



Environment, Infrastructure and Community Services Committee Meeting
Agenda

Date: February 4, 2021
Time: 9:30 am
Location: Council Chambers - members participating remotely

Pages

1. Declarations of Interest:

2. Delegation(s):

Due to COVID-19 this meeting will be conducted virtually. Only the chair of the meeting, along with a clerk and audio/visual technician, will be in council chambers, with all other staff, members of council and delegations participating in the meeting remotely. The meeting will be live webcasted, as usual, and archived on the city website.

Requests to delegate to this virtual meeting can be made by completing the online delegation registration form at www.burlington.ca/delegate or by submitting a written request by email to the Office of the City Clerk at clerks@burlington.ca by noon the day before the meeting is to be held. It is recommended that delegates submit a copy of their intended remarks which will be circulated to all members of committee in advance as a backup should any technology issues occur.

If you do not wish to delegate, but would like to submit feedback, please email your comments to clerks@burlington.ca. Your comments will be circulated to committee members in advance of the meeting and will be attached to the minutes, forming part of the public record.

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. Public Tree Removal Report – 338 Johnston Drive (RPF-02-21)

1 - 88

Approve the request by the applicant to remove six (6) City trees in order to proceed with the proposed grading activities as part of a requirement of Conservation Halton to satisfy conditions identified in the applicants land severance application through Committee of Adjustment File No. B-014/18; and

Instruct the applicant, Tony Millington & Associates on behalf of Gurmit Kahlon, to provide compensation for tree removals by providing cash-in-lieu of replacement totaling \$2,600.00. The funds will provide for new tree plantings elsewhere in the City which includes care and maintenance for the first two years; and

Direct that a tree permit be obtained for the removals and the associated development related permit fee of \$680.00 plus HST; and

Direct that all associated costs with respect to the removal of the trees (including stump removal) will be the responsibility of the applicant. The contractor hired to remove the trees will require approval by the Manager of Urban Forestry or designate.

3.2. Open Air Burning 2020 Pilot North Aldershot Extension (BFD-02-21)

89 - 95

Approve an extension to the open air burning pilot in the North Aldershot area, from March 1, 2021 to December 31, 2022 as outlined in Burlington fire department report BFD-02-21; and

Direct staff to report back in 2023 to advise council on their final recommendations to revise or uphold the allowed burning areas defined in By-law 65-2019, Appendix A to Burlington fire department report BFD-02-21.

3.3. Update to By-Law 76-2020 – Emergency and Continuity Management Program (BFD-01-21)

96 - 231

Approve the amendments to By-Law 76-2020, Emergency and Continuity Management Program and associated appendices, attached as Appendix 1 to Burlington fire department report BFD-01-21, including:

- Appointment of new members to the Municipal Emergency Control Group (MECG);
- Appointment of new members to the Emergency Management Program Committee (EMPC); and
- Transition of the physical alternate Emergency Operations Center to the new Virtual Emergency Operations Center Platform.

4. Regular Items:

4.1. Electric Vehicle Charging Update and Analysis (EICS-01-21)

232 - 241

Receive and file environment, infrastructure and community services report EICS-01-21 providing electric vehicle charging update and analysis; and

Direct the Executive Director of Environment, Infrastructure and Community Services to develop a policy to guide the expansion, operation and maintenance of electric vehicle charging infrastructure on city property.

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 Annex 4 to appendix 1 of Burlington fire department report BFD-01-21

Pursuant to section 239(2)(b) personal matters about an identifiable individual, including municipal or local board employees.

6. Procedural Motions:

7. Information Items:

8. Staff Remarks:

9. Committee Remarks:

10. Adjournment:



SUBJECT: Public Tree Removal Report – 338 Johnston Drive

TO: Environment, Infrastructure & Community Services Cttee.

FROM: Roads, Parks and Forestry Department

Report Number: RPF-02-21

Wards Affected: 4

File Numbers: File No. B-014/18

Date to Committee: February 4, 2021

Date to Council: February 16, 2021

Recommendation:

Approve the request by the applicant to remove six (6) City trees in order to proceed with the proposed grading activities as part of a requirement of Conservation Halton to satisfy conditions identified in the applicants land severance application through Committee of Adjustment File No. B-014/18; and

Instruct the applicant, Tony Millington & Associates on behalf of Gurmit Kahlon, to provide compensation for tree removals by providing cash-in-lieu of replacement totaling \$2,600.00. The funds will provide for new tree plantings elsewhere in the City which includes care and maintenance for the first two years; and

Direct that a tree permit be obtained for the removals and the associated development related permit fee of \$680.00 plus HST; and

Direct that all associated costs with respect to the removal of the trees (including stump removal) will be the responsibility of the applicant. The contractor hired to remove the trees will require approval by the Manager of Urban Forestry or designate.

PURPOSE:

Vision to Focus Alignment:

- Support sustainable infrastructure and a resilient environment
- Deliver customer centric services with a focus on efficiency and technology transformation

Background and Discussion:

The subject property is located at the end of Johnston Drive, abutting General Brock Park to the north and the creek block associated with Roseland Creek to the west (See Fig. 1).

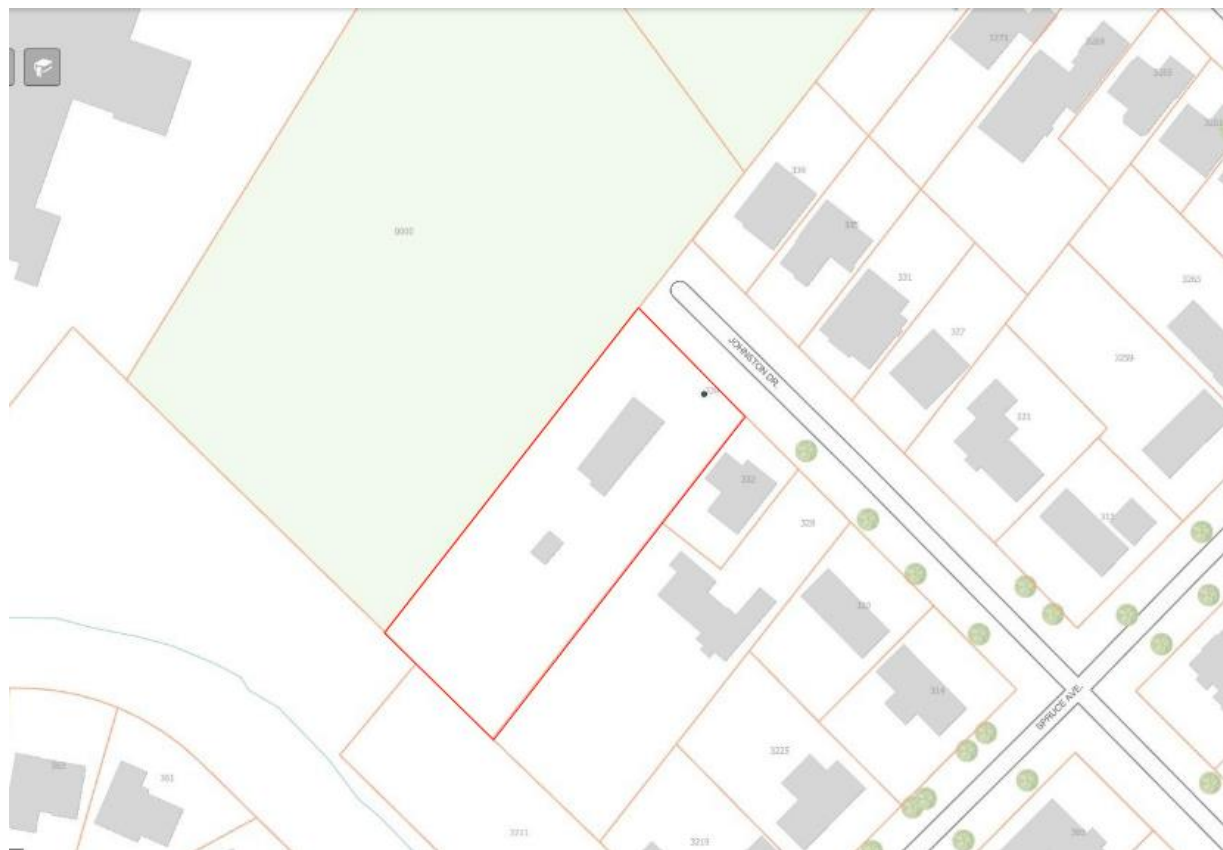


Figure 1: Subject Property, 338 Johnston Drive

Forestry staff inspected the site on November 4, 2020. The application to the Committee of Adjustment for land severance (File No. B-014/18) has been submitted to sever the existing lot at 338 Johnston Drive into three (3) parts; two parts (Part 1 and 2) are for future detached dwellings and Part 3 is for a proposed creek block to be dedicated to the City. Two (2) conditions must be satisfied in order to proceed with final consent which includes Conservation Halton approval, and a demolition permit to be issued and finalized for the removal of existing building.

In order for Conservation Halton to provide final consent for the land severance application, the applicant is required to fill and re-grade the existing lot as Conservation

Halton policies and regulations do not permit lot creation in hazard lands. In order to proceed with the grading and fill work requirements, six (6) City trees require removal.

Strategy/process

Six (6) trees are proposed to be removed due to conflicts with the proposed grading and fill related activities in order to satisfy Conservation Halton requirements for lot creation/severance. The subject trees that are proposed for removal are located along the fence line that separates the subject lot (338 Johnston Drive) and General Brock Park. The trees proposed for removal are as follows:

1. White Mulberry (*Morus alba*): DBH 15cm
2. White Mulberry (*Morus alba*): DBH 41cm
3. White Ash (*Fraxinus americana*): DBH 25cm
4. Butternut (*Juglans cinerea*): DBH 13cm
5. White Ash (*Fraxinus americana*): DBH 12cm
6. White Ash (*Fraxinus americana*): DBH 14cm

One (1) of the proposed removals (a Butternut (*Juglans cinerea*)) is an endangered species (species-at-risk), as identified and protected under the *Ontario Endangered Species Act*. Documentation associated with this tree was submitted by the applicant to the Ministry of the Environment, Conservation and Parks (MECP), classifying it as a Category 1 tree. Category 1 trees are considered 'non-retainable' trees that are in advanced stages of disease as a result of the Butternut canker. The MECP confirmed receipt of the report, and noted that the tree could be removed in 30 days following the December 4, 2020 report submission date.

All other trees are considered to be in fair to poor condition at the time of assessment. Based on the size and condition of the trees to be removed, and with the identification of a Category 1 Butternut and acceptance by MECP, Forestry is in support of the removal of the above noted subject trees provided compensation as noted is supplied to the City.

Refer to Appendix A – Tree Inventory and Compensation Form completed by City staff, Appendix B – Site Photographs for additional details, and Appendix C – for the Arborist Report and Tree Preservation Plan.

Options Considered

Forestry staff conducted a comprehensive review of the proposed grading and fill requirements in conjunction with the land severance application File No. B-014/18.

Given the location of the City-owned trees in relation to the proposed works, the trees cannot be retained.

Financial Matters:

A total of \$2,600.00 shall be paid by the applicant as compensation for the tree removals. These funds will be utilized to replace the loss in canopy within the City. Note, no compensation for the above noted White Ash or Butternut trees is required due to the terminal condition of the trees. In addition to the cash-in-lieu fees, a permit fee of \$680.00 plus HST will be required. The total cost of tree and stump removals will be borne entirely by the applicant.

Total Financial Impact

Note applicable.

Source of Funding

Not applicable.

Other Resource Impacts

Not applicable.

Climate Implications

The removal of trees is always a concern as they provide the most cost-effective measure of carbon sequestration, in addition to providing a host of other ecological benefits associated with climate change. It is critical that in cases where trees must be removed, that they are sufficiently compensated for in the interest of replacing the canopy loss long-term.

Engagement Matters:

Not applicable.

Conclusion:

The City's Forestry section has reviewed the proposed tree removals, and supports the removals as per the recommendations listed above.

Respectfully submitted,



Melissa Torchia

Supervisor, Forest Protection

(905) 333-6166 ext. 6121

Appendices:

- A. Tree Inventory and Compensation Form
- B. Site Photographs
- C. Arborist Report and Tree Preservation Plan

Notifications:

Name : Tony Millington

millingt@allstream.net

Name : Gurmit Singh Kahlon

Gurmitkahlon@hotmail.com

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.

Site:	338 Johnston Drive / General Brock Park
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Existing Tree Information						Replacement Tree Information		Condition Factors		Compensation
Tree Number	Common Name	DBH (cm)	Condition Rating (%)		Comments	# of 50 mm trees required	Preliminary Tree Value	Avg Condition Rating (Health & Structure)	Construction Risk Factor (see below)	Value
			Health	Structure						
1	Mulberry	15	50%	50%		3	\$ 1,500.00	50%	100%	\$ 750.00
2	Mulberry	41	50%	40%		8	\$ 4,100.00	45%	100%	\$ 1,845.00
3	Ash	25	30%	30%	Terminal EAB	5	\$ 2,500.00	30%	100%	\$ -
4	Butternut	13	40%	50%	Terminal - Category 1	3	\$ 1,300.00	45%	100%	\$ -
5	Ash	12	30%	30%	Terminal EAB	2	\$ 1,200.00	30%	100%	\$ -
6	Ash	14	30%	30%	Terminal EAB	3	\$ 1,400.00	30%	100%	\$ -

\$ 2,600.00

1. DBH / 5cm = # of trees req. to replace
2. # of trees req. to replace X \$500 (cost of replacement) = Preliminary Compensation Value
3. Preliminary Compensation Value X Condition of Tree Factor X Risk Factor = Final Compensation 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%

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

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

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.

Appendix B – Site Photographs
RPF-02-21



Photograph No. 1: View of City owned trees in General Brock Park; facing southwest



Photograph No. 2: Tree No. 1: White Mulberry proposed for removal; facing east



Photograph No. 3: Tree No. 2: White Mulberry (multi-stem) proposed for removal; facing east



Photograph No. 4: Tree Nos. 3, 4 and 5 White Ash, Butternut and White Ash proposed for removal; facing east



Photograph No. 5: Tree No. 6 White Ash proposed for removal; facing east



Photograph No. 6: View of grading and fill extent into General Brock Park; facing northeast



Arborist Report and Tree Preservation Plan

For:

Gurmit Singh Kahlon
c/o Millington & Associates

Regarding:

338 Johnston Drive, Burlington ON.

Prepared by:

Michael Plowman
Assoc. Dipl. Horticulture
ISA Certified Arborist: ON-1118A

GLN Farm and Forest Research Co Ltd.

17 November 2020

Revised: 7 December 2020

Arborist Report and Tree Preservation Plan

338 Johnston Drive, Burlington ON.

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REGARDING THIS REVISION

This revision has been prepared to address the following post discussions with/comments from the City of Burlington regarding the site application/arborist reporting:

1. The arborist report and drawings have been revised to include the fence removal agreement made between the client and the City of Burlington to remove portions of the fence located outside of that removed to perform grading operations as per specifications/requirements as stated in the agreement from the City of Burlington (as relayed to the arborist via email). Minimization of damage recommendations for the areas are included in the report and drawings. Further, these areas are shown on the attached arborist drawings.
Work relating to the fence is discussion in individual and separate sections of this report.
2. Tree #007 – Formerly Identified in arborist reporting as *Juglans* spp. (Walnut species) and Identified by the City of Burlington representative as a *Juglans cinerea* (Butternut), has had a butternut health assessment performed as per the requirements of the MECP. This BHA has concluded that this tree is a Butternut and within Category 1 as a result of canker extent and presence on the trunk, and the reporting (BHA) has been submitted to Species at Risk Ontario and the MECP for review as of Friday December 4th. As review of the BHA prepared is subject to the 30-day wait period as per the policy of Species at Risk Ontario Submissions, response from the MECP is to be forthcoming at that time.

SUMMARY

The property is proposed severance into multiple parts (parts 1 through 4) as follows:

- Part 1: 7.5m easement severance beyond the floodplain/top of bank area proposed for Conservation Halton
- Parts 2 and 4: Proposed private property sites for future development
- Part 3: Severance of the "Creek Block" (rear most area of property within flood plain area) to the City of Burlington

The severance proposed will require the demolition of the existing structure (church building), as well as the removal and remediation of the driveway/parking areas. Additionally, regarding as per the requirements of Conservation Halton is required to occur in portions of the area of the side yards of the property, as well as along the area of the slope to the rear of the existing driveway/parking area.

Further, in preparation for the future development of parts 2 and 4, public side service laterals (SAN and Water) are proposed to be installed for the sites.

The above activities, specifically the grading required to satisfy the conservation Halton requirements for the site, will require the removal of multiple trees within the areas of both private and public lands.

As per the meetings and discussions with the City of Burlington regarding the application, the City of Burlington has determined that the Private Tree Bylaw is not to be considered with regard to permitting requirements/fees/compensation for trees within the private property areas for trees to be removed or impacted, however, these trees are included for purpose of inventory of the trees located on and directly adjacent the site. Further to this, although not required for permitting purposes within this application, those private trees proposed to be impacted and preserved (namely trees #003 and #004 – impacted by driveway removal and remediation) are discussed and minimization of damage recommendations for the area has been included.

In addition to the above, regardless of the condition of trees as assessed by the arborist, any trees not impacted by the work proposed are listed as to be preserved for purpose of this report.

It should be noted that prior to this report, previous reporting regarding the Butternut specimen located on the 338 Johnston Drive property was prepared, including that of a Butternut Health Assessment, for consideration and review by the Ministry of the Environment, Conservation and Parks (MECP). Within the previous reporting this tree was numbered as Tree #001; however, it should be noted that this tree is now numbered in this report as Tree #009.

This butternut health assessment categorized this tree as a category 1 specimen and has been approved by the MECP. As such, this tree is not considered to require protection or Notice of Activity approval under the Endangered Species Act. The Butternut Health Assessment (BHA) has been included for reference/records as an appendix to this report, and it is the understanding of the arborist that the MECP has already contacted the City of Burlington regarding the approval of the BHA for this tree.

In addition to the above, and as per the revision notes, removal of portions of the existing chain link fence in the park area adjacent the site, is to occur. Further, a new property fence for the proposed private lots is also proposed to be installed. This work is discussed in its' own section of this report, in which the specifics of the agreement are listed.

INTRODUCTION

Assignment

The arborist was retained in October/November 2020 to prepare an Arborist Report and Tree Preservation Plan for the property located at 338 Johnston Drive for submission to Burlington Forestry Department as required by the City of Burlington Public Tree protection by-laws. Further to this, the reporting is to include the private trees for reference of removals/impacts/inventory records although the private tree bylaw requirements do not pertain to this application. The report is to include an inventory and location (tree survey) including rating and comments (where required) regarding the current Health and Soundness of each subject tree, as well as plan drawings showing (but not limited to) the tree locations, protection zone(s), proposed construction, encroachments/impact areas, removals, and tree preservation fencing.

Limits of the Assignment

Unless specifically noted, all trees are rated by Limited Visual Assessment (Ground-based), and no exploratory excavation was, or is to be, conducted to verify the presence or absence of tree roots in a given area.

Purpose and Use of This Report

This report is intended to outline all encroachments, tree injuries, and tree removals resulting from the proposed construction as outlined in subsequent sections. Additionally, this report shall outline and enumerate any needed tree related Permits, for which the Client must apply to the City of Burlington. It should be noted that the waiver, exemption, or denial of Permits rests strictly with the City of Burlington.

Methodology

Location

Unless otherwise specified, this Tree Survey is based upon Land Survey drawings for tree locations. Where additional trees are located, by the arborist, the locations of these trees are approximate only, to within 30cm. This dilution of precision is sufficient for most Tree Preservation requirements but should not be used to determine ownership of the subject tree.

Measurements

The Tree Survey (inventory and location) will encompass any trees on the client site having a DBH of 10cm or greater; trees of any size on adjacent municipal lands and situated within 6m of the client site, or zone of construction; trees having a DBH of 10cm or greater on adjacent private lands and situated within 6m of the client site. Trunk diameters are measured using a diameter tape and rounded upwards to the nearest centimeter. In the case of a multi-stemmed tree, an effective DBH will be assigned according to the formulae accepted by the City of Burlington.

Canopy diameters are representative of the greatest distance from canopy edge to trunk, and should be accurate to ± 50 cm, unless otherwise specified.

Where applicable, Height (measured by clinometer), Trunk Lean (measured by angle protractor, with compass direction, and Canopy Offset, may also be recorded for some or all of the subject trees.

Condition

Unless otherwise specified, tree condition is determined by Limited Visual Assessment (ground based). Condition is determined, on site, as separate Health, and Structural score according to the following rating system:

Health of the tree is rated on a scale of 0 to 5 as follows:

0. Dead
1. Mostly Dead
2. Declining with Several Pathogens Present
3. Good Health with Major Problems or Poor Health with no Pathogens present
4. Good Health with Minor Problems
5. Excellent Health.

Soundness of the tree is rated on a scale of 0 to 5 as follows:

0. Collapsed
1. Structural Failure Imminent
2. Major Rot or Cavities
3. Rot Evident (not major) and No Cavities in Trunk
4. No Cavities. Some decay at branch stubs only.
5. No Visible Decay

Overall Condition Rating is the Harmonic Mean of the Health Rating and the Soundness Rating, expressed as a Percentage.

Drawings

Based upon the information obtained in the tree survey, the trees are to be plotted, to scale, overlaying a Site Plan drawing of the proposed construction. The drawing(s) will show, at minimum:

TPR-1xx series

- All surveyed trees, with Tree Number, Species, DBH, Minimum TPZ, and Canopy extents plotted.
- Any trees which are proposed to be removed.
- Any trees which will potentially be subject to Injury as a result of the proposed construction.
- Hatching to clearly identify areas of Tree Protection Zone encroachment by the proposed construction.
- Locations for prescribed Tree Protection Fencing.

TPR-9xx series

- Photo Reference Drawings, providing photo records of each tree.

If required, additional drawings may be rendered.

SITE

The subject site falls entirely under the jurisdiction of the City of Burlington Public and Private Tree Bylaws. For purposes of this arborist report and tree preservation plan, and the current application, only the City of Burlington Public Tree Bylaw is to be considered regarding tree protection permit requirements.

Private trees have been included for reference/records within the inventory and drawings, and where private trees are proposed to be removed, they have been included for reference. Further, where private trees are proposed for retention with encroachment within the MTPZ/CRZ areas, minimization of damage recommendations have been included for these areas.

Current Site Characteristics

The site currently consists of a church property with church and parking area/driveway. Additionally, there is a slab area/former slab area of a previous shed in the rear currently present at the rear of the parking area.

Proposed Construction

The property is proposed severance into multiple parts (parts 1 through 4) as follows:

- Part 1: 7.5m easement severance beyond the floodplain area to Conservation Halton
- Parts 2 and 4: Proposed private property sites for future development
- Part 3: Severance of the "Creek Block" (rear most area of property within flood plain area) to the City of Burlington

The severance proposed will require the demolition of the existing structure (church building), as well as the removal and remediation of the driveway/parking areas. Additionally, regarding as per the requirements of Conservation Halton is required to occur in portions of the area of the side yards of the property, as well as along the area of the slope to the rear of the existing driveway/parking area.

Further, in preparation for the future development of parts 2 and 4, public side service laterals (SAN and Water) are proposed to be installed for the sites.

The above activities, specifically the grading required to satisfy the conservation Halton requirements for the site, will require the removal of multiple trees within the areas of both private and public lands.

In addition to the above, the property line fence that separates the site at 338 Johnston from the parkland area as well as at the rear of the 338 Johnston property is to be removed as per the agreement made between the owner and the City of Burlington, this agreement and the specific requirements of fence removal are discussed further in the sectioning pertaining to this work.

Construction Phases and Anticipated Injury to Encroachment Ratios

Grading - Fill

Initial Assumptions Regarding Proposed Work

Encroachment Type: Grading (Major Fill)

Maximum Excavation Depth (m): 0

Maximum Fill Height (m): 0.1 – 1.0+

Assumed Ratio of Injury to Encroachment

(Injury = Ratio x Encroachment)

Root Zone: 0.5 – 1.0

Canopy: 0

Grading – Cut Areas

Initial Assumptions Regarding Proposed Work

Encroachment Type: Grading (Major Cut)

Maximum Excavation Depth (m): 1

Maximum Build Height or Clearance (m): 0

Assumed Ratio of Injury to Encroachment

(Injury = Ratio x Encroachment)

Root Zone: 0.5 – 1.0

Canopy: 0

Removal and Remediation of Existing Driveway/Parking Area

Initial Assumptions Regarding Proposed Work

Encroachment Type: Area Reclaimed to Lawn or Garden

Maximum Excavation Depth (m): 0.3

Maximum Build Height or Clearance (m): 0

Assumed Ratio of Injury to Encroachment

(Injury = Ratio x Encroachment)

Root Zone: 0.1

Canopy: 0

Demolition of Existing Structures

Initial Assumptions Regarding Proposed Work

Encroachment Type: Demolition Above and Below Grade

Maximum Excavation Depth (m): 3

Maximum Build Height or Clearance (m): 8

Assumed Ratio of Injury to Encroachment

(Injury = Ratio x Encroachment)

Root Zone: 0.25

Canopy: 0

Service Laterals Proposed (Public Side – Water/SAN)

Initial Assumptions Regarding Proposed Work

Encroachment Type: General Zone of Construction

Maximum Excavation Depth (m): 3

Maximum Build Height or Clearance (m): 0

Assumed Ratio of Injury to Encroachment

(Injury = Ratio x Encroachment)

Root Zone: 1

Canopy: 0

Chain Link Fence Removal via Foot Access and Hand Equipment Only

Initial Assumptions Regarding Proposed Work

Encroachment Type: Demolition

Maximum Excavation Depth (m): 0

Maximum Build Height or Clearance (m): 0

Assumed Ratio of Injury to Encroachment

(Injury = Ratio x Encroachment)

Root Zone: 0

Canopy: 0

New Property Chain Link Fence Installation

Initial Assumptions Regarding Proposed Work

Encroachment Type: Fence Installation

Maximum Excavation Depth (m): 1 (fence post footings)/ 0 (above grade portions)

Maximum Build Height or Clearance (m): 3

Assumed Ratio of Injury to Encroachment

(Injury = Ratio x Encroachment)

Root Zone: 0 (above grade portions) / 1 (post holes)

Canopy: 0

TREE INVENTORY SUMMARY

Tree Population

Overview

There was a total of Sixty-Seven (67) trees inventoried within the scope of this survey.

Of these, fourteen (14) trees are located on public land and considered significant within this reporting (for application under Private tree Bylaw only). It should be noted that although the City of Burlington is to take control/ownership of the severed Part 3 area (area at rear of existing site containing grove of trees) at this time this area is private land owned by the client, and as such trees within the area are listed as client trees for purposes of this reporting.

The following outlines the distribution of all trees on the site according to their deemed ownership (location):

Ownership

Client Tree	41
Client/Neighbor Shared Ownership Tree	2
Municipal tree in Park or Naturalized Area	12
Municipal tree on Municipal Road Allowance	2
Neighbor owned tree	10

Species Distribution

Species distribution, average DBH, and count are as follows:

(Acer rubrum)	1	@AvDBH: 18.0cm
(Acer platanoides)	4	@AvDBH: 4.5
(Ailanthus altissima)	1	@AvDBH: 20.0
(Betula papyrifera)	2	@AvDBH: 34.0
(Fraxinus americana)	17	@AvDBH: 30.2
(Fraxinus spp)*	1	@AvDBH: 12.0
(Juglans cinerea)	2	@AvDBH: 12.5
(Juglans nigra)	26	@AvDBH: 39.8
(Morus alba)	4	@AvDBH: 21.3
(Picea glauca)	1	@AvDBH: 7.0
(Prunus serotina)	1	@AvDBH: 20.0
(Thuja occidentalis)**	1	@AvDBH: 30.0
(Tilia americana)	5	@AvDBH: 31.2
(Ulmus rubra)	1	@AvDBH: 25.0

*Note: Identification of these trees to genus only as a result of condition (dead tree(s)).

**Note: Represents a Cedar Hedge. Largest stem of hedge used as DBH of hedge row for protection radii allocation for hedge.

Regarding the Condition of Trees Within/Adjacent to the Park Land Areas Located Along the Chain Link Fence Row Bordering the Client Site.

Currently many of the trees located within the park area, as well as those on the client property, that are adjacent/growing through the park area chain link fence are in very poor conditions, ranging from declining health conditions, through mostly dead or dead. Many of these trees are declining or are mostly dead as a result of the growth of vines along the chain link fence that has climbed these trees and covered (in part or completely) the canopies of these trees along the fence row. This vine is not limited to only those small stature specimens directly adjacent or growing through the fence itself but is also climbing the trunks and affecting the conditions of multiple large stature specimens within the rear area of the site adjacent this chain link fence.

Of greatest impact from the vine growth over trees, is that of trees #005 through #011 (excluding #009 which has no vine growth), as well as tree #019. These trees are declining and/or mostly dead as a direct result of the vine itself in the opinion of this arborist and are beyond the point at which vine removal and treatment/maintenance could allow for increased health of the specimens. It should be noted that trees in this area (excluding trees #010, #011 and #019) are proposed for removal due to the grading required.

For the remainder of the trees along the fence row area, including some located on the client site adjacent the fence, this vine is causing declining health conditions to trees, affecting portions of canopy where it has covered canopy branches. Further to this, many large trees with the vine present growing on/over portions of them will be subjected to girdling of stems by the vine if left to continue to grow on these specimens. With that said, it is the opinion of this arborist that many of these affected trees in this area (those beyond #011 along the fence row area – excluding #019) could have their health condition improved with careful removal and destruction of the vine that covers them in part, as well as some general tree maintenance and care in the area post vine removal.

Regarding the Condition of Ash Trees within/adjacent to the Client Site

Many of the Ash trees present on the site (outside of those covered in vine as per the previous section) are in various states of decline or are dead as a result of Emerald Ash Borer presence. Of greatest concern with regard to this is the mature grouping of Ash trees located in the rear area of the site directly adjacent/on the boundary line with the neighbor property rear yard. These Ash trees are currently dead as a direct result of EAB in the opinion of this arborist.

In addition to this, many other ash specimens on/adjacent to the site are also infested with EAB, and the arborist noted that additional Ash trees in the area surrounding the property and outside of the scope of the inventory (on neighboring property and well removed from the client property) are also in varying states of decline with some appearing to be mostly dead or dead.

Although not fully inspected as they were outside of the scope of the inventory, these Ash outside of the scope are likely in these states of repair as a result of the same insect infestation (EAB) in the opinion of this arborist.

Trees Receiving Encroachment or Requiring Removal

This section lists all trees on the property which are proposed for encroachment/injury or require removal as a result of the proposed development activities. For this application, only those trees located on public land (subject to the Public Tree Bylaw) require permit application, however, private trees to be removed, or to receive encroachment have been included. The City of Burlington must approve a Permit to Injure or Permit to Remove, where construction activities (including access) are to take place within the Minimum Tree Protection Zone (MTPZ) and/or Critical Tree Protection Zone (CRZ) of a tree which is:

A tree of any size, which is located on Municipal/Public land.

Where construction activities (including construction access) encroach upon the Minimum Tree Protection Zone, and/or Critical Root Zone of a public tree, compensation and/or damage deposits may be required at the discretion of the City of Burlington Tree Inventory and Compensation Form.

The following tables list all trees which have encroachments on their Minimum Tree Protection Zone (MTPZ) or Critical Root Zone (CRZ), as well as those that are to be applied for removal, their permit requirements (where applicable) and computed compensation values as per the City of Burlington Public Tree Inventory and Compensation Form as provided by the City of Burlington.

Note: Trees proposed for encroachment (public/private) from the fence removal operations/fence reconstruction operations, are listed in a separate subsequent section pertaining to those operations only.

Trees Proposed for Encroachment (Private Trees – Not including Fence Agreement Operations)

Tree # Species Ownership	DBH (cm) Canopy Dia. (m)	Comments Regarding Injury	Permit Requirements	Compensation Value (\$) -or- Replacement (30mm Caliper)
003 Paper Birch (<i>Betula papyrifera</i>) Client Tree	24 cm 6.0 M	Existing driveway area removal and remediation will encroach on MTPZ/CRZ area.	N/A for this application	N/A for this application
004 Paper Birch (<i>Betula papyrifera</i>) Client Tree	44 cm 12.0 M	Existing driveway area removal and remediation will encroach on MTPZ/CRZ area.	N/A for this application	N/A for this application

Public Trees Requiring/Recommended for Removal (Not including Fence Agreement Operations)

Tree # Species Ownership	DBH (cm) Canopy Dia. (m)	Comments Regarding Removal	Permit Requirements	Compensation Value (\$)
005 White Mulberry (<i>Morus alba</i>) Municipal tree in Park or Naturalized Area	14 3.0	Located within the area of required grading to satisfy conservation Halton requirements. Not anticipated to tolerate grading work in area.	Permit to Remove	\$700.00

Tree # Species Ownership	DBH (cm) Canopy Dia. (m)	Comments Regarding Removal	Permit Requirements	Compensation Value (\$)
006 White Mulberry { <i>Morus alba</i>) Municipal tree in Park or Naturalized Area	24 6.0	Located within the area of required grading to satisfy conservation Halton requirements. Not anticipated to tolerate grading work in area.	Permit to Remove	\$1200.00
007 Walnut Species { <i>Juglans spp</i>) Municipal tree in Park or Naturalized Area	12 3.0	Located within the area of required grading to satisfy conservation Halton requirements. Not anticipated to tolerate grading work in area. Further, the vine covering has resulted in death of majority of the specimen.	Permit to Remove	\$360.00
008 White Ash { <i>Fraxinus americana</i>) Municipal tree in Park or Naturalized Area	14 3.0	Located within the area of required grading to satisfy conservation Halton requirements. Not anticipated to tolerate grading work in area. Further, the vine covering has resulted in death of majority of the specimen.	Permit to Remove	\$420.00

Please refer to the City of Burlington Public Tree Inventory and Compensation Form included as appendix to this report for the details regarding compensation required for the injury and/or removal of public trees on the site.

Private Trees Requiring/Recommended for Removal (Not including Fence Agreement Operations)

The following trees are those located on private property that will require removal as a result of the impact resulting from the grading work required to satisfy the requirements of conservation Halton for the site. These trees are either located within areas of cut and fill grading proposed where removal is required to accommodate the grading or are not anticipated to tolerate the grading changes proposed to occur. It should be noted that those trees located on neighboring private land/co-owned by neighbors and the client (boundary trees) will require neighbor approval to remove.

Tree # Species Ownership	DBH (cm) Canopy Dia. (m)	Permit/Compensation Requirements
009 Butternut { <i>Juglans cinerea</i>) Client Tree	13 7.0	N/A
057 White Mulberry { <i>Morus alba</i>) Neighbor owned tree	23 6.0	N/A However, Neighbor Approval Required.
058 White Mulberry { <i>Morus alba</i>) Neighbor owned tree	24 6.0	N/A However, Neighbor Approval Required.

059 Norway Maple {Acer platanoides) Neighbor owned tree	6 3.0	N/A However, Neighbor Approval Required.
060 White Ash {Fraxinus americana) Neighbor owned tree	23 6.0	N/A However, Neighbor Approval Required.
061 White Ash {Fraxinus americana) Neighbor owned tree	25 5.0	N/A However, Neighbor Approval Required.
062 White Ash {Fraxinus americana) Client/Neighbor Shared Ownership Tree	5 2.0	N/A However, Neighbor Approval Required.
063 White Ash {Fraxinus americana) Client Tree	15 4.0	N/A
064 Norway Maple {Acer platanoides) Client tree	5 2.0	N/A
0645 Norway Maple {Acer platanoides) Client tree	5 2.0	N/A
066 Norway Maple {Acer platanoides) Client tree	2 2.0	N/A
067 American Basswood {Tilia americana) Client Tree	12 3.0	N/A

For the listing of trees requiring encroachment and/or removals as a result of the fence removal agreement activities please refer to the subsequent section(s) of this report regarding the fence agreement specifically.

ARBORIST COMMENTS AND IMPACT ANALYSIS

As per the requirements of this application, the site is only subject to the Public Tree Bylaw and only public trees are required to receive permit for injury or removal. However, although private trees are not subject to the requirements of the private tree bylaw for this application only, any future application post severance for the site(s) will require application under the private tree bylaw. Further to the above, it is the recommendation of this arborist that the private trees proposed to receive encroachment have care taken during work in their root zones in order to minimize the impact to their health and vigor that may result from the of the proposed work. As such, the following provides impact analysis and recommendations for minimizing impact to the trees proposed to receive encroachment from the demolition/severance activities proposed for the site.

