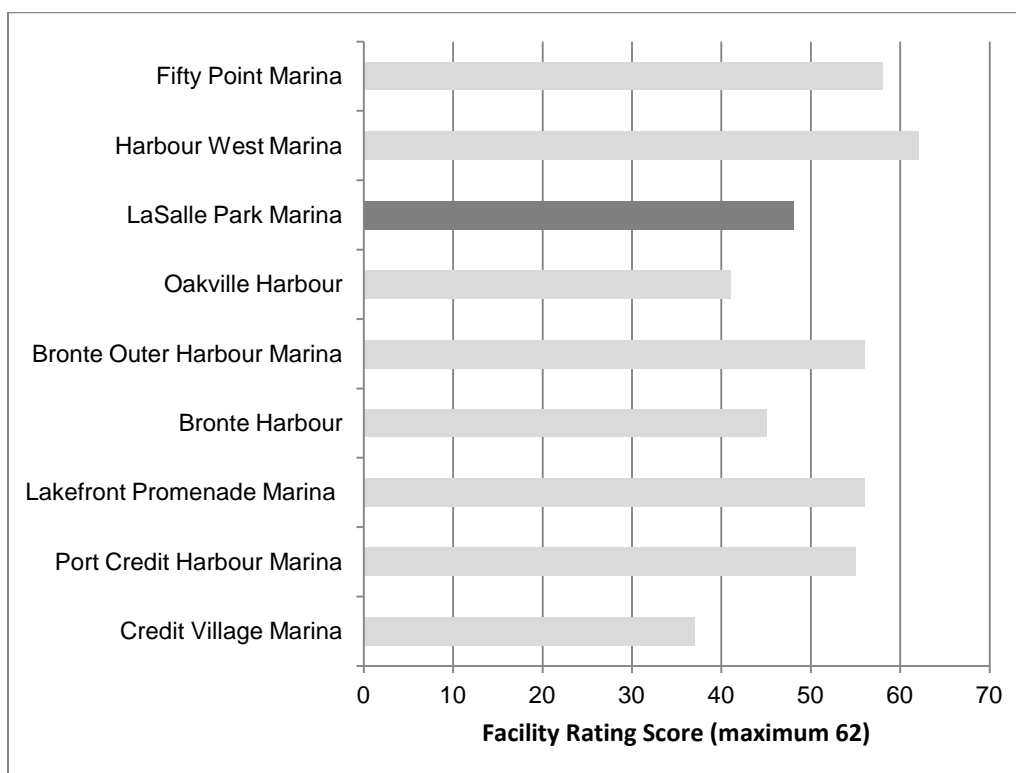
Fund	Purpose	Balance as of November 30, 2018	What Goes In	What Goes Out
A	In the event of the need to dismantle the Marina infrastructure	\$100,000	<ul style="list-style-type: none"> Annual interest earned Provision adjustments at 3-year reviews 	<ul style="list-style-type: none"> Cost for dismantlement of Marina Annual interest earned - to Fund C
B	Holds refundable portion of Senior Membership	\$17,000	<ul style="list-style-type: none"> Annual interest earned Refundable portion of Senior Membership 	<ul style="list-style-type: none"> Refund for Senior Members who relinquish before 7 years have elapsed Senior Membership annual depreciation Annual interest earned - to Fund C
C	Funds transitioning of Chartered to Senior Membership	\$326,457	<ul style="list-style-type: none"> Annual interest earned - Funds A, B, C Non-refundable portion of Senior Membership Annual interest earned Senior Membership annual depreciation 	<ul style="list-style-type: none"> Original capital outlay for Chartered members

for a total score of 48. Though it should be noted the launch ramp is municipally owned and operated free of charge, and the mast crane is operated through the BS&BC. See Figure 1 following. Lack of potable water on all docks (3 of 5 points), lack of 30 amp. power on all of the longer docks (3 of 5 points), fuel dock (4 points), on-site repair services (2 points), marine supplies (2 points), and laundry facilities (1 point) were responsible for the score of 48. Given the maximum score received for 10 of 17 facilities and services rated, LaSalle Park Marina's fees are good value for the facilities and services provided.

When we looked beyond the seasonal market area to the GTA/Golden Horseshoe Area, EXHIBIT 4 reinforces LPMA's decision not to increase rates in 2018 and 2019 (i.e. due to reduced occupancy rates) and that it was not in isolation. Harbour West Marina, Ontario Place Marina and Port Dalhousie Pier Marina have not increased their rates since 2017. Port Dalhousie Pier Marina has decreased their rates for 2019 due to a highly competitive market and an uncertain economic outlook for the St. Catharines area. In fact only Port Credit Harbour Marina and Outer Harbour Marina raised their rates by a greater percentage than 2018 over 2017.

¹ Safe piers, main & fingers docks; Vehicle parking; Washrooms; Water service on docks; Haul-out, launch & winter storage; Hydro (30 amps.) on docks; Security 24 hours; Pump out service; Fuel dock; Wi fi connection; Staff available for assistance; Launch ramp; Clean marine certification; Repair services; Marine supplies; Mast crane; Laundry facilities.

² 50, 75 and 75 boat owners were interviewed at the Toronto International Boat Show between January 12 and 18, 2014; January 9 and 17, 2016; and January 12 and 21, 2018 regarding the features they felt were most desirable at a home marina. They were then asked to rate each feature on a scale of 1 to 5, with 5 being the most desirable. We were not allowed to ask for any personal information, nor did we ask them to identify their home marina.

Figure 1 – Comparison of Marinas in Seasonal Market Area Based on 17 Facilities and Services

Source: EXHIBIT 3

2.4 Outlook for Future Occupancy Growth

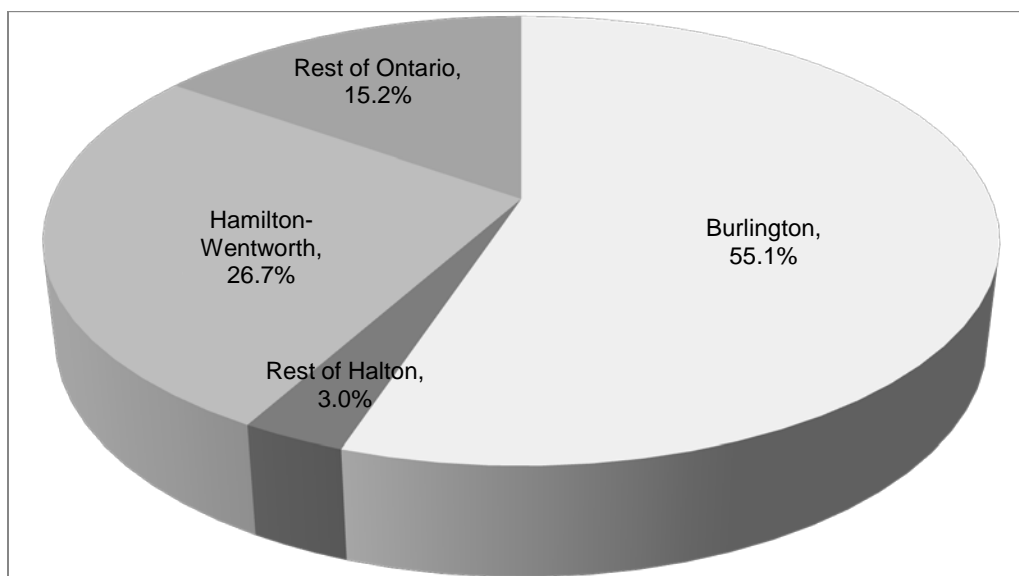
Our discussions with Management of LPMA indicate that the damage suffered by boats over the past several years has been the cause of the decreasing trend in occupancy and the resultant non-increase in slips fees to maintain as many of the seasonal boaters as possible. Management also believes that the damage is directly related to the inability of the existing wave break to suppress large waves during severe weather. Management's view is supported by coastal engineering reports. Current efforts underway regarding the replacement of the existing wave break with a new one in the order of \$4,000,000 have been sufficient to restore occupancies to the 90 percent range in 2018 and the potential for a similar occupancy level in 2019.

In 2018 2,416 of the 2,532 slips for rent in LaSalle Park Marina's seasonal market area were occupied for an overall market occupancy of 90.4 percent. The number of slips in the market place will be reduced after 2022 when the City of Mississauga takes over operation of Port Credit Harbour Marina from the Canada Lands Corporation the current property owner, thus putting greater pressure on LaSalle Park Marina and the other area marinas to meet the increased demand. The population of the seasonal market area is projected to increase by 25.9 percent between 2018 and 2033¹. Figure 2 following indicates the residency for members of LPMA. In addition as shown in EXHIBIT 5, the number of power and sail boats typically using a slip at a marina (i.e. 26 feet or more in length) is projected to grow by 46.5 percent between 2018 and 2033. Participation in power and sail boating is expected to increase by 12 percent during the same time period.

¹ Ontario Population Projections Update, Spring 2018, Ontario Ministry of Finance

No matter which operational model the City decides to use in moving forward with LaSalle Park Marina the market for slips is expected to be in a strong growth mode over the next fifteen years (i.e. until 2033)

Figure 2 – Residency of LaSalle Park Marina Association Members



2.5 Financial Viability With Current Operating Model

Our examination of the financial statements for 2016, 2017, and 2018 for LPMA, BS&BC, and BAS (2018 only) indicate that the marina operation (i.e. LPMA) and the two associated organizations (i.e. BS&BC, BAS) are currently all financially viable operations. See EXHIBITS 9, 10 and 11. LPMA annually sets aside capital and equipment replacement funds as shown in Table 4.

Table 4 – LaSalle Park Marina Association Capital and Equipment Replacement Funds

Fund	As of November 30, 2018
LPMA held New Wave Break Replacement Fund	\$556,400
LPMA held Floating Wave Break Cleaning Fund	\$20,000
LPMA held New Dock Capital Fund	\$18,000
New Office Fund	\$1.00

Since the City has agreed to pay for the proposed new wave break currently out to tender, the LPMA is proposing that \$500,000 of the New Wave Break Replacement Fund be transferred to a new Electrical Upgrade Reserve Fund with the balance of approximately \$56,400 being moved to the New Office Fund. The Electrical Upgrade Reserve Fund would cover the cost of installing electrical and water service to all docks and bubblers to protect the docks during below freezing conditions.

The availability of potable water and 30 amp. service at all of the 30 foot slips would provide an opportunity to increase annual seasonal slip fees and generate more interest from local and area boaters to lease a slip.

2.6 2019 Full Cost of Capital Asset and Equipment Replacement

LPMA, BS&BC, BAS and the City of Burlington have significant capital and equipment investments in areas they currently occupy or are responsible for in the marina. As shown in EXHIBIT 12 the total for LPMA is \$1,362,500, in EXHIBIT 13 the total for BS&BC is \$565,400, in EXHIBIT 14 the total for BAS is \$175,200, and EXHIBIT 15 the total for the City of Burlington is \$1,462,000 for a total of \$3,565,100. In the event that an alternative operating model for LaSalle Park Marina is chosen part or all of the replacement cost will have to be considered in the new agreement.

2.7 Pros and Cons of Current Operating Model

Table 5 following provides the pros and cons of current LPMA operating model.

Table 5 – Pros and Cons of Current LaSalle Park Marina Operating Model

Pros	Cons
<ul style="list-style-type: none"> Provides a cost effective marina on Burlington's waterfront City has no obligation to cover marina operating losses LPMA is responsible for 38 percent of capital asset and equipment replacement Provides City with control over what happens at and in marina basin Creates economic impacts due to transient boater expenditures at no cost to City Provides operational venue for two other important boating organizations (BS&BC, BAS) No new agreement would need to be reached with the City of Hamilton and the Hamilton Port Authority 	<ul style="list-style-type: none"> City is responsible for 41 percent of capital asset and equipment replacement Depends on a high amount of volunteer labour which can make scheduling tasks difficult

SECTION 3 – POTENTIAL OPERATIONAL APPROACHES

3.0 Introduction

There are a number of ways the marina could operate (i.e. publically owned and operated; publically owned and contracted out for operation; privately owned and operated, a public/private partnership or an arm's length non-profit operation much like LaSalle Park Marina is currently operated). There are advantages and disadvantages for each:

3.1 Public Marina Operational Model

3.1.1 City Owned and Operated

With a city owned and operated model the City would be responsible for all operational costs, and all asset and equipment replacement costs.

In order for this option to work the City would have to either own the land and water lot or lease the land and water lot. The City would be required to obtain the necessary assets and equipment to operate the marina with 100 percent of the cost carried by the City. The City could then operate the marina themselves (e.g. Lakefront Promenade Marina in Mississauga, Cobourg Marina in Cobourg). The advantage is that the City receives 100 percent of the profit and has complete control over how the marina is operated. Municipalities can usually borrow money at a better rate than a private developer. Economic spin-off would accrue to the City as the marina staff would be the first point of contact for visitors and they could be encouraged to stay longer and partake in activities away from the marina itself. The major disadvantages would be that the City would be responsible for financing the cost of acquiring the necessary assets and equipment and 100 percent of any losses would be the City's responsibility.

Lakefront Promenade Marina is owned and operated by the City of Mississauga. The land base occupied by the Lakefront Promenade Marina was leased to the City in 1989 for a period of 50 years at a rent of one dollar per year by the Credit Valley Conservation Authority. Under the terms of the lease the City is responsible for all taxes, management, maintenance, and associated costs. The Conservation Authority may share the costs of any major repairs or maintenance costs such as reconstruction of coastal protection and dredging. The water lot was leased jointly to the City and the Conservation Authority in 1989 for a term of 49 years. The lease calls for an annual rent equal to 10% of all gross revenues derived from the use of the federal water lot.

The Port Credit Yacht Club occupies approximately 10.1 acres of the land-base of Lakefront Promenade Park and part of the boating basin. The land is leased to the Yacht Club for a term of 49 years coinciding with the City's lease with the Federal Government at an annual cost of \$1,336 per acre. In addition the City has a management agreement with the Yacht Club whereby the Club rents its portion of the boating basin for 13.5% of gross docking fees. The lease agreement stipulates that the docking fees charged by the Yacht Club reflect the market rates for slips in the Metropolitan Toronto Area. The rental revenue from the Yacht Club goes to the City and not Lakefront Promenade Marina. Upon expiration of the lease between the City and the Yacht Club in 2038, the clubhouse and all other fixed improvements to the land-base and water lot become the property of the City.

The Mississauga Sailing Association occupies 3.6 acres under license agreement with the City. This agreement allowed the Association to construct a clubhouse and fenced compound for dry storage of boats. No wet mooring is provided but they have use of the adjacent public launch ramps and have permission to attach their docks to the launch ramp pier. The Association pays no rent as it is considered a community program providing a local public service.

Lakefront Promenade Marina is run by a full time staff of three including a Marina Manager and two marina operators who are non-unionized City staff in the Department of Community Services, Parks and Recreation Division. During the boating season 6 to 8 summer students are employed at the facility.

While there is no office/administrative position the Marina Manager can call on administrative assistance from the Parks and Recreation Division. The marina has a ten year capital budget. The cost of dredging is covered through a capital budget submission. Winter storage for 40 boats is available in the Lakefront Promenade parking lot. A hydraulic trailer is rented in the spring and fall to lift and move the boats accommodated for winter storage.

Lakefront Promenade Marina has 24 hour surveillance cameras to provide security. The Marine Unit of the Peel Regional Police Service occupies space on the second floor of the marina building at the marina which provides additional security 24/7. A security gate prevents unauthorized access from shore to the docks. Seasonal boaters purchase a security access card.

Lakefront Promenade Marina has been full every year since it opened in 1993. A 30 foot slip with 30 amp. power is \$73.02/ft. in 2019. See EXHIBIT 16 for details on the number and size of slips, facilities and services, 2019 fees and user patterns, and major space requirements at Lakefront Promenade Marina as well as all the other marinas described in this section of the report.

Cobourg Marina is owned and operated by the Town. Cobourg Harbour in which the marina and Cobourg Yacht Club are situated, was created by two piers constructed by the Federal Government. The two piers, the 32.1 acre basin, and 7.4 land-based acres used by the marina and yacht club are owned by the Federal Government. A further 9.9 land-based acres used by the marina and yacht club are owned by the Town of Cobourg. In 1971 the Town entered into a 50 year lease agreement with the Federal Government for the use of the two piers, the water lot and 7.4 land-based acres. The agreement with the Federal Government calls for an annual payment equal to 15% of the gross revenues derived from the rental of seasonal and transient slips. In 1972 the Town of Cobourg constructed a centre pier to serve as a base for the municipal marina within the inner basin. In accordance with the lease, the Town is responsible for all maintenance of facilities and minor repairs required as a result of normal use and exposure to the elements. The Federal Government will contribute 50% of the cost of repairs, up to an annual limit of \$15,000. The lease also stipulates that the Canada Coast Guard search and rescue vessel continue to occupy the concrete jetty on the east pier and that Coast Guard staff continue to occupy the station on the east pier.

The Cobourg Yacht Club occupies 1.1 acres of the 9.9 Town owned land-base associated with the harbour. The Town owns the clubhouse that it built for the exclusive use of the Cobourg Yacht Club. Neither the Town nor the marina receives any revenue from the Yacht Club for the use of the land. The Club does pay municipal property taxes. The Yacht Club also has a fenced dry-sail compound which is used for storage of sailing dinghies. The Town justifies the free use of the building and compound believing that the Yacht Club's affiliation with other clubs around the Lake will lead to increased potential as a layover destination for cruising boaters and increase the potential for tourism dollars as an economic spinoff. The Yacht Club rents 55 of the 149 seasonal slips at the annual rate charged to all other seasonal boaters.

The Cobourg Marina is operated by one full time Marina Manager and two full time casual marina operations staff. These three individuals are part of the Community Services Department. One additional full time person from the Engineering Department is available to the marina for a period of up to six months each year for maintenance and repairs. All full time employees are unionized. During the boating season 12 to 14 summer students are employed as dockhands at the transient slips, at the fuel dock, pump-out station, and to handle the sale of sundries at the marina Office.

Special capital expenses such as dredging or repairs to the three piers are taken from the designated, interest bearing reserve created from the annual operating profit. If the reserve is exhausted the money is borrowed and paid back.

A fenced compound behind the Marina Office provides seasonal boater parking in the summer and boat storage in the winter. The compound is large enough to accommodate all of the seasonal boaters (i.e. 149). Until 2018 the Cobourg Yacht Club rented a crane and boat hauler for two days in the spring and fall for the launch and lift out of all boats to be stored in the compound over the winter. The revenue from

the launch and lift out went to the Yacht Club and the revenue from the winter storage to the Cobourg Marina. As of 2019 the Yacht Club no longer has sufficient member interest to undertake the winter storage. Council has been asked to approve an equipment cost of \$487,000 and infrastructure improvements of \$140,000 associated with the purchase of a mobile travel lift. No decision has been made as of this date. During the daytime, security is provided by the Marina Manager and staff and signs are posted warning that the premises are being continually monitored by marina staff during the day. At night, private security personnel are hired to provide this service. There is free access to the main and finger docks.

Cobourg Marina has made a profit every year since its opening in 1972. A 30 foot slip with 30 amp. power is \$64.00/ft. in 2019.

Table 6 provides the pros and cons with the City owning and operating the marina.

Table 6 – Pros and Cons for Municipally Owned and Operated Marina

Pros	Cons
<ul style="list-style-type: none"> Provides a steady source of revenue to support other waterfront activities Provides full and part time jobs associated with marina operation Provides City with control over what happens at and in marina basin Increase economic impacts accruing from operation of marina Increase economic impacts due to transient boater expenditures 	<ul style="list-style-type: none"> City would need to hire and train staff to operate the marina City would be responsible for maintenance of a seasonally high risk business City would be responsible for all infrastructure and equipment replacement Labour costs would increase as volunteer labour would no longer be possible thus reducing profitability Some operational costs (i.e. utilities) are increasing much faster than inflation and annual fees thereby reducing profitability A new agreement would need to be reached with the City of Hamilton and the Hamilton Port Authority

3.1.2 Direct Management Contract

With a city owned and direct management contract operated model the City would be responsible for all operational costs, and all asset and equipment replacement costs, however, labour cost would be reduced by having the marina operated by a contracted marina manager.

This is the preferred method when the municipality wants to retain ownership of the marina or when municipal, provincial or state law prevents a lease. The length of typical marina management contracts varies from three to 10 years, with 3 to 5 years the most common. Renewal is based on good revenues and performance. Generally, the municipality pays an annual management fee, which increases each year by a certain percentage, plus in some cases a percentage of revenues.

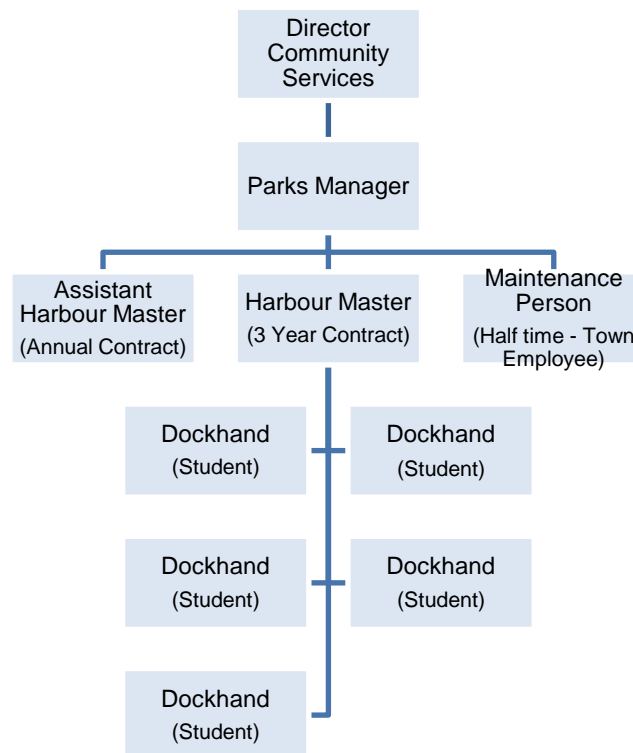
Port Elgin Harbour Marina in Port Elgin operates from May 1st until October 31st annually. A Harbour Master oversees the operations under the direction of the Parks Manager who reports to the Director of Community Services. The Harbour Master is employed for approximately 30 weeks of the year beginning April 1st. An Assistant Manager is employed for approximately 26 weeks. Depending on budget five to seven casual staff are hired annually to assist with the harbour operations and work for approximately 35 hours each week of their employment. Figure 3 shows the current staffing levels and organizational structure.

