



City of Hamilton
PUBLIC WORKS COMMITTEE
AGENDA

Meeting #: 20-005
Date: July 8, 2020
Time: 9:30 a.m.
Location: Due to the COVID-19 and the Closure of City Hall

All electronic meetings can be viewed at:

City's Website:

<https://www.hamilton.ca/council-committee/council-committee-meetings/meetings-and-agendas>

City's YouTube Channel:

<https://www.youtube.com/user/InsideCityofHamilton> or Cable 14

Alicia Davenport, Legislative Coordinator (905) 546-2424 ext. 2729

	Pages
1. APPROVAL OF AGENDA	
(Added Items, if applicable, will be noted with *)	
2. DECLARATIONS OF INTEREST	
3. APPROVAL OF MINUTES OF PREVIOUS MEETING	
3.1 June 17, 2020	5
4. COMMUNICATIONS	
5. CONSENT ITEMS	
5.1 Residential Encroachments onto the Pipeline Trail Corridor (PW20040/PED20122) (Ward 4)	57
5.2 Biosolids Management Project - Woodward Wastewater Treatment Plant (PW11098(f)) (City Wide) - REVISED	65

5.3	Woodward Upgrade Project Construction and Progress Update (PW20043) (City Wide)	72
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6.	WRITTEN DELEGATIONS	
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8.4	Security Report on Theft and Vandalism Prevention in City-Owned Spaces (PW20046) (City Wide) (Outstanding Business List Item)	209
8.5	PRESTO Adoption (PW17033(e)) (City Wide) (Outstanding Business List Item)	223
8.6	University/College Transit Pass Agreements (PW20022(a)) (City Wide)	232
	Discussion of Appendix "A" to Report PW20022(a) in Closed Session is pursuant to Section 8.1, Sub-section (f) of the City's Procedural By-law 18-270, as amended, and Section 239(2), Sub-section (f) of the <i>Ontario Municipal Act, 2001</i> , as amended, as the subject matter pertains the receiving of advice that is subject to solicitor-client privilege, including communications necessary for that purpose. (Refer to Item 12.1 for Confidential Appendix "A")	
8.7	City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Paper (PW20048) (City Wide)	241
9.	MOTIONS	
9.1	Installation of Speed Cushions on Eleanor Avenue, Hamilton, between Dulgaren Street and Eaglewood Drive (Ward 6)	258
9.2	Installation of Speed Cushions on Acadia Drive, Hamilton, between Upper Sherman Avenue and Upper Wentworth Street, and between Rymal Road East and Stone Church Road East (Ward 7)	259

10. NOTICES OF MOTION

11. GENERAL INFORMATION / OTHER BUSINESS

11.1 Amendments to the Outstanding Business List

11.1.a Items Considered Complete and Needing to be Removed:

11.1.a.a Graffiti Management Strategy

Partially addressed as Item 1 of Public Works Committee Report 19-009 (PW19050, Appendix "D"). Recommendation (h) completed, leaving recommendation (g) outstanding.
Recommendation (g) addressed as Item 8.4 on today's agenda - Report PW20046.
Item on OBL: AAZ

11.1.b Items Requiring a New Due Date:

11.1.b.a Minimum Maintenance Standards Changes

Item on OBL: AC
Current Due Date: Q3 2020
Proposed New Due Date: October 5, 2020

11.1.b.b Operations and Maintenance of the Central Composting Facility

Item on OBL: AV
Current Due Date: August 12, 2020
Proposed New Due Date: October 19, 2020

11.1.b.c Review of Cycle Hamilton Recommendations Respecting the Cannon Street Resurfacing Project

Item on OBL: AAD
Current Due Date: July 2020
Proposed New Due Date: August 12, 2020

11.1.b.d Airport Employment Growth District (AEGD) Servicing Update

Item on OBL: AAI
Current Due Date: June 2020
Proposed New Due Date: September 11, 2020

11.1.b.e Standardization of Enterprise Asset Management Systems

Item on OBL: AAV

Current Due Date: June 15, 2020

Proposed New Due Date: June 2024

11.1.b.f Management of the Aviary at 85 Oak Knoll Drive

Item on OBL: AAY

Current Due Date: Q2 2020

Proposed New Due Date: August 12, 2020

12. PRIVATE AND CONFIDENTIAL

12.1 Appendix "A" to Report PW20022(a), University/College Transit Pass Agreements (City Wide)

Pursuant to Section 8.1, Sub-section (f) of the City's Procedural By-law 18-270, as amended, and Section 239(2), Sub-section (f) of the *Ontario Municipal Act, 2001*, as amended, as the subject matter pertains to the receiving of advice that is subject to solicitor-client privilege, including communications necessary for that purpose. (Refer to Item 8.6 for the public portion of this report)

13. ADJOURNMENT

3.1



PUBLIC WORKS COMMITTEE MINUTES 20-004

9:30 a.m.

Wednesday, June 17, 2020

Council Chambers

Hamilton City Hall

71 Main Street West

Present: Councillors J.P. Danko (Chair), S. Merulla (Vice-Chair), C. Collins, J. Farr, L. Ferguson, T. Jackson, N. Nann, E. Pauls, M. Pearson, A. VanderBeek and T. Whitehead

THE FOLLOWING ITEMS WERE REFERRED TO COUNCIL FOR CONSIDERATION:

1. Citizen Committee Report respecting the Keep Hamilton Clean and Green Committee's Terms of Reference (Item 5.3)

(Nann/Farr)

That the Keep Hamilton Clean & Green Committee Terms of Reference, attached as Appendix "A", be approved.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

2. Citizen Committee Report respecting the Keep Hamilton Clean and Green Committee's Clean & Green Neighbourhood Grant Program Guidelines (Item 5.4)

(Nann/Farr)

That the Keep Hamilton Clean & Green Committee's Clean & Green Neighbourhood Grant Program Guidelines, attached as Appendix "A", be approved.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

3. Intersection Control List (PW20001(a)) (Wards 1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14 and 15) (Item 5.6)

(Pearson/VanderBeek)

That the appropriate By-law be presented to Council to provide traffic control as follows:

Intersection		Stop Control Direction		Class	Comments / Petition	Ward
Street 1	Street 2	Existing	Requested			
Section "A" Ancaster						
(a)	Briar Hill Crescent (north intersection)	Broad Leaf Crescent	WB	WB	A	Housekeeping – replacing Yield with Stop 12
(b)	Stonegate Drive	Briar Hill Crescent	SB	SB	A	Housekeeping – replacing Yield with Stop 12
(c)	Deervalley Road	Green Ravine Drive	WB	WB	A	Housekeeping – replacing Yield with Stop 12
(d)	Briar Hill Crescent (south intersection)	Broad Leaf Crescent	NB/SB	NB/SB	A	Housekeeping – replacing Yield with Stop 12
(e)	Cottonwood Court	Highvalley Road	SB	SB	A	Housekeeping – replacing Yield with Stop 12
(f)	Longfield	Broad	NB	NB	A	Housekeeping 12

Intersection		Stop Control Direction		Class	Comments / Petition	Ward
Street 1	Street 2	Existing	Requested			
	Crescent	Leaf Crescent			– replacing Yield with Stop	
(g)	Marigold Court	Longfield Crescent	WB	WB	A Housekeeping – replacing Yield with Stop	12
(h)	Briar Hill Crescent	Longfield Crescent	SB	SB	A Housekeeping – replacing Yield with Stop	12
(i)	Bailey Ave	Haig Road	EB	NB	A Housekeeping – replacing Yield with Stop	12
(j)	Haig Road	Massey Drive	WB	WB	A Housekeeping – replacing Yield with Stop	12
(k)	Alexander Road	Massey Drive	WB	WB	A Housekeeping – replacing Yield with Stop	12
(l)	Mewburn Road	Alexander Road	NB	NB	A Housekeeping – replacing Yield with Stop	12
Section “B” Dundas						
(m)	Knollwood Court	Ridgewood Boulevard	NC	NB	A Housekeeping – no stop control	13
(n)	Zeldin Place	Ridgewood Boulevard	NC	SB	A Housekeeping – no stop control	13
(o)	Elizabeth Court	Highland Park Drive	NC	SB	A Housekeeping – no stop control	13
(p)	Ivy Court	Ann Street	NC	SB	A Housekeeping – no stop control	13
(q)	Queen Street	Victoria Street	NC	SB	A Housekeeping – no stop control	13
(r)	Vilma Avenue	Shirley Street	NC	EB	A Housekeeping – no stop control	13
(s)	Vilma Avenue	David Street	NC	WB	A Housekeeping – no stop control	13

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	Intersection		Stop Control Direction		Class	Comments / Petition	Ward
	Street 1	Street 2	Existing	Requested			
(t)	Rita Street	Vilma Avenue	NC	SB	A	Housekeeping – no stop control	13
(u)	Rita Street	Bertram Drive	NC	NB	A	Housekeeping – no stop control	13
(v)	Shirley Street	Bertram Drive	NC	NB	A	Housekeeping – no stop control	13
(w)	Bertram Drive	David Street	NC	WB	A	Housekeeping – no stop control	13
(x)	Barrie Street	Bertram Drive	NC	NB	A	Housekeeping – no stop control	13
(y)	Adelaide Avenue	Desjardin Avenue	NC	WB	A	Housekeeping – no stop control	13
(z)	Normandy Place	Bertram Drive	NC	SB	A	Housekeeping – no stop control	13
(aa)	Hilltop Place	Edenbridge Court	NC	EB	A	Housekeeping – no stop control	13
(ab)	Glen Court	Pleasant Avenue	NC	SB	A	Housekeeping – no stop control	13
(ac)	Valleyview Court	Pleasant Avenue	NC	SB	A	Housekeeping – no stop control	13
(ad)	Applewood Court	Pleasant Avenue	NC	SB	A	Housekeeping – no stop control	13
(ae)	Monarch Court	Kings Gate	NC	EB	A	Housekeeping – no stop control	13
(af)	Rhodes Court	Turnbull Road	NC	NB	A	Housekeeping – no stop control	13
(ag)	Whitfield Court	Turnbull Road	NC	SB	A	Housekeeping – no stop control	13
(ah)	Four Winds Place	Autumn Leaf	NC	SB	A	Housekeeping – no stop	13

Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
		Road			control		
(ai)	Crystal Court	Autumn Leaf Road	NC	SB	A	Housekeeping – no stop control	13
(aj)	Moonglow Place	Sunrise Crescent	NC	WB	A	Housekeeping – no stop control	13
(ak)	Maid Marion Street	Sherwood Rise	NC	NB	A	Housekeeping – no stop control	13
(al)	Maid Marion Street	Robinhood Drive	NC	SB	A	Housekeeping – no stop control	13
(am)	Ancaster Street East	East Street South	NC	EB	A	Housekeeping – no stop control	13
(an)	Soble Place	Golfview Crescent	NC	SB	A	Housekeeping – no stop control	13
(ao)	Linda Court	Marion Crescent	NC	SB	A	Housekeeping – no stop control	13
(ap)	Janis Court	Marion Crescent	NC	SB	A	Housekeeping – no stop control	13
(aq)	Yorkview Place	Cammay Avenue	NC	SB	A	Housekeeping – no stop control	13
Section “C” Flamborough							
(ar)	Agro Street	Skinner Road	NC	NB	B	Plan of New Subdivision	15
(as)	Mountain Heights Place	Agro Street	NC	WB	A	Plan of New Subdivision	15
(at)	Great Falls Boulevard	Agro Street	NC	WB	B	Plan of New Subdivision	15
(au)	Great Falls Boulevard	Skinner Road	NC	NB	C	Plan of New Subdivision	15
(av)	McDonough Gardens	Agro Street	NC	EB	A	Plan of New Subdivision	15
(aw)	Westfield Crescent (north	Agro Street	NC	WB	A	Plan of New Subdivision	15

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
	intersection)						
(ax)	Westfield Crescent (south intersection)	Agro Street	NC	WB	A	Plan of New Subdivision	15
(ay)	Avanti Crescent	Agro Street	NC	EB	A	Plan of New Subdivision	15
(az)	Kenesky Drive	Agro Street	NC	WB	A	Plan of New Subdivision	15
(ba)	Kenesky Drive	Burke Street	NC	EB/WB	A	Plan of New Subdivision	15
(bb)	Kenesky Drive	Ebenezer Drive	NC	EB	A	Plan of New Subdivision	15
(bc)	Granite Ridge Trail	Kenesky Drive	NC	NB	A	Plan of New Subdivision	15
(bd)	Granite Ridge Trail	Ebenezer Drive	NC	EB/WB	A	Plan of New Subdivision	15
(be)	Granite Ridge Trail	Great Falls Boulevard	NC	NB/SB	A	Plan of New Subdivision	15
(bf)	Ebenezer Drive	Great Falls Boulevard	NC	SB	A	Plan of New Subdivision	15
(bg)	Ebenezer Drive	Skinner Road	NC	NB	B	Plan of New Subdivision	15
(bh)	Sealey Avenue	Granite Ridge Trail	NC	NB	A	Plan of New Subdivision	15
(bi)	Sealey Avenue	Great Falls Boulevard	NC	NB/SB	B	Plan of New Subdivision	15
(bj)	Sealey Avenue	Elstone Place	NC	SB	A	Plan of New Subdivision	15
(bk)	Frontier Trail	Great Falls Boulevard	NC	NB	B	Plan of New Subdivision	15
(bl)	Edworthy Gardens	Great Falls Boulevard	NC	NB	B	Plan of New Subdivision	15

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
(bm)	Edworthy Gardens	Elstone Place	NC	SB	A	Plan of New Subdivision	15
(bn)	Elstone Place	Frontier Trail	NC	WB	A	Plan of New Subdivision	15
(bo)	Zimmerman Gardens	Great Falls Boulevard	NC	NB	B	Plan of New Subdivision	15
(bp)	Zimmerman Gardens	Elstone Place	NC	SB	A	Plan of New Subdivision	15
(bq)	Trailbank Gardens	Skinner Road	NC	NB	B	Plan of New Subdivision	15
(br)	Trailbank Gardens	Great Falls Boulevard	NC	SB	B	Plan of New Subdivision	15
(bs)	Hager Creek Terrace	Trailbank Gardens	NC	WB	A	Plan of New Subdivision	15
(bt)	Hager Creek Terrace	Great Falls Boulevard	NC	EB	B	Plan of New Subdivision	15
(bu)	Silver Meadow Gardens	Trailbank Gardens	NC	WB	A	Plan of New Subdivision	15
(bv)	Silver Meadow Gardens	Hager Creek Terrace	NC	NB	A	Plan of New Subdivision	15
(bw)	Cattail Crescent (west intersection)	Great Falls Boulevard	NC	NB	B	Plan of New Subdivision	15
(bx)	Cattail Crescent (east intersection)	Great Falls Boulevard	NC	NB	B	Plan of New Subdivision	15
(by)	Valley Trail Place	Mallard Trail	NC	WB	A	Plan of New Subdivision	15
(bz)	Humphrey Street	Mallard Trail	NC	WB	A	Plan of New Subdivision	15
(ca)	Humphrey Street	Skinner Road	NC	SB	B	Plan of New Subdivision	15
(cb)	Grierson Trail	Humphrey Street	NC	NB	A	Plan of New Subdivision	15

Intersection			Stop Control Direction		Class	Comments / Petition	Ward
Street 1	Street 2	Existing	Requested				
(cc)	Grierson Trail	Skinner Road	NC	SB	B	Plan of New Subdivision	15
(cd)	Holcomb Terrace	Humphrey Street	NC	WB	A	Plan of New Subdivision	15
(ce)	Holcomb Terrace	Skinner Road	NC	SB	B	Plan of New Subdivision	15
(cf)	Pond View Gate	Skinner Road	NC	NB	B	Plan of New Subdivision	15
(cg)	Pond View Gate	Smokey Hollow Place	NC	WB	A	Plan of New Subdivision	15
(ch)	Smokey Hollow Place	Pond View Gate	NC	EB	A	Plan of New Subdivision	15
(ci)	Gardenbrook Trail	Pond View Gate	NC	WB	A	Plan of New Subdivision	15
(cj)	Gardenbrook Trail	Skinner Road	NC	NB	B	Plan of New Subdivision	15
Section "E" Hamilton							
(ck)	Aylett Street	Mapes Avenue	NC	NB	A	Housekeeping – no stop control	1
(cl)	Bartlett Avenue	Allison Crescent	NC	NB	A	Housekeeping – no stop control	8
(cm)	Angelina Place	Regent Avenue	NC	NB	A	Housekeeping – no stop control	14
(cn)	Ottaviano Drive	McIntosh Avenue	NC	EB	A	Housekeeping – no stop control	14
(co)	Vista Court	Horizon Crescent	NC	EB	A	Housekeeping – no stop control	14
(cp)	Harvard Place	Falkirk Drive	NC	EB	A	Housekeeping – no stop control	14
(cq)	Bordeaux Court	Republic Avenue	NC	EB	A	Housekeeping – no stop control	7
(cr)	Montebello Court	Bastille Street	NC	NB	A	Housekeeping – no stop control	7

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
(cs)	Anita Court	Acadia Drive	NC	EB	A	Housekeeping – no stop control	7
(ct)	Osgoode Court	Presidio Drive	SB	SB	A	Housekeeping – replacing Yield with Stop	6
(cu)	Nina Court	Ironwood Crescent	NC	SB	A	Housekeeping – no stop control	6
(cv)	Villa Court	Anna Capri Drive	NC	NB	A	Housekeeping – no stop control	6
(cw)	Tuna Court	Tunbridge Crescent	NC	EB	A	Housekeeping – no stop control	6
(cx)	Elodia Court	Susan Drive	NC	NB	A	Housekeeping – no stop control	14
(cy)	Glebe Court	Gillard Street	NC	EB	A	Housekeeping – no stop control	14
(cz)	Gillard Street	Gardiner Drive	NC	SB	A	Housekeeping – no stop control	14
(da)	Elsa Court	Greendale Drive	NC	NB	A	Housekeeping – no stop control	14
(db)	Piper Place	Fiona Crescent	NC	NB	A	Housekeeping – no stop control	8
(dc)	Fontana Court	Springvalley Crescent	NC	EB	A	Housekeeping – no stop control	8
(dd)	Saint Anthony Place	Springvalley Crescent	NC	NB	A	Housekeeping – no stop control	8
(de)	Eric Burke Court	Theodore Drive	NC	WB	A	Housekeeping – no stop control	8
(df)	Northstar Court	Milky Way Drive	NC	SB	A	Housekeeping – no stop control	6
(dg)	Morningstar Court	Milky Way	NC	SB	A	Housekeeping – no stop	6

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	Intersection		Stop Control Direction		Class	Comments / Petition	Ward
	Street 1	Street 2	Existing	Requested			
		Drive				control	
(dh)	Hugo Court	Darlington Drive	NC	SB	A	Housekeeping – no stop control	14
(di)	Valery Court	Bonaventure Drive	NC	EB	A	Housekeeping – no stop control	14
(dj)	Waldorf Court	Parkwood Crescent	NC	SB	A	Housekeeping – no stop control	7
(dk)	Fontainebleu Court	Parkwood Crescent	NC	SB	A	Housekeeping – no stop control	7
(dl)	Bogart Court	Billington Crescent	NC	EB	A	Housekeeping – no stop control	6
(dm)	Boon Court	Billington Crescent	NC	EB	A	Housekeeping – no stop control	6
(dn)	Rapallo Drive	Anson Avenue	NC	SB	A	Housekeeping – no stop control	6
(do)	Rapallo Drive	Gatineau Drive	NC	NB	A	Housekeeping – no stop control	6
(dp)	Weston Court	Anson Avenue	NC	SB	A	Housekeeping – no stop control	6
(dq)	Lamb Court	Larch Street	NC	NB	A	Housekeeping – no stop control	6
(dr)	Mansion Court	Locheed Drive	NC	SB	A	Housekeeping – no stop control	6
(ds)	Ranko Court	Artistic Boulevard	NC	EB	A	Housekeeping – no stop control	6
(dt)	Bosna Court	Summerlea Drive	NC	SB	A	Housekeeping – no stop control	6
(du)	Bethany Court	Balfour Drive	NC	WB	A	Housekeeping – no stop control	14

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Street 1	Street 2	Existing	Requested				
(dv)	Gleneagles Drive	Auchmar Road	NC	NB	A	Housekeeping – no stop control	8
(dw)	Gleneagles Drive	Braemar Place	NC	SB	A	Housekeeping – no stop control	8
(dx)	Andrew Court	Hoover Crescent	NC	WB	A	Housekeeping – no stop control	8
(dy)	Wingate Place	Warren Avenue	NC	WB	A	Housekeeping – no stop control	8
(dz)	Camille Court	Grenadier Drive	NC	WB	A	Housekeeping – no stop control	6
(ea)	Marvin Court	Grenadier Drive	NC	WB	A	Housekeeping – no stop control	6
(eb)	Barnett Court	Grenadier Drive	NC	WB	A	Housekeeping – no stop control	6
(ec)	Symon Place	Hardale Crescent	NC	EB	A	Housekeeping – no stop control	6
(ed)	Ferrara Street	Wise Crescent	NC	SB	A	Housekeeping – no stop control	6
(ef)	Elva Court	King's Forest Drive	NC	EB	A	Housekeeping – no stop control	6
(eg)	Sandra Court	King's Forest Drive	NC	EB	A	Housekeeping – no stop control	6
(eh)	Tilbury Court	King's Forest Drive	NC	EB	A	Housekeeping – no stop control	6
(ei)	Filer Court	King's Forest Drive	NC	EB	A	Housekeeping – no stop control	6
(ej)	Cecilia Court	King's Forest Drive	NC	EB	A	Housekeeping – no stop control	6
(ek)	Burns Place	East 38 th Street	NC	EB	A	Housekeeping – no stop	7

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
					control		
(el)	Patricia Place	East 38 th Street	NC	EB	A	Housekeeping – no stop control	7
(em)	Donlea Drive	Valecrest Avenue	NC	SB	A	Housekeeping – no stop control	6
(en)	Valecrest Avenue	Elmhurst Drive	NC	EB	A	Housekeeping – no stop control	6
(eo)	Henry Street	New Street	NC	WB	A	Housekeeping – no stop control	1
(ep)	Edison Street	New Street	NC	WB	A	Housekeeping – no stop control	1
(eq)	Roseland Avenue	Blake Street	NC	WB	A	Housekeeping – no stop control	3
(er)	Troy Avenue	Tate Avenue	NC	WB	A	Housekeeping – no stop control	4
(es)	Troy Avenue	Dunn Avenue	NC	EB	A	Housekeeping – no stop control	4
(et)	Admiral Place	MacLaren Avenue	NC	WB	A	Housekeeping – no stop control	4
(eu)	Keats Road	Gainsborough Road	NC	NB	A	Housekeeping – no stop control	5
(ev)	Keats Road	Old Orchard Drive	NC	SB	A	Housekeeping – no stop control	5
(ew)	Kelvin Court	Old Orchard Drive	NC	NB	A	Housekeeping – no stop control	5
(ex)	Scott Street	Gainsborough Road	NC	NB	A	Housekeeping – no stop control	5
(ey)	Blueberry Drive	Strawberry Drive	NC	EB	A	Housekeeping – no stop control	5

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Intersection			Stop Control Direction		Class	Comments / Petition	Ward
Street 1	Street 2	Existing	Requested				
(ez)	Fairholme Court	Highridge Avenue	NC	NB	A	Housekeeping – no stop control	5
(fa)	Talia Court	Janet Court	NC	NB	A	Housekeeping – no stop control	5
(fb)	Duchess Court	Oakland Drive	NC	WB	A	Housekeeping – no stop control	5
(fc)	Kings Court	Oakland Drive	NC	WB	A	Housekeeping – no stop control	5
(fd)	Queens Court	Oakland Drive	NC	WB	A	Housekeeping – no stop control	5
(fe)	Lady Court	Kenora Avenue	NC	EB	A	Housekeeping – no stop control	5
(ff)	Lord Court	Kenora Avenue	NC	EB	A	Housekeeping – no stop control	5
(fg)	Hart Place	Crawford Drive	NC	EB	A	Housekeeping – no stop control	5
(fh)	Redwood Court	Woodman Drive North	NC	EB	A	Housekeeping – no stop control	5
(fi)	Sandlyn Court	Nugent Drive	NC	EB	A	Housekeeping – no stop control	5
(fj)	Capilano Drive	Country Club Drive	NC	WB	A	Housekeeping – no stop control	5
(fk)	Alto Drive	Country Club Drive	NC	SB	A	Housekeeping – no stop control	5
(fl)	Rio Court	Alto Drive	NC	EB	A	Housekeeping – no stop control	5
(fm)	Renis Court	Sherry Lane Drive	NC	NB	A	Housekeeping – no stop control	5
(fn)	Zell Court	Sherry Lane	NC	NB	A	Housekeeping – no stop	5