Existing Driveway Removal and Remediation

Impacted Trees: #003 - Paper Birch / #004 - Paper Birch /

The removal and remediation of the existing driveway area is highly recommended to be done only after all other aspects of demolition/grading/service installations, and access of equipment are completed. This will allow the existing driveway surface to remain intact through construction greatly reducing if not preventing the occurrence of damage to the rooting area of these trees that would be present below the driveway area. Once remediation activities begin in the area, they are to be done with care to preserve all roots of size found within the aggregate of the driveway, as well as below. To achieve this removal of the surface will need to be done with care cutting the surface in sections and lifting with hand/light equipment. Further, the aggregate beneath is to be removed with care using hand equipment only in the area of protected root zone confliction. Where aggregate removal cannot occur without the destruction of roots of size (transport or larger) it is to be left in the area and fill upon to preserve said roots. It is understood that some fibrous/feeder root damage will occur, however, with care taken it is the opinion of this arborist that this work can be done with only minimal impact. As such it is anticipated that the impact of the driveway remediation will be 10% of the encroachment.

The following presents the encroachment on the MTPZ and CRZ areas for these trees, and the total impact they are anticipated to receive.

Tree #	Encroachment (area/area)	Anticipated Injury
#003: paper birch	18.44% (MTPZ)	2.6%
{Betula papyrifera}	26.2% (CRZ – incl. MTPZ area)	
24cm DBH		
#004: paper birch	24.97% (MTPZ)	3.0%
{Betula papyrifera}	30.0% (CRZ – incl. MTPZ area)	
44cm DBH		

This level of impact is well below the recommended maximum impact of 30% (Coder et. al.) and is considered a minimal impact not anticipated cause any significant detriment to this tree beyond that of a potential reduction in growth rate while it recovers. With that said, care should be taken in the area to ensure that roots of size are preserved where possible, and that no undue damage occurs during the remediation work in the area. Assuming that the recommendations presented in the subsequent sections are adhered to, it is this arborists opinion that these trees can tolerate the proposed remediation work in area.

Regarding the Fence Agreement Operations

The following describes the agreement re the fence removal and documents the trees that will receive encroachment from work and/or require removal (if and where required) to allow for the removal of the fence and access related to the fence removal/replacement. This agreement regarding the fence is as follows (as relayed via email by the City of Burlington):

Fence Removals

- The fence fabric from the front of the property to the start of the grading will be removed and replaced with new fence fabric. The applicant will be required to replace the last post with a terminal post and cross support.
- The fence from the start of the grading area to the back of the lot line (section running north south) will be removed.
 - The applicant will remove the existing posts by cutting them off below grade and covering over with soil to the satisfaction of the City.
 - The removal of fabric and posts will be done by hand without equipment (e.g., bobcat).
 - The existing posts and fabric will be moved to the existing lot by hand for disposal.
 - Care must be given to avoid damage to all trees remaining during the cutting and removal operation.
 - The applicant's arborist will amend their current report to include the fence removal and proposed methods as part of the scope of work to be undertaken by the applicant; and
 - This method of fence removal for the back end of the lot will not require compensation so long as the trees remaining are not damaged.
- A black chain link fence to City standards will be constructed in the area of grading to the new property line. The fence will continue across the rear property to separate the new properties and land to be conveyed to the City. The City will provide this detail.

All work identified above are identified as conditions of approval for this application

Further to the above, the exact locations of this work as clarified by the City of Burlington via email is as follows:

"Michael,

the pink hatched area is the area where the fence is to be removed by hand with no machinery such as a bobcat.

The green box is the approximate area of the two trees the applicant has requested removed for grading and subject to Council approval.

The fence outlined in a blue box represents where the fence posts will remain, and new fence fabric will be installed

I trust this helps your understanding of the action items."

Note: A sketch showing these locations was provided by the City via email and has been used to denote the areas on the arborist drawings TPR 101 and 901. It should be noted that the pink hatched area as provided hatches the rear lot line area (where a fence is on private property on neighbor land) even though the notes state only the north-south section of fence in this area is to be removed. As such, it is

assumed that the notes pertaining to the north-south section of fence being removed are correct, and the full hatch along the southern property extent is greater than required (as part of this fence area is on private land). To the best of this arborists ability to determine, the fence along the rear lot line of the property is split in ownership as follows:

Pin 07045-0076: City of Burlington Owned Lands

Pin 07045-0142: Private Lands (owner unknown) of 3211 Spruce Avenue

As a result of this, for purpose of this reporting regarding the fence removal operations in the area, only fence removal operations of fence areas on public land are being removed. This includes the north-south fence line abutting 338 Johnston Drive, as well as a small portion of the east west fence along the rear lot line that separates the rear of 338 Johnston Drive from the City owned lands of Pin 07045-0076. The pink hatched area on the arborist drawing has had a note added to reflect to public fence removal areas and private fence retention area.

The fence separating 338 Johnston Drive from the Private Lands of Pin 07045-0142 is to remain (fence on private land of 3211 Spruce Avenue in this area).

Trees Subject to Encroachment from Fence Agreement Operations

In order to perform the ex. fence removal/mesh removal and replacement operations the following trees will be subject to foot access traversing the protected root zone areas (MTPZ and/or CRZ). As per the agreement, only foot access is permitted in the areas required for fence agreement operations that are located outside of the grading area (as denoted on arborist drawing TPR 101). Further, no equipment beyond that of hand tools may be used for fence/post removals or mesh replacements where located outside of the area of grading.

Trees within Area of Fence Mesh Removal and Replacement Only (Posts to be Re-used)

Tree # Species Ownership	DBH (cm) Canopy Dia. (m)	Comments re Fence Removal
002 Tree of Heaven { <i>Ailanthus altissima</i> Municipal Tree on Road Allowance Area	20 cm 6.0 M	Area of Mesh Removal and Replacement Only (Posts to Remain). Tree grows through mesh of ex. fence – to prevent impact, mesh is to be cut on carefully on both sides of trunk where tree has grown around it, and portion in tree is to be left for tree to continue growing around. Although above method will allow for preservation with no impact during fence mesh removal and replacement, this may not be an acceptable solution for the City of Burlington as this tree may ultimately grow through the new fence mesh installed adjacent its' trunk. If such is the case and the City would rather this tree be removed so as not to conflict with the new fence mesh in the future, such should be undertaken. This report however assumes preservation of this tree as it is possible to be done with the mesh removal and replacement activities required.
003 Paper Birch { <i>Betula papyrifera</i> } Client Tree	24 cm 6.0 M	Mesh Removal and Replacement Only by foot access and hand tools only will present no impact.
004 Paper Birch { <i>Betula papyrifera</i> } Client Tree	44 cm 12.0 M	

Trees within Area of Full Fence Removal (north/south lot line fence section – grading area to rear lot extent not including trees directly affected by grading - mesh to be removed/posts to be cut just below grade and covered with soil)		
Tree # Species Ownership	DBH (cm) Canopy Dia. (m)	Comments re Fence Removal
010 White Ash { <i>Fraxinus americana</i> } Municipal tree in Park or Naturalized Area	16 4.0	Full Fence removal via foot access and hand tools only will present no impact to these trees.
011 White Ash { <i>Fraxinus americana</i> } Municipal tree in Park or Naturalized Area	10 2.0	
012 Black Cherry { <i>Prunus serotina</i> } Municipal tree in Park or Naturalized Area	20 6.0	
013 White Ash { <i>Fraxinus americana</i> } Municipal tree in Park or Naturalized Area	40 6.0	Foot access and hand tools only will present no impact to this tree. Full Fence removal must be done with care in this area – mesh to be cut on both sides of trunk if/where tree has grown around it.
014 Ash species { <i>Fraxinus spp</i> } Municipal tree in Park or Naturalized Area	12 1.0	Dead Tree.
015 Red Elm { <i>Ulmus rubra</i> } Municipal tree in Park or Naturalized Area	25 3.0	Foot access for fence removal using hand tools only will present no impact to these trees. Full Fence removal must be done with care in this area – mesh to be cut on both sides of trunk if/where tree has grown around it.
016 Basswood { <i>Tilia americana</i> } Municipal tree in Park or Naturalized Area	26 7.0	
017 White Ash { <i>Fraxinus americana</i> } Client Tree	51 10.0	Full Fence removal via foot access and hand tools only will present no impact to these trees.
018 Black Walnut { <i>Juglans nigra</i> } Client Tree	35 10.0	
019 White Ash { <i>Fraxinus americana</i> } Municipal tree in Park or Naturalized Area	13 3.0	
020 Black Walnut { <i>Juglans nigra</i> } Client Tree	72 16.0	
021 Black Walnut { <i>Juglans nigra</i> } Client Tree	33 6.0	
022 Black Walnut { <i>Juglans nigra</i> } Client Tree	81 26.0	
023 Black Walnut { <i>Juglans nigra</i> } Client Tree	46 8.0	
024 Black Walnut { <i>Juglans nigra</i> } Client Tree	62 12.0	

Regarding Access for Fence Removal Operations

Primarily, encroachments on the above listed trees (all trees listed subject to access encroachment) are that of the foot access for purpose of removing the fence, which if done by foot only and using hand tools only as per the agreement, will result in no impact to the root system as a result (no compaction from equipment/access). As such, the access in these areas should be considered to present a technical encroachment across the protected root zone areas only. With that said, all access in the areas of fence removal (outside that of the grading work area) must be done by foot access only.

Trees Growing Through/Directly Abutting and Touching the Fence

Of greatest concern in the areas of fence removal will be that of the mesh removal and replacement in the area of tree #002, as well as the mesh/fence removals in the areas of trees #013, #015, and #016. These trees have grown to either directly abut and touch the fence (#013 and #016) or have grown right through/partially through the chain link fence (#002 and #015).

It is the opinion of this arborist that with care taken to carefully cut the chain link fence mesh adjacent to any areas where trees have grown through or around the mesh (using hand tools only) to remove the mesh on either side, this work of mesh/fence removal can be done without damage to the tree itself. Where trees are growing directly abutting the mesh/fence, care to gently remove any meshes/cross braces/top bars in the areas are to be taken using only hand methods while preventing leverage/twisting that may result in twisting mesh or cross braces putting pressure against or presenting mechanical impact to the trunks of trees. Although it is this arborists opinion that the above trees can be preserved and will receive no actual impact with care taken during the fence removal operations (as per each areas requirement, and the subsequent recommendations of this report) it will require the leaving of chain link fence mesh present within the trunks of some of these trees (#002 and #015). Further to this, the new mesh placed in the area of tree #002 although able to be installed around the tree, may ultimately have this tree grow through it as well. As this may not be a suitable solution for the City of Burlington due to the fence mesh remaining within trees preserved/impact of keeping tree #002 on new fence mesh in future, if such is the case on review of this report, these trees (or portions thereof) should be removed as the City requests. It should be noted that if requested to be removed by the City of Burlington these trees may be subject to compensation requirements at the sole discretion of the City of Burlington.

For purpose of this report, these trees are shown as to be preserved, as such is possible with care taken in the area.

Fence Post Removals

As per the agreement made with the City of Burlington the area specified for full fence removal is to have the existing fence posts cut at just below the grade and the areas covered with soil. This work, done using hand equipment only, will present no impact to the root zones of these trees in the opinion of this arborist, assuming that the work is done with care taken, and that the cut below grade occurs just at/below the existing soil surface (no excavations to occur). Further, all fill soil placed to cover the posts cut is to be done using high quality topsoil only and is to be placed by hand to the minimum required to cover the posts. No excessive fill or grading is to occur in any areas located outside of the required grading area.

Assuming that the requirements of the agreement, as well as the subsequent recommendations regarding the fence post removal are adhered to, it is the opinion of this arborist that no actual impact is anticipated to occur to trees from these activities, and the encroachment should be considered to be technical only.

Regarding New Chain Link Fence

The installation of the new chain link fence (includes new terminal post at end of area of fence mesh replacement as per agreement) will be located outside of all protected root zone areas of trees not proposed for removal due to the grading work required. As such, no impacts to trees will occur from the new fence installation required in the area of grading as well as along the rear property line proposed (new property line of sites).

Regarding Compensation for Fence Removal Encroachments

Although it is this arborists opinion that the fence removal by hand, including access by foot, will not present any impact to the health or stability of the trees located along the fence row if done with care as per the agreements and the subsequent recommendations for minimization of damage in these areas, any compensation required for work/access in this area is at the sole discretion of the City of Burlington.

Please refer to the subsequent sections regarding minimization of damages during construction for requirements and recommendations to prevent impact to trees in the areas of fence removal.

ARBORIST MINIMIZATION OF DAMAGE RECOMMENDATIONS

The following presents the recommendations for the minimization of damages during construction activities proposed to occur within protected root areas (MTPZ's and CRZ's) as discussed in the preceding sections of this report. Further, this section presents some recommendations for prior to construction commencement, as well as recommendations for post construction.

Pre-Construction Phase

Prior to the commencement of construction, tree preservation hoarding, as well as arboricultural work with regards to any removals and any required pruning for construction, should be implemented as follows:

1. All Tree Preservation Hoarding is to be erected and placed as per the location presented on the attached Tree Preservation Plan Drawing: TPR 101.
Note: Tree Protection Hoarding must be installed upon approval of the tree preservation plan, and prior to release of the permits regarding tree injury. Upon approval of the Arborist Report and Tree Preservation Plan, and conditions of permit release being sent to the client, the hoarding is to be erected.
2. If it is determined by engineering that silt fencing be required for the site to prevent silt movement, it is the recommendation of the arborist that the silt fencing be placed following and on the construction side of tree protection hoarding.
If silt fencing is deemed required within hoarded areas of tree protection, it is not to be dug in in this area, but instead have a minimal amount of clear stone placed at the base. This will prevent impact to tree roots in area from the digging in of the silt fence base, while still allowing for the prevention of silt movement beyond the silt fence.
3. All tree protection hoarding, and silt fencing (if required), is to be inspected for correct construction and placement as per the approved Tree Preservation Plan Drawing and Site Plan by a Certified Arborist, or other approved consultant, or by a member City of Burlington Staff. If inspected by other than the City of Burlington staff, the consultant will provide written certification to the City that all protective hoarding and sediment control measures (if/where required) have been satisfactorily installed.
4. Any removal of trees, as approved and permitted by the City of Burlington should occur during this phase. No removals may occur until such time as tree removal permits have been released and are present on site.

Demolition/Construction Phase

The following is recommended to be adhered to during the demolition/construction phase of the project, in order to minimize the damages to trees where an encroachment on a trees MTPZ and/or CRZ is anticipated.

Minimization of Damage – Removal and Remediation of the Existing Driveway

- Upon completion of all primary demolition and construction activities, including those outside of protected root zone areas (building demolition, grading work, installation of services, etc.), with the only construction activities remaining being that of the driveway removal, the existing driveway area is to be removed and remediated to soft landscape. This work is recommended to be done only once all required equipment access in the driveway area to the site is completed.
- The Zone of Construction (as shown in the attached arborist drawing TPR 101) in this area must be strictly adhered to. No allowance for excavations beyond the extent of the driveway surface in the area of protected root zones encroachments is permitted. This must be strictly adhered to
- In the area of driveway removal within tree protection zones, no excavation beyond the removal of the surface, and careful removal of the underlayment where possible without root destruction and by hand, is recommended. It is understood that some fibrous/feeder roots may be damaged during surface removal activities.
- Removal of the existing surface(s) should be done with hand/light equipment only (cut in small sections and removed by hand only/light equipment for lifting only) in the areas of protected root zone confliction.
- Removal of the underlayment where possible is also to be done using hand equipment only. No excavation equipment is permitted in this area of protected root zone confliction once the surface has been removed (hand equipment only from that point on).
- The aggregate under the driveway surface may be removed using hand equipment (rakes/brushes/hoes), where root destruction of roots greater than fibrous/feeder will not occur. If roots of size are discovered in these areas, they are to be preserved within the aggregate and should be filled upon with soil used for remediation.
- In the areas of remediation, soil used for remediation is to be of high quality and is to be of the that of a high-quality topsoil. Further, this soil should be placed in direct contact with the existing site soil wherever possible.

Fence Removal Phase

Minimization of Damage – Removal of Existing Fence as per Agreement

Requirements of Agreement (as per City of Burlington notes provided)

Fence Removals

- The fence fabric from the front of the property to the start of the grading will be removed and replaced with new fence fabric. The applicant will be required to replace the last post with a terminal post and cross support.
- The fence from the start of the grading area to the back of the lot line (section running north south) will be removed.
 - The applicant will remove the existing posts by cutting them off below grade and covering over with soil to the satisfaction of the City.
 - The removal of fabric and posts will be done by hand without equipment (e.g., bobcat).
 - The existing posts and fabric will be moved to the existing lot by hand for disposal.
 - Care must be given to avoid damage to all trees remaining during the cutting and removal operation.
 - The applicant's arborist will amend their current report to include the fence removal and proposed methods as part of the scope of work to be undertaken by the applicant; and
 - This method of fence removal for the back end of the lot will not require compensation so long as the trees remaining are not damaged.

A black chain link fence to City standards will be constructed in the area of grading to the new property line. The fence will continue across the rear property to separate the new properties and land to be conveyed to the City. The City will provide this detail.

Arborist Recommendations Regarding Fence Removal Areas

Access for Fence Removals (all areas outside of Grading Area)

- Tree Protection Hoarding (vertical) is recommended to form a corridor along the north-south fence area beyond the grading area proposed is to be installed to prevent access outside of areas required to allow for fence removal by hand. The corridor also includes the small public fence area at the rear lot line of the fence area separating Pin 07045-0076 from 338 Johnston Dr.
- The corridor hoarding, as above, is to connect with the primary tree protection fence at the extent of the grading area, as well as the existing fence along the southern rear lot line area, as shown in the attached arborist drawing TPR 102 regarding fence removal
- All Access for purpose of removal of the fence areas (all areas) is to be done by foot access only as per the agreement. This must be strictly adhered to.

- All access to and from the fence areas for purpose of fence removals must be conducted from the client property area.

Fence Mesh Removal and Replacement Only Area

- In the area of fence mesh removal and replacement (posts to remain – area north of grading area required). All mesh removal is to be done by hand equipment only (hand tools only).
- The fence mesh is to be removed from the area after cutting in to small manageable sections by foot access only.
- All mesh removed is to be brought from the fence to the area of the client property for disposal.
- In the area of tree #002, to preserve this tree the fence mesh that the tree has grown in to is to remain in this tree. This will require carefully cutting the mesh of the fence in this area on both side of the tree (as close to trunk as possible without damage to trunk) as well as just above where the tree has grown through the fence, to allow for removal of the mesh surrounding this tree while not damaging the tree itself.
- Replacement of the mesh in this area is to be done using hand equipment only and is to reuse the existing posts. In the area of tree #002, the fence mesh is to be installed carefully around this tree by hand only.
- All work in the area of tree #002 for fence mesh removal and replacement is to be done under the direct supervision of/with assistance from a Certified Arborist, as approved by the City of Burlington.

Note: As per the previous section pertaining to the fence removal work, if the City of Burlington is not satisfied with preservation of this tree with the portion of fence mesh remaining in the tree/the new mesh directly adjacent, this tree should be removed at their request. This is solely at the discretion of the City of Burlington, as it is possible to preserve this tree in this area in this arborist's opinion (albeit with some mesh required to remain in the tree). Further, if the City deems they would like this tree (#002) removed for the fence mesh removal and replacement, any compensations required are at the sole discretion of, and are to be relayed to the owner by, the City of Burlington.

Full Fence Removal Section (grading area to rear lot extent, not including trees directly affected by grading area)

- In the area of full fence removal and replacement (mesh and post removal – area south of grading area required). All fence removal is to be done by hand equipment only (hand tools only).
- The fence mesh is to be removed from the area after cutting in to small manageable sections by foot access only.
- All mesh removed is to be brought from the fence to the area of the client property for disposal.
- In the area of tree #015, to preserve this tree the fence mesh that the tree has grown in to is to remain in this tree. This will require carefully cutting the mesh of the fence in this area on both side of the tree (as close to trunk as possible without damage to trunk) as well as just above where the tree has grown through the fence, to allow for removal of the mesh surrounding this tree while not damaging the tree itself.

- Fence Mesh/Cross braces/Top bars of the fence that are directly adjacent/potentially abutting any trees (such as #015), are to be carefully cut in to small sections and removed by hand. Care to gently remove any meshes/cross braces/top bars in the areas is to be taken using only hand methods while preventing leverage/twisting that may result in twisting mesh or cross braces putting pressure against or presenting mechanical impact to the trunks of trees.
- All fence posts being removed are to be cut at just below the soil surface by hand tools only. No excavations in the area of fence removal are to occur to remove the fence post footings or allow for fence posts to be cut by hand.
- Where posts are cut, these posts are to be covered with soil. All soil for covering the areas of post cuts is to be of high-quality topsoil and is to be placed in direct contact with the existing site soil. This soil should be limited in depth to cover the cut posts while not presenting any significant grading changes (no excessive fill) and is recommended to be done to the minimum required and to the satisfaction of the City of Burlington. It is anticipated that no more than 1-2 inches (~2.5cm-5cm) will be required for this purpose.
- All mesh and post removal from the area must be conducted by hand, and by foot access only, and is to be done on the client property only following the corridor provided to the area of open demolition/development occurring (area of ex parking/driveway) for removal from the site.
- It is recommended that during the mesh and post removal phase of the fence removal in this area, that a Certified Arborist as approved by the City of Burlington be present to supervise and assist in the removal of mesh and posts, to ensure no mechanical damage occurs to trees where the mesh/posts are located directly adjacent or within the trunk (tree #015 in this area).

Post-Construction

Upon completion of the construction on the site, it is recommended that the following be undertaken to promote health and vigor of trees on the site as they recover from construction impacts.

1. Upon completion of construction and approval of such from the City of Burlington, tree protection hoarding may be removed from the site.
2. Areas proposed for finish grading in preparation for turf installation/garden bed/plant installation is to occur. Regarding this finish grading work and soft landscaping, the following is recommended:
 - a. Finish Grading/Soft Landscaping is not to commence until all aspects of primary demolition/construction, service installations, and all grading work required (including access) are completed.
 - b. Upon completion of the demolition/construction phases, with the only phase remaining being that of the finish grading and soft landscaping (planting/installation of turf grass), the tree protection hoarding may be removed to allow for finish grading/soft landscaping in these areas to occur as required.
 - c. All finish grading/soft landscaping in areas of protected root zones should be done using hand equipment only.
 - d. All finish grading/soft landscaping in areas of tree protection zones should be done by foot access only
3. Compensation Tree Plantings, where required for tree removals, and as per an approved Compensation Planting Plan, are to be conducted. Any tree/shrub planting should be conducted in the next planting season post construction completion as follows:
 - a. If construction completion occurs in the fall/winter, compensation planting is recommended to occur in the first spring season post completion.
 - b. If construction completion occurs in the spring/summer, compensation planting is recommended to occur in the first fall season post construction completion.
4. Post construction monitoring of trees impacted by the construction and preserved is recommended to be done by a qualified professional (Certified Arborist, Registered Professional Forester, Horticulturist, Botanist) semiannually, with visits in the mid-spring, and mid to late summer. Special attention should be paid to the recovery, growth rate, and health of trees recovering from construction encroachments, with recommendations made where required regarding continued maintenance. It is recommended that these visits include general monitoring of all trees for continued health and structural condition.

GENERAL TREE PROTECTION GUIDELINES

Except as specifically stated in this report, all tree protection policies and zones are to be maintained in accordance with City of Burlington Tree Protection Policy and Specifications.

Tree Protection Zones

All tree protection zones are to be implemented as shown in the arborist drawing. Tree protection barriers are shown and to be constructed not closer than specified in the table: Appendix I – Tree Inventory – (Minimum TPZ radius). Where practicable (and this cannot be anticipated in the drawing phase), these barriers may be increased in size up to the Recommended TPZ radius as described in that same table.

No construction activity including grade changes, surface treatments or excavations of any kind is permitted within the area identified on the plan as a Tree Protection Zone (TPZ). No root cutting is permitted. No storage of materials or fill is permitted within the TPZ. The areas identified as Tree Protection Zones must remain undisturbed at all times.

Tree Protection Barriers

Tree protection barriers should be constructed of solid plywood, poly fencing, or equivalent, to a height of 1.2m around the front and sides of the construction envelope. In areas where visibility is of concern poly fencing may be used as a suitable tree protection-hoarding substitute. This will provide adequate tree protection while allowing for ample visibility.

All tree protection hoarding must be erected as shown in the attached arborist sketch TPR – 101.

General Note

Prior to the commencement of any site activity the tree protection barriers specified herein must be installed and written notice provided to the City of Burlington. The tree protection barriers must remain in effective condition until all site activities including landscaping are complete. A sign as specified in Tree Protection Policy and Specification for Construction Near Trees must be attached to all sides of the barrier and at regular intervals for lengthy barriers. Written notice must be provided to the City of Burlington prior to the removal of the tree protection barriers.

Arboricultural Work

Any roots or branches extending beyond the tree protection zones indicated in this report and its associated drawings, which require pruning, must be pruned by a Qualified Arborist or other tree professional as approved by the City of Burlington. All pruning of tree roots and branches must be in accordance with good arboricultural standards. The Arborist must contact the City of Burlington no less than 48 hours prior to conducting any specified work.

APPENDIX I – TREE INVENTORY AND SUMMARY TABLES

Tree Inventory

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	MTPZ					CRZ	Health	Soundness	Overall Condition %	MTPZ				CRZ	MTPZ	CRZ		
																	Owner	
001	Picea glauca White Spruce	7		2.0	1.0	1.84	1.84	4	4	80%	Likely planted by the former property/church owners, however as it is located on the municipal road allowance it is deemed to be a municipal tree.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Municipal tree on Municipal Road Allowance										Located outside of construction.							None
002	Ailanthus altissima Tree of Heaven	20		6.0	1.7	2.50	4.00	3	3	60%	Growing through chain link fence. Invasive species.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.						Protected (significant size)
	Municipal tree on Municipal Road Allowance										Located outside of construction/grading proposed.							None
003	Betula papyrifera Paper Birch	24		6.0	1.8	2.52	4.00	2	2	40%	Dieback through upper canopy area (declining health). Cavity present in trunk, and decay present throughout trunk with a portion hollow near the cavity. Decay in branches. Deadwood.	Remediation	1.4	18.4%	26.2%	1.8%	2.6%	Injured (encroachment on MTPZ)
	Client Tree										Existing Driveway Area removal and Remediation will encroach.	Totals:		18.4%	26.2%	1.8%	2.6%	
												Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.						N/A – Private Tree Bylaw not applicable for this application
004	Betula papyrifera Paper Birch	44		12.0	2.5	3.22	5.00	3	2	48%	Decay present through branches and trunk area. Some deadwood in canopy.	Remediation	1.4	25.0%	29.9%	2.5%	3.0%	Injured (encroachment on BTPZ)
	Client Tree										Existing Driveway Area removal and Remediation will encroach.	Totals:		25.0%	29.9%	2.5%	3.0%	
												Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.						N/A – Private Tree Bylaw not applicable for this application

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status		
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ			
005	Morus alba White Mulberry	14		3.0	1.4	2.47	4.00	2	3	48%	Growing through fence/from base of fence. Dieback and decline in canopy branches from vine covering portions of canopy.	Grading - Fill	0.0	59.6%	90.6%	29.8%	0.0%	Remove (within zone of construction)		
	Municipal tree in Park or Naturalized Area																			
	Located within the area of required grading to satisfy conservation Halton requirements. Not Anticipated to tolerate grading work in area.																	Remove		
006	Morus alba White Mulberry	24		6.0	1.8	2.52	4.00	2	3	48%	Effective DBH = 24cm (square root of total sum of square root of stem dbh's) Growing through fence/from base of fence. Dieback and decline in canopy branches from vine covering portions of canopy.	Grading - Fill	0.0	80.1%	76.0%	40.1%	0.0%	Remove (within zone of construction)		
	Municipal tree in Park or Naturalized Area																			
	Located within the area of required grading to satisfy conservation Halton requirements. Not Anticipated to tolerate grading work in area.																	Remove		

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status				
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ					
007	Juglans spp Walnut Species	12		3.0	1.3	2.46	4.00	1	2	27%	Thought to be a hybrid walnut species - vine covering canopy has killed all but one or two small branches. Small whips growing up in basal area (thought to be Norway maple and mulberry whips) Mostly dead due to vine covering majority of canopy area.	Grading - Fill	0.0	100.0%	100.0%	50.0%	0.0%	Remove (within zone of construction)				
	Municipal tree in Park or Naturalized Area																					Remove
008	Fraxinus americana White Ash	14		3.0	1.4	2.47	4.00	1	2	27%	Vine covering canopy. Mostly dead due to vine.	Grading - CutAreasProposed	0.9	27.8%	16.1%	27.8%	0.0%	Remove (within zone of construction)				
	Municipal tree in Park or Naturalized Area																					Remove

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	MTPZ					CRZ	Health	Soundness	Overall Condition %	MTPZ				CRZ	MTPZ	CRZ	Permits	
009	Juglans cinerea Butternut	13		7.0	1.3	2.47	4.00	3	3	60%	Canker present on trunk. Decay present in basal area. Appears in fair health at this time considering the canker presence, however this canker will be terminal to the tree.	Grading - CutAreaasProposed	1.2	20.4%	27.0%	20.4%	27.0%	Remove (not significant size - within zone)
	Client Tree										Totals:		20.4%	27.0%	20.4%	27.0%	N/A – Private Tree Bylaw not applicable for this application	
010	Fraxinus americana White Ash	16		4.0	1.5	2.48	4.00	1	2	27%	Vine covering canopy. Mostly dead due to vine.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.						Protected (significant size)
	Municipal tree in Park or Naturalized Area										Located outside of all grading work/construction activities proposed - protected. Note: Mostly dead due to vine coverage.							None
011	Fraxinus americana White Ash	10		2.0	1.2	1.85	4.00	1	2	27%	Vine covering canopy. Mostly dead due to vine.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.						Protected (significant size)
	Municipal tree in Park or Naturalized Area										Located outside of all grading work/construction activities proposed - protected. Note: Mostly dead due to vine coverage.							None

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
012	Prunus serotina Black Cherry	20		6.0	1.7	2.50	4.00	3	3	60%	Some vine covering portions of canopy. Fair health otherwise. Vine should be removed from canopy area if possible	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Municipal tree in Park or Naturalized Area										None							
	Located outside of all grading work/construction activities proposed - protected.																	
013	Fraxinus americana White Ash	40		6.0	2.4	2.60	4.00	2	3	48%	Vine covering significant portions of canopy - decline and dieback in these areas. Some deadwood present in canopy.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Municipal tree in Park or Naturalized Area										None							
	Located outside of all grading work/construction activities proposed - protected.																	
014	Fraxinus spp Ash Species	12		1.0	1.3	2.46	4.00	0	1	0%	Dead Tree - Identification unknown - Thought to be a dead ash.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Municipal tree in Park or Naturalized Area										None							
	Located outside of all grading work/construction activities proposed - protected.																	
015	Ulmus rubra Red Elm	25		6.0	1.9	2.53	4.00	3	3	60%	Some vine growing in portions of canopy. Otherwise in fair health. Vine should be removed if possible.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Municipal tree in Park or Naturalized Area										None							
	Located outside of all grading work/construction activities proposed - protected.																	
016	Tilia americana American Basswood	26		7.0	1.9	2.53	4.00	4	4	80%		Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Municipal tree in Park or Naturalized Area										None							
	Located outside of all grading work/construction activities proposed - protected.																	

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
017	Fraxinus americana White Ash	51		10.0	2.7	3.86	6.00	1	1	20%	Effective DBH = 51cm, (square root of total sum of square stem dbh's) Mostly dead. Canopy covered in vine growth. EAB present through tree. Tree should be removed due to EAB presence	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Client Tree										Located outside of all grading work/construction activities proposed - protected.						None	
018	Juglans nigra Black Walnut	35		10.0	2.2	2.58	4.00	2	3	48%	Vine growing up trunk and through canopy, causing branch dieback and girdling in specimen. Some deadwood in canopy as well as branch decay sites.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Client Tree										Located outside of all grading work/construction activities proposed - protected.						None	
019	Fraxinus americana White Ash	13		3.0	1.3	2.47	4.00	1	2	27%	Covered in vine growth. Mostly dead as a result.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Municipal tree in Park or Naturalized Area										Located outside of all grading work/construction activities proposed - protected.						None	
020	Juglans nigra Black Walnut	72		16.0	3.2	5.16	8.00	2	3	48%	Trunk covered in vine, as well as a significant portion of canopy area. Deadwood and decay in canopy area, decline likely due to vine covered/girdled canopy branches.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Client Tree										Located outside of all grading work/construction activities proposed - protected.						None	

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
						MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
021	Juglans nigra Black Walnut	33		6.0	2.1	2.57	4.00	2	3	48%	Specimen covered in vine growth. Occluded by larger specimens (#20 and #22). Deadwood through canopy.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Client Tree										Located outside of all grading work/construction activities proposed - protected.						None	
022	Juglans nigra Black Walnut	81		26.0	3.4	5.81	9.0	3	2	48%	Select branches with vine growth covering them and causing some girdling. Vine present through canopy area causing some dieback of affected portions. Deadwood. Significant decay present through primary/secondary branches	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Client Tree										Located outside of all grading work/construction activities proposed - protected.						None	
023	Juglans nigra Black Walnut	46		8.0	2.5	3.23	5.00	3	3	60%	Some deadwood and decay sites present in canopy area.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Client Tree										Located outside of all grading work/construction activities proposed - protected.						None	
024	Juglans nigra Black Walnut	62		12.0	2.9	4.51	7.00	3	3	60%	Some deadwood and decay sites present in canopy area.	Note: Fence Removal Agreement will require foot access encroachment across tpz areas to allow for fence removal in area. See Report Sections pertaining to fence removal for details.					Protected (significant size)	
	Client Tree										Located outside of all grading work/construction activities proposed - protected.						None	

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
025	Juglans nigra Black Walnut	18		4.0	1.6	2.49	4.00	3	4	69%	Occluded by larger specimens adjacent.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (not significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
026	Juglans nigra Black Walnut	40		8.0	2.4	2.60	4.00	3	3	60%	Some deadwood. Canopy offset over neighbor property	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Neighbor owned tree										Located outside of all grading work/construction activities proposed - protected.							None
027	Fraxinus americana White Ash	65		8.0	3.0	4.53	7.00	0	1	0%	Dead Tree - Likely from EAB.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
028	Tilia americana American Basswood	36		6.0	2.2	2.58	4.00	4	3	69%	Form a bit odd due to occlusion from other trees. Otherwise, good health.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
029	Juglans nigra Black Walnut	27		2.0	1.9	2.54	4.00	1	1	20%	Mostly dead tree, deadwood and decay throughout specimen.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
030	Juglans nigra Black Walnut	40		8.0	2.4	2.60	4.00	3	3	60%	Some deadwood present through canopy area.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None

Tree Num	Botanical/ Common Name Owner	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related Comments – Construction Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status Permits
						MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
031	Juglans nigra Black Walnut	21		6.0	1.7	2.51	4.00	3	3	60%	Some deadwood. Occluded.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
032	Juglans nigra Black Walnut	49		8.0	2.6	3.25	5.00	3	4	69%	Some deadwood in canopy as well as some minor decay sites.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
033	Juglans nigra Black Walnut	20		6.0	1.7	2.50	4.00	3	4	69%	Some min deadwood due to occlusion but otherwise fair - good condition.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
034	Juglans nigra Black Walnut	25		8.0	1.9	2.53	4.00	3	4	69%	Some min deadwood due to occlusion but otherwise fair - good condition.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
035	Juglans nigra Black Walnut	55		14.0	2.8	3.88	6.00	3	3	60%	Deadwood in canopy as well as some minor decay sites.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
036	Juglans nigra Black Walnut	58		16.0	2.8	3.89	6.00	2	2	40%	Significant decay sites throughout canopy branches and in trunk. Hollow areas/cavities present in specimen.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							
037	Tilia americana American Basswood	36		8.0	2.2	2.58	4.00	3	2	48%	Decay sites present through primary leader and canopy area. Some deadwood.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							
038	Juglans nigra Black Walnut	30		6.0	2.0	2.55	4.00	3	3	60%	Some deadwood present in canopy.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							
039	Juglans nigra Black Walnut	16		2.0	1.5	2.48	4.00	3	3	60%	A bit weak from occlusion.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (not significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							
040	Acer rubrum Red Maple	18		5.0	1.6	2.49	4.00	3	3	60%		Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Neighbor owned tree										Located outside of all grading work/construction activities proposed - protected.							