The Harbour Master must be an adult and is required to have a minimum 3 to 5 years experience. Either the Harbour Master or Assistant is required to be on site with a least one dockhand during all operating hours of the marina. The Harbour Master is employed on a contract for approximately 30 weeks per year including a small percentage increase each year in keeping with what is offered to municipal staff at the

same level (i.e. 1½ to 3%). During weekends and statutory holiday weekdays from June 1 until Labour Day at least two dockhands should be on duty during all operating hours. The maintenance person works part time for the marina with the other time assigned to other duties with the municipality. This same procedure for maintenance is common with small municipally operated marinas. At least one of the marina employees on duty should have training in basic first aid. Dockhands are typically responsible for assisting seasonal and transient boaters when required, operating the fuel pumps and pump out and keeping the washrooms and docks clean at all times. A 30 foot slip with 30 amp. power is \$65.97/ft. in 2019.

The Manager of *Trent Port Marina* in Quinte West is employed each year from April 1st until October 31st or such time as the marina is closed for the off season. The Marina Manager is employed for an agreed upon number of weeks each year for a term of three years, with the opportunity for renewal with an increase for a second three year term. Hiring of casual staff and their supervision is the responsibility of the Marina Manager, although they are paid by the City. A 30 foot slip with 30 amp. power is \$52.80/ft. in 2019.

Figure 3 – Port Elgin Harbour Organizational Chart



Ensuring that the Marina Manager/Harbour Master is in place for a number of years will promote a sense of stability of operation among the boaters and should allow for a smoother transition from one year to the next with new programs and policies that are introduced.

Table 7 provides the pros and cons with the City owning and operating the marina under a direct management contract.

Table 7 – Pros and Cons for Municipally Owned and Direct Management Contract Operated Marina

Pros	Cons
<ul style="list-style-type: none"> Provides a steady source of revenue to support other waterfront activities Provides full and part time jobs associated with marina operation Provides City with control over what happens at and in marina basin Increase economic impacts accruing from operation of marina Increase economic impacts due to transient boater expenditures Contracted Marina Manager would train staff to operate the marina Contracted Marina Manager would be less expensive than municipal employee thus reducing operating costs and increasing profitability 	<ul style="list-style-type: none"> City would be responsible for maintenance of a seasonally high risk business City would be responsible for all infrastructure and equipment replacement Labour costs would increase as volunteer labour would no longer be possible thus reducing profitability Some operational costs (i.e. utilities) are increasing much faster than inflation and annual fees thereby reducing profitability A new agreement would need to be reached with the City of Hamilton and the Hamilton Port Authority

3.1.3 Profit Sharing Management Agreement

Under this operating scenario the City continues to own the marina, has overall approval on how it is run, but is not responsible for its operation. An agreement is structured so that any net profits after operational expenditures are shared.

Kincardine Marina which is owned by the Town of Kincardine is operated by Kincardine Yacht Club under the terms of a 10 year agreement with the municipality with the option of extending the agreement for another five year term. All rates are proposed by the yacht club and approved by the Municipality. The yacht club is required to submit a business plan and budget to the Recreational Services Committee for the Municipality's review and approval. The business plan budget must cover all items of operation, improvement and maintenance. All marina staff are employed by the yacht club. The yacht club is also solely responsible for the acquisition of goods and the choice of suppliers. Cash generated from the net marina operating profit is first used to repay any existing loan advanced from the Equipment Replacement Reserve Fund and the remainder is to be transferred to the Marina Reserve Fund. While the Municipality has no say in the staffing positions or levels at the marina as per the agreement they have received no complaints about the level of staffing by any boater, member of the Kincardine Yacht Club or the public. The profit sharing schedule is provided in Figure 4. A 30 foot slip with 30 amp. power is \$51.00/ft. in 2019.

Figure 4 – Profit Sharing Schedule with Kincardine Yacht Club

- For year 1 and year 2 of the agreement the cost sharing will be:
 - 50% of the net profit after operating expenditures to the K.Y.C.
 - 50% of the net profit after operating expenditures to the Municipality

In the event of a net loss:

- The Municipality will absorb the financial loss and the contractor will not receive a payment
 - The net loss will be subsequently funded from the Marina Reserve Fund
- For years 3 through 10, the funding arrangement will be based on PSAB¹ requirements with direct relevance to the amortization of the harbour assets.

¹ Public Sector Accounting Board

Both parties recognize that in Year 2, a specific negotiation will take place once all PSAB information is known and an appropriate financial distribution schedule will be created in accordance with PSAB requirements, subject to recommendation by Committee, and approval by Council.

Port of Orillia Marina has been in operation since 1971 and has always operated as a transient marina with 220 slips. The marina is owned by the City of Orillia and operated by the Chamber of Commerce under three year contracts in which the Chamber of Commerce gives a percentage of sales to the City each year. Although the Chamber would not reveal the percentage of sales, the percentage has increased one percent with each of the last five contracts (i.e. over 15 years). All marina staff are hired and employed by the Chamber and all operating costs are the responsibility of the Chamber. Since all employees are hired on a seasonal basis, salaries and benefits are lower than if they were municipal employees. The marina has produced a profit every year since 1971. The City is responsible for all capital cost aspects of the marina (e.g. dock replacements, power pedestal replacements, etc.). The new marina building that opened in 2017 has private washrooms and showers, and laundry facilities. As part of the agreement with the City the marina does not offer any services that are offered by other City businesses.

According to our discussion with officials at the Port of Orillia Marina and our interviews with the yacht and boating clubs on Lake Ontario in Ontario and New York, transient boaters are looking for the following facilities and services when considering a marina:

Table 8 – Importance of Amenities and Services for Transient Boaters

Facility/Service	Percentage Ranking Most Important	
Safe (relatively sheltered) marina basin harbour	100.0%	Extremely Important
Clean and well lit washrooms	100.0%	
Fuel service	100.0%	
Staff at docks to assist in docking and providing local directions and advice	100.0%	
Access to amenities within walking distance	98.4%	
Sturdy full length finger docks	95.3%	
List in marina office with telephone numbers of off-site services of interest to boaters	93.8%	
Restaurant within walking distance	90.6%	Very Important
Internet/WiFi	82.8%	
30 amp dockside power	82.8%	
Clean and well lit shower facilities	78.1%	
Dockside freshwater supply	76.5%	
Pump out service	76.2%	
Access to provisions on-site	67.2%	Somewhat Important
50 amp dockside power	64.1%	
Restaurant on-site	64.1%	
Variety of nearby attractions or events	64.1%	
Security gates at entrance to main docks	60.9%	
A place to exercise pets	51.5%	

Other amenities mentioned less frequently; the provision of a shuttle service to town or the availability of bicycles.

Figure 5 following indicates the range of occupancies that can be expected at a transient marina in an established market. For this reason, few municipally owned and operated and no privately owned and operated marinas depend entirely on the transient market for financial stability. For example, Credit Village Marina in Mississauga has recently added seasonal slips.

Figure 5 – Occupancy Rates for Transient Slips in an Established Market

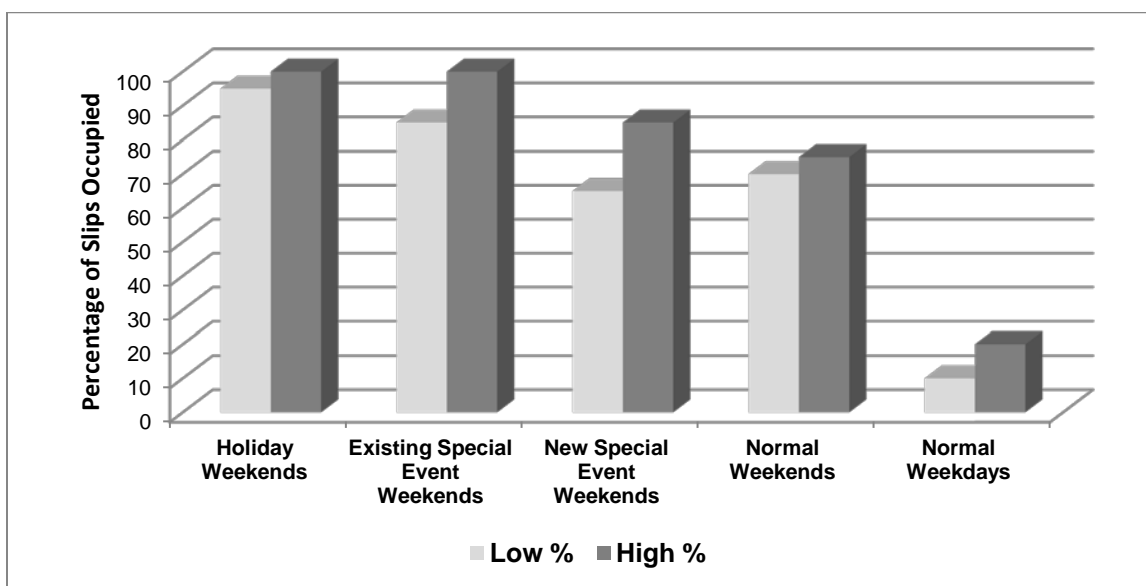


Table 9 – Pros and Cons for Municipally Owned and Profit Sharing Operated Marina

Pros	Cons
<ul style="list-style-type: none"> • Provide a source of revenue to support other waterfront activities • No marina staff would be employed by the City thus reducing operating costs and increasing profitability • Capital funding requirements are first covered by the Marina Reserve Fund, and then the other party sharing the profit 	<ul style="list-style-type: none"> • City would have less control over what happens at and in marina basin • City would receive a lesser percentage of operating profits • City would have no say in the staffing positions or levels • City would be responsible for operating losses not covered by the Marina Reserve Fund • City would be responsible for capital funding requirements not covered by the Marina Reserve Fund or the other party sharing the profit • A new agreement would need to be reached with the City of Hamilton and the Hamilton Port Authority

3.2 Public/Private Marina Operational Model

With a public/private marina operational model, the City would own the marina and lease its operation to a private operator for a specified number of years for an agreed upon annual payment to the City.

For this option to work the City would have to either own the land and water lot (as the case with Toronto Island Marina in Toronto and Bluffer's Park Marina in Scarborough), or lease the land and water lot and then turn around and arrange a lease with a private operator (as is the case of Port Dalhousie Pier Marina in St. Catharines). The City would likely have to bear a portion of any construction and asset replacement if required. The advantages would be that the City would not be responsible for the total capital cost of construction, the City would not be responsible for the operating costs and 100 percent of any losses would be the private developer's responsibility. The disadvantage of this approach is that the City would receive a smaller portion of any profit and the private partner could walk away if the losses grew too large. In addition, private operators tend to defer major maintenance tasks to the end of the lease agreement which may mean the City would likely incur some of the maintenance costs.

The *Toronto Island Marina* (on Centre Island in Toronto) and *Bluffer's Park Marina* (in Scarborough) are owned by the City of Toronto and administered through the Department of Parks, Forestry and Recreation. The water lots and infrastructure (i.e. seawalls, etc.) for Toronto Bluffer's Park in Scarborough (including Bluffer's Park Marina, Bluffer's Park Yacht Club, Cathedral Bluffs Yacht Club, and Highland Yacht Club) were provided by the Federal Government and the Toronto and Region Conservation Authority at no cost to the City of Toronto.

Based on a call for tenders in 2006, separate 20 year license agreements commencing July 1, 2006, have been granted to private operators calling for 5% of gross annual revenues from mooring fees and 8% from gross annual revenues obtained from all other sources (includes winter storage, fuel dock, pump out, repairs and restaurant). The operators of these marinas are responsible for all operating costs, capital costs, dredging costs, utilities and property taxes. As part of the license agreements the operators of Toronto Island Marina are to invest approximately \$5,100,000 over the 20 year term in capital improvements and repairs and maintenance. Likewise, the operators of Bluffer's Park Marina are to invest approximately \$4,800,000 over the 20 year term in capital improvements and repairs and maintenance. A 30 foot slip with 30 amp. power at Toronto Island Marina is \$51.00/ft. in 2019 and \$96.00/ft. at Bluffer's Park Marina.

Port Dalhousie Pier Marina (in St. Catharines) was constructed in 1991 on lands leased to Port Dalhousie Pier Inc. from the City of St. Catharines for the purposes of constructing and operating a marina. One of the four parcels of lands and water lots leased to Port Dalhousie Pier Inc. is leased from the Federal Government and then in turn leased to the private operator. The City has a 49 year agreement with the Federal Government to lease the one parcel of land at an annual cost of \$500.00 plus 20% of all gross revenues accruing to the City from that parcel of land. The City of St. Catharines's lease with Port Dalhousie Pier Inc. is in its second twenty year term (i.e. 1992 to 2012, 2012 to 2032). There is an option to renew the lease for a further possible twenty year term in five year periods subject to renegotiated provisions of the lease. The current lease commenced at 15% of gross receipts and calls for an increase of 1% of gross revenues every two years. Lease payments are due and payable quarterly.

A 30 foot slip with 30 amp. power is \$86.66/ft. in 2019.

Likewise, the New Harrison Marina in Toledo Ohio, and the Henderson Municipal Marina in Detroit Michigan are City owned and privately operated. In the case of New Harrison Marina, the private operator gets an annual management fee that increases three percent per year, plus 13.5 percent of net operating profit. The private operator of Henderson Municipal Marina in Detroit pays a flat annual rental fee plus a percentage of various gross revenues to the City.

In our discussions with these operators, it was clear that the provision of seasonal slips was the crucial element in allowing them to generate sufficient cash flow to be attractive to a private operator. None of the Ontario facilities operated under leases provide dedicated transient slips. The concern most frequently raised by the municipalities was the difficulty in having the private operator undertake infrastructure improvements in a timely manner. In one case the required infrastructure improvements were left to the last year of the lease and an attempt was made to only complete them if a lease renewal was granted. Generally, long-term leases are only successful with large marina operations with a minimum of 350 to 400 seasonal slips.

We are unaware of any municipally owned transient-only marinas that are operated privately through a long-term lease agreement. There are numerous examples where elements of municipally owned marinas are leased, these include the restaurant component, the repair component, marine services or chandlery store, and vending machine component.

If this form of operating model is to be considered, we recommend that the City spell out the terms for required capital investment within a specified period (i.e. \$5,000,000 over a twenty year lease with \$1,000,000 invested in Year 1 to 5, an additional \$2,500,000 by the end of Year 15 and remaining \$1,500,000 by end of Year 20.

Table 10 provides the pros and cons with the City owning the marina and having a private operator undertake the operation of the marina.

Table 10 – Pros and Cons for Municipally Owned and Privately Operated Marina

Pros	Cons
<ul style="list-style-type: none"> • The City would continue to have a marina on the waterfront • City would receive an annual payment according to the lease agreement • Up to 100 percent of the capital asset and equipment costs would be borne by the private developer/operator • 100 percent of any losses after expenditures would be borne by the private developer/operator 	<ul style="list-style-type: none"> • City would have little or no control over what happens at and in marina basin • City would receive an annual payment according to the lease agreement which would be less than if the marina were municipally operated • City might have to pay a portion of capital asset costs as an enticement • Marina in private hands would expect higher return on investment therefore fees and charges would be higher • Would likely be less transient slips, leading to loss of spending in City and surrounding area and resultant economic impacts • Some expenses at private marinas are higher (i.e. insurance costs) leading to higher fees • Private operator would want to maximize profit margin by increasing number of slips to the maximum possible which would likely mean less opportunity for activities such as canoeing and kayaking • If number of slips remains in low 200 range it will be difficult to attract private operator due to higher desired profit margin (i.e. 15 to 20%) • Private operator would want a fuel dock and winter storage revenue • Would threaten viability of BS&BC and BAS • A new agreement would need to be reached with the City of Hamilton and the Hamilton Port Authority

3.3 Private Marina Operational Model

Under a private marina operational model, a private individual or corporation would own and operate the marina. The City would have no involvement or responsibility for the marina operation.

A private developer/operator would either own the land and water lot or own the land and lease the water lot. The private developer/operator would build the marina with 100 percent of the cost carried by the private developer. The advantage of this approach would be that there would be a marina on the City's waterfront with no financing cost to the City and 100 percent of any losses would be the private developer's responsibility. The disadvantage would be that the City would have little control over how the marina was operated and maintained and the private operator would be more interested in ensuring that visitor expenditures remained within the marina property and not in the downtown area. A private developer building and operating the marina would be faced with higher financing costs than the City. Although the revenue generated by operating the marina would be similar to a municipally run marina, a private operator would face higher annual disbursements in the form of higher insurance cost, property taxes, and property rent. Fees and other charges are typically higher than a municipally operated marina as the desired profit margin is higher.

Virtually all privately operated marinas in Ontario include winter storage, a fuel dock, and chandlery, and more than 75 percent provide full or some form of repair service as a means of increasing their after

expense profit. Winter storage can provide almost as much annual revenue as seasonal slip rentals. The profit margins for a fuel dock are (15 to 20%); for a chandlery (35 to 40%); and for a repair service (20 to 25%).

Wye Heritage Marina in Midland, Ontario is one of the largest private marinas in Ontario with 800 slips ranging from 24 to 50 feet, and a land base of over 16 acres. The marina is owned by Maple Leaf Marinas a Canadian owned company which also owns four other marinas. Wye Heritage was developed in 2001 at a cost of \$28,000,000. Employees include a Marina Manager, assistant marina manager and 16 other full time staff and 34 casual staff. It is considered a full service marina offering seasonal and transient slips; a repair service including hulls, engines, electrical, sails, fiberglass and a paint shop; fuel dock and pump out station; 30,000 square metres of outside and inside winter storage for 650 boats; and a full chandlery. The marina hosts at least one event each month between June and September. It has a 5 anchor, 5 diamond clean marine program rating. It is possible to drive and park a vehicle at 80 percent of the slips. A 30 foot slip with 30 amp. power is \$80.00/ft. in 2019.

Erieau Marina in Erieau, Ontario was established in 1982 and remains a family owned business offering 300 slips ranging from 26 to 46 feet with 15, 30 and 50 amp. service and accommodates power and sail boats up to 100 feet in 12 feet of water. The water lot containing the marina is owned by the family. The marina has a Marina Manager, assistant marina manager and five other full time staff. Twelve staff are employed on a part time basis. It is a full service marina with three launch ramps for those wishing to trailer their boat. The marina has a full ships store, fuel dock and repair service for hulls, engines, electrical and sail. They have a 60 ton travel lift, 35 ton hydraulic trailer, 5 ton fork lift and a mast crane to assist the repair service and winter storage for 200 boats. A 30 foot slip with 30 amp. power is \$55.00/ft. in 2019.

Family owned 200 slip *Crate Marine Belleville* in Belleville, Ontario occupies the former site of the Morch Marina. The Crate family opened the marina in 2013. In addition to a Marina Manager, assistant marina manager and three other full time staff, the marina employs four full-time technicians offering both Volvo Penta and Mercury and MerCruiser certification. The marina has a 50 ton marine travel lift, 10 ton fork lift, and 30 ton hydraulic trailer that are used for their repair service (i.e. engines, electronics, hulls, sails) and outdoor winter storage. Crate Marina Belleville is one of a few marinas in Ontario that can accommodate more boats for winter storage (i.e. 250) than they have slips.

The marina has a partnership with the adjacent Travelodge Hotel which allows marina customers access to the swimming pool and tennis courts and preferential rates for overnight stays. Guests of the hotel receive access to the Crate Marine facility where some transient slips are held for hotel guests.

A 30 foot slip with 30 amp. power at Crate Marine Belleville is \$57.83/ft. in 2019.

Frenchman's Bay Marina in Pickering, Ontario which opened in 1972 is owned by Pickering Harbour Company and offers 350 slips of which 300 are leased on a seasonal basis. The slips range from 25 feet in length to 45 feet. A new dock was installed in 2014 with a gated entrance, that accommodates boats up to 70 feet. Each berth has potable water, and a power pedestal with 50 plus 20 amp. power. The marina has 5 acres of parking, and space to store 100 boats outside for the winter, a fuel dock, limited repairs (i.e. hulls, engines), and a chandlery. The marina is open all year for in-water storage and live aboards. It is also a phone-in reporting centre for Canada Customs. The marina's Lake House Event Centre is used year round for corporate and family events including meetings, parties, weddings and reunions. Frenchman's Bay Marina employs a Marina Manager, assistant marina manager as well as 7 other full time employees and 15 casual staff.

Work was completed in 2015 on a \$9,000,000 reconstruction of the Frenchman's Bay Harbour entrance including wave break repair and the widening of the channel to make entrance safer for boaters. The City of Pickering, the province, and the federal government each contributed one-third of the cost.

A 30 foot slip with 30 amp. power is \$81.25/ft. in 2019.

Collins Bay Marina in Kingston, Ontario is a family owned and operated marina that opened in 1971. The marina has 304 slips that are available for seasonal and transient use. In addition to a Marina Manager and assistant manager there are four other full time employees and 10 casual staff. The marina has a fuel dock, limited ships store/chandlery and winter storage for 200 boats outside. While the marina does not have a repair service they do allow boaters to work on their boats on the site and for outside contractors to work on-site provided they have the appropriate insurance coverage. The marina has had 100 percent occupancy for the past three years.

A 30 foot slip with 30 amp. power at Collins Bay Marina is \$59.00/ft. in 2019.

Collins Bay Yacht Club operates from Collins Bay Marina leasing slips at a discount and has its own on-site clubhouse. The yacht club operates a sailing school for adults and youths.

The two water lots used for the marina and yacht club are leased from the province.

Table 11 – Pros and Cons for Privately Owned and Privately Operated Marina

Pros	Cons
<ul style="list-style-type: none"> The City would receive a one-time payment for their assets City would receive an annual payment for the lease of water lot according to the lease agreement 100 percent of the capital asset and equipment costs would be borne by the private developer/operator 100 percent of any losses after expenditures would be borne by the private developer/operator 	<ul style="list-style-type: none"> City would have little or no control over what happens at and in marina basin Would require selling City's marina assets to the private owner/operator Marina in private hands would expect higher return on investment therefore fees and charges would be higher Would likely be less transient slips, leading to loss of spending in City and surrounding area and resultant economic impacts Some expenses at private marinas are higher (i.e. insurance costs, realty taxes) leading to higher fees Private operator would want to maximize profit margin by increasing number of slips to the maximum possible which would likely mean less opportunity for activities such as canoeing and kayaking If number of slips remains in low 200 range will be difficult to attract private owner/operator due to higher desired profit margin (i.e. 15 to 20%) Private owner/operator would want a fuel dock and winter storage revenue Private owner/operator would want more land area for revenue generating activities than is presently available on site Would threaten viability of BS&BC and BAS A new agreement would need to be reached with the City of Hamilton and the Hamilton Port Authority

3.4 Arm's Length Operational Model

Under an arm's length operating model, the City would either create another agency to operate the marina or have it operate under an existing agency such as the Chamber of Commerce. Operational costs would be covered by the arm's length agency but the City would likely be responsible for up to 100 percent of the asset replacement costs.