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
		Drive			control		
(fo)	Sherry Lane Drive	Hildegard Drive	NC	EB	A	Housekeeping – no stop control	5
(fp)	Venus Court	Hildegard Drive	NC	WB	A	Housekeeping – no stop control	5
(fq)	Monte Court	Monte Drive	NC	EB	A	Housekeeping – no stop control	5
(fr)	Tracey Place	Blanche Court	NC	EB	A	Housekeeping – no stop control	5
(fs)	Burbank Place	Carene Avenue	NC	NB	A	Housekeeping – no stop control	5
(ft)	Bryant Court	Robroy Avenue	NC	SB	A	Housekeeping – no stop control	5
(fu)	Laura Court	Woodman Drive South	NC	EB	A	Housekeeping – no stop control	5
(fv)	Colonial Court	Rainbow Drive	NC	NB	A	Housekeeping – no stop control	5
(fw)	Isaac Court	Rainbow Drive	NC	NB	A	Housekeeping – no stop control	5
(fx)	Birkdale Place	Montgomery Drive	NC	EB	A	Housekeeping – no stop control	5
(fy)	Marantha Place	Montgomery Drive	NC	SB	A	Housekeeping – no stop control	5
(fz)	Renner Court	Brookstream Court	NC	NB	A	Housekeeping – no stop control	5
(ga)	Forest Hill Crescent	Glen Vista Drive	NC	EB	A	Housekeeping – no stop control	5
(gb)	Peace Court	Forest Hill Crescent	NC	WB	A	Housekeeping – no stop control	5

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
(gc)	Glen Castle Drive	Forest Hill Crescent	NC	NB	A	Housekeeping – no stop control	5
(gd)	Glenmurray Court	Glen Castle Drive	NC	WB	A	Housekeeping – no stop control	5
(ge)	Glencannon Drive	Glen Castle Drive	NC	WB	A	Housekeeping – no stop control	5
(gf)	Glendora Court	Glen Forest Drive	NC	EB	A	Housekeeping – no stop control	5
(gg)	Palmerston Place	St. Andrews Drive	NC	NB	A	Housekeeping – no stop control	5
(gh)	Sunbrite Court	Glen Park Court	NC	EB	A	Housekeeping – no stop control	5
(gi)	Jennifer Court	St. Andrews Drive	NC	WB	A	Housekeeping – no stop control	5
(gj)	Chardonnay Street	Webster Road	NC	SB	A	Housekeeping – no stop control	5
(gk)	Cherryridge Close	Cherryridge Close	NC	NB	A	Housekeeping – no stop control	5
(gl)	Calvert Avenue	Garland Place	NC	WB	A	Housekeeping – no stop control	5
(gm)	Cavalier Court	Nugent Drive	NC	SB	A	Housekeeping – no stop control	5
(gn)	Hounslow Court	Kentley Drive	NC	SB	A	Housekeeping – no stop control	5
(go)	Ilford Court	Kentley Drive	NC	SB	A	Housekeeping – no stop control	5
(gp)	Jason Court	Prins Avenue	NC	EB	A	Housekeeping – no stop control	5
(gq)	Dorset Place	Edgevale Road	NC	NB	A	Housekeeping – no stop	1

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
					control		
(gr)	Dungannon Place	Monteagle Court	NC	NB	A	Housekeeping – no stop control	14
(gs)	Windstar Place	Gilcrest Street	NC	WB	A	Housekeeping – no stop control	14
(gt)	Argon Court	Glenhaven Drive	NC	WB	A	Housekeeping – no stop control	14
(gu)	Lantana Court	Cranbrook Drive	NC	SB	A	Housekeeping – no stop control	14
(gv)	Sonesto Court	Trevi Road	NC	NB	A	Housekeeping – no stop control	14
(gw)	Mirella Court	Christopher Drive	NC	WB	A	Housekeeping – no stop control	8
(gx)	Seagram Place	Nova Drive	NC	SB	A	Housekeeping – no stop control	6
(gy)	Lambert Street	Lesterwood Street	NC	SB	A	Housekeeping – no stop control	7
(gz)	Lambert Street	Bellingham Drive	NC	NB	A	Housekeeping – no stop control	7
(ha)	Lisa Court	Lawnhurst Drive	NC	EB	A	Housekeeping – no stop control	7
(hb)	Irving Place	Mulock Avenue	NC	SB	A	Housekeeping – no stop control	6
(hc)	Irving Place	Sunning Hill Avenue	NC	NB	A	Housekeeping – no stop control	6
(hd)	Mulock Avenue	Rendell Boulevard	NC	WB	A	Housekeeping – no stop control	6
(he)	Green Meadow Road	Sunning Hill Avenue	NC	NB	A	Housekeeping – no stop control	6

Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
(hf)	Nancy Street	Sunning Hill Avenue	NC	NB	A	Housekeeping – no stop control	6
(hg)	Quinlan Court	Quaker Crescent	NC	SB	A	Housekeeping – no stop control	6
(hh)	Raleigh Court	Raleigh Street	NC	NB	A	Housekeeping – no stop control	6
(hi)	Galloway Court	Golden Orchard Drive	NC	WB	A	Housekeeping – no stop control	8
(hj)	Granby Court	Golden Orchard Drive	NC	NB	A	Housekeeping – no stop control	8
(hk)	Starling Drive	Bobolink Road	NC	NB	A	New development	7
(hl)	Starling Drive	Hummingbird Lane	NC	WB	A	New development	7
(hm)	Beach Road	Birmingham Street	SB	All	A	Converting to all-way stop – Clr approved	3
Section “F” Stoney Creek							
(hn)	Calvert Avenue	Alpine Avenue	NC	EB	A	Housekeeping – no stop control	5
(ho)	Kingswood Drive	Ashwood Court	NC	NB	A	Housekeeping – no stop control	10
(hp)	Vivian Street	Glenview Drive	NC	SB	A	Housekeeping – no stop control	5
(hq)	Burwell Avenue	Canterbury Avenue	NC	EB	A	Housekeeping – no stop control	5
(hr)	Canterbury Avenue	Dale Avenue	NC	NB	A	Housekeeping – no stop control	5
(hs)	Wyngate Court	Wyngate Avenue	NC	EB	A	Housekeeping – no stop control	5
(ht)	Wyngate Avenue	Alba Street	NC	SB	A	Housekeeping – no stop control	5

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Intersection			Stop Control Direction		Class	Comments / Petition	Ward
Street 1	Street 2	Existing	Requested				
(hu)	Battlefield Drive	Alba Street	NC	SB	A	Housekeeping – no stop control	5
(hv)	Lakeside Drive	Jones Road	NC	EB	A	Housekeeping – no stop control	10
(hw)	James Place	James Avenue	NC	NB	A	Housekeeping – no stop control	5
(hx)	Faircourt Place	Faircourt Drive	NC	SB	A	Housekeeping – no stop control	5
(hy)	Ada Court	Ainsworth Street	WB	WB	A	Housekeeping – replacing Yield with Stop	9
(hz)	Lyngate Court	Gerald Crescent	NB	NB	A	Housekeeping – replacing Yield with Stop	9
(ia)	Dolman Street	Isidore Place	NB	NB	A	Housekeeping – replacing Yield with Stop	9
(ib)	Slinger Crescent	Slinger Avenue	NB	NB	A	Housekeeping – replacing Yield with Stop	9
(ic)	Byron Avenue	Aubrey Avenue	EB	EB	A	Housekeeping – replacing Yield with Stop	9
(id)	Redwood Court	Teak Street	NC	SB	A	Housekeeping – no stop control	10
(ie)	Vanderwood Court	Teak Street	SB	SB	A	Housekeeping – replacing Yield with Stop	10
(if)	Lindsay Court	Oakridge Drive	NB	NB	A	Housekeeping – replacing Yield with Stop	10
(ig)	Southmeadow Crescent	Pine Drive	SB	SB	A	Housekeeping – replacing Yield with Stop	10
(ih)	Southmeadow Court	Maple Drive	SB	SB	A	Housekeeping – replacing Yield with Stop	10
(ii)	Pecan Court	Salina Place	SB	SB	A	Housekeeping – replacing	10

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Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
					Yield with Stop		
(ij)	Seville Court	Midway Street	NB	NB	A	Housekeeping – replacing Yield with Stop	10
(ik)	Vega Crescent	Morello Place	EB	EB	A	Housekeeping – replacing Yield with Stop	10
(il)	Greening Avenue	Juniper Drive	EB	EB	A	Housekeeping – replacing Yield with Stop	10
(im)	Eastbury Drive (east intersection)	Basswood Court	NB	NB	A	Housekeeping – replacing Yield with Stop	10
(in)	Glenholme Avenue	Bel-Air Avenue	WB	WB	A	Housekeeping – replacing Yield with Stop	10
(io)	Helena Avenue	Rosepark Avenue	NC	WB	A	Housekeeping – no stop control	10
(ip)	Cherrywood Drive	Piott Court	EB	EB	A	Housekeeping – replacing Yield with Stop	5
(iq)	Berkley Place	Terrace Drive	NB	NB	A	Housekeeping – replacing Yield with Stop	5
(ir)	Gemma Court	Mountain Avenue North	WB	WB	A	Housekeeping – replacing Yield with Stop	5
(is)	First Street North	Galbraith Drive	NB	NB	A	Housekeeping – replacing Yield with Stop	5
(it)	Galbraith Drive	Avalon Avenue	NB/SB	NB/SB	A	Housekeeping – replacing Yield with Stop	5
(iu)	Brandow Court	Second Street North	WB	WB	A	Housekeeping – replacing Yield with Stop	5
(iv)	Grande Avenue	Pleasant Avenue	NB	NB	A	Housekeeping – replacing Yield with Stop	5
(iw)	Grande Avenue	Orlanda Road	SB	SB	A	Housekeeping – replacing Yield with Stop	5

Intersection		Stop Control Direction		Class	Comments / Petition	Ward	
Street 1	Street 2	Existing	Requested				
(ix)	Alpine Avenue	Orlanda Road	SB	SB	A	Housekeeping – replacing Yield with Stop	5
(iy)	Bayonne Drive	Picardy Drive	NC	WB	B	New subdivision, Clr approved	9
(iz)	Talence Drive	Picardy Drive	NC	WB	B	New subdivision, Clr approved	9
(ja)	Chaumont Drive	Lormont Boulevard	NC	NB	A	New subdivision, Clr approved	9

LegendNo Control Existing (New Subdivision) - **NC**Intersection Class: **A** - Local/Local **B** - Local/Collector **C** - Collector/Collector**Result: Motion CARRIED by a vote of 10 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

4. HSR TransCab – In-House Bid Update (PW19071(a)) (Wards 5, 10 and 11) (Item 5.7)**(Pearson/Ferguson)**

That Report PW19071(a), respecting the HSR TransCab – In-House Bid Update, be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson

YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

**5. Clean and Green Hamilton Strategy 2019 Year-End Update (PW20030)
(City Wide) (Item 5.8)**

(Nann/Ferguson)

That Report PW20030, respecting the Clean and Green Hamilton Strategy 2019 Year-End Update, be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

6. Cost Recovery Using Funding Methodology for Municipal Infrastructure Extensions Policy - Owner Initiated Sanitary Sewer on Hopkins Court, Hamilton (PW20021) (Ward 13) (Item 5.9)

(VanderBeek/Pauls)

- (a) That pursuant to the City of Hamilton's "Funding Methodology for Municipal Infrastructure Extensions Policy", a full cost recovery mechanism be implemented in order to recover, for the City of Hamilton ("City"), at an estimated cost of \$215,131.09 for the construction of a municipal sanitary sewer on the following terms and conditions:
- (i) The cost of the construction of the municipal sanitary sewer is to be collected from the benefitting property owners in Appendix "B" to Report PW20021 and shall be payable immediately following the completion of construction;
 - (ii) The municipal sanitary sewer will be constructed on Hopkins Court from York Road to Ernest Street;

- (iii) The cost of the construction of the sanitary sewer will include the cost of main sewer and one (1) sanitary lateral to each benefitting property from the sanitary sewer to the property line;
- (b) That the General Manager of Finance and Corporate Services be authorized and directed to prepare the necessary full cost recovery by-law to implement subsection;
- (c) That the City Solicitor be authorized to complete the transaction on behalf of the City, including paying any necessary expenses, amending the closing, due diligence and other dates, and amending and waiving terms and conditions on such terms as the City Solicitor considers reasonable; and,
- (d) That the Mayor and City Clerk be authorized and directed to execute all necessary documents, in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

7. Windemere Road Ownership (PW20032/PED20114) (Ward 10) (Item 5.10)

(Pearson/VanderBeek)

That the City deny the petition for the City to takeover the ownership and maintenance of the Lane known as Windemere Road (East) from the Hamilton Conservation Authority and a private owner and to not dedicate the private lane as a public highway under the Municipal Act.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead

YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

8. Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting (PW19091(a)) (City Wide) (Item 7.1)

(Collins/Jackson)

That staff be directed to implement the New Real Time Public Notice Protocol for Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting.

Result: Motion CARRIED by a vote of 8 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 NOT PRESENT - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 NOT PRESENT - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

9. Postponement of Year 5 of the 10 Year Local Transit Strategy (PW14015(c)) (City Wide) (Item 7.2)

(Pearson/Pauls)

- (a) That staff be directed to postpone the implementation of Year 5 within the Council approved 10 Year Local Transit Strategy by one year to September 2021;
- (b) That staff report back to the Public Works Committee during the 2021 Transit Budget with a report on the ridership, revenue and service impacts related to the COVID-19 pandemic and post-COVID-19 pandemic recovery periods; and,
- (c) That staff report back to the Public Works Committee during the 2021 Transit Budget with a report that re-evaluates the financial plan for the remaining Years of the 10 Year Local Transit Strategy.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 NOT PRESENT - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson

YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

10. COVID-19 Recovery Phase Mobility Plan (PED20100/PW20034) (City Wide)
(Item 7.3)

(Farr/Nann)

- (a) That staff be directed to implement improvements to the City's existing cycling network focused on locations that can help capture trips normally accommodated on transit but that may be lost due to transit capacity shortfalls, including:
- (i) Implement enhanced physical separations on existing bike lanes at key locations, such as intersections, including:
 - (1) Dundurn Street (Ward 1);
 - (2) Lawrence Road (Wards 3 and 4);
 - (3) Gage Avenue (Ward 3);
 - (4) Stone Church/Paramount (Wards 6, 7, 8 and 9);
 - (5) Parkside Drive (Ward 15); and,
 - (6) other existing bike lane locations that may be identified in consultation with the Ward Councillor;
 - (ii) Implement new bike lanes or multi-use pathways in the following locations:
 - (1) Studholme Avenue (Ward 1);
 - (2) Longwood Road (Ward 1);
 - (3) Victoria Avenue between Cannon Street and Barton Street (Ward 3); and,
 - (4) Mount Albion Road (Ward 5);
 - (iii) Develop a design and implementation plan and report back to the Public Works Committee for a new bike lane or multi-use pathway on King Street utilizing the north-side lane between Breadalbane Street and Locke Street (Ward 1);
- (b) That staff, in consultation with Ward Councillors on specific locations, implement temporary traffic calming measures and signage on select residential streets that have been identified in the Cycling Master Plan as signed bike routes, in order to help to reduce traffic speeds and discourage through traffic in order to improve safety of cycling in mixed traffic;

- (c) That staff consult with the Ward Councillor and, where applicable, Business Improvement Areas (BIAs) or adjacent businesses, to review the feasibility of temporarily removing rush hour parking restrictions in the following locations, and where appropriate, utilize the provisions of Section 8 (4) of By-law No. 01-218 pertaining to temporary parking regulations, to remove the rush hour restrictions and/or no parking restrictions in order to provide for additional on-street parking capacity and pick-up/delivery capacity to support local businesses:
- (i) Barton Street, approximately between James Street and Ottawa Street (Wards 2 and 3);
 - (ii) John Street, approximately between King Street and Rebecca Street (Ward 2);
 - (iii) Catharine Street, approximately between Hunter Street and Main Street (Ward 2);
 - (iv) Ottawa Street, approximately between Main Street and Barton Street (Wards 3 and 4);
 - (v) Upper James North of Fennell Avenue (Ward 8); and,
 - (vi) Select locations on King Street approximately between Wellington Street and Gage Avenue (Wards 3 and 4);
- (d) That staff consult with the local Business Improvement Areas (BIAs) and the appropriate Ward Councillor to identify and implement the establishment of short-term pick-up and delivery zones created by re-allocating existing parking spaces in locations that will assist local businesses;
- (e) That staff consult with the local Business Improvement Areas (BIAs) and the appropriate Ward Councillor to identify locations for additional, metered on-street parking spaces that will provide additional parking to assist local businesses;
- (f) That staff leverage existing Smart Commute employer networks to assist employers with long-term telework (or remote work) planning and return-to-work plans, taking into account, potential transportation constraints such as transit capacity; and,
- (g) That all costs associated with the implementation of changes to on-street parking, which primarily consists of temporary signage and changes to meters, be funded from Parking Reserve No. 108021 with an upset limit of \$50,000.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson

NOT PRESENT - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

11. The City of Hamilton Annual Collision Report – 2019 Statistics and Trends (PW20035) (City Wide) (Item 8.1)

(Ferguson/Pauls)

That Report PW20035, respecting The City of Hamilton Annual Collision Report – 2019 Statistics and Trends, be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 NOT PRESENT - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

12. Red Hill Valley Parkway Corridor Analysis (PW20036) (City Wide) (Item 8.2)

(Whitehead/Collins)

That Report PW20036, respecting the Red Hill Valley Parkway Corridor Analysis, be received.

Result: Motion CARRIED by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

**13. Red Hill Valley Parkway Resurfacing Project Recap (PW20038) (City Wide)
(Item 8.3)****(Pearson/Whitehead)**

That Report PW20038, respecting the Red Hill Valley Parkway Resurfacing Project Recap, be received.

Result: Motion CARRIED by a vote of 11 to 0, as follows:

- YES - Ward 2 Councillor Jason Farr
- YES - Ward 3 Councillor Nrinder Nann
- YES - Vice Chair - Ward 4 Councillor Sam Merulla
- YES - Ward 5 Councillor Chad Collins
- YES - Ward 6 Councillor Tom Jackson
- YES - Ward 7 Councillor Esther Pauls
- YES - Chair - Ward 8 Councillor John-Paul Danko
- YES - Ward 14 Councillor Terry Whitehead
- YES - Ward 13 Councillor Arlene VanderBeek
- YES - Ward 12 Councillor Lloyd Ferguson
- YES - Ward 10 Councillor Maria Pearson

**14. Making Upper James Street More Pedestrian Friendly (PW20010/PED20077)
(Ward 8) (Item 8.4)****(Whitehead/Danko)**

- (a) That the following existing traffic signal equipment on Upper James Street be decommissioned and replaced with signal equipment at new locations, to cost approximately \$500,000, subject to funding approved through the 2021 Capital Budget:
- (i) Upper James Street at Brantdale Avenue Signal decommissioned and replaced by a full signal at Upper James Street at Brucedale Avenue;
 - (ii) Intersection Pedestrian Signal on Upper James Street at Churchill Avenue/ Duff Street be decommissioned and replaced by a full traffic signal on Upper James Street at Queensdale Avenue; and,
 - (iii) Upper James Street at Brantdale Avenue red light camera removed and relocated to a new location as determined and funded through the Red Light Camera program, at an estimated cost of \$25,000;
- (b) That seasonal planter boxes be installed along sections of Upper James Street north of Fennell Avenue at an estimated capital cost of \$16,000 (with an operating impact of \$6,000 per year), subject to location selection and approval of funding through the 2021 Capital and Operating Budget process; and,

- (c) That Planning and Economic Development staff initiate studies to complete a functional design and associated business case for the A-Line Priority Bus Corridor and ultimate Bus Rapid Transit Corridor at a cost of \$550,000, to be funded from Project ID 5301784707, and as part of this design, consider more extensive pedestrian and streetscape improvements.

Result: Motion CARRIED by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

15. Lincoln M. Alexander Parkway (LINC) and Red Hill Valley Parkway (RHVP) Mobility Feasibility Study (PED20063/PW18008(b)) (City Wide) (Item 8.5)

(Whitehead/Pearson)

That Report PED20063/PW18008(b), respecting the Lincoln M. Alexander Parkway (LINC) and Red Hill Valley Parkway (RHVP) Mobility Feasibility Study, be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

16. Traffic Camera Feed Sharing (PW20031) (City Wide) (Item 8.6)

(Pearson/Ferguson)

That the General Manager of Public Works or designate be authorized and directed to execute, on behalf of the City of Hamilton, any agreements necessary to formalize a partnership between the City of Hamilton and local news media

agencies to provide passive access to traffic camera video feeds, in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

17. Powell Park Tree Planting (Ward 3) (Item 9.1)

(Nann/Farr)

WHEREAS, the utility company (Hydro One) has determined that four public Norway Maple trees require removal within Powell Park due to their proximity to the overhead utility; and,

WHEREAS, the citizens of Ward 3 would like to replace the loss of canopy due to the removal of the 4 Norway Maple trees and enhance the landscape of Powell Park with seven large caliper shade trees to be implemented by the Forestry Section of the City of Hamilton;

THEREFORE, BE IT RESOLVED:

- (a) That the supply and installation of seven 80mm shade trees to the existing landscape of Powell Park at a cost of \$8,000 be funded from the Ward 3 Area Rating Discretionary account (3301909300);
- (b) That consultation with residents of Ward 3 will take place prior to the placement of seven 80mm shade trees in Powell Park; and,
- (c) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 9 to 1, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson

YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 NO - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

18. North Central Park Pedestrian Lighting Improvements (Ward 3) (Item 9.2)

(Nann/Farr)

WHEREAS, North Central Park is an active community park in Ward 3, with pathways that promote active transportation through the community;

WHEREAS, pedestrian pathway lighting exists in the majority of this park, supporting commuters and park users; and,

WHEREAS, the northwestern area of the park pathway is not currently lit, and park users would benefit with the addition of pedestrian pathway lighting;

THEREFORE, BE IT RESOLVED:

- (a) That \$20,000 be allocated from the Ward 3 Area Rating Reserve #108053, to implement new pedestrian pathway lighting along the northwestern pathway of the Park; and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 9 to 1, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 NO - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

19. Bartonville Cemetery Fencing Improvements (Ward 4) (Item 9.3)

(Merulla/Collins)

WHEREAS, Bartonville Cemetery, located at 2001 King Street East, provides an interment and memorial gathering space for Hamilton residents;

WHEREAS, the existing decorative wrought iron fencing has reached its end of life and has deteriorated beyond repair; and,

WHEREAS, the replacement of this fencing is beyond the Cemetery Section's capital budget;

THEREFORE, BE IT RESOLVED:

- (a) That \$96,000 of funding be allocated from the Ward 4 Area Rating Reserve #108054, to implement the replacement of new decorative steel fencing along the perimeter of Bartonville Cemetery; and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

20. R.T. Steele Park Redevelopment (Ward 4) (Item 9.4)

(Merulla/Farr)

WHEREAS, the R.T. Steele Park playground structure is at end of life and requires replacement in the near future;

WHEREAS, the park requires review to ensure that it is meeting the needs of the neighbourhood; and,

WHEREAS, the Ward Councillor has determined this park is a priority for improvement;

THEREFORE, BE IT RESOLVED:

- (a) That staff be directed to set up a new project id for the R.T. Steele park redevelopment project, and fund \$60,000 for design work in 2020 from the Ward 4 capital reserve 108054;

- (b) That staff be directed to include construction costs for the R.T. Steele park for consideration in the 2021 capital program, to be funded from the Ward 4 capital reserve 108054; and,
- (c) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

21. Sidewalk Repairs and Rolled Curb Replacements (Ward 5) (Item 9.5)

(Collins/Merulla)