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
041	Juglans nigra Black Walnut	45		10.0	2.5	3.23	5.00	3	3	60%	Some min deadwood. Canopy offset over neighboring property.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Neighbor owned tree										Located outside of all grading work/construction activities proposed - protected.							None
042	Juglans nigra Black Walnut	29		7.0	2.0	2.55	4.00	3	3	60%	Some deadwood and canopy branch decay	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
043	Juglans nigra Black Walnut	55		12.0	2.8	3.88	6.00	3	3	60%	Some deadwood and canopy branch decay	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
044	Juglans nigra Black Walnut	31		8.0	2.1	2.56	4.00	3	3	60%	Some deadwood and canopy branch decay	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
045	Juglans nigra Black Walnut	44		10.0	2.5	3.22	5.00	3	3	60%	Some deadwood and canopy branch decay	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None
046	Juglans nigra Black Walnut	56		14.0	2.8	3.88	6.00	3	3	60%	Some deadwood and canopy branch decay	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected.							None

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status	
	Owner					MTPZ	CRZ	Health	Condition % Soundness	Overall				MTPZ	CRZ	MTPZ	CRZ		
047	Tilia americana American Basswood	46		12.0	2.5	3.23	5.00	3	2	48%	Effective DBH =46 (square root of total sum of square stem dbh's) Deadwood and decay through canopy. Decay sites present through trunk. Canopy offset over neighbor site.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)	
	Client/Neighbor Shared Ownership Tree																	Located outside of all grading work/construction activities proposed - protected.	None
048	Juglans nigra Black Walnut	15		5.0	1.4	2.48	4.00	3	3	60%	Occluded	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (not significant size)	
	Client Tree																	Located outside of all grading work/construction activities proposed - protected.	None
049	Juglans nigra Black Walnut	33		6.0	2.1	2.57	4.00	3	3	60%	Some deadwood in canopy.	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)	
	Client Tree																	Located outside of all grading work/construction activities proposed - protected.	None
050	Fraxinus americana White Ash	23		4.0	1.8	2.52	4.00	0	1	0%	Dead as a result of EAB (emerald ash borer)	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)	
	Client Tree																	Located outside of all grading work/construction activities proposed - protected. Note: this tree is dead.	None
051	Thuja occidentalis White Cedar	30		4.0	2.0	2.55	4.00	3	4	69%	Cedar hedge	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)	
	Neighbor owned tree																	Located outside of all grading work/construction activities proposed - protected.	None

Tree Num	Botanical/ Common Name Owner	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related Comments – Construction Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status Permits
						MTPZ	CRZ	Health	Soundness	Overall Condition %				MTPZ	CRZ	MTPZ	CRZ	
052	Fraxinus americana White Ash	49		8.0	2.6	3.25	5.00	0	1	0%	Effective DBH = 49cm (Square root of total sum of square stem dbh's) Dead as a result of EAB (emerald ash borer)	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Neighbor owned tree										Located outside of all grading work/construction activities proposed - protected. Note: this tree is dead.							None
053	Fraxinus americana White Ash	41		8.0	2.4	3.21	5.00	0	1	0%	Effective DBH = 41cm (Square root of total sum of square stem dbh's) Dead as a result of EAB (emerald ash borer)	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected. Note: this tree is dead.							None
054	Fraxinus americana White Ash	23		6.0	1.8	2.52	4.00	0	1	0%	Dead as a result of EAB (emerald ash borer)	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected. Note: this tree is dead.							None
055	Fraxinus americana White Ash	39		8.0	2.3	2.60	4.00	0	1	0%	Dead as a result of EAB (emerald ash borer)	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected. Note: this tree is dead.							None

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	MTPZ					CRZ	Health	Soundness	Overall Condition %	MTPZ				CRZ	MTPZ	CRZ		
056	Fraxinus americana White Ash	36		8.0	2.2	2.58	4.00	0	1	0%	Dead as a result of EAB (emerald ash borer)	Construction activities (including access) do not encroach upon the protected root zone, or crown of this tree.						Protected (significant size)
	Client Tree										Located outside of all grading work/construction activities proposed - protected. Note: this tree is dead.							None
057	Morus alba White Mulberry	23		6.0	1.8	2.52	4.00	3	3	60%	Effective DBH = 23cm (Square root of total sum of square stem dbh's) Growing from base of fence	Grading - Fill	1.9	7.1%	11.7%	3.5%	11.7%	Remove (within zone of construction)
	Neighbor owned tree										Impacted by grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		7.1%	11.7%	3.5%	11.7%	N/A – Private Tree Bylaw not applicable for this application
058	Morus alba White Mulberry	24		6.0	1.8	2.52	4.00	3	3	60%	Effective DBH = 24cm (Square root of total sum of square stem dbh's) Growing from base of fence	Grading - Fill	0.5	35.8%	37.0%	17.9%	37.0%	Remove (within zone of construction)
	Neighbor owned tree										Not anticipated to tolerate grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		35.8%	37.0%	17.9%	37.0%	N/A – Private Tree Bylaw not applicable for this application

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status
	MTPZ					CRZ	Health	Soundness	Overall Condition %	Comments – Construction Related				MTPZ	CRZ	MTPZ	CRZ	
059	Acer platanoides Norway Maple	6		3.0	0.9	1.83	1.83	4	4	80%	Small Norway Maple whip growing up from base of fence due to no maintenance of area by owner	Grading - Fill	0.0	89.7%	96.1%	44.8%	96.1%	Remove (not significant size - within zone)
	Neighbor owned tree										Not anticipated to tolerate grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		89.7%	96.1%	44.8%	96.1%	
060	Fraxinus americana White Ash	23		6.0	1.8	2.52	4.00	3	3	60%	Effective DBH = 23cm (Square root of total sum of square stem dbh's) Growing from base of fence. Some deadwood.	Grading - Fill	0.0	96.9%	90.9%	48.4%	90.9%	Remove (within zone of construction)
	Neighbor owned tree										Not anticipated to tolerate grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		96.9%	90.9%	48.4%	90.9%	
061	Fraxinus americana White Ash	25		5.0	1.9	2.53	4.00	2	2	40%	Bark breakdown/delamination in areas (possibly from EAB presence) Declining	Grading - Fill	0.0	100.0%	100.0%	50.0%	100.0%	Remove (within zone of construction)
	Neighbor owned tree										Not anticipated to tolerate grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		100.0%	100.0%	50.0%	100.0%	

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition			Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status		
	Owner					MTPZ	CRZ	Health	Soundness	Overall Condition %				Comments – Construction Related	MTPZ	CRZ	MTPZ		CRZ	Permits
062	Fraxinus americana White Ash	5		2.0	0.8	1.83	1.83	3	3	60%	Small whip/sucker growing from base of fence due to no maintenance of area	Grading - Fill	0.0	100.0%	100.0%	50.0%	100.0%	Remove (not significant size - within zone)		
	Client/Neighbor Shared Ownership Tree										Not anticipated to tolerate grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		100.0%	100.0%	50.0%	100.0%	N/A – Private Tree Bylaw not applicable for this application		
063	Fraxinus americana White Ash	15		4.0	1.4	2.48	4.00	3	3	60%	Growing from base of fence	Grading - Fill	0.0	72.3%	77.4%	36.2%	77.4%	Remove (not significant size - within zone)		
	Client Tree										Not anticipated to tolerate grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		72.3%	77.4%	36.2%	77.4%	N/A – Private Tree Bylaw not applicable for this application		
064	Acer platanoides Norway Maple	5		2.0	0.8	1.83	1.83	3	3	60%	Small whip/sucker growing from base of fence due to no maintenance of area	Grading - Fill	0.0	74.3%	91.4%	37.1%	91.4%	Remove (not significant size - within zone)		
	Client Tree										Not anticipated to tolerate grading required to satisfy conservation Halton requirements. As per agreement with neighbor re trees along fence impacted by grading work, this tree is to be removed.	Totals:		74.3%	91.4%	37.1%	91.4%	N/A – Private Tree Bylaw not applicable for this application		

Tree Num	Botanical/ Common Name	DBH (cm)	Trunk Lean and Direction	Canopy Diameter (M)	Zone of Max. Taper Radius (M)	TPZ Radius (MTPZ/ CRZ)		Condition		Overall Condition %	Comments – Condition Related	Construction / Demolition / Access Phase	Minimum Distance from Phase (M)	TPZ Encroachment (Area/Area)		Anticipated Injury from Encroachment %		Status					
	MTPZ					CRZ	Health	Soundness	MTPZ					CRZ	MTPZ	CRZ							
	Owner																Permits						
065	Acer platanoides Norway Maple	5		2.0	0.8	1.83	1.83	3	3	60%	Small whip/sucker growing from base of fence due to no maintenance of area	Grading - Fill	0.0	79.7%	97.9%	39.8%	97.9%	Remove (not significant size - within zone)					
	Client Tree																						N/A – Private Tree Bylaw not applicable for this application
066	Acer platanoides Norway Maple	2		1.0	0.5	1.81	1.81	3	3	60%	Small whip/sucker growing from base of fence due to no maintenance of area	Grading - Fill	0.0	60.8%	90.6%	30.4%	90.6%	Remove (not significant size - within zone)					
	Client Tree																						N/A – Private Tree Bylaw not applicable for this application
067	Tilia americana American Basswood	12		3.0	1.3	2.46	4.00	4	3	69%		Grading - Fill	0.9	27.3%	15.8%	13.7%	15.8%	Remove (not significant size - within zone)					
	Client Tree																						Exempt Other

APPENDIX X – ARBORIST’S DECLARATIONS

This report represents a fair and accurate assessment of the number, type, size, and condition of the tree(s) on the aforementioned property.

Certificate of Performance

I, Michael Plowman, certify that:

- I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation or appraisal is stated in the attached report and the Terms of Assignment.
- I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
- The analysis, opinions, and conclusions stated herein are my own and are based on current scientific procedures and facts.
- My analysis, opinions, and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices.
- No one provided significant professional assistance to me, except as indicated within this report.
- My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.
- I further certify that I am a member in good standing of the International Society of Arboriculture, and that I carry the designation of ISA Certified Arborist ON-1118A. I have been involved in the field of Arboriculture in a full-time capacity for a period of more than 13 years.



Michael R. Plowman
Assoc. Dipl. Horticulture
ISA Certified Arborist: ON-1118A

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7 December 2020

Assumptions and Limiting Conditions

- Any legal description provided to the consultant is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
- The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- Loss or alteration of any part of this report invalidates the entire report.
- Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written consent or verbal consent of the consultant.
- Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant particularly as to value conclusions, identity of the consultant, or any reference to any professional society or institute or to any initialed designations conferred upon the consultant as stated in his qualifications.
- This report and values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
- Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
- Unless expressed otherwise:
 1. Information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and
 2. The inspection is limited to visual examination of accessible items without dissection, excavation, probing or cutting.
 3. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Disclaimer

This report is based upon Land Survey drawings (with tree locations marked) provided by the client and prepared by a professional Land Surveyor. No grading information was provided at the time of preparation of this report.

The arborist is not a professional Land Surveyor, and as such can make no claim as to the accuracy of the provided drawings.

7 December 2020



Michael R. Plowman
Assoc. Dipl. Horticulture
ISA Certified Arborist: ON-1118A

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Site:	338 Johnston Drive
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Existing Tree Information - Public Trees Only						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)	Compensation
			Health	Structure						
1	White Spruce	7	80%	80%	Protected	1	\$ 700.00	80%	0%	\$ -
2	Tree of Heaven	20	60%	60%	Foot access for fence agreement - no impact	4	\$ 2,000.00	60%	0%	\$ -
5	White Mulberry	14	40%	60%	Remove due to grading required	3	\$ 1,400.00	50%	100%	\$ 700.00
6	White Mulberry	24	40%	60%	Remove due to grading required	5	\$ 2,400.00	50%	100%	\$ 1,200.00
7	Butternut (Category 1 as per BHA)	12	20%	40%	Remove due to grading required	2	\$ 1,200.00	30%	100%	\$ 360.00
8	White Ash (Mostly dead)	14	20%	40%	Remove due to grading required	3	\$ 1,400.00	30%	100%	\$ 420.00
10	White Ash (Mostly dead)	16	20%	40%	Foot access for fence agreement - no impact	3	\$ 1,600.00	30%	0%	\$ -
11	White Ash (Mostly dead)	10	20%	40%	Foot access for fence agreement - no impact	2	\$ 1,000.00	30%	0%	\$ -
12	Black Cherry	20	60%	60%	Foot access for fence agreement - no impact	4	\$ 2,000.00	60%	0%	\$ -
13	White Ash	40	40%	60%	Foot access for fence agreement - no impact	8	\$ 4,000.00	50%	0%	\$ -
14	Ash Species (Dead Tree)	12	0%	20%	Foot access for fence agreement - no impact	2	\$ 1,200.00	10%	0%	\$ -
15	Red Elm	25	60%	60%	Foot access for fence agreement - no impact	5	\$ 2,500.00	60%	0%	\$ -
16	Basswood	26	80%	80%	Foot access for fence agreement - no impact	5	\$ 2,600.00	80%	0%	\$ -
19	White Ash (Mostly dead)	13	20%	40%	Foot access for fence agreement - no impact	3	\$ 1,300.00	30%	0%	\$ -
0	0	0	0%	0%		0	\$ -	0%	0%	\$ -

\$ 2,700.00

Compensation: (Aggregate Caliper Formula)

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%

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

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 – 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.

BHA Report Template – Version March 2015

Note to BHAs:

This BHA Report template identifies where you need to insert customized text in blue. Do **not** edit or delete black text.

Insert your cover letter to the client here and include the list of enclosures.

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report
3. Original data forms
4. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)



The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (ESA) from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: <http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the [MNRF Registry](#) **after the 30 day period has elapsed.**

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

Links:

Endangered Species Act, 2007:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):

http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

MNRF Office Locations:

<https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices>

Butternut Health Assessor's Report Number: 591-003/20

Peter Wynnyczuk, #591
40 Brillinger Street
Richmond Hill, Ontario
L4C 8Y4
416 399 4490
peter@paurbanforestryconsulting.com

Mr. Harb Kalhon + Mr. Gurmit Kalhon
338 Johnston Drive
Burlington, Ontario
L7N 1V6
gurmitkahlon@hotmail.com
Site location: 338 Johnston Drive, Oakville

Date(s) of Butternut health assessment: October 30, 2020)

Date BHA Report prepared: October 30, 2020

Map datum used: ☐ NAD83 X ☐ WGS84

Total number of trees assessed in this BHA Report: 1

The assessed trees were numbered on site using Location description on this former church lot as rear yard, 10m W. Parking Lot, 2m S. Fence The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Note to BHAs: add/remove table rows as necessary

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown ⁴ , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
1	17 599257.42E, 4799526.48N	1	12	Y	killed	Concerns over tree health and future development

¹ The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.

² Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.

³ dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)

⁴ In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown ⁴ , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
						proposal

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):

Table 3: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	1	<ul style="list-style-type: none"> A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. Category 1 trees may be killed, harmed or taken after the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the <i>Endangered Species Act, 2007</i>”.
Category 2	0	<ul style="list-style-type: none"> A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken,

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		<p>and MNRF may contact you for an opportunity to examine the trees.</p> <ul style="list-style-type: none"> Activities that may kill, harm or take up to a maximum of ten (10) Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation. Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
Category 3	0	<ul style="list-style-type: none"> A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”. Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
Cultivated		<ul style="list-style-type: none"> An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNRF district office. The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	<ul style="list-style-type: none"> Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

Butternut Health Assessor's Comments:

It appears by the nature of the site being a former church property for many years it appears to be planted. Based on planting location in relation to the property line it appears human influence has placed the tree there.

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.



Picture 1. From

South overview of tree in relation to slope. Parking lot on right just out of picture.



Picture 2. From South, tree in proximity to fence. Stubs visible.



Picture 3. From South, what appears to be a graft line of the two remaining leaders, weak crotch and stub of 3rd leader.



Picture 4. From North West showing bark missing at base and sooty areas.



Picture 5. From North East showing extent of missing bark and poor leader connection structure.



Picture 6. From north East showing lower sooty areas

BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	3	Assessment Date(s)	30-Oct-20				Total # Butternut Trees in BHA Report				1									
BHA ID #	591	BHA Name	Peter Wynnyczuk																	
Landowner / Client Name		Mr. Gurmit Kahlon and Mr. Harb Kahlon																		
Property Location		338 Johnston Drive, Burlington																		
input field data										automatic calculations from field data						Categories:				
Tree #	Live Crown %	Tree dbh (cm)	# bole cankers				# root flare (RF) cankers		<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	1: non-retainable, 2: retainable, 3: archivable				FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			sooty (S) (will be assigned 2.5 cm per canker)		open (O) (will be assigned 5 cm per canker)		RF S	RF O								LC% >= 50 & BC% = 0	LC% >70 & BRC% <20	LC% >70 & BC% <20	Preliminary tree call	
			S <2 m	S >2 m	O <2 m	O >2 m														
1	95	12	11	2	0	1	0	1		37.68	37.5	5.0	99.5	13.3	56.4	1	1	1	1	1
2										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
3										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
4										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
5										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
6										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
7										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
8										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
9										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
10										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
11										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
12										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
13										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
14										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
15										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
16										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
17										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
18										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
19										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
20										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
21										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
22										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
23										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
24										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
25										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
26										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
27										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
28										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
29										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
30										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!

Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE
BLOCK LETTERS)

Fill when Form 1 indicates canker is well
established. The information on Form 2
must be filled out for all trees when doing a
Butternut Health Assessment.

Shaded fields are mandatory for Butternut Health Assessments

Site Code(A,B,...Z, AA...)

Surveyor ID
or BHA #

0591

Date (dd/mm/yyyy)

30-10-2020

Surveyor Last Name

WYNALYCE LUK

Tree ID Numbering: 1,2,3,... Starting from 1 for each site

Tree # Zone Easting Northing
001 1 599257 4799526

Crown Class 1 Live Crown % 02 Main Stem Length(m) Below crown Seed Signs
Butternut Origin Male Flowers
Natural Female Flowers
Planted Seed Set
Unknown None

Assess below live crown

#Epic-Live #Epic-Dead Root #Open #Sooty
Bark Type = <2m # Callused Wounds >2m

Metres from badly cankered tree
□ < 40 □ > 40 □ None Found

Competing Species
ASB WYNALY

APPEARS GRAFTED & LIKELY PLANTED MULTI STEM TREE

Tree # Zone Easting Northing
1 1

Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs
Butternut Origin Male Flowers
Natural Female Flowers
Planted Seed Set
Unknown None

Assess below live crown

#Epic-Live #Epic-Dead Root #Open #Sooty
Bark Type = <2m # Callused Wounds >2m

Metres from badly cankered tree
□ < 40 □ > 40 □ None Found

Competing Species

Tree # Zone Easting Northing
1 1

Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs
Butternut Origin Male Flowers
Natural Female Flowers
Planted Seed Set
Unknown None

Assess below live crown

#Epic-Live #Epic-Dead Root #Open #Sooty
Bark Type = <2m # Callused Wounds >2m

Metres from badly cankered tree
□ < 40 □ > 40 □ None Found

Competing Species

Tree # Zone Easting Northing
1 1

Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs
Butternut Origin Male Flowers
Natural Female Flowers
Planted Seed Set
Unknown None

Assess below live crown

#Epic-Live #Epic-Dead Root #Open #Sooty
Bark Type = <2m # Callused Wounds >2m

Metres from badly cankered tree
□ < 40 □ > 40 □ None Found

Competing Species

Tree # Zone Easting Northing
1 1

Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs
Butternut Origin Male Flowers
Natural Female Flowers
Planted Seed Set
Unknown None

Assess below live crown

#Epic-Live #Epic-Dead Root #Open #Sooty
Bark Type = <2m # Callused Wounds >2m

Metres from badly cankered tree
□ < 40 □ > 40 □ None Found

Competing Species

Classify canker matching area (link code on forms 1 and 2)

Panel Link

02

Please return forms to:
Forest Gene Conservation Association
Suite 232 245 Charlotte St

49731

BHA Report Template – Version March 2015

Note to BHAs:

This BHA Report template identifies where you need to insert customized text in blue. Do not edit or delete black text.

Insert your cover letter to the client here and include the list of enclosures.

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report
3. Original data forms
4. Electronic and printed copies of the Excel data spreadsheet (BHA Tree Analysis)



The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (ESA) from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: <http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

Note regarding changes:

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the [MNRF Registry](#) **after the 30 day period has elapsed.**

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

Links:

Endangered Species Act, 2007:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):

http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

MNRF Office Locations:

<https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices>

Butternut Health Assessor's Report Number: 591-003/20

Peter Wynnyczuk, #591
40 Brillinger Street
Richmond Hill, Ontario
L4C 8Y4
416 399 4490
peter@paurbanforestryconsulting.com

Mr. Harb Kalhon + Mr. Gurmit Kalhon
338 Johnston Drive
Burlington, Ontario
L7N 1V6
gurmitkahlon@hotmail.com
Site location: 3250 New St., Burlington

Date(s) of Butternut health assessment: November 27, 2020)

Date BHA Report prepared: December 3, 2020

Map datum used: ☐ NAD83 X ☐ WGS84

Total number of trees assessed in this BHA Report: 1

The assessed trees were numbered on site using Location. Stake in ground and flagging tape just north of fence of #338 Johnston Drive, 2/3 of way from front of church building and approx. 0.5m north of shared fence at #3250 New St., on New St. property side. The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Note to BHAs: add/remove table rows as necessary

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown ⁴ , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
1	17 599264E, 4799545N	1	11	Y	killed	Regrading as required

¹ The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.

² Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.

³ dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)

⁴ In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown ⁴ , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):

Table 3: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	1	<ul style="list-style-type: none"> A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. Category 1 trees may be killed, harmed or taken after the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the <i>Endangered Species Act, 2007</i>”.
Category 2	0	<ul style="list-style-type: none"> A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees. Activities that may kill, harm or take up to a maximum of ten (10) Category 2 trees may be

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		<p>eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation.</p> <ul style="list-style-type: none"> Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.
Category 3	0	<ul style="list-style-type: none"> A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered "archivable". Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.
Cultivated	0	<ul style="list-style-type: none"> An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNRF district office. The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	<ul style="list-style-type: none"> Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

Butternut Health Assessor's Comments:

Due to regrading requirements set out by regulatory authorities, this tree in proximity of a flood plain will be killed to address engineering requirements. The significant and mature vine in the area is dominating all vegetation in proximity to this fence which has provided support for the vine to grow.

The significant canker on the trunk is almost to a point that structurally the trunk may be compromised leading to potential failure if supporting vine/ash were cleared from the tree.

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies of the Excel data analysis spreadsheet.

BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	4	Assessment Date(s)	27-Nov-20				Total # Butternut Trees in BHA Report				1									
BHA ID #	591	BHA Name	Peter Wynnyczuk																	
Landowner / Client Name			Mr. Gurmit Kahlon and Mr. Harb Kahlon																	
Property Location			338 Johnston Drive and 3250 New St, Burlington																	
input field data										automatic calculations from field data						Categories:				
Tree #	Live Crown %	Tree dbh (cm)	# bole cankers				# root flare (RF) cankers		<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	1: non-retainable, 2: retainable, 3: archivable				FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			sooty (S) (will be assigned 2.5 cm per canker)		open (O) (will be assigned 5 cm per canker)		RF S	RF O								LC% >= 50 & BC% = 0	LC% >70 & BRC% <20	LC% >70 & BC% <20	Preliminary tree call	
			S <2 m	S >2 m	O <2 m	O >2 m														
1	75	11	7	0	0	1	0	0		34.54	22.5	0.0	65.1	0.0	32.6	1	1	1	1	1
2										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
3										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
4										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
5										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
6										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
7										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
8										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
9										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
10										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
11										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
12										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
13										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
14										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
15										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
16										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
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21										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
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23										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
24										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
25										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
26										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
27										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
28										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
29										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!
30										0	0.0	0.0	####	####	####	####	###	###	##	#DIV/0!

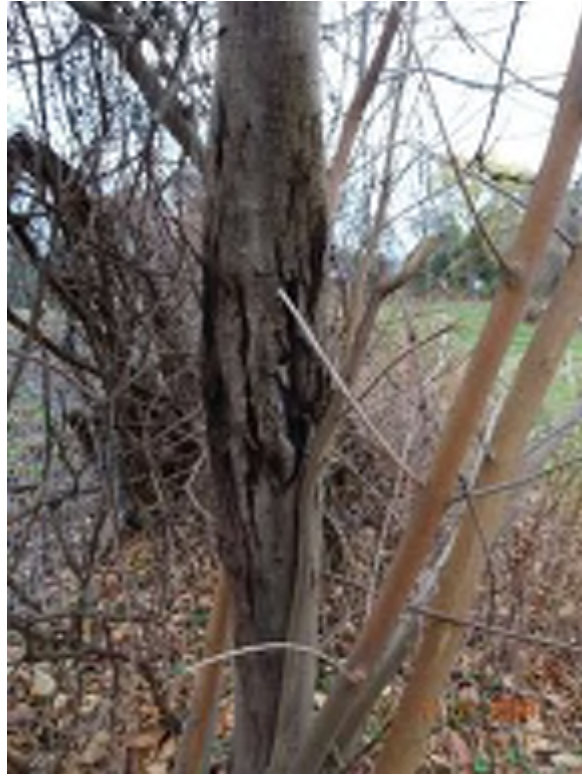
338 Johnston Drive, and 3250 New Street Fencerow tree, Burlington Pictures BHA #591 Nov 27, 2020
Pictures from Nov 27, 2020
info@paurbanforestryconsulting.com



Picture 1. A. From North overview of tree in relation to fence and church. B. From East showing tree in proximity to significant vine on fence and in canopy. Parking lot over fence at #338 Johnston Drive.



Picture 2. From North looking up into canopy showing competing growth.



Picture

3. A. From North West showing lower trunk with canker bulge, and competing Ash growth. B. From East showing extent of trunk canker and decay and Ash conflict.



Picture 5. From North showing base of tree with competing Ash in conflict with the Butternut.

Surveyor ID or BHA #	0591
-------------------------	------

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy)

27 - 11 - 2020

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact	First	PETER	Last	WYNNY CZUK
	Email	info@paulhaddo.com		
	Telephone (416-399-4490	Telephone Other (

Property Owner (check if same as surveyor) ☐ First GURMITY Last KARLSON
or Company _____
Email GURMITY.KARLSON@YMAIL.COM
Telephone _____ Telephone Other _____

Property Owner's Mailing address													Postal Code		Prov.
Address															
7	3	2											6	7	ON
City															
BURLINGTON															

Tree Location (if different from mailing address)

Address/(911#) 3250 NEW ST
Township
City BURLINGTON
Sections

Directions

~~ALONG FENCELINE ADJUTING # 339 JOHNSTON~~

☒ Yes ☐ No Can Share Location Information with other Butternut Recovery Organizations?
☒ Yes ☐ No Site visits OK? (prior arrangements will always be made for a site visit)

```
> (Greater than)
< (Less than)
```

Butternut Trees Tally by Diameter Class

(Do a dot tally in blank space; write totals in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Historically, do some trees produce seeds? ☐ Y ☐ N ☐ Unkown

Estimated area containing butternut
for properties > 1 acre (0.4 hectares)

Overall Property Description
(area(s) containing Butternut)

☐ Rolling Upland ☐ Bottomland
☐ Valley Slope ☒ Variable
☐ Tableland ☐ Unknown

Vegetation Community/ies

☐ Open ☒ Fencerow
☐ Shrubland ☐ Roadside
☐ DeciduousForest ☐ Quarry
☐ ConiferForest ☐ UrbanYard
☐ MixedForest ☐ UrbanPark

Other

V	I	N	D		P	R	E	S	I	D	E	N	T
---	---	---	---	--	---	---	---	---	---	---	---	---	---

Soil Drainage

☐ Well Drained
☐ Moderately Drained
☐ Poorly Drained
☒ Unknown

Soil Depth

☐ > 1 metre
☐ 30 - 99cm
☐ < 30cm
☐ Variable

Soil Texture

☐ Clay ☐ Sand
☐ Clay Loam ☐ Variable
☐ Loam ☒ Unknown
☐ Loamy Sand

Please enter matching numerical page link code on forms 1 and 2

Page Link

				01
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Suite 233, 266 Charlotte St.
Peterborough, ON, K9J 2V4
www.fgca.net

49731

Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE
BLOCK LETTERS)

Fill when Form 1 indicates canker is well
established. The information on Form 2
must be filled out for all trees when doing a
Butternut Health Assessment.

Shaded fields are mandatory for Butternut Health Assessments

Site Code(A,B,...Z, AA...)

Surveyor ID
or BHA # 0591

Date (dd/mm/yyyy)

Surveyor Last Name

WYNNEVORZUK

27-11-2020

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree #	Zone	Easting	Northing
002	17	599264	4799545

Crown Class ☐ Live ☐ Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs

☐ Twig Dieback ☐ #Stems ☐ Butternut Origin ☐ Male Flowers

☒ Branch Dieback ☐ Natural ☐ Female Flowers

☐ Defoliation ☐ Planted ☐ Seed Set

☐ Discolouration ☐ Unknown ☒ None

DBH(cm) 011

Assess below live crown

#Epic-Live	#Epic-Dead	Bark Type	# Callused Wounds
0	1		0

#Open #Sooty

Root ☐ = <2m ☐ >2m

Metres from badly cankered tree
☒ < 40 ☐ > 40 ☐ None Found

Competing Species
010000
000000

DOMINATED BY VINE & CROWNED BY ASH SUCKERS

Tree #	Zone	Easting	Northing
	1		

Crown Class ☐ Live ☐ Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs

☐ Twig Dieback ☐ #Stems ☐ Butternut Origin ☐ Male Flowers

☐ Branch Dieback ☐ Natural ☐ Female Flowers

☐ Defoliation ☐ Planted ☐ Seed Set

☐ Discolouration ☐ Unknown ☐ None

DBH(cm)

Assess below live crown

#Epic-Live	#Epic-Dead	Bark Type	# Callused Wounds

#Open #Sooty

Root ☐ = <2m ☐ >2m

Metres from badly cankered tree
☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree #	Zone	Easting	Northing
	1		

Crown Class ☐ Live ☐ Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs

☐ Twig Dieback ☐ #Stems ☐ Butternut Origin ☐ Male Flowers

☐ Branch Dieback ☐ Natural ☐ Female Flowers

☐ Defoliation ☐ Planted ☐ Seed Set

☐ Discolouration ☐ Unknown ☐ None

DBH(cm)

Assess below live crown

#Epic-Live	#Epic-Dead	Bark Type	# Callused Wounds

#Open #Sooty

Root ☐ = <2m ☐ >2m

Metres from badly cankered tree
☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree #	Zone	Easting	Northing
	1		

Crown Class ☐ Live ☐ Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs

☐ Twig Dieback ☐ #Stems ☐ Butternut Origin ☐ Male Flowers

☐ Branch Dieback ☐ Natural ☐ Female Flowers

☐ Defoliation ☐ Planted ☐ Seed Set

☐ Discolouration ☐ Unknown ☐ None

DBH(cm)

Assess below live crown

#Epic-Live	#Epic-Dead	Bark Type	# Callused Wounds

#Open #Sooty

Root ☐ = <2m ☐ >2m

Metres from badly cankered tree
☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Tree #	Zone	Easting	Northing
	1		

Crown Class ☐ Live ☐ Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs

☐ Twig Dieback ☐ #Stems ☐ Butternut Origin ☐ Male Flowers

☐ Branch Dieback ☐ Natural ☐ Female Flowers

☐ Defoliation ☐ Planted ☐ Seed Set

☐ Discolouration ☐ Unknown ☐ None

DBH(cm)

Assess below live crown

#Epic-Live	#Epic-Dead	Bark Type	# Callused Wounds

#Open #Sooty

Root ☐ = <2m ☐ >2m

Metres from badly cankered tree
☐ < 40 ☐ > 40 ☐ None Found

Competing Species

Please enter matching page link code on forms 1 and 2

Page Link

02

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Peterborough, ON, K9J 2V4
www.fgca.net

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The diagram illustrates the criteria for tree protection and removal based on trunk diameter (DBH) and canopy extent. It shows a tree with a trunk diameter of 0.20m and a canopy extent of 1.4m. The minimum tree protection zone radius is indicated as 1.4m.

TREE TO BE PRESERVED/RETAINED

- CANOPY EXTENT
- DBH (TRUNK DIAMETER AT 1.4M ABOVE GRADE)
- MINIMUM TREE PROTECTION ZONE RADIUS

TREE TO BE REMOVED PERMIT REQUIRED

TREE TO BE REMOVED NO PERMIT REQUIRED/SMALL SIZE

TREE DOES NOT EXIST OR PREVIOUSLY REMOVED

HEDGE/SHRUB (SMALL SIZE PROTECTION OPTIONAL)

A diagram showing a tree with a trunk diameter of 10 cm. A square fence with a height of 1.2 m is placed around the tree. The area within the fence is labeled 'TPZ'. A larger square area, representing the 10% protection zone, is shown around the TPZ. The distance from the tree trunk to the outer edge of the 10% protection zone is labeled '10% protection zone'.

Trunk Diameter (DBH) ²	Minimum Tree Protection Zone (MTPZ) 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

- ¹ The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the drip line
- ² Diameter at breast height (DBH) is the measurement of tree trunk taken at 1.4 metres above ground
- ³ 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.
- ⁴ Where work is being performed beyond the Minimum Tree Protection Zone but within the Critical Root Zone the works are subject to Section 5 of this specification.

1. The required barrier is a 1.2 metre (4 ft) high orange plastic web snow fencing on 2"x4" frame. Where orange plastic web snow fencing creates a restriction to sightlines, paste web fencing with reflective tape can be used.
2. Tree protection barriers are to be erected prior to the commencement of any construction or grading activities and are to be maintained in place throughout the duration of the project. The barriers are to be maintained, maintained erect and in good repair throughout the duration of construction operations with breaks and unsupported sections repaired immediately. Tree protection may not be removed prior to the completion of construction without written authorization from the City Arborist.
3. All support structures and bracing must be safely secured to the barrier located outside the MTPZ. All supports and bracing should minimize damage to roots.
4. Where some fill or excavated material may be temporarily located near a MTPZ, a wooden barrier with slat fencing must be used to ensure no material enters the MTPZ.
5. No materials or fill may be stored within the MTPZ.
6. Equipment vehicles shall not be operated, stored, repaired, or refueled within the MTPZ.
7. No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the MTPZ without written authorization from the City Arborist.
8. A laminated Minimum Tree Protection Zone Sign (See Detail TP-3 – Minimum Tree Protection Zone Sign) must be attached to the side of the Tree Protection where it will be visible by persons entering the site. Minimum size must be 10'X14".