The agency would require separate administration and other human resources which may currently be provided by the City which is not the case for the City of Burlington under the existing operational model. Revenue from the operation of the marina would have to cover the operational costs of the agency.

Following we describe two different forms of an arm's length operating model.

Since 1991 Harbourfront Centre a non-profit charitable organization set up by Harbourfront Corporation, a federal crown corporation has operated *Marina Quay West*, *Marina Four*, and *John Quay* within a 10 acre (40,000 square metre) site on Toronto's waterfront. Marina Quay West has 200 slips ranging from 30 to 60 feet in length, Marina Four has 100 slips ranging from 30 to 40 feet, and John Quay the transient marina space has 560 feet of concrete seawall that can accommodate approximately 14 boats 40 feet and longer. The three marinas are operated by a Marina Manager, two assistant marina managers, and 7 full time program staff. During the boating season 40 casual staff are employed. There is 30 and 50 amp. power at all three marinas, a coin operated laundry service at Marina Quay West and John Quay, and a pump out at John Quay. Since its inception in 1991 the organization has only used monies from the reserve fund once in order to break even. Occupancy at the seasonal slips (i.e. Marina Quay West and Marina Four) has been above 90 percent every year.

The 2019 fee for use of the seasonal slips at Marina Quay West and Marina Four is \$107.50/ft. with 30 amp. power.

Harbourfront Centre also offers a series of power and sail boating programs out of Marina Quay West and Marina Four as shown in Table 12 following.

Table 12 – Power and Sail Boating Programs Available from Harbourfront Centre

Program	Fees
Sail Canada Basic Dinghy Sailing	\$485.00
Sail Canada Intermediate Dinghy Sailing	\$520.00
Introductory Sailing Experience	\$140.00
Sail Canada Basic Cruising	\$755.00
Introduction to Power boating	\$130.00
Sail Canada Basic Power Course	\$595.00
Sail Canada Intermediate Cruising	\$1,215.00
International Master of Yachts - Theory Course	\$1,995.00
International Master of Yachts - Practical Course	\$3,095.00
International Certificate of Competency - Theory & Practical	\$695.00
International Certificate of Competency - Practical Test	\$265.00
International Certificate of Competency - In- Class Theory	\$625.00
International Certificate of Competency - Exam Challenge	\$365.00
Sail Canada Coastal Navigation	\$725.00
Sail Canada Coastal Navigation - Module 1	\$455.00
Sail Canada Coastal Navigation - Module 2	\$325.00
Sail Canada Celestial Navigation	\$595.00
Pleasure Craft Operators Card	\$55.00
Toronto Harbour License	\$160.00
VHF - DSC License	\$180.00
Sailing Club Membership (have access to entire fleet)	\$170.00/month
Dinghy Membership (have access to entire fleet)	\$880.00 annual
Power Membership (have access to entire fleet) for specified number of hours 30, 60, 90	\$185.00/\$265.00/ \$325.00/month

Table 13 – Pros and Cons for an Arm's Length Operated Marina

Pros	Cons
<ul style="list-style-type: none"> The City would continue to have a marina on the waterfront Up to 100 percent of the capital asset and equipment costs would be borne by the arm's length agency 100 percent of any losses after expenditures would be borne by the arm's length agency 	<ul style="list-style-type: none"> City would have little or no control over what happens at and in marina basin Would require selling City's marina assets to the arm's length agency Some expenses would be higher (i.e. insurance costs, realty taxes) leading to higher fees A new agreement would need to be reached with the City of Hamilton and the Hamilton Port Authority

3.5 Financial Forecasts Under Existing, Municipally Owned and Operated and Privately Owned and Operated Models

The following financial forecasts are provided for illustration purposes only. Before a final decision is made on an alternative operating model for LaSalle Park Marina a more detailed analysis should be completed with regard to a) what terms would the City be comfortable with under a public/private operating model, and b) what price would the City be comfortable with in giving up complete control of the marina under a privately owned and operated marina.

In deriving the financial forecasts we have applied the following assumptions to each forecast:

- The City of Burlington will pay for the new wave break to be installed in late 2019 or early 2020,
- The annual cost of maintenance for the wave break is \$40,000,
- The docks will remain in the water year round,
- An annual allocation will be made to the new dock capital replacement fund equal to that included in the 2020 to 2029 LPMA forecast (EXHIBIT 17), and
- Beginning in 2020 an allocation of at least \$75,000 annually shall be placed in a new wave break replacement fund.

3.5.1 LaSalle Park Marina Association Financial Forecast 2020 to 2029

The financial forecast for LaSalle Park Marina under the existing operating model for the Years 2020 to 2029 is based on the Grant Thornton Limited Financial Forecast, February 28, 2019 and our discussions with LaSalle Park Marina Association. Under this scenario total revenue would increase from \$294,210 in 2020 to \$310,290 by Year 2024, and reach \$342,420 by 2029. Disbursements would increase from \$292,380 in 2020 to \$309,290 and reach \$338,100 in 2029. Excess revenue over expenses would be \$1,830 in 2020, \$1,000 in 2024, and \$14,320 by 2029. LaSalle Park Marina Association would be in a position to meet all expected financial obligations under the existing Joint Venture Agreement for this time period. See EXHIBIT 17.

3.5.2 Municipally Owned and Operated Marina Financial Forecast 2020 to 2029

In deriving this forecast we have used information in the LPMA financial statements, information in our files for similar sized marinas in Ontario, and information provided by the City of Burlington. Seasonal slip rental fees are based on \$55.00/ft. for a 20 foot slip, \$60.00/ft. for a 25 ft. slip, and \$68.00/ft. for a 30 foot slip which reflects the market rate for the services offered. The pump out revenue is based on the market area rates and the number of transient boats using the marina over the past three years. The other

revenues are based on LPMA information. The provision of potable water and 30 amp. power to each of the 30 foot docks would allow the marina to increase the rates for these slips

The City of Burlington provided the estimates for labour costs, insurance, and wave break maintenance. We have assumed that the allocation to the new dock replacement fund and new wave break replacement fund would be the same as that of the LaSalle Park Marina Association. An annual budget for wave break maintenance has been set at \$40,000 based on information provided by the City of Burlington. The allocation to the new wave break replacement fund increases by 2 percent annually from \$75,000 in 2020 to \$81,180 by 2024 (Year 5). We have also assumed that the City would be responsible for 44 percent of the water lot lease agreement payments with the Hamilton Port Authority (i.e. City's current 20% + LPMA's 24%). Other disbursements are based on industry averages.

With this operating model total revenues would increase from \$287,270 in 2020, to \$365,700 by 2024, and reach \$446,430 by 2029. Disbursements would increase from \$405,660 in 2020, to \$445,340 by 2024, and reach \$505,610 by 2029. This will result in a Year 2020 loss before debt service of \$118,390, decreasing to a 2024 loss of \$79,640, and a loss of \$59,180 in 2029.

When the annual cost of financing the required docks and equipment is included (i.e. \$91,740)¹ the 2020 loss would be \$210,130, decreasing to \$171,380 by 2024, and \$150,920 in 2029. See EXHIBIT 18A.

3.5.3 Municipally Owned and Direct Management Contract Operated Marina Financial Forecast 2020 to 2029

In this forecast we have assumed the Marina Manager will be employed through a direct management contract from April 1st until October 31st, with the option for a renewal after three years with a 2 percent increase. Total revenue will remain the same with this operational model as with the municipally owned and operated one with total revenue increasing from \$287,270 in 2020, to \$365,700 in 2024, and reach \$446,430 by 2029. With lower labour and benefits costs, disbursements will be \$364,090 in 2020, increasing to \$399,380 by 2024, and \$455,910 by 2029. Despite the lower disbursements the marina will still show a net loss before debt service for the years 2020 through 2029, decreasing from a loss in 2020 of \$76,820, to a loss of \$33,680 in 2024, and a loss of \$9,480 in 2029.

When the annual principal and interest payments are included there will be net loss of \$168,560 in 2020, followed by a net loss of \$125,420 in 2024, and a further net loss of \$101,220 in 2029. See EXHIBIT 18B.

3.5.4 Municipally Owned and Privately Operated Marina Financial Forecast 2020 to 2029

Under this operating model the private operator will want to offer as many revenue producing services as possible. As a result we have included both winter boat storage² and a pump out service. The City will receive 10 percent of gross annual revenues each year over a 20 year lease. The private operator will be required to invest or place in a reserve fund a total of \$2,700,000 over the course of the 20 year agreement or approximately \$135,000 each year. This will be sufficient to cover the inflated replacement cost (1.5% per annum) of 20 of the 50 years of life expectancy of the wave break, and the inflated costs of 20 of the 30 years of life expectancy of the docks. Since revenues are expected to increase each year throughout the 20 year lease period we have assumed the private operator will invest or pay into the reserve fund less monies over the first 5 year and more over years 15 to 20 (i.e. \$85,000 in 2020 and \$185,000 in 2039, \$95,000 in 2021 and \$175,000 in 2038, etc.). This is a normal practice with this type of marina lease. Over the 10 years for which we have projected operating results the City will receive a total of \$194,820 in rent as we have assumed the City will maintain the lease with the Hamilton Port Authority. See Table 14 following, and EXHIBIT 18C.

¹ Based on 2019 replacement cost of \$1,312,500.00 for docks and equipment and \$250,000.00 for a new on-site marina office. Assumes a 25 year mortgage at 3.2 percent per annum as per City of Burlington May 27, 2019

² Based on cost in 2019 of \$4.40/sq. ft. at Harbour West Marina for outside storage. Assumes 70 boats stored with an average of 360 sq. ft. each

Table 14 – Annual Rent Accruing to City from 20 Year Marina Lease with Private Operator

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Marina Lease Agreement with City (10% of Gross Revenue)	\$39,820	\$41,350	\$43,320	\$45,620	\$48,570	\$51,380	\$53,010	\$54,700	\$56,170	\$57,900
Less Water lot rental (44% of total)	\$27,130	\$27,670	\$28,220	\$28,780	\$29,360	\$29,950	\$30,550	\$31,160	\$31,780	\$32,420
Net Rent to City	\$12,690	\$13,680	\$15,100	\$16,840	\$19,210	\$21,430	\$22,460	\$23,540	\$24,390	\$25,480

With this operating model, revenues will increase from \$398,150 in 2020, to \$485,720 by 2024, and reach \$578,950 by 2029. During the same time period, disbursements will increase from \$426,280 in 2020, to \$504,400 in 2024, and reach \$561,220 in 2029. The resulting net loss will be \$28,130 in 2020, and \$18,680 in 2024. Beginning in 2027, net profit will increase from \$3,920 to \$17,730 by 2029.

When the annual cost of financing the required docks and equipment is included (i.e. \$122,310)¹ the 2020 loss would be \$150,440, decreasing to \$140,990 by 2024, and decreasing further to \$104,580 by 2029. See EXHIBIT 18C.

3.5.5 Privately Owned and Operated Marina Financial Forecast 2020 to 2029

Under this operating model LaSalle Park Marina would be sold to a private developer/operator at fair market value to be operated by said operator. In order to protect the boating activities of BS&BC and BAS we have assumed that the City will retain the lease agreement with the Hamilton Port Authority and add a 10 percent surcharge to the 44 percent rent (i.e. City's current 20% + LPMA's 24%) assumed under the other alternative operating models. Revenues would be the same as those obtained under the municipally owned and privately operated model.

Labour costs will be lower than with a municipally run marina as both the pay scale for full time employees and benefits are lower. Insurance cost will be considerably higher and have been set at \$120.00 per slip in 2020, as per a quote from a marine insurance agency. The policy covers marina operators legal liability, commercial general liability, onshore property, floating property and docks, vessels property, miscellaneous equipment, and the cost of insuring the marina building, and increasing at 4 percent per annum thereafter as per industry average. We have provided a standard private industry reserve expense of 10 percent of revenues each year toward replacements of docks and other major assets. Depreciation of equipment is calculated at \$6,700 annually based on a 15 year life cycle for the \$112,110 yard equipment² with a 10 percent residual value. Property taxes have been set at \$45,000 in 2020 based on information provided by the City of Burlington, and increasing 4 percent each year thereafter.

With the privately owned and privately operated model, revenues will increase from \$398,150 in 2020, to \$485,720 by 2024, and reach \$578,950 by 2029. During the same time period, disbursements will increase from \$413,160 in 2020, to \$461,140 in 2024, and reach \$522,480 in 2029. There will be a net loss in 2020 of \$15,010, decreasing to \$1,890 by 2022. In 2023 there will be a net profit of \$8,720, increasing to \$24,580 in 2024 and reaching \$56,470 in 2029.

When the annual cost of financing the required docks and equipment is included (i.e. \$122,310)¹ the 2020 loss would be \$137,320, decreasing to \$97,730 by 2024, and decreasing further to \$65,840 by 2029. See EXHIBIT 19.

¹ Based on 2019 replacement cost of \$1,390,700.00 for docks and equipment and \$250,000.00 for a new on-site marina office. Assumes a 25 year mortgage at 5.5 percent as per Infrastructure Ontario May 24, 2019

² EXHIBIT 11, exclusive of office trailer

3.5.6 Summary of Financial Results of LaSalle Park Marina Potential Operating Models

Due to the small number of slips (i.e. 219), the higher cost of labour (no volunteer labour), and the lack of other revenue producing services such as summer land storage, fuel dock, repair services, chandlery, and possibly winter storage, the financial results under either a public or private operating model are challenging. A private operator would want each of the following on-site services: fuel dock (15 to 20% profit margin), repair service (20 to 25 % profit margin), and chandlery (30 to 35% profit margin). In addition, the lack of potable water and 30 amp service at each of the 30 foot docks constrains the marina in its ability to increase annual seasonal slip rates to match those of the market place. As a result disbursements will increase faster than revenues. Tables 15 and 16 following compare the financial position of each operating model before and after debt service respectively.

Note: Numbers in **bold print** represent a profit and numbers in *italic print* indicate a loss.

Table 15 - Comparison of Profit/Loss Position before Debt Service with Potential LaSalle Park Marina Operating Models

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Current LaSalle Park Marina with LPMA ¹	1,830	<i>5,000</i>	220	730	1,000	900	1,290	780	1,400	14,320
Municipally Owned & Operated ²	<i>118,390</i>	<i>110,870</i>	<i>105,610</i>	<i>95,570</i>	<i>79,640</i>	<i>65,840</i>	<i>63,530</i>	<i>61,940</i>	<i>61,660</i>	<i>59,180</i>
Municipally Owned & Direct Contract Management ³	<i>76,820</i>	<i>67,570</i>	<i>60,540</i>	<i>51,450</i>	<i>33,680</i>	<i>18,010</i>	<i>16,700</i>	<i>13,150</i>	<i>10,890</i>	<i>9,480</i>
Municipally Owned & Privately Operated ⁴	<i>28,130</i>	<i>30,900</i>	<i>30,280</i>	<i>27,150</i>	<i>18,680</i>	<i>11,740</i>	<i>4,050</i>	3,920	9,830	17,730
Privately Owned & Operated ⁵	<i>18,010</i>	<i>13,140</i>	<i>4,990</i>	5,570	21,380	35,560	40,400	45,420	48,280	53,020

Source: ¹EXHIBIT 17, ²EXHIBIT 18A, ³EXHIBIT 18B, ⁴EXHIBIT 18C, ⁵EXHIBIT 19

¹ Based on 2019 replacement cost of \$1,390,700.00 for docks and equipment and \$250,000.00 for a new on-site marina office. Assumes a 25 year mortgage at 5.5 percent as per Infrastructure Ontario May 24, 2019

Table 16 - Comparison of Profit/Loss Position after Debt Service with Potential LaSalle Park Marina Operating Models

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Current LaSalle Park Marina with LPMA ¹	1,830	5,000	220	730	1,000	900	1,290	780	1,400	14,320
Municipally Owned & Operated ^{2*}	210,130	202,610	197,350	187,310	171,380	157,580	155,270	153,680	153,400	150,920
Municipally Owned & Direct Contract Management ^{3*}	168,560	159,310	152,280	143,190	125,420	109,750	108,440	104,890	102,630	101,220
Municipally Owned & Privately Operated ^{4t}	150,440	153,210	152,590	149,460	140,990	134,050	126,360	118,390	112,480	104,580
Privately Owned & Operated ^{5t}	140,320	135,450	127,300	116,740	100,930	86,750	81,910	76,890	74,030	69,290

Source: ¹EXHIBIT 17, ²EXHIBIT 18A, ³EXHIBIT 18B, ⁴EXHIBIT 18C, ⁵EXHIBIT 19

* Includes \$91,740 in annual principal and interest payments based on a 25 year mortgage at 3.2 percent

^t Includes \$122,310 in annual principal and interest payments based on a 25 year mortgage at 5.5 percent

EXHIBIT 20 indicates that the expected profit margin for a privately owned and operated marina (i.e. 17.6%) is considerably higher than that of a municipally owned and operated marina (i.e. 1%).

EXHIBITS



EXHIBIT 1A MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – NUMBER AND SIZE OF SLIPS

Marina	Location	Total Slips	Number of Slips by Length	Seasonal Slips	Length of Transient Slips	Seasonal Slips ¹ Occupied	Max. Length	Min. Draft	Max. Beam	Fuel	Launch Ramp	Marine Supplies
LaSalle Park Marina	Burlington, Ontario 831 LaSalle Park Road (905) 633-9483	219	20' - 20 30' - 187 30' - 12 walkway	219	Depends on status of seasonal		37.5 ft.	35 ft.	14 ft.		Yes Free Public Ramp	
Oakville Harbours Marina - Oakville Harbour	Oakville, Ontario Lakeshore Road East (905) 338-4188	238	<26' - 56, 8 wet moorings 26' to <30' - 100, 15 wet moorings 30' to <36' - 36, 11 wet moorings 36' to <40' - 36, 2 wet moorings 41' to 46' - 10, 3 wet moorings	238			50 ft.	2 ft.	17 ft.		Yes \$20.00 Seas- onal pass \$167.26 Oakville resident \$200.55 non- resident \$390.00 charter	
Oakville Harbours Marina - Bronte Harbour	Oakville, Ontario Lakeshore Road East (905) 338-4188	254	<26' - 33 26' to <30' - 101, 50 wet moorings 30' to <36' - 116, 57 wet moorings 36' to <40' - 4	254			36 ft.	2 ft.	13 ft.		Yes \$20.00 Seas- onal pass \$167.26 Oakville resident \$200.55 non- resident \$390.00 charter	Yes

EXHIBIT 1A MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – NUMBER AND SIZE OF SLIPS (Continued)

Marina	Location	Total Slips	Number of Slips by Length	Seasonal Slips	Length of Transient Slips	Seasonal Slips ¹ Occupied	Max. Length	Min. Draft	Max. Beam	Fuel	Launch Ramp	Marine Supplies
Bronte Outer Harbour Marina	Bronte, Ontario 2340 Ontario Street 905-827-7575	420	<26' - 52 26' to <30' - 52 30' to <36' - 160 36' to <46' - 102 >46' - 30	396	26' to <30' - 10 30' to <36' - 10 36' to <46' - 4 Seasonal slips used by transients as they become available		65 ft.	6 ft.	17 ft.	Reg- ular gas, High test gas, Diesel		Yes
Lakefront Promenade Marina	Mississauga, Ontario 135 Lakefront Promenade 905-274-7601	176	<26' - 32 26' to <30' - 28 30' to <36' - 66 36' to <46' - 50	176	All available depends on status of seasonals		45 ft.	5 ft.	15 ft.	Gas Diesel	Yes No trailer parking	
Port Credit Harbour Marina	Mississauga, Ontario 1 Port Street East 905-274-1595	575	<26' - 322 26' to <30' - 114 30' to <36' - 77 36' to <46' - 62	575			75 ft.	18 ft.		Gas Diesel	Yes	Yes (Fogh Boat Supplies, Bristol Marine)
Credit Village Marina	Mississauga, Ontario 12 Stavebank Road 905-891-5217	64 (inclu- des 8 on pier wall)	<26' - 6 26' to <30' - 0 30' to <36' - 28 36' to <46' - 18 46' & over - 12	15	<26' - 4 26' to <30' - 0 30' to <36' - 20 36' to <46' - 15 46' & over - 10		60 ft.	6 ft.	15 ft.		Yes (2)	Yes (across the street)

EXHIBIT 1A MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – NUMBER AND SIZE OF SLIPS (Continued)

Marina	Location	Total Slips	Number of Slips by Length	Seasonal Slips	Length of Transient Slips	Seasonal Slips ¹ Occupied	Max. Length	Min. Draft	Max. Beam	Fuel	Launch Ramp	Marine Supplies
Harbour West Marina	605 James Hamilton, Ontario Street West (905) 525-4330	350	<26' - 62 26' to <36' - 154 36' to <46' - 92 50' - 42	350	Depends on status of seasonal		100 ft.	20 ft.	20 ft.	Gas Diesel	Yes	Yes
Fifty Point Marina	Winona, Ontario 1479 Baseline Road 905-643-2103	330	<26' - 100 26' to <30' - 100 30' to <36' - 40 36' to 45' - 90	310	<26' - 10 26' to <30' - 5 30' to <36' - 5		60 ft.	9 ft.	17 ft.	Gas	Yes \$150.00 /season \$160.00 /season triaxle/ hydraulic \$13.27 Monday to Thursday \$19.27 Friday to Sunday + holiday Mon-days	

2,416 seasonal slips and moorings were occupied during the 2018 boating season; an occupancy of 95.4 percent. The occupancy numbers for each marina have been removed from this EXHIBIT to protect the confidence in which they were given

EXHIBIT 1B MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FACILITIES AND SERVICES

Marina	Haul Out	Repairs	Food	Facilities	Shore Power (amps)	Pumpout	Recreation Facilities	Sales	Hookups	Parking Spaces	Dry land Seasonal Storage	Winter Storage	Plans for Future Changes
LaSalle Park Marina	80 ton Crane brought in for launch & haul out by BSBC at LaSalle Pier	Contractors do come to marina for minor repairs	Only with special occasion permits	Washrooms Showers Public telephone	15 amp. temporary shared use	Yes	Picnic tables BBQs on floating dock, (Wading pool, Children's play area, Baseball diamond in LaSalle Park)		Shared power Water WIFI	153	Yes 8,500 sq. ft.	Outdoor - 75 boats via BSBC	Plans to add new wavebreak protection
Oakville Harbours Marina - Oakville Harbour	Crane brought in for launch & haul out		Ice/Water Soft drink vending machine	Washrooms Showers Public telephone	30 amp. - 76 50 amp. - 41	Yes \$41.20 seasonal pass	Picnic tables		Power Water	157	Yes <1,000 sq. ft.	Outdoor - 120	
Oakville Harbours Marina - Bronte Harbour	35 ton travel lift, Mast crane	Marine shop operated by independent owner (Facility leased from Town)	Ice/Water Soft drink vending machine	Washrooms Public telephone	30 amp. - 76 50 amp. - 4		Picnic tables	Yacht broker	Power Water	157	Yes Approx. 14,000 sq. ft.	Outdoor - 270 Have room for 30 more if they come during haulout so boats can be arranged Room for 40 more if rid of abandoned boats	Converting wet moorings to finger docks in Bronte, number to be decided Adding full service (hydro, water to finger docks)