- (a) That \$40,000 be allocated to sidewalk repairs and rolled curb replacements in Ward 5, and that the capital works be funded by utilizing the Ward 5 – 2020 Area Rating Reserve (#108055); and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

22. Corktown Park Basketball Court Improvements (Ward 2) (Item 9.6)**(Farr/Collins)**

WHEREAS, a single existing basketball court is located on the City of Hamilton Corktown Park lands at 175 Ferguson Avenue South;

WHEREAS, the basketball court was constructed and maintained by the City of Hamilton since approximately 2000; and,

WHEREAS, the basketball court is beyond its lifecycle and the community and park users would benefit from the replacement of this amenity to a new multi-use court standard;

THEREFORE, BE IT RESOLVED:

- (a) That the existing basketball court located at 175 Ferguson Avenue South, be replaced with a new standard multi-use court, at a cost of \$80,000, to be funded from the Ward 2 Area Rating Account #108054; and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents for the replacement of the existing basketball court located at 175 Ferguson Avenue South with a new standard multi-use court, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

23. Additional Funding Allocation to Sidewalk Repairs (Ward 2) (Item 9.7)**(Farr/Merulla)**

- (a) That \$30,000 be allocated to sidewalk repairs in Ward 2, and that the capital works be funded utilizing the Ward 2 Area Rating Reserve #108052, Project ID 4241909221; and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

24. Amendment to Item 8 of Public Works Committee Report 19-014, respecting Capital Improvement Projects (Ward 2) (Item 9.8)

(Farr/Merulla)

WHEREAS, at its meeting of October 9, 2019, Council approved Item 8 of the Public Works Committee Report 19-014, respecting Capital Improvement Projects (Ward 2); and,

WHEREAS, it is now necessary to broaden the scope of funding;

THEREFORE, BE IT RESOLVED:

That Item 8 (a)(i) of Public Works Committee Report 19-014, respecting Capital Improvement Projects (Ward 2), ***be amended*** as follows:

- (a) That funding for the following Capital Improvement projects, to be financed from the Ward 2 Area Rating Capital Reserve Fund (108052), be approved:
- (i) \$70,000 for ***general capital improvements*** at 125 Barton Community Hall; and,

Result: Motion CARRIED by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

25. Purchase of Complete DR-1200 Gum Removal Kit including Steam Cleaner System, Cleaning Kit & Accessories for the Downtown Business Improvement Area (BIA) (Ward 2) (Item 9.9)

(Farr/Merulla)

WHEREAS, the DR-1200 Super-heated Steam Cleaning System, manufactured by Dr. Gum Inc, delivers continuous dry super-heated steam at over 150°C / 300°F, killing 99.99% of all viruses and germs;

WHEREAS, the proprietary, non-toxic, bio-degradable and eco-friendly Dr. Gum cleaning solution was developed to emulsify a wad of gum in seconds and remove over 700 pieces of gum in per hour, from any surface;

WHEREAS, the DR-1200 can be used to address both indoor and outdoor cleaning applications and is pedestrian friendly;

WHEREAS, the DR-1200 will allow the Downtown Business Improvement Area (BIA) to perform extensive graffiti removal and sidewalk cleaning and sanitization of tables and chairs in the area; and,

WHEREAS, upon purchase of the Complete DR-1200 Gum Removal Kit from Dr. Gum Inc. by the City of Hamilton, the Downtown Business Improvement Area (BIA) will retain permanent ownership of the equipment, and be responsible for any and all operation and maintenance requirements required by the equipment;

THEREFORE, BE IT RESOLVED:

- (a) That the purchase of a Complete DR-1200 Gum Removal Kit from Dr. Gum Inc. for the Downtown Business Improvement Area (BIA), as detailed in Appendix "A", at a cost of up to \$6,000, be funded from the Ward 2 Area Rating Account #108054; and,
- (b) That the General Manager, Public Works Department, or their designate, be authorized to negotiate, enter into and execute, on behalf of the City, all necessary agreements and ancillary documents required to give effect thereto, each in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson

YES - Ward 10 Councillor Maria Pearson

26. Private Tree Giveaway (Ward 3) (Item 9.10)

(Nann/Collins)

WHEREAS, the City of Hamilton has declared a climate emergency;

WHEREAS, increasing the urban tree canopy by providing native trees for planting on private property has many environmental benefits to the residents of Ward 3 and the wider City; and,

WHEREAS, private tree giveaways are not currently funded under existing tree planting programs;

THEREFORE, BE IT RESOLVED:

- (a) The supply and distribution of approximately 200 small native trees at a cost of \$2,715 be funded from the Ward 3 Area Rating Discretionary Account (3301909300); and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 1, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 NO - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

27. Credit for HSR Pass Products Purchased for the Timeframe in which Fare Revenue Collection was Paused due to the State of Emergency (City Wide) (Added Item 9.12)

(Jackson/Nann)

WHEREAS, on March 17, 2020, the Province of Ontario declared a state of emergency pursuant to s. 7.0.1 of the Emergency Management and Civil Protection Act as a result of an outbreak of a communicable disease namely Coronavirus Disease 2019;

WHEREAS, on March 19, 2020, physical distancing measures were expanded to include rear door boarding for customers which simultaneously resulted in a pause of fare revenue collection for both conventional and para transit services;

WHEREAS, April monthly passes were available for sale through PRESTO, the vendor network and the customer service center located at Hunter GO Station with approximately 100 passes being purchased by customers before March 19, 2020;

WHEREAS, seniors in the City of Hamilton can purchase an annual pass which is valid for 12 months from date of purchase and as a result of the pause in fare revenue collection paid in full for 12 months access to transit; and,

WHEREAS, the estimated credit to be issued as per above passes is \$66,000.00;

THEREFORE, BE IT RESOLVED:

- (a) That given that April 2020 HSR monthly passes and senior annual passes were purchased with the intent to use Transit and notwithstanding the state of emergency would have been used for that purpose, that:
 - (i) Credits be issued to those customers who purchased an April 2020 monthly pass for future use on Transit; and,
 - (ii) Seniors be issued credits, for the applicable months that their Senior Annual Pass was valid during the pause of fare revenue collection, to be applied against their next Senior Annual Pass purchase.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 NOT PRESENT - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

28. Appointments to the Hamilton Cycling Committee for the 2018-2022 Term (Item 12.1)

(Nann/Farr)

That the recommendation be approved and released publicly following approval by Council.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 NOT PRESENT - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 NOT PRESENT - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

FOR INFORMATION:

(a) CHANGES TO THE AGENDA (Item 1)

The Committee Clerk advised of the following changes to the agenda:

6. WRITTEN DELEGATIONS (Item 6)

- 6.1 Written Delegation from Lynda Lukasik, Environment Hamilton, respecting Item 7.1 - Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting (PW19091(a))

Recommendation: Be received and referred to the consideration of Item 7.1.

- 6.2 Written Delegations respecting Item 7.3 – COVID-19 Recovery Phase Mobility Plan (PED20100/PW20034):

6.2(a) Viv Saunders
 6.2(b) Beatrice Ekoko, Environment Hamilton
 6.2(c) Elise Desjardins

Recommendation: Be received and referred to the consideration of Item 7.3

7. STAFF PRESENTATIONS (Item 7)

- 7.1 Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting (PW19091(a)) (City Wide) (Outstanding Business List Item)

PowerPoint presentation changed to a video presentation.

8. DISCUSSION ITEMS (Item 8)

- 8.4 Making Upper James Street More Pedestrian Friendly (PW20010/PED20077) (Ward 8) (Outstanding Business List Item)

Recommendation (a)(iv) deleted, as it is a duplication.

10. NOTICES OF MOTION (Item 10)

- 10.1 Central Composting Facility Request for Proposal Options (City Wide)
- 10.2 Credit for HSR Pass Products Purchased for the Timeframe in which Fare Revenue Collection was Paused due to the State of Emergency (City Wide)

11. GENERAL INFORMATION/OTHER BUSINESS (Item 11)

- 11.1 Amendments to the Outstanding Business List

11.1(b) Items Requiring a New Due Date:

11.1(b)(a) PRESTO Operating Agreement
Item on OBL: N
Current Due Date: April 6, 2020
Proposed New Due Date: **July 8, 2020**

CHANGE TO THE ORDER OF ITEMS:

The following item is to be considered immediately following the approval of minutes of the previous meeting:

- 7.2 Postponement of Year 5 of the 10 Year Local Transit Strategy

(Pearson/VanderBeek)

That the agenda for the June 17, 2020 Public Works Committee meeting be approved, as amended.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

NOT PRESENT - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko

NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(b) DECLARATIONS OF INTEREST (Item 2)

There were no declarations of interest.

(c) APPROVAL OF MINUTES OF THE PREVIOUS MEETING (Item 3)

(i) February 21, 2020 (Item 3.1)

(Pearson/Nann)

That the Minutes of the February 21, 2020 meeting of the Public Works Committee be approved, as presented.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

NOT PRESENT - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(d) COMMUNICATIONS (Item 4)

(Pearson/Farr)

That Communication Items 4.1 to 4.3 be approved, as presented, as follows:

(i) Correspondence from Rick Lipsitt, resigning from the Keep Hamilton Clean and Green Committee (Item 4.1)

Recommendation: Be received and that the Interview Sub-Committee to the Public Works Committee be reconvened to review original applicants for the 2018-2022 term to the Keep Hamilton Clean and Green Committee to replace the member.

(ii) Correspondence from Chuck Billingsley respecting the Installation of a Sound Barrier at Village on the Meadows Townhomes, 230 Meadowbrook Drive, Ancaster (Ward 12) (Item 4.2)

Recommendation: Be received and referred to the General Manager of Public Works for appropriate action.

(iii) Correspondence from Lakewood Beach Community Council respecting a Proposed Permanent Closure and Removal from the Truck Route Master Plan of Truck Routes on Grays Road, Frances Avenue and Drakes Drive (Ward 10) (Item 4.3)

Recommendation: Be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(e) CONSENT ITEMS (Item 5)

(i) Interview Sub-Committee to the Public Works Committee Clerk's Report - February 21, 2020 (Item 5.1)

(Pauls/VanderBeek)

That the Clerk's Report of the February 21, 2020 meeting of the Interview Sub-Committee to the Public Works Committee, be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(ii) Interview Sub-Committee to the Public Works Committee Minutes - March 4, 2020 (Item 5.2)**(Jackson/Merulla)**

That the Minutes of the March 4, 2020 meeting of the Interview Sub-Committee to the Public Works Committee, be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(iii) Hamilton Cycling Committee Minutes - January 8, 2020 (Item 5.5)**(Pauls/Farr)**

That the Minutes of the January 8, 2020 meeting of the Hamilton Cycling Committee, be received.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(f) WRITTEN DELEGATIONS (Item 6)**(Merulla/Collins)**

That Written Delegation Items 6.1 and 6.2 (a) to (c) be received and referred to the consideration of their respective items, as follows:

- (i) **Written Delegation from Lynda Lukasik, Environment Hamilton, respecting Item 7.1 - Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting (PW19091(a)) (Added Item 6.1)**

Recommendation: Be received and referred to the consideration of Item 7.1

- (ii) **Written Delegations respecting Item 7.3 - COVID-19 Recovery Phase Mobility Plan (PED20100/PW20034) (Added Item 6.2)**

- (a) **Viv Saunders (Added Item 6.2(a))**
 (b) **Beatrice Ekoko, Environment Hamilton (Added Item 6.2(b))**
 (c) **Elise Desjardins (Added Item 6.2(c))**

Recommendation: Be received and referred to the consideration of Item 7.3.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(g) STAFF PRESENTATIONS (Item 7)

- (i) **Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting (PW19091(a)) (City Wide) (Item 7.1)**

Nick Winters, Director, Water & Wastewater Operations, addressed Committee respecting Report PW19091(a), Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting, with the aid of a presentation.

The presentation can be accessed via the following link:
https://youtu.be/wT-kfir_XNo

(Pearson/Ferguson)

That the presentation, respecting Report PW19091(a), Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting, be received.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 NOT PRESENT - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

A copy of the presentation is available on the City's website at www.hamilton.ca or through the Office of the City Clerk.

For further disposition of this matter, refer to Item 8.

(ii) Postponement of Year 5 of the 10 Year Local Transit Strategy (PW14015(c)) (City Wide) (Item 7.2)

Debbie Dalle Vedove, Director, Transit (HSR), addressed Committee respecting Report PW14015(c), Postponement of Year 5 of the 10 Year Local Transit Strategy, with the aid of a presentation.

(Pauls/Pearson)

That the presentation, respecting Report PW14015(c), Postponement of Year 5 of the 10 Year Local Transit Strategy, be received.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 NOT PRESENT - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NOT PRESENT - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

A copy of the presentation is available on the City's website at www.hamilton.ca or through the Office of the City Clerk.

For further disposition of this matter, refer to Item 9.

(iii) COVID-19 Recovery Phase Mobility Plan (PED20100/PW20034) (City Wide) (Item 7.3)

Brian Hollingworth, Director, Transportation Planning and Parking, addressed Committee respecting Report PED20100/PW20034, COVID-19 Recovery Phase Mobility Plan, with the aid of a presentation.

(Collins/Pauls)

That the presentation, respecting Report PED20100/PW20034, COVID-19 Recovery Phase Mobility Plan, be received.

Result: Motion CARRIED by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

A copy of the presentation is available on the City's website at www.hamilton.ca or through the Office of the City Clerk.

For further disposition of this matter, refer to Item 10.

(Whitehead/Ferguson)

That the Public Works Committee be recessed at 12:28 p.m.

CARRIED

The Public Works Committee reconvened at 1:03 p.m.

(h) MOTIONS (Item 9)**(i) Central Composting Facility Request for Proposal Options (City Wide) (Added Item 9.11)****(Pearson/Nann)**

WHEREAS, the current contract for the operation and maintenance of the City of Hamilton's Central Composting Facility commenced in June 2006;

WHEREAS, the current operation and maintenance contract for the Central Composting Facility will expire December 31st, 2020;

WHEREAS, staff were authorized and directed to prepare and issue Request for Proposal C11-09-20 for the operation and maintenance of the Central Composting Facility under the same terms and conditions of the current contract;

WHEREAS, staff were directed to prepare and submit an in-house bid;

WHEREAS, Request for Proposal C11-09-20 was issued on May 25th, 2020 and is set to close July 20th, 2020;

WHEREAS, staff received a request from a proponent to include offsite third-party processing of organic material collected through the green bin program as an alternative proposal to Request for Proposal C11-09-20; and,

WHEREAS, a further option for the operation and maintenance of the Central Composting Facility can be considered; however it, would be a material change to recently issued Request for Proposal C11-09-20;

THEREFORE, BE IT RESOLVED:

- (a) That staff be directed to cancel Request for Proposal C11-09-20, Operation and Maintenance of the Central Composting Facility;
- (b) That staff modify Request for Proposal C11-09-20, Operation and Maintenance of the Central Composting Facility to include the option for offsite third-party processing of organic waste collected through the green bin program while operating the Central Composting Facility as a transfer station;
- (c) That staff reissue Request for Proposal C11-09-20 to obtain proposals for both the operations and maintenance of the Central Composting Facility and offsite third-party processing of organic material;
- (d) That staff still prepare and submit an in-house bid for the operation and maintenance of the Central Composting Facility; and,
- (e) That staff be directed to enter into negotiations with Maple Reinders Constructors Ltd. for the purpose of extending current contract C11-105-03 for the Operations and Maintenance of the Central Composting Facility for a time period of up to six months to allow for the re-issuing of RFP C11-09-20.

(Whitehead/Farr)

That the Motion, respecting Central Composting Facility Request for Proposal Options, be REFERRED to the June 24, 2020 meeting of Council for consideration to allow Public Works staff an opportunity to

address various concerns and questions raised by Public Works Committee members during the meeting.

Result: Motion CARRIED by a vote of 9 to 1, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 NO - Ward 6 Councillor Tom Jackson
 NOT PRESENT - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(i) NOTICES OF MOTION (Item 10)

(i) Central Composting Facility Request for Proposal Options (City Wide) (Added Item 10.1)

(Pearson/Nann)

That the Rules of Order be waived to allow for the introduction of a Motion respecting Central Composting Facility Request for Proposal Options (City Wide).

Result: Motion CARRIED by a 2/3's majority by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

For further disposition of this matter, refer to Item (h)(i).

(ii) Credit for HSR Pass Products Purchased for the Timeframe in which Fare Revenue Collection was Paused due to the State of Emergency (City Wide) (Added Item 10.2)

(Jackson/Farr)

That the Rules of Order be waived to allow for the introduction of a Motion respecting a Credit for HSR Pass Products Purchased for the Timeframe in which Fare Revenue Collection was Paused due to the State of Emergency (City Wide).

Result: Motion CARRIED by a 2/3's majority by a vote of 9 to 1, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 YES - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 NOT PRESENT - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 NO - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

For further disposition of this matter, refer to Item 27.

(j) GENERAL INFORMATION / OTHER BUSINESS (Item 11)

(i) Amendments to the Outstanding Business List (Item 11.1)

(Ferguson/Pearson)

That the following amendments to the Public Works Committee's Outstanding Business List, be approved:

- (a) Items Considered Complete and Needing to be Removed:
- (i) Waste Management System Development – Public Engagement Strategy Results and Preliminary Waste Management System Alternatives
Addressed as Item 5.4(b) of Council Minutes 20- 012 (PW16059(g))
Item on OBL: I
 - (ii) Lincoln M. Alexander Parkway (LINC) and Red Hill Valley Parkway (RHVP) Transportation and Safety Update
Addressed as Item 8.5 on today's agenda - Report PED20063/PW18008(b)
Item on OBL: AE
 - (iii) Hamilton Strategic Road Safety Program Annual Report
Addressed as Item 8.1 on today's agenda - Report PW20035
Annual reporting requirement added to Transportation

Operations & Maintenance's annual workplan, so the Outstanding Business List Item can be removed.
Item on OBL: AL

- (iv) HSR TransCab - In-House Bid for 2019 Request for Tenders (RFT)
Addressed as Item 5.7 on today's agenda – Report PW19071(a)
Item on OBL: AAG
 - (v) Modification of the Waste Collection Services Request for Proposal to Remove Winter Collection of Leaf and Yard Waste
Addressed as Item 5.4(b) of Council Minutes 20-012 (PW16059(g))
Item on OBL: AAN
 - (vi) City of Hamilton Aviary Donation Consideration
Addressed as Item 5.1(e) of Council Minutes 20-006 (PW19108(a))
Item on OBL: AAR
 - (vii) Correspondence and a Petition Containing 46 Signatures from the Residents of Windemere Road (East), Stoney Creek Requesting that the City Take Over the Ownership of Windemere Road (East) from the Hamilton Conservation Authority and a Private Owner
Addressed as Item 5.10 on today's agenda – Report PW20032/PED20114
Item on OBL: AAX
 - (viii) Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting
Partially addressed as Item 7.1 on today's agenda – Report PW19091(a). Interim report requirement of recommendation (a) and all of recommendation (b) completed. Only a portion of recommendation (a), respecting a report back detailing the results of the study, remains outstanding.
Item on OBL: AAM
 - (ix) Making Upper James Street More Pedestrian Friendly
Addressed as Item 8.4 on today's agenda – Report PW20010/PED20077
Item on OBL: E
- (b) Items Requiring a New Due Date:
- (i) PRESTO Operating Agreement
Item on OBL: N

Current Due Date: April 6, 2020
Proposed New Due Date: July 8, 2020

- (ii) To Create a Hamilton General Hospital Safety Zone
Item on OBL: U
Current Due Date: April 20, 2020
Proposed New Due Date: August 12, 2020
- (iii) Redevelopment / Reuse of the former King George
School Site, at 77 Gage Avenue North
Item on OBL: V
Current Due Date: March 2020
Proposed New Due Date: September 11, 2020
- (iv) Certificate of Recognition (COR™) Program
Item on OBL: AQ
Current Due Date: March 23, 2020
Proposed New Due Date: October 5, 2020
- (v) Operations and Maintenance of the Central Composting
Facility
Item on OBL: AV
Current Due Date: May 22, 2020
Proposed New Due Date: August 12, 2020
- (vi) Moving Hamilton Towards a Zero Plastic Waste Plan
Item on OBL: AY
Current Due Date: June 15, 2020
Proposed New Due Date: September 11, 2020
- (vii) Roadway Safety Measures on Aberdeen Avenue from
Queen Street to Longwood Road
Item on OBL: AZ
Current Due Date: June 15, 2020
Proposed New Due Date: 2021
- (viii) Sustainable Mobility Program Annual Update Item on
OBL: AAC
Current Due Date: July 2020
Proposed New Due Date: August 12, 2020
- (ix) Road Safety Review and Appropriate Measures at the York
Road and Newman Road Intersection
Item on OBL: AAE
Current Due Date: April 20, 2020
Proposed New Due Date: September 11, 2020

- (x) Theft and Vandalism Prevention in City-Owned Public Spaces
Item on OBL: AAH
Current Due Date: March 25, 2020
Proposed New Due Date: July 8, 2020
- (xi) Integration of an All Ages and Abilities Assessment into Existing and Future Cycling Infrastructure in Hamilton
Item on OBL: AAJ
Current Due Date: June 1, 2020
Proposed New Due Date: August 12, 2020
- (xii) City of Hamilton's Cemeteries Business Plan
Item on OBL: AAO
Current Due Date: March 23, 2020
Proposed New Due Date: October 19, 2020
- (xiii) Eligibility Audit of Clients Registered for DARTS
Item on OBL: AAQ
Current Due Date: Q1 2020
Proposed New Due Date: Q3 2020

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
 YES - Ward 3 Councillor Nrinder Nann
 YES - Vice Chair - Ward 4 Councillor Sam Merulla
 NOT PRESENT - Ward 5 Councillor Chad Collins
 YES - Ward 6 Councillor Tom Jackson
 YES - Ward 7 Councillor Esther Pauls
 YES - Chair - Ward 8 Councillor John-Paul Danko
 YES - Ward 14 Councillor Terry Whitehead
 YES - Ward 13 Councillor Arlene VanderBeek
 YES - Ward 12 Councillor Lloyd Ferguson
 YES - Ward 10 Councillor Maria Pearson

(k) PRIVATE AND CONFIDENTIAL (Item 12)

Committee determined that discussion of Item 12.1 was not required in Closed Session, so the item was addressed in Open Session, as follows:

(i) Appointments to the Hamilton Cycling Committee for the 2018-2022 Term (Item 12.1)

For further disposition of this matter, refer to Item 28.

(I) ADJOURNMENT (Item 13)

(Pauls/Pearson)

That there being no further business, the Public Works Committee be adjourned at 2:58 p.m.

CARRIED




Respectfully submitted,

Councillor J.P. Danko
Chair, Public Works Committee

Alicia Davenport
Legislative Coordinator
Office of the City Clerk



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Residential Encroachments onto the Pipeline Trail Corridor (PW20040/PED20122) (Ward 4)
WARD(S) AFFECTED:	Ward 4
PREPARED BY:	Jessica Brommer (905) 546-2424 Ext. 3125 Darlene Cole (905) 546-2424 Ext. 7910
SUBMITTED BY: SIGNATURE:	Craig Murdoch Director, Environmental Services Public Works Department 
SUBMITTED BY: SIGNATURE:	Norm Schleeahn Director, Economic Development Planning and Economic Development Department 
SUBMITTED BY: SIGNATURE:	Nick Winters Director, Water & Wastewater Operations, Public Works Department 

COUNCIL DIRECTION

Not Applicable

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**SUBJECT: Residential Encroachments onto the Pipeline Trail Corridor
(PW20040/PED20122) (Ward 4) - Page 2 of 8**

INFORMATION

Background

The Pipeline Trail corridor is approximately 6 kilometres in length and 20 meters in width, running from Ottawa Street at Main Street diagonally to the Woodward water/wastewater treatment plant on Woodward Avenue. This is City of Hamilton (City) owned property that contains the City's legacy water mains, which are large-diameter cast-iron pipes that were installed between 1859 and 1900.

This corridor also contains open space with an intermittent trail. On September 14, 2014, Council passed a motion to fund the Pipeline Trail Master Plan and directed staff to review opportunities for expansion of the trail and enhance the corridor. This Master Plan was completed in October of 2015.

During the Master Planning process, encroachments by adjacent homeowners onto the trail corridor were identified. Also identified were instances where homeowners are using the trail corridor for vehicular access to the side or rear yards. These issues are being evaluated for maintenance, safety, and design considerations.