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1. ALL TREE PRESERVATION HOARDINGS TO BE
DIRECTED AND PLACED AS PER THE LOCATION
AND DIMENSIONS SHOWN ON THE ATTACHED
PRESERVATION PLAN DRAWING. TREE ID
NUMBERS SHALL BE PLACED ON THE HOARDING
AS PER THE ATTACHED PRESERVATION PLAN.
2. PRESERVATION HOARDING SHALL BE
PRESERVATION PLAN DRAWING. TREE ID
NUMBERS SHALL BE PLACED ON THE HOARDING
AS PER THE ATTACHED PRESERVATION PLAN.
3. UPON APPROVAL OF THE ARBORIST REPORT
THE ARBORIST SHALL BE RESPONSIBLE FOR
CONDITIONS OF PERMIT RELEASE BEING SENT
TO THE CITY OF BURLINGTON.
4. IF THE TREE IS BEING FENCED, IF/WHERE
REQUIRED FOR THE DEVELOPMENT PROPOSED,
THE ARBORIST SHALL FENCE THE
PRESERVATION HOARDING AREAS. THE
PRESERVATION HOARDING AREAS ON THE CONSTRUCTION
DRAWING SHALL BE THE SAME AS SHOWN
AS SHOWN IN THE ATTACHED ARBORIST
REPORT. THE ARBORIST SHALL DETERMINE
DETERMINED BY ENGINEERING THAT THE SILT
PROTECTION FENCE IS IT RECOMMENDED
FOR THE FENCED AREAS. THE FENCE SHALL
BE PLACED AT THE BASE OF THE TREE
STONE PLANTED AT THE BASE. THIS FENCE
SHALL BE PLACED AT THE BASE OF THE TREE
MOVEMENT BEYOND THE SILT PROTECTION
FENCE SHALL BE PLACED AT THE BASE OF THE
SILT FENCE BASE WITHIN TREE PROTECT
FENCE SHALL BE PLACED AT THE BASE OF THE

5. ALL VERTICAL AND HORIZONTAL TREE
PRESERVATION HOARDING SHALL BE ENGINEERING
(IF REQUIRED). IT IS TO BE INSPECTED FOR
COMPLIANCE WITH THE CITY OF BURLINGTON
AS PER THE APPROVED TREE PRESERVATION
PLAN. THE ARBORIST SHALL BE RESPONSIBLE
OF BURLINGTON STAFF, OR A CERTIFIED
ARBORIST, SHALL BE RESPONSIBLE FOR
BURLINGTON STAFF, OR A CERTIFIED
ARBORIST, SHALL BE RESPONSIBLE FOR
BURLINGTON STAFF, OR A CERTIFIED
ARBORIST, SHALL BE RESPONSIBLE FOR

MINIMIZATION OF DAMAGE - GRADING WITHIN TPZ OF TREE

1. TREE PROTECTION HOARDING FOR THIS TREE IS TO BE IN PLACE FOR ALL ASPECTS OF THE PRIMARY GRADING WORK. THE TREE PROTECTION HOARDING IS RECOMMENDED THAT ALL GRADING WORK IN THE TREE PROTECTION ZONE BE COMPLETED PRIOR TO COMPLETION OF ALL OTHER ASPECTS OF DEMOLITION AND GRADING WORK.

2. A CERTIFIED ARBORIST AS APPROVED BY THE CITY OF LOS ANGELES SHALL BE REQUIRED TO MONITOR AND TREAT ROOTS DURING GRADING WORK WITHIN THE TREE PROTECTION ZONE.

3. UPON COMMENCEMENT OF THE GRADING WORK IN THE TREE PROTECTION ZONE, THE TREE PROTECTION HOARDING SHALL BE REMOVED TEMPORARILY TO ALLOW FOOT ACCESS TO THE GRADING WORK.

4. ALL GRADING WITHIN THE AREAS TO PROTECTED ROOTS SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE EQUIPMENT ONLY.

5. GRADING OF WAYS AT THE BOTTOM OF SLOPE AREA, THIS CAN BE ACHIEVED THROUGH THE USE OF BACKHOES AND GRADERS FOR LEVELING/SLOPING AS NO SIGNIFICANT GRADING IS REQUIRED.

6. AREAS OF THE MID SLOPE TO TOP OF GRADE SHALL BE PROTECTED. PROTECTION IS REQUIRED WITHIN THE CRZ AREA. IT IS RECOMMENDED THAT ALL GRADING WORK ONLY (SHOVEL/RACE/ROPS) OR, ALTERNATIVELY, GRADING WITHIN THE CRZ AREA, PROTECTION SHOULD BE USED TO LOWER GRADE TO THE PROTECTED LEVEL.

7. ALL GRADING WORK SHALL BE PRESENT FOR PROPER PRUNING AND TREATMENT OF THE TREE.

8. ANY ROOTS DISCOVERED DURING GRADING WORK SHALL BE PROTECTED BY THE GRADING OPERATOR AND PROTECTED FROM DESICCATION WHERE CLEAN.

9. ALL ROOTS THAT MAY BE PARTIALLY EXPOSED DURING GRADING WORK SHALL BE PROTECTED (WITH LOWERED GRACE) ARE TO BE PRESERVED. IF EXPOSED, THE ROOTS SHALL BE PROTECTED FOR PROLONGED PERIODS PRIOR TO TOSING BEING PLACED FOR TURF GRASS PLANTING/SODDING. THE ROOTS TO BE PROTECTED FROM WHILE EXPOSED. THIS CAN BE ACHIEVED BY THE FOLLOWING:

1. BURLAP/EQUIVALENT SHOULD BE PLACED OVER EXPOSED ROOTS TO PREVENT MINIMAL EXPOSURE.

2. PROVISIONS MUST BE MADE TO PREVENT ROOTS FROM BEING EXPOSED TO THE SUN. IF EXPOSED DURING SUMMER MONTHS OR IN THE WINTER MONTHS.

3. IMMEDIATELY PRIOR TO TURF PLANTING/SODDING AND PLANTING TURF GRASS/SODDING, THE ROOTS SHALL BE PLACED IN PREPARATION FOR PLANTING OF TURF GRASS/SODDING. THE ROOTS SHALL BE PLACED IN DIRECT CONTACT WITH THE TURF GRASS/SODDING. THE ROOTS SHALL BE FREE OF ANY CONTAMINANTS/CHEMICALS THAT MAY BE PRESENT.

10. THE GRADING OF THE GRADING WORK IN THIS AREA THE TREE PROTECTION HOARDING IS TO BE REMOVED PRIOR TO THE GRADING WORK. THE TREE PROTECTION HOARDING IS TO BE REMOVED PRIOR TO THE GRADING WORK. THERE IS A DELAY BETWEEN GRADING AND TOSING PLACED FOR TURF GRASS PLANTING/SODDING. THE ROOTS TO BE PLACED IN POSITION DURING DELAY.

ST MH
TOP = 85.35
E INV = 83.45
± 0.3 ±

REMOVAL AREA
AGREEMENT WITH
BURLINGTON
AREA OF FENCE
REMOVAL AND
EJECT ONLY
TO BE REUSED
OF AREA A NEW
AL POST AND CROSS
IT IS REQUIRED
TO BE REPLACED
OR RECOMMENDED
TO POST COMPLETION
OF HER PRIMARY DEMO/
STRUCTION/GRADING

SS TO BE REMOVED IN TPZ
TO BE DONE BY FOOT
AND TO ACCESS THROUGH
ING AREA FOR PROTECTION
TO BE REPLACED
IMELY ON COMPLETION
REMOVAL AND
EJECT

DRAWING TPR 102
FENCE REMOVAL TEMPL
TION NOTES

$$\frac{\#003}{\emptyset 0.24}$$

$$\frac{\#004}{\emptyset 0.44}$$

PART 1
SEVERED
AREA=650 sq.m.±

84.05%

#005
00.14

8

FENCE REMOVAL AREA
AS PER AGREEMENT WITH
CITY OF BURLINGTON
— GREEN AREA DENOTES
AREA OF FULL FENCE
MESH AND POST REMOVAL
REQUIRED FOR GRADING
OPERATIONS
REMOVAL OF THIS FENCE
SECTION ONLY TO OCCUR
DURING GRADING WORK
OCCURRING (REQUIRED FOR
GRADING TO OCCUR)
SEE DRAWING TPR 102
FOR FENCE REMOVAL TREE
PROTECTION NOTES

TREE PROTECTION HOARDING
 TO MEET EXISTING CHAIN LINK
 FENCE ADJACENT PROPERTY
 LINE IN THIS AREA
 CHAIN LINK FENCE TO REMAIN
 IN THIS AREA DURING
 DEMOLITION/GRADING/
 CONSTRUCTION ACTIVITIES
 -ACCESS TO HOARDED CORRIDOR
 ALONG FENCE TO ONLY OCCUR BY
 FOOT DURING FENCE REMOVAL
 ACTIVITIES IN AREA
 -PORTION OF PRIMARY HOARDING
 ALONG CORRIDOR ACCESS
 DURING PRIMARY DEMO
 CONSTRUCTION TO BE REMOVED ON
 COMMENCEMENT OF FENCE
 REMOVAL ACTIVITIES TO ALLOW

ALL PRIMARY HOARDING BEYOND THE CORRIDOR ACCESS GATE TO REMAIN DURING ALL WORK

FENCE REMOVAL AREA AS PER AGREEMENT WITH CITY OF BURLINGTON
FINISHED AREA DENOTES AREA OF FENCE MESH AND POST REMOVAL, POSTS TO BE CUT JUST BELOW(A/T GRADE)
REMOVAL OF THIS PORTION OF FENCE RECOMMENDED TO OCCUR POST COMPLETION OF ALL OTHER PRIMARY DEMO/ CONSTRUCTION/GRADING PROPOSED
SEE DRAWING PER 102 FOR FENCE REMOVAL TREE PROTECTION NOTES

[illegible]

PRIOR TO SITE DISTURBANCE THE OWNER MUST CONFIRM THAT NO MIGRATORY BIRDS ARE MAKING USE OF THE SITE FOR NESTING. THE OWNER MUST ENSURE THAT THE WORKS ARE IN CONFORMANCE WITH THE MIGRATORY BIRD CONVENTION ACT AND THAT ANY MIGRATORY BIRD NESTS WILL BE IMPACTED BY THE PROPOSED WORK.

IT IS THE APPLICANTS RESPONSIBILITY TO DISCUSS POTENTIAL TREE INJURY OF TREES ON SHARED PROPERTY LINES WITH THEIR NEIGHBOURS. SHOULD SUCH TREES BE INJURED TO THE POINT OF WEAKENING OR FALLING, THE APPLICANT WILL BE HELD RESPONSIBLE FOR REMOVAL AND SUCH ISSUES WOULD BE DEALT WITH IN CIVIL COURT OR THROUGH NEGOTIATION. THE APPLICANT WOULD BE REQUIRED TO REPLACE SUCH TREES TO THE SATISFACTION OF URBAN FORESTRY.

NO CONSTRUCTION ACTIVITIES INCLUDING GRADE CHANGES, SURFACE TREATMENTS OR EXCAVATIONS OF ANY KIND IS PERMITTED WITHIN THE AREA IDENTIFIED ON THE TREE PROTECTION PLAN OR SITE PLAN AS A TREE PROTECTION ZONE (TPZ). NO ROOT CUTTING IS PERMITTED. NO STORAGE OF MATERIALS OR FILL IS PERMITTED WITHIN THE TPZ. NO MOVEMENT OR STORAGE OF VEHICLES OR EQUIPMENT IS PERMITTED WITHIN THE TPZ. THE AREA(S) IDENTIFIED AS A TPZ MUST REMAIN UNDISTURBED AT ALL TIMES.

3. TREE PROTECTION BARRIERS FOR TREES SITUATED ON THE CITY ROAD ALLOWANCE WHERE VISIBILITY MUST BE MAINTAINED, CAN BE 1.2M (4FT.) HIGH AND CONSIST OF CHAIN LINK, OR BRACING AND BRACING. THE BARRIER SHOULD BE 1.2M (4FT.) HIGH, FRAME, ALL SUPPORTS AND BRACING USED TO SECURE THE BARRIER SHOULD BE LOCATED OUTSIDE THE TPZ. ALL SUPPORTS AND BRACING SHOULD MINIMIZE DAMAGE TO ROOTS OUTSIDE THE TPZ.

4. WHERE SOME FILL OR EXCAVATE HAS TO BE TEMPORARILY LOCATED INSIDE A TREE PROTECTION BARRIER, PLYWOOD MUST BE USED TO PROTECT THE TPZ. THE TPZ MUST BE MAINTAINED IF THE TPZ NEEDS TO BE REDUCED TO FACILITATE CONSTRUCTION ACCESS. THE TREE PROTECTION BARRIER MUST BE MAINTAINED TO A MINIMUM OF 1.2M (4FT.) HIGH. THE TPZ PROTECTED WITH PLYWOOD AND WOOD CHIPS. THIS MUST BE APPROVED BY THE CITY.

FIRST BE APPROVED BY URBAN FOREST.

FOR TREES ON PRIVATE PROPERTY SITUATED ON OR ADJACENT TO CONSTRUCTION SITES:
TREE PROTECTION BARRIERS MUST BE INSTALLED AROUND TREES TO BE PROTECTED USING PLYWOOD CLAD HOARDING OR AN EQUIVALENT APPROVED BY URBAN FORESTRY. ALL SUPPORTS AND BRACING TO SAFELY SECURE THE BARRIER SHOULD BE OUTSIDE THE TPZ. ALL SUCH SUPPORTS AND BRACING SHOULD MINIMIZE DAMAGE TO ROOTS OUTSIDE THE TPZ.

PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY THE TREE PROTECTION BARRIERS SPECIFIED ON THIS PLAN MUST BE INSTALLED AND WRITTEN NOTICE PROVIDED TO URBAN FORESTRY. THE TREE PROTECTION BARRIERS MUST REMAIN IN EFFECTIVE CONDITION UNTIL ALL SITE ACTIVITIES INCLUDING LANDSCAPING ARE COMPLETE. WHERE REQUIRED, SIGNS AS SPECIFIED IN SECTION 4 "TREE PROTECTION SIGNAGE" MUST BE ATTACHED TO ALL SIDES OF THE BARRIER.

WRITTEN NOTICE MUST BE PROVIDED TO URBAN FORESTRY PRIOR TO THE REMOVAL OF THE TREE PROTECTION BARRIERS.

ANY ROOTS OR BRANCHES WHICH EXTEND BEYOND THE TPZ INDICATED ON THIS LABEL, WHICH REQUIRE PRUNING, MUST BE REMOVED BY A QUALIFIED ARBORIST OR A TREE TRIMMING PROFESSIONAL AS APPROVED BY URBAN FORESTRY. ALL PRUNING OF TREE ROOTS AND BRANCHES MUST BE IN ACCORDANCE WITH GOOD ARBORICULTURAL STANDARDS. ROOTS LOCATED OUTSIDE THE TPZ THAT HAVE RECEIVED APPROVAL FROM URBAN FORESTRY TO BE PRUNED MUST FIRST BE EXPOSED BY HAND DIGGING OR BY USING A LOW PRESSURE HYDRO VAC METHOD. THIS SHALL ALLOW THE PRUNING OF ROOTS OR BRANCHES TEARING OF THE ROOTS. THE ARBORIST/TREE PROFESSIONAL RETAINED TO CARRY OUT CROWN OR ROOT PRUNING MUST CONTACT URBAN FORESTRY NO LESS THAN 48 HOURS PRIOR TO CONDUCTING ANY SPECIFIED WORK.

1	REVISED AS PER FENCE REMOVAL AGREEMENT & TREE 7 BHA ASSESSMENT (TPR 102 DRAWING ADDED)	7 DEC 2020
No.	Revision/Issue	Date



M.R. PLOWMAN ON-1118A

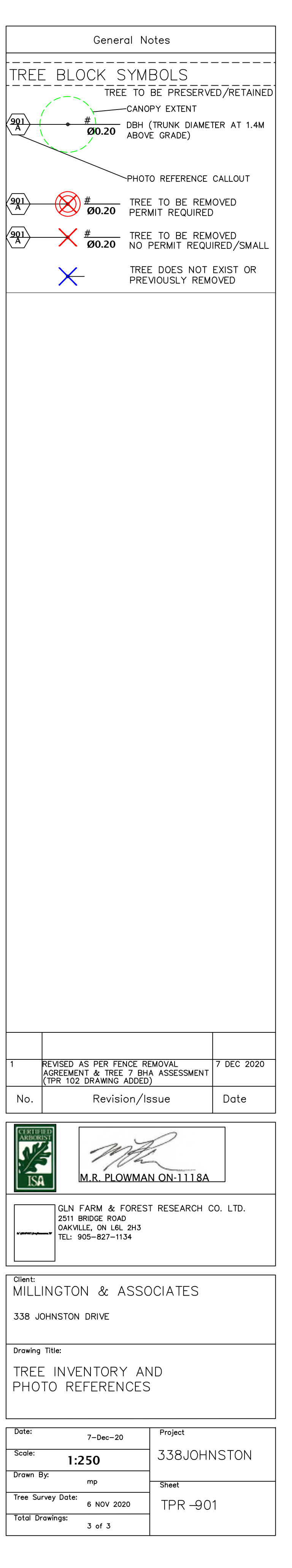
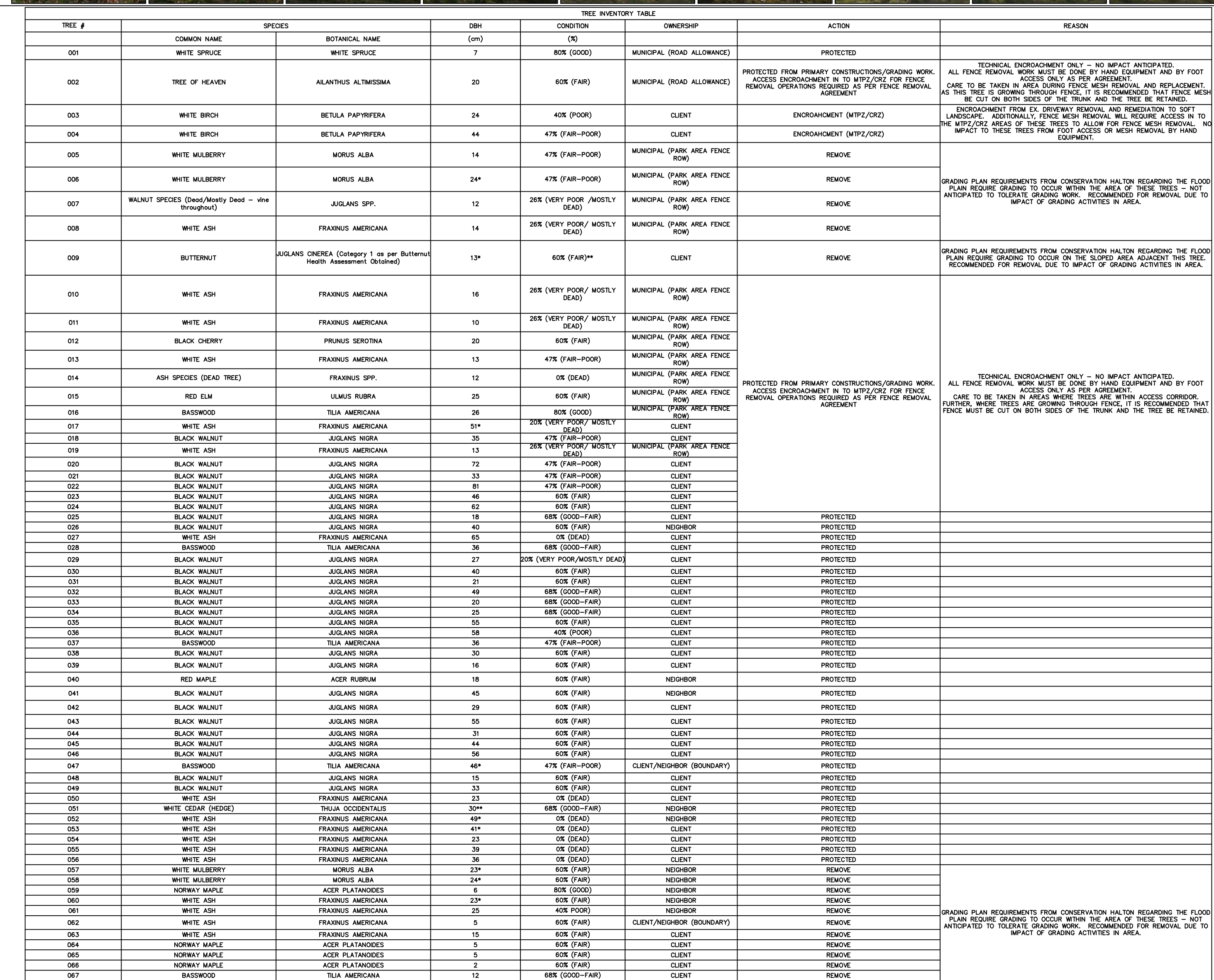
GLN FARM & FOREST RESEARCH CO. LTD.
2511 BRIDGE ROAD
OAKVILLE, ON L6L 2H3
TEL: 905-827-1134

Client:
MILLINGTON & ASSOCIATES
338 JOHNSTON DRIVE

Drawing Title:

TREE PRESERVATION PLAN
AND HOARDING DETAILS

Date:	7-Dec-20	Project 338JOHNSTON Sheet TPR -101
Scale:	1:250	
Drawn By:	mp	
Tree Survey Date:	6 NOV 2020	
Total Drawings:	1 of 3	





SUBJECT: Open Air Burning 2020 Pilot North Aldershot Extension

TO: Environment, Infrastructure & Community Services Cttee.

FROM: Fire Department

Report Number: BFD-02-21

Wards Affected: Ward 1

File Numbers: 755-04

Date to Committee: February 4, 2021

Date to Council: February 16, 2021

Recommendation:

Approve an extension to the open air burning pilot in the North Aldershot area, from March 1, 2021 to December 31, 2022 as outlined in Burlington fire department report BFD-02-21; and

Direct staff to report back in 2023 to advise council on their final recommendations to revise or uphold the allowed burning areas defined in By-law 65-2019, Appendix A to Burlington fire department report BFD-02-21.

PURPOSE:

Vision to Focus Alignment:

- Building more citizen engagement, community health and culture
- Deliver customer centric services with a focus on efficiency and technology transformation

Background and Discussion:

Through MO-09-19 the Fire Chief was asked to investigate revising the City of Burlington's ("City") open air burning (OAB) permitted areas to consider including rural areas south of Dundas Street and report back with options.

December 2019, staff provided report BFD-05-19, where council selected the option to conduct an open air burning pilot ("Pilot"), with permitted approval issued by the

Burlington Fire Department, in North Aldershot. This Pilot began March 15, 2020 and concluded November 15, 2020.

As part of the Pilot option, staff noted that a follow up report would be provided back to council in 2021, using the performance measures listed below. This was prior to the COVID-19 pandemic, which altered services provided by the City of Burlington.

OAB Pilot 2020 Performance Measures

- 8 permit requests; 2 permits issued, and 6 permits denied
- 0 complaints,
- 0 non-compliance,
- 0 9-1-1 calls for visible smoke and required response by firefighters,
- 95 staff hours dedicated to this pilot program in 2020.

In report BFD-05-19, staff also shared some of their concerns for OAB being conducted in the North Aldershot area. The key concerns were smoke migration onto major thruways, such as the 403 and QEW, a potential increase to 9-1-1 fire calls and nuisance smoke complaints received from residents. As noted in the performance measures above, to date, staff have not received any complaints for these key concerns.

It is important to note that there has been a minimal number of requests for OAB permits during the 2020 Pilot. There are 74 properties in the North Aldershot areas that may meet the requirements for an OAB permit; however, only eight (8) permit requests were submitted, with two (2) properties meeting the restrictions of the open air burning by-law, and an approved OAB permit being issued. Currently, this equates to only 11% of the North Aldershot area submitting a request for an OAB permit and approximately 3% being approved to conduct OAB. The reason for the low number of requests is not known. Some of the suspected reasons are as follows:

1. Residents are conducting OAB without permitted approval; however, no complaints have been received by the fire department,
2. Residents may not be aware of the Pilot program. This may be due to community focus on the pandemic, which also began in March 2020.
3. Residents don't need or want to conduct OAB, as previously communicated by some residents in the North Aldershot area.

Prior to the start of the Pilot, a full communication plan was coordinated with corporate communications and the Pilot was shared with North Aldershot residents through various communication channels. The information shared, included the start and end dates of the Pilot, the required process to request an OAB permit and the implications for OAB non-compliance.

The start date of the Pilot was March 15, 2020 and on March 17, 2020 the Province of Ontario announced the enactment of a Declaration of Emergency due to the COVID-19 pandemic. Following city and public health guidelines, from March 2020 to July 2020, all OAB permit requests were postponed. In June 2020, OAB permit requests were reviewed and the mandatory fire prevention property site inspections started again, following established safety protocols. The end date of the Pilot was November 15, 2020, when all OAB permit request site inspections ended.

Section 2.4.4.4. (1) of the Fire Code, Ontario Regulation 213/07, as amended, prohibits open air burning unless approved. The City's Open Air Burning By-law 65-2019 outlines fire safety provisions for approved open air burning. All requests for OAB require a municipal address to be located within the OAB approved areas within City boundaries. Appendix A of By-law 65-2019 maps out rural properties north of Dundas Street and 407. There is no approved open air burning in the urban areas of the City. The North Aldershot area is shown on Appendix A as a Pilot. Regardless of a property being located within an approved OAB area, the property must meet the defined restrictions outlined within the OAB by-law, as amended. Some of these restrictions include the time of day, wind speed, fire site location, fire exposures, fire ban in affect and other restrictions noted by fire prevention to ensure fire risk is mitigated.

As part of the Pilot extension, staff are not recommending any revisions to the conditions and restrictions contained within the OAB by-law, only the for the North Aldershot area to be included as a Pilot for OAB burning.

Strategy/process

Staff are recommending that council extend the OAB Pilot from March 1, 2021 to December 31, 2022, for the following rationale;

- To date, there have been no major concerns or complaints received by the fire department for properties in the North Aldershot area as part of the Pilot,
- There has been a very low number of OAB permit submissions, which does not provide staff with enough information to make an informed decision.
- Staff do not know if similar timing of the OAB Pilot and the pandemic may have impacted communication of the Pilot due to community focus on the pandemic.
- Allows for additional time to communicate again with North Aldershot residents to ensure they are aware of the Pilot,
- Staff recognize that for a portion of the Pilot, fire inspection services were halted due to the pandemic, which did not provide a full OAB season as initially planned,
- An approved permit process has now been established eliminating the need for in person interactions for OAB site inspections and approved permit issuance.

Pending many unknowns during the continuation of the pandemic into 2021, at this time, staff feel extending the Pilot until December 31, 2022 will provide staff with additional time to investigate why the number of requests was lower than expected, communicate with North Aldershot residents again advising of the Pilot extension and continue to monitor OAB within the established performance measures. Staff feel this will provide a more accurate outcome and provide better information to make an informed decision; whether to recommend including or excluding North Aldershot from the approved OAB burning areas.

Options Considered

The two options provided below are for properties located within North Aldershot.

Option 1 - Extend Open Air Burning Pilot – Recommended Option

Extend the OAB Pilot from March 1, 2021 to December 31, 2022

As noted earlier in this report, due to the similar timing of the 2020 OAB Pilot and COVID-19 pandemic, the lower than anticipated OAB permit requests and the fact that there have been no major concerns reported to the fire department, staff are recommending that council approve a Pilot extension into 2021 and 2022 to allow permitted OAB in the North Aldershot area. The intent is to provide staff with additional data and time to make an informed decision.

With this option, staff request that the Fire Chief have the authority to end the pilot at any time due to significant concerns; such as smoke impacting visibility on any thruways, increased number of complaints, calls from Ministry of Transportation (MTO), a negative impact to fire resources and that the Fire Chief advise council if the Pilot program is ended.

If this is the preferred option of council, staff will provide a follow up report in 2023 noting a recommendation to either include or exclude OAB in approved areas of North Aldershot.

Option 2 - Do Not Extend Open Air Burning Pilot 2021

Based on the lack of data and evidence, at this time, staff cannot recommend any permanent revisions to Bylaw 65-2019 to allow OAB within areas of North Aldershot.

If this is the preferred option of council, staff will work with corporate communications to ensure all residents in the North Aldershot area are informed that the OAB Pilot has ended and that OAB will not be permitted in the North Aldershot area.

Financial Matters:

Not applicable

Total Financial Impact

Not applicable

Other Resource Impacts

Not applicable

Climate Implications

Any open air burning approved by the city outlines the provision that only wood, wood by-products, leaves and brush can be burned. The open air burning by-law strictly prohibits anyone from burning garbage, petroleum-based products, such as tires, shingles and/or plastics.

If a Special Air Quality Statement or Smog and Air Health Advisory is issued by Environment Canada and/or the Ontario Ministry of the Environment, Conservation and Parks, an open air burning ban is issued and remains until such time the advisory is lifted.

During any periods of drought when there is an increased risk of open air burns escaping containment and/or spreading into a wildfire. During these conditions fire bans are issued and remain in effect until such time conditions improve and allow for safe burning.

Engagement Matters:

Not applicable

Conclusion:

Staff are recommending an extension to allow OAB in some areas of North Aldershot, with permitted approval by the fire department, in keeping with the open air burning restrictions outlined in By-law 65-2019. The OAB Pilot extension will initiate on March 1, 2021 and conclude December 31, 2022. Staff will work with corporate communications to advise residents of the OAB Pilot extension.

The Fire Chief controls the authority to end this Pilot if there are any major concerns or issues reported. Staff will advise council if the Pilot is halted for any reason(s).

The Fire Chief (or designate) has the authority to revoke an approved OAB permit issued during this Pilot due to any contravention of the approved permit and/or city by-law 65-2019.

Respectfully submitted,

Karen Roche

Fire Chief

(905) 333-0772 ext.6205

Colin Lahey

Chief Fire Prevention Officer

(905) 637-8207 ext. 6217

Appendices:

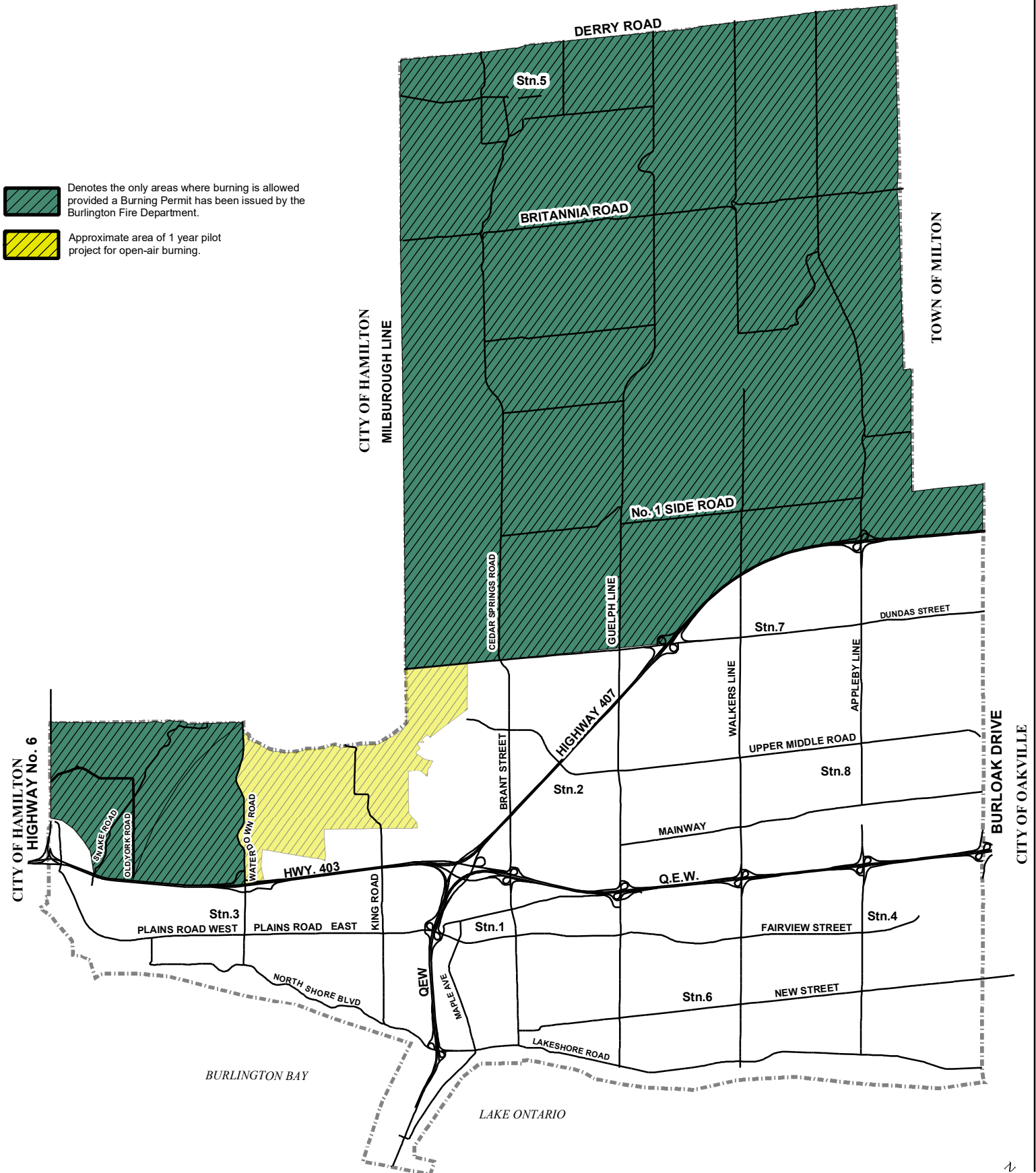
- A. Map of open air burning areas

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.

OPEN AIR BURNING AREAS

Appendix A of Report BFD-02-21





SUBJECT: Update to By-Law 76-2020 – Emergency and Continuity Management Program

TO: Environment, Infrastructure & Community Services Cttee.

FROM: Fire Department

Report Number: BFD-01-21

Wards Affected: All

File Numbers: 735-07

Date to Committee: February 4, 2021

Date to Council: February 16, 2021

Recommendation:

Approve the amendments to By-Law 76-2020, Emergency and Continuity Management Program and associated appendices, attached as Appendix 1 to Burlington fire department report BFD-01-21, including:

- Appointment of new members to the Municipal Emergency Control Group (MECG);
- Appointment of new members to the Emergency Management Program Committee (EMPC); and
- Transition of the physical alternate Emergency Operations Center to the new Virtual Emergency Operations Center Platform.

PURPOSE:

Vision to Focus Alignment:

- Support sustainable infrastructure and a resilient environment
- Building more citizen engagement, community health and culture

Executive Summary:

The corporate organizational structure changes in combination with staff retirement and turnover in the 2019/2020 year(s), has left some personnel gaps in the Municipal Emergency Control Group and the membership of the Emergency Management Program Committee. In order to meet municipal compliance under the Emergency Management and Civil Protection Act in the 2021 year, all new members must be appointed by council. The new committee composition and membership listing for the MCEG is provided herein in Appendix B and C.

The need for a virtual Emergency Operations Center has become apparent throughout the cities' response efforts during the pandemic. A virtual EOC tool kit has been provided in Appendix B (Annex 5 to the By-Law) to be applied as a contingency if an alternate emergency / disaster arises during the pandemic. This application would separate pandemic response efforts with secondary emergency / disaster response efforts. A virtual EOC may also be used outside of the pandemic whereby conditions impede EOC staff deployment to the physical site. To replace the alternate EOC (currently designated to rooms on the third floor of city hall) with virtual capability was endorsed by the EMPC in December 2020 and is included in the recommendation herein to adopt the update to By-Law 076-2020.

Background and Discussion:

The City of Burlington Emergency and Continuity 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.

In 2019 and throughout 2020, the Corporation underwent a major organizational structure change in conjunction with staff retirement and staff turnover. As such, some former members of the emergency control group and members of the Emergency Management Program Committee are no longer with the corporation. New staff have transitioned into these roles that must be appointed as official members of the Municipal Emergency Control Group (MECG) and members of the Emergency Management Program Committee (EMPC).

Additionally, the City of Burlington has a designated primary and alternate Emergency Operations Center with supporting procedures for implementation. It became evident during the pandemic that the city requires one primary physical Emergency Operations Center, but an alternate Virtual Emergency Operations Center would aid in activations where staff are unable to deploy to the physical facility, eg. an epidemic/pandemic.

The above recommendations were presented and endorsed by the EMPC in December 2020.

Municipal Emergency Control Group

Every municipality is required to have a MECG that is responsible for directing the municipal response during an emergency, including the implementation of the municipal emergency response plan. Members of the MECG must be appointed by Council and participate in annual training and an annual emergency exercise. – **Reference: Ontario Regulation 380/04, Para 12.**

There are four key considerations regarding the MECG extracted from the Emergency Management and Civil Protection Act Compliance Guide 2020:

1. The members of the MECG must be appointed by Council, and they must be municipal officials, municipal employees or members of Council. It should be noted that each member of the MECG must be specifically appointed either by name or position. This includes persons who may be considered alternate members of the MECG. It is not acceptable to simply list a representative of an organization. The appointment must specifically appoint someone either by name or position.
2. There must be MECG procedures developed which guide the MECG in executing their responsibilities (Included in Annex 5 of our By-Law).
3. All MECG members, including those who may be considered alternate MECG members, must verify that they have received an adequate amount of training in each of the legislated areas of competency.
4. All MECG members, including those who may be considered alternate MECG members, must participate in an annual exercise, which evaluates the municipal emergency plan and MECG procedures. There must be an exercise evaluation completed following the exercise, and if required, recommendations to amend the municipal emergency plan may be made to Council.