EXHIBIT 1B MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FACILITIES AND SERVICES (Continued)

Marina	Haul Out	Repairs	Food	Facilities	Shore Power (amps)	Pumpout	Recreation Facilities	Sales	Hookups	Parking Spaces	Dry land Seasonal Storage	Winter Storage	Plans for Future Changes
Bronte Outer Harbour Marina	50 ton travel lift Mast crane Hydraulic trailer		Ice/Water Restaurant	Washrooms Showers Garbage & recycling stations	15 amp. - 52, 30 amp. - 308, 50 amp. - 36	Yes \$12.50 each tank	2 covered, floating picnic docks, Gas BBQs		Power Water WIFI	245	Yes 25,000 sq. ft.	Outdoor Limited to 220 boats	None, do have space for approx 100 more slips if smaller slips removed
Lakefront Promenade Marina	Rent Hydraulic truck/ Trailer		Ice/water Licensed outdoor concession Food patio	Showers Washrooms Laundry	15 amp. - 56 30 amp. - 120	Yes \$16.00/ pumpout	Picnic tables Charcoal BBQ's Children's play area		Power Water Public telephone Wireless internet	120		Outside 50 spaces	None
Port Credit Harbour Marina	35 ton travel lift 20 ton Hydraulic trailer 17.5 ton Mast crane boom truck	Hulls Engines Electrical Sails Canvas Uphostery Paint shop	Ice/water Restaurant Patio Bar & Grill (closed)	Showers Washrooms Laundry	30 amp. - 529 50 amp. - 55	Yes (provided by Bristol Marine)	Picnic tables Gazebos		Power Water Some phone jacks on docks Public telephone Fibre optics internet (F dock)	1,200 (145 are for business use)	Yes 610,000 sq. ft.	Inside 130 spaces Outside 325 spaces (Have more space for storage)	City of Mississauga will take over upon expiration of lease with Canada Lands
Credit Village Marina			Ice/water Privately operated restaurant	Showers Washrooms Laundry	15 amp. - 4 30 amp. - 58 50 amp. - 2		Picnic tables BBQ area		Power Water Public telephone				None

EXHIBIT 1B MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FACILITIES AND SERVICES (Continued)

Marina	Haul Out	Repairs	Food	Facilities	Shore Power (amps)	Pumpout	Recreation Facilities	Sales	Hookups	Parking Spaces	Dry land Seasonal Storage	Winter Storage	Plans for Future Changes
Harbour West Marina	50 & 80 ton travel lifts, 3 fork lifts, 20 & 60 ton marine carrier launch/ haul equipment carriers, 2 mast cranes	Engines Electrical	Ice/water	Showers Washrooms Laundry	30 amp. - 200 50 amp. - 88	Yes \$16.25/ tank	Picnic tables Gas BBQs Children's play area		Power Water Public telephone Wireless internet	150	Yes Approx. 10,600 sq. ft.	Outside - 400 boats	Has capacity for 800
Fifty Point Marina	25 ton travel lift 15 ton hydraulic trailer Mast crane	On call	Ice/water Licensed restaurant Coffee shop	Showers Washrooms Laundry	30 amp. - 250 50 amp. - 80	Yes \$13.00/ tank weekdays \$16.00/ tank week-ends	Picnic tables Gas BBQs Beach Children's play area		Power Water Public telephone Wireless internet	260	Yes About 13,500 sq. ft.	Outside - 165 boats	Would like to due to demand, but land-locked

EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FEES (2019) AND USER PATTERNS

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
LaSalle Park Marina	\$1,549.00 <25' \$1,919.00 26' - <30' \$2,274.00 31' - <35' \$2,438.00 36' - <37.5' \$319.00 (in excess of 12' beam) June 1 - Sept 30 \$1,128.00 <20' \$708.00 PWC on dock \$35.40 dingy tender season dry rate for members with boat in marina	\$40.00/ Night for non-reciprocal \$25.00/day for PWC		50%	50%	Burlington 60.8% (All of Halton Region 62.4%) Hamilton/ Golden Horseshoe Area 25%		70	2 days	75% GTA 20% Niagara Region 5% New York State & further
Oakville Harbours Marina - Oakville Harbour	\$80.54/ft. finger serviced (includes non-potable water & 30 amp. plug) \$71.90/ft. finger non-serviced \$156.00 - cradle storage \$144.60 - trailer storage (1 axle) \$198.15 (2-3 axles) Summer storage \$0.95/sq. ft./month \$25.75 TOWARF fee - for all slip holders 10% non-residents surcharge		\$4.69/sq. ft. (includes haul out, bottom wash, storage, launch) \$4.33/sq. ft. storage only - no service	35%	65%	Oakville 88% Burlington 4% (All of Halton Region 95%)				

EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Oakville Harbours Marina - Bronte Harbour	\$57.40/ft. wet mooring - 25' & under. \$58.40/ft. wet mooring - 26' \$59.40/ft. wet mooring - 27' \$60.40/ft. wet mooring - 28' \$61.40/ft. wet mooring - 29' \$62.40/ft. wet mooring - 30' \$63.40/ft. wet mooring - 31' \$66.22/ft. wet mooring - 32' to 35' \$67.77/ft. wet mooring - 36' & over		\$5.65/sq. ft. up to 12' beam \$5.85/sq. ft. over 12' beam (includes haul out, bottom wash, storage, launch) \$4.33/sq. ft. storage only - no service	25%	75%	Oakville 88% Burlington 4% (All of Halton Region 95%)				
Bronte Outer Harbour Marina	\$74.00/ft. 20' - 22' slip \$74.00/ft. 26' - 28' slip \$75.00/ft. 30' - 36' slip \$76.00/ft. 40' - 45' slip \$78.00/ft. 50' - 55' slip \$76.00 E dock 56' Utility Fees \$75.00 1 x 15 amp. \$100.00 1 x 30 amp. \$200.00 2 x 30 amp. \$200.00 1 x 50 amp. \$400.00 2 x 50 amp.	\$1.60/ft. daily \$1.40/ft. weekly \$1.20/ft. monthly \$15.00 <3hrs - under 35' \$20.00 <3hrs - 35' & over	\$5.75/sq. ft. (haul out, launch, bottom wash) minimum \$700.00 \$4.75/sq. ft. storage only, minimum \$600.00 \$11.00/linear ft. of mast (de-step, store, re-step) \$5.25/linear ft. of mast (de-step or step only) \$35.00 additional for double/triple spreader \$7.50/ft. <35' \$8.50/ft. >35' for power boats \$9.50/ft. <35' \$10.50/ft. >35' for sail boats	56%	44%	Oakville 41% Burlington 32% (All of Halton Region 80%)	51% want 28' - 34' 33% want 36' - 45' 10% want >45' 6% want <28'	500	1 - 2 days	36% Toronto 24% Halton 22% Peel 10% Niagara 6% Hamilton 2% U.S.

EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Bronte Outer Harbour Marina	Trailer Storage \$175.00 seasonal \$75.00 monthly \$20.00 daily all for single axle \$225.00 seasonal \$80.00 monthly \$25.00 daily all for dual/triple axle \$7.50/ft. summer pressure wash (includes lift & wash) \$7.00/ft. survey lift & hold (45 minutes) \$150.00 minimum charge \$50.00 per ½ hour minimum for over allotted time \$5.75/sq. ft. land storage only (May1st - Oct. 14 th , Oct. 15 th – April 30 th) minimum \$600.00 \$1.25/sq. monthly charge minimum \$100.00		Travel Lift \$9.00/ft. one way lift or launch \$100.00 additional for use of 3 rd belt \$75.00/hr. labour rates \$75.00/hr. mast crane (mast work, haul/launch) \$100.00/hr. travel lift/fork lift truck \$150.00/hr. fork lift with extension							
Lakefront Promenade Marina	\$73.02/ft. - includes one 15 or 30 amp.	\$1.61/ft. daily \$9.65/ft. weekly (7 nights) \$18.58/ft. monthly (available only in May, June, September, October) \$87.05/hr. for marina services	\$365.93 +\$3.66/sq. ft. power boats only (includes haul out & launch, block & stands, bottom wash) \$16.74/ft. shrink wrap \$18.84/ft. with fly bridge	70%	30%	Mississauga 47% Brampton 8% Outside Peel Region 45%		<50	2 days	100% Ontario (70% Western Lake Ontario, 20% Whitby, 10% Toronto)

EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Port Credit Harbour Marina	\$750.00 - dinghy/ PWC \$2030.00 - up to 25 ft. \$2,420.00 - up to 30 ft. \$2,660.00 - up to 33 ft. \$2,900.00 - up to 36 ft. \$4,200.00 - up to 50 ft. \$3,080.00 F - Dock (all with 30 amp.) \$4,380.00 - up to 50 ft. \$4,520.00 F - Dock (both with 50 amp.) +\$80.00/ft. over boat size 30 amp +\$86.00/ft. over boat size 50 amp Fishing Docks \$2,420.00 - 28 ft. (30 amp.) +\$84.00/ft. over slip size \$5.80/ft. blocking & beams \$50.00/season cradle rental \$50.00/season blocking rental \$70.00/month Fiber Internet - \$200.00 security deposit	\$1.50/ft. daily \$8.50/ft. weekly \$26.00/ft. monthly \$20.00 deposit for gate card	\$4.70/sq. ft. - outside (minimum \$650.00) \$6.50/sq. ft. - inside, not heated (minimum \$1,120.00) (includes haul out, storage, launch) \$9.00/ft. travel lift \$10.00/ft. sling time one hour or less \$14.00/ft. sling time overnight \$16.00/ft. sling time over weekend \$210.00/ season cradle/trailer storage \$3.90/ft. bottom wash \$4.50/ft. mast stepping/un-stepping \$140.00 <30' tender service \$235.00 >30' tender service \$2.90/ft. mast storage \$80.00/hr. yard labour one person \$120.00/hr. equipment charges (min. ½ hr) \$93.00/ft. winter docking \$1,950.00 - 30 amps. \$2,500.00 - 50 amps. \$2,900.00 - 60 amps. for winter docking hydro Shrink wrapping \$16.80/ft. - <25 ft. \$17.60/ft.- 25' to 35'	65%	35%	Mississauga 90%		350	1 day	

EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Port Credit Harbour Marina			\$20.40/ft. - 36' to 40' \$23.00/ft. - 41' to 45' \$25.25/ft. - 46' & over \$19.60/ft. - 25' to 35' with bridge \$22.40/ft. - 36' to 40' with bridge \$25.50/ft. - 41' to 45' with bridge \$27.25/ft. - 46' & over with bridge							
Credit Village Marina	\$87.05/ft. \$73.02/ft. at charter docks	\$11.41 - 3 hrs. docking \$1.61/ft. overnight \$9.65/ft. weekly Approach Channel free for day use only \$2.26/ft. arrival & departure commercial vessels								
Harbour West Marina	\$678.00 - dingy \$1,500.00 - <26 ft. unserviced \$1,908.00 - <26 ft. service \$2,608.00 - 26 ft. to 32 ft. \$3,306.00 - 26 ft. to 42 ft. \$4,093.00 - 36 ft. to 52 ft. \$86.00/ft. – up to 90 ft. \$300.00 additional 30 amp. \$400.00 additional 50 amp.	\$10.00/day, \$60.00/week, \$235.00/month - dinghy \$25.00/day, \$150.00/week, \$600.00/month - up to 25 ft. no service \$37.50/day, \$225.00/week, \$879.25/month - up to 25 ft. service \$45.00/day, \$270.00/week, \$1,055.50/month - up to 32 ft. service	\$4.40/sq. ft. - outside \$5.31/sq. ft. - outside mast up \$4.00/sq. ft. - outside on trailer \$11.25/sq. ft. - indoor heated (includes haulout, bottom wash, & launch) \$3.34/sq. ft. + hydro - in-water non-live aboard \$8.30/ft. - lift/wash/launch - \$12.50/ft. lift/wash/hold (3 hrs.)/launch \$165.00/hr. - additional hold \$12.50/ft. - lift/load to trailer/cradle/truck	30%	70%	Hamilton 80% Burlington 10% Niagara Region 10%		650-675	1.5 days	90% Ontario (Toronto to Niagara-on-the-Lake) 10% New York

EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
Harbour West Marina	Summer Storage \$0.80/sq. ft. - weekly \$1.50/sq. ft. - monthly \$4.40/sq. ft. monthly all outside \$1.60/sq. ft. - weekly \$3.00/sq. ft. - monthly \$8.75/sq. ft. monthly all inside Blocking or Cradle Rental/season \$253.00 <26 ft. \$258.00 <36 ft. \$297.00 <46 ft. \$423.00 >46 ft. \$199.00/season trailer & cradle storage	\$60.00/day, \$360.00/week, \$1,407.50/month - up to 42 ft. service \$75.00/day, \$450.00/week, \$1,759.50/month - up to 52 ft. service \$1.50/ft./day, \$9.00/ft./week \$35.20/ft./month service	\$9.05/ft. launch +2.10/ft. - over 55 ft. \$12.25/ft. - unstepping/storage/. stepping with boat storage/season \$14.50/ft. - unstepping/storage/. stepping without boat storage/season \$6.75/ft. stepping \$5.20/ft. unstepping \$135.00/season storage \$3.85/ft. power wash							
Fifty Point Marina	\$76.60/ft. un-serviced \$81.60/ft. serviced \$86.60/ft. serviced more electric & footage (both winter stored previous winter) \$102.00/ft. serviced \$107.00/ft. serviced more electric & footage (both not winter stored previous winter)	\$1.64/ft./overnight (\$35.00 minimum) \$13.27/day weekdays \$25.00/day Friday to Sunday - both April 1 - November 1 \$19.55/ft./month - April, May Sept., Oct. \$26.25/ft./month - June, July, August	\$5.35/sq ft. (\$1,080.00 minimum) - sail boats (includes lift-out, wash, launch & mast stepping) \$4.60/sq. ft. (\$920.00 minimum) - power boats (includes lift-out, wash, storage system, launch) \$3.75/sq. ft. (\$750.00 minimum - storage only \$250.00 boat on trailer <10' \$15.00 access card	55%	45%	Stoney Creek 50% Hamilton 30% Niagara Region 20%	Waiting list 120	750-800	1 day	90% Ontario (Toronto to Niagara-on-the-Lake) 10% New York (As far as Rochester)

EXHIBIT 1C MARINAS WITHIN MARKET AREA OF LASALLE PARK MARINA – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
Fifty Point Marina	Dry Sailing Summer Storage \$500.00 monohulls on trailer \$220.00 added for triaxle trailers \$320.00 added for catamaran (over 9' width) on trailer \$250.00 boat on trailer under 9' Boat Trailer Storage \$11.00/night \$175.00 seasonal returning customer \$326.50 new customer \$290.00 triaxle trailer returning customer \$438.00 new customer \$200.00 cradle storage May to October Land Storage Summer Months \$0.95/sq. ft. Summer Seasonal \$3.75/sq. ft. \$200.00 marina wait list		10.50/ft. launch or lift out up to 35' \$12.50/ft. 36' to 40' 41' and over by quote \$221.24 minimum fee \$75.00 lat launch Sling Time \$150.00/hr. \$275.00/night \$60.00-\$120.00 boat wash \$6.00/ft. mast stepping (minimum 25') \$3.80/ft. mast storage \$80.00 minimum \$75.00 minimum move boat \$145.00 minimum cradle rental for winter storage \$180.00 cradle feet \$180.00/hr. hydraulic trailer use \$90.00 minimum \$150.00 cradle pick up/load \$25.00 minimum load/unload \$90.00/hr. labour for each staff \$45.00 minimum							

EXHIBIT 2 MARINA FACILITIES AND SERVICES RATING

Facilities and Services	Rating Value¹	Description
Safe Piers, Main & Finger Docks	5	Stable, clean, well maintained docks with adequate mooring cleats
Vehicle Parking	5	On-site parking for boater's vehicles
Washrooms	5	On-site washrooms, well maintained and available to boaters 24/7
Water Service on Docks	5	Potable water available on docks
Haul-out, Launch & Winter Storage	5	On-site winter storage area with haul-out and hoist equipment
Hydro (30 amps.) on Docks	5	Minimum 30 amp. Electrical service compliant with the Ontario Electrical Safety Code and ABYC
Security 24 Hours	5	Secure limited access for summer moorings and winter storage of vessels
Pump Out Service	4	On-site pump out service for holding tanks
Fuel Dock	4	On-site fuel dispensing facility for gasoline and diesel fuel
Wi Fi Connection	3	Free Wi Fi internet service available within the limits of the marina
Staff Available for Assistance	3	On duty staff available to operate marina's facilities and assist boaters during normal operating hours
Launch Ramp	3	Public launch ramp for launching trailer hauled boats
Clean Marine Certification	3	Clean Marine certified facility as per OMOA with on-site waste collection and recycling facilities
Repair Services	2	On-site (or nearby) marine repair facilities
Marine Supplies	2	On-site (or nearby) marine chandlery
Mast Crane	2	On- site mast crane available
Laundry Facilities	1	On-site laundry facilities
Maximum Score	62	

¹ 50, 75 and 75 boat owners were interviewed at the Toronto International Boat Show between January 12 and 18, 2014; January 9 and 17, 2016; and January 12 and 21, 2018 regarding the features they felt were most desirable at a home marina. They were then asked to rate each feature on a scale of 1 to 5, with 5 being the most desirable. We were not allowed to ask for any personal information, nor did we ask them to identify their home marina.

EXHIBIT 3 EVALUATION OF MARINA SERVICES AND FACILITIES IN LASALLE PARK MARINA SEASONAL MARKET AREA

		Evaluation of Services and Facilities																	
Name of Marina	Location	Safe Docks	Vehicle Parking	Washrooms	Potable Water on Docks	Haul-out, Launch & Winter Storage	Hydro (30 amps.) on Docks	Security 24 hours	Pump Out Service	Fuel Dock	Wi Fi Connection	Staff Available for Assistance	Launch Ramp	Clean Marine Certification	Repair Services	Marine Supplies	Mast Crane	Laundry Facilities	Facility Rating
Maximum Score		5	5	5	5	5	5	5	4	4	3	3	3	3	2	2	2	1	62
Credit Village Marina	Mississauga	5	5	5	5	0	5	5	0	0	0	3	1	3	0	0	0	0	37
Port Credit Harbour Marina	Mississauga	3	5	4	5	5	5	5	4	4	3	2	0	3	2	2	2	1	55
Lakefront Promenade Marina	Mississauga	5	5	5	5	5	5	5	4	4	3	3	3	3	0	0	0	1	56
Bronte Harbour	Oakville	4	5	5	5	5	5	5	0	0	0	0	2	3	2	2	2	0	45
Bronte Outer Harbour Marina	Oakville	5	5	5	5	5	5	5	4	4	3	3	0	3	0	2	2	0	56
Oakville Harbour	Oakville	4	5	5	5	5	5	0	4	0	0	0	3	3	0	0	2	0	41
LaSalle Park Marina	Burlington	5	5	5	3	4	3	5	4	0	3	3	3	3	0	0	2	0	48
Harbour West Marina	Hamilton	5	5	5	5	5	5	5	4	4	3	3	3	3	2	2	2	1	62
Fifty Point Marina	Winona	5	5	5	5	5	5	5	4	4	3	3	3	3	0	0	2	1	58

EXHIBIT 4 RATES AND FEES COMPARISON 2014 TO 2019 BOATING SEASON FOR MARINAS WITHIN (GTA)/GOLDEN HORSESHOE AREA

Marina	LaSalle Park Marina	Harbour West Marina	Bronte Harbour	Bronte Outer Harbour	Oakville Harbour	Credit Village Marina	Port Credit Harbour Marina	Lakefront Promenade Marina	Ontario Place Marina	Marina Four	Marina Quay West	Toronto Island Marina	Outer Harbour Marina	Bluffer's Park Marina	Fifty Point Marina	Foran's Marina	Lakecourt Marina	Port Dalhousie Pier Marina	St. Catharines Marina
2014																			
2015		5%	4%	3%	4%	3%	4%	3%	5%	2%	2%	7%	8%	2%	2%				4%
2016	1.5%		3%		3%	3%	4%	3%		2%	2%	3.5%	2%			4%		7%	6%
2017	1.7%	1.5%	3%	0.5%	3%	2.5%	3.5%	2.5%		5.5%	5.5%	2.7%	2%	2%					
2018			3%	0.5%	3%	2.5%	3.5%	2.5%		5.5%	5.5%	2.7%	1.9%	2%	3%	2%	3%		3.5%
2019			3%	0.5%	3%	2%	3.6%	2.1%		3.0%	3.0%	1%	5.25%	1.5%	3%	2%	2%	2%	1.5%

3%	Decrease
	No Change
2%	Increase

EXHIBIT 5 HISTORICAL AND PROJECTED GROWTH BY LENGTH OF BOATS REGISTERED IN ONTARIO (2014 to 2033)

Length¹	Historical					Projected					
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Under 20 feet	1,007,077	1,007,403	1,007,735	1,011,812	1,015,897	1,020,010	1,024,140	1,028,280	1,031,410	1,034,550	1,037,700
20 ft. to less than 26 feet	53,646	54,527	55,144	55,469	55,803	56,130	56,460	56,800	57,020	57,250	57,480
26 ft. to less than 30 feet	12,619	12,776	12,928	13,317	13,718	14,130	14,560	15,000	15,150	15,310	15,470
30 ft. to less than 36 feet	19,283	19,944	20,636	21,243	21,865	22,500	23,160	23,840	24,440	25,060	25,690
36 ft. to less than 46 feet	12,107	12,328	12,864	13,361	13,872	14,400	14,950	15,530	16,050	16,590	17,150
46 feet+	6,566	7,147	7,437	7,801	8,176	8,570	8,980	9,410	9,820	10,240	10,680
Total	1,111,298	1,114,125	1,116,744	1,123,003	1,129,331	1,135,740	1,142,250	1,148,860	1,153,890	1,159,000	1,164,170
Total 26 feet+	50,575	52,195	53,865	55,722	57,631	59,600	61,650	63,780	65,460	67,200	68,990
Length¹	Projected										
	2025	2026	2027	2028	2029	2030	2031	2032	2033		
Under 20 feet	1,040,860	1,044,030	1,046,190	1,048,360	1,050,530	1,052,700	1,054,880	1,056,010	1,057,140		
20 ft. to less than 26 feet	57,710	57,940	58,050	58,160	58,270	58,380	58,490	58,600	58,710		
26 ft. to less than 30 feet	15,630	15,790	15,920	16,050	16,180	16,310	16,440	16,540	16,640		
30 ft. to less than 36 feet	26,340	27,000	27,550	28,110	28,680	29,260	29,850	30,300	30,760		
36 ft. to less than 46 feet	17,730	18,320	18,840	19,380	19,930	20,500	21,090	21,590	22,100		
46 feet+	11,140	11,620	12,060	12,520	13,000	13,500	14,020	14,490	14,970		
Total	1,169,410	1,174,700	1,178,610	1,182,580	1,186,590	1,190,650	1,194,770	1,197,530	1,200,320		
Total 26 feet+	70,840	72,730	74,370	76,060	77,790	79,570	81,400	82,920	84,470		