Approximately 150 residential properties exist adjacent to the Pipeline Trail Corridor, and about one-third of these have some type of encroachment or safety issue.

During the Master Plan public consultation process, adjacent homeowners expressed concern that the City was going to take away what they perceive as their land, but what is in fact City land. Communications through email and a Town Hall meeting advised these residents that:

1. The land being investigated is already owned by the City of Hamilton, and no land would be expropriated;
2. Prior to implementation, Real Estate and Legal staff would need to carry out due diligence for each property, including but not limited to: property surveys, review of existing encroachment agreements (including validity at present date), and a review of safety concerns; and,
3. That these investigations were not part of the Master Planning scope.

Landscape Architectural Services, Environmental Services Division, Public Works Department has received an approved Capital Budget to implement the Master Plan recommendations for improvement and expansion of the Pipeline Trail. This has prompted the need to address encroachments and move forward with design and construction.

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**SUBJECT: Residential Encroachments onto the Pipeline Trail Corridor
(PW20040/PED20122) (Ward 4) - Page 3 of 8**

Existing Policy and Legislation

By-law 01-219, To Manage and Regulate Municipal Parks

Section 12 states that no person shall encroach upon or take possession of any park, or any part or area within a park, unless expressly authorized to do so. Where the Director determines that such an encroachment is reasonable in the circumstances and will not be detrimental to the interests of the City, an encroachment may be authorized by permit on such terms and conditions as are appropriate. It also provides for enforcement rights with respect to removing unauthorized encroachments and the collection of costs incurred by the City in respect thereof.

Municipal Act

The City is authorized to enter into license agreements for access/use pursuant to Sections 8, 9 and 10 of the Municipal Act, 2001, which further authorized the City, amongst other things, to delegate its authority and to impose fees or charges on persons for services or activities providing or done by or on behalf of it.

Delegation of Authority to Staff for Routine Real Estate Matters

In accordance with Item 21, Committee of the Whole Report 01-029, adopted by Council on September 18, 2001, and later amended by Item 10 of Report 14-016 of the General Issues Committee, City Council on August 15, 2014, approved the Delegation of Authority to staff for routine real estate matters. That approval includes delegating the authority to approve agreements with abutting homeowners and associated discharges, including but not limited to encroachments, provided that the nature of the agreement is minor as determined by the affected departments and agencies, the form of the agreement is satisfactory to the City Solicitor and all fees as may be required are paid by the applicant.

Encroachment on City Property - Policy and Procedure

In accordance with Report PW11024, adopted by Public Works Committee on April 4, 2011, the Encroachment on City Property Policy and the Encroachment on City Property Procedure were approved. The policy established terms and conditions upon which the City may entertain agreements to permit encroachments in, on, under or above City property. The procedure provided a more detailed overview of the process used by Public Works staff to consider requests for encroachment agreements or for permits to allow temporary access over park lands. Approval of this report also granted the General Manager of Public Works Department authorization and direction to amend the procedure as required.

Information Reports

Information Report PW19100, Land Interests over City-owned Land (City of Hamilton, 2019) gives an overview of adverse possession (AKA "squatter's rights") as it applies to city owned land. This report generally concludes that there is a very stringent legal test to advance a claim based on adverse possession over city owned lands in Ontario.

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**SUBJECT: Residential Encroachments onto the Pipeline Trail Corridor
(PW20040/PED20122) (Ward 4) - Page 4 of 8**

Analysis

The Municipal Parks By-law 01-219, Section 12, states that no person shall encroach upon any park, or any part or area within a park, without authorization.

Per the City's Encroachments on City Property Policy, the City generally discourages encroachments on City property unless applicants can prove that the encroachment:

- Is reasonable and feasible;
- No alternative options exist;
- Does not jeopardize the health or safety of the public;
- Is in the public's best interest; and,
- Is minor in nature.

Furthermore, the City's Encroachments on City Property Policy states that the City generally will not enter into an encroachment agreement in instances such as fences, open spaces, and public unassumed alleys, among others.

Based on the policy requirements above, it is not likely the existing encroachments on the Pipeline Trail corridor could be approved because they are not in the public's interest and exist on lands that are functioning as open space, and often pertain to fence encroachments. Furthermore, some encroachments are major in nature and present a health and safety risk to the primary purpose of this corridor, being a water distribution pipeline.

Therefore, an action strategy was needed to determine how encroachments were to be handled. This action strategy is set out below:

Action Strategy

Recognizing Pipeline Trail corridor encroachments exist, the City's goal is to ensure a fair tolerance of encroachments that does not impede on Hamilton Water Infrastructure, does not impact the intentions of the Master Plan, and is safe for both open space users and adjacent homeowners.

Since there are approximately 48 adjacent residential property owners encroaching along the Pipeline Trail corridor, it would take a significant amount of Legal, Real Estate, and Municipal Law Enforcement efforts to remove these encroachments and bring the properties into compliance with existing municipal legislation. As such, a new action strategy has been developed, dividing the encroaching properties into three groups based on level of encroachment, maintenance concerns, and risk to health and safety (and therefore liability risk); each category has its own separate action. This action strategy is summarized in Table 1.

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**SUBJECT: Residential Encroachments onto the Pipeline Trail Corridor
(PW20040/PED20122) (Ward 4) - Page 5 of 8**

Table 1 – Summary of Action Strategy for Pipeline Trail Encroachments

Action	Maintenance Restricted?	Encroachment?	Health and Safety Risk?	Liability Risk?
1. Removal	Yes Encroaching features block Hamilton Water maintenance access.	Yes	Yes Lands being used for private space are directly over pipes.	Yes
2. License Agreement for Access/Use	No	Yes	Yes Structures and other features built by adjacent homeowners can be unsafe.	Yes
3. Letter Notification	No	No	Yes Using City land and assets (ex. trails) in an unsafe manner (ex. driving on them).	Yes

1. Removal:

Removal will be pursued in instances where the encroachment is located directly over the water mains or where the encroachment restricts the City's ability to maintain or renew the infrastructure. Typical examples include use of the city lands for backyard or side yards, fencing, patios, decks, or sheds. Access agreements for a single-wide driveway will be permitted if the adjacent property has no right-of-way frontage, and the driveway already exists.

Removals are necessary in the above instances because:

- a. Adjacent property owners excavating or using vibratory compaction methods over the water mains risk damaging critical city water infrastructure;
- b. Adjacent property owners excavating or using vibratory compaction methods over the water main risk serious injury if the water main were to break; and,
- c. City maintenance staff requires unimpeded access to locate and repair water infrastructure. Encroaching features block views and access.

Hamilton Water staff will be on site to monitor the water mains during all removals that require excavation.

At this time, it is estimated that fewer than ten adjacent homeowners will be impacted by removals.

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**SUBJECT: Residential Encroachments onto the Pipeline Trail Corridor
(PW20040/PED20122) (Ward 4) - Page 6 of 8**

The process for removals is as follows:

- i. Hamilton Water will issue a letter notifying the adjacent property owner of the encroachment and giving them a timeline for removal including deadlines;
- ii. Geomatics will contract a registered surveyor to delineate the property line and extent of encroachments;
- iii. If the adjacent property owner does not complete removals by the required deadline, Municipal Law Enforcement will issue a ticket/fine and a second deadline will be set; and,
- iv. If the adjacent property owner does not complete removals by the second deadline, Hamilton Water will hire a contractor to complete the removals. This work will be charged to the resident via their property taxes.

2. License Agreement for Access/Use:

License agreements for access/use will be pursued in instances where the existing encroachment is not directly over the City's water mains and City maintenance of infrastructure is not restricted by encroachments. These license agreements are more robust than the encroachment agreements described in the City's Encroachments on City Property - Policy and Procedure Report (PW11024). The license agreements will include use provisions (including what existing features are covered under the license), insurance requirements, and indemnification of the City by the adjacent homeowner.

The license agreement will be registered on the adjacent homeowner's title and they will be required to insure the land they are encroaching upon.

It is highly recommended that the adjacent homeowner review insurance options and costs with their insurance provider prior to pursuing or entering into a license agreement with the City. If costs to insure the encroachment are too high, the adjacent homeowner may be inclined to remove encroachments instead of entering into a licence agreement.

It is important to note that:

- a. These license agreements will only apply to encroaching features that already exist. New encroachments are not permitted and will have to be removed.
- b. Once the encroaching features need replacement, the adjacent homeowner agrees to relocate the features on their own property (the license agreement is not in perpetuity).
- c. The City is permitted to revoke these license agreements at any time.

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**SUBJECT: Residential Encroachments onto the Pipeline Trail Corridor
(PW20040/PED20122) (Ward 4) - Page 7 of 8**

If the adjacent homeowner does not wish to enter into a license agreement with the City, the City will order the encroachments to be removed.

At this time, it is estimated that approximately 30-40 license agreements with adjacent homeowners will need to be either created or reviewed.

3. Letter Notification:

Letters will be issued in instances where the Pipeline Trail corridor is being used in an unsafe manner, but not necessarily being encroached on. For example, many adjacent homeowners drive vehicles through the Pipeline Trail corridor to the side or rear yards via the City's trail or grassed area. Such use is unexpected by trail/park users, and therefore presents a safety concern. Driving in parkland is in violation of Municipal Park's By-law 01-219 Section 32(1) and is a safety risk to pedestrians and cyclists using the Pipeline Trail corridor.

At this time, it is estimated that 15-20 letter notifications will need to be distributed to adjacent homeowners.

There are many instances along the Pipeline Trail corridor where registered encroachment agreements exist between the City and adjacent homeowners. Most of these agreements were executed in the late 1970s, when it appears there was a City initiative to do so. Existing agreements will be evaluated by Legal and Real Estate to determine if they are still applicable based on existing conditions. If new encroachments have occurred since original agreements were made, or if the existing agreements are deficient, they may have to be amended, or entirely new agreements may need to be executed. If the encroachments described in these agreements no longer exist, the agreement can be deleted from title.

Costs

Homeowners ordered to remove encroachments will incur the following costs:

- Costs to remove encroaching features (fences, trees, sheds, etc. as required by the City);
- A cost to obtain utility locates in areas of excavation; and,
- In cases where homeowners do not comply with removal requirements, any costs incurred by the City for removal of encroachments will be billed back to the homeowner.

Homeowners pursuing access/use license agreements will incur the following costs:

- A one-time \$1,500 fee to cover City Real Estate and Legal Fees (to offset the City's administrative and processing costs);

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**SUBJECT: Residential Encroachments onto the Pipeline Trail Corridor
(PW20040/PED20122) (Ward 4) - Page 8 of 8**

- Subject to staff advice, the cost to have a Reference Plan prepared by an Ontario Land Surveyor and deposited on title;
- Costs of legal services on behalf of the homeowner; and,
- Costs of insurance for the encroached upon land.

The City may incur costs as they relate to:

- The City can accommodate this work using existing Real Estate, Legal, Hamilton Water, Municipal Law Enforcement, and Environmental Services staff;
- For recommended removals, there will be a Geomatics fee of approximately \$100 - 400 per parcel (estimated total of \$1000 - \$4000 for all parcels). This fee covers background data collection and field surveying of encroachments that are to be removed. This will be paid for by the Pipeline Trail Capital Project ID No. 4241409341; and,
- Costs associated with letter/notification distribution and property title searches. This will be paid for by the Pipeline Trail Capital Project ID No. 4241409341.

Next Steps

Evaluation of encroachments across the corridor will ensure fair application of criteria, including consideration that uses do not impede Hamilton Water Infrastructure, do not impact the intent of the Master Plan, and are safe for open space users and adjacent land owners.

City staff will approach two groups first to remedy safety and encroachment concerns:

1. Owners of high-priority properties (multiple safety concerns and moderate to high levels of encroachment); and,
2. Owners of properties located in the Glow Neighbourhood, between Brampton Street and Grace Avenue (the next phase of trail development).

Owners of low- and medium-priority properties will be approached once properties in the two groups above have been addressed, and their issues rectified.


Industrial and commercial encroachments along the Pipeline Trail corridor will be addressed at a later date and are not the focus of this report.

APPENDICES AND SCHEDULES ATTACHED

N/A



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Biosolids Management Project – Woodward Wastewater Treatment Plant (PW11098(f)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Nathan Reicheld (905) 546 2424 Ext. 5259
SUBMITTED BY:	Andrew Grice Director, Hamilton Water Public Works
SIGNATURE:	

COUNCIL DIRECTION

Not Applicable

INFORMATION

The purpose of this report is to provide Council an update on the Biosolids Management Project which reached Substantial Completion on May 11, 2020. The Project has now transitioned into the Operation, Maintenance and Renewal (OMR) term to fulfill the 30-year operating agreement.

Biosolids is an organic residual from the wastewater treatment process with soil-amending attributes that include organic matter, nitrogen and phosphorus. In 2005, the City of Hamilton (City) undertook a Biosolids Master Plan (BMP) to address the challenges associated with the existing practice of land application of Class B biosolids from the Woodward Wastewater Treatment Plant. Challenges include stringent regulatory requirements, storage and land restrictions, and limited opportunity for growth.

The BMP identified Thermal Reduction as the preferred solution and an Environmental Assessment (EA) was undertaken in 2007. In 2009 the Federal Government through PPP Canada made a funding announcement in the form of an alternative procurement delivery model that the City elected to pursue. This opened the door to explore alternate technology solutions and as a result enhanced treatment technologies were added to

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SUBJECT: Biosolids Management Project – Woodward Wastewater Treatment Plant (PW11098(f)) (City Wide) - Page 2 of 4

the EA. Enhanced treatment allows for the production of a Class A biosolids with less regulatory restrictions pertaining to handling and end use.

The Biosolids Management Project (the 'Project') is a Public-Private-Partnership arrangement supported through funding from Infrastructure Canada (formerly PPP Canada) for the design, build, finance, operate and maintenance (DBFOM) of a biosolids management facility and management of the City's biosolids for a 30-year term. The City's key objectives included obtaining a long-term biosolids management program that provides cost and performance certainty, transfers appropriate risk and ensuring environmental and social sustainability.

The PPP Canada model is a multi-phased process and Council was engaged at various steps to approve the transition to next phase of the Project. Starting in December 2011 (Report PW11098), the City initiated the Biosolids Management Project by proceeding with the Phase 1 PPP Canada Funding Approval Workplan. Key activities included issuing a Request for Expression of Interest (RFEOI) and the approval of the Business Case. Phase 2 of the Project, called the Transaction Phase, was undertaken from February 2014 to January 2017. Key activities included shortlisting three Proponents through a competitive process and ultimately identifying the Preferred Proponent through a Request for Proposal (RFP) process. In January 2017 (Report PW11098(e)) Council approved the Project allowing the City to leverage federal funding and complete the long and complex procurement process. On January 27, 2017 Harbour City Solutions (HCS) was selected as the Preferred Proponent and on March 28, 2017, the City and HCS executed the DBFOM Project Agreement allowing the Project to move forward. Figure 1 has been shared with Council as part of previous reports and presentations and serves as a flow chart of the overall project process.

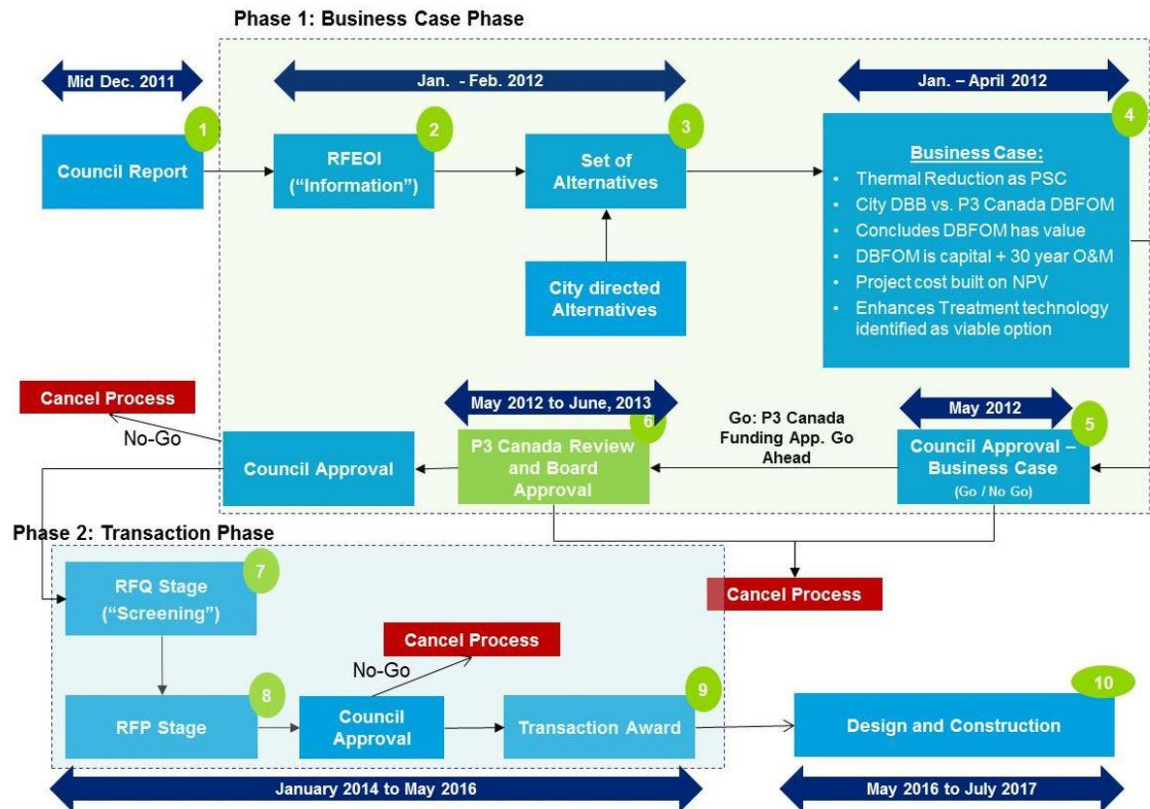
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SUBJECT: Biosolids Management Project – Woodward Wastewater Treatment Plant (PW11098(f)) (City Wide) - Page 3 of 4

Figure 1 – Biosolids Management Project Flow Chart:



From April 2017 to May 2020, HCS designed and constructed the new Biosolids Management Facility leveraging an Andritz Drum Dryer System, which allows for the drying and pelletization of biosolids that are pathogen free and can be marketed as a fertilizer and/or can be sold as an alternate energy source.

The PPP Canada delivery model allows for accelerated design and construction and the Project reached Substantial Completion on May 11, 2020. Construction photos are provided in Appendix "A" to attached to Report PW11098(f).

The Biosolids Management Project brings many environmental, social and economic benefits to the City. The installation of the thermal drying system will decrease the volume of Biosolids by approximately 75% which significantly reduces the number of trucks to haul the material off-site. Thermal drying also reduces odours which minimizes offsite impacts to residents living near the Woodward Avenue Wastewater Treatment Plant. Enhanced treatment through thermal drying provides greater market diversity such as agriculture / horticulture and the end product can be sold as fertilizer as regulated by the Canadian Food Inspection Agency (CFIA). In addition, the Project

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SUBJECT: Biosolids Management Project – Woodward Wastewater Treatment Plant (PW11098(f)) (City Wide) - Page 4 of 4

allows the City to transfer significant risk in processing and marketing of biosolids in the most efficient manner, providing fixed known cost over a 30-year period.

Financial:

The overall lifecycle investment by the City over the 30-year term is approximately \$245M, which is consistent with the approved Project budget. Upon the issuance of Substantial Completion \$26M was released to HCS as per the Project Agreement. This value represented 50% of the overall capital construction cost and \$13M of this payment was funded by Infrastructure Canada. The balance of the capital cost will be paid out over the 30-year term along with the OMR payments at an approximate cost of \$177M. The entire Project was completed on schedule and budget.

Next Steps:

HCS continues to work towards Final Completion of construction activities which includes seasonal work such as landscaping, paving and close out of final deficiencies. The City is excited to work with HCS to deliver the sustainable Biosolids Management Project for the next 30 years.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW11098(f) – Construction Photographs

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Construction Photographs

Appendix "A" to Report PW11098(f)



Figure 1: Original Biosolids/Incinerator Facility (2017)



Figure 2: Demolition of Existing Facility (2018)



Figure 3: New Biosolids/Wet Sludge Storage Silos (2018)



Figure 4: Structural Steel Construction (2019)



Figure 5: Architectural Installation (2019)



Figure 6: Dry Pellet Storage Silo Construction (2019)

Construction Photographs

Appendix "A" to Report PW11098(f)

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Figure 7: Facility Interior; Shaker Screen and Separator (2020)

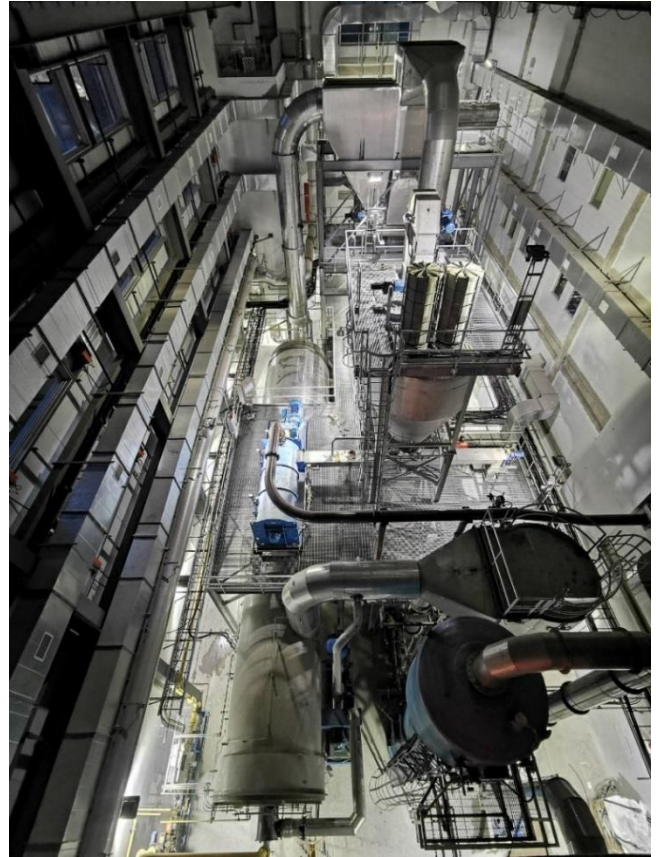


Figure 8: Aerial of Facility Interior, Process Area (2020)



Figure 9: Andritz Drum Dryer (2020)



Figure 10: Final Product, Dry Pellets

Construction Photographs

Appendix "A" to Report PW11098(f)




Figure 10: Finished Facility Exterior, North-West Elevation (2020)



Figure 11: Finished Facility Exterior, South Elevation, Product Storage Silo (2020)



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Woodward Upgrade Project Construction and Progress Update (PW20043) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Ian Routledge (905) 546 2424 Ext. 1191
SUBMITTED BY:	Andrew Grice Director, Hamilton Water Public Works
SIGNATURE:	

COUNCIL DIRECTION

Not Applicable

INFORMATION

The purpose of this report is to provide Council an update on the Woodward Upgrade Project (WUP) which is an integral part of the Clean Harbour Program. The Clean Harbour Program is a series of projects designed to have a direct impact on the health of our local environment, specifically the water quality of Hamilton Harbour (Harbour) and ultimately to support the de-listing of the Harbour as an Area of Concern with the International Joint Commission. The City of Hamilton's (City) largest investment in the Clean Harbour program is a multi-phase plan to upgrade the Woodward Wastewater Treatment Plant (Woodward WWTP). Considering that the Woodward WWTP effluent discharge is the largest single source of water flowing into the Harbour, the quality of the effluent has a direct and powerful impact on the Harbour's water quality and environmental health.

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**SUBJECT: Woodward Upgrade Project Construction and Progress Update
(PW20043) (City Wide) - Page 2 of 6**

The approximately \$380M program remains within the approved budget and despite some schedule delays, is on track to be completed within the Green Infrastructure Fund (GIF) timelines. The program is being delivered through three construction projects:

- Contract 1 – Main Pumping Station Project (MPS);
- Contract 2 – Electrical and Chlorination Project (ELU); and,
- Contract 3 – Tertiary Treatment Upgrade Project (TTU).

Construction photos of each Contract are included in Appendix “A” to attached to Report PW20043.