Emergency Management Program Committee

Every municipality is required to have an Emergency Management Program Committee (EMPC), which is appointed by the Municipal Council. The purpose of this committee is to assist in the development and advise the Municipal Council on the development and implementation of the municipal emergency management program. – **Reference: Ontario Regulation 380/04**

Although there are some specific requirements regarding the membership of the EMPC, there are a wide range of persons who may be appointed as a member of this

committee. However, all members of the EMPC must be specifically appointed by the Municipal Council by name or position, except for the CEMC who is a mandatory member of the EMPC. Similarly, it is also a requirement that the Municipal Council directly appoint the Chair of the EMPC. – ***Information extracted from the Emergency Management and Civil Protection Act Compliance Guide 2020.***

Primary and Alternate Emergency Operations Center (EOC)

Every municipality in Ontario is required to establish an EOC to be used by the MCEG during emergencies. The EOC must have the appropriate technological and telecommunications infrastructure to allow for effective communication with the MCEG.

- ***Reference: Ontario Regulation 380/04, Para 13.***

Every municipality must establish an EOC to be used by the MCEG during an emergency. The facility designated as the EOC does not need to be a dedicated facility, but it must be able to be immediately occupied by the MCEG during an emergency. Regarding the technological and telecommunications systems, the specific needs will vary widely between different municipalities. – ***Information extracted from the Emergency Management and Civil Protection Act Compliance Guide 2020.***

Strategy/process

Updated program elements will be shared with the appointed members of the Emergency Control Group, Emergency Operations Center support staff and appointed members of the Emergency and Continuity Management Program Committee. Regulated training requirements will be fulfilled in the 2021 year for appointed members of the Emergency Control Group.

Options Considered

Adopt revised By-Law 076-2020 Emergency and Continuity Management Program as outlined in this report.

Appoint all members of the Emergency Control Group

Appoint all members of the Emergency and Continuity Management Program Committee

Financial Matters:

Not Applicable

Total Financial Impact

Not Applicable

Source of Funding

Not Applicable

Other Resource Impacts

Not Applicable

Conclusion:

Staff are recommending council approve the following:

Approve the update to By-Law 076-2020 – Emergency and Continuity Management Program and associated Appendices

Appoint all members of the city's Emergency Control Group.

Appoint all members of the Emergency and Continuity Management Program Committee.

Approve the replacement of the physical alternate Emergency Operations Center with the new Virtual Emergency Operations Center Platform.

Respectfully submitted,

Amber Rushton

Community Emergency Management Coordinator

Tel 905-333-0772 ext. 6204

Appendices:

1. Amending Bylaw XX-2021 Emergency and Continuity Management Program

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.

The Corporation of the City of Burlington

By-Law XX-2021

A by-law to amend Emergency and Continuity Management
Program By-law 076-2020, as amended, being a by-law to
provide for an Emergency and Continuity Management
Program

File: 735-07 (BFD-01-21)

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 shall by by-law adopt the emergency plan; and

Whereas it is deemed necessary to amend By-law 076-2020.

Now therefore the Council of The Corporation of the City of Burlington enacts as follows:

1. That under Appendix B, Corporate Emergency Response Plan Section 2, subsection 2.2.2 be amended to add Municipal Emergency Control Group (MECG) Member Job Title and corresponding Incident Management System Function.
2. The members of the Municipal Emergency Control Group (MECG) listed in Appendix B, Corporate Emergency Response Plan Section 2, subsection 2.2.2 be appointed by Council.
3. That under Appendix C, Terms of Reference, Emergency and Continuity Management Program Committee (ECMPC) composition be amended in accordance with the revised corporate organizational structure and all members listed appointed by council.
4. That under Appendix C, Terms of Reference, Emergency and Continuity Management Program Committee (ECMPC) Chair be appointed by council.
5. That Appendix B – Corporate Emergency Response Plan - Section 3 Annexes be amended to add a virtual emergency operations toolkit to:

Annex 5 – IMS Forms and Position Specific Handbook

6. That Appendix B – Corporate Emergency Response Plan – Section 3 Confidential Annex 4 be updated to include all appointed members of the Emergency Control Group and Emergency Operations Center support staff.

7. That in all other aspects, By-Law 076-2020, as amended, be and is hereby confirmed.

Enacted and passed this 17th day of February 2021

Mayor Marianne Meed Ward _____

City Clerk Kevin Arjoon _____



By-law 76-2020 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.

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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
Ministry of the Solicitor General	Emergency Management and Civil Protection Act, R.S.O. 1990, c.E.9 – Section 3 – Municipal Response Plan

Ministry of the Solicitor General	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 [076-2020](#)

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	Deputy Fire Chief
Information Technology Services (City Hall EOP)	Manager, IT Infrastructure and Operations
City Managers Office (City Hall EOP)	Office Administrator, City Managers Office
Engineering Services (City Hall EOP)	Director, Engineering Services
Roads, Parks, Forestry	Manager, Business Services
Service Burlington (City Hall EOP)	Manager, Customer Experience
Human Resources (Sims Square EOP)	Executive Director, Human Resources
Recreation, Community and Culture (City Hall EOP)	Director, Recreation, Community and Culture
Transit	Manager, Transit Operations
Legal Services & Corporation Counsel (Sims Square EOP)	Executive Director of Legal Services & Corporation Counsel
Finance (Sims Square EOP)	Controller and Manager of Financial Services
Community Planning (City Hall EOP)	Director, Community Planning
Building and By Law (City Hall EOP)	Chief Building Official Director, Building and By-law Department
Transportation Services	Director, Transportation Services

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.

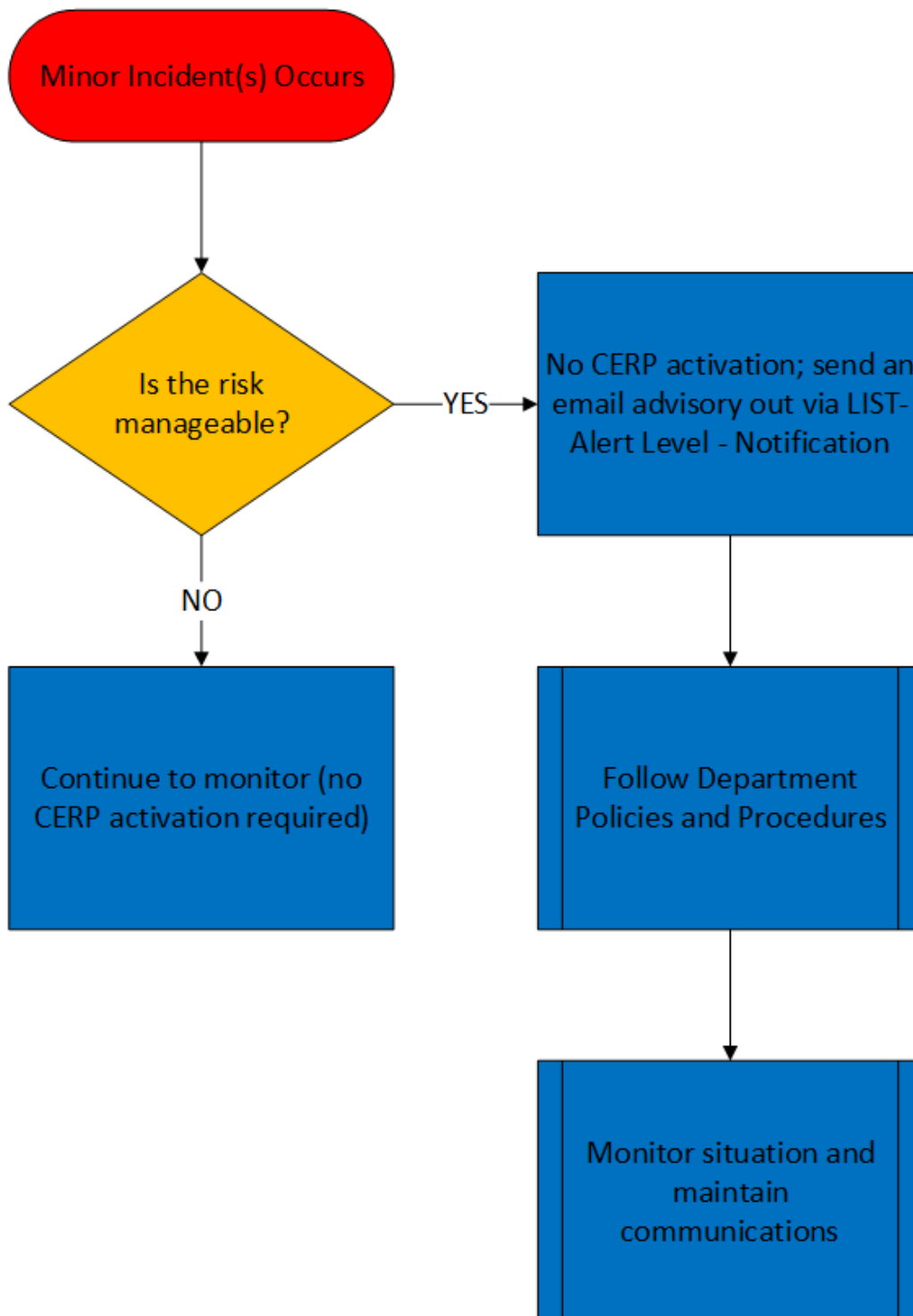
Level of Activation	Personnel Monitoring / Call Out List	Activation Triggers	Risk Level
Alert Level	COB Emergency Management (CEMC & EM staff); H&S Coordinators; Corporate Comms. (Management); Regional EM Group <i>(to receive routine monitoring updates from our neighboring agencies)</i>	<ul style="list-style-type: 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; CEMC & EM Staff; CBO and Deputy CBO's; RPF – Management; Engineering Services – Management; Transit – Management; Transportation – Management; BFD – Management; Burlington Hydro – CEO & VP; Recreation, Community & Culture – Management; Corporate Communications & Engagement – 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 	Medium – Issue/Crisis Management and/or Disaster Management An event, procedure, practice or action that may trigger a crisis community centric (public facing) and /

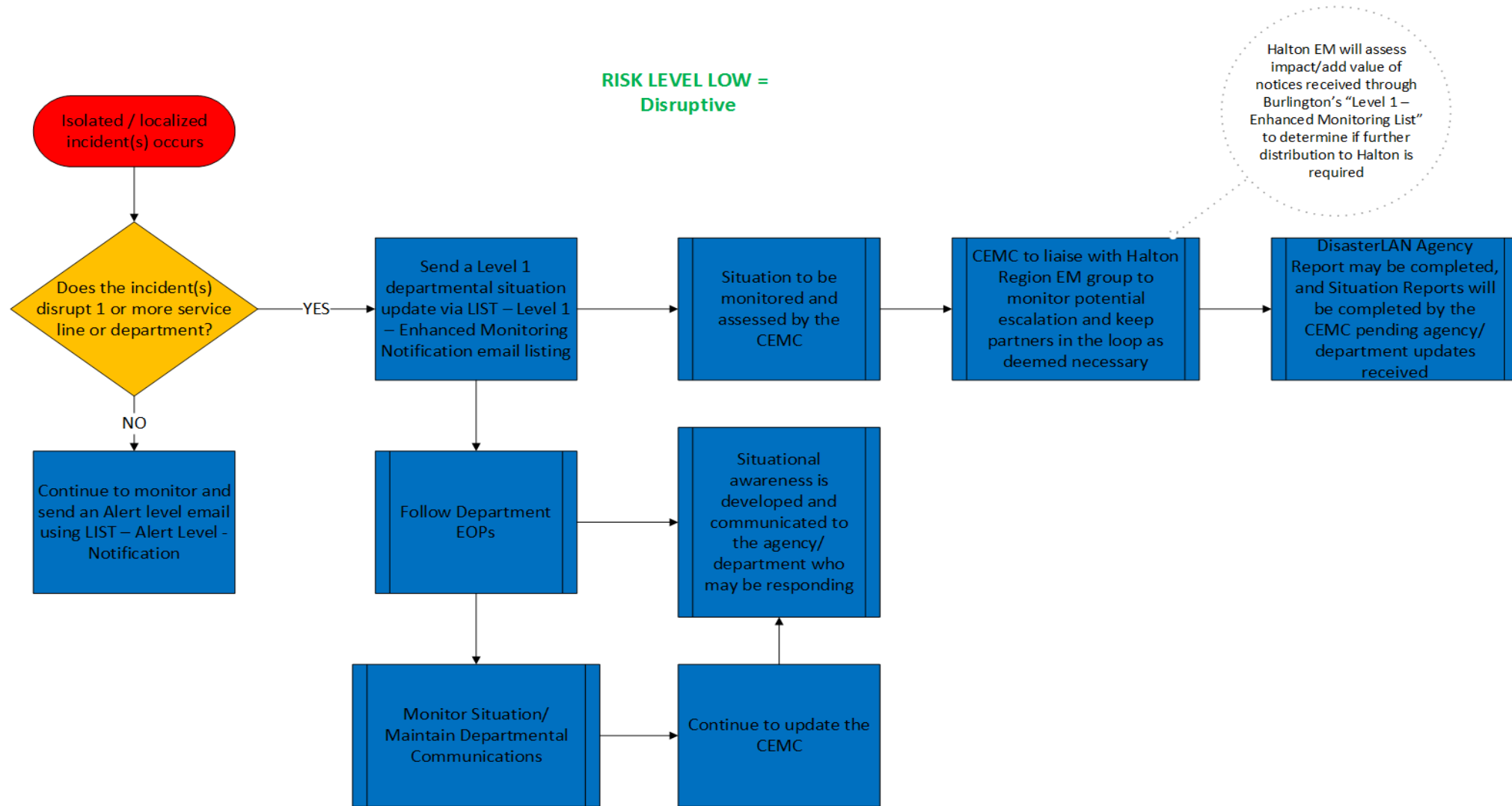
		<p>incident or in addition to the ongoing Crisis</p> <ul style="list-style-type: none"> - Incident > RTO; - Impacts are extensive and outside of control; and/or - A need to activate the Continuity of Governance and Operations Plan (COGOP) exists or any Departmental COOP(s) 	<p>or a corporate /department impact disaster that occurs (internal facing with service line impact(s))</p>
<p>Level 3 – Full Activation</p>	<p>Emergency Control Group (ECG) 1,2</p> <p>Region EM Group</p>	<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 	<p>High – Crisis – Mission Critical</p> <p>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</p>

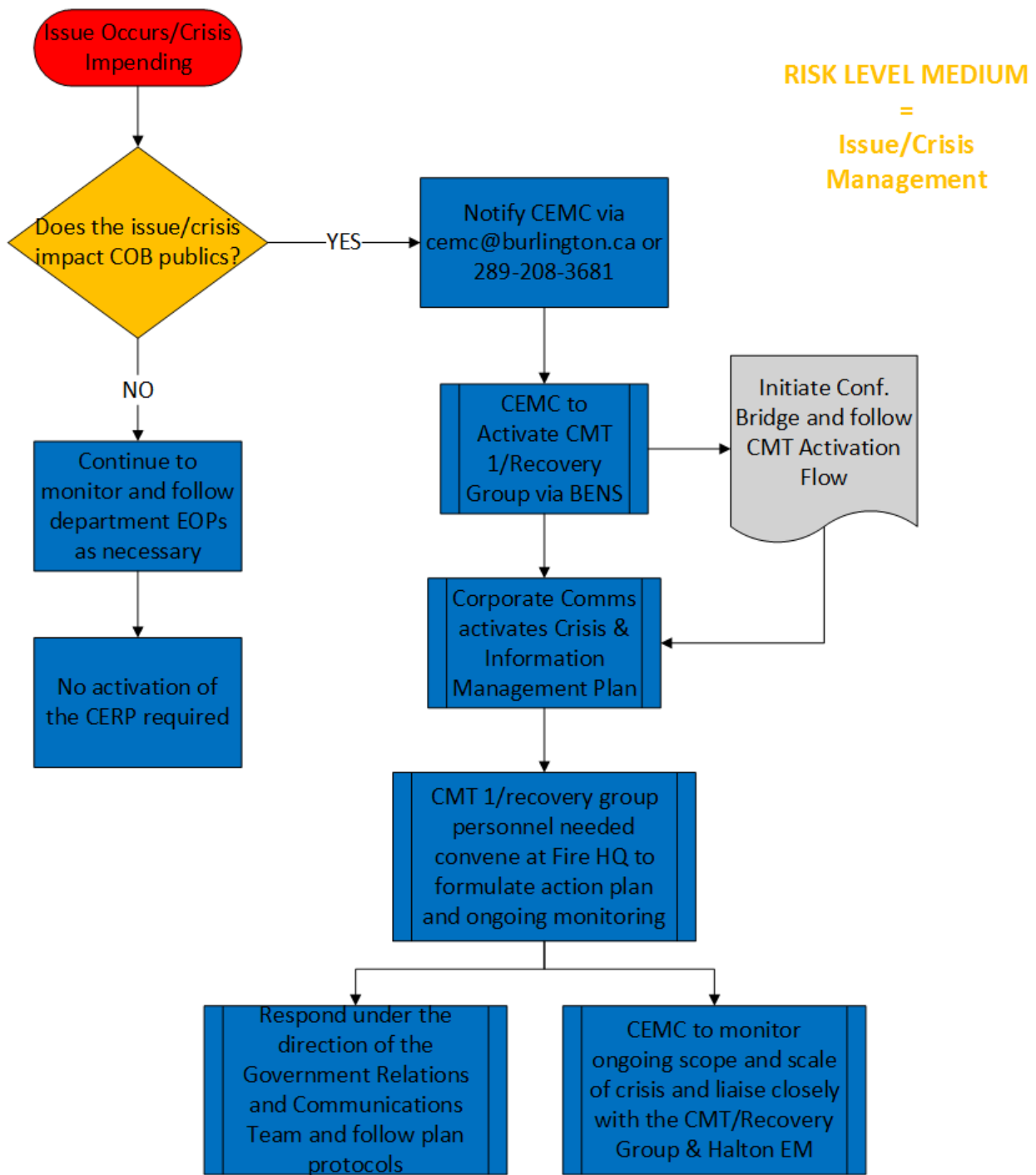
2.1.2 Implementation – Tiered Plan Activation Protocols

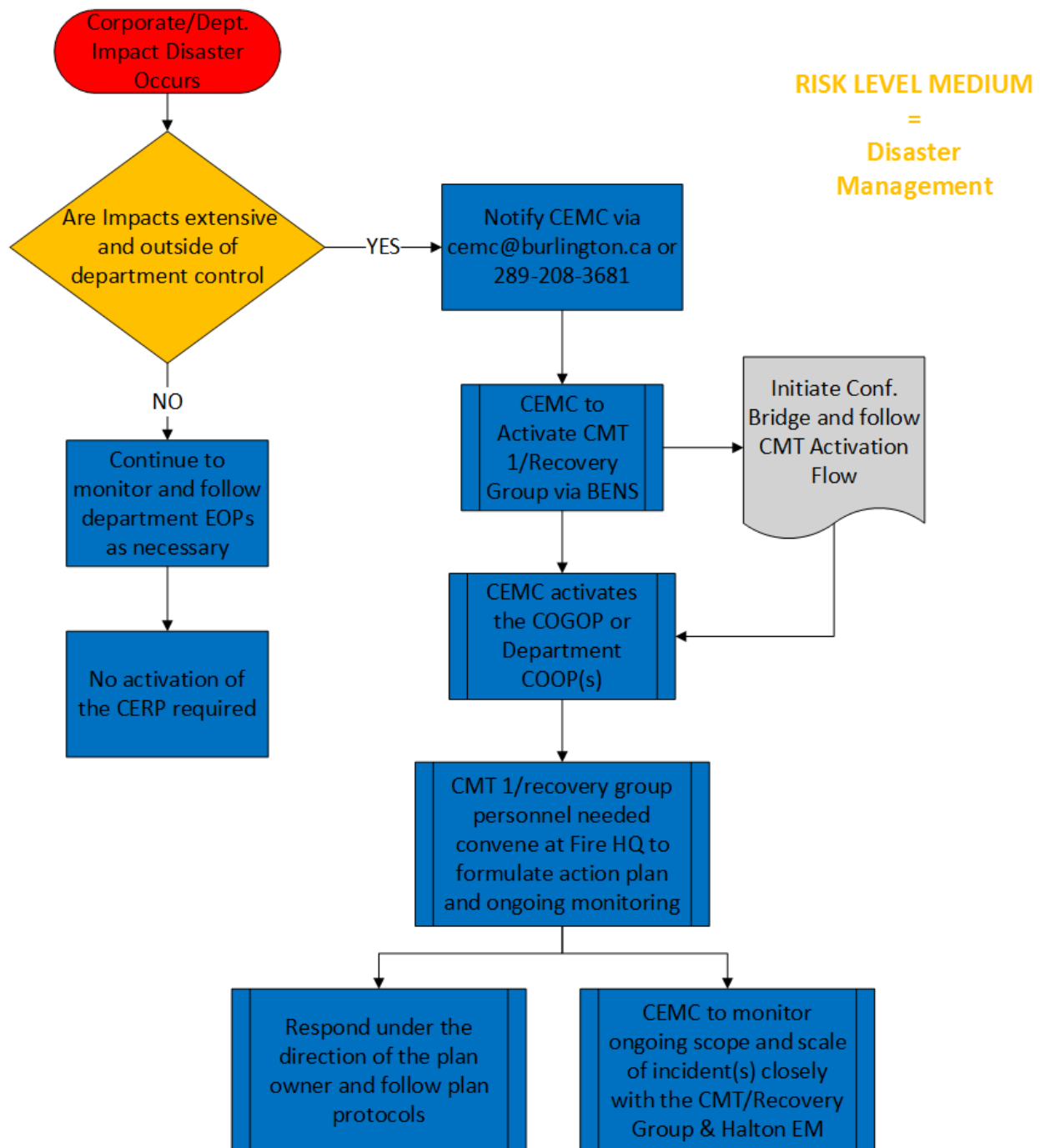
The following decision trees are based on a tiered plan activation protocol that is driven by the risk level identified. The tiered approach ensures plan activation scalability and flexibility in critical incident response is achieved.

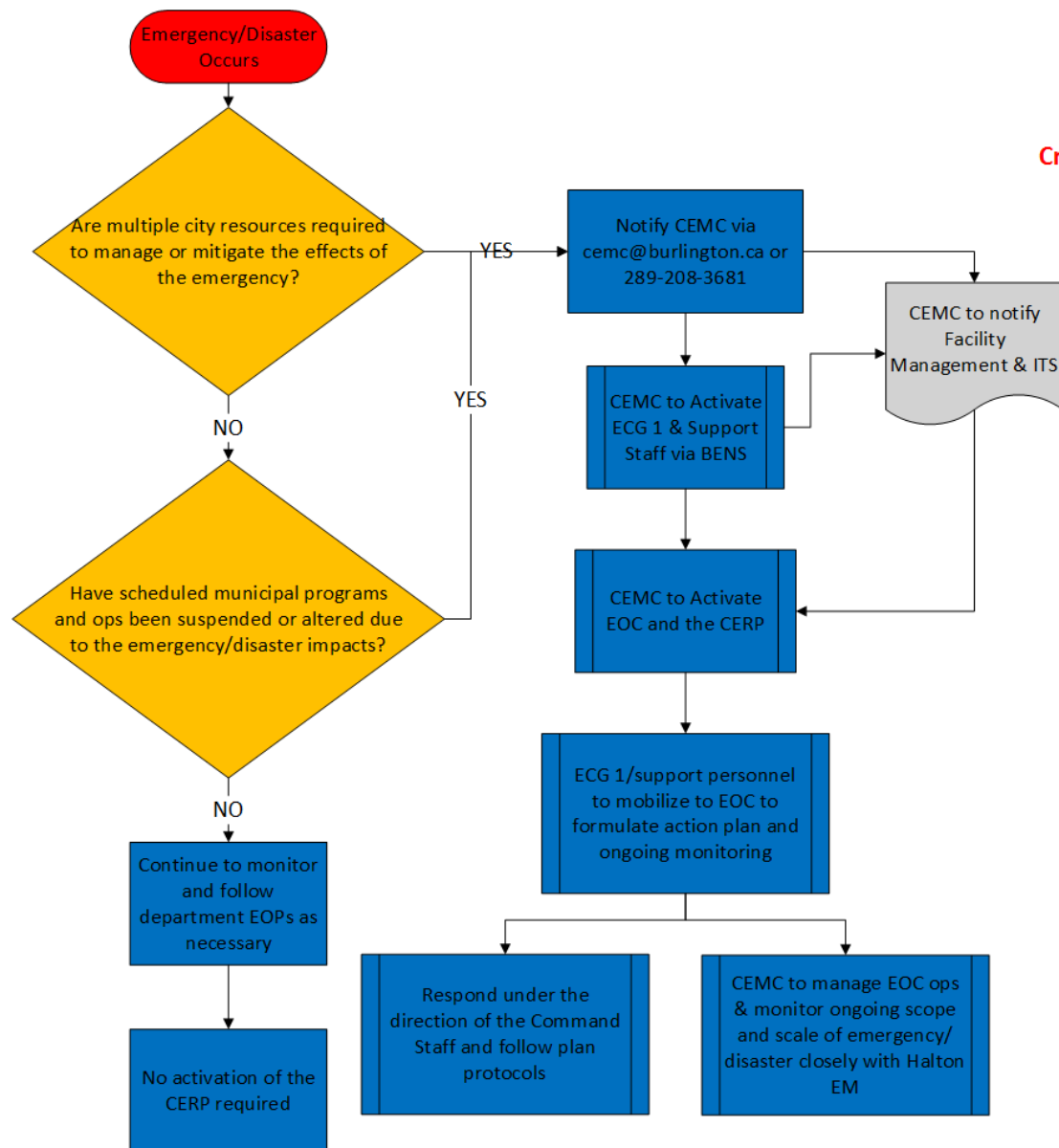
**RISK LEVEL VERY
LOW =
Manageable**











**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.

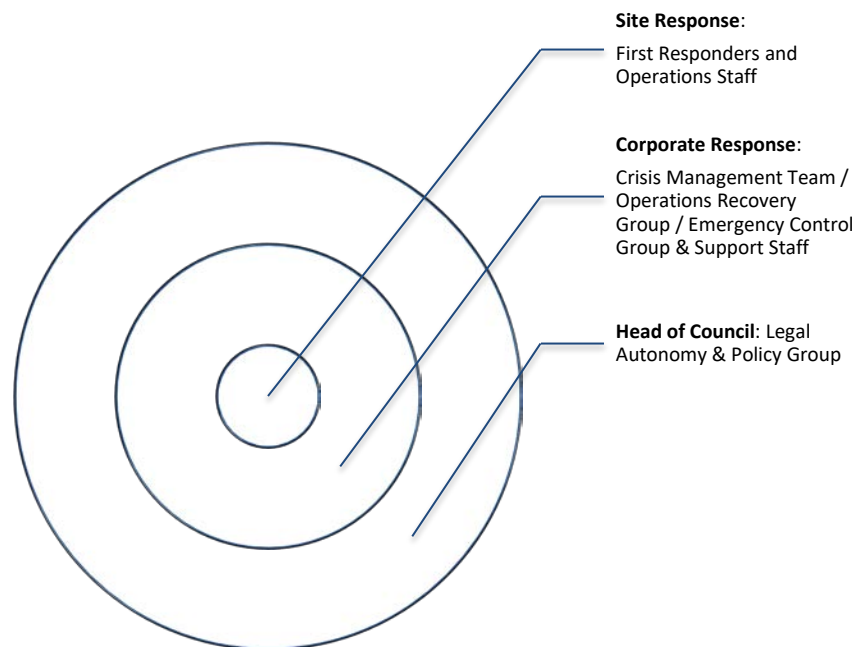
2.2.1 Incident Management System – Establishing Organizational Control

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:

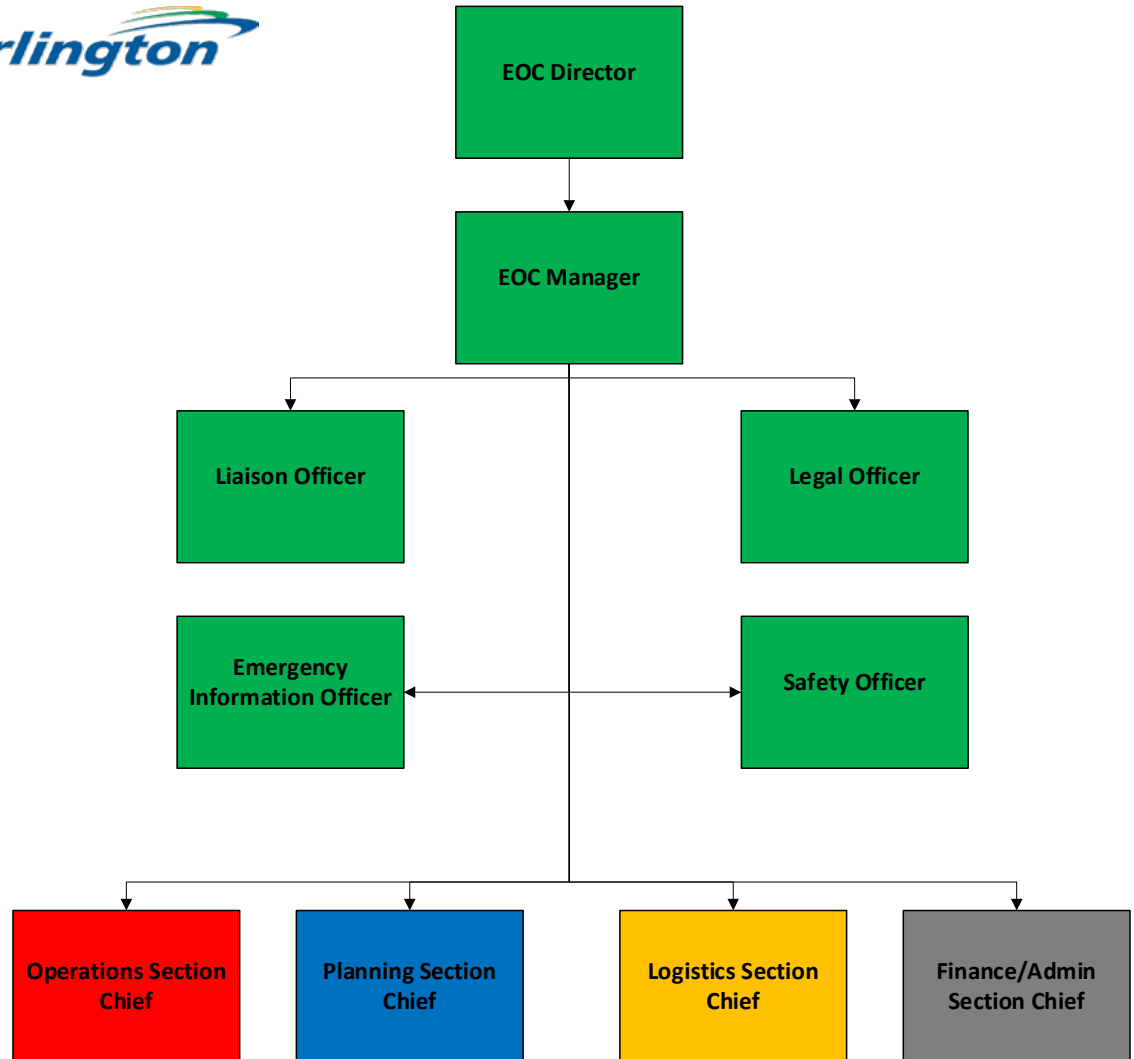
1. Crisis and Information Management Plan;
2. Corporate Continuity of Governance and Operations Plan; and/or
3. Disaster Recovery Plan (ITS).

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.**

Emergency Control Group Member Job Title and Name	Emergency Control Group Member IMS Function
City Manager	EOC Director
Executive Director EICS	EOC Director
Primary CEMC	EOC Manager
Fire Chief / Alternate CEMC	EOC Manager

Director, Corporate Communications and Engagement	Liaison Officer (LO)
Government Relations Manager	Liaison Officer (LO)
Manager of Communications	Emergency Information Officer (EIO)
Communications Advisor	Emergency Information Officer (EIO)
Health and Safety Coordinator	Safety Officer (SO)
Health and Safety Associate	Safety Officer (SO)
Executive Director Legal Services & Corporation Counsel	Legal Officer
Assistant City Solicitor	Legal Officer
Deputy Fire Chief	Operations Section Chief
Deputy Fire Chief	Operations Section Chief
Executive Director, Strategy, Risk & Accountability	Planning Section Chief
Manager, Strategy and Policy	Planning Section Chief
Director, Burlington Transit	Logistics Section Chief
Executive Director, CPRM	Logistics Section Chief
Director, Finance	Finance and Admin Section Chief
Controller and Manager, Financial Services	Finance and Admin Section Chief

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
- [Legal 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 or [virtually](#).
- ✓ 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:

- **Annex 2A – Initial Notification – Activation Levels**
- **Annex 2B – Levels of Emergency – Downgrading Protocols**

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

Annex 8 Termination of Declaration of Emergency Criteria

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 across corporate risk and business continuity with the Corporate Strategy, Risk and Accountability 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 or designate
- b. City Mayor or designate
- c. Community Emergency Management Coordinator and/or alternate
- d. Executive Director, Environment, Infrastructure and Community Service
- e. Fire Chief, Fire Department or designate
- f. Director, Roads, Parks and Forestry or designate
- g. Executive Director Strategy, Risk and Accountability or designate
- h. Director Engineering Services or designate
- i. Strategic Lead – Customer Experience or designate
- j. Director Transportation or designate
- k. Director, Transit or designate
- l. Executive Director, Human Resources or designate
- m. City Clerk or designate
- n. Executive Director Legal Services & Corporation Counsel or designate
- o. Director Recreation, Community and Culture or designate
- p. Chief Information Officer, Information Technology Services or designate
- q. Director, Corporate Communications & Engagement or designate
- r. Acting Chief Emergency Management, Halton Region or designate
- s. Associate Director, Conservation Halton or designate
- t. Joseph Brant Hospital – Coordinator, Patient Relations / Patient Safety (Emergency Disaster Planning)
- u. Halton Regional Police Service – Division 3 or designate
- v. Canadian Red Cross representative
- w. Burlington Hydro representative

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 coordination 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

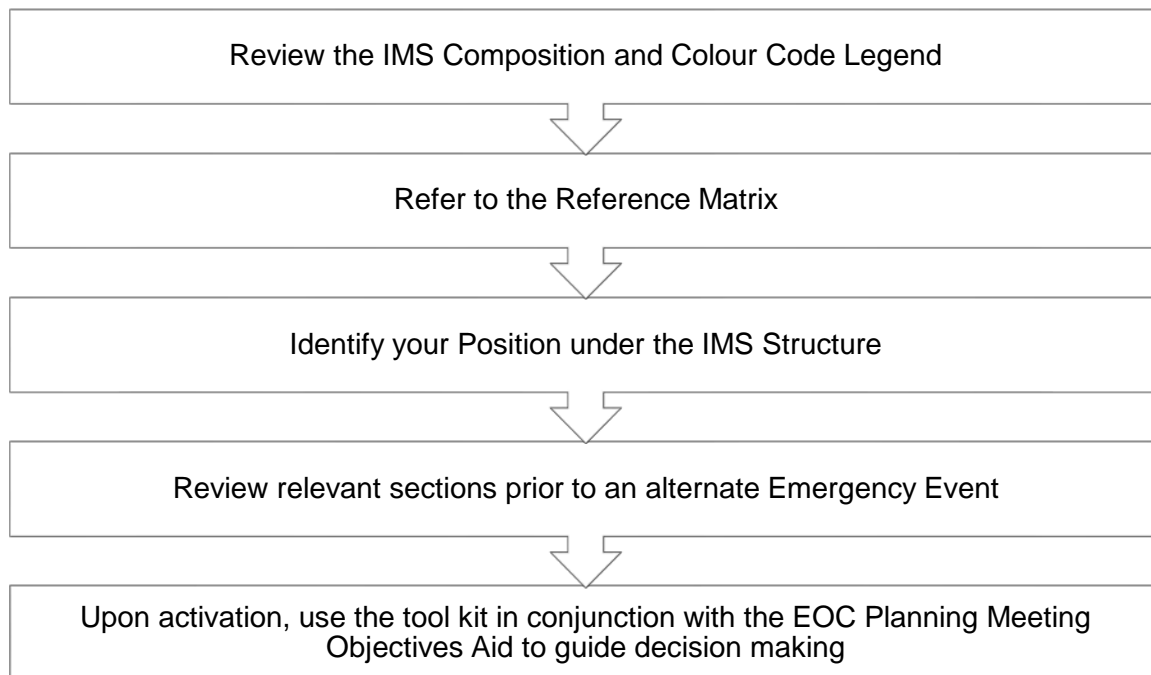
These Terms of Reference shall be maintained by Staff and shall be reviewed at the end of each term by the Burlington Leadership Team (BLT).