¹ Under 20 feet (under 6 metres); 20 ft. to less than 26 ft. (6 m. to less than 8 metres); 26 ft. to less than 30 ft. (8 m. to less than 9 metres); 30 ft. to less than 36 ft. (9 m. to less than 11 metres); 36 ft. to less than 46 ft. (11 m. to less than 14 metres); 46 ft.+ (14 metres+)

Source: Transport Canada, National Marine Manufacturers Association - Canada, Ontario Marine Operators Association (Boating Ontario), Canadian Yachting Association, Ontario Sailing Association, discussions with Canadian boat builders/manufacturers and boat dealers/brokers, and **TOURISTICS**

EXHIBIT 6 PLEASURE CRAFT LICENSES GRANTED¹ BY TRANSPORT CANADA IN ONTARIO

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Total
2013	368	486	1,053	2,073	4,062	2,908	2,551	2,208	917	753	421	213	18,013
2014	258	521	813	1,481	3,081	2,908	2,558	1,734	1,042	573	404	284	15,657
2015	258	442	749	1,311	3,173	2,953	2,466	1,943	811	430	301	202	15,039
2016	141	275	627	1,680	3,588	3,192	2,862	2,229	665	331	282	110	15,982
2017	143	447	1,079	1,981	4,037	3,782	2,743	2,177	762	424	328	217	18,120
2018	168	266	997	2,138	4,275	3,822	4,141	1,964	786	365	277	211	19,410
2019	164	368	917	1,793	4,071								

Source: Transport Canada, Pleasure Craft Licensing, Monthly National Report by Region

¹ A Transport Canada license or registration is mandatory for all pleasure craft equipped with motors of 10 horsepower (7.5 kilowatts) or more

EXHIBIT 7 PLEASURE CRAFT LICENSES CANCELLED¹ BY TRANSPORT CANADA IN ONTARIO

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Total
2013	8	5	9	9	20	19	13	13	12	8	4	2	122
2014	8	5	7	0	3	3	12	8	14	5	7	5	77
2015	2	10	3	3	14	24	12	20	4	13	8	8	121
2016	4	15	23	53	93	113	116	119	39	34	31	16	656
2017	202	210	152	62	122	139	127	123	48	25	32	97	1,339
2018	118	63	445	143	173	153	172	158	93	358	4,199	4,245	10,320
2019	7,205	5,820	1,705	44	141								

Source: Transport Canada, Pleasure Craft Licensing, Monthly National Report by Region

¹ Boat is no longer being operated in Canada (i.e. sold foreign, boat destroyed)

Note: The increased number of cancellations is due to a project to update historical records that were only partially captured in the new digital system when it was first introduced. Once the new updated record is entered, the old one is canceled. Since this project is complete, there should be no more spikes in number of cancellations.

EXHIBIT 8 TOTAL ADDITIONAL REGISTERED PLEASURE CRAFT IN ONTARIO

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Total
2013	360	481	1,044	2,064	4,042	2,889	2,538	2,195	905	745	417	211	17,891
2014	250	516	806	1,481	3,078	2,905	2,546	1,726	1,028	568	397	279	15,580
2015	256	432	746	1,308	3,159	2,929	2,454	1,923	807	417	293	194	14,918
2016	137	260	604	1,627	3,495	3,079	2,746	2,110	626	297	251	94	15,326
2017	(59)	237	927	1,919	3,915	3,643	2,616	2,054	714	399	296	120	16,781
2018	50	203	552	1,995	4,102	3,669	3,969	1,806	693	7	(3,922)	(4,034)	9,090
2019	(7,041)	(5,452)	(788)	1,749	3,930								

Source: EXHIBIT 6 and EXHIBIT 7

EXHIBIT 9 LASALLE PARK MARINA ASSOCIATION REVENUES AND EXPENSES (2016-2018)

	2016	2017	2018
Revenue			
Administration Fee	\$7,476.00	\$8,984.00	\$9,850.00
Charter/Senior Member Fees	\$76,612.00	\$76,252.00	\$68,646.00
Associate Member Fees	\$119,281.00	\$119,135.00	\$163,270.00
No Frills Boater Fees	\$17,478.00	\$21,816.00	\$31,577.00
Dinghy Storage	\$398.00	\$212.00	\$89.00
Oversize Charge	\$1,274.00	\$1,274.00	\$1,593.00
Short Term & Transient	\$5,788.00	\$6,159.00	\$2,912.00
Keys/Cards	\$620.00	\$180.00	\$570.00
Pump Out	\$217.00	\$217.00	\$442.00
Other Income	\$521.00	\$4,848.00	\$0.00
Interest Income	\$2,198.00	\$1,757.00	\$4,326.00
Total Revenues	\$231,863.00	\$240,834.00	\$283,275.00
Disbursements			
Marina Install and Haul Out	\$28,838.00	\$29,784.00	\$35,774.00
Wave Break Install and Haul Out	\$6,586.00	\$2,986.00	\$8,803.00
Maintenance and Equipment	\$22,710.00	\$31,780.00	\$62,992.00
Advertising and Promotion	\$4,971.00	\$3,804.00	\$2,946.00
Communications	\$485.00	\$3,001.00	\$1,293.00
Insurance	\$10,299.00	\$16,347.00	\$13,479.00
Interest and Bank Charges	\$356.00	\$332.00	\$347.00
Interest on Long Term Debt	\$0.00	\$2,500.00	\$4,772.00
Management Payroll and Travel	\$41,154.00	\$39,818.00	\$41,047.00
Postage and Stationary	\$2,485.00	\$2,270.00	\$1,899.00
Professional Fees	\$7,987.00	\$5,300.00	\$6,660.00
Waterlot Rental (24% of total)	\$14,005.00	\$14,269.00	\$14,313.00
Supplies and Miscellaneous	\$0.00	\$0.00	\$0.00
Allocation to Dock Replacement Fund	\$94,000.00	\$0.00	\$23,060.00
Allocation to Floating Wave Break Cleaning Fund	\$0.00	\$20,000.00	\$0.00
Allocation to New Wave Break Replacement Fund	\$0.00	\$0.00	\$50,000.00
Allocation to New Dock Capital Fund	\$0.00	\$0.00	\$18,000.00
Allocation to New Office Capital Fund	\$0.00	\$0.00	\$0.00
Total Disbursements	\$233,876.00	\$172,191.00	\$285,385.00
Excess Revenue (Loss) Over Expenditures	(\$2,013.00)	\$68,643.00	(\$2,110.00)

Source: LaSalle Park Marina Association Financial Statements, Beckett Lowden Read LLP, 2016, 2017, 2018

**EXHIBIT 10 BURLINGTON SAILING AND BOATING CLUB REVENUES AND EXPENSES
(2016-2018)**

	2016	2017	2018
Revenue			
Sailing School	\$85,290.00	\$101,229.00	\$55,832.00
Facilities	\$55,990.00	\$53,214.00	\$64,918.00
Memberships	\$55,610.00	\$56,275.00	\$58,998.00
Grant Wages	\$18,299.00	\$18,366.00	\$17,050.00
Boating	\$12,840.00	\$6,571.00	\$2,429.00
Social	\$4,175.00	\$3,595.00	\$3,537.00
Uncategorized	\$1,802.00	\$0.00	\$0.00
Interest Income	\$674.00	\$636.00	\$608.00
Clubhouse	\$270.00	\$2,695.00	\$1,033.00
Donations	\$60.00	\$0.00	\$0.00
Regalia	\$0.00	\$0.00	\$0.00
Other Income	\$0.00	\$1,409.00	\$295.00
Allocation from Capital Fund	\$9,968.00	\$9,900.00	\$0.00
Total Revenues	\$244,978.00	\$253,890.00	\$204,700.00
Disbursements			
Advertising and Promotion	\$1,125.00	\$0.00	\$0.00
Amortization	\$11,977.00	\$11,768.00	\$11,089.00
Bad Debts	\$76.00	\$14.00	\$250.00
Boating	\$14,967.00	\$6,766.00	\$3,280.00
Clubhouse	\$10,492.00	\$8,345.00	\$2,287.00
Facilities	\$51,910.00	\$56,894.00	\$54,675.00
Insurance	\$10,572.00	\$10,776.00	\$10,870.00
Interest and Bank Charges	\$412.00	\$434.00	\$716.00
Memberships	\$4,114.00	\$4,293.00	\$3,633.00
Office and Administration	\$716.00	\$1,809.00	\$811.00
Professional Fees	\$3,650.00	\$3,900.00	\$4,200.00
Regalia	\$0.00	\$0.00	\$0.00
Rent	\$32,322.00	\$32,933.00	\$34,057.00
Sailing School - Wages and Benefits	\$57,968.00	\$69,984.00	\$57,284.00
Sailing school – Other	\$23,157.00	\$25,799.00	\$14,524.00
Shark Club	\$3,285.00	\$2,127.00	\$2,930.00
Social	\$4,571.00	\$4,255.00	\$4,842.00
Allocation to Capital Fund	\$3,600.00	\$3,000.00	\$0.00
Total Disbursements	\$234,914.00	\$243,097.00	\$205,448.00
Excess Revenue (Loss) over Expenditures	\$10,064.00	\$10,793.00	(\$748.00)

Source: Burlington Sailing and Boating Club Financial Statements, Beckett Lowden Read LLP, 2016, 2017, 2018

EXHIBIT 11 BURLINGTON ABLE SAIL REVENUES AND EXPENSES (2018)

	2016	2017	2018
Revenue			
Sailing Program @\$160.00			\$12,000.00
Federal and Foundation Funding			\$6,000.00
Total Revenue			\$18,000.00
Disbursements			
Employee Wages			\$16,000.00
Employee Training			\$1,000.00
Gas for Safety Boats			\$1,000.00
Volunteer Labour (25 persons) ¹			\$9,000.00
Marina Dock Use & Storage ¹			\$10,000.00
Total Disbursements			\$37,000.00
Total Disbursements Excluding¹			\$18,000.00
Excess Revenue (Loss) over Expenditures			\$0.00

Source: Burlington Able Sail

Note: Burlington Able Sail is a Registered Charity

EXHIBIT 12 LASALLE PARK MARINA ASSOCIATION – FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT

Inventory Item	Year Installed	Life Expectancy from Point of Purchase (Years)	Overdue	2019 Replacement Cost	Year of First Replacement
Docks	2006	30		\$52,600.00	2036
Docks	2007	30		\$23,100.00	2037
Docks	2008	30		\$40,500.00	2038
Docks	2009	30		\$85,600.00	2039
Docks	2010	30		\$99,800.00	2040
Docks	2011	30		\$81,700.00	2041
Docks	2012	30		\$120,600.00	2042
Docks	2013	30		\$82,200.00	2043
Docks	2015	30		\$116,800.00	2045
Docks	2016	30		\$115,100.00	2046
Docks	2017	30		\$382,400.00	2047
Covered Barbecue Dock	1998	25		\$8,000.00	2023
Office – trailer	1986	25	Overdue	\$50,000.00	2011
20 foot barge	1997	30		\$15,000.00	2027
Steele Workboat	1996	25		\$4,000.00	2021
Steele Workboat	1997	25		\$4,000.00	2022
Steele Workboat	1993	25	Overdue	\$4,000.00	2018
Steele Workboat	1994	25		\$4,000.00	2019
Yamaha 20 hp outboard motor	2019	10		\$4,000.00	2029
Yamaha 20 hp outboard motor	2010	10		\$2,800.00	2020
Yamaha 20 hp outboard motor	2011	10		\$2,800.00	2021
Yamaha 20 hp outboard motor	2012	10		\$2,800.00	2022
Yamaha 20 hp outboard motor	2013	10		\$2,800.00	2023
Wabushene Vacuum Pumpout	2019	25		\$16,000.00	2044
Tools	Various	15		\$10,000.00	
Computer	2016	6		\$3,000.00	2022
WiFi System	2016	6		\$8,500.00	2022
VHF Radios	2005	8	Overdue	\$500.00	2013
Marine and Repair Supplies	Various	4		\$4,000.00	
North Compound Container + shelving	2018	20		\$4,800.00	2048
Hoisting Gear	2019	5		\$2,000.00	2024
Emergency Defibrillator	2013	8		\$2,500.00	2021
Barbecues (3)	2019	2		\$1,800.00	2021
Fire Pump	2018	5		\$1,200.00	2023
Spare Anchors and Chain 12 @ \$300.00	2008	15		\$3,600.00	2023
Sub-Total				\$1,362,500.00	

EXHIBIT 12 LASALLE PARK MARINA ASSOCIATION – FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT
(Continued)

Inventory Item	Year Installed	Life Expectancy from Point of Purchase (Years)	Overdue	2019 Replacement Cost	Year of First Replacement
LPMA held New Wave Break Replacement Fund				\$556,372.00	
LPMA held Dock Replacement Fund				(\$238,839.00)	
LPMA held Floating Wave Break Cleaning Fund				\$20,000.00	
LPMA held New Dock Capital Fund				\$18,000.00	
LPMA held New Office Capital Fund				\$1.00	
Total				\$1,718,030.00	

EXHIBIT 13 BURLINGTON SAILING AND BOATING CLUB – FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT

Inventory Item	Year Installed	Life Expectancy from Point of Purchase (Years)	Overdue	2019 Replacement Cost	Year of First Replacement
Yamaha 15 hp motor F15SMH 1022595D	2010	15		\$3,400.00	2025
Yamaha 15 hp motor F15SHF 1001443J	2006	15		\$3,400.00	2021
Yamaha 15 hp motor F15SMH 101790F	2009	15		\$3,400.00	2024
Yamaha 15 hp motor F29MSH 1014746	2008	15		\$3,400.00	2023
Yamaha 20 hp motor	2012	15		\$4,000.00	2027
Yamaha 40 hp motor	2013	15		\$7,500.00	2028
30' Steel Committee Boat	1985	50		\$50,000.00	2035
Tanzer 26 foot sailboat #ZT126-565-M81B26FT with cradle	1981	20	Overdue	\$9,000.00	2001
Shark + trailer	2000	30		\$6,500.00	2030
Brig RIB	2005	8	Overdue	\$4,000.00	2013
Alliance Infalable	1992	8	Overdue	\$3,500.00	2000
Titan A RIB	2015	8		\$4,000.00	2023
Highfield CL310BL SN# CN-HFM01174A717	2017	8		\$4,200.00	2025
Highfield CL310BL SN# CN-HFM00471K617	2017	8		\$4,200.00	2025
Optimus Dinghy	2002	20		\$4,500.00	2022
Optimus Dinghy	2002	20		\$4,500.00	2022
Optimus Dinghy	2002	20		\$4,500.00	2022
Optimus Dinghy	2002	20		\$4,500.00	2022
Optimus Dinghy	2002	20		\$4,500.00	2022
Optimus Dinghy	2002	20		\$4,500.00	2022
420 s/n	2010	20		\$11,500.00	2030
420 s/n	2010	20		\$11,500.00	2030
420 s/n	2010	20		\$11,500.00	2030
420 s/n	2010	20		\$11,500.00	2030
420 s/n	2010	20		\$11,500.00	2030
420 s/n	2010	20		\$11,500.00	2030
29er Dinghy + trailer	2008	20		\$10,000.00	2028
CL Echo	2006	20		\$9,000.00	2026
CL Echo	2006	20		\$9,000.00	2026
CL Echo	2006	20		\$9,000.00	2026
Echo Boat QXW05768F414	2014	20		\$9,000.00	2034
Echo Boat QXW05769F414	2014	20		\$9,000.00	2034
Echo Boat QXW05770F414	2014	20		\$9,000.00	2034
Echo Boat QXW05772E515	2015	20		\$9,000.00	2035
Echo Boat QXW05773E515	2015	20		\$9,000.00	2035
Echo Boat QXW05774E515	2015	20		\$9,000.00	2035
KVM Powerboat s#ZoF16039H788	2013	10		\$15,000.00	2023

EXHIBIT 13 BURLINGTON SAILING AND BOATING CLUB – FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT
(Continued)

Inventory Item	Year Installed	Life Expectancy from Point of Purchase (Years)	Overdue	2019 Replacement Cost	Year of First Replacement
Dinghy Multi Hauler Trailer	2009	20		\$7,500.00	2029
Dinghy Multi Hauler Trailer	2017	20		\$7,500.00	2037
Avon SR4 Trailer	2010	20		\$2,000.00	2030
Brig Trailer	2005	20		\$2,000.00	2025
Homemade Boat Trailer #353304375	2006	20		\$300.00	2026
Collapsible Dinghy Dolly	2017	5		\$600.00	2022
Collapsible Dinghy Dolly	2017	5		\$600.00	2022
Collapsible Dinghy Dolly	2017	5		\$600.00	2022
Collapsible Dinghy Dolly	2017	5		\$600.00	2022
Collapsible Dinghy Dolly	2017	5		\$600.00	2022
Collapsible Dinghy Dolly	2017	5		\$600.00	2022
Sailing School Equipment (Computer, tools,...)	Various	5		\$7,000.00	
Compound Docks	2015	20		\$45,000.00	2035
Compound Fencing	1985	40		\$45,000.00	2025
Mast Crane	1982	50		\$30,000.00	2032
Concrete Parking Barriers	2005	35		\$10,000.00	2040
Flagpole	1981	35	Overdue	\$8,000.00	2016
Clubhouse Furniture	1983	35	Overdue	\$35,000.00	2018
Clubhouse Appliances	Various	15		\$25,000.00	
Clubhouse Infra Systems	Various	20		\$25,000.00	
Sub-Total				\$565,400.00	
Capital Fund (as at end of fiscal 2018)				\$78,551.00	
Sailing School Fund (as at end of fiscal 2018)				\$765.00	
Total				\$644,316.00	

Source: Burlington Sailing and Boat Club, May 2019

EXHIBIT 14 BURLINGTON ABLE SAIL PROGRAM – FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT

Inventory Item	Year Installed	Life Expectancy from Point of Purchase (Years)	Overdue	2019 Replacement Cost	Year of First Replacement
Martin 16	2004	25		\$23,000.00	2029
Martin 16	2009	25		\$23,000.00	2034
Martin 16	2015	25		\$23,000.00	2040
RIB Safety Boat Caribe	2001	20		\$12,000.00	2021
RIB Safety Boat Mercury	2009	20		\$12,000.00	2029
Motor Yamaha 25 hp	2001	20		\$5,000.00	2021
Motor Mercury 30 hp	2015	20		\$6,000.00	2035
Jenny Sling People Lift	2015	15		\$4,000.00	2030
Dock Canopy	2015	10		\$3,500.00	2025
Inflatable Fox Markers	2012	15		\$2,000.00	2027
Inflatable West Markers	2004	15		\$1,200.00	2019
Able Sail Docks	2012	20		\$15,000.00	2032
Able Sail Docks	2012	20		\$15,000.00	2032
Able Sail Docks	2012	20		\$15,000.00	2032
Storage Containers @2	2012	15		\$7,000.00	2029
Life Jackets	2014	5		\$300.00	2019
Sundry Boat Gear	2019	Various		\$1,000.00	
VHF Radios	2016	5		\$700.00	2021
Maintenance Parts	2019	1		\$1,500.00	2020
General Upkeep Parts	2019	1		\$5,000.00	2020
Total				\$175,200.00	

Source: Burlington Able Sail

Note: Burlington Able Sail is a Registered Charity, as specified by CRA all assets have to be transferred to another equivalent charity if the program were to fold or the City take over the program

EXHIBIT 15 CITY OF BURLINGTON – FULL COST OF CAPITAL ASSETS AND EQUIPMENT REPLACEMENT

Inventory Item	Year Installed	Life Expectancy from Point of Purchase (Years)	Overdue	2019 Replacement Cost	Year of First Replacement
BS&BC Clubhouse	1977	60 could be extended		\$1,093,000	2027
Sailing School Building	1970	60		\$208,000	2020
Launch Ramp #1 (Public)	1999	30		\$31,200	2029
Wooden Dock	2005	30		\$23,500	2035
Wooden Dock	2005	30		\$23,500	2035
Launch Ramp #2 (BS&BC use)	2014	25		\$82,800	2039
Boat Storage Compound (Hamilton Port Authority)					
Pier/Parking Area (Hamilton Port Authority/City of Hamilton)					
Total				\$1,462,000	

Source: City of Burlington

EXHIBIT 16A SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – NUMBER AND SIZE OF SLIPS

Marina	Location	Total Slips	Number of Slips by Length	Seasonal Slips	Length of Transient Slips	Seasonal Slips ¹ Occupied	Max. Length	Min. Draft	Max. Beam	Fuel	Launch Ramp	Marine Supplies
Public Marinas	Publically Owned & Operated											
Lakefront Promenade Marina	Mississauga, Ontario 135 Lakefront Promenade 905-274-7601	176	<26' - 32 26' to <30' - 28 30' to <36' - 66 36' to <46' - 50	176	All available depends on status of seasonals		45 ft.	5 ft.	15 ft.	Gas Diesel	Yes No trailer parking	
Town of Cobourg Marina	Cobourg, Ontario 55 King Street West 905-372-2397	218	25' - 48 28' - 59 33' - 28 34' - 9 35' - 9 36' - 32 41' - 15 52' - 15 69' - 2 77' - 1	145	73 may vary depending on need for seasonal slips		80 ft.	11 ft.	16 ft.	Gas Diesel	\$9.50 daily (with parking) \$81.50 season (with parking)	
Public Marinas	Direct Management Contract											
Port Elgin Harbour Marina	Saugeen Shores, Ontario 100 Harbour Street 519-832-2008	268	20 ft. un-serviced - 64 24 ft. un-serviced - 26 28 ft. un-serviced - 24 30 ft. - 64 32 ft. - 32 36 ft. - 34 40 ft. - 24 75 ft. - 1	268	30		140 ft.	4 ft.	Gas Diesel	Yes \$8.85 daily	Yes	Yes
Trent Port Marina	Quinte West, Ontario 15 Creswell Drive 613-392-2841 ext. 7100	374	30' - 100 36' - 240 46' - 34	320	54		94 ft.	9 ft.	16 ft.		\$12.00/day	