Contract 1 – Main Pumping Station Project:

A new main wastewater pumping station is being constructed to replace the existing pumping station. The MPS project is a \$88M contract that is being constructed by Maple Ball Joint Venture and includes the installation of 12 - 700 Hp pumps for a total firm capacity of 1700 million litres per day. Construction started in May 2017 and has surpassed its halfway point with \$61M of work performed to date, with the following key activities:

- Construction of the wet well and dry well super structures are nearing completion and precast roof panels have been installed;
- Enhancements to the wet well and distribution channels were implemented following hydraulic modelling that was conducted on the station configuration to improve flow distribution;
- The first phase of a new concrete lined tunnel interconnecting the main influent wastewater pipe to the new pump station was completed;
- Over 10,700 cubic meters of concrete has been poured along with the installation of 2,500 tonnes of structural rebar; and,
- The 12 – 700 Hp pumps were factory tested in Germany and have been installed on their support bases in the drywell of the facility.

Over the course of 2020, we will see the completion of the new MPS facility structure including completion of the building services, structural steel platforms, electrical wiring and high voltage electrical equipment installation, along with the start-up and pre-commissioning of the 12 new pumps. In 2021, the City’s wastewater collection flow will be transitioned to the new MPS station and decommissioning and demolition of the old MPS facility will have been completed.

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**SUBJECT: Woodward Upgrade Project Construction and Progress Update
(PW20043) (City Wide) - Page 3 of 6**

While construction has progressed well, the Contractor is experiencing construction delays beyond the current approved Substantial Completion date of June 2021. The City's project team is closely monitoring and looking for ways to mitigate impacts. One of the efforts undertaken by the Contractor to date to help mitigate the scheduling impact was working double shifts for an extended period of time on the forming and pouring of the station structural concrete walls.

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**SUBJECT: Woodward Upgrade Project Construction and Progress Update
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Contract 2 – Electrical and Chlorination Project:

The Electrical and Chlorination upgrades project is a \$61M contract being undertaken by Alberici Constructors that will replace the two (2) existing electrical substations and existing standby power building with a new Electrical Power Centre. Dual 13.8 kilo-volt underground distribution loop duct banks around the Wastewater and Water treatment plants and four (4) - three (3) Mega Watt diesel generators providing a total of 12 Mega Watts of emergency standby power are included in the project. The chlorination system is being upgraded to increase chlorination capacity during wet weather flows to provide full disinfection.

Construction started in October 2017 and has surpassed the 80% completion mark, with \$52M of work performed to date with the following key activities:

- Installation of over 3.7km of underground duct bank utilities and 22km of high voltage cabling has been completed;
- Factory acceptance testing and delivery of major electrical equipment, including the four (4) diesel generators, 12 main high voltage distribution switchgear and 17 electrical power transformers and placement at the site;
- Construction of the new Electrical Power Centre building, including the installation of the four (4) – three (3) Mega Watt standby generators, fuel storage tanks and the 13.8 kilo-volt main switch gear; and,
- The new Chlorine Evaporator and Chlorinators for the WWTP were installed and associated pipework including the chlorine distribution trench were completed in preparation for the WWTP disinfection season.

By the end of 2020, we will see the completion of all new 13.8 kilo-volt main and electrical distribution equipment installed, tested and energized and the Energy Power Centre commissioned. In 2021 the new Energy Power Centre will be fully operational, and the two (2) existing electrical substations and standby power building will have been decommissioned and removed.

The project is currently on track to meet the scheduled substantial completion date in June 2021.

Contract 3 – Tertiary Treatment Project:

The Tertiary Treatment Project upgrades (TTU) will have the biggest impact on water quality in Hamilton Harbour. The project adds a higher level of treatment (tertiary) to the wastewater treatment process using Disc Filtration technology. In addition, the project

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**SUBJECT: Woodward Upgrade Project Construction and Progress Update
(PW20043) (City Wide) - Page 5 of 6**

includes an increase in the capacity of the south plant secondary treatment system by doubling the size of the aeration tanks and constructing two (2) new clarifiers, new chlorine contact tank and outfall, along with Redhill Creek modifications. This project will allow us to meet the Hamilton Harbour Remediation Action Plan targets, including the provision of full nitrification for more complete ammonia removal, advanced levels of phosphorus removal, and will require the plant to operate under new environmental effluent compliance limits.

The TTU project is a \$165M construction contract that was awarded to North American Construction. Construction started in April 2019 and has reached the one (1) year anniversary, with \$35M of work performed to date with the following key activities:

- Initiated construction of the new aeration tank configuration and new secondary clarifier tank addition. In order to move forward with construction, the WWTP capacity has been temporarily reduced from 614MLD to 511MLD. This was facilitated after an extensive collaboration and discussion process with the Ministry of Environment, Climate and Parks (MECP) to gain their acceptance and approval;
- Construction of the new tertiary treatment facility began with initial concrete pours of the filter building base slab and process tank wall sections that will house the 10-disc filter units;
- Red Hill Creek modifications included widening and wildlife enhancements; and,
- Over 2,700 cubic meters of concrete has been poured along with the placement 300 tonnes of structural rebar has been installed to date.

Over the course of 2020, we will see the completion of stage one of the south plant secondary treatment process upgrade which will permit an increase in WWTP capacity to 562MLD. The WWTP capacity will remain at 562MLD until the project is complete and the full 614MLD capacity is re-established. In 2021 construction of the new disc filtration based tertiary treatment facility, chlorine contact tank and modifications to Red Hill Creek will continue.

One of the main challenges in construction to date has been the discovery of a significant amount of Polychlorinated biphenyl (PCB) hazardous soil in the vicinity of the new chlorine contact tank area that was unforeseen and not included within the construction Contract. In order to mitigate the amount of additional costs and schedule impacts, the project team, in consultation with the MECP, developed comprehensive segregation and sampling plans to separate the PCB hazardous soils from the non-hazardous soils. The City's project team is closely monitoring the situation and won't know the full cost and schedule impacts until the excavation work is complete.

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The project is currently scheduled to reach substantial completion in December 2021. However, as a result of the issues associated with discovery of the PCB hazardous soils, there may be an impact to the overall project schedule.

Next Steps:

There is a tremendous amount of effort required over the next two (2) to three (3) years as we commission new equipment, finalize construction and transition the project into operation. Staff are very proud of the collaboration and professionalism amongst all the contractors on site and want to recognize that there have been no recorded lost time injuries to date.

Additional project updates will be provided to the Public Works Committee as milestones are achieved. Additional information can be found at our website – www.hamilton.ca/cleanharbour.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20043 – Construction Photographs

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Construction Photographs



Figure 2: New Main Pumping Station



Figure 3: New Pump and Piping



Figure 1: New Main Pumping View from Top of Dry Well



Figure 4: New Electrical Power Centre



Figure 5: New 3 Mega-Watt Diesel Generator



Figure 6: New Switchgear in Electrical Power Centre



Figure 7: New Tertiary Treatment Facility Construction



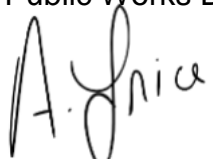
Figure 4: South Aeration Plant Expansion Construction



Figure 9: South Aeration Plant Expansion Construction



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Sewer Use By-law Program 2019 Annual Update (PW20042) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Susan Girt (905) 546-2424 Ext. 3250 Debbie Saunders (905) 546-2424 Ext.5953
SUBMITTED BY:	Andrew Grice Director, Hamilton Water Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

Not Applicable

INFORMATION

This report serves to provide an update to Committee on the progress and successes of the Sewer Use By-law Program for 2019.

Public Works Committee at its meeting of April 7, 2014, approved the new Sewer Use By-law (PW13061a), which was then subsequently enacted by Council and came into force on May 1, 2014. At the time, Hamilton Water made a commitment to provide an information report, outlining the status of the Sewer Discharge Permit Program, as well as other general Sewer Use By-law Program highlights, to the Public Works Committee on an annual basis.

The City of Hamilton's Sewer Use By-law (SUB) regulates discharges to the City of Hamilton's (City) storm, sanitary, and combined sewers from industrial, commercial and institutional (IC&I) facilities, and residential units. It also regulates the conveyance and disposal of hauled sewage. It establishes limits for common pollutants and prohibited

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**SUBJECT: Sewer Use By-law Program 2019 Annual Update
(PW20042) (City Wide) - Page 2 of 11**

substances, and details requirements that users need to meet to discharge to the City's sewer infrastructure.

The current SUB No. 14-090 is an administrative re-write from the original 1988 SUB. In 2009, the Canadian Council for Ministers of Environment (CCME) produced a new model Sewer Use By-law (CCME Model By-law) to assist municipalities with addressing sources of contaminants in wastewater and the inclusion of provisions considered "industry standards". In response, the current SUB was written by Hamilton Water and Legal Services staff to promote clarity and ease of use as well as fair and consistent administration and enforcement. The environmental impacts would be significant without regulating dischargers through enforcement of the SUB. Examples include:

- Clogged or damaged sewers and pipes;
- Risk of impairment of the sewage treatment processes;
- High nutrients contributing to eutrophication of water bodies through algal blooms;
- Heavy metals and emerging contaminants that are toxic and can bioaccumulate in the food chain; and,
- Biosolids would not meet strict provincial guidelines for land application.

The mandate of the Environmental Monitoring and Enforcement (EME) Unit in the Hamilton Water Division of Public Works is to protect the City's sewer infrastructure, wastewater treatment facilities and the natural environment by the effective administration and enforcement of SUB No. 14-090. This is achieved via the following activities and programs, an update for many of them are highlighted in this report:

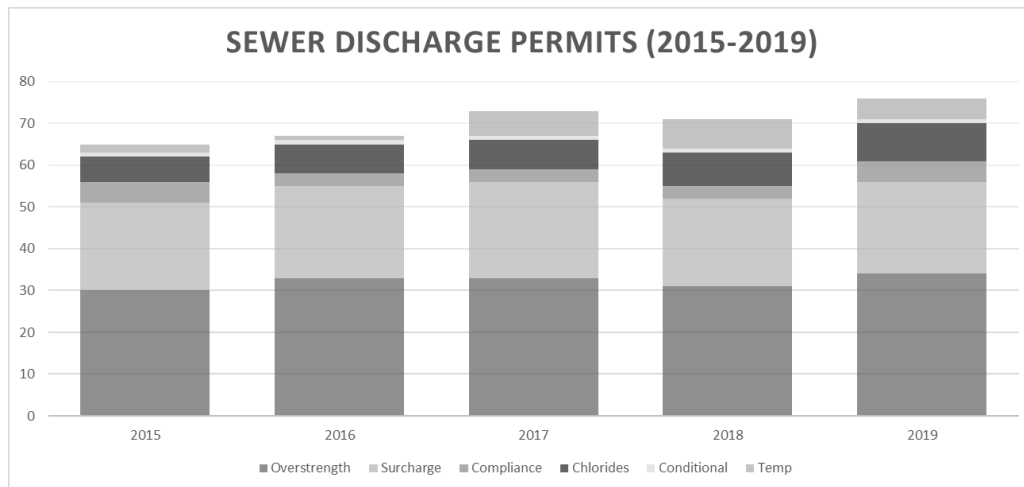
- Sewer Discharge Permitting Program;
- 24/7 Spills Response Program;
- Wastewater Abatement Program (WWAP);
- IC&I Inspection and Risk Assessments;
- Enforcement Action;
- Sampling and Monitoring;
- Hauled Sewage Monitoring Program;
- Sewer Use By-law Updates; and,
- Community Outreach.

Sewer Discharge Permitting Program

Staff administer various permit types by approving applications and processing quarterly invoices. Typically, permits are issued to IC&I facilities whose discharges do not meet the requirements of the SUB but can be treated effectively at one of the City's

**SUBJECT: Sewer Use By-law Program 2019 Annual Update
(PW20042) (City Wide) - Page 3 of 11**

wastewater treatment plants and will not adversely affect the condition of the sewer system. Permits are a regulatory tool that allow the City to apply conditions and controls to IC&I facility discharges to the sewer and recover costs associated with conveyance and treatment. There are currently six (6) different types of Permits that can be issued by an Officer, which are explained in detail below. Each discharger must apply to the City with specific details about the discharge which is assessed by EME and Plant Operations staff and only issued once all requirements are met. Except for Compliance Permits, each permit is typically issued for a three (3) year cycle. Prior to the expiry date, if a permit is still required, the discharger must re-apply. In 2019, EME managed 76 Permits vs 71 Permits the previous year.



Overstrength Permit

If a discharger cannot meet the requirements of the Sewer Use By-law for treatable parameters (BOD, TSS, phosphorus, TKN and Oil and Grease (an/veg)) they can opt to pay the City to treat their waste if they don't have real estate or expertise to install their own treatment system. In 2019 there were 34 Overstrength Permits, vs. 31 in 2018.

Surcharge Permit

If water is discharged to the sewer but has not been purchased from our potable water system, a Surcharge Permit is required to recover the cost of conveying and treating that water. In 2019 there were 22 Surcharge Permits, vs. 21 in 2018.

**SUBJECT: Sewer Use By-law Program 2019 Annual Update
(PW20042) (City Wide) - Page 4 of 11**

Compliance Permit

Provides a discharger with certain controlled exemptions to the By-law for a limited time, to plan and implement treatment works that will bring their discharge into compliance.

Once the permit expires, the discharger is continually monitored until it is verified that compliance was attained. In 2019 there were six (6) active Compliance Permits, compared to 3 in 2018.

Chlorides Permit

If a discharger cannot meet the requirements of the Sewer Use By-law for Chlorides; a Chlorides Permit lays out the necessary conditions based on a sewer impact study that the discharger is required to conduct. Also, the study will determine the life span of the sewer and the discharger may be required to pay the City to replace the sewer if it does not last its expected lifespan. In 2019, there were nine (9) Chlorides Permits, vs. eight (8) in 2018.

Conditional Permit

Controls and applies conditions to discharges from landfill leachate collection systems, or where a higher-level government authority is required. In 2019, there was one (1) Conditional Permit which is the same as 2018.

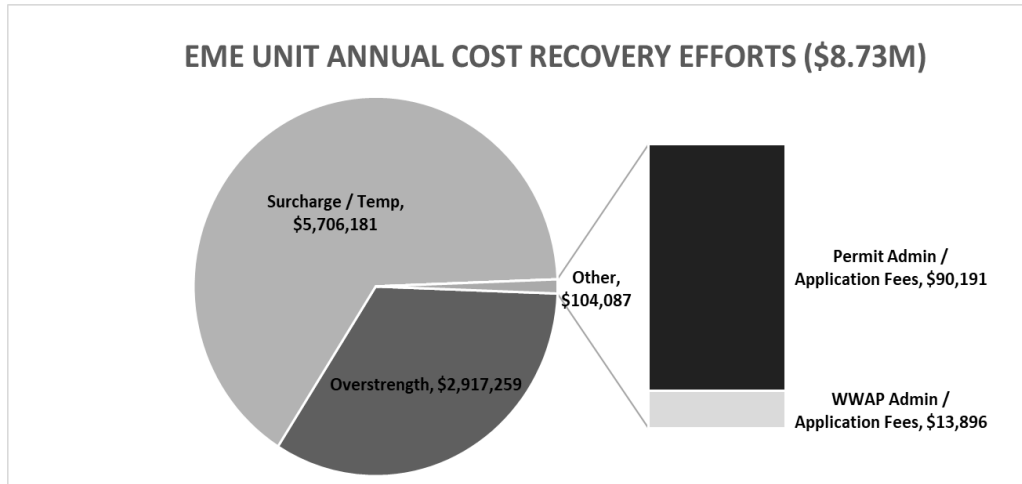
Temporary Permit

Controls and applies conditions for any of the above discharges that do not exceed a period of six (6) months – tank discharges, site excavations, etc. 2019 was a challenging year with respect to construction dewatering projects. In 2019, there were four (4) Temporary Permits vs. seven (7) in 2018.

Annual Revenue

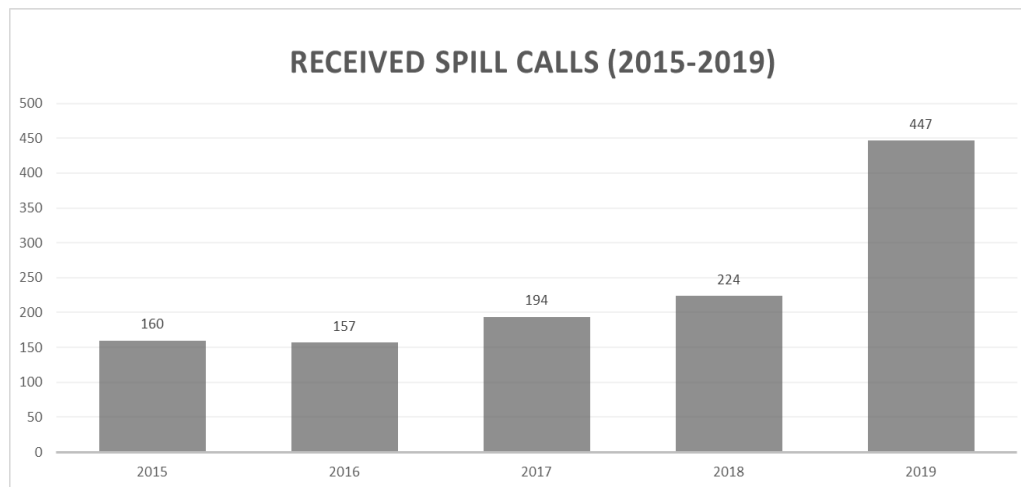
In 2019, Sewer Discharge Permits generated approximately \$8.73 million in annual revenue, which accounts for the recovery of costs associated with conveying and treating overstrength and surcharge wastewater. This includes approximately \$104,000 for permit administration, application and information request fees being invoiced. In 2019, Hatch (formerly Hatch Mott MacDonald) conducted a review of the rates applied to overstrength permits and hauled wastewaters discharged to the Woodward Avenue Wastewater Treatment Plant. Annual operation and maintenance costs were used to calculate rates for the five (5) treatable overstrength parameters. The 2020 user fees and chargers for treatment cost rates, included the information from this review. The chart below shows a breakdown of the 2019 cost recovery efforts.

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24/7 Spills Response Program

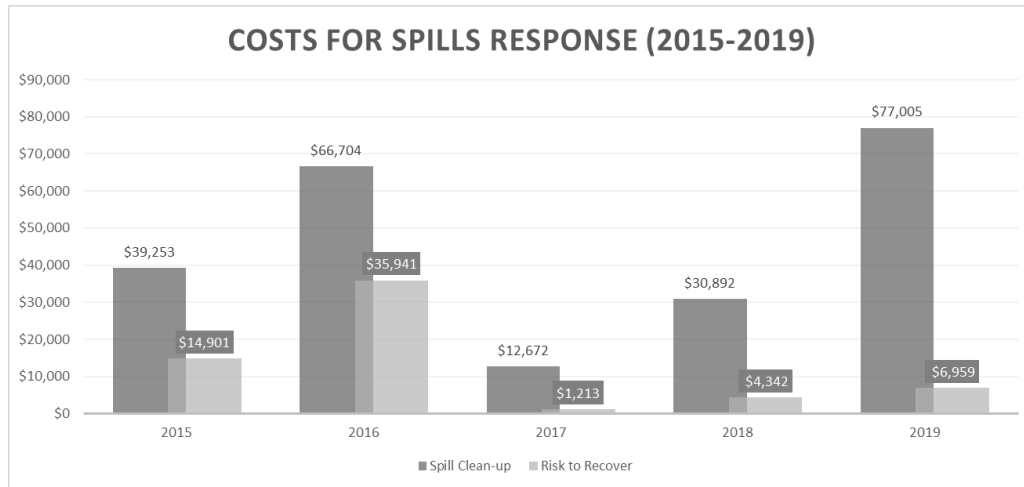
EME staff respond to spills, manage the emergency spills contract and oversee clean-up efforts. 2019 was a challenging year with a 140% increase in calls vs. the previous four (4) year average (447 vs. 184). Many of the calls received were a result of incorrect activation. Staff have worked with Customer Contact Center on scripts to ensure correct activation of City resources (Roads, Municipal Law Enforcement, Waste). Responsible parties are held accountable and EME works with the City's Risk Management Office to recover the cost of the contractor's service. In 2019, \$77,000 was spent on clean-up efforts and \$7,000 went to Risk Management for cost recovery.



Staff endeavours to ensure spills to the City's sewer infrastructure and natural environment are remediated. This includes having staff investigate the source of the spill and holding the responsible party accountable. In 2019, approximately 9% of the \$77,005 spent on spill clean-up was recovered through Risk Management. Cost

**SUBJECT: Sewer Use By-law Program 2019 Annual Update
(PW20042) (City Wide) - Page 6 of 11**

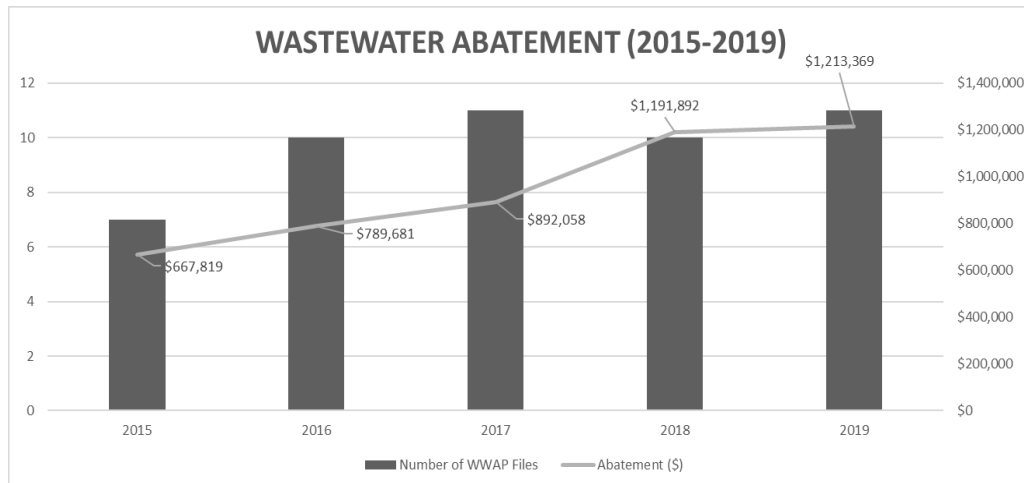
recovery efforts are continuous and, in some cases, yield results. The corporate-wide Spills Contract is written with clear, specific terms and has been in use since 2017; it was renewed for another one (1) year term starting on May 1, 2020. The spill clean-up and recovered costs are noted in the chart below.



Wastewater Abatement Program (WWAP)

The Wastewater Abatement Program allows IC&I facilities to apply for a rebate on the water that they purchased from the City's potable water supply but did not discharge at least 25% of the purchased water into the City's sewer system. This program appears to be gaining popularity and more dischargers are inquiring about it. The chart below summarizes the program statistics over the past five (5) years. The application process has become more simplified over the past few years, but certainly more rigorous in its approach. Staff have taken measures to ensure no discharger receives a rebate if they are not in compliance with the Sewer Use By-law or if they are in any type of monetary arrears to the City. A WWAP File was revoked in 2019 as a result of Sewer Use By-law non-compliance.