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.

Pandemic Response: Elected Officials, Emergency Control Group and Support Staff

Quick Reference Guide – Virtual EOC Pandemic Tool Kit

This quick reference guide has been developed to assist all elected officials, emergency control group and support staff members in navigating through the Virtual EOC Pandemic Tool Kit.

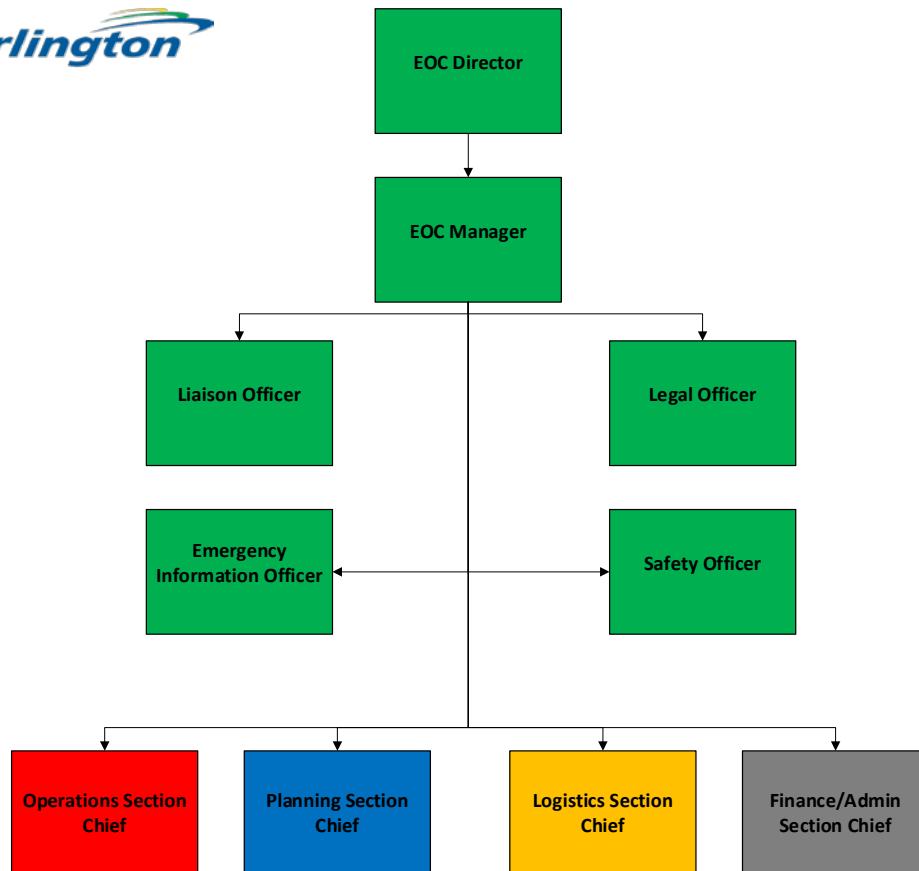


All Material is Available [HERE](#) and will be attached to the zoom invite upon activation

Incident Management System Composition and Colour Legend

Official members of the emergency control group (ECG) under our Emergency and Continuity Management By-Law consist only of the following positions (including alternates). All other staff who have a role in the EOC are deemed support staff to the ECG.

Emergency Control Group



The following table depicts the universal colour code system used under the incident management system.

Incident Management System Section	Colour
Command Section	Green
Operations Section	Red
Planning Section	Blue
Logistics Section	Yellow
Finance and Admin Section	Grey

Virtual EOC Pandemic Toolkit – Reference Matrix

Section Reference	Section Colour Code	Applicability
Pages 2-3 Introduction	N/A	All members to review
Pages 9-12 Incident Management System and Platform Overview	N/A	All members to review
Pages 13-14 Elected Officials Legal Autonomy & Policy Group		Elected Officials
Pages 15-17 Common Responsibilities		All members to review
Pages 18-35 Command Staff Responsibilities		All Command Staff
Pages 36-40 Operations Section Chief & Unit Lead(s) Responsibilities		Operations Section Staff
Pages 41-56 Planning Section Chief and Unit Lead(s) Responsibilities		Planning Section Staff
Pages 57-70 Logistics Section Chief & Unit Lead(s) Responsibilities		Logistics Section Staff
Pages 72-81 Finance and Admin Section Chief & Unit Lead(s) Responsibilities		Finance and Admin Section Staff
Pages 82-85 Suggested Community Actions	N/A	Logistics/Planning Section Staff

***Find your name and functional responsibility in Annex 4 and use the Virtual EOC Pandemic Toolkit to guide your actions during an alternate emergency event.**

***Upon activation and logging in to the virtual EOC Platform (zoom), all Command and Section Chief Staff may refer to the EOC Planning Meeting Objectives booklet.**



Annex 5 - Decision Aids and Worksheets for a Disaster Response during the Pandemic.docx

Introduction

Resources: Decision Aids and Worksheets

The following checklist, decision aids, and forms are meant to guide the user during a potential deployment to the Virtual Emergency Operations Center during a Pandemic, whereby a secondary crisis/emergency/disaster has taken place that warrants a Level 3 response. None of these documents may replace any of the official Incident Management System forms, rather they are meant to be used as tools to organize the information needed to fill out those documents and carry out the goals identified in them.

Immediate Actions and Personal Planning Checklists for Emergency Managers, members of the Command Staff that may be deployed to the Alternate Virtual Emergency Operations Center, and Elected Officials

Personal Immediate Actions for the Emergency Manager and Emergency Operations Center Staff (Command Staff during the Pandemic)

As the team leading the response efforts, the EOC Directors (City Manager and Executive Director of EICS) along with the EOC Managers (CEMC and Fire Chief), including members of the command staff should have a plan in place for your own family. It can be a distraction from your responsibilities to worry about your family while trying to organize the response for the City of Burlington. Ensure your alternate schedule is up to date and built in redundancies are established if possible, to account for mental health breaks and family time amongst the organized chaos of the virtual response.

Immediate Actions for Elected Officials

It is critically important to ensure that elected officials be viewed as being on top of the situation and in a leadership role with all response staff.

This checklist is meant to provide officials the information they need to understand the gravity of the event:

1. **Begin a personal log** – in this log you will record what you knew and when you knew it and when you made a major decision and why. With this log, you can recreate a timeline of information and your decisions for the inevitable questions that will be asked after the event. Items to note:
 - ✓ Notified by
 - ✓ Time notified
 - ✓ Type of emergency (natural, human caused, technological)
2. There are questions elected officials should ask to understand the magnitude and scope of the incident:
 - ✓ Type of incident

- ✓ Size of incident
- ✓ Known damage
 - Injuries/Deaths
 - Area affected
 - Amount of property affected
 - Resources committed
 - If outside resources are needed and have been requested
 - EOC status

There are immediate actions public officials should take:

- ✓ Establish contact with the CEMC and/or alternate as soon as possible if for no other reason than to let them know that you are aware of the event and plan to log in to the virtual EOC as members of the policy group
- ✓ Direct all senior staff within the community to report problems, resource availability, and any issues that might affect their ability to continue to do their jobs
- ✓ Set reporting schedules for everyone. Early in the event every hour or two may be appropriate until the extent of the event can be determined.
- ✓ If needed, in consultation with the CEMC, discuss when the province should be advised of the incident and given the pertinent details
- ✓ If necessary, establish contact with surrounding officials within the Region to advise them of the situation and if mutual aid from their jurisdictions may be needed
- ✓ Remind senior staff members to keep their own logs of their actions and begin tracking expenses associated with the event so they can identify the specific costs allocated to their departments
- ✓ In consultation with the CEMC, set a senior policy meeting schedule. Keep in mind the fluidity of information early in the incident and the importance of accurate situational awareness
- ✓ In consultation with the CEMC and the designated Emergency Information Officer (EIO), set a schedule for the first and subsequent press conferences. This should be done as early as possible, as soon as enough information has been gathered to share with the public.
- ✓ Contact the cities' legal advisors about planned steps and need for:
 - Emergency declarations
 - Chain of succession
 - Intergovernmental aid
 - Social controls (curfews)
 - Price controls
 - Other possible restrictions
- ✓ Be aware of perceptions within the community about the response to the secondary crisis/emergency/disaster, especially any perceptions that it is not being responded to equally in all neighborhoods.

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Incident Management System and Platform Overview

Introduction

These position specific checklists outline the key tasks for all major positions within Ontario's Incident Management System (IMS). They may be applied during a secondary crisis/emergency/disaster during the pandemic and throughout the recovery efforts from the pandemic on the alternate Emergency Operations Centre (EOC) platform via Zoom. Function specific taskings may be adapted for individual circumstances, as required. Building on the principles and concepts of the IMS Doctrine for Ontario, position specific checklists are a valuable reference tool for incident response and training purposes. They are designed to assist responders and organizations in effectively responding to incidents in all IMS response roles: Incident Support, EOC Command, Area Command and Critical Services/Functions. The use of these checklists for each of these roles is explained in more detail below.

How to Use

Upon being assigned a specific IMS position and/or function, all incident personnel are advised to read the "Common Responsibilities" checklist, followed by their position-specific checklist(s). These checklists should be read in their entirety. Individuals that are assigned a supervisory position should be familiar with the positions or functions under their direct supervision. Any questions or issues regarding checklist activities may be directed to an immediate supervisor, or referenced in available IMS materials (Ontario IMS Doctrine, guidelines, tools, job aid, etc.).

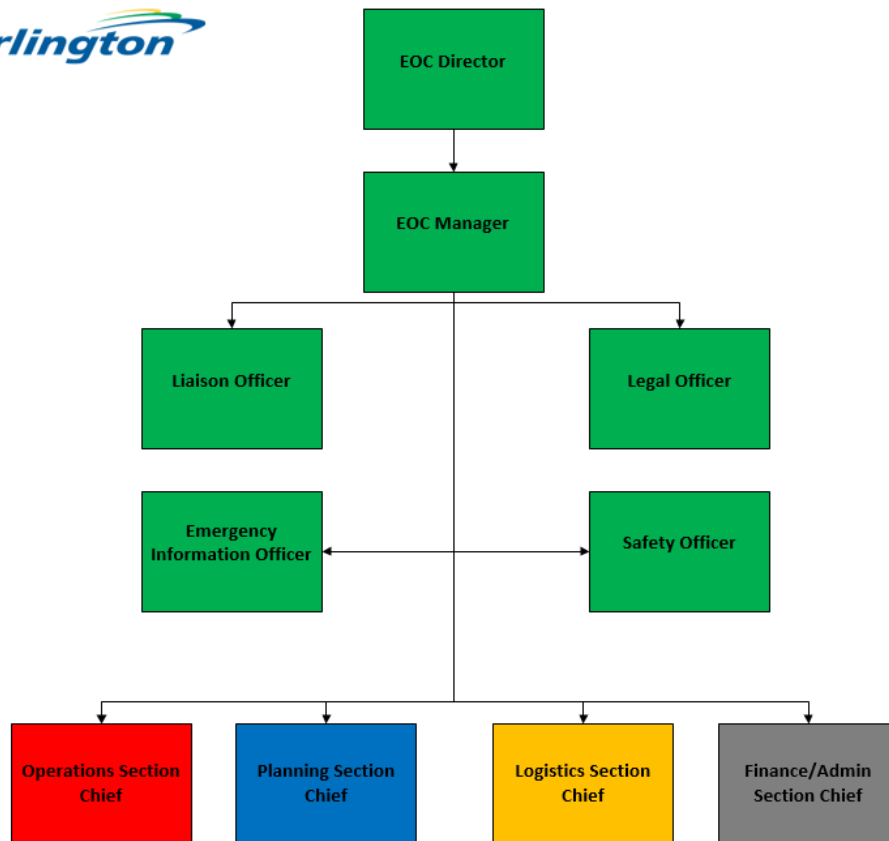
The following points provide important guidance on the use of these checklists:

Not all IMS positions need to be activated for every incident	In keeping with the IMS 'toolbox concept', the City of Burlington may activate only the positions needed for a specific incident. In many cases, a handful of individuals can effectively manage an entire incident response.
One person may fulfill multiple IMS positions or functions	For complex incidents within the City of Burlington, staff may be assigned to every IMS position / function. Alternatively, for less complex incidents (simple incidents), one person may be assigned multiple IMS positions / functions.
Checklists may be adapted, while respecting standardization	Every organization and incident are unique. Specific tasks in these checklists may be adapted and customized to suit the City of Burlington, a Regional Agency / Department, a local business or Non-Governmental Organization and incident-specific needs, while respecting the overall standardization of IMS.
Checklists may be used at both EOCs and Area Command (if established)	IMS principles, concepts and processes may be applied to both EOCs and Area Command sites. Specific checklist tasks may be adapted for individual circumstances, as required.

Checklists may be used for all levels of incident support during a Level 3 – Full Activation	These checklists may be used for all IMS response roles, including: Incident Support, EOC Command, and Area Command. Specific checklist tasks may be adapted for individual circumstances, as required.
Checklists activities are divided by phase: Activation Actions, Operational Actions, and Demobilization Actions	<p>Activation activities should be referenced at the start of each incident, operational period and shift.</p> <p>Demobilization should be referenced at the end of each incident, operational period and shift. Specific tasks may be adapted for individual circumstances, as required.</p>

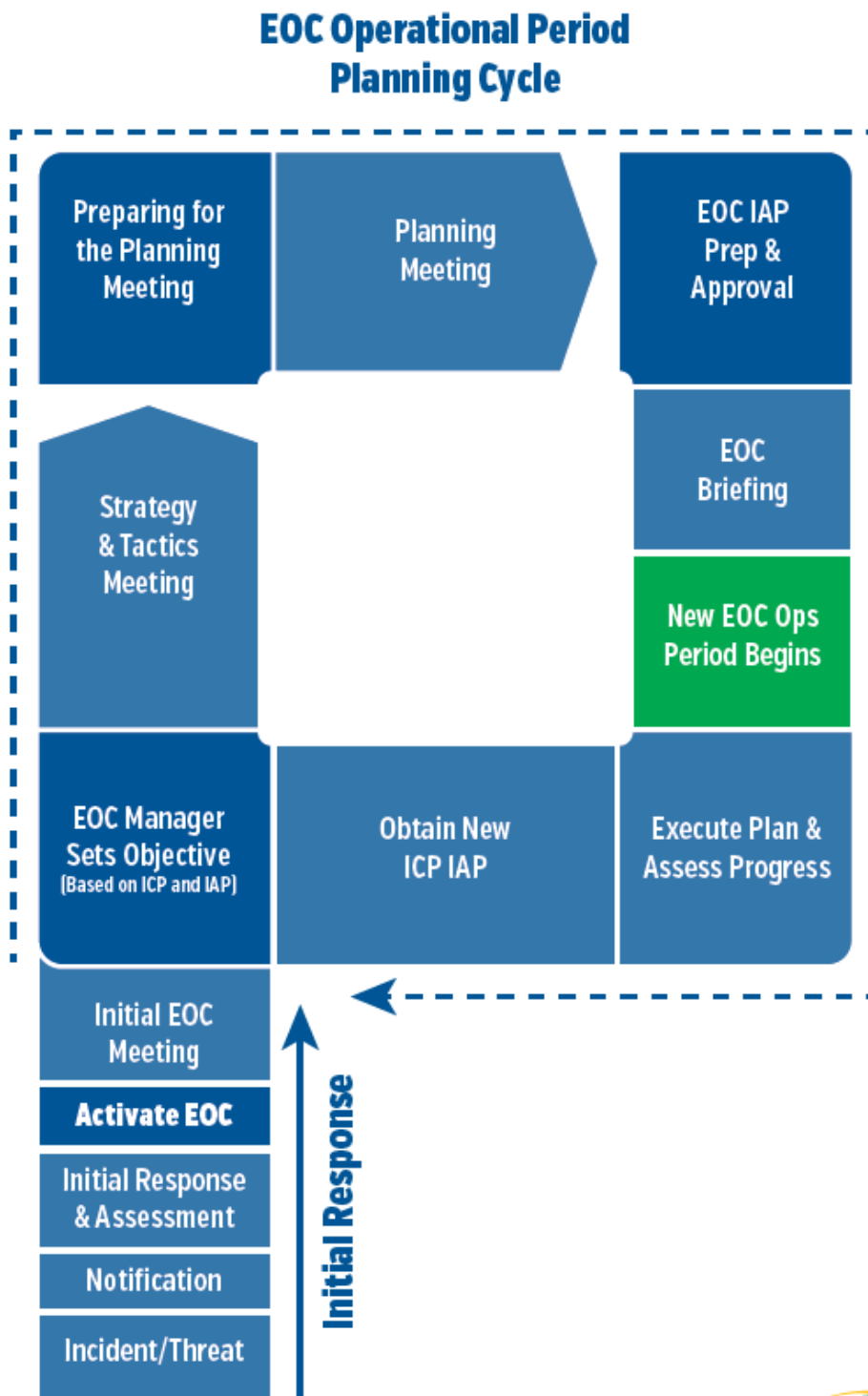
Position Checklists are a supporting tool to the IMS Doctrine and IMS Training Program, which provide additional guidance on the use of IMS processes and activities. Users of these checklists should have, at minimum, a basic understanding of IMS.

Emergency Control Group Composition



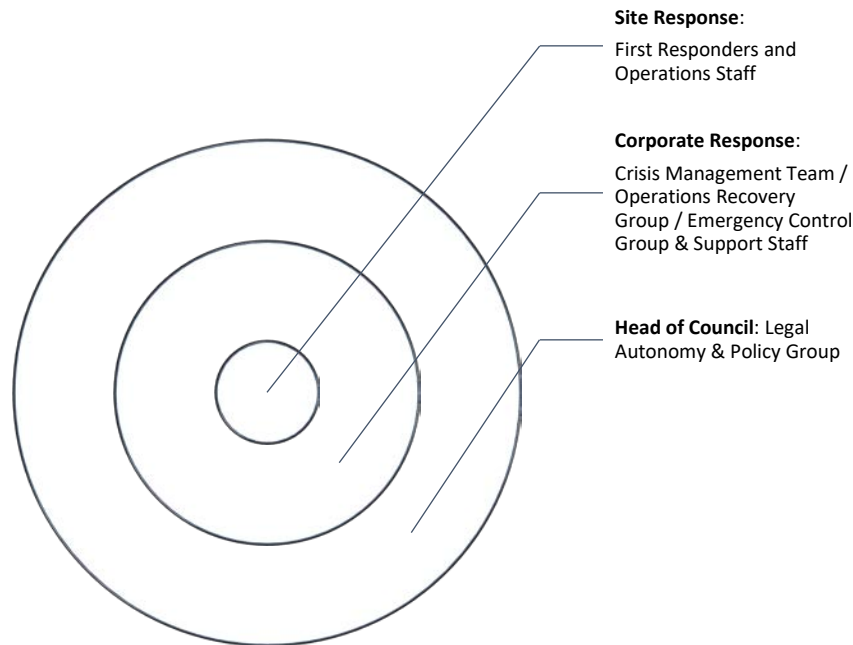
Note: All other staff situated within the Emergency Operations Centre fulfill support roles to the Emergency Control Group. Expanded EOC configuration charts are provided as stand-alone documents and are available upon request through the Community Emergency Management Coordinator: CEMC@burlington.ca

EOC Operational Period - Planning Cycle



Elected Officials Legal Autonomy & Policy Group

***Reference ECM By-Law 076-20 – Appendix B**



Common Responsibilities

Demonstrate an understanding of the authorities, policies, priorities, and capabilities, constraints, and limitations of the organization/jurisdiction you represent Demonstrate an understanding of the coordinated response/Unified Command and the roles and responsibilities of the parties involved.

Major Task: Demonstrate and understanding of the authorities, policies, goals, priorities, capabilities, constraints, and limitations of the organization/jurisdiction represented

- ☐ Request and participate in relevant meetings and briefings
- ☐ Work with legal counsel and EOC leadership to ensure informed decision-making
- ☐ Authorize protective measures for life and safety, such as curfew and evacuation recommendations, based on legal authorities
- ☐ Provide guidance and authorization for information sharing with external agencies and the public
- ☐ Participate in After Action Reviews and the performance improvement process
- ☐ Interact, as necessary, with external government contacts (in collaboration with the Emergency Information Officer and Liaison Officer Command Staff personnel)



Major Task: Demonstrate and understanding of coordinated response/Unified Command and the roles and responsibilities of the parties involved

- ☐ Demonstrate awareness of rules and regulations of the impacted community
- ☐ Help establish and promulgate policy decisions
- ☐ Bring concerns received by constituents back to the group to advise on operational period objectives, strategies and tactics

Common Responsibilities

Common Responsibilities – All Incident Personnel

The listing provides an overview of the common responsibilities applicable to all ECG personnel. In most cases, these tasks are not repeated in the following position-specific checklists. Some tasks are one-time actions, while other tasks are repetitive for the duration of the incident.

Activation

Applicable to staff in all Emergency Control Group roles; Specific responsibilities may be customized to the response role, as required.

Activation Actions:

- ☐ Receive assignment from the CEMC, including:
 - Job assignment (e.g. Resource Unit Lead, etc.)
 - Position checklist (if applicable)
 - Reporting location and time
 - Virtual Login instructions
 - Any special instructions

- ☐ Upon Level 3 activation, you will be asked to log in to the zoom platform and will be placed into the main room for the preliminary briefing and roll call and then assigned to your designated break out room (replicates the EOC sections).

- ☐ Receive briefing from your Section's Chief, EOC Director and/or Manager. Clarify any questions you may have.

***Note:** Organization representatives from assisting or supporting organizations should report to the Liaison Officer through the virtual EOC platform and/or by cell phone.

- ☐ Review your position responsibilities and acquire work appropriate IMS forms.

- ☐ Establish and maintain your Position Log that chronologically describes your actions taken during your shift and provides for ongoing situational awareness.

- ☐ Organize and brief subordinates (if applicable) on:
 - Specific job responsibilities
 - Co-workers within job function
 - Define functional work areas

- Procedural instructions for obtaining additional supplies, services and personnel
- Identification of operational period work shifts
- Clarification of any important points pertaining to assignments
- Provisions for specific debriefings / handover at the end of the operational period
- The current Incident Action Plan (IAP) or Incident Briefing, if an IAP has not yet been developed
- Know the assigned contact information requirements for your area of responsibility (e.g. phone number, radio frequency, email, etc.) and ensure that communication is operating properly

Operational Actions:

- ☐ Conduct all tasks in a manner that ensures safety and welfare of you and your co-workers. Maintain accountability for assigned personnel regarding exact location(s) and personal safety and welfare always.
- ☐ Use clear texts and IMS terminology (no codes) in all communications.
- ☐ Complete forms (if hard copy is required) and reports (situation) required of the assigned position and send through the supervisor to the Planning Section (Documentation Unit, if activated). Most large incidents (complex) rely heavily on the use of IMS forms to manage information/resources and maintain accountability. Ensure all forms are dated.
- ☐ At the end of your shift, provide a detailed handover briefing for your relief. Ensure that all in-progress activities, outstanding issues, and follow-up requirements are identified.

Demobilization Actions:

- ☐ Respond to demobilization orders and brief subordinates regarding demobilization. Ensure you are debriefed by your supervisor.
- ☐ Deactivate your assigned position and close out logs when authorized by your supervisor.
- ☐ Complete all required forms, reports and other documentation. All forms should be submitted through your supervisor to the Planning Section, as appropriate, prior to your sign off from the virtual EOC.

- ☐ Be prepared to provide input during the informal debrief and input to the After-Action Report during the debrief post incident.
- ☐ If another person is relieving you, ensure they are thoroughly briefed before you log out of the virtual EOC. Note any outstanding issues or unusual events.
- ☐ If de-activating email accounts or telephones, set required notifications (e.g. out-of-office email or voicemail notification).
- ☐ Leave forwarding contact information where you can be reached.
- ☐ Complete a Demobilization Checkout Form or send through a final message through Zoom.
- ☐ Send all complete forms and / or reports through your supervisor to the Planning Section (Documentation Unit, if activated).

Command Staff

EOC DIRECTOR

Persons Assigned: Tim Commisso and Allan Magi

Responsibilities

1. Exercise overall executive management responsibility for the coordination between emergency response and supporting agencies in the Virtual Emergency Operations Centre (EOC).
2. Oversee the establishment of the appropriate staffing level for the Virtual 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 Virtual 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.

Reports to:

- Emergency Control Group
- Executive Group / Elected Officials

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Obtain briefings from whatever sources are available.
- ☐ Verify appropriate level of activation based on situation as known.
- ☐ Obtain an awareness of the mobilization of appropriate personnel from the EOC Manager, for the initial activation of the EOC.

- ☐ Log in immediately to Virtual EOC platform and determine operational status.

- ☐ Oversee the establishment of sections needed, verify Section Chiefs as appropriate and ensure they are staffing their sections as required.
 - Operations Section Chief
 - Planning Section Chief
 - Logistics Section Chief
 - Finance / Administration Section

- ☐ Oversee the establishment of Management Staff positions required and work with the EOC Manager to ensure they are filled as soon as possible.

- ☐ Oversee the EOC organization and staffing, ensuring the organization chart is shared and team members logging in are assigned appropriate roles.

- ☐ Establish / confirm initial priorities for the EOC based on current status and information from Incident Commander(s).

- ☐ Schedule the initial EOC Meeting and have Planning Chief prepare the agenda (follow EOC Planning P).

- ☐ Consult with Liaison Officer (LO) and General Staff to determine what representation is needed on the virtual EOC platform from other emergency response agencies.

- ☐ Assign the LO to coordinate outside agency response to the EOC, and to assist as necessary.

- ☐ Obtain personal telecommunications equipment if required.

Operational Actions:

- ☐ Monitor command staff activities to ensure that all appropriate actions are being taken.

- ☐ Ensure that Operational Periods are established and that initial EOC response priorities and objectives are decided and communicated to all involved parties – objectives set in collaboration with the EOC Manager based on ICP and IAP.
- ☐ In conjunction with the EIO, conduct news conferences and review media releases for final approval, following the established procedure for information releases and media briefings.
- ☐ Ensure that the LO is providing for and maintaining effective interagency coordination.
- ☐ In coordination with the EOC Manager and command staff, identify priorities and management function objectives for the initial EOC Planning Meeting.
- ☐ Convene the initial EOC Planning meeting. Ensure that all Section Chiefs, Management Staff, and other key agency representatives are in attendance. Ensure that appropriate planning procedures are followed. Ensure the Planning Section facilitates the meeting appropriately.
- ☐ Once the Incident Action Plan is completed by the Planning Section, review, approve and authorize its implementation.
- ☐ Conduct periodic briefings with the EOC Management Team to ensure response priorities and objectives are current and appropriate.
- ☐ Conduct periodic briefings for Executive Group, elected officials or their representatives.
- ☐ In conjunction with the LO, prepare to brief elected officials on possibility for declaration of state of local emergency.
- ☐ Document all decisions / approvals – may have Executive Assistant (scribe) document using DLAN to ensure time stamped situation report is captured.
- ☐ Approve resource requests not included in Incident Action Plan, as required.

- ☐ Ensure Executive Group and / or elected officials are informed of state of Provincial Emergency if declared by the Attorney General and coordinate local government Proclamations (if any) with other emergency response agencies, as appropriate.
- ☐ Assign in writing, delegated powers allowed under declaration if any are given.
- ☐ Assign special projects to EOC Manager, as needed.
- ☐ Brief your relief at shift change, ensuring that ongoing activities are identified, and follow-up requirements are known.

Demobilization Actions:

- ☐ Authorize demobilization of sections, branches and units when they are no longer required.
- ☐ Ensure that any open actions not yet completed will be handled after demobilization.
- ☐ Ensure that an informal debrief is facilitated by the EOC Manager and all informal debrief notes captured by the Planning Section Scribes (or designate) for the Debrief Post Incident.
- ☐ Terminate emergency response and proceed with recovery operations as proclaimed by Executive Group.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

EOC MANAGER

Persons assigned: Amber Rushton and Karen Roche

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 the virtual 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.

Reports to:

- EOC Director (Tim Commisso and Allan Magi)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Activate the virtual EOC and coordinate assigned rooms and personnel while assisting EOC Director in determining operational status.
- ☐ Obtain briefing from whatever sources are available.

Operational Actions:

- ☐ Maintain a position log and any other relevant forms – may utilize scribe to capture all actions taken.

- ☐ Support management staff activities to ensure that all appropriate actions are being taken.
- ☐ Assist EOC Director in determining and communicating priorities, objectives and decisions to all EOC staff.
- ☐ Assist with preparations for EOC Planning meeting.
- ☐ Ensure EOC management team shares ongoing situation reports via DLAN.
- ☐ Ensure EOC management staff has enough administrative support (appropriate scribes assigned).
- ☐ Coordinate additional staffing needs with Logistics Section Chief and staff.
- ☐ Ensure all positions use a Position Log and / or keep ongoing notes.
- ☐ Participate in EOC Planning and Management Team meetings.
- ☐ Report significant events and any issues of concern to EOC Director and Halton Region Emergency Management Group and advise of activities on a regular basis.
- ☐ Undertake special projects and assignments as directed by the EOC Director.
- ☐ Check with the General Staff on the health and welfare of all EOC staff. Authorize and coordinate additional support needs as required.
- ☐ Mediate and resolve any personnel conflicts.
- ☐ Consult with EOC Director on appointing additional staff to ensure 24-hour shift scheduling for both Director and Manager positions.

- ☐ Arrange for and facilitate operational debriefs and critical incident stress debriefs for EOC staff, as required.
- ☐ Brief relief at shift change, ensuring that ongoing activities are identified, and follow-up requirements are known.

Demobilization Actions:

- ☐ Assist EOC Director with demobilization procedures.
- ☐ Ensure that any operations not yet completed are handled and assigned after demobilization.
- ☐ Complete all required forms and reports prior to demobilization and forward to Documentation Unit.
- ☐ De-activate virtual EOC by closing out the session.
- ☐ Facilitate the informal debrief.
- ☐ Facilitate the EOC Debrief Post Incident and lead the preparation of the EOC After Action Report.
- ☐ Organize and facilitate staff debriefings and critical incident stress debriefs.
- ☐ Organize and coordinate staff recognition initiatives (i.e., thank you letters) for time and expertise staff contributed towards EOC operations.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

LIAISON OFFICER

Personnel Assigned: Kwab Ako-Adjei and Helen Walihura

Responsibilities

1. The Liaison Officer (LO) functions as a point of contact for, and interaction with, representatives from other agencies arriving at the EOC.
2. Liaise with any DOCs (Department Operation Centres), MROCs (Ministry Regional Operation Centres), and organizations not represented in the virtual EOC.
3. Coordinate agency representatives for the EOC as required to ensure adequate EOC structure, and fill all necessary roles and responsibilities enabling the EOC to function effectively and efficiently.
4. Assist and serve as an advisor to the EOC Director and Management Team as needed, providing information and guidance related to the external functions of the EOC.
5. Assist the EOC Director in ensuring proper procedures are in place for directing agency representatives and communicating with elected officials.
6. Liaise with local authorities' other EOCs, Provincial and Federal organizations, communicating EOC guidelines, directives, Action Plans and Situation Information.

Reports to:

- EOC Director (Tim Commisso and Allan Magi)
- EOC Manager (Amber Rushton and Karen Roche)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC platform via the Zoom link received by the CEMC.
- ☐ Obtain situation status and response priorities from the EOC Director or Manager.

- ☐ Assist the EOC Manager in determining appropriate staffing for the EOC.
- ☐ Ensure that an EOC organization and staffing chart is shared and up to date.
- ☐ Provide assistance and information to General Staff regarding staffing EOC sections.
- ☐ Ensure that agency representatives' telephone and/or radio communications are established and functioning.

Operational Actions:

- ☐ Assist the EOC Director/Manager in developing overall EOC priorities as well as priorities for the Initial Action Plan.
- ☐ Provide external and non-represented agencies information to the Planning Section to assist in the development, continuous updating and implementation of EOC Action Plans.
- ☐ Provide general advice and guidance to agencies and EOC staff as required.
- ☐ Ensure that all notifications are made to agencies not represented in the EOC.
- ☐ Ensure that communications with appropriate external non-represented agencies is established and maintained.
- ☐ Assist the EOC Director in preparing for and conducting briefings with the EOC Command Staff, elected officials, the media and the general public.
- ☐ Prepare external non-represented agency information for briefings with the EOC Command Staff.
- ☐ Ensure that operational priorities and objectives identified in the EOC Action Plans are communicated to external non-represented agencies.

- ☐ Facilitate completion of situation reports with external non-represented agencies and forward to the Planning Section – will be sent through to EOC Manager for approval and finalization.
- ☐ Advise the EOC Director and Manager of critical information and requests contained within agency situation reports.
- ☐ Scribe to forward approved EOC Situation Reports to non-represented agencies as requested.
- ☐ Assist the EOC Director in establishing and maintaining an Inter-Agency Coordination Group comprised of outside agency representatives and executives not assigned to specific sections within the EOC, as required.

Demobilization Actions:

- ☐ Notify external non-represented agencies in the EOC of the planned demobilization, as appropriate.
- ☐ Assist the EOC Director / Manager with recovery operations and assist with preparation for the informal debrief and After-Action Report review post incident.
- ☐ Follow the Common Responsibilities Demobilization Checklist.



EMERGENCY INFORMATION OFFICER

Persons Assigned: Suzanne Vukosavljevic and Sharon Will

Responsibilities

1. Serve as the coordination point for all public information, media relations, and internal information sources for the EOC.
2. Coordinate and supervise all staff assigned as Information Officers / Media Advisors and their activities.

Public Information

- ✓ Ensure that the public within the affected area receives complete, accurate and consistent information about life safety procedures, public health advisories, relief and assistance programs and other vital information.
- ✓ Ensure that a Toll-Free Public Information Service is established for the public to access helpful information and advice. Provide the call takers with timely and accurate messaging sheets so that they offer only confirmed and approved information.

Media Relations

- ✓ Serve as the coordination point for all media releases for the EOC.
- ✓ Coordinate media releases with officials representing other affected emergency response agencies.
- ✓ Develop the format for press conferences and briefings in conjunction with the EOC Director.
- ✓ Maintain a positive relationship with the media representatives, monitoring all broadcasts and written articles for accuracy.

Internal Information

- ✓ Develop helpful messaging sheets and / or FAQ sheets (frequently asked questions and answers) to ensure consistent and accurate information sharing amongst EOC staff.
- ✓ Maintain a web site / Situation Board established for EOC information, as appropriate.

- ✓ Liaise with the Information Officers at site(s) other EOCs, Area Command (if applicable), and / or other external agencies.

Reports to:

- EOC Director (Tim Commisso and Allan Magi)
- EOC Manager (Amber Rushton and Karen Roche)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.

- ☐ Determine staffing requirements and make required personnel assignments for an Information Section.

- ☐ Assess information skill areas required in the EOC such as: writing, issues management, media relations, event planning, etc.

Operational Actions:

- ☐ Obtain policy guidance and approval from the EOC Director regarding all information to be released to the media and public.

- ☐ Refer to the City of Burlington's Crisis and Information Management Plan for Emergency Information Protocols and Emergency Information Officer operational guidelines, sample forms, templates and other information materials, as appropriate.

- ☐ Keep the EOC Director / Manager advised of all unusual requests for information and of all major critical or unfavourable media comments. Recommend procedures or measures to improve media relations.

- ☐ Coordinate with the Situation Unit and identify method for obtaining and verifying significant information as it develops.

- ☐ Develop and publish a media briefing schedule, to include location, format, and preparation and distribution of handout materials.

- ☐ Implement and maintain an overall information release program.