EXHIBIT 16A SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – NUMBER AND SIZE OF SLIPS (Continued)

Marina	Location	Total Slips	Number of Slips by Length	Seasonal Slips	Length of Transient Slips	Seasonal Slips ¹ Occupied	Max. Length	Min. Draft	Max. Beam	Fuel	Launch Ramp	Marine Supplies
Public Marinas	Profit Sharing Management Agreement											
Kincardine Marina	Kincardine, Ontario 249 Station Beach Road 519-396-4336	154	20' - 23 26' - 26 30' - 48 36' - 35 40' - 22	140	14		85 ft.	8 ft.	Gas Diesel	Gas Diesel	Yes	Yes
Public/Private Marinas												
Toronto Island Marina	Toronto, Ontario Centre Island 416-203-1055	150	<26' - 20 26' to <30' - 20 30' to <36' - 30 36' to 46' - 50 50' - 15 60' - 15	100	50		70 ft.	7 ft.	18 ft.	Gas Diesel		Yes
Bluffer's Park Marina	Scarborough, Ontario 7 Brimley Road South 416-266-4556	430	<30' - 60 30' - 100 36' - 200 40' - 40 50' - 30	410	20		50 ft.	12 ft.	16 ft.	Gas Diesel	\$22.00/ day includes parking	Yes
Port Dalhousie Pier Marina	St. Catharines, Ontario 80 Lighthouse Road 905-646-5515	465	<30' - 100 30' to <36' - 150 36' to <46' - 180 46'+ - 35	445	<30' - 5 30' to <36' - 10 36'+ - 5		100 ft.	14 ft.	Un- limited		Yes	Yes
Private Marinas												
Wye Heritage Marina	Midland, Ontario 3282 Ogden's Beach Road 705-526-0155	800	<26' - 150 26' to <36' - 300 36' to <46' - 250 46'+ - 100	750	<26' - 20 26' to <36' - 10 36' to <46' - 10 46'+ - 10		48 ft in slips 100 ft. along wall	9 ft.	24 ft.	Gas Diesel	Yes	Yes

EXHIBIT 16A SELECTED PUBLIC, PUBLIC/PRIVATE AND PRIVATE MARINAS IN ONTARIO – NUMBER AND SIZE OF SLIPS (Continued)

Marina	Location	Total Slips	Number of Slips by Length	Seasonal Slips	Length of Transient Slips	Seasonal Slips ¹ Occupied	Max. Length	Min. Draft	Max. Beam	Fuel	Launch Ramp	Marine Supplies
Private Marinas												
Erieau Marina	Erie, Ontario 1515 Kerr Avenue 519-676-4471	300	<26' - 30 26' to <30' - 100 30' to <36' - 90 36' to <46' - 50 46'+ - 30	225	26' to <30' - 25 30' to <36' - 25 36' to <46' - 20 46'+ - 5		50 ft. in slips 150 ft. along wall	12 ft.	20 ft.	Gas Diesel Pro-pane	Yes (3) \$15.00/day \$195.00/season	Yes
Crate Marine Belleville	Belleville, Ontario 25 Dundas Street West 613-966-9338	200	<26' - 20 30' - 60 36' - 70 40' - 20 46' - 30	200	30 depend on status of seasonals		50 ft.	5 ft.	17 ft.	Gas Diesel	\$18.00/day	Yes
Frenchman's Bay Marina	Pickering, Ontario 591 Liverpool Road 905-839-5036	350	25' - 80 30' - 110 36' - 80 40' - 50 45' - 30	300	25' - 15 30' - 20 36' - 5 40' - 5 45' - 5		60 ft.	5 ft.	17 ft.	Gas Diesel	\$20.00/day (in/out & parking) \$125.00 3 month pass \$200.00 6 month pass \$300.00 annual pass \$25.00 gate key with 3, 6 & annual pass	Yes
Collins Bay Marina	Collins Bay, Ontario 1270 Cloverdale Drive 613-389-4455	304	18' - 20 22' - 52 26' - 104 30' - 84 36' - 32 42' - 12	304	30 to 40 depends on status of seasonals		50 ft.	10 ft.	16 ft.	Gas Diesel	Yes \$12.00 daily	Yes Limited

EXHIBIT 16A SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – NUMBER AND SIZE OF SLIPS (Continued)

Marina	Location	Total Slips	Number of Slips by Length	Seasonal Slips	Length of Transient Slips	Seasonal Slips ¹ Occupied	Max. Length	Min. Draft	Max. Beam	Fuel	Launch Ramp	Marine Supplies
Arm's Length Operation - Non Profit												
Marina Quay West	Toronto, Ontario 235 Queens Quay West 416-203-1212	200	30' - 50' 36' - 50' 45' - 40' 50' - 30' 55' - 20' 60' - 10'	200	20 depends on status of seasonal		60 ft.	12 ft.	17 ft.			Yes
Marina 4	Toronto, Ontario 235 Queens Quay West 416-203-1212	100	30' - 30' 36' - 30' 40' - 40'	100	10 depends on status of seasonal		40 ft.	20 ft.	14 ft.			
John Quay	Toronto, Ontario 235 Queens Quay West 416-203-1212	560 ft. of dock space	equal to 40' - 14		equal to 40' - 34		100 ft.	24 ft.	18 ft.			
Arm's Length Operation - Chamber of Commerce												
The Port of Orillia	Orillia, Ontario 50 Centennial Drive 705-326-6314	220	112 - 24' 64 - 35' 44 - 40'		112 - 24' 64 - 35' 44 - 40'		80 ft.	5 ft.	21.5 ft.		Yes	Yes

EXHIBIT 16B SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FACILITIES AND SERVICES

Marina	Haul Out	Repairs	Food	Facilities	Shore Power (amps)	Pump out	Recreation Facilities	Sales	Hookups	Parking Spaces	Dry land Seasonal Storage	Winter Storage	Plans for Future Changes
Public Marinas	Publically Owned & Operated												
Lakefront Promenade Marina	Rent Hydraulic truck/ Trailer		Ice/water Licensed outdoor concession Food patio	Showers Washrooms Laundry	15 amp. - 56 30 amp. - 120	Yes \$16.00/ pumpout	Picnic tables Charcoal BBQ's Children's play area		Power Water Public telephone Wireless internet	120		Outside 50 spaces	None
Town of Cobourg Marina	Rental crane, rental mast crane		Ice/Water Restaurant Groceries	Showers Washrooms Laundry	20 amp. - 52 30 amp. - 126 2 x 30 amp. - 34	\$10.00/ tank seasonal \$20.00/ tank service	Picnic tables, Recreation area, Camp sites, BBQ's		Power Water WIFI	No dedicated marina parking	1,700 sq. metres	Outside - 70 boats on site 30 boats off site	Discussions on additional slips underway
Public Marinas	Direct Management Contract												
Port Elgin Harbour Marina	Crane or hydraulic trailer	Engines Electrical Sails Can be arranged	Ice/Water Restaurant (privately run)	Washrooms Showers Public telephone	30 amp. - 154	Yes \$16.22/ tank \$102.38/ Season	Picnic tables, Beach, Children's play area, Fish Cleaning Station		Power Water WiFi	270	3,000 sq. metres	Outside	To be determined
Trent Port Marina			Ice/Water Canteen	Showers Washrooms Laundry	30 amp. - 200 50 amp. - 174		BBQ's, Covered seating patio, Beach		Power Water WIFI	250		Outside - 270 boats	None
Public Marinas	Profit Sharing Management Agreement												
Kincardine Marina	Rental Crane		Ice/Water	Washrooms Showers Public telephone	15 amp. - 23 30 amp. - 109 50 amp. - 22	Yes \$15.00/ Tank	Picnic tables, Gas BBQ, Gazebos, Complimentary Bicycles		Power Water WiFi	220		Outside - 150 boats	None

EXHIBIT 16B SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FACILITIES AND SERVICES (Continued)

Marina	Haul Out	Repairs	Food	Facilities	Shore Power (amps)	Pump out	Recreation Facilities	Sales	Hookups	Parking Spaces	Dry land Seasonal Storage	Winter Storage	Plans for Future Changes
Public/Private Marinas													
Toronto Island Marina	15 ton travel lift Mast crane	Hulls Engines Electrical Sails	Ice/Water Groceries Restaurant Patio bar	Showers Washrooms Laundry	15 amp. - 10 30 amp. - 110 50 amp. - 30	Yes \$25.00/ tank \$100.00 un- limited annual fee	Picnic tables		Power Water Public telephone Wireless internet		5,800 sq. metres	Outside - 350 boats	None
Bluffers Park Marina	40 ton travel lift 12 ton hydraulic trailer 8 ton fork lift Mast crane	Hulls Engines Electrical Sails	Ice/Water Restaurant Snack bar	Showers Washrooms Laundry	20 amp. - 20 30 amp. - 350 50 amp. - 60	Yes \$17.50/ tank	Picnic tables BBQs	Engines Boats	Power Water WiFi	320	About 11,200 sq. metres.	Outside - 410 boats	None
Port Dalhousie Pier Marina	30 ton travel lift	Hulls Engines Electrical Sails	Ice/water Floating restaurant Patio deck	Showers Washrooms	30 amp. - 365 50 amp. - 100	Yes Un- limited for season- als	Picnic tables Beach	Engines Boats	Power Water Telephone hookup at each slip Public telephone Wireless internet	280	Roughly 10,000 sq. metres	Outside - 425 boats	Under consider- ation within 5 years
Private Marinas													
Wye Heritage Marina	50 ton travel lift Hydraulic trailer 65' electric mast stepper	Hulls Engines Electrical Sails Fibreglass Paint shop	Ice/Water Henry's Fish Rest- aurant	26 individual washrooms with showers Coin operated laundry	30 amp. - 520 50 amp. - 204	Yes	Heated swimming pool Beach Playground area Horseshoe pits Tennis courts Basketball nets Golf carts Comp. shuttle	New & used boats Yacht broker	Water Power WiFi	640	8,000 sq. metres.	Indoor heated Indoor un- heated Outdoor - 650 boats	None at present time

EXHIBIT 16B SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FACILITIES AND SERVICES (Continued)

Marina	Haul Out	Repairs	Food	Facilities	Shore Power (amps)	Pump out	Recreation Facilities	Sales	Hookups	Parking Spaces	Dry land Seasonal Storage	Winter Storage	Plans for Future Changes
Private Marinas													
Erieau Marina	60 ton travel lift 35 ton hydraulic trailer 5 ton fork lift Mast crane	Hulls Engines Electrical Sails	Ice/Water Groceries LCBO	Showers Washrooms Laundry	15 amp. - 20 30 amp. - 150 50 amp. - 50	Yes \$15.00/ tank	Picnic tables BBQs Swimming pool Playground Exercise room	New & used boats Trailers	Water Power WiFi	125	1,800 sq. metres.	Outdoor - 200 boats	None
Crate Marine Belleville	50 ton marine travel lift 10 ton fork lift 30 ton hydraulic trailer	Engines Electronic Hulls Sails	Ice/Water	Showers Washrooms Laundry	30 amp. - 130 50 amp. - 70	\$15.00/ tank Free with \$100.00 fuel	Swimming pool, Picnic tables Tennis court Fitness centre	Boats Motors	Power Water WiFi	130	17,000 sq. metres	Outside - 250 boats	Plan to add 50 30 foot slips within next two years
Frenchman's Bay Marina	15 & 30 ton travel lifts	Hulls Engines	Ice/Water	Showers Washrooms Laundry	15 amp. - 55 30 amp. - 150 50 amp. - 70	Yes Free for seasonal self pump \$20.00 monthly & transients self pump \$20.00 seasonal, monthly, & transients we pump \$50.00 at slip we pump	Picnic tables Gas BBQs Playground		Power Water Cable TV WiFi	210	Approx. 7,000 sq. metres	Outside - 100 boats In-water moorings	None

EXHIBIT 16B SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FACILITIES AND SERVICES (Continued)

Marina	Haul Out	Repairs	Food	Facilities	Shore Power (amps)	Pump out	Recreation Facilities	Sales	Hookups	Parking Spaces	Dry land Seasonal Storage	Winter Storage	Plans for Future Changes
Private Marinas													
Collins Bay Marina	65 ton crane mast crane		Ice/Water	Showers Washrooms	15 amp. - 124 30 amp. - 180	Yes \$17.70 1 tank or \$130.00/season \$23.89 2 tanks or \$190.00/season	Picnic tables Gas BBQs Playground Sailing camp		Power Water WiFi	190	Approx. 2,000 sq. metres	Outside - 200	None
Arm's Length Operation - Non Profit													
Marina Quay West			Ice/Water Ice cream	Showers Washrooms Laundry	30 amp. - 100 50 amp. - 100	\$18.50/30 gallons or less	Picnic tables		Power Water Public telephone WiFi	100			None
Marina 4			Ice/Water	Showers Washrooms	30 amp. - 80 50 amp. - 20	\$18.50/30 gallons or less			Power Water Public telephone WiFi	250			None
John Quay			Ice/Water	Showers Washrooms Laundry	50 amp. - 15				Power Water Public telephone WiFi	60			None
Arm's Length Operation - Chamber of Commerce													
The Port of Orillia			Water/Ice Boater's lounge	Washrooms Showers Laundry	30 amp. - 190 50 amp. - 30		Fishing pier		Power Water WiFi				New building, more slips

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Public Marinas	Publically Owned & Operated									
Lakefront Promenade Marina	\$73.02/ft. - includes one 15 or 30 amp.	\$1.61/ft. daily \$9.65/ft. weekly (7 nights) \$18.58/ft. monthly (available only in May, June, September, October) \$87.05/hr. for marina services	\$365.93 +\$3.66/sq. ft. power boats only (includes haul out & launch, block & stands, bottom wash) \$16.74/ft. shrink wrap \$18.84/ft. with fly bridge	70%	30%	Mississauga 47% Brampton 8% Outside Peel Region 45%	Small wait list	<50	2 days	100% Ontario (70% Western Lake Ontario, 20% Whitby, 10% Toronto)
Town of Cobourg Marina	\$64.00/ft. serviced \$69.00/ft. G dock \$59.00/ft. un-serviced \$56.00/ft. un-serviced wall Multihull 1.5 x rate/ft. Commercial rate + 25% Summer storage \$630.00 <30' \$660.00 >30'	\$1.85/ft. serviced \$1.65/ft. un-serviced \$1.60/ft. un-serviced wall \$15.00/day anchoring or rafting after marina is full \$23.00/day minimum charge Weekly rate: daily rate x 6 Monthly rate: daily rate x 20	\$22.00/ft./season on-site \$20.00/ft./season off-site \$785.00/season multihull \$11.00 daily \$55.00 weekly \$230.00 monthly \$3.00/ft. hull washing \$310.00 lift out up to 29' - CYC member \$455 non-member \$320.00 lift out 30' to 34' - CYC member, \$465 non-member \$330.00 lift out over 34' - CYC member, \$475 non-member \$120.00 lift out trailer boats - CYC member, \$265 non-member \$135.00 each yard move	45%	55%	73% Cobourg/ Northumberland 13% Durham /Peterborough 8% York/ Toronto/Peel 6% Other Ontario	Waiting list 44 (2017) 76 (2018)	1,334 boats 2,304 stays	1.7 days	80% GTA/ 1000 Islands 11% Quebec 6% New York

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Public Marinas	Direct Management Contract									
Port Elgin Harbour Marina	\$63.77/ft. 20' to 28' unserviced \$65.97/ft. 30' to 40' serviced Additional footage \$69.80/ft. \$352.78 - seadoo slips \$183.40 seasonal \$204.27 Hydro seasonal	\$2.01/ft. daily includes hydro \$11.36/ft. + hydro weekly \$27.41/ft. + hydro monthly (May, June, September) \$31.41/ft. + hydro monthly (July, August) \$14.13 Hydro per week \$56.66 Hydro per month	\$8.72/ft.	65%	35%	63% Saugeen Shores 15% Kincardine 10% Rest of Bruce County 8% Huron County 4% Grey County	Waiting list about 75	900	1 day	70% Ontario (Sarnia to Sault Ste. Marie) 25% Michigan (Port Huron to Alpena) 5% (Ohio)
Trent Port Marina	\$52.80/ft. 30 amp. \$54.50/ft. dual 30 amp. or 50 amp \$657.00 fishing boats <18'	\$1.80/ft./ night 30 amp. \$2.00/ft./night dual 30 amp. or 50 amp. \$9.40/ft./week 30 amp. \$9.80/ft./week dual 30 amp. or 50 amp. \$27.80/ft./month 30 amp. \$29.00/ft./month dual 30 amp. or 50 amp.		40%	60%	70% Quinte West 20% Rest of Hastings County 5% Belleville 5% Prince Edward County		600 boats	1 day	53% New York (Olcott to Oswego) 33% Ontario (Port Hope to Gananoque) 14% Quebec
Public Marinas	Profit Sharing Management Agreement									
Kincardine Marina	Floating docks \$1,019.91 - 20 ft. \$1,122.12 - 22 ft. \$1,223.45 - 24 ft. \$1,530.31 - 30 ft. \$1,632.08 - 32 ft. \$1,836.06 - 36 ft. \$2,040.93 - 40 ft.	\$1.60/ft. nightly seventh night free	\$274.34 Launch/haul out approximately \$200.00 each event	45%	55%	55% Kincardine 20% Saugeen Shores 10% Rest of Bruce County	Small waiting list, mostly for longer slips	900	1 day	75% Ontario (Sarnia to Tobermory) 25% Michigan (Port Huron to Alpena)

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Public Marinas	Profit Sharing Management Agreement									
Kincardine Marina	Fixed docks \$1,224.11 - 30 ft. \$1,733.19 - 40 ft. \$1,950.66 - 45 ft. \$76.11 waiting list fee					10% Huron County 5% Perth County				
Public/Private Marinas										
Toronto Island Marina	\$98.00/ft. - class A docks \$94.00/ft. - class B docks (includes water & hydro up to 30 amps.) \$0.50/ft./day \$2.00/ft./week \$8.00/ft./month extra 30 amp service or 50 amps. \$38.00/ft. dry sailors \$0.80/sq. ft. weekly land storage for repairs/short term only \$325.00 canoe & dinghy storage (on marina racks) \$100.00/hour sling time \$300.00 overnight sling hang \$150.00 tow inside marina \$110.00/hour tow outside marina \$80.00/hour yard labour	\$2.25/ft. daily \$13.00/ft. weekly \$39.00/ft. monthly Extra 30amp./50 amp. service \$0.50/ft. daily, \$2.00/ft. weekly, \$8.00/ft. monthly	\$5.25/sq. ft. (includes haul out, storage, launch) \$6.00/ft. blocking power boat \$8.00/ft. blocking sailboat mast down \$10.00/ft. blocking sail boat mast up Or \$150.00 annual fee for cradle handling & storage \$335.00/boat dry sailors \$225.00 canoe & dinghy storage (on marina racks) \$4.00/ft. power wash \$325.00 quick haul & launch (includes 1 hour pad time) - up to 40 ft. \$425.00 quick haul & launch (includes 1 hour pad time) - over 40 ft. \$9.00/ft. travel lift charges launch or haul out \$9.00/ft. relocation charge \$7.00/ft. block	60%	40%	90% Toronto 4% Vaughan 3% Markham 3% York Region	150 on waiting list	2,000 boats	1.25 days	90% Ontario (Newcastle to Hamilton) 10% New York (Youngstown to Olcott)

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Public/Private Marinas										
Toronto Island Marina	\$225.00/year storage lockers \$75.00 cradle storage summer \$150.00 transportation of cradles \$180.00 season tender pass		\$75.00 cradle handling							
Bluffers Park Marina	\$96.00/ft. at fixed docks (shore) \$90.00/ft. at floating docks (includes up to 30 amp. power, parking, water, pumpouts & 10% discount on food services) \$12.00/ft. for extra 30 amp. outlet \$15.00/ft. extra for 208 volt 50 amp. outlet \$38.00/ft. boat-on-a-trailer (ramp access) \$5.00/sq. ft. summer season land storage \$1.40/sq. ft. one month \$0.70/sq. ft. 1 week - sailboat on cradles/power boat on blocks	Fixed dock \$1.75/ft. per day \$8.00/ft. per week \$28.25/ft. per month Floating dock \$1.50/ft. per day \$7.75/ft. per week \$28.50/ft. per month Boat trailer storage \$8.25 per day \$35.00 per week \$87.50 per month	\$5.40/sq. ft. (includes haul out, hull rinse, storage & launch) Does not include winterization \$4.75/sq. ft. land storage only \$6.50/linear ft. blocking for power boats \$140.00 trailer/ cradle land storage Bluffer Park Marina members \$360.00/ft. non Bluffer Park Marina members cradle/trailer only land storage Boat lift or launch \$7.50/ft. (up to 40') \$10.00/ft. (over 40') \$3.85/ft. hull rinse \$110.00/hr. sling time \$170.00/night over-night sling time	50%	50%	90% Toronto 6% York Region 2% Pickering 2% Ajax		900-1,000 boats	1 day	90% Ontario (Fifty Point to Kingston) 10% New York (Youngstown to Rochester) <1% Quebec

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Public/Private Marinas										
Port Dalhousie Pier Marina	\$60.00/ft. - 20' dock, up to 23' boat \$65.00/ft. - 24' dock, up to 27' boat \$2,400.00 - 28' dock, up to 32' boat \$2,600.00 - 30' dock, up to 32' boat \$3,200.00 - 40' dock, up to 42' boat \$4,200.00 - 50' dock (prices include security, power - 30amp., water, WiFi, unlimited pump out) \$425.00/season for additional 30 amp. service \$60.00 each additional foot over limit \$9.00/ft. summer dry land storage	\$1.50/ft. daily under 40' \$2.00/ft. daily over 40' \$20.00/ft. per month	\$40.00/ft. lift out September \$42.00/ft. lift out Oct 1 to Oct 15 \$44.00/ft. lift out after Oct 15 (prices include power wash, storage & spring launch) \$800.00 - over 24' boat on trailer, no handling stored in yard \$700.00 - under 24' boat on trailer, no handling stored in yard \$600.00 - boat on trailer, no handling stored on parking lot \$100.00 stand rentals - 2 per season \$8.00/ft. for use of travel lift (minimum \$100.00) \$3.00/ft. mast hoist (1 man only) \$3.00/ft. boat wash \$150.00 per season for cradle storage	55%	45%	80% St. Catharines 10% Dalhousie 10% Niagara Region		>500	1.25 days	95% Ontario (Mississauga to Niagara-on-the-Lake) 10% New York (Youngstown to Rochester) <1% Pennsylvania
Private Marinas										
Wye Heritage Marina	\$80.00/ft. 30 amp. \$91.00/ft. 50 amp.	\$1.70/ft. daily \$2.55/ft. daily 50 amp.	\$5.40/sq. ft. (includes haul out, hull rinse, storage & launch) \$4.75/sq. ft. land storage only	60%	40%	40% Midland 25% Rest of Simcoe County 20% Grey County 10% Parry Sound 5% York		1,000	1.25-1.5 days	80% Ontario (Tobermory to Parry Sound) 20% Michigan (Alpena to Mackinaw City)