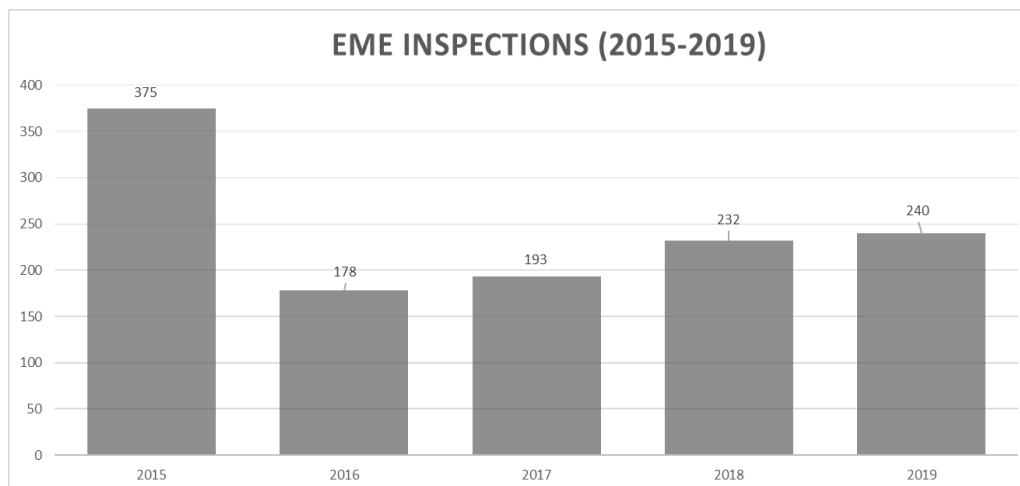
**SUBJECT: Sewer Use By-law Program 2019 Annual Update
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IC&I Inspection & Risk Assessments

In 2019, EME completed 240 inspections which includes a combination of IC&I and Pollution Prevention locations. The inspection could be a complex industrial facility or a multiunit property with a variety of business types. Once the assessment is complete, each parcel of land is assigned the appropriate risk level and a mapping module provides a visual representation of risk to the sewer system. Since the strategy was implemented, only a small portion of the map has been populated. The City has approximately 7900 non-residential dischargers and currently less than 10% of these locations have been historically assessed and are regularly monitored by EME. In 2019 EME partnered with City Lab and Mohawk College to assist with a long-term strategic solution, to improve on increasing the number of yearly risk assessments that are being done. The long-term goal is to assess all 7900 dischargers, assign a risk rating for each one, and ultimately ensure our treatment and conveyance costs are being recovered appropriately. The chart below shows the number of yearly inspections that have been done.

**SUBJECT: Sewer Use By-law Program 2019 Annual Update
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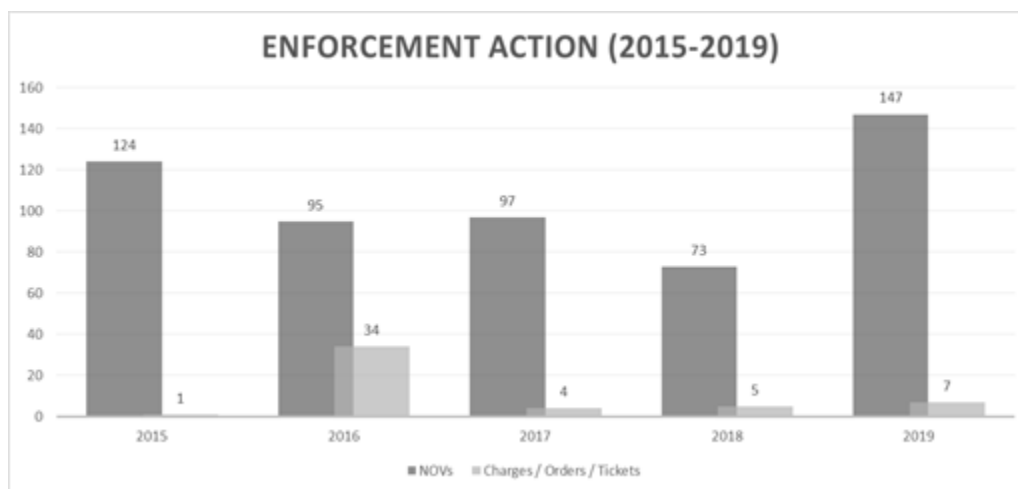
Enforcement Action

As part of the Fats, Oils and Grease (FOG) Program, EME has been visiting the restaurant and food services sector to ensure compliance. The Officer can assess whether the restaurant requires a grease control device (GCD) by completing a Risk Matrix; if needed, they are given one and a half (1.5) to two (2) years to install one. In 2019, one (1) Certificate of Offence (Part one (1)), and six (6) orders related to GCD evacuation and GCD installation were issued. Proper enforcement of this program results in less sewer maintenance costs, fewer sewer back-ups and overflows, and fewer odour complaints.

The chart below shows the enforcement action that has been taken over the past five (5) years, which includes Notice of Violations (NOV's), Part one (1) tickets, charges and orders issued by EME.

It is EME's philosophy to work with dischargers on achieving compliance, leaving enforcement action as a last resort.

**SUBJECT: Sewer Use By-law Program 2019 Annual Update
(PW20042) (City Wide) - Page 9 of 11**



Sewer Use By-law Updates

Public Works Committee at its meeting of April 1, 2019, approved the Proposed Amendments Report (PW19029), which was then subsequently approved by Council on April 10, 2019. The purpose of the report was to inform Committee of staff's intent to hold Public Information Centres regarding the outcome of the 2018 consultant's review. This high-level study consisted of a comprehensive and scientific review of the parameters and limits to ensure they are appropriate and effective for the upgrades to the Woodward Wastewater Treatment Plant. The study also supports the Hamilton Harbour Remedial Action Plan: "Urban Runoff Hamilton Harbour Report" recommendation that the SUB include a limit for total phosphorous discharged to the storm sewer. City Staff held two (2) Public Information Centres (PICs) in October 2019 to seek input from stakeholders. Both PICs were well attended and the feedback that was received on the proposed changes was supportive.

Currently, the SUB permits discharges to combined sewers, which means EME cannot enforce dewatering activities with discharges to combined sewers. Monitoring and enforcement of these discharges is important because they make their way to the Woodward Avenue Wastewater Treatment Plant and can impact combined sewer and treatment plant capacity. Staff are working with a consultant (Jacobs) for the development of a construction dewatering program and associated modifications to the existing Sewer Use By-law. Recommendations will be presented to Council in 2021 related to proposed parameter amendments to SUB 14-090 and a construction dewatering component.

**SUBJECT: Sewer Use By-law Program 2019 Annual Update
(PW20042) (City Wide) - Page 10 of 11**

Community Outreach

The odour that emanates from the decomposition of products used for the de-icing operations at the John C. Munro Hamilton International Airport has been a source of many residential complaints in the area. In 2019 the number of odour complaints has decreased significantly from the 2015- 2017 reports. We can attribute this to the steps implemented in 2018 following the community meeting held with Airport representatives, councillors and our Hamilton Water counterparts from Wastewater Collection and Customer Service and Community Outreach to address odour concerns.

Understanding odours types and potential sources, residents call the reporting lines for the Ministry of the Environment, Airport or City Spills line depending on what they are smelling. The enhanced communication plan directs the issue to the appropriate group to investigate. The Ward 11 Councillor community website is updated with City and Airport information along with direction on odour reporting to the responsible authority.

Surface Water Monitoring Program

In November 2019, the MECP issued a Provincial Order against the City under the Environmental Protection Act. A surface water monitoring program is required to support any ongoing environmental impact in Cootes Paradise and Chedoke Creek that were affected by the sewage spill. City Council approved the addition of a new position: Water Quality Technologist that is based in EME. A key deliverable will be to liaise between City and outside agencies to collaborate information and to foster ongoing communication. The person will be responsible for the planning and coordinating of a sampling program and collecting representative samples in City receiving water bodies. Data will be trended, with appropriate plans of action set up as issues arise. In addition to ongoing communication, the Water Quality Technologist will assist in the preparation of an Annual Environmental Impact Report for the various watercourses in Hamilton. They will also be available on an ongoing basis to receive and answer inquiries of a technical nature from elected officials, public, staff, consultants and government agencies. Dedicating a person to having oversight on receiving water bodies will be beneficial to our environmental monitoring program.

Conclusion

The Environmental Monitoring and Enforcement Unit continues to be recognized as leaders in the Municipal Sewer Use Enforcement industry. Staffing resources have been optimized to ensure existing wastewater sampling service levels are met to support the Permit Program and provide sampling support to the Division and others when required. Construction dewatering is another area where future demand for staffing resources is forecasted.

**SUBJECT: Sewer Use By-law Program 2019 Annual Update
(PW20042) (City Wide) - Page 11 of 11**

Over the last decade, many IC&I facilities in the City have made significant capital investments, upwards of \$50M in total, to achieve compliance with the Sewer Use By-law. The excellent work of the EME team and effective administration of the Sewer Use By-law has contributed significantly to the successful operation of the wastewater treatment plants. The quality of effluent leaving the plants, as well as that of our biosolids has been stable and much better because of this great work.


The strategic investment that City Council made almost 15 years ago by adding resources to this business unit, and support of ongoing changes to the Sewer Use By-law has been instrumental in their success. The community trusts and values the program to protect the operations of the wastewater plants and ultimately the natural environment.

APPENDICES AND SCHEDULES ATTACHED

N/A



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	2019 Annual Energy Report (PW20024) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Tom Chessman (905) 546-2424 Ext. 2494 Linda Campbell (905) 546-2424 Ext. 2810 Tracy Zmudczynski (905) 546-2424 Ext. 5356
SUBMITTED BY:	Rom D'Angelo Director, Energy, Fleet and Facilities Management Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

As part of the City's Corporate Energy Policy (PW14050) staff are directed to provide an annual energy report highlighting the progress and results of various City energy initiatives.

INFORMATION

The City of Hamilton's 2019 Annual Energy Report is attached as Appendix "A" to Report PW20024. The report provides a summary of energy usage, performance comparisons and cost savings initiatives for the calendar year 2019. Additionally, as per the Corporate Air Quality & Climate Change Strategic Plan (PED06336(a)), wherein Council recommended reporting on Greenhouse Gas Emission inventories on an annual basis, the data for 2018 calendar year are presented within the 2019 Annual Energy Report.

While this report shows the 2019 electricity, natural gas and fuel data it also shows the 2018 GHG data. The GHG data is delayed by 1 year as industry (including generators) is not obligated to report their GHG data until June of the following year, which then leads to further delays in acquiring and posting that data by the Federal Government.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: 2019 Annual Energy Report (PW20024) (City Wide) - Page 2 of 2

Once reported, the data is aggregated and processed and only then made available – usually in July or August. As a result of waiting for the 2019 GHG data, a delay of the Annual Energy report until Oct or November would be required.

Energy intensity (energy usage in equivalent kilowatt hours per square foot) is the key performance indicator for corporate buildings, and that was down 25% from the base year of 2005. The report includes updated results for the City’s overall utility costs and energy conservation project updates. The overall results of the corporate emissions inventory for 2018 was a reduction of 42% as compared to the base year of 2005.

Table 1: Energy Intensity Comparison in Equivalent kilowatt hours per Square Foot (ekWh/sqft)

Energy Intensity	2005	2018	2019	2019 vs 2005	2019 vs 2018.
City Total (ekWh/sqft)	45.69	34.13	34.34	-25%	0.6%

Table 2: Combined Energy Usage Comparison (Electricity and Natural Gas) in equivalent kilowatt hours (ekWh)

Combined Energy	2005	2018	2019	2019 vs 2005	2019 vs 2018.
Total Energy (ekWh)	400,722,256	350,049,621	356,567,857	-11%	1.9%
Total Energy Cost (\$)	27,177,303	28,580,942	28,375,511	4%	-0.7%

The City of Hamilton’s commitment to energy conservation and environmental sustainability plays an important role in supporting the City’s Strategic Plan by contributing to a prosperous and healthy community; providing valued and sustainable services; and demonstrating innovation and leadership. Ongoing success of the energy program requires engagement of all Five Values of Our Culture - Collective Ownership; Steadfast Integrity; Sensational Service; Engaged, Empowered Employees; and Courageous Change.

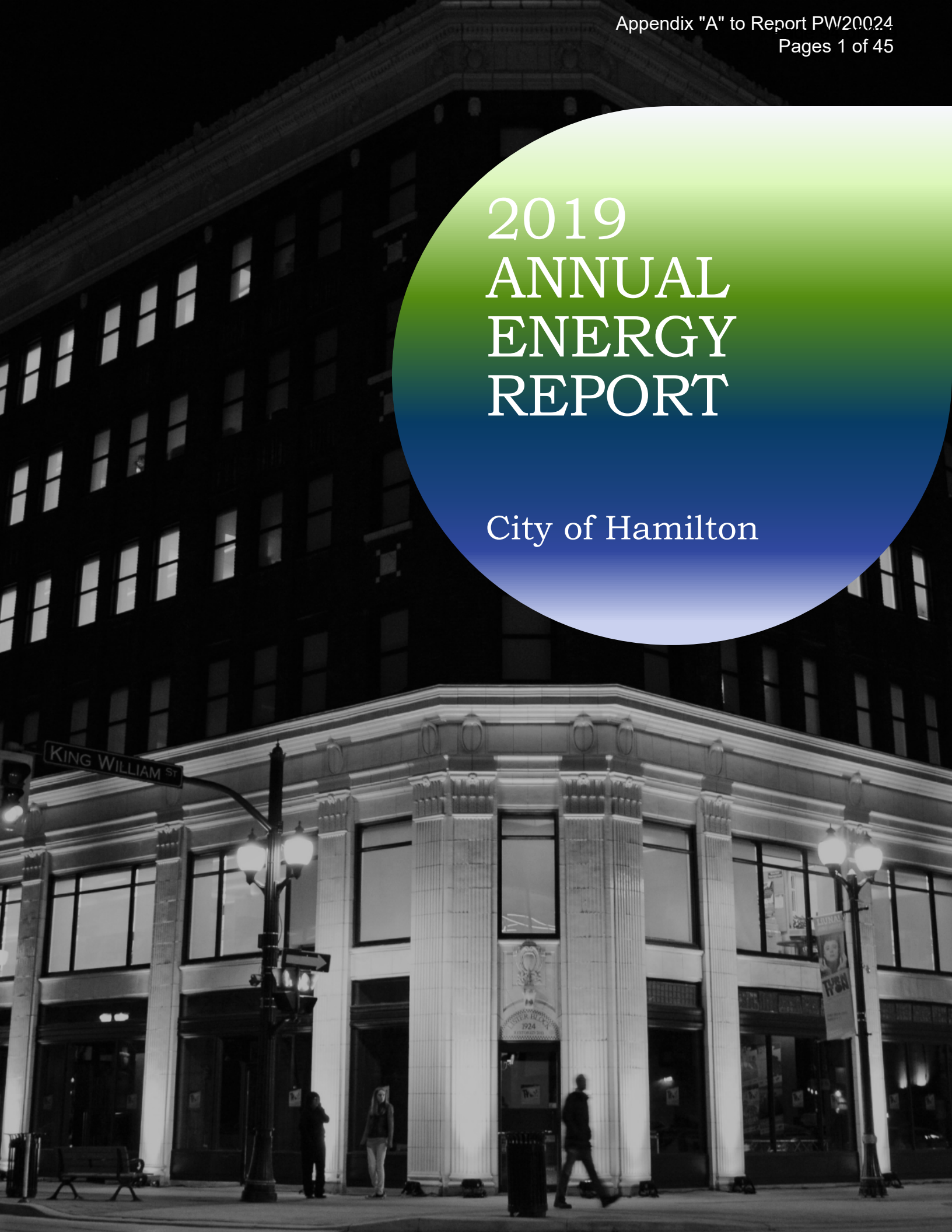
The City’s annual energy report will be posted on the City’s website once the report has been received by Council at www.hamilton.ca/energy.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20024 - 2019 Annual Energy Report

2019 ANNUAL ENERGY REPORT

City of Hamilton



2019 AT A GLANCE



**\$40.6M
SPEND ON
ENERGY IN
2019**



**CORPORATE GHG
EMISSIONS
REDUCTION OF
42%**



**ENERGY
INTENSITY
REDUCTION
OF 25%**



**CAFE
REDUCTION
OF 10%**



**25% MORE
CNG USE IN
BUSES**



**ENERGY
CONSERVATION
AND INCENTIVES
SAVINGS OF \$6.1M**



**HRPI
BENEFIT OF
\$1.2M FOR
2019**



**ENERGY STRATEGIES
AND PROGRAMS
SAVINGS & AVOIDED
COST OF \$14.5M**



**FORMATION OF
CORPORATE
CLIMATE
CHANGE TASK
FORCE**

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Introduction

The City of Hamilton has been dedicated to energy management and reporting on energy use over 14 years.

Over that time the City has maintained a commitment to managing the energy portfolio within the ever-evolving energy and regulatory environment, incorporating energy related policies and energy efficiency into project and operational decision-making and setting targets to achieve reductions in energy intensity and GHG emissions.

Hamilton's mission is to provide cost conscious public services that contribute to a healthy, safe and prosperous community in a sustainable manner. The City's ongoing management of its corporate assets through policy actions within its existing Corporate Energy Policy is one tool used to accomplish this mission, particularly as it relates to energy reduction. The declaration of a climate emergency by City council in 2019 has initiated a further focus on Greenhouse Gas emission reductions and resiliency for all of Hamilton, and how corporately, we can lay the groundwork for the City to meet its targets, reduce energy consumption and emissions and improve the City's energy portfolio overall.

Several initiatives are underway in 2020 to facilitate the meeting of energy targets and to lay framework for broader community strategies. A new Community Energy Plan is under development, the existing Corporate Energy Policy is being amended and new carbon reduction targets are considered.

Executive Summary

The report outlines the results for 2019 as it pertains to energy, including consumption and costs information, energy key performance indicators (KPI), fleet fuel consumptions and costs, conservation and demand management results. The report also details the 2018 corporate GHG emissions inventory.

There are two sets of KPIs identified within the report:

- Energy Strategies and Program KPIs
- Energy Performance KPIs

Energy Strategies and Program KPIs focus on initiatives to generate savings or avoid costs by taking action. This includes rate optimization activities, bill review, cost recovery, conservation project management and receiving incentives. The overall results are a \$14.5 million savings to the City for 2019.

Energy Performance KPIs focus on energy intensity (usage per square foot) for buildings, corporate average fuel efficiency (CAFE) (usage per 100 kilometers) for vehicles, energy usage and costs for usage. Overall the results are an energy intensity reduction of 25% compared to the base year 2005 and a CAFE reduction of 10% compared to its base year of 2012.

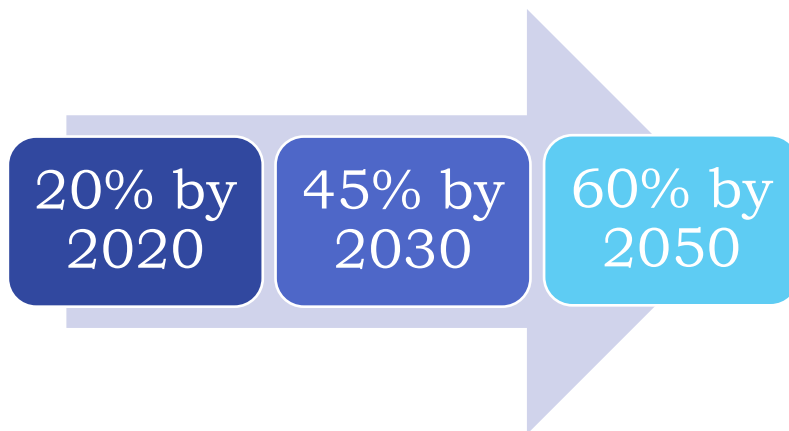
Results of these KPIs and further analysis are detailed within the report, as well as information on policy updates, regulatory impacts on usage and costs, conservation and demand management project activities, renewable energy and the GHG emissions inventory for 2018.

The overall results of the corporate emissions inventory for 2018 was a reduction of 42% as compared to the base year of 2005.

Corporate Energy Policy (CEP)

The policy as it exists today was approved by council in 2014 (PW14050). The policy is designed to act as a guideline for making energy and emissions related decisions for corporate assets and operations. The policy includes policy actions to support making building and operational improvements that lead to energy usage reductions and emissions reductions that impact the City environmentally and financially. The CEP identified targets for energy intensity reduction, greenhouse gas (GHG) emissions reductions and corporate average fuel economy (CAFE).

Figure 1: Corporate Energy Intensity Targets



Several global initiatives surrounding energy use, carbon footprint, climate impacts and resiliency have led municipalities to recognize a need for more robust policies to guide future development and operational activities within their cities. Although Hamilton has been ahead of the curve with its existing

policy to address and facilitate its corporate targets, an update to its policy is beneficial to further define its goals, targets and policy actions.

CEP Update

The CEP is currently undergoing its regularly scheduled review. The intent of the review is to better align the current energy policies to recent regulatory changes, City-wide community-based plans and the increased focus on climate change and resiliency.

Some updates to the policy are expected to include updates on building and operational standards; green fleet policy; Hamilton Water operations; and renewable energy considerations.

The targets for corporate energy intensity reductions will remain in place as identified in Figure 1 above. However, the target for reductions in GHG emissions currently in the policy are expected to be changed from 80% in 2050 to 100% by 2050. This will be confirmed when the revised policy is endorsed by council later this year.

Figure 2: Current Corporate Emissions Reduction Targets

Year	Emission Reduction & Offset Target
2020	20%
2030	50%
2050	80%

The policy aims to improve the likelihood of reaching long term targets for energy intensity reduction, CAFE reduction and emissions reductions by integrating energy usage reduction and emissions reduction actions across the organization particularly as it relates to managing physical assets and operational activities.

Energy Strategies and Program KPIs

The City has been tracking and reporting on data results for several years to evaluate the City’s performance using key indicators related to decisions specifically around energy and utilities.

Cost reductions and the avoidance of costs are a result of the impacts of a variety of energy strategies and programs. Energy conservation, incentive programs, bill recovery from reviewing utility invoices or tax rebate programs, and utility rate optimization are a few of the factors that that contribute to cost savings or mitigation of costs for the City.

Overall, the total results from implementing the various energy strategies and programs in 2019 has resulted in a \$14.5M reduction. The cumulative results since 2006 were \$92.5M and are explained in greater detail below.

Utility Rates and Commodity Strategies

This category reports the results of the electricity and natural gas costs that would have been incurred by the City had no action been initiated to reduce costs. Actions include procurement, hedging strategies and optimizing utility rates including switching rate class to increase benefits from Global Adjustment (GA) savings opportunities. The 2019 results of natural gas commodity and hedging strategies were \$770,600. The 2019 results for GA rate optimization amounted to \$7.2 million, for a total of \$8.0 million savings and avoided costs in this category.

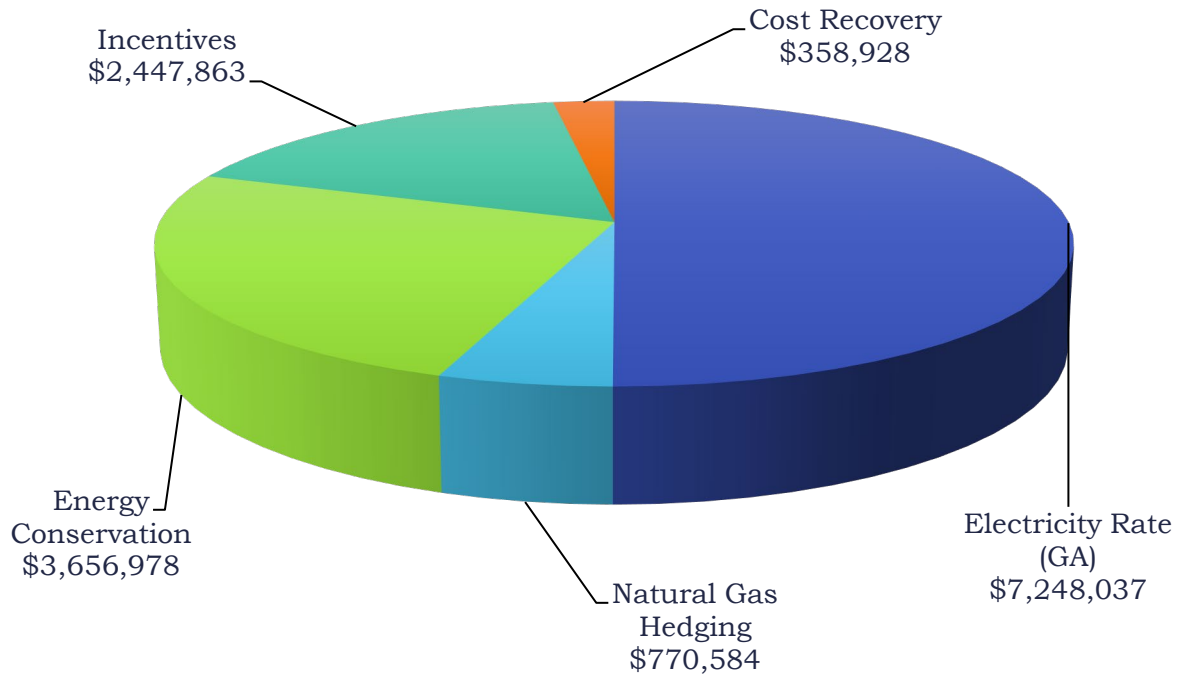
Cost Recovery

This category reports on the results of costs recovered due to the City's continuous efforts to review its utility accounts to correct any billing errors as well as recover credits from tax recovery programs. Cost recovery from billing or rate corrections in 2019 were \$358,900.