- ☐ Establish a virtual Media Information Centre, as required, working with the Logistics Section to provide capability.
- ☐ Maintain up-to-date status boards and other references in the virtual Media Information Centre. Provide adequate staff to answer questions from members of the media.
- ☐ Establish a Toll-Free Public Information Service and / or call centre to handle public inquiries and provide emergency support information. Consult with Logistics Information Technology Branch Coordinator for communication equipment needs and set-up.
- ☐ Interact with other EOCs (as needed) and obtain information relative to public information operations.
- ☐ Establish distribution lists for recipients of all public information releases. Include Site Information Officers, other EOCs' Information Officers, Local Authorities, Mayors and elected officials, MPs' constituency offices, First Nations Groups, Emergency Social Service Groups, the Toll-free Public Information Service (311), etc.
- ☐ In coordination with other EOC sections and as approved by the EOC Director, issue timely and consistent advisories and instructions for life safety, health, and assistance for the public. Liaise with Legal to check for any potential liability or safety concerns.
- ☐ At the request of the EOC Director, prepare media briefings for elected officials and / or Executive Group members and provide other assistance as necessary to facilitate their participation in media briefings and press conferences.
- ☐ Ensure that adequate staff is available at incident sites to coordinate and conduct tours of the disaster areas when/if safe.
- ☐ Arrange through logistics appropriate staffing and telephones to efficiently handle incoming media and public calls.
- ☐ In addition to identifying help sources contained within press releases, PSAs and bulletins, maintain a Disaster Assistance Information Directory, with numbers and locations to obtain food, shelter, supplies, health services, etc.

- ☐ Develop message statements for EOC Staff and the call takers of the toll-free hotline.
- ☐ Ensure that announcements, emergency information and materials are translated and prepared for special populations (non-English speaking, hearing impaired etc.).
- ☐ Monitor all media, using information to develop follow-up news releases and rumour control, consult with Legal on appropriate wording and actions to take on correcting false or erroneous information.
- ☐ Ensure that file copies are maintained of all information released.
- ☐ Promptly provide copies of all media releases to the EOC Director / Manager.
- ☐ Conduct shift change briefings in detail, ensuring that in-progress activities are identified, and follow-up requirements are known.

Demobilization Actions:

- ☐ Prepare final news releases and advise media representatives of points-of-contact for follow-up stories.
- ☐ Contribute items of interest to the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

LEGAL OFFICER

Persons Assigned: Nancy Shea Nichol and Blake Hurley

Responsibilities

The Director of Legal Services/City Solicitor acts as the Legal Officer. The Legal Officer is a support function of the Command Staff and has the following responsibilities:

1. Ensures that good risk management practices are applied throughout the response organization.
2. Protects the interests of all EOC members, agencies and organizations by ensuring due diligence in information collection, decision-making, and implementation.
3. Monitors situations for risk exposures and ascertains probabilities and potential consequences of future events.
4. Provides legal advice to the Mayor and Emergency Control Group with respect to interpretation of legislation governing the control of response to an emergency by the Emergency Control Group.
5. Ensures general compliance with applicable legislation and liaises with Regional Solicitor and solicitors for neighbouring municipalities.

Reports to:

- EOC Director (Tim Commisso and Allan Magi)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.

Operational Actions:

- ☐ Follow the Common Responsibilities Operational Checklist

Demobilization Actions:

- ☐ Follow the Common Responsibilities Demobilization Checklist

SAFETY OFFICER

Persons Assigned: Chris Kroes and Matt Girodat

Responsibilities

1. The Safety Officer (SO) monitors safety conditions and develops safety measures to ensure the health and safety of all responders.
2. Creating systems and procedures related to the overall health and safety of all incident responders in close conjunction with Command and the Operations Section Chief and the Planning Section Chief.
3. Have the knowledge and professional experience to be able to control or reduce occupational hazards and exposures. Tasks may be delegated to the appropriate assistant, if applicable.

Reports to:

- EOC Director (Tim Commisso and Allan Magi)
- EOC Manager (Amber Rushton and Karen Roche)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Obtain briefing from Command and / or the on-scene or in-place Safety Officer.

Operational Actions:

- ☐ Establish workspace for Safety Officer function and notify organization representatives.
- ☐ Identify hazardous situations associated with the incident(s).
- ☐ Ensure that adequate levels of protective equipment are available and being used. Ensure that staff are properly trained on the use of relevant protective equipment.
- ☐ Staff and organize function, as appropriate:
 - ✓ In multi-discipline incidents, consider the use of an Assistant Safety Officer from each discipline.
 - ✓ Multiple high-risk operations may require an Assistant Safety Officer at each site.

- ☐ Identify and correct or terminate potentially unsafe acts.

- ☐ Identify corrective actions and ensure implementation. Coordinate corrective action with Command and Operations.

- ☐ Obtain updates from Assistant Safety Officers (if necessary and established) prior to Planning Meetings and as necessary.

- ☐ Participate in Strategies and Tactics Meeting(s) as well as EOC Planning Meeting(s):
 - ✓ Listen to tactical options being considered. If potentially unsafe, assist in identifying options, protective actions, or alternate tactics.
 - ✓ Discuss accidents/injuries to date. Make recommendations on preventative or corrective actions.

- ☐ Participate in the development of the Incident Action Plan (IAP):
 - ✓ Review and approve the Incident Medical Plan (IMS Form 206).
 - ✓ Provide Safety Message and/or Safety Plan (as required), using:
 - Incident Objectives (IMS 202).
 - Safety Message/Plan (IMS 208) (if required).
 - ✓ Assist in the development of the "Special Instructions" block of the Resource Assignment List (IMS 204), as requested by the Planning Section.

- ☐ Investigate accidents that have occurred within incident areas:
 - ✓ Ensure accident scene is preserved for investigation by liaising with Operations Section Chief and obtaining Situation Report via Incident Commander (IC).
 - ✓ Ensure accident is properly documented – liaise with Operations Section Chief.
 - ✓ Coordinate with incident Compensation and Claims Unit Leader (situated within Finance and Admin. Section), City of Burlington Executive Director of Corporate Strategy, Risk and Accountability, Ministry of Labour, WSIB, and relevant officials, etc.
 - ✓ Prepare accident reports as per the City of Burlington policy, procedures, and direction.
 - ✓ Recommend corrective actions to Incident Commander and organization.



- ☐ Coordinate critical incident stress, hazardous materials, and other debriefings, as necessary.

Demobilization Actions:

- ☐ Follow the Common Responsibilities Demobilization Checklist.

- ☐ Contribute items of interest to the EOC After Action Report.

Operations Section

OPERATIONS SECTION CHIEF

Personnel Assigned: Karen Roche / Craig Slack / Charlie Birch

Responsibilities

1. Ensure that the Operations Coordination function is carried out, including coordination of response for all operational functions assigned to the EOC.
2. Ensure that operational objectives and assignments identified in the EOC Incident Action Plan are carried out effectively.
3. Establish the appropriate level of Branch and Unit organizations within the Operations Section, continuously monitoring the effectiveness and modifying accordingly.
4. Maintain a communications link between Incident Commanders (sites), Department Operation Centres (DOCs) and the EOC for coordinating the overall response, resource requests and event status information.
5. Ensure that the Planning Section is provided with Branch Status Reports and Major Incident Reports.
6. Conduct periodic Operations briefings for the EOC Director and Management team as required or requested.

Reports to:

- EOC Director (Tim Commisso and Allan Magi)
- Emergency Control Group

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Ensure that the Operations Section break out room is established in collaboration with the CEMC and operating properly
- ☐ Obtain a preliminary situation briefing from EOC Director, Planning Section Chief or other EOC Management Staff as appropriate.

- ☐ Based on the situation, activate appropriate branches based on functions or geographical assignments within the section. Designate Branch Coordinators as necessary:
 - Fire
 - Police
 - Paramedics
 - Roads, Parks & Forestry
 - Recreation Services
 - Engineering Services
 - Burlington Hydro
 - Union Gas
 - Etc.

- ☐ Establish radio or cell-phone communications with DOCs or other EOCs operating in the Region and coordinate accordingly.

- ☐ Request additional personnel for the operations section, liaising with the EOC Manager and the Logistics Section as necessary to maintain 24-hour staffing capabilities, as necessary.

- ☐ Confer with the EOC Director to ensure that the Planning and Logistics Sections are staffed at levels necessary to provide adequate information and support for operations.

- ☐ Coordinate with the Liaison Officer regarding the need for Agency Representatives in the Operations Section.

- ☐ Obtain a current communications status briefing from the Information Technology Branch Coordinator in Logistics. Ensure that there is adequate equipment and frequencies available for the Section.

- ☐ Based on the situation known or forecasted, determine likely future needs of the Operations Section.

- ☐ Identify key issues currently affecting the Operations Section; virtually connect with Section personnel and determine appropriate section objectives for the first operational period.
- ☐ Review responsibilities of branches operating the Section; develop a plan/process detailing strategy for carrying out Operations objectives.
- ☐ Adopt a proactive attitude. Think ahead and anticipate situations and problems before they occur.
- ☐ Obtain personal telecommunications equipment.

Operational Actions:

- ☐ Ensure that all Section personnel are maintaining their individual position logs and other paperwork as required.
- ☐ Conduct periodic briefings and work to reach consensus among Operations staff on objectives for each operational period.
- ☐ Ensure that all media contacts are referred to the Emergency Information Officer who will liaise with the Social Media Officer.
- ☐ Prepare for and participate in Strategies and Tactics Meeting(s), EOC Incident Action Planning meeting(s) and other relevant EOC Management Team meetings.
- ☐ Provide the Planning Section Chief with the Operations Section's objectives prior to each Incident Action Planning meeting.
- ☐ Work closely with each Branch Coordinator to ensure that the Operations Section objectives, as defined in the current Incident Action Plan, are being addressed.
- ☐ Ensure that situation and resources information is provided to the appropriate units in the Planning Section on a regular basis or as the situation requires, including Branch Status Reports and new incoming incident reports.

- ☐ Ensure that intelligence information from Branch Coordinators is made available to the Planning Section (Situation Unit) in a timely manner. Ensure that intelligence information from Branch Coordinators is made available to the Planning Section (Situation Unit) in a timely manner.
- ☐ Ensure that the branches coordinate all resource needs through the Logistics Section.
- ☐ Authorize resource requests and forward extraordinary and / or critical resource requests to the EOC Director for approval.
- ☐ Ensure that fiscal and administrative requirements are coordinated through the Finance / Administration Section (e.g., notification of emergency expenditures and daily time sheets).
- ☐ Brief the EOC Director and other Management Team members on all major incidents.
- ☐ Brief Branch Coordinators and Section staff periodically on any updated information you may have received.
- ☐ Share status information with other sections as appropriate.

Demobilization Actions:

- ☐ Deactivate branches and any organizational elements, when no longer required. Ensure that all paperwork is complete, and logs are closed and sent to Documentation Unit.
- ☐ Ensure that any open actions are assigned to appropriate agency and / or EOC staff as appropriate.
- ☐ Deactivate the Section and close out logs when authorized by the EOC Director.
- ☐ Ensure that any required forms are completed prior to your release and logging off.
- ☐ Be prepared to provide input during the informal debrief and to the EOC After Action Report post incident.

- ☐ Follow the Common Responsibilities Demobilization Checklist.

Planning Section

PLANNING SECTION CHIEF

Persons Assigned: Sheila Jones and Leah Bisutti

Responsibilities

1. Ensures that the following responsibilities of the Planning Section are addressed as required:
 - Collect, analyze, and display situation information
 - Prepare and/or task scribe to prepare periodic Situation Reports (SitReps) – *Recurring SitRep time will be set by the EOC Manager*
 - Prepare for the Planning Meeting, facilitate the meeting, and direct the compilation of the EOC Incident Action Plan (IAP)
 - Review and approve the final EOC IAP and bring forward at the EOC Briefing so that the EOC IAP can be executed – *This will be collated by the Documentation Unit*
 - Liaise closely with the Logistics Section to track resources and ensure alignment with the EOC IAP (*scribe may maintain a live document for each operational period manually on IMS Form 260-RR and submit to the EOC Liaison Officer*)
 - Ensure documentation unit is documenting ongoing EOC activities (*will work with scribes to track activity*)
 - Provision of technical advice for all EOC sections
2. Establishes the appropriate level of organization for the Planning Section
3. Exercises overall responsibility for the coordination of branch / unit activities within the Planning Section
4. Keeps the EOC Manager informed of significant issues affecting the Planning Section
5. In coordination with the other Section Chiefs, ensures that Status Reports are completed

Reports to:

- EOC Director / Manager (Tim Commisso and Allan Magi)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist

- ☐ Log in to the virtual EOC platform and obtain a briefing from the EOC Manager

- ☐ Ensure that the Planning Section break out room is established in consultation with the EOC Manager

- ☐ Based on the situation, activate units within the Planning Section as needed and designate Leaders for each unit:
 - Resources Unit Lead
 - Situation / Demobilization Unit Leads
 - Technical Specialists
 - Documentation Unit Lead

- ☐ Request additional personnel for the section from Logistics as necessary to support resource needs

- ☐ Meet with Operations Section Chief; obtain and review any major incident reports

- ☐ Review responsibilities of units in Planning Section; coordinate the development of plans for carrying out all responsibilities

- ☐ Make a list of key issues to be addressed by Planning; in consultation with section staff, identify objectives to be accomplished during the initial Operational Period – *This will be established during the Planning Meeting*

- ☐ Keep the EOC Manager informed of significant events

- ☐ Adopt a proactive attitude, thinking ahead and anticipating situations and problems before they occur

Operational Actions:

- ☐ Ensure that any IMS live documents being used by the Planning Section are maintained through the Documentation Unit and Resource Unit

- ☐ Ensure that the Situation Unit is maintaining current information for the EOC SitRep

- ☐ Ensure that major incident reports and branch status reports are completed by the Operations Section and are accessible by the Planning Section. *It is recommended to provide a Planning Liaison to the Operations Section.*

- ☐ Ensure that an EOC SitRep is produced, approved and distributed to all EOC Sections and the EOC Manager, prior to the end of the operational period

- ☐ Ensure that all status boards and other displays are kept current and that posted information is neat and legible

- ☐ Ensure that the Emergency Information Officer (EIO) has immediate and unlimited access to all status reports and displays

- ☐ Conduct periodic briefings with section staff and work to reach consensus among staff on section objectives for forthcoming operational periods

- ☐ Chair the EOC Planning Meetings approximately two hours before the end of each operational period

- ☐ Ensure that objectives for each section are completed, collected and posted in preparation for the next Planning Meeting

- ☐ Ensure that the EOC IAP is completed and distributed prior to the start of the next operational period

- ☐ Work closely with each unit within the Planning Section to ensure the section objectives, as defined in the current EOC IAP are being addressed

- ☐ Ensure that the Advance Planning unit develops and distributes a report which highlights forecasted events or conditions likely to occur beyond the forthcoming operational period; particularly those situations which may influence the overall priorities of the EOC
- ☐ Ensure that the Documentation Unit maintains online logs on all EOC activities and provides reproduction and archiving services for the EOC, as required
- ☐ Provide technical services, such as environmental advisors and other technical specialists to all EOC sections as required
- ☐ Ensure that fiscal and administrative requirements are coordinated through the Finance / Administration Section

Demobilization Actions:

- ☐ Ensure Demobilization Plan for the EOC is complete, approved by the EOC Manager and distributed to all EOC sections
- ☐ Coordinate so that all scribes within the Planning Section take notes during the informal debrief and collate for submission to the EOC Manager
- ☐ Assist the EOC Manager with the preparation of the After-Action Report (AAR), post Debrief
- ☐ Determine demobilization status of all Planning Units and advise the EOC Manager
- ☐ Complete all logs and forward any live documents to the Documentation Unit for compilation and completion
- ☐ Ensure any open actions are assigned to appropriate Planning staff or other EOC sections to follow up on
- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance / Administration Section

- ☐ Follow the Generic Demobilization Phase Checklist (under Common Responsibilities Checklist)

RESOURCES UNIT LEAD

Persons Assigned: **Unassigned**

Responsibilities

1. Coordinate with the branches and units in the Operations and Logistics Sections to capture and centralize resource status information.

***Note:** This position tracks resources, it does not obtain or supply them.

2. Develop and maintain resource status boards, and / or other tracking and display systems.

Reports to:

- EOC Planning Section Chief (Sheila Jones)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC and obtain a briefing from the Planning Section Chief.
- ☐ Ensure there is adequate staff to fill the Resource Unit responsibilities.

Operational Actions:

- ☐ Ensure that any IMS live documents being used by the Planning Section are maintained through the Documentation Unit and Resource Unit.
- ☐ Task scribe to establish and maintain a position log and other necessary files.
- ☐ Coordinate closely with the Operations Sections Branches/Units and Logistics Section Units, particularly Supply, Personnel, and Transportation.
- ☐ Obtain from the EOC Manager, a list of known critical resources.
- ☐ Obtain copies of critical resource requests from the Logistics Section, post the request on a status board and track the progress of the request until filled.

- ☐ Status boards should track requests by providing at a minimum, the following information: date and time of the request, items requested, priority designation (precedence level), time the request was processed and estimated time of arrival or delivery to the requesting party.
- ☐ Work closely with Operations and Logistics and assist in notifying requesting parties of the status of their resource request. This is particularly critical in situations where there will be delays in filling the request.
- ☐ An additional status board may be developed to track resource use by the requesting party. Information categories might include the following: actual arrival time of the resource, location of use, and an estimate of how long the resource will be needed.
- ☐ Keep in mind that it is generally not necessary to track mutual aid resources unless they are ordered through the Logistics Section.

Demobilization Actions:

- ☐ Keep Demobilization Unit informed of committed resources
- ☐ Determine demobilization status of the Resource Unit and advise the Planning Section Chief
- ☐ Complete all logs and documentation and forward to Documentation Unit
- ☐ Ensure any open actions are assigned to appropriate Planning Staff or other EOC sections to follow up on
- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance/Administration Section
- ☐ Provide input towards the EOC After Action Report
- ☐ Follow the Generic Demobilization Phase Checklist

SITUATION UNIT LEAD

Persons Assigned: **Unassigned**

Responsibilities

1. Oversee the collection, organization, and analysis of disaster situation information, including damage assessments.
2. Ensure that information collected from all sources is validated.
3. Ensure that Situation Reports are developed for dissemination to EOC staff and captured on DLAN. Ensure that a Situation Board is established and reflects ongoing situation changes.
4. Ensure that an EOC Incident Action Plan is developed for each operational period based on objectives developed by each EOC Section.
5. Ensure that an ongoing link is established with the Operations Section for collecting accurate situation information in a timely manner.
6. Ensure that all maps, status boards and other displays contain current and accurate information.

Reports to:

- EOC Planning Section Chief (Sheila Jones)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC platform and obtain a briefing from the Planning Section Chief.
- ☐ Prepare Situation Unit objectives for the initial Action Planning meeting.

Operational Actions:

- ☐ Ensure position logs and other necessary files are maintained –capture all relevant timely information on status board.

- ☐ Assign a Situation Staff member to liaise with the Operations Section and collect situation status information on a regular basis.
- ☐ Ensure each EOC section & branch provides the Situation Unit with status updates on a regular basis.
- ☐ Oversee the collection and analysis of all incident or disaster related information.
- ☐ Oversee the preparation and distribution of the EOC Situation Report, liaising closely with the EOC Manager.
- ☐ Coordinate with the Documentation Unit for the reproduction of relevant plans and distribution as required.
- ☐ Collaborate with the Emergency Information Officer to coordinate access to current information.
- ☐ Prepare a status report for the EOC Action Planning meeting.
- ☐ Ensure each EOC section provides their objectives at least 30 minutes prior to each Incident Action Planning meeting.
- ☐ Convene the Action Planning meeting and assist Planning Section Chief in facilitating the meeting.
- ☐ In preparation for the Action Planning meeting, ensure that all EOC priorities and objectives are posted or distributed, and that the meeting room is set up with appropriate equipment and materials (easels, markers, Sit Reports, etc.).
- ☐ Following the meeting, send approved Incident Action Plan to the Documentation Unit for distribution prior to the next operational period.
- ☐ Ensure that adequate staff members are assigned to maintain all maps, status boards and other displays. Status Board information should include Event Name, Task # and columns



for: Sequential Numbering System for new incidents, Date and Time, Incident Details, Response taken (includes activities and resources), Open or Closed Status, and a column for Follow-up Required.

Demobilization Actions:

- ☐ Determine demobilization status of the Situation Unit and advise the Planning Section Chief.
- ☐ Complete all logs and forms and forward to Documentation Unit – Complete situation reports and send update through for EOC Manager to forward on to Region EM Group.
- ☐ Ensure any open actions are assigned to appropriate Planning staff or other EOC sections to follow up on.
- ☐ Provide input toward the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.



DEMOBILIZATION UNIT LEAD

Persons Assigned: **Unassigned**

Responsibilities

1. Develop a Demobilization Plan for the EOC based on a review of all pertinent Planning Section documents, and Situation Reports, and status of EOC priorities and objectives.
2. Supervise personnel assigned to the Demobilization Unit.

Reports to:

- EOC Planning Section Chief (Sheila Jones)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC platform and obtain a current situation report from the Planning Section Chief.

Operational Actions:

- ☐ Monitor current EOC Action Plans, Situation Reports, and resource assignment lists.
- ☐ Consult with Section Chiefs, Branch Coordinators, Liaison Officer and EOC Manager for demobilization policies and procedures.
- ☐ Draft Demobilization Plan and circulate to the Planning Section Chief, EOC Manager and EOC Management Team for review.
- ☐ Finalize the Demobilization Plan for approval by the EOC Director.
- ☐ Demobilization Planning must occur at least once during the operational period for as long as EOC Sections are formally staffed.
- ☐ Advise all Section Chiefs to ensure that demobilized staff complete and forward to Documentation Unit all reports, time sheets, and exit surveys prior to leaving the EOC.

Demobilization Actions:

- ☐ Initiate the Demobilization Plan for the EOC as approved by the EOC Director.

- ☐ Complete all logs and documentation and forward to documentation unit.

- ☐ Ensure all equipment and materials are returned to their proper places.

- ☐ Provide input towards the EOC After Action Report.

- ☐ Follow the Common Responsibilities Demobilization Checklist.



DOCUMENTATION UNIT LEAD

Persons Assigned: Clare Cameron

Responsibilities

1. Collect, organize and file all completed event or disaster related forms, including: all EOC position logs, Situation Reports, EOC Action Plans and any other related information, just prior to the end of each operational period.
2. Provide document reproduction services to EOC staff.
3. Distribute the EOC Situation Reports, EOC Action Plan, and other documents, as requested.
4. Maintain a permanent archive of all Situation Reports and EOC Action Plans associated with the event or disaster.
5. Assist Recovery Unit with preparation and distribution of the EOC After Action Report.

Reports to:

- EOC Planning Section Chief (Sheila Jones)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC platform and obtain a situation briefing from the Planning Section Chief.

Operational Actions:

- ☐ Maintain a position log and other relevant documentation.
- ☐ Liaise with the Planning Section Chief and Legal to determine what EOC materials should be maintained as official records.
- ☐ Initiate and maintain a roster and organization chart of all activated EOC positions to ensure that position logs are accounted for and submitted to the Documentation Unit.

- ☐ Meet with the Recovery Unit Coordinator to determine what EOC materials and documents are necessary to provide accurate records and documentation for recovery purposes.
- ☐ Reproduce and distribute approved Situation Reports and EOC Action Plans. Ensure distribution includes the EOC Manager (to approve and share with the Region EM Group).
- ☐ Keep extra copies of reports and Plans available for special distribution as required.
- ☐ Set up and maintain document reproduction services for the EOC.
- ☐ Assist the Recovery Unit in preparing the EOC After Action Report.

Demobilization Actions:

- ☐ Determine demobilization status of the Documentation Unit and advise the EOC Planning Section Chief.
- ☐ Complete all logs and documentation / save and close off all active reports.
- ☐ Ensure any open actions are assigned to appropriate Planning staff or other EOC sections to follow up on.
- ☐ Assist with distribution of the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

TECHNICAL SPECIALISTS

Persons Assigned: Scott Gowan, Anthony Camprese, Jeff Black and Kerry Davren

Responsibilities

1. Provide technical observations and recommendations to the EOC in specialized areas, as required.
2. Ensure that qualified specialists are available in the areas required by the event or disaster.

Reports to:

- EOC Planning Section Chief (Sheila Jones)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC and obtain a situation briefing from the Planning Section Chief.

Operational Actions:

- ☐ Maintain a position log and other necessary files.
- ☐ Coordinate with the Logistics Section to ensure that technical staff are located and mobilized.
- ☐ Assign technical staff to assist other EOC Sections in coordinating specialized areas of response or recovery.
- ☐ Assign technical staff to assist the Logistics Section with interpreting specialized resource capability and requests.
- ☐ Maintain inventory of technical specialists.
- ☐ On request, prepare to provide centralized technical specialties such as meteorological, fire behaviour or engineering expertise for multiple incident sites.

Demobilization Actions:

- ☐ Determine demobilization status of the Technical Specialists Unit and advise the EOC Planning Section Chief.

- ☐ Complete all logs and documentation and forward to Documentation Unit.

- ☐ Ensure any open actions are assigned to appropriate Technical Staff or other EOC sections to follow up on.

- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance / Administration Section.

- ☐ Provide input towards the EOC After Action Report.

- ☐ Follow the Common Responsibilities Demobilization Checklist.

Logistics Section

LOGISTICS SECTION CHIEF

Persons Assigned: Sue Connor and Heather McDonald

Responsibilities

1. Ensure the Logistics function is carried out in support of the EOC. This function includes providing telecommunication services and information technology, locating or acquiring equipment, supplies, personnel, facilities, and transportation as well as arranging for food, lodging, and other support services as required both for the EOC and site requirements.
2. Establish the appropriate level of branch and / or unit staffing within the Logistics Section, continuously monitoring the effectiveness of the organization and modifying as required.
3. Ensure section objectives as stated in the EOC Action Plan are accomplished within the operational period or within the estimated time frame.
4. Coordinate closely with the Operations Section Chief to establish priorities for resource allocation within the operational area.
5. Keep the EOC Director informed of all significant issues relating to the Logistics Section.
6. Ensure critical resources are allocated according to EOC Action Plan policy, priorities and direction.
7. Coordinate with ESS Branch Coordinator on the provision of food and lodging for EOC and Site Personnel.

Reports to:

- EOC Director / Manager (Tim Commisso and Allan Magi)

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Ensure the Logistics Section is set up properly and that appropriate personnel, equipment and supplies are in place.

- ☐ Based on the situation, activate branches / units within the section as needed and designate Branch and Unit Leaders for each element:
 - Communications Unit Lead
 - Information Technology Lead
 - Supply Unit Lead
 - Facilities Unit Lead
 - Ground Support Unit Lead

- ☐ Ensure sufficient section staffing for 24-hour operations.

- ☐ Establish communications with the Logistics Section at the PREOC if activated.

- ☐ Advise Units within the section to coordinate with appropriate Branches in the Operations Section to prioritize and validate resource requests from Incident Commanders and DOCs. This should be done prior to acting on a request.

- ☐ Liaise with the EOC Director and Management Team to identify immediate resource needs.

- ☐ Liaise with the Finance / Administration Section Chief and determine level of purchasing authority for the Logistics Section.

- ☐ Assist Unit Leaders in developing objectives for the Logistics section as well as plans to accomplish their objectives within the first operational period, or in accordance with the EOC Action Plan.

- ☐ Adopt a proactive attitude, thinking ahead and anticipating situations and problems before they occur.

Operational Actions:

- ☐ Ensure that Logistic Section position logs and other necessary files are maintained.

- ☐ Convene virtually on a regular basis with section staff and work to reach consensus on Logistics section objectives for forthcoming operational periods.

- ☐ Provide the Planning Section Chief with the Logistics Section objectives at least 30 minutes prior to each Action Planning meeting.
- ☐ Attend and participate in EOC Action Planning meetings.
- ☐ Provide periodic Section Status Reports to the EOC Director and Situation Unit.
- ☐ Ensure that the Supply Unit coordinates closely with the Purchasing Unit in the Finance/Administration Section and that all required documents and procedures are completed and followed.
- ☐ Ensure Supply and Personnel Units coordinate relevant activities with appropriate Functional Branch Coordinators in the various EOC Sections.
- ☐ Ensure that transportation requirements, in support of response operations, are met.
- ☐ Ensure that all requests for facilities and facility support are addressed.
- ☐ Ensure that all resources are tracked and accounted for in cooperation with the Planning Section Resource Unit, as well as resources ordered through Mutual Aid.
- ☐ Provide Section Staff with information updates via section briefings, as required.
- ☐ Provide your relief with a briefing at shift change, informing him / her of all ongoing activities, branch objectives

Demobilization Actions:

- ☐ Identify high cost resources that could be demobilized early and advise other Section Chiefs.
- ☐ Ensure coordination with Operations before commencing demobilization.
- ☐ Determine demobilization status of the Logistics Section and advise the EOC Director.

- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate Logistics staff or other EOC sections to follow up on.
- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance/Administrative Section.
- ☐ Provide input towards the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

TELECOMMUNICATIONS SECTION LEAD

Persons Assigned: Christine Swenor and Randy Bennett/ Wendy Hough

Responsibilities

1. Ensure radio, telephone, and computer resources and services are provided to EOC staff as required.
2. Oversee the installation of communications resources within the EOC. Ensure that a communications link is established with Incident Commander(s), DOCs, other EOCs, MROCs and PREOC, if established.
3. Determine specific computer requirements for all EOC positions.
4. Implement available computer systems for internal information management and include message and e-mail systems, as available.
5. Ensure that the EOC virtual Communications Centre is established to include sufficient frequencies to facilitate operations, and that adequate communications operators are available for 24-hour coverage.
6. Develop and distribute a Communications Plan which identifies all systems in use and lists specific frequencies allotted for the event or disaster.

Reports to:

- EOC Logistics Section Chief

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC platform and obtain a situation briefing from Logistics Section Chief.
- ☐ Based on the situation, activate the necessary units within the Information Technology Branch:
 - Communications Unit

- Computer Systems Unit

- ☐ Prepare objectives for the Information Technology Branch; provide them to the Logistics Section Chief as directed.

Operational Actions:

- ☐ Ensure that Information Technology Branch position logs and other necessary files are maintained.
- ☐ Keep all sections informed of the status of communications systems, particularly those that are being restored.
- ☐ Coordinate with all EOC Sections / Branches / Units regarding the use of all communication systems.
- ☐ Ensure that the EOC Communications Centre is activated to receive and direct all event or disaster related communications to appropriate destinations within the EOC.
- ☐ Provide necessary telecommunications when Information Officer establishes a Media Information Centre.
- ☐ Provide necessary telecommunications when Information Officer establishes a tollfree Public Information Line or Call Centre.
- ☐ Ensure that adequate communications operators and call takers are mobilized to accommodate each discipline, on a 24-hour basis or as required.
- ☐ Ensure that a communications link, (if available), is established with the PREOC.
- ☐ Continually monitor the operational effectiveness of EOC communication systems. Provide additional equipment as required.
- ☐ Ensure that technical personnel are available for communication equipment maintenance and repair.

- ☐ Mobilize and coordinate amateur radio resources to augment primary communication systems as required.
- ☐ Keep the Logistics Section Chief informed of the status of communication systems.
- ☐ Prepare objectives for the Communications Unit; provide them to the Logistics Section Chief as directed.
- ☐ Refer all contacts with the media to the Emergency Information Officer.

Demobilization Actions:

- ☐ Determine demobilization status of the Information Technology Branch and advise the EOC Logistics Section Chief.
- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate Logistics staff or other EOC sections to follow up on.
- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance/Administration Section.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

SUPPLY UNIT LEAD

Persons Assigned: Steve Robinson

Responsibilities

1. Oversee the acquisition and allocation of supplies and materials not normally provided through mutual aid or normal agency channels.
2. Coordinate actions with the Finance / Administration Section.
3. Coordinate delivery of supplies and materials as required.
4. Allocate critical resources as required and directed.

Reports to:

- EOC Logistics Section Chief

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Report to EOC facility and obtain situation briefing from Logistics Section Chief.
- ☐ Ensure adequate staffing levels for Supply Unit.

Operational Actions:

- ☐ Establish and maintain a position log and other necessary files.
- ☐ Determine if requested types and quantities of supplies and materials are available in inventory or from the area.
- ☐ Determine spending limits with the Purchasing Unit in Finance / Administration. Obtain a list of pre-designated emergency purchase orders as required.

- ☐ Whenever possible, meet personally with the requesting party to clarify types and amount of supplies and materials, and verify that the request has not been previously filled through another source.
- ☐ Generate an expenditure authorization form for EOC Director signature.
- ☐ In conjunction with the Resource Unit, maintain a status board or other reference depicting supply actions in progress and their current status.
- ☐ Determine if the item can be provided without cost from another jurisdiction or through the PREOC.
- ☐ Determine unit costs of supplies and materials from suppliers and vendors and if they will accept purchase orders as payment, prior to completing the order.
- ☐ Orders exceeding the purchase order limit must be approved by the Finance / Administration Section before the order can be completed.
- ☐ If vendor contracts are required for specific resources or services, refer the request to the Finance/Administration Section for development of necessary agreements.
- ☐ Determine if the vendor or provider will deliver the ordered items. If delivery services are not available, coordinate pick up and delivery through the Transportation Unit.
- ☐ Coordinate donated goods and services from community groups and private organizations. Consult with ESS Branch Coordinator on procedures for collecting, inventorying, and distributing usable donations.
- ☐ Keep the Logistics Section Chief informed of significant issues affecting the Supply Unit.

Demobilization Actions:

- ☐ Determine demobilization status of the Supply Unit and advise the EOC Logistics Section Chief.

- ☐ Complete all logs and documentation and forward to the Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate Logistics staff or other EOC sections to follow-up on.
- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance/Administration Section.
- ☐ Provide input towards the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

FACILITIES UNIT LEAD

Persons Assigned: Victor Ljuljdjuraj and Rob Axiak

Responsibilities

1. Ensure that if required, the primary recovery center is provided for the response effort, including securing access to the facilities and providing staff, furniture, supplies, and materials necessary to configure the facilities in a manner adequate to accomplish the mission.
2. Ensure security measures are taken to secure all facilities from access by unauthorized people.
3. Ensure that all PHS policies and procedures are followed and PH guidelines applied to protect all patrons.
4. Liaise with Emergency Social Services to operate under the Regional Emergency Social Services Plan
5. Ensure acquired buildings, building floors, and or workspaces are returned to their original state when no longer needed.

Reports to:

- EOC Logistics Section Chief

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to virtual EOC platform as needed and/or deploy limited personnel to primary recovery center and obtain situation briefing from Logistics Section Chief.
- ☐ Ensure adequate staffing levels to meet needs of Support Branch.

Operational Actions:

- ☐ Establish and maintain a position log and other necessary files.

- ☐ Activate Facilities Unit, Security Unit, Clerical Unit if required.
- ☐ Work closely with the Deputy EOC Director, IT Branch Coordinator, and other sections in determining facilities and furnishings required for effective operation of the EOC.
- ☐ Coordinate with Branches and Units in the Operations Section to determine if assistance with facility acquisition and support is needed at the site level.
- ☐ Arrange for continuous maintenance of acquired facilities, ensuring that utilities and restrooms are operating properly.
- ☐ Keep inventory lists.
- ☐ Develop and maintain a status board or other reference which depicts the location of each facility in use (if more than Haber), a general description of furnishings, supplies and equipment at the site, hours of operation, and the name and phone number of the Facility Manager.
- ☐ Ensure all structures are safe for occupancy and that they comply with appropriate regulations & bylaws.
- ☐ Coordinate all activities with ESS Branch Coordinator and Supply Unit Coordinator.
- ☐ Arrange for and supervise security staff for Primary Recovery facility.
- ☐ Arrange for and supervise clerical staff for the EOC.
- ☐ Keep the Logistics Section Chief informed of significant issues affecting the Support Branch.

Demobilization Actions:

- ☐ As facilities are vacated, coordinate with the facility manager and IT Branch Coordinator to return the location to its original state. This includes removing and returning furnishings and equipment, arranging for janitorial services, and locking or otherwise securing the facility.

- ☐ Determine demobilization status of the EOC Support Branch and advise the EOC Logistics Section Chief.
- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate Logistics staff or other EOC sections to follow up on.
- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance/Administration Section.
- ☐ Provide input towards the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.



GROUND SUPPORT UNIT LEAD

Persons Assigned: Vito Tolone and Jessica Wesolowski

Responsibilities

1. In coordination with the Engineering Branch Coordinator, and Planning's Situation Unit, develop a Transportation Plan to support the EOC Action Plan.
2. Arrange for the acquisition or use of required transportation resources.
3. Coordinate air transportation needs with Air Operations Branch.
4. Supervise the Transportation Unit.