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Private Marinas										
Erieau Marina	\$55.00/ft. minimum 25' charge fixed docks \$50.00/ft. minimum 20' charge serviced floaters \$875.00 maximum 18' unserviced floaters \$150.00/unit air conditioning surcharge \$100.00/summer boat trailer/cradle storage	\$2.00/ft./night minimum charge 20' weekly - pay 5 nights, 2 nights free monthly - pay 20 nights, 10 nights free	\$7.25/sq. ft. inside heated (includes lift out & launch, wash, block) \$3.95/sq. ft. inside cold storage \$12.00/ft. outside storage \$10.00/ft. lifts \$3.00/ft. wash \$3.00/ft. blocking	70%	30%	50% Chatham 30% Rest of Chatham-Kent 20% Erieau	Small waiting list for longer slips	600	1 day	80% Ontario (Windsor to Long Point) 15% Michigan (Detroit & area) 5% Ohio
Crate Marine Belleville	\$1,300.00 25 ft. + \$175.00 30 amp. \$1,560.00 30 ft. + \$175.00 30 amp. \$1,825.00 35 ft. + \$250.00 30 amp. \$2,100.00 40 ft. + \$250.00 30 amp. + 300.00 50 amp. \$2,350.00 45 ft. + \$300.00 30 amp. + \$350.00 50 amp. \$2,700.00 50 ft. + \$300.00 30 amp. + \$400.00 50 amp. \$3,100.00 60 ft. + \$450.00 50 amp. \$30.00/ft. land boat storage/season \$150.00 cradle storage/ Season	\$1.35/night no power \$1.40/night with power \$525.00 monthly 25 ft. \$630.00 monthly 30 ft. \$735.00 monthly 35 ft. \$840.00 monthly 40 ft. \$945.00 monthly 45 ft. \$1,050.00 monthly 50 ft. \$1,260.00 monthly 60 ft.	\$30.00/ft. \$200.00 extra for hydro for live aboards \$5.50/ft. launch or haul out on customer trailer \$77.50 launch or haul out PWC \$7.50/ft. launch or haul out up to 21 ft. \$10.50/ft. launch or haul out 22 ft. to 29 ft. \$12.00/ft. launch or haul out 30 ft. to 35 ft. \$13.00/ft. launch or haul out 36 ft. to 39 ft. \$14.50/ft. launch or haul out 40 ft. to 49 ft. \$17.50/ft. launch or haul out 50 ft. to 60 ft. \$21.00/ft. launch or haul out 61 ft. to 75 ft.	65%	35%	70% Belleville 25% Rest of Hastings County 5% Prince Edward County		225-250 boats	1 day	75% Ontario (Port Hope to Kingston) 20% New York (Eagle Creek to Pultneyville) 5% Quebec

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Private Marinas										
Crate Marine Belleville	\$150.00 trailer storage/ season Live aboard boaters pay extra \$200.00 for hydro		Blocking/Stand Fees \$51.50 up to 32 ft. \$72.50 33 ft. to 39 ft. \$87.50 40 ft. to 60 ft. \$103.00 set sailboat to customers cradle \$6.00/ft clean/wash hull bottom \$103.00 surcharge for double handling boats on trailers							
Frenchman's Bay Marina	\$90.50/ft. 50 amp. + use of 20 amp. \$81.25/ft. 30 amp. \$64.00/ft. un-serviced maximum 25 ft. \$150.00 air conditioning hydro surcharge Seasonal rates include launch & pump outs \$25.00 key for security gate and/or washroom refundable	\$1.50/ft. daily \$2.25/ft. daily 50 amp. \$22.00/ft. monthly 50 amp. + use of 20 amp. \$19.50/ft. monthly 30 amp. \$15.50/ft. monthly un-serviced \$30.00 air conditioning hydro surcharge \$25.00 key for security gate and/or washroom refundable	\$4.50/sq. ft. land storage full season \$3.50/sq. ft. any 3 months \$1.25/sq. ft. monthly \$6.00/ft. blocking (includes blocks & labour) \$3.70/ft. blocking customer supplied blocks/stands \$3.85/ft. mast stepping or un-stepping customer assisted \$5.85/ft. two masts customer assisted \$5.90/ft. mast stepping or un-stepping no customer assistance \$8.75/ft. two masts no customer assistance \$75.00 boom & sail install or uninstall	55%	45%	90% Pickering 5% Ajax/Whitby 5% Toronto	Waiting list <100	1,000 boats	1 day	85% Ontario (Hamilton to Port Hope) 15% New York (Olcott to Rochester)

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Private Marinas										
Frenchman's Bay Marina			<div>\$50.00/season mast storage on rack \$10.00/month mast storage on rack \$8.00/ft. launch or haul out up to 40' \$10.00/ft. launch or haul out 40' and over \$140.00/night sling hold charge \$75.00/hr. during day after first hour \$3.75/ft. hull rinse \$1.50/ft. deck rinse \$4.60/ft. if scrubbing by brush required \$160.00/season cradle storage \$48.00/month \$16.00/week \$50.00 lift cradle onto truck \$250.00/season trailer storage \$60.00/month \$25.00/week \$50.00/season engine storage \$10.00/season battery storage \$275.00/season cradle rental \$60.00/month \$25.00/week</div>							

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Private Marinas										
Frenchman's Bay Marina			\$4.50/sq. ft. land storage (Nov 1 to Apr 30) \$0.95/sq. ft. monthly \$5.00/sq. ft. in-water storage B & C docks \$5.25/sq. ft. in-water storage A dock - customer supplies bubbler for in-water Storage							
Collins Bay Marina	\$63.00/ft.- 36', 38' 42' slips \$59.00/ft. - 30' slips \$54.00/ft. - 26' slips \$49.00/ft. - 22', 18' slips \$41.25/ft. summer dry storage 15 amp \$240.00/season 30 amp \$370.00/Season	\$1.75/ft. daily \$9.00/ft. weekly \$23.00/ft. monthly (includes power, water, use of private washrooms & showers, parking)	\$28.00/ft. \$10.00/ft. launch/haulout 20 to 29 ft. \$10.00/ft. launch/haulout 30 to 39 ft. \$11.00/ft. launch/haulout 40 ft. & up \$3.00/ft. blocking storage \$3.50/ft. cradle/ trailer mast stepping/de-stepping single \$3.50/ft., double \$5.00/ft.	45%	55%	75% Kingston 20% Rest of Frontenac County 5% Lennox & Addington County	38 on waiting list all for slips >36'	1,000-1,200	1.25 days	70% Ontario (Brockville to Cobourg) 25% New York (Alexandria Bay to Sackets Harbor) 5% Quebec
Arm's Length Operation - Non Profit										
Marina Quay West	\$107.50/ft. \$36.00/ft. per month (includes use of one 30 amp. outlet) \$300.00 per season for one additional 30 amp. outlet	\$2.35/ft. per night (under 40 ft.) \$3.00/ft. per night (over 40')		65%	35%	98% Toronto 2% York Region	Waiting list for longer slips	500 boats	1.5 days	85% Ontario (Port Hope to Hamilton) 15% New York (Youngstown to Point Breeze)
Marina 4	\$107.50/ft. \$36.00/ft. per month (includes use of one 30 amp. outlet)	\$2.35/ft. per night (under 40 ft.) \$3.00/ft. per night (over 40')		60%	40%	95% Toronto 3% Markham 2% York Region	Waiting list for longer slips	500 boats	1.5 days	90% Ontario (Port Hope to Hamilton) 10% New York

EXHIBIT 16C SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – FEES (2019) AND USER PATTERNS (Continued)

Marina	Rental Rates		Winter Storage Rates	Percentage of Seasonal Boats		Seasonal Boater Market Area	Turn Away Business	Number of Transient Boats	Average Length of Stay	Primary Market Area (Transient Boats)
	Seasonal	Transient		Power	Sail					
Arm's Length Operation - Non Profit										
Marina Four	\$300.00 per season for one additional 30 amp. outlet									(Youngstown to Point Breeze)
John Quay		\$30.97 for vessels 40 ft. and under \$39.82 for vessels over 40 ft. (3 hrs. or less 9am to 5pm) \$4.00/ft./night 40 ft. to 200 ft. 40 ft. and under use other marinas		90%	10%			3,000	2 days	70% Ontario (Kingston to Windsor) 20% New York State 8% Ohio & Pennsylvania 2% Europe, Rest of Ontario & U.S.
Arm's Length Operation - Chamber of Commerce										
The Port of Orillia		Up to 3 hours free moorage with receipt of downtown purchase (hydro, water not included) \$1.75/ft./night - 30 amp. \$1.95/ft./night - 50 amp. Pay 2 consecutive nights & get 3 rd night free						20,000	1 day	70% Ontario (Trent Severn System, Lake Huron) 20% Michigan, Ohio, New York) 10% Rest of Ontario especially Georgian Bay and north

EXHIBIT 16D SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – MAJOR SPACE REQUIREMENTS

Marina	Land area	Marina Office	Stores	Food Service	Parking	Recreation	Dry land Seasonal Storage	Winter Storage	Repairs	Land area of Service docks	Charter Fishing/Tour Boats
Public Marinas	Publicly Owned & Operated										
Lakefront Promenade Marina	25,000 sq. metres (parking & winter storage in adjacent parking area)	510 sq. metres		100 sq. metres	4,200 sq. metres			6,000 sq. metres includes part of adjacent parking area			
176 seasonal											
Town of Cobourg Marina	30,000 sq. metres	550 sq. metres			5,000 sq. metres	7,500 sq. metres	1,700 sq. metres	5,000 sq. metres + 8,000 sq. metres off-site		16 sq. metres	8
145 seasonal 73 transient											
Public Marinas	Direct Management Contract										
Port Elgin Harbour Marina	42,000 sq. metres	320 sq. metres		350 sq. metres	7,500 sq. metres	12,700 sq. metres	3,000 sq. metres	8,100 sq. metres Includes dry storage area		15 sq. metres	6 + MNR boat
268 seasonal 30 transient											
Trent Port Marina	27,600 sq. metres	1,150 sq. metres	150 sq. metres	500 sq. metres	2,300 sq. metres (Mon to Fri) 8,000 sq. metres (Sat & Sun)	5,100 sq. metres		10,000 sq. metres off-site			
266 seasonal 54 transient											
Public Marinas	Profit Sharing Management Agreement										
Kincardine Marina	14,500 sq. metres	250 sq. metres			4,000 sq. metres	3,600 sq. metres		5,300 sq. metres			
140 seasonal 14 transient											
Public/Private Marinas											
Toronto Island Marina	12,000 sq. metres	200 sq. metres		200 sq. metres		150 sq. metres	5,800 sq. metres	5,800 sq. metres includes dry land storage area	250 sq. metres	10 sq. metres	
125 seasonal 25 transient											

EXHIBIT 16D SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – MAJOR SPACE REQUIREMENTS (Continued)

Marina	Land area	Marina Office	Stores	Food Service	Parking	Recreation	Dry land Seasonal Storage	Winter Storage	Repairs	Land area of Service docks	Charter Fishing/Tour Boats
Public/Private Marinas											
Bluffer's Park Marina	47,500 sq. metres	400 sq. metres		450 sq. metres	6,500 sq. metres	300 sq. metres	11,200 sq. metres	16,000 sq. metres includes dry land storage and some parking	300 sq. metres	16 sq. metres	6
410 seasonal 20 transient 24 live aboards											
Port Dalhousie Pier Marina	32,000 sq. metres	300 sq. metres	100 sq. metres	200 sq. metres	6,000 sq. metres	1,800 sq. metres	10,000 sq. metres	14,000 sq. metres includes dry land storage and some parking	750 sq. metres	14 sq. metres	10
445 seasonal 20 transient											
Private Marinas											
Wye Heritage Marina	65,000 sq. metres	400 sq. metres	350 sq. metres	250 sq. metres	10,000 sq. metres	150 sq. metres	8,000 sq. metres	30,000 sq. metres includes dry stacking in 2 buildings and dryland storage area	500 sq. metres	16 sq. metres	6
750 seasonal 50 transient											
Erieau Marina	10,000 sq. metres.	370 sq. metres	560 sq. metres		2,000 sq. metres	100 sq. metres	1,800 sq. metres	7,500 sq. metres Includes dry land storage and parking area	200 sq. metres.	12 sq. metres	4
225 seasonal 75 transient											
Crate Marine Belleville	30,000 sq. metres	400 sq. metres	700 sq. metres		3,500 sq. metres	1,000 sq. metres	17,000 sq. metres	17,000 sq. metres	5,000 sq. metes	15 sq. metres	3
200 seasonal											

EXHIBIT 16D SELECTED PUBLIC, PUBLIC/PRIVATE, PRIVATE AND ARM'S LENGTH MARINAS IN ONTARIO – MAJOR SPACE REQUIREMENTS (Continued)

Marina	Land area	Marina Office	Stores	Food Service	Parking	Recreation	Dry land Seasonal Storage	Winter Storage	Repairs	Land area of Service docks	Charter Fishing/Tour Boats
Private Marinas											
Frenchman's Bay Marina	13,000 sq. metres	540 sq. metres			2,500 sq. metres + 17,000 sq. metres on opposite side of street	100 metres	7,000 sq. metres	8,000 sq. metres includes dry land storage and parking	200 sq. metres	16 sq. metres	8
225 seasonal 5 transient	(parking, dry land storage & winter storage on opposite side of street)										
Collins Bay Marina	23,000 sq. metres	450 sq. metres			2,000 sq. metres	750 sq. metres	2,000 sq. metres	7,500 sq. metres		14 sq. metres	
304 seasonal											
Arm's Length Operation - Non Profit											
Marina Quay West	12,800 sq. metres	250 sq. metres			2,000 sq. metres					10 sq. metres	
200 seasonal 20 transient											
Marina Four	16,400 sq. metres				1,200 sq. metres	15,000 sq. metres + 8,000 sq. metres of green space					
100 seasonal 10 transient											
John Quay	10,800 sq. metres			2,200 sq. metres	5,000 sq. metres						
34 transient											
Arm's Length Operation - Chamber of Commerce											
The Port of Orillia	21,000 sq. metres	300 sq. metres	50 sq. metres in marina office		1,100 sq. metres	12,000 sq. metres green space					
220 transient											

EXHIBIT 17 LASALLE PARK MARINA ASSOCIATION FINANCIAL FORECAST Year 2020 to 2029

Revenue	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Administration Fee	\$9,850	\$9,950	\$10,050	\$10,150	\$10,250	\$10,350	\$10,450	\$10,550	\$10,660	\$10,770
Charter/Senior Memberships	\$73,290	\$67,740	\$74,510	\$75,260	\$76,010	\$76,770	\$77,540	\$78,320	\$79,100	\$79,890
Associate Member Fees	\$168,440	\$171,810	\$175,250	\$178,760	\$182,340	\$185,990	\$189,710	\$193,500	\$197,370	\$201,320
Dinghy storage	\$200	\$200	\$200	\$200	\$210	\$210	\$210	\$220	\$220	\$220
Oversize charge	\$1,590	\$1,610	\$1,630	\$1,650	\$1,670	\$1,700	\$1,730	\$1,760	\$1,790	\$1,820
Short term dockage	\$2,950	\$2,990	\$3,030	\$3,080	\$3,130	\$3,180	\$3,230	\$3,280	\$3,330	\$3,380
No frills	\$29,720	\$30,310	\$30,920	\$31,540	\$32,170	\$32,810	\$33,470	\$34,140	\$34,820	\$35,520
Keys/cards	\$570	\$630	\$690	\$760	\$840	\$920	\$1,010	\$1,110	\$1,220	\$1,340
Interest income	\$7,600	\$2,130	\$2,620	\$3,130	\$3,670	\$4,260	\$4,880	\$5,520	\$6,190	\$8,160
Total Revenue	\$294,210	\$287,370	\$298,900	\$304,530	\$310,290	\$316,190	\$322,230	\$328,400	\$334,700	\$342,420
Disbursements										
Boat launch and haul out	\$18,250	\$19,220	\$20,490	\$22,080	\$24,010	\$26,020	\$26,670	\$27,340	\$28,020	\$28,720
Wave Break Maintenance	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Maintenance and equipment	\$45,000	\$45,000	\$45,000	\$45,450	\$45,900	\$46,360	\$46,820	\$47,290	\$47,760	\$48,240
Advertising and promotion	\$2,000	\$2,020	\$2,040	\$2,060	\$2,080	\$2,100	\$2,120	\$2,140	\$2,160	\$2,180
Communications	\$1,500	\$1,520	\$1,540	\$1,560	\$1,580	\$1,600	\$1,620	\$1,640	\$1,660	\$1,680
Insurance	\$14,000	\$14,140	\$14,280	\$14,420	\$14,560	\$14,710	\$14,860	\$15,010	\$15,160	\$15,310
Payroll	\$41,000	\$41,410	\$41,820	\$42,240	\$42,660	\$43,090	\$43,520	\$43,960	\$44,400	\$44,840
Interest and bank charges	\$500	\$510	\$520	\$530	\$540	\$550	\$560	\$570	\$580	\$590
Interest on long term debt	\$4,330	\$3,860	\$3,380	\$2,890	\$2,390	\$1,880	\$1,370	\$840	\$300	
Postage and stationary	\$2,000	\$2,020	\$2,040	\$2,060	\$2,080	\$2,100	\$2,120	\$2,140	\$2,160	\$2,180
Legal and Accounting	\$5,000	\$5,050	\$5,100	\$5,150	\$5,200	\$5,250	\$5,300	\$5,350	\$5,400	\$5,450
Water lot rental (24% of total)	\$15,800	\$16,120	\$16,440	\$16,770	\$17,110	\$17,450	\$17,800	\$18,160	\$18,520	\$18,890
License fee for 2050 wave break	\$75,000	\$76,500	\$78,030	\$79,590	\$81,180	\$81,180	\$81,180	\$81,180	\$81,180	\$81,180
Allocation to dock replacement fund	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$13,840
Allocation to floating wave break cleaning fund										
Allocation to new dock capital fund	\$3,000		\$3,000	\$4,000	\$5,000	\$8,000	\$12,000	\$17,000	\$21,000	\$25,000
Allocation to new office capital fund										
Total Disbursements	\$292,380	\$292,370	\$298,680	\$303,800	\$309,290	\$315,290	\$320,940	\$327,620	\$333,300	\$328,100
Excess Revenue Over Expenses	\$1,830	(\$5,000)	\$220	\$730	\$1,000	\$900	\$1,290	\$780	\$1,400	\$14,320

Source: TOURISTICS, May 28, 2019; Grant Thornton Limited Financial Forecast, February 28, 2019; and discussions with LaSalle Park Marina Association

EXHIBIT 18A MUNICIPALLY OWNED AND OPERATED LASALLE PARK MARINA FINANCIAL FORECAST 2020 TO 2029

Revenue	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Seasonal slip rentals	\$270,440	\$283,070	\$299,790	\$319,660	\$345,820	\$370,490	\$384,070	\$398,150	\$410,090	\$424,440
Transient boaters	\$2,950	\$2,990	\$3,030	\$3,080	\$3,130	\$3,180	\$3,230	\$3,280	\$3,330	\$3,380
Keys/Cards	\$1,660	\$1,700	\$1,760	\$1,840	\$1,940	\$2,040	\$2,040	\$2,040	\$2,040	\$2,040
Merchandise Sales	\$4,740	\$4,910	\$5,140	\$5,430	\$5,770	\$6,130	\$6,220	\$6,320	\$6,410	\$6,510
Pump out Service	\$7,480	\$7,740	\$8,080	\$8,510	\$9,040	\$9,580	\$9,700	\$9,820	\$9,940	\$10,060
Total Revenue	\$287,270	\$300,410	\$317,800	\$338,520	\$365,700	\$391,420	\$405,260	\$419,610	\$431,810	\$446,430
Disbursements										
Full-time Labour Cost	\$70,000	\$71,400	\$72,830	\$74,290	\$75,780	\$77,300	\$78,850	\$80,430	\$82,040	\$83,680
Casual Labour Cost	\$66,500	\$67,500	\$68,510	\$69,540	\$70,580	\$71,640	\$72,710	\$73,800	\$74,910	\$76,030
Overtime/Shift Prems/Standbys	\$4,780	\$4,860	\$4,950	\$5,030	\$5,120	\$5,210	\$5,300	\$5,400	\$5,490	\$5,590
Employee Benefits	\$14,000	\$14,280	\$14,570	\$14,860	\$15,160	\$15,460	\$15,770	\$16,090	\$16,410	\$16,740
Wave Break Maintenance	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Utilities	\$31,580	\$32,690	\$33,830	\$35,010	\$36,240	\$37,510	\$38,820	\$40,180	\$41,590	\$43,050
Office Supplies	\$2,000	\$2,030	\$2,060	\$2,090	\$2,120	\$2,150	\$2,180	\$2,210	\$2,240	\$2,270
Insurance	\$20,000	\$20,800	\$21,630	\$22,500	\$23,400	\$24,340	\$25,310	\$26,320	\$27,370	\$28,460
Cost of Merchandise	\$3,080	\$3,190	\$3,340	\$3,530	\$3,750	\$3,980	\$4,040	\$4,110	\$4,170	\$4,230
Maintenance & Repairs	\$10,950	\$11,280	\$11,620	\$11,970	\$12,330	\$12,700	\$13,080	\$13,470	\$13,870	\$14,290
Crane Rental	\$18,250	\$19,220	\$20,490	\$22,080	\$24,010	\$26,020	\$26,670	\$27,340	\$28,020	\$28,720
Uniforms & Clothing	\$1,750	\$1,780	\$1,810	\$1,840	\$1,870	\$1,900	\$1,930	\$1,960	\$1,990	\$2,020
Marketing & Promotion	\$5,000	\$5,130	\$5,260	\$5,390	\$5,520	\$5,660	\$5,800	\$5,950	\$6,100	\$6,250
Credit Card Commissions	\$140	\$140	\$140	\$150	\$150	\$160	\$160	\$160	\$160	\$160
General & Administrative	\$7,500	\$7,730	\$7,960	\$8,200	\$8,450	\$8,700	\$8,960	\$9,230	\$9,510	\$9,800
Water lot rental (44% of total)	\$27,130	\$27,670	\$28,220	\$28,780	\$29,360	\$29,950	\$30,550	\$31,160	\$31,780	\$32,420
Miscellaneous	\$5,000	\$5,080	\$5,160	\$5,240	\$5,320	\$5,400	\$5,480	\$5,560	\$5,640	\$5,720
Allocation to new dock replacement fund ¹	\$3,000		\$3,000	\$4,000	\$5,000	\$8,000	\$12,000	\$17,000	\$21,000	\$25,000
Allocation to new wave break replacement fund	\$75,000	\$76,500	\$78,030	\$79,590	\$81,180	\$81,180	\$81,180	\$81,180	\$81,180	\$81,180
Total Disbursements	\$405,660	\$411,280	\$423,410	\$434,090	\$445,340	\$457,260	\$468,790	\$481,550	\$493,470	\$505,610
Net Profit/(Loss) Before Debt Service	(\$118,390)	(\$110,870)	(\$105,610)	(\$95,570)	(\$79,640)	(\$65,840)	(\$63,530)	(\$61,940)	(\$61,660)	(\$59,180)
Principal & Interest Payments²	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740
Net Profit/(Loss)	(\$210,130)	(\$202,610)	(\$197,350)	(\$187,310)	(\$171,380)	(\$157,580)	(\$155,270)	(\$153,680)	(\$153,400)	(\$150,920)

Source: TOURISTICS June 5, 2019

¹ While the allocation to new dock replacement fund should be higher, we have used the same allocation as LPMA (EXHIBIT 17) to provide a fair comparison with other operating models

² Based on 2019 replacement cost of \$1,312,500.00 for docks and equipment from LPMA and \$250,000.00 for a new on-site marina office. Assumes a 25 year mortgage at 3.2 percent per annum as per City of Burlington Finance Department May 27, 2019

EXHIBIT 18B MUNICIPALLY OWNED AND DIRECT CONTRACT MANAGED LASALLE PARK MARINA FINANCIAL FORECAST 2020 TO 2029

Revenue	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Seasonal slip rentals	\$270,440	\$283,070	\$299,790	\$319,660	\$345,820	\$370,490	\$384,070	\$398,150	\$410,090	\$424,440
Transient boaters	\$2,950	\$2,990	\$3,030	\$3,080	\$3,130	\$3,180	\$3,230	\$3,280	\$3,330	\$3,380
Keys/Cards	\$1,660	\$1,700	\$1,760	\$1,840	\$1,940	\$2,040	\$2,040	\$2,040	\$2,040	\$2,040
Merchandise Sales	\$4,740	\$4,910	\$5,140	\$5,430	\$5,770	\$6,130	\$6,220	\$6,320	\$6,410	\$6,510
Pump out Service	\$7,480	\$7,740	\$8,080	\$8,510	\$9,040	\$9,580	\$9,700	\$9,820	\$9,940	\$10,060
Total Revenue	\$287,270	\$300,410	\$317,800	\$338,520	\$365,700	\$391,420	\$405,260	\$419,610	\$431,810	\$446,430
Disbursements										
Contract Management Labour Cost	\$40,800	\$40,800	\$40,800	\$43,300	\$43,300	\$43,300	\$45,950	\$45,950	\$45,950	\$48,770
Casual Labour Cost	\$66,500	\$67,500	\$68,510	\$69,540	\$70,580	\$71,640	\$72,710	\$73,800	\$74,910	\$76,030
Overtime/Shift Prems/Standbys	\$2,330	\$2,360	\$2,400	\$2,430	\$2,470	\$2,510	\$2,540	\$2,580	\$2,620	\$2,660
Contract Employee Benefits	\$4,080	\$4,080	\$4,080	\$4,330	\$4,330	\$4,330	\$4,600	\$4,600	\$4,600	\$4,880
Wave Break Maintenance	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Utilities	\$31,580	\$32,690	\$33,830	\$35,010	\$36,240	\$37,510	\$38,820	\$40,180	\$41,590	\$43,050
Office Supplies	\$2,000	\$2,030	\$2,060	\$2,090	\$2,120	\$2,150	\$2,180	\$2,210	\$2,240	\$2,270
Insurance	\$20,000	\$20,800	\$21,630	\$22,500	\$23,400	\$24,340	\$25,310	\$26,320	\$27,370	\$28,460
Cost of Merchandise	\$3,080	\$3,190	\$3,340	\$3,530	\$3,750	\$3,980	\$4,040	\$4,110	\$4,170	\$4,230
Maintenance & Repairs	\$10,950	\$11,280	\$11,620	\$11,970	\$12,330	\$12,700	\$13,080	\$13,470	\$13,870	\$14,290
Crane Rental	\$18,250	\$19,220	\$20,490	\$22,080	\$24,010	\$26,020	\$26,670	\$27,340	\$28,020	\$28,720
Uniforms & Clothing	\$1,750	\$1,780	\$1,810	\$1,840	\$1,870	\$1,900	\$1,930	\$1,960	\$1,990	\$2,020
Marketing & Promotion	\$5,000	\$5,130	\$5,260	\$5,390	\$5,520	\$5,660	\$5,800	\$5,950	\$6,100	\$6,250
Credit Card Commissions	\$140	\$140	\$140	\$150	\$150	\$160	\$160	\$160	\$160	\$160
General & Administrative	\$7,500	\$7,730	\$7,960	\$8,200	\$8,450	\$8,700	\$8,960	\$9,230	\$9,510	\$9,800
Water lot rental (44% of total)	\$27,130	\$27,670	\$28,220	\$28,780	\$29,360	\$29,950	\$30,550	\$31,160	\$31,780	\$32,420
Miscellaneous	\$5,000	\$5,080	\$5,160	\$5,240	\$5,320	\$5,400	\$5,480	\$5,560	\$5,640	\$5,720
Allocation to new dock replacement fund ¹	\$3,000		\$3,000	\$4,000	\$5,000	\$8,000	\$12,000	\$17,000	\$21,000	\$25,000
Allocation to new wave break replacement fund	\$75,000	\$76,500	\$78,030	\$79,590	\$81,180	\$81,180	\$81,180	\$81,180	\$81,180	\$81,180
Total Disbursements	\$364,090	\$367,980	\$378,340	\$389,970	\$399,380	\$409,430	\$421,960	\$432,760	\$442,700	\$455,910
Net Profit/(Loss) Before Debt Service	(\$76,820)	(\$67,570)	(\$60,540)	(\$51,450)	(\$33,680)	(\$18,010)	(\$16,700)	(\$13,150)	(\$10,890)	(\$9,480)
Principal & Interest Payments ²	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740	\$91,740
Net Profit/(Loss)	(\$168,560)	(\$159,310)	(\$152,280)	(\$143,190)	(\$125,420)	(\$109,750)	(\$108,440)	(\$104,890)	(\$102,630)	(\$101,220)

Source: TOURISTICS June 5, 2019

¹ While the allocation to new dock replacement fund should be higher, we have used the same allocation as LPMA (EXHIBIT 17) to provide a fair comparison with other operating models

² Based on 2019 replacement cost of \$1,312,500.00 for docks and equipment, and \$250,000.00 for a new on-site marina office. Assumes a 25 year mortgage at 3.2 percent as per City of Burlington Finance Department May 27, 2019

EXHIBIT 18C MUNICIPALLY OWNED AND PRIVATELY OPERATED LASALLE PARK MARINA FINANCIAL FORECAST 2020 TO 2029

Revenue	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Seasonal slip rentals	\$270,440	\$283,070	\$299,790	\$319,660	\$345,820	\$370,490	\$384,070	\$398,150	\$410,090	\$424,440
Transient boaters	\$2,950	\$2,990	\$3,030	\$3,080	\$3,130	\$3,180	\$3,230	\$3,280	\$3,330	\$3,380
Keys/Cards	\$1,660	\$1,700	\$1,760	\$1,840	\$1,940	\$2,040	\$2,040	\$2,040	\$2,040	\$2,040
Merchandise Sales	\$4,740	\$4,910	\$5,140	\$5,430	\$5,770	\$6,130	\$6,220	\$6,320	\$6,410	\$6,510
Pump out Service	\$7,480	\$7,740	\$8,080	\$8,510	\$9,040	\$9,580	\$9,700	\$9,820	\$9,940	\$10,060
Winter Storage	\$110,880	\$113,100	\$115,360	\$117,670	\$120,020	\$122,420	\$124,870	\$127,370	\$129,920	\$132,520
Total Revenue	\$398,150	\$413,510	\$433,160	\$456,190	\$485,720	\$513,840	\$530,130	\$546,980	\$561,730	\$578,950
Disbursements										
Contract Management Labour Cost	\$60,000	\$61,200	\$62,420	\$63,670	\$64,940	\$66,240	\$67,560	\$68,910	\$70,290	\$71,700
Casual Labour Cost	\$66,500	\$67,500	\$68,510	\$69,540	\$70,580	\$71,640	\$72,710	\$73,800	\$74,910	\$76,030
Overtime/Shift Premis/Standbys	\$4,430	\$4,500	\$4,580	\$4,660	\$4,740	\$4,830	\$4,910	\$4,990	\$5,080	\$5,170
Contract Employee Benefits	\$4,800	\$4,900	\$4,990	\$5,090	\$5,200	\$5,300	\$5,400	\$5,510	\$5,620	\$5,740
Wave Break Maintenance	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Utilities	\$31,580	\$32,690	\$33,830	\$35,010	\$36,240	\$37,510	\$38,820	\$40,180	\$41,590	\$43,050
Office Supplies	\$2,000	\$2,030	\$2,060	\$2,090	\$2,120	\$2,150	\$2,180	\$2,210	\$2,240	\$2,270
Insurance	\$26,280	\$27,330	\$28,420	\$29,560	\$30,740	\$31,970	\$33,250	\$34,580	\$35,960	\$37,400
Cost of Merchandise	\$3,080	\$3,190	\$3,340	\$3,530	\$3,750	\$3,980	\$4,040	\$4,110	\$4,170	\$4,230
Maintenance & Repairs	\$10,950	\$11,280	\$11,620	\$11,970	\$12,330	\$12,700	\$13,080	\$13,470	\$13,870	\$14,290
Crane Rental Lift & Launch	\$18,250	\$19,220	\$20,490	\$22,080	\$24,010	\$26,020	\$26,670	\$27,340	\$28,020	\$28,720
Crane Rental Winter Storage	\$4,500	\$4,610	\$4,730	\$4,850	\$4,970	\$5,090	\$5,220	\$5,350	\$5,480	\$5,620
Security Fence Rental	\$3,000	\$3,050	\$3,100	\$3,150	\$3,200	\$3,250	\$3,300	\$3,350	\$3,400	\$3,450
Uniforms & Clothing	\$1,750	\$1,780	\$1,810	\$1,840	\$1,870	\$1,900	\$1,930	\$1,960	\$1,990	\$2,020
Marketing & Promotion	\$5,000	\$5,130	\$5,260	\$5,390	\$5,520	\$5,660	\$5,800	\$5,950	\$6,100	\$6,250
Credit Card Commissions	\$140	\$140	\$140	\$150	\$150	\$160	\$160	\$160	\$160	\$160
General & Administrative	\$7,500	\$7,730	\$7,960	\$8,200	\$8,450	\$8,700	\$8,960	\$9,230	\$9,510	\$9,800
Marina Lease Agreement with City (10% of Gross Revenue)	\$39,820	\$41,350	\$43,320	\$45,620	\$48,570	\$51,380	\$53,010	\$54,700	\$56,170	\$57,900
Depreciation of Equipment	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700
Annual Infrastructure Investment Over Lease Term	\$85,000	\$95,000	\$105,000	\$115,000	\$125,000	\$135,000	\$135,000	\$135,000	\$135,000	\$135,000
Miscellaneous	\$5,000	\$5,080	\$5,160	\$5,240	\$5,320	\$5,400	\$5,480	\$5,560	\$5,640	\$5,720
Total Disbursements	\$426,280	\$444,410	\$463,440	\$483,340	\$504,400	\$525,580	\$534,180	\$543,060	\$551,900	\$561,220
Net Profit/(Loss) Before Debt Service	(\$28,130)	(\$30,900)	(\$30,280)	(\$27,150)	(\$18,680)	(\$11,740)	(\$4,050)	\$3,920	\$9,830	\$17,730
Principal Interest Payments¹	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310
Net Profit/(Loss)	(\$150,440)	(\$153,210)	(\$152,590)	(\$149,460)	(\$140,990)	(\$134,050)	(\$126,360)	(\$118,390)	(\$112,480)	(\$104,580)

Source: TOURISTICS May 30, 2019

¹ Based on 2019 replacement cost of \$1,390,700.00 for docks and equipment, and \$250,000.00 for a new on-site marina office. Assumes a 25 year mortgage at 5.5 percent per annum as per Infrastructure Ontario May 24, 2019

EXHIBIT 19 PRIVATELY OWNED AND OPERATED LASALLE PARK MARINA FINANCIAL FORECAST 2020 TO 2029

Revenue	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Seasonal slip rentals	\$270,440	\$283,070	\$299,790	\$319,660	\$345,820	\$370,490	\$384,070	\$398,150	\$410,090	\$424,440
Transient boaters	\$2,950	\$2,990	\$3,030	\$3,080	\$3,130	\$3,180	\$3,230	\$3,280	\$3,330	\$3,380
Keys/Cards	\$1,660	\$1,700	\$1,760	\$1,840	\$1,940	\$2,040	\$2,040	\$2,040	\$2,040	\$2,040
Merchandise Sales	\$4,740	\$4,910	\$5,140	\$5,430	\$5,770	\$6,130	\$6,220	\$6,320	\$6,410	\$6,510
Pump out Service	\$7,480	\$7,740	\$8,080	\$8,510	\$9,040	\$9,580	\$9,700	\$9,820	\$9,940	\$10,060
Winter Storage	\$110,880	\$113,100	\$115,360	\$117,670	\$120,020	\$122,420	\$124,870	\$127,370	\$129,920	\$132,520
Total Revenue	\$398,150	\$413,510	\$433,160	\$456,190	\$485,720	\$513,840	\$530,130	\$546,980	\$561,730	\$578,950
Disbursements										
Full-time Labour Cost	\$60,000	\$61,200	\$62,420	\$63,670	\$64,940	\$66,240	\$67,560	\$68,910	\$70,290	\$71,700
Casual Labour Cost	\$66,500	\$67,500	\$68,510	\$69,540	\$70,580	\$71,640	\$72,710	\$73,800	\$74,910	\$76,030
Overtime/Shift Prems/Standbys	\$4,430	\$4,500	\$4,580	\$4,660	\$4,740	\$4,830	\$4,910	\$4,990	\$5,080	\$5,170
Employee Benefits	\$4,800	\$4,900	\$4,990	\$5,090	\$5,200	\$5,300	\$5,400	\$5,510	\$5,620	\$5,740
Wave Break Maintenance	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Utilities	\$31,580	\$32,690	\$33,830	\$35,010	\$36,240	\$37,510	\$38,820	\$40,180	\$41,590	\$43,050
Office Supplies	\$2,000	\$2,030	\$2,060	\$2,090	\$2,120	\$2,150	\$2,180	\$2,210	\$2,240	\$2,270
Insurance	\$26,280	\$27,330	\$28,420	\$29,560	\$30,740	\$31,970	\$33,250	\$34,580	\$35,960	\$37,400
Cost of Merchandise	\$3,080	\$3,190	\$3,340	\$3,530	\$3,750	\$3,980	\$4,040	\$4,110	\$4,170	\$4,230
Maintenance & Repairs	\$10,950	\$11,280	\$11,620	\$11,970	\$12,330	\$12,700	\$13,080	\$13,470	\$13,870	\$14,290
Crane Rental Lift & Launch	\$18,250	\$19,220	\$20,490	\$22,080	\$24,010	\$26,020	\$26,670	\$27,340	\$28,020	\$28,720
Crane Rental Winter Storage	\$4,500	\$4,610	\$4,730	\$4,850	\$4,970	\$5,090	\$5,220	\$5,350	\$5,480	\$5,620
Security Fence Rental	\$3,000	\$3,050	\$3,100	\$3,150	\$3,200	\$3,250	\$3,300	\$3,350	\$3,400	\$3,450
Uniforms & Clothing	\$1,750	\$1,780	\$1,810	\$1,840	\$1,870	\$1,900	\$1,930	\$1,960	\$1,990	\$2,020
Marketing & Promotion	\$5,000	\$5,130	\$5,260	\$5,390	\$5,520	\$5,660	\$5,800	\$5,950	\$6,100	\$6,250
Credit Card Commissions	\$140	\$140	\$140	\$150	\$150	\$160	\$160	\$160	\$160	\$160
General & Administrative	\$7,500	\$7,730	\$7,960	\$8,200	\$8,450	\$8,700	\$8,960	\$9,230	\$9,510	\$9,800
Capital Reserve for Replacement (10%)	\$39,820	\$41,350	\$43,320	\$45,620	\$48,570	\$51,380	\$53,010	\$54,700	\$56,170	\$57,900
Depreciation of Equipment	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700	\$6,700
Water lot rental (44% of total) + 10% administration charge	\$29,880	\$30,440	\$31,040	\$31,660	\$32,300	\$32,950	\$33,610	\$34,280	\$34,960	\$35,660
Miscellaneous	\$5,000	\$5,080	\$5,160	\$5,240	\$5,320	\$5,400	\$5,480	\$5,560	\$5,640	\$5,720
Property Taxes	\$45,000	\$46,800	\$48,670	\$50,620	\$52,640	\$54,750	\$56,940	\$59,220	\$61,590	\$64,050
Total Disbursements	\$416,160	\$426,650	\$438,150	\$450,620	\$464,340	\$478,280	\$489,730	\$501,560	\$513,450	\$525,930
Net Profit/(Loss) Before Debt Service	(\$18,010)	(\$13,140)	(\$4,990)	\$5,570	\$21,380	\$35,560	\$40,400	\$45,420	\$48,280	\$53,020
Principal Interest Payments¹	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310	\$122,310
Net Profit/(Loss)	(\$140,320)	(\$135,450)	(\$127,300)	(\$116,740)	(\$100,930)	(\$86,750)	(\$81,910)	(\$76,890)	(\$74,030)	(\$69,290)

Source: TOURISTICS May 30 2019

¹ Based on 2019 replacement cost of \$1,390,700.00 for docks and equipment, and \$250,000.00 for a new on-site marina office. Assumes a 25 year mortgage at 5.5 percent per annum as per Infrastructure Ontario May 24, 2019

EXHIBIT 20 INCOME STATEMENT RATIOS FOR ONTARIO MARINAS

	Municipal Marinas	Port Authorities	Private Marinas	Resort/ Residential Marinas	All Marinas
Revenues					
Dockage	54.72%	51.2%	50.1%	46.2%	49.8%
Dry Storage/Launch	0.8%	6.9%	4.0%	0.1%	3.4%
Upland Storage	2.0%	2.1%	2.4%	2.8%	2.3%
Restaurant/Concessions	1.3%	0.8%	2.3%	10.4%	4.0%
Fuel/Oil	18.0%	14.8%	6.4%	8.8%	10.0%
Chandlery/Ships Store	7.6%	3.0%	4.4%	5.9%	4.9%
Parking	1.5%	0.2%	1.1%	1.0%	1.3%
Haul Out/Repairs	6.5%	4.1%	19.5%	13.7%	12.1%
Boat Launch Revenue	0.5%	0.9%	0.6%	0.4%	0.6%
All Other Revenue	14.6%	15.9%	9.2%	10.7%	11.4%
Total Revenue	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Goods Sold					
Fuel Dock	14.3%	10.6%	4.6%	7.6%	7.6%
Chandlery/Ships Store – Cost of Merchandise	5.0%	1.8%	3.1%	4.5%	3.4%
Marine Repair Service	0.7%	1.8%	5.0%	8.4%	4.1%
All Other Direct Costs	1.9%	3.1%	6.4%	4.3%	4.8%
Total Cost of Revenue	21.9%	17.4%	19.0%	24.8%	19.9%
Gross Profit	78.1%	82.6%	81.0%	75.2%	80.1%
Operating Expenses					
Labour Expense	17.9%	18.9%	21.8%	23.9%	20.9%
Bad Debt Expense	0.7%	10.7%	0.8%	0.6%	2.3%
Bank Service Charges	0.0%	0.1%	0.2%	0.3%	0.1%
Business Licenses & Permits	0.1%	0.1%	0.1%	0.3%	0.1%
Credit Card Discounts	0.6%	0.3%	0.2%	0.5%	0.3%
Dues & Subscriptions	0.1%	0.2%	0.1%	0.3%	0.1%
Employee Benefits	4.0%	4.8%	1.9%	5.3%	3.1%
Equipment Rental	0.1%	0.1%	0.2%	0.3%	0.2%
Insurance – Business Liability	1.5%	3.2%	2.2%	2.5%	2.2%
Professional Services	2.7%	2.0%	2.1%	1.7%	2.1%
Marketing & Promotion	0.9%	1.6%	1.0%	2.0%	1.2%
Office Supplies	0.7%	0.8%	0.6%	1.0%	0.7%
Property Taxes	1.0%	1.1%	1.6%	2.8%	1.5%
Repairs & Maintenance	3.6%	5.3%	8.5%	8.1%	7.1%
Rent & Lease Expense	1.8%	3.1%	3.7%	5.9%	3.5%
Telephone/Communication	0.6%	0.5%	0.4%	1.0%	0.5%
Travel & Entertainment	0.2%	0.5%	0.2%	0.2%	0.3%
Utilities	4.5%	3.8%	3.8%	3.5%	3.9%
Other Expenses	17.3%	4.1%	7.9%	3.5%	8.5%
Total Operating Expenses	58.0%	61.2%	57.2%	63.6%	58.6%
Operating Profit (Loss)	20.0%	21.5%	23.8%	11.7%	21.5%
Other Income/Expense					
Other Income & Expenses	3.9%	1.5%	1.8%	2.0%	2.1%
Depreciation & Amortization (-)	-17.9%	-14.6%	-3.9%	-5.6%	-8.3%
Interest Expense (-)	-5.7%	-6.5%	3.0%	-5.1%	-4.3%
Capital Lease Expense (-)	0.0%	0.0%	0.0%	0.0%	0.0%
Reserves for Replacement (-)	-1.1%	-2.7%	1.1%	0.0%	-1.2%
Total Other Income/Expense	-20.8%	-22.3%	6.2%	-8.7%	-11.6%
Profit Before Taxes	-0.8%	-0.8%	17.6%	2.9%	9.8%

Source: International Marina Institute, TOURISTICS' files