Energy Conservation and Incentive Programs

This category reports the results of the savings achieved from implementing energy efficiency measures, equipment and processes within the City's building assets that lead to reductions in energy consumption as well as financial incentives received for completing those projects. Incentives in this context refers to those from utility providers, the Independent Electricity System Operator (IESO) or provincial or federal funding options that are provided to eligible energy efficiency projects. In 2019, accumulated energy projects amounted to \$3.66 million in energy efficiency savings and the incentives received were \$2.45 million (includes \$1.87 million of street lighting incentives), with the total results in this category of \$6.1 million in 2019.

Figure 3: 2019 Breakdown of Energy Programs and Strategies



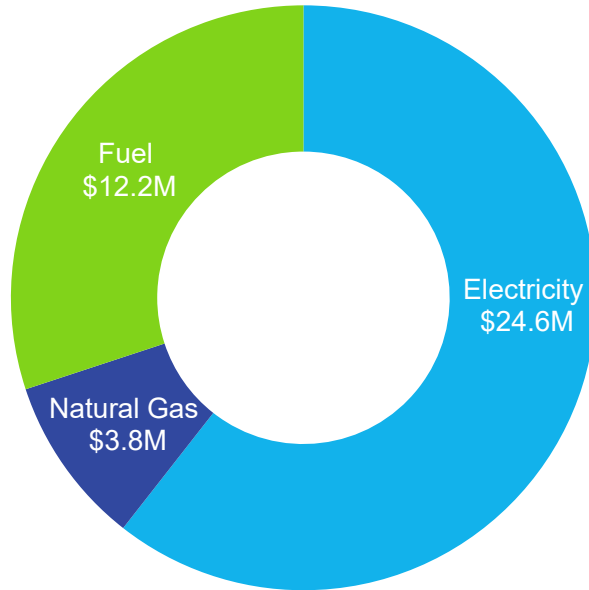
Overall Energy Costs

The City tracks costs and consumption to evaluate performance, but also to help budget for upcoming years. Costs for electricity, natural gas and fuels are compiled and measured against the previous year and compared to the baseline year of 2005. For this report, costs for sites connected to the district energy system (and supplied by HCE Energy Inc.) are included in electricity and natural gas costs.

Overall energy costs are a significant operating budget item for corporate buildings and vehicle assets. Although action to mitigate costs through completing energy efficiency projects that reduce consumption can have a positive impact on costs, costs themselves are impacted by more than usage. Regulatory changes, rate changes, inflation, global markets and weather can all impact costs despite reductions in usage. Costs for energy include regulated charges and market-based (commodity) charges.

In 2019, the total spend for consumption of electricity, natural gas and fuels (diesel, unleaded gasoline and compressed natural gas (CNG)) was \$40.6 million. This was a decrease of 2.8% from 2018.

Figure 4: Overall Energy Costs in 2019 in Millions (\$M)



Costs incurred by City-owned buildings/sites and exclude City Housing Hamilton. Utilities include Alectra Utilities, Hydro One Utilities and Enbridge Gas Inc. (formerly Union Gas Ltd). Sites linked to the district energy system with utility costs provided from HCE are included in electricity and natural gas respectively. Fuels include diesel, unleaded gasoline and CNG for all Transit and Fleet operations but does not include Hamilton Police Services or Darts. Sites with partial data may be excluded.

The year over year results are:

- Overall electricity costs were \$24.6 million in 2019 or 0.3% lower than 2018.
- Overall natural gas costs were \$3.8 million in 2019 or 3.6% lower than 2018.
- Overall fuel costs were \$12.2 million in 2019 or 7.3% lower than 2018.

The inclusion of buildings/sites included in the report may vary from year to year. In any given reporting period, buildings and vehicles could be added (built or purchased) or removed (sales or demolitions). Major renovations may decommission a site for a time and may be excluded as a full year data set may not be available. As such, square footage to include only reported sites are also adjusted.

Energy Performance KPIs

Costs alone cannot determine what might be happening within a building or across the City. As well, tracking only consumption and changes in consumption may be an indicator that costs *should* reduce or increase, but cost and consumption are influenced by several other factors that need to be considered.

Regulatory changes for both electricity and natural gas have impacted prices greatly over the past few years. After recurrent year over year increases of hydro rates, they have leveled off or reduced in the past couple of years through a variety of regulated price relief structures. Programs designed to tax emissions from fossil fuels have increased per unit costs to end-use users of natural gas and fuels.

Weather has one of the greatest impacts to consumption and costs year over year. With the increase in more extreme weather patterns emerging, hotter summers and colder winters lead to increased consumption for buildings and vehicles, with potentially higher prices, higher emissions and increased strain on energy grids.

Process and equipment improvements, changes in occupancy and programing at the buildings can further impact consumption patterns.

In the section below, we review the energy performance KPIs. Of importance is the energy intensity results, which is a KPI outlined specifically in the Corporate Energy Policy. Results in this section allow us to identify and focus on areas of concern and identify opportunities for improvement which support the City's Strategic Plan.

Electricity Consumption and Cost

Electricity is the largest energy expenditure for the City. Electricity costs themselves include charges for electrical commodity, distribution, transmission, regulatory and delivery. Hamilton is served by two local distribution companies (Alectra Utilities and Hydro One), both of which are regulated by the Ontario Energy Board. Utilities in Ontario must apply and receive approvals for any new rates, rate changes or invoice framework changes.

In 2019, electricity consumption in kilowatt hours (kWh) was on par with 2018, with a less than 1% increase in consumption overall. In addition, costs, though slightly lower were also within 1% of 2018.

Summer temperatures in 2019 were milder when compared to 2018, with 37% less cooling degree days. Cooling degree days are a measure of how much (in degrees) and for how long (in days) the outside temperature was higher than a base temperature. Cooling degree days in Ontario are high during the summer months and result in higher electricity usage during summer months. More information on the 2019 weather and degree day information is in Appendix A of this report.

Figure 5: Electricity Consumption and Cost Comparison

Electricity Overview	2005	2018	2019	Comparisons	
				2019 vs 2005	2019 vs 2018.
Total Electricity (kWh)	236,362,045	216,150,047	216,929,517	-8%	0.4%
Total Electricity (\$)	\$20,657,050	\$24,637,207	\$24,575,215	19%	-0.3%
Total Electricity (\$/kWh)	\$0.087	\$0.114	\$0.113	30%	-0.6%

Natural Gas Consumption and Cost

There is one natural gas distribution company that provides services in Hamilton, Enbridge Inc. (formerly Union Gas Ltd.). Natural gas costs comprise commodity, transportation and regulated costs for delivery and storage. Regulated costs for Enbridge Inc are also approved by the OEB.

Over the past two years, Ontario has seen some regulatory legislation that has impacted natural gas pricing. In October 2018 the Cap & Trade program was repealed by the provincial government with no replacement carbon program to address federal mandates. As Ontario lacked a comprehensive carbon reduction plan, it was subject to the Federal carbon tax program that was approved in April 2019. The charge began appearing on natural gas bills in August 2019, with approved annual increases every April. The federal plan is intended to be a funding instrument to drive emissions reduction programming but does increase the costs to heating and vehicle fuels for all Ontario consumers.

In terms of cost impact to budget, a variety of circumstances lessened the impacts of this major regulatory change for 2019 for the City. The City hedges a portion of its natural gas commodity to limit volatility and the budget was set to include the anticipated carbon-related charge, which only appeared in August of 2019, typically a time when natural gas use is at its lowest. Overall natural gas costs for 2019 were 3.6% lower than 2018.

In general, the City has benefited from relatively stable gas prices because of the disciplined hedging strategy purchases of natural gas on the wholesale

market. The per unit cost continues to reduce year over year largely due to hedging activities.

Consumption measured in cubic meters (m³) was 5.4% higher than 2018.

Weather, particularly prolonged low temperatures can impact the amount of natural gas used to heat buildings. The heating degree days, which is the measure of how much (in degrees) and for how long (in days) the outside temperature was lower than a base temperature was 1% higher than 2018 and 4% higher than the 5-year average.

Figure 6: Natural Gas Consumption and Cost Comparison

Natural Gas Overview				Comparisons	
	2005	2018	2019	2019 vs 2005	2019 vs 2018.
Total Natural Gas (m ³)	15,403,956	12,788,880	13,478,604	-12%	5.4%
Total Natural Gas (\$)	\$6,520,253	\$3,943,736	\$3,800,296	-42%	-3.6%
Total Natural Gas (\$/m ³)	\$0.423	\$0.308	\$0.282	-33%	-8.6%

Combined Consumption and Cost (Electricity & Natural Gas)

The total combined energy usage for electricity and natural gas is converted into equivalent kilowatt hours (ekWh) to compare year over year and to the base year. Consumption increased nearly 2% compared to 2018 which is in line with expectations, and costs were down almost 1%.

Figure 7: Combined Consumption and Cost Comparison (Electricity & Natural Gas)

Total Combined Energy Overview				Comparisons	
	2005	2018	2019	2019 vs 2005	2019 vs 2018.
Total Energy (ekWh)	400,722,256	350,049,621	356,567,857	-11%	1.9%
Total Energy Cost (\$)	\$27,177,303	\$28,580,942	\$28,375,511	4%	-0.7%
Total Energy (\$/ekWh)	\$0.068	\$0.082	\$0.080	17%	-2.5%

Energy Intensity (City-Owned Sites)

One of the targeted KPIs for energy performance is energy intensity. Energy intensity is the measurement of usage, converted to equivalent kilowatt hours (ekWh), per square footage (sqft) of conditioned space. Specifically, conditioned space is the usable, occupied space of the building (or sets of buildings) and not always the square footage of the entire site. An example would be the

measurement of a public building within a park. The building square footage would be used, not the square footage of the entire park. For this reason, operational usage is not included in the calculations of energy intensity. Street lighting, traffic lighting or park lighting are examples of operational usage. All use electricity but do not have a building footprint.

In addition, square footage does change with additions or deletions of City-owned sites.

Figure 8: Energy Intensity City Wide Comparison (for City-Owned Sites)

Energy Intensity			Comparisons		
	2005	2018	2019	2019 vs 2005	2019 vs 2018.
City Total (ekWh/sqft)	45.69	34.13	34.34	-25%	0.6%
City Total (\$/sqft)	\$2.67	\$2.33	\$2.37	-11%	1.7%
Reported Square Footage	5,138,852	5,708,246	5,926,831	15%	3.8%

Figure 9: Energy Intensity Comparison by Reporting Portfolio Category

Energy Intensity	ekWh/sqft			2019 vs 2005	2019 vs 2018.
	2005	2018	2019		
City/Town Halls	39.6	24.3	24.9	-37%	2%
Corporate Facilities	44.6	21.7	22.3	-50%	3%
Street Lighting	n/a	n/a	n/a	n/a	n/a
Traffic Lighting	n/a	n/a	n/a	n/a	n/a
Other City Operations	n/a	n/a	n/a	n/a	n/a
Hamilton Water	n/a	n/a	n/a	n/a	n/a
Yards	38.1	29.7	28.7	-25%	-3%
Arenas	51.3	43.3	41.9	-18%	-3%
Community/Senior Centers	31.1	24.8	24.3	-22%	-2%
Rec Centres/Pools	78.6	66.9	64.6	-18%	-3%
Tim Horton's Field	0.0	21.4	28.3	0%	32%
Rec Parks/Stadiums/Golf	36.5	31.0	30.9	-15%	0%
Lodges (Macassa, Wentworth)	113.6	43.5	45.4	-60%	4%
Culture	35.5	31.4	33.3	-6%	6%
Fire/ EMS	45.2	37.4	37.3	-17%	0%
Hamilton Public Libraries	25.2	31.4	33.0	31%	5%
First Ontario Centre	22.5	22.0	20.5	-9%	-7%
First Ontario Concert Hall	57.8	48.2	48.7	-16%	1%
Hamilton Convention Centre	37.2	32.5	30.2	-19%	-7%
Hamilton Police Services	59.8	36.4	35.1	-41%	-4%
City Wide Total	45.7	34.1	34.3	-25%	1%

Additional graphs and charts for with details for the specific reporting categories are found in the Appendix A of this document.

Vehicle Fuels

The City reports on the corporate fleet vehicles which include various vehicle types: buses, waste collection vehicles, snow removal trucks, street sweepers light weight departmental vehicles and Fire and EMS vehicles. The fuels used for these vehicles is diesel, unleaded gasoline and compressed natural gas (CNG). The performance of the fleet as it relates to its fuel usage is reported below.

Corporate Average Fuel Economy (CAFE)

One of the KPI measurement targets for fleet is to achieve an improvement in fuel consumption efficiency. That is, to reduce the amount of fuel consumed in diesel litre equivalent (DLE) per 100 kilometres of distance travelled. The long-term target is to reduce the CAFE by 20% by 2030 compared to the base year of 2012. As of 2019, there is a 10% reduction compared to the base year.

The City’s goals are to improve and manage fleet efficiency by utilizing vehicles with clean drive technology, improving operator behaviors and abiding fit-for purpose vehicle principles and City bylaws.

Figure 10: Corporate Average Fuel Economy 2019 to Base Year Comparison

Diesel Litre Equivalent (DLE) per 100 KM	BASE (2012)	2019
Unleaded Gasoline	20.7	20.1
Diesel	54.5	43.2
CNG	66.2	69.6
Total	46.2	41.6
Overall % Changed in DLE/100 KM		-10%

Data provided for the purpose of reporting on fuel analytics, such as mileage and usage for CAFE are based on data collected by Fleet. Improvements in data collection is pertinent to accurately tracking the usage and mileage of vehicle operators. With fueling stations throughout the City, managing the data continues to be an identified area of concern.

Fuel Consumption and Cost

Fuel for the City’s fleet of vehicles is purchased on wholesale markets. This allows for economies of scale around bulk purchasing. Most of the vehicles are fueled by diesel and unleaded gasoline. However, Transit continues to expand its fleet of CNG-fueled buses as direct replacements for diesel-fueled buses, so requirements of diesel have reduced year over year and CNG purchases have increased.

In 2019, the City used 8.6 million litres of diesel fuel, a 6% reduction from 2018. The City used 2.4 million litres of gasoline, a 5% increase over 2018. However, average per litre cost for both diesel and gasoline decreased by 7% and 6% respectively.

CNG usage increased by 25% overall, with a total of 6.4 million diesel litre equivalent.

Figure 11: Fuel Consumption and Costs 2019

Fuel Type	Consumption Litres	Cost	Average \$/L
Diesel	8,595,617	\$8,478,640	\$0.99
Unleaded Gasoline	2,364,574	\$2,357,059	\$1.00
CNG (DLE)	6,388,918	\$1,366,874	\$0.21
Total	17,349,109	\$12,202,573	

CNG is a lower cost fuel for buses compared to diesel and gasoline, but they do operate at approximately 75% efficiency per DLE when compared to diesel fueled buses. However, despite a lower fuel efficiency, when converted to diesel equivalent dollars and adjusted for efficiency, Transit spent \$3.29 million less running their fleet of CNG buses than they would have only using diesel buses. In addition, the lower GHG emissions from using CNG fuel versus diesel is of benefit to the City overall and positively impacts the City’s GHG emissions inventory.

Energy Conservation

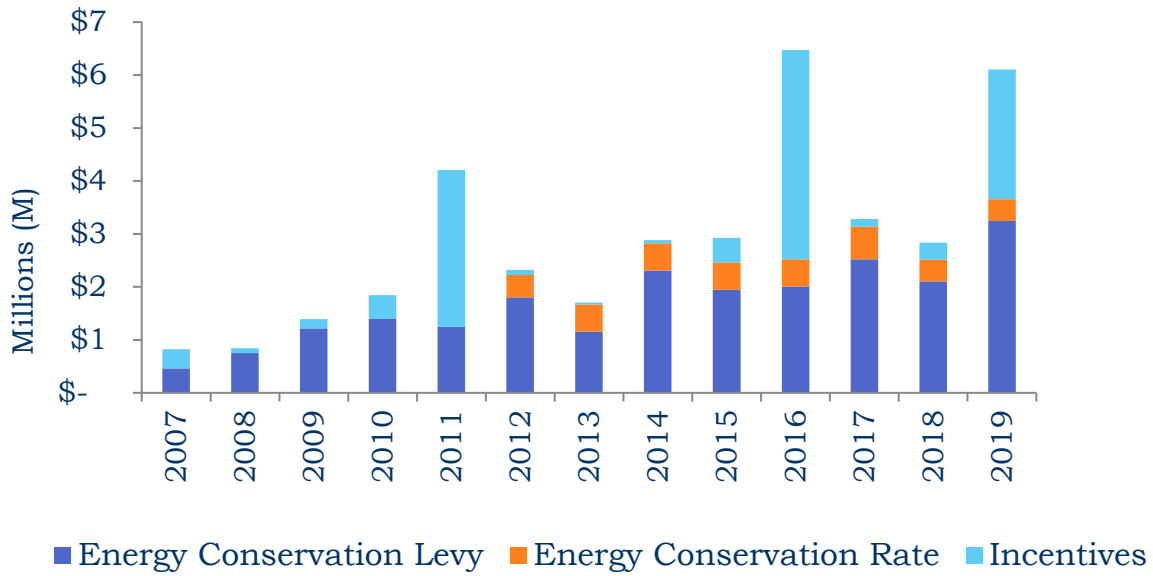
One of the energy reduction and energy intensity improvement strategies the City employs is the completion of energy conservation projects. Upgrades to existing corporate buildings by installing energy efficient lighting and equipment or utilizing new technologies can help to improve operational efficiencies, cost effectiveness and help meet corporate targets for energy intensity and GHG reductions.

With global attention on climate change, greener public buildings are an expectation by staff and communities and will help move Hamilton toward meeting its strategic and corporate goals.

The City’s project teams work closely with consultants, engineers, utility personnel and industry experts to retrofit existing buildings, construct new buildings, and upgrade equipment and processes. An important part of the process also involves securing incentives and funding opportunities and post project monitoring and verification of savings.

The City tracks the energy savings achieved from projects once they are complete. The 2019 contribution from project savings was \$3.7M and \$2.4M from incentives received. Cumulatively, a total result is \$37.4M since 2005 for projects and incentives.

Figure 12: Annual Project Savings and Incentives in Millions (\$M)



2019 Project Highlights



Valley Park Aquatic Centre - LED Lighting Upgrades

- Installation of new LED lighting in pool & change room areas, gym, common areas and parking lot lighting.
- Benefits include improved lighting conditions, safety, a reduction in electrical consumption, GHG's & lighting maintenance costs.
- \$21,000 in incentives received from IESO SaveOnEnergy program.



Lister Block - Interior LED Lighting Upgrades

- Retrofit of interior lighting.
- Benefits include improved lighting conditions and a reduction in lamp maintenance costs.
- \$7,984 in incentives pre-approved under the IESO SaveOnEnergy program.



Traffic Operations - Interior & Exterior LED Lighting Upgrades

- Installation of new interior and exterior LED lighting.
- Benefits include improved lighting conditions and a reduction lamp maintenance costs.
- \$5,754 in incentives pre-approved under the IESO SaveOnEnergy program.



Woodward Plant - Interior & Exterior Lighting Upgrade

- Installation of new interior and exterior LED lighting.
- Benefits include improved lighting conditions and a reduction lamp maintenance costs.
- \$44,000 in incentives pre-approved under the IESO SaveOnEnergy program.

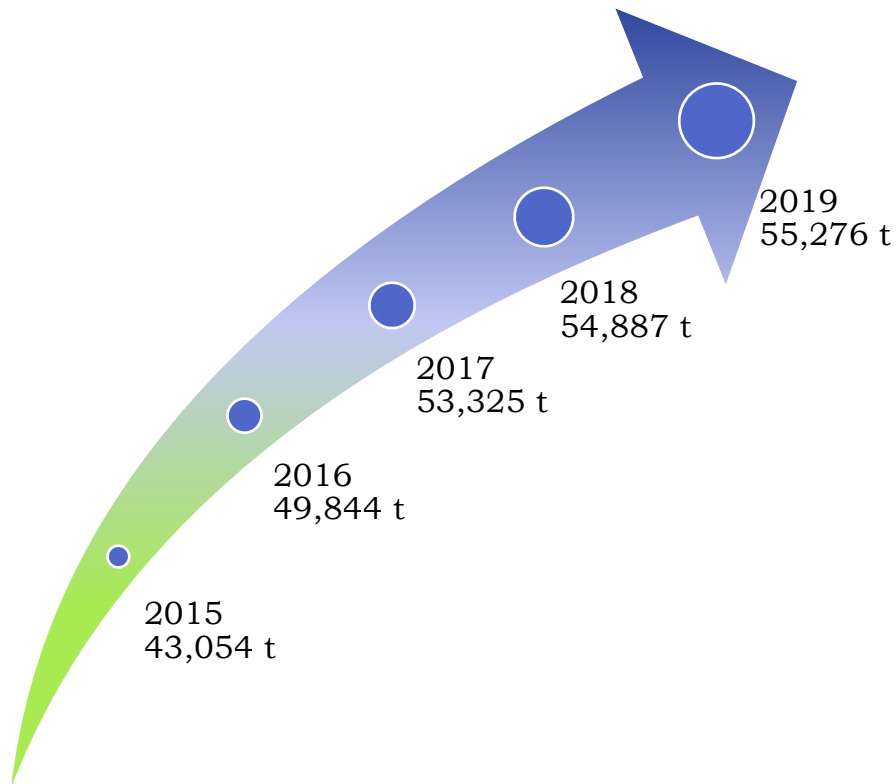
Listing of Upcoming Projects for 2020

- Wentworth Operations Centre Interior LED Lighting Retrofit.
- Wentworth Lodge – HVAC and BAS Upgrades.
- Library Branches LED Lighting Retrofit.
- Central Public Library LED Lighting Retrofit.
- Central Public Library's IT Room Data Center Environmental Control Units (ECUs) Replacement.

- Hamilton City Hall LED Lighting Retrofit.
- Material Recycling Facility – LED Lighting Retrofit.
- Westmount DHW Solar Thermal & Controls.
- Pinky Lewis Aquatic Centre – Solar Wall.
- Arenas - Ice Plant, Floating Head Pressure Control.
- Various Recreation Facilities – LED Lighting Retrofit.

Energy efficiency projects that reduce energy use also have the added benefit of reducing greenhouse gas (GHG) emissions that would have been otherwise emitted. The GHG savings from projects in 2019 was 653 tonnes (t) of CO₂e, for a cumulative GHG reduction of 55,276 tCO₂e.

Figure 13: Cumulative GHG Reductions from Energy Conservation Projects (in tCO₂e)



Energy reduction continues to be a driving force for energy conservation. However, with the increased focus on climate change, resiliency, and meeting corporate targets for greater reductions in GHG emissions, business cases for projects, programs, investment in new technology or infrastructure will prioritize actions within this lens as well.

Renewable Energy

Existing renewable generation operations for the City are managed through Hamilton Renewable Power Inc. (HRPI). HRPI owns and operates three 1.6 MW renewable gas fueled units. Two of the units are located at the Glanbrook landfill site. The third unit, a cogeneration unit, producing electricity and heat, is located at the Hamilton Water site at Woodward Avenue.

The three units use raw biogas as a renewable fuel sources to produce electricity for the power grid through a long-term contract with the province. Using renewable fuel contributes to a more efficient and sustainable process, and further offsets GHG emissions. The systems produce 28,000,000 kWh of renewable energy annually, with a reduction of 100,000 tonnes CO₂e. In 2019 the net benefit from all HRPI operations was approximately \$1.2 million, with a cumulative total of \$18.7 million from 2006.

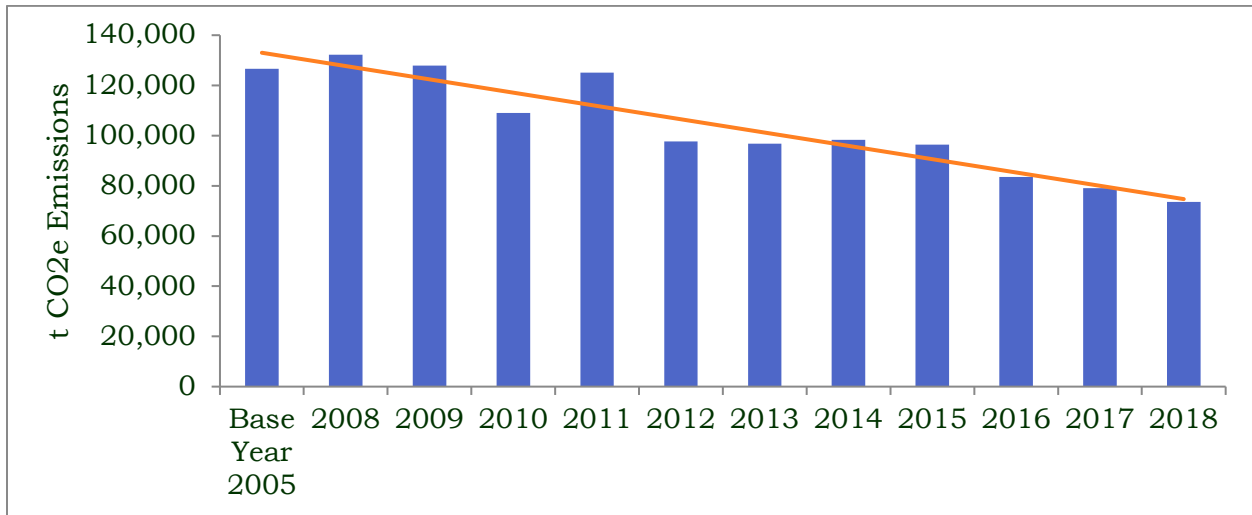
Renewable natural gas is also produced at Woodward Avenue using a Biogas Purification Unit (BPU). The BPU captures excess methane gas from the anaerobic digestion process of the waste water process. The raw biogas is purified, treated and conditioned to yield the utility grade renewable natural gas that can be injected into Enbridge Gas distribution system.

Greenhouse Gas Emissions Inventory 2018 Report

GHG emissions related to corporate operations have been inventoried and reported annually since the adoption of the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)) in 2008. Original targets of a 20% reduction by 2020 were then updated and aligned with the Corporate Energy Policy and the Board of Health Climate Change Actions 2012 report (BOH13024), calling for an 80% reduction in GHG emissions by 2050 from the base year 2005.

Reporting data for the GHG emissions report is one year behind the annual energy report. Therefore, the data presented here is for the 2018 calendar year. In 2018, the GHG emissions inventory was 73,638 tonnes of CO₂e (carbon dioxide equivalent). This represents a 42% reduction from the base year and 7% reduction from 2017. The inventory does not include HRPI operations.

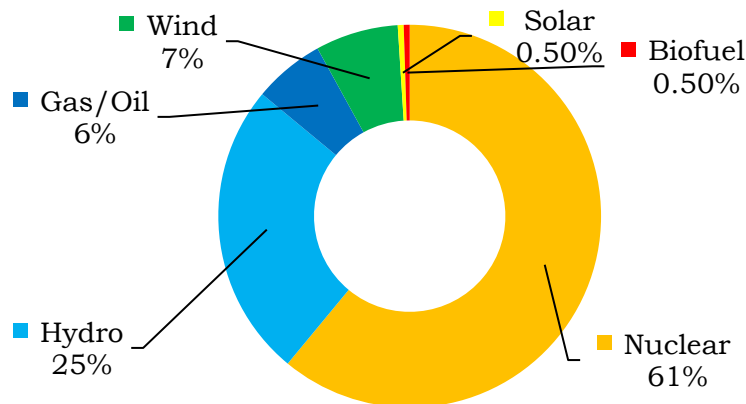
Figure 14: City of Hamilton Corporate GHG Emissions Annual Trends



Since 2005 the inventoried emissions have been on a downward trend. Several factors have contributed to this trend including energy efficiency projects that reduce overall energy usage and fuel conversion in Transit from diesel buses to CNG buses. However, the Ontario electricity emission factor, which is the measurement of the CO₂e intensity of the electricity generation, has had a significant impact on GHGs. As the Ontario electricity supply mix moves towards increasing its cleaner power sources, the lower the City’s use of electricity impacts the emissions inventory.

Below, the diagram shows the energy output by fuel type for 2018 as reported at the Independent Electricity System Operator (IESO) for transmission-connected generation. The mix varies annually, depending on what fuel sources are being dispatched. This data does not include embedded generation.

Figure 15: 2018 Ontario Energy Output by Fuel Type



Source: Transmission-Connected Generation - IESO Mix 2018 Output

Our corporate GHG emissions are generated by the following energy sources: electricity, natural gas, diesel and gasoline.

Figure 16: 2018 Percentage of tCO2e Emissions by Fuel Source

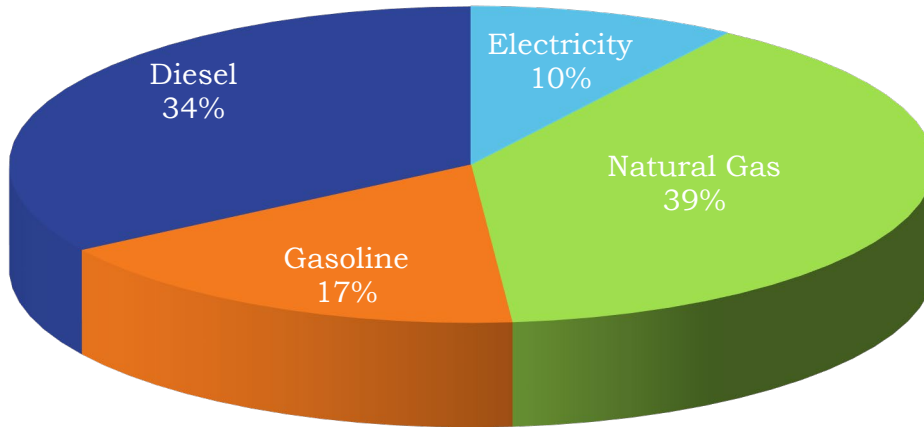
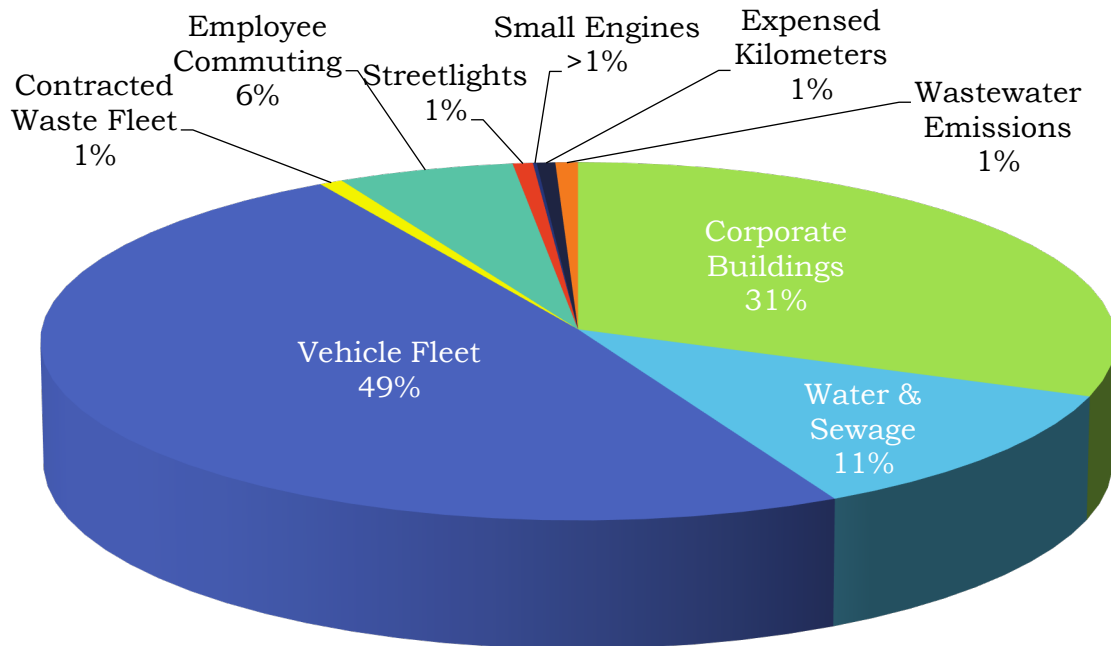


Figure 17: 2018 Percent Tonnes CO2e of Total by Sector



Of the above reported sectors, the largest emitter is Vehicle Fleet (36,039 t CO2e) at 49%. For 2018, this is less than a 1% decrease to the base year. Of

note, emissions for vehicles have varied over the years. While vehicles may have become more efficient and many of the buses have been switched to CNG, which has lower emissions than diesel, the vehicle fleet size has increased. In addition, year over year usage can be impacted by weather conditions. An example would be the varying demand for large winter-related vehicles (snow-removal, salters and sanders).

Contracted Fleet has been amended for 2018 to better reflect the average distance that the contract fleet vehicles are travelling on a daily and annual basis. Therefore, the GHG emissions attributed to contract fleet vehicles has been reduced.

Corporate buildings (22,817 t CO₂e) makes up 31% of the total inventory for 2018 which is 51% less than the base year and 5% lower than 2017. A large part of this reduction is the completion of energy efficiency initiatives at many corporate sites over the past several years. Some examples include LED lighting installations, BAS controls systems and equipment upgrades. However, like fleet, the inventory of corporate buildings can increase or decrease year over year as assets are acquired or removed and can have broader changes in usage and GHG emissions due to large scale renovation projects and program or operational changes.

Water and Sewage, which includes the Woodward Water and Wastewater plant, pump stations, wells and reservoirs throughout the City make up the third largest emission sector (8,532 t CO₂e), with 11% of the total inventory for 2018. It is a 66% decrease from 2005, and on par with 2017. Process efficiencies have had a large impact on this reduction. The Water and Sewage sector is the largest user of electricity in the City.

Street lighting, although not a large overall emitter, has had an impressive reduction of 94% when compared to the base year. The LAMP program (Lighting Asset Modernization Project) has made a large impact to both reducing electrical usage but also in reducing its GHG emissions over the past 3 years.

A greater emphasis has been placed on addressing climate change and resiliency within the City. Continued efforts must be made to further reduce the City's corporate emissions to meet the targets laid out in the Corporate Energy Policy and as a response to the climate change emergency. Investments in renewable energy, retrofit projects that reduce both usage and emissions, greener vehicles and behavioral changes will be necessary to achieve the long-range targets established in the Corporate Energy Policy which are updated approximately every 5 years.

Final Comments

2019 saw a large shift in focus from making decisions based on the reduction of electricity usage to decision-making with a climate change lens, particularly as it related to projects and funding opportunities for projects.

As the federal government mandated provinces implement carbon reduction plans and highlighted the aggressive global shift in addressing climate change, municipalities responded in kind. The City of Hamilton declared a climate emergency to focus its future development, infrastructure, corporate energy planning and community engagement to improve the City's resiliency plans and favorable climate change outcomes.

The City will always require energy to run its facilities, vehicles and operations, but strategic management of energy usage, emissions, investment in renewable technologies and a keen focus on climate change can help them use less, become carbon neutral and greener overall.

Appendix A

This appendix provides additional tables, charts and graphs as it relates to the information presented throughout the report.

Energy Strategies and Program KPIs

Figure A-1: Cumulative Results of Energy Programs and Strategies KPIs (2006-2019)

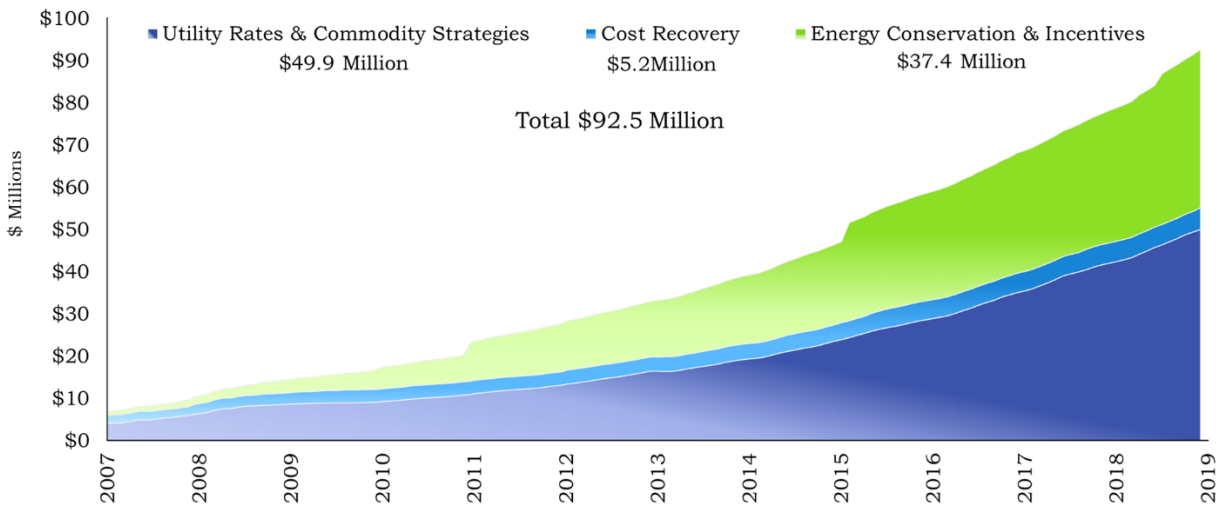


Figure A-2: Three Year Comparison of Energy Programs and Strategies

Category	Past 3 Years			2006-2019 Cumulative
	2017	2018	2019	
Levy RPP/Interval Change	\$ -	\$ -	\$ -	\$ 2,886,651
Rate RPP/Interval Change	\$ -	\$ -	\$ -	\$ 2,873,163
Levy Global Adjustment	\$ 1,344,340	\$ 1,953,610	\$ 1,310,581	\$ 8,402,655
Rate Global Adjustment	\$ 4,631,762	\$ 4,450,962	\$ 5,937,456	\$ 27,339,531
Levy Natural Gas	\$ 446,304	\$ 465,571	\$ 693,429	\$ 7,184,883
Rate Natural Gas	\$ 66,946	\$ 64,126	\$ 77,155	\$ 1,208,251
Energy Conservation Levy	\$ 2,286,392	\$ 2,101,419	\$ 3,246,246	\$ 21,928,204
Energy Conservation Rate	\$ 616,098	\$ 410,732	\$ 410,732	\$ 3,917,423
Incentives	\$ 147,841	\$ 323,354	\$ 2,447,863	\$ 11,587,402
Cash Recovery Levy	\$ 118,099	\$ 220,046	\$ 358,928	\$ 4,943,004
Cash Recovery Rate	\$ -	\$ -	\$ -	\$ 235,375
Totals	\$ 9,657,782	\$ 9,989,820	\$ 14,482,390	\$ 92,506,542

Overall Costs, Consumption and Performance (Electricity & Natural Gas)

Figure A-3: Total Annual Consumption Electricity & Natural Gas (Facilities)

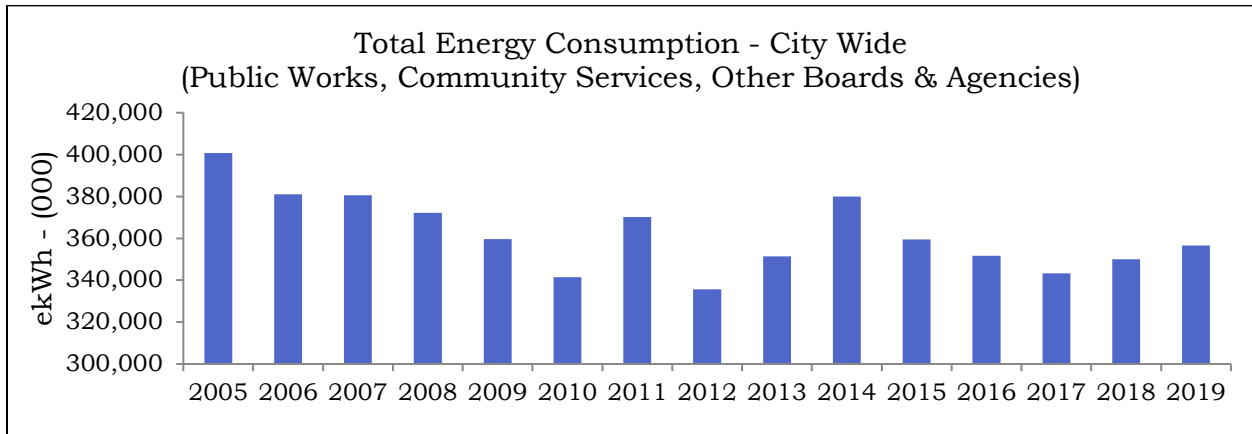


Figure A-4: Total Annual Reported Costs Electricity & Natural Gas (Facilities)

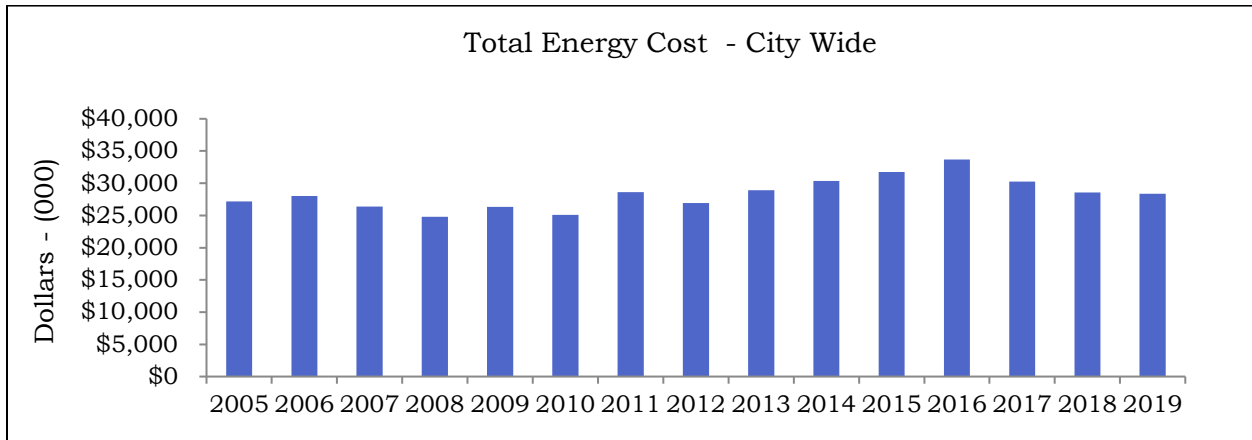


Figure A-5: Total Consumption Comparison by Portfolio Category

Total Energy Consumption	in 000's of ekWhs			Comparisons	
	2005	2018	2019	2019 vs 2005	2019 vs 2018
City/Town Halls	13,775	8,706	8,899	-35%	2%
Corporate Facilities	17,188	9,404	12,256	-29%	30%
Street Lighting	33,602	20,050	17,808	-47%	-11%
Traffic Lighting	5,688	2,069	2,112	-63%	2%
Other City Operations	5,618	6,349	6,355	13%	0%
Hamilton Water	121,040	126,764	126,788	5%	0%
Yards	39,589	28,503	27,869	-30%	-2%
Arenas	39,904	36,345	35,094	-12%	-3%
Community/Senior Centers	3,834	3,536	3,601	-6%	2%
Rec Centres/Pools	26,789	25,130	30,073	12%	20%
Tim Horton's Field	0	6,995	9,267	0%	32%
Rec Parks/Stadiums/Golf	8,332	5,063	4,997	-40%	-1%
Lodges (Macassa, Wentworth)	24,938	15,113	15,774	-37%	4%
Culture	5,383	4,932	5,278	-2%	7%
Fire/ EMS	10,698	12,814	12,803	20%	0%
Hamilton Public Libraries	9,343	11,211	11,726	26%	5%
First Ontario Centre	10,122	9,904	9,214	-9%	-7%
First Ontario Concert Hall	5,466	4,517	4,571	-16%	1%
Hamilton Convention Centre	4,656	4,068	3,780	-19%	-7%
Hamilton Police Services	14,757	8,573	8,303	-44%	-3%
City Wide Total	400,722	350,050	356,568	-11%	2%

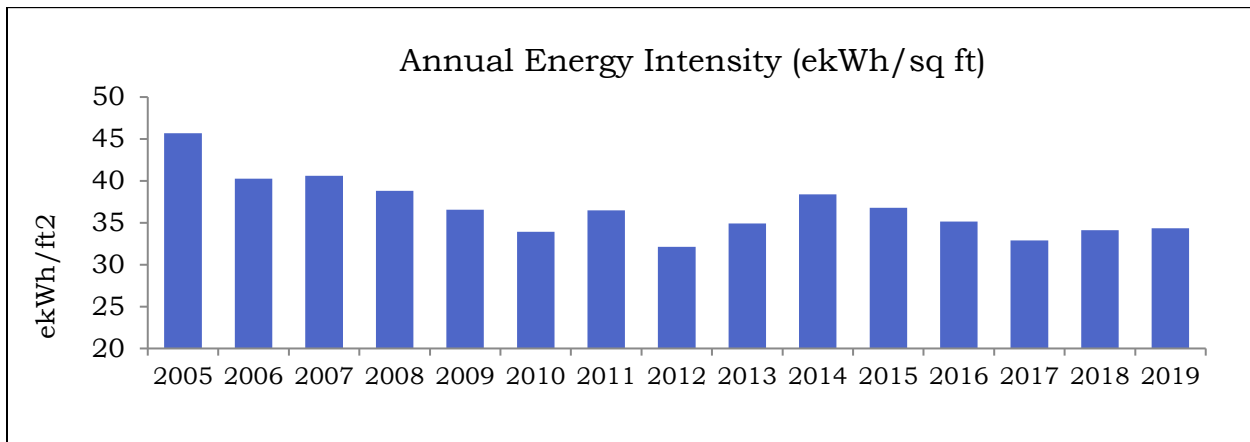
*values are shown in 000's, does include full values in calculations

Figure A-6: Total Reported Cost Comparison by Portfolio Category

Total Energy-\$ Cost	in 000's of \$			Comparisons	
	2005	2018	2019	2019 vs 2005	2019 vs 2018
City/Town Halls	\$860	\$653	\$700	-19%	7%
Corporate Facilities	\$866	\$790	\$980	13%	24%
Street Lighting	\$2,895	\$3,728	\$3,510	21%	-6%
Traffic Lighting	\$462	\$323	\$299	-35%	-7%
Other City Operations	\$534	\$813	\$802	50%	-1%
Hamilton Water	\$9,590	\$10,436	\$9,739	2%	-7%
Yards	\$2,205	\$1,686	\$1,658	-25%	-2%
Arenas	\$2,455	\$2,718	\$2,682	9%	-1%
Community/Senior Centers	\$224	\$246	\$241	8%	-2%
Rec Centres/ Pools	\$1,192	\$1,405	\$1,657	39%	18%
Tim Horton's Field	\$0	\$661	\$712	0%	8%
Rec Parks/Stadiums/Golf	\$564	\$434	\$407	-28%	-6%
Lodges (Macassa, Wentworth)	\$1,087	\$695	\$700	-36%	1%
Culture	\$338	\$257	\$268	-21%	4%
Fire/ EMS	\$614	\$819	\$798	30%	-3%
Hamilton Public Libraries	\$827	\$734	\$856	3%	17%
First Ontario Centre	\$840	\$961	\$1,087	29%	13%
First Ontario Concert Hall	\$454	\$257	\$296	-35%	15%
Hamilton Convention Centre	\$387	\$243	\$257	-33%	6%
Hamilton Police Services	\$783	\$723	\$727	-7%	1%
City Wide Total	\$27,177	\$28,581	\$28,376	4%	-1%

*values are shown in 000's, does include full values in calculations

Figure A-7: Total Annual Energy Intensity City-wide (ekWh/sqft)



The following series of graphs represent the energy intensity results per site for 2019 within the specific portfolio category. Sites that did not have square footage were removed but were included in the overall consumption and costs data sets. Sites were only included if there were full data sets for the year. There is no energy intensity data for Hamilton Water and Operational (O&M) sites. Also note that the energy intensity axis value may be adjusted depending on grouping.

Figure A-8: Corporate Facilities 2019 Energy Intensity