Reports to:

- EOC Logistics Section Chief

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to virtual EOC platform and obtain a situation briefing from the Planning Section Chief.

Operational Actions:

- ☐ Establish and maintain a position log and other necessary files.
- ☐ Routinely coordinate with the Situation Unit to determine the status of transportation routes in and around the area.
- ☐ Routinely coordinate with the Engineering Branch Coordinator to determine progress of route recovery operations.
- ☐ Develop a Transportation Plan which identifies routes of ingress and egress; thus, facilitating the movement of response personnel, the affected population, and movement of resources and materials.

- ☐ Establish contact with local transportation agencies and schools to establish availability of equipment and transportation resources for use in evacuations and other operations as needed.
- ☐ Coordinate transportation activities and needs with Supply and Personnel Units, Branches, Information and Liaison Officers.
- ☐ Keep the Logistics Section Chief informed of significant issues affecting the Transportation Unit.

Demobilization Actions:

- ☐ Coordinate return of all transportation resources no longer required.
- ☐ Determine demobilization status of the Transportation Unit and advise the EOC Logistics Section Chief.
- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate Logistics staff or other EOC sections to follow up on.
- ☐ Ensure that all expenditures and financial claims have been coordinated through the Finance/Administration Section.
- ☐ Provide input towards the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.



Finance/Administration Section

FINANCE/ADMINISTRATION SECTION CHIEF

Persons Assigned: Joan Ford and Sandy O'Reilly

Responsibilities

1. Ensure that all financial records are maintained throughout the event or disaster.
2. Ensure that all on-duty time is recorded and collected for all personnel.
3. Ensure there is a continuum of the payroll process for all employees responding to the event or disaster.
4. In consultation with EOC Director determine spending limits, if any, for Logistics, Operations, and Management Staff.
5. Ensure that workers' compensation claims, resulting from the response are processed within a reasonable time, given the nature of the situation.
6. Ensure that all travel and expense claims are processed within a reasonable time, given the nature of the situation.
7. Activate units within the Finance / Administration Section as required; monitor section activities continuously and modify the organization as needed.
8. Ensure that all recovery documentation and Disaster Financial Assistance paperwork is accurately maintained and submitted to PEP.

Reports to:

- EOC Manager

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Ensure that the Finance / Administration Section is set up properly in consultation with the EOC Manager and that appropriate personnel and equipment are in place.
- ☐ Based on the situation, activate Units within Section, as needed, and designate Unit Coordinators for each element:
 - Time Unit Lead
 - Procurement Unit Lead
 - Compensation Claims and Cost-Unit Lead

- ☐ Ensure that enough staff are available for a 24-hour schedule, or as required.
- ☐ Consult with EOC Director for spending limits.
- ☐ Liaise virtually with the Logistics and Operations Section Chiefs and review financial and administrative requirements and procedures; determine the level of purchasing authority to be delegated to each.
- ☐ Liaise virtually with all Unit Coordinators and ensure that responsibilities and procedures are clearly understood.
- ☐ In conjunction with Unit Coordinators, determine the initial Finance / Administration Action Planning objectives for the first operational period.
- ☐ Notify the EOC Director when the Finance / Administration Section is operational.
- ☐ Adopt a proactive attitude, thinking ahead and anticipating situations and problems before they occur.

Operational Actions:

- ☐ Ensure that Finance / Administration position logs and other necessary files are maintained.
Note: Jurisdiction should use the same financial, cost accounting and time sheet forms used in non-emergency times.
- ☐ Ensure that displays associated with the Finance / Administrative Section are current, and that information is posted in a legible and concise manner.
- ☐ Participate in all Action Planning meetings.
- ☐ Provide cost estimates to Action Planning Process.
- ☐ Brief all Unit Coordinators and ensure they are aware of the EOC priorities particularly those affecting the Finance / Administration Section, as defined in the Action Plan.

- ☐ Keep the EOC Director, Management Team, and Elected Officials aware of the current fiscal situation and other related matters, on an ongoing basis.
- ☐ Ensure that the Cost Unit maintains all financial records throughout the event or disaster.
- ☐ Ensure that the Time Unit tracks and records all agency staff time.
- ☐ In coordination with the Logistics and Operations Sections, ensure that the Purchasing Unit processes purchase orders and develops contracts in a timely manner.
- ☐ Ensure that the Compensation and Claims Unit Processes all workers' compensation claims, resulting from the disaster, in a reasonable timeframe, given the nature of the situation.
- ☐ Ensure that the Time Unit processes all time sheets and travel expense claims promptly.
- ☐ Ensure that all cost documentation and Disaster Financial Assistance is accurately maintained by the Cost Unit during the response and submitted on the appropriate forms to PEP.

Demobilization Actions:

- ☐ Determine demobilization status of the Finance / Administration Section and advise the EOC Director.
- ☐ Ensure that all expenditures and financial claims have been processed and documented.
- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate Finance / Administration staff or other EOC sections to follow up on.
- ☐ Provide input towards the EOC After Action Report.

- ☐ Follow the Common Responsibilities Demobilization Checklist.



TIME UNIT LEAD

Persons Assigned: Gar Darroch and Colleen Selkirk

Responsibilities

1. Track, record, and report all on-duty time for personnel, including hired and contracted, working during the event or disaster.
2. Ensure that hired and contracted personnel time records, travel expense claims and other related forms are prepared and submitted to budget and payroll office.

Reports to:

- Finance/Administration Section Chief

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to virtual EOC platform and obtain situation briefing from Finance / Administration Section Chief.

Operational Actions:

- ☐ Establish and maintain position logs and other necessary files.
- ☐ Initiate, gather, or update time reports (use jurisdictions regular payroll time sheets) from all personnel, including volunteers assigned to each shift; ensure that time records are accurate and prepared according to policy.
- ☐ Obtain completed personnel Check-in Lists from the Personnel Unit. Must include all EOC Personnel as well as personnel assigned to the Site level.
- ☐ Provide instructions for all supervisors to ensure that time sheets and travel expense claims are completed properly and signed by each employee prior to submitting them.
- ☐ Establish a file for each employee or volunteer within the first operational period to maintain a fiscal record for as long as the employee is assigned to the response.

- ☐ Keep the Finance / Administration Section Chief informed of significant issues affecting the Time Unit.

Demobilization Actions:

- ☐ Determine demobilization status of the Time Unit and advise the EOC Finance/Administration Section Chief.
- ☐ Ensure that all expenditures and financial claims have been processed and documented.
- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate Finance / Administration Section staff or other EOC sections to follow-up on.
- ☐ Provide input towards the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.



PROCUREMENT UNIT LEAD

Persons Assigned: Gar Darroch and Colleen Selkirk

Responsibilities

1. Coordinate vendor contracts not previously addressed by existing approved vendor lists.
2. Coordinate with Supply Unit and Operations Section on all matters involving the purchase, hire, contract, rental and leases.

Reports to:

- Finance/Administration Section Chief
- EOC Manager

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to virtual EOC platform and obtain situation briefing from Finance / Administration Section Chief.

Operational Actions:

- ☐ Establish and maintain position logs and other necessary files.
- ☐ Review emergency procurement procedures.
- ☐ Provide enough copies of Expenditure Authorization Form.
- ☐ Prepare and sign contracts as needed; obtain concurrence from the Finance / Administration Section Chief.
- ☐ Ensure that all EOC personnel know financial processes.
- ☐ Ensure that all contracts identify the scope of work and specific site locations.

- ☐ Negotiate rental and lease rates not already established, or purchase price with vendors as required.
- ☐ Identify and report vendors as necessary, regarding unethical business practices, such as inflating prices or rental rates for their merchandise or equipment during disasters.
- ☐ Finalize all agreements and contracts, as required.
- ☐ Verify costs data in the pre-established vendor contracts and / or agreements.
- ☐ In coordination with the Logistics and Operations Sections, ensure that the Procurement Unit processes Expenditure Authorization Forms and Purchase Orders and develops contracts in a timely manner.
- ☐ Keep the Finance / Administration Section Chief informed of all significant issues involving the Procurement Unit.

Demobilization Actions:

- ☐ Determine demobilization status of the Procurement Unit and advise the EOC Finance / Administration Section Chief.
- ☐ Ensure all expenditures and financial claims have been processed and documented.
- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate staff or other EOC sections to follow up on.
- ☐ Provide input towards the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

COMPENSATION CLAIMS AND COST UNIT LEAD

Persons Assigned: Marina McLaughlan

Responsibilities

1. Oversee the investigation of injuries and property / equipment damage claims arising out of the emergency.
2. Complete all forms required by Worker's Compensation Act.
3. Maintain a file of injuries and illnesses associated with the event or disaster including results of investigations.
4. Liaise and consult with the Risk Management Officer on all injury claims.

Reports to:

- Finance/Administration Section Chief
- EOC Manager

Activation Actions:

- ☐ Follow the Common Responsibilities Activation Checklist.
- ☐ Log in to the virtual EOC platform and obtain a situation briefing from Finance / Administration Section Chief.

Operational Actions:

- ☐ Establish and maintain a position log and other necessary files.
- ☐ Maintain a chronological log of injuries and illnesses, and property damage reported during the event or disaster.
- ☐ Ensure all injury and damage claims are investigated as soon as possible.

- ☐ Prepare appropriate forms for all verifiable injury claims and forward them to WorkSafeBC within the required timeframe consistent with the jurisdictions and / or PEP policies and procedures.
- ☐ Coordinate with the Risk Management Officer regarding loss control and the mitigation of hazards.
- ☐ Forward copies of equipment or property damage claims to the Recovery Unit, Cost Accounting Unit and Risk Management Officer.
- ☐ Keep the Finance/Administration Section Chief informed of significant issues affecting the Compensation and Claims Unit.

Demobilization Actions:

- ☐ Determine demobilization status of the Compensation and Claims Unit and advise the EOC Finance / Administration Section Chief.
- ☐ Ensure that all expenditures and financial claims have been processed and documented.
- ☐ Complete all logs and documentation and forward to Documentation Unit.
- ☐ Ensure any open actions are assigned to appropriate staff or other EOC sections to follow-up on.
- ☐ Provide input towards the EOC After Action Report.
- ☐ Follow the Common Responsibilities Demobilization Checklist.

Suggested Community Actions

The following suggested actions can be used for pre-event development of actions to be taken should a secondary crisis/emergency/disaster strike the community. They encompass a wide range of actions both pre and post events.

Disaster Facility and Vehicle Immediate Action Kits

This disaster immediate-action kit lists the first actions that should be taken in the event of a disaster. These actions should be taken with or without direction from the supervisor or leaders of that department. The actions and why the information that is collected is vital should be taught to all individuals who might be on duty when a disaster occurs. By preparing individuals all the way down to street-level personnel for expected actions to be taken, you ensure that the first information to flow into an EOC will be the essential elements of information needed to begin to estimate the impact of the disaster on the community.

To make the proper decisions, the emergency management team must have an assessment of the community from its own trained personnel. This list of actions is by no means complete, and users should feel free to add or subtract elements to reflect the City of Burlington needs.

Facility Immediate Actions

A facility administrator should be designated as soon as there are enough supervisors at the facility. It will be the administrator's responsibility to keep track of the facility personnel and actions taken during the response to the disaster while following appropriate Occupational Health and Safety Policies and Public Health Guidelines. It is this individual's responsibility to be in charge of that facility: to document personnel, equipment, supplies, and operations during the disaster, to order more supplies, and to ensure that the units in the field have the necessary logistical support. At a minimum they should record the following information:

- ✓ Facility damage
- ✓ Vehicle or equipment damage
- ✓ Personnel injuries
- ✓ Measures taken to secure the facility
- ✓ Unusual actions taken by personnel to make repairs or solve other problems at the facility
- ✓ Crew rosters and hours worked including all call-ups and off-duty personnel reporting for duty

Facility reports include the following:

- ✓ Facility damage and condition
 - Doors
 - Roof
 - Windows
 - Electricity – working or running from backup generator
 - Water
 - Sewer
 - Gas
 - Other
- ✓ Communications equipment
 - Radios

- Telephones
- Internet
- ✓ Vehicles / Equipment
 - Damage
 - Capabilities affected

Activity reports include:

- ✓ Roster of on-duty personnel and other personnel who report in for duty
- ✓ Problems or alarms personnel responded to with addresses, times, and disposition
- ✓ Overtime status board for all personnel (very important because only overtime is reimbursable)
- ✓ Radio or telephone watch sheet
- ✓ Facility report to department for overall green-light rating
 - Collate all snapshot assessments of the units in the station and report to the next higher authority within the chain of command
 - Overall station green-light rating for facility
 - Special personnel qualification list (any special skills individuals might have that could prove useful during the emergency)
 - Unmet needs at the facility and with the personnel

Vehicle or Unit Immediate Actions

Each unit or vehicle should immediately tour its area of responsibility after the disaster to assess damage to the area and any target facility deemed critical. These assignments should be established before the disaster and be kept on the vehicle in the form of a paper copy. Each critical target facility should each have a page assigned to it with the information needed so there is no confusion. The crews on these vehicles should be trained as to how the survey should be filled out, and the survey should always be on the vehicle. Should an unexpected disaster occur, crews have a set of immediate actions to take and can begin gathering critical information without orders. The following is an example of such a report that may be utilized:

Area of Responsibility Critical Facility Snapshot Damage Assessment Survey

- ✓ Unit or Vehicle
- ✓ Date / Time
- ✓ Facility Name
- ✓ Name of person contacted
- ✓ % operations affected
- ✓ Degree of damage (heavy, moderate, light)
- ✓ Power (Y/N)
- ✓ Water (Y/N)
- ✓ Access (blocked / open)
- ✓ Operational
- ✓ Immediate actions taken by personnel at the facility
- ✓ Immediate threats to the facility

Highway and Street Assessment

- ✓ Street / Highway name
- ✓ Direction of travel

- ✓ Traffic signals
- ✓ Street signs still intact or not
- ✓ Equipment needed to open roadway
- ✓ Exact location: nearest intersection, mile marker, or block number

Hospital Status Report

	# Staffed Beds	Normal % of Occupancy	*Immediately Available Beds	** Available Bed + 1 Hour	*** Available Beds + 4 hours
Medical					
Surgical					
Orthopedic					
Pediatrics					
Adult Intensive Care Unit					
Pediatric Intensive Care Unit					
Isolation Beds					
Operating Suites					
Burn Beds					
Emergency Department Beds					
Auxiliary Emergency Department Beds					
Auxiliary inpatient beds					

*Immediately available = auto calculation from difference between number of staffed beds versus number of beds of normal occupancy

**1 hour available = beds available due to early release, cancellation of elective procedures, emergency staff call backs (cleared beds)

***4 hour available = same as 1 hour available (these figures do not include backfilling of beds with MCI victims)

Auxiliary emergency department beds = beds or chairs in areas opened during MCI's (i.e. physical therapy, conference rooms).



Auxiliary inpatient beds = beds in areas opened during overflow conditions due to emergency conditions

	# Immediately Available	# Available + 1 hour	# Available + 4 hour
Respiratory Therapists			
Pharmacists			
Surgeons			
Pediatricians			

+1 hour may be all available personnel

+4 hour may be reduced to scheduled staff for following shifts

Decontaminate

YES/NO hospital based decontaminate capacity

	Immediate	+1 hour	+2 hour
Estimated # of ambulatory patients per hour			
Estimated # of non-ambulatory patients per hour			

YES/NO respiratory protection for decontaminate personnel

Emergency System Support

	Full Operations	Limited Operations	None
Emergency Power			
HVAC on Emergency Power			
Chillers on Emergency Power			

Facility Shelter in Place Capability

YES/NO

Time to implement	<15 minutes	15-30 minutes	+30 minutes



SUBJECT: Electric Vehicle Charging Update and Analysis

TO: Environment, Infrastructure & Community Services Cttee.

FROM: Environment, Infrastructure and Community Services

Report Number: EICS-01-21

Wards Affected: All

File Numbers: 210-01

Date to Committee: February 4, 2021

Date to Council: February 16, 2021

Recommendation:

Receive and file environment, infrastructure and community services report EICS-01-21 providing electric vehicle charging update and analysis; and
Direct the Executive Director of Environment, Infrastructure and Community Services to develop a policy to guide the expansion, operation and maintenance of electric vehicle charging infrastructure on city property.

PURPOSE:

Vision to Focus Alignment:

- Support sustainable infrastructure and a resilient environment
- Deliver customer centric services with a focus on efficiency and technology transformation

Background and Discussion:

The need to electrify transportation has been identified as a vital action in both the City's Climate Action Plan and Corporate Energy and Emissions Management Plan.

The City installed its first public access electric vehicle (EV) charging station in 2015 in the downtown parking garage and has expanded its portfolio each year with the largest installation being in 2018 with the addition of 12 dual head stations partially funded under the province's Workplace Electric Vehicle Charging Incentive Program.

The City of Burlington currently has 23 Electric Vehicle (EV) charging stations on city property with a total of 44 charging heads. The majority of these units can be found in downtown parking lots.

There are three types of charging stations available for use, Level 1, Level 2 and Level 3.

- **Level 1** stations would be a charger that would come with an electric vehicle when purchased and plug into a standard 120 volt, 15 amp wall outlet. Charging times at these stations vary with vehicle and charger but will typically charge 200km in approximately 20 hours.
- **Level 2** stations are stations like the city currently has installed in its parking lots. These are stations with 1 or 2 charging heads using 240 volts and either 40 or 50 amps. Typical charge time at these stations is 200km in approximately 5 hours.
- **Level 3** stations or “Fast Chargers” operate at direct current (DC) voltage, sometimes as high as 800 volts, and can charge a vehicle 160km in approximately 30 minutes.

Currently all City of Burlington chargers are Level 2 chargers.

In 2020 additional stations were installed for city operated fleet vehicles at Fire Station Headquarters, Roads, Parks and Forestry Operations Centre and the Burlington Animal Shelter.

Many of the City’s charging stations are accessible to the public however there are some that are only available for corporate vehicles as noted above. Below is a table of the currently installed 23 charging stations, locations and accessibility.

Station Location	Number of Charging Heads	Public Access	Corporate Only Access	Corporate and Public Access
RPF Headquarters	2			x
RPF Headquarters	6		x	
Parking Lot 10 – 1371 Elgin St	2			x
Parking Lot 7 – 500 Locust St	2			x
Parking Lot 6 – 430 Brock	2			x
Parking Lot 5 – 391 Brant St	2			x
Parking Lot 4 – 421 John St	2			x
Parking Lot 3 – 533 John St	2			x
Parking Lot 2 – 466 Burlington Ave	2			x

Station Location	Number of Charging Heads	Public Access	Corporate Only Access	Corporate and Public Access
Parking Garage – Level 6A	8			x
Parking Garage – Level 1A	4	x		
Fire Station 1	4			x
Burlington Animal Shelter	1		x	
Parking Services Facility – 1376 Elgin	2		x	
City Hall Parking Lot	2		x	
City Hall Parking Lot	1	x		

In 2020, funds from the Parking District reserve were allocated to install 3 additional EV charging stations in City owned parking lots namely in lots 1, 8 and one level three EV charger in a lot in close proximity to Brant Street. Due to the reassignment of Parking Services staff and other additional unexpected work assignments, the EV chargers were not installed in 2020. This work is expected to be carried out in 2021.

During budget discussions at the January 12, 2021 Corporate Services, Strategy, Risk and Accountability Committee, staff were directed to provide further information on the Parking District reserve fund specifically related to how the fund is broken down and funded.

The Parking District reserve fund was set up for funding capital improvements to city owned parking facilities within the downtown as well as funding in years with operating shortfalls. Since the one reserve fund model did not sufficiently differentiate the use of funds, in June 2020 council approved the creation of three separate and distinct reserve funds to ensure the most efficient use of the balance by clearly distinguishing funds for stabilization of operations, lifecycle costing for all parking assets (renewal) and future growth in parking supply.

As of September 30, 2020 the existing Parking District reserve fund has a balance of \$9,566,345. Based on a financial model the balance is being allocated amongst the three newly created reserve funds as follows:

Parking Renewal - \$2.5 million reflects the city's parking asset inventory and required needs

Stabilization of Operations - \$0.2 million this balance reflects a target of 10-15% (3 year rolling average) of operating revenues for the purposes of stabilization of operations

Parking Growth - \$6.9 million to reflect the anticipated growth in parking demand

The above allocation and overall balances are subject to change based on final 2020 year end close, and will be adjusted accordingly as required.

The budget for the Parking District funds the annual operating expenses while also providing a provision to the reserve funds. Budgeted expenses total \$2,651,106 including a budgeted provision to the reserve funds of \$1,412,477.

The revenues (and associated percentages) that support the total expenses and provision to the reserve fund are as follows:

- **property tax levy** against the business properties of \$304,200 plus a payment in lieu for exempt/partially exempt city properties of \$39,327 for a total of \$343,527 (13.0%)
- **parking fines** of \$470,000 (17.7%)
- **parking fee revenues** of \$1,838,546 (69.3%)

Staff believe that it is appropriate to use the Parking District funds to cover the costs of EV chargers for city owned parking facilities in downtown Burlington.

City staff are also currently working on the installation of 11 additional dual head charging stations for spring 2021 that will be accessible to the public. These stations are being installed as part of the council directed budget addition in the 2020 capital budget. Charging stations will be installed at the following city facilities;

- Tansley Woods Community Centre (4 heads)
- Appleby Ice Centre (4 heads)
- Central Park Campus (4 heads)
- Mountainside Recreation Centre (2 heads)
- Haber Recreation Centre / Norton Park (2 heads)
- Nelson Recreation Centre (2 heads)
- Aldershot Arena (2 heads)
- Mountainside Recreation Centre (2 heads)

With the installation of these charging stations the City will have 33 charging stations installed with 26 of those being publicly accessible.

It is expected that additional stations will be installed in the coming years as part of the green fleet strategy for corporate vehicles.

Strategy/process

Detailed information on charging usage and times is available for 20 of the city's 23 chargers. Staff are currently working to secure a more accurate means of monitoring the other three charging stations.

Through the years the utilization of the publicly available charging stations increased annually with the installation of additional charging stations and increased awareness of the stations. However, an obvious dip can be seen in the graph below in March 2020 coinciding with the start of the COVID-19 Pandemic.

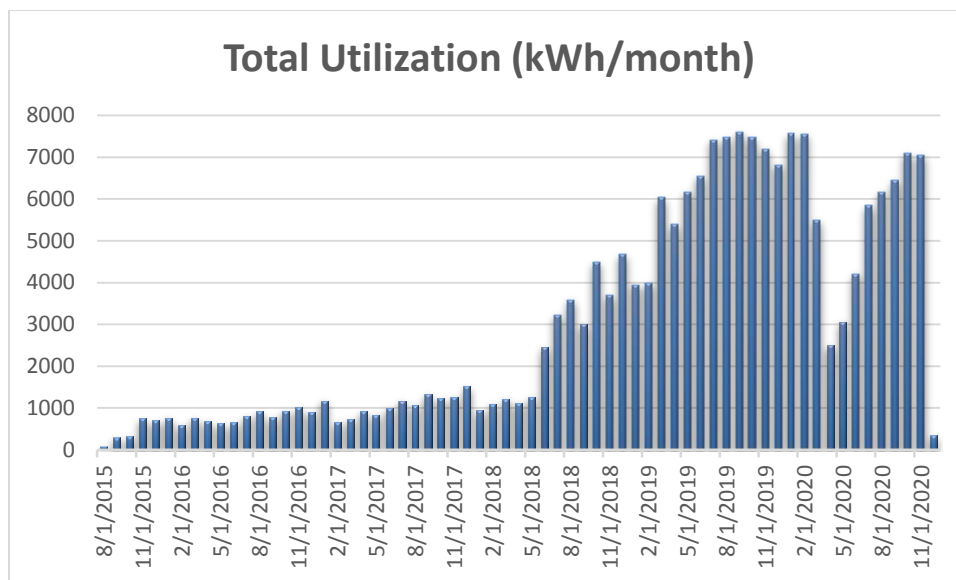


Figure 1

Currently staff are unable to differentiate between corporate vehicle charging and public vehicle charging rates at those stations which are shared. Data is available for city fleet vehicles utilizing those charging stations that are only for corporate use. As the corporate fleet continues to be electrified to reduce the corporate carbon footprint and work towards the net carbon neutral target for city operations by 2040, increased charging rates are expected along with an expansion of EV chargers.

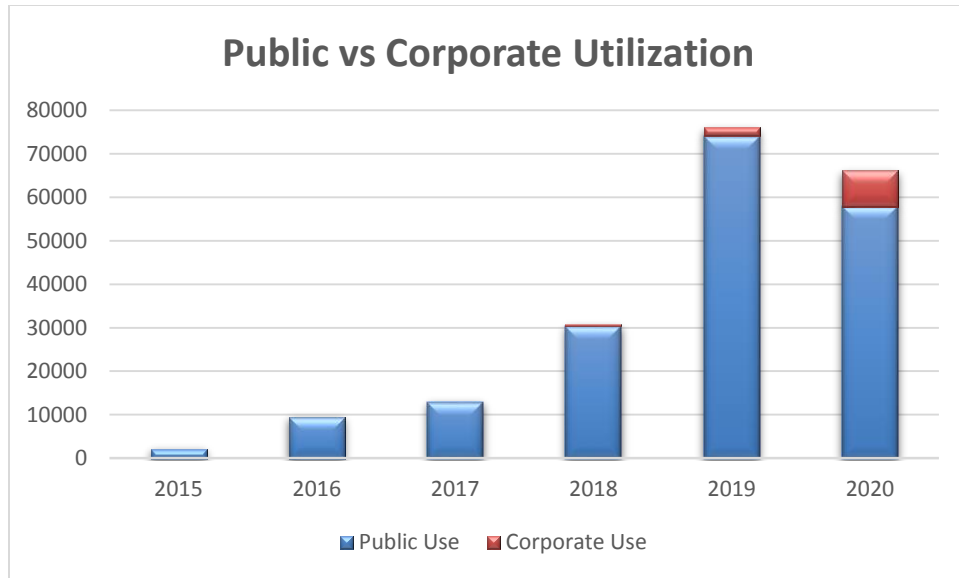


Figure 2

Since 2015 community awareness of the city’s efforts has grown along with our portfolio of EV charging stations. Through our charging platform staff are able to identify how many “unique drivers” plug-in each year, meaning how many different drivers charged at our stations each year. Increased awareness and use of City stations is evident from 2018 to 2019 where the total number of chargers did not increase but the number of unique drivers increased significantly.

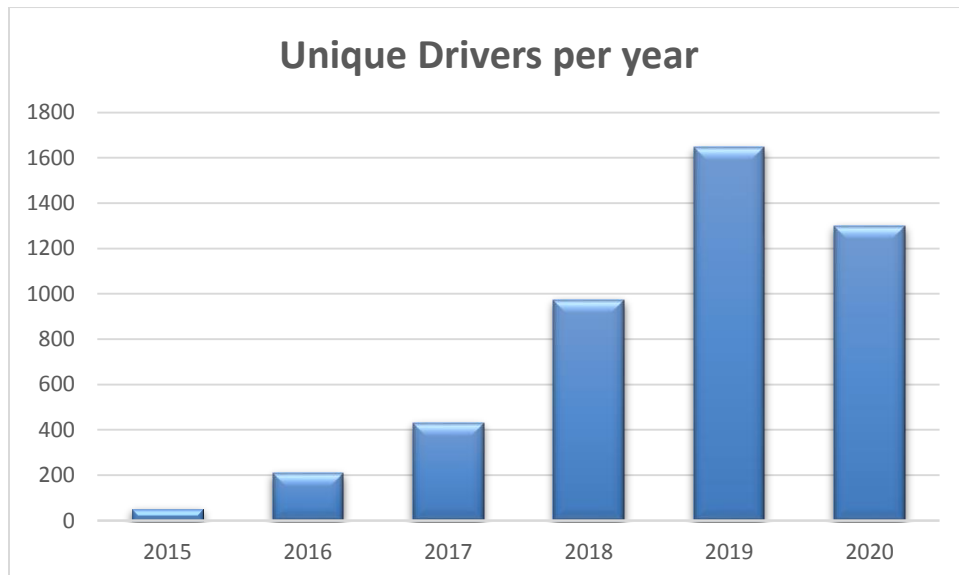


Figure 3

Options Considered

Other sustainable mobility options will be considered and assessed through the development of the Integrated Mobility Plan.

Financial Matters:

Currently there are no fees for using a city EV charger, however, electricity used for these stations carries an annual cost as does ongoing maintenance and programming/data access for the charging stations. The intent was to support and encourage members of the public and staff to consider a low or zero emission vehicle. Below are the costs associated with the charging stations available for public charging.

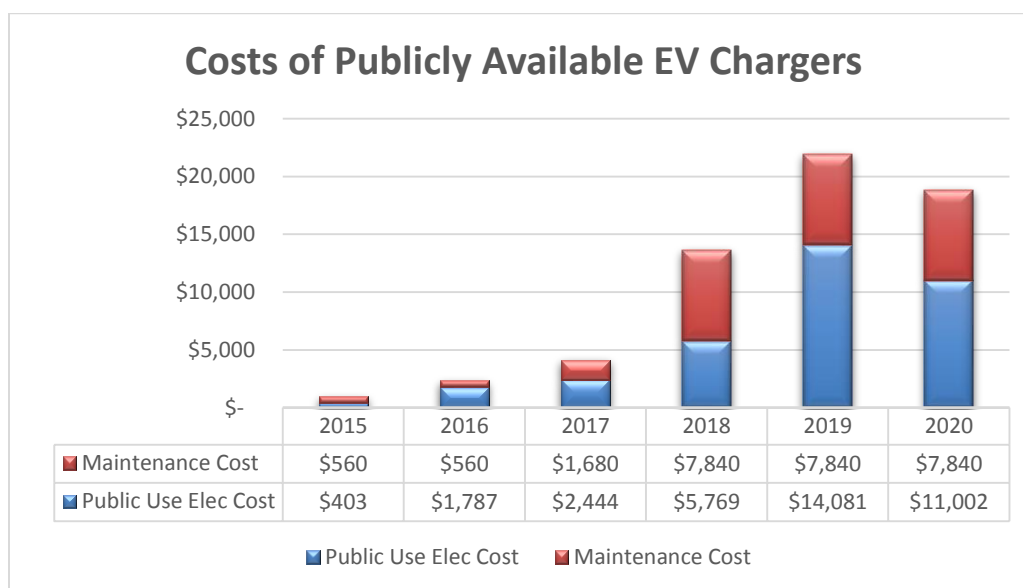
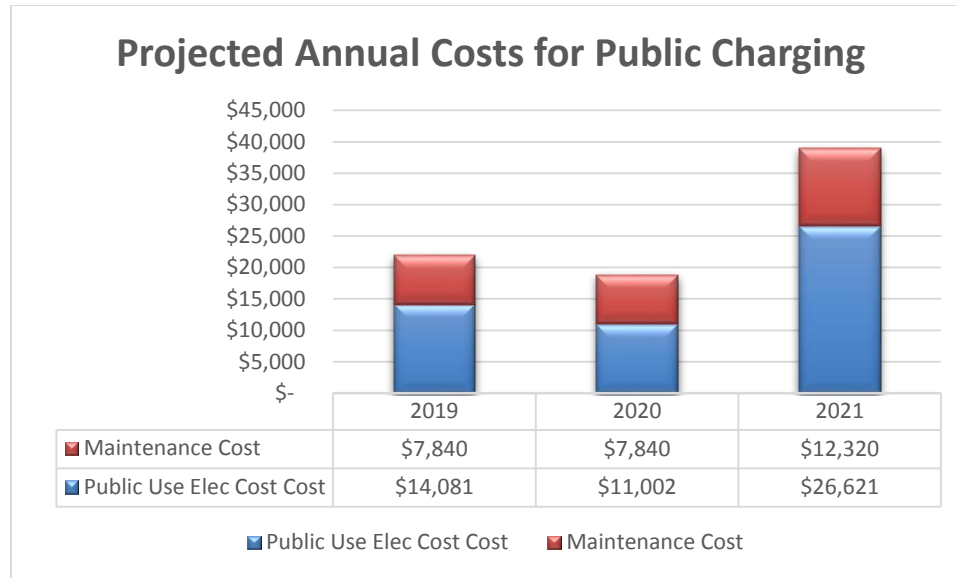


Figure 4

Total Financial Impact

Annual costs of operating the EV charging stations vary as detailed above. These annual costs are expected to increase annually by an additional \$20,000 to \$39,000 (electricity cost plus operations/maintenance), depending on charging activity, with the installation of the additional 13 charging stations as part of the 2020 capital budget. These projected costs do not include the operational costs of the level three charging station that is to be installed in 2021 due to unknown charger specifications and utilization rates.

**Figure 5**

Source of Funding

As mentioned above currently the City does not charge staff or the public to use the chargers. However, due to the rising utilization of the City's charging stations and the general growth of the City's charging assets the addition of an hourly fee to our charging stations is necessary. The City is unable to charge directly for electricity consumption but can base the charge on an hourly rate to use the charging station.

A new policy regarding fees for EV Charging is recommended to be developed in 2021. This would include items such as fees for public users and staff users, charging time limits, introduction of a penalty fee if an overstay is detected, as well as how to direct the funds that are collected.

Currently the cost of electricity consumption at the charging stations are covered under operating budgets for electricity accounts for the various assets that house our charging infrastructure. Installation and ongoing maintenance fees have been covered through facility or parking asset operating budgets.

Other Resource Impacts

Not applicable

Climate Implications

By encouraging the use of electric vehicles in both our corporate fleet as well as by the public, the City of Burlington continues to show leadership in greenhouse gas reductions.

Below shows the estimated greenhouse gas saved each year since the first charging station installation.

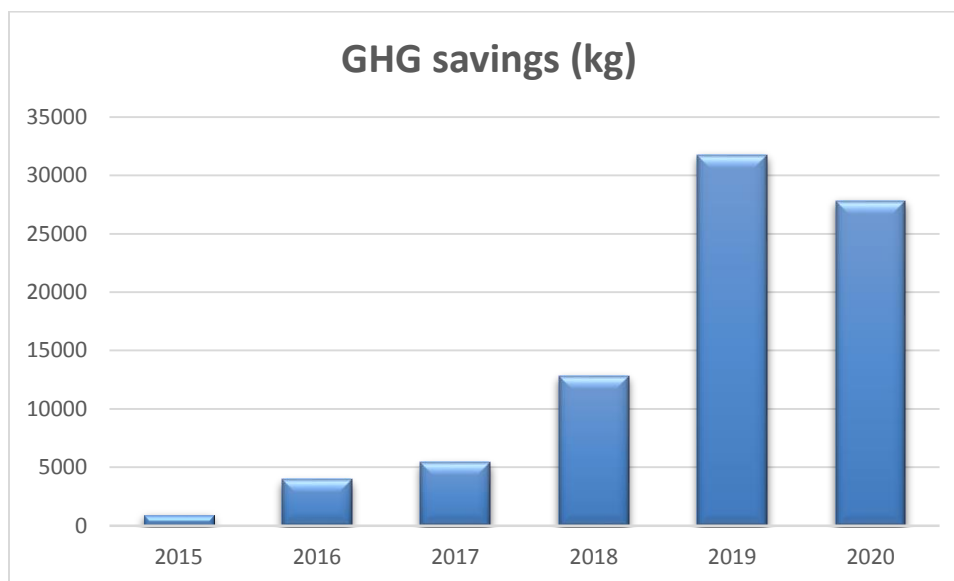


Figure 6

Since 2015 the city has helped residents and our own corporate fleet reduce emissions by approximately 82.5 tons, which is equivalent to the carbon sequestered by approximately 1356 seedlings grown for 10 years.

Engagement Matters:

City staff were consulted on this report included fleet management, parking management, transportation and sustainability staff, and finance. An engagement process will be developed and implemented to support the new EV Charging Station Policy in 2021.

Conclusion:

The City of Burlington continues to act as a leader among municipalities for EV Charging. The introduction of a new EV Charging policy will help to guide this program and provide direction for staff as they continue with new installations and promotion of

this city service. As our utilization rates and number of charging installations continue to grow the City shows its commitment to both the Climate Action Plan as well as its objectives to be both a net carbon neutral community and corporation.

Respectfully submitted,

Tom Pedlar

Corporate Energy & Emissions Coordinator

905-335-7600 Ext 7354

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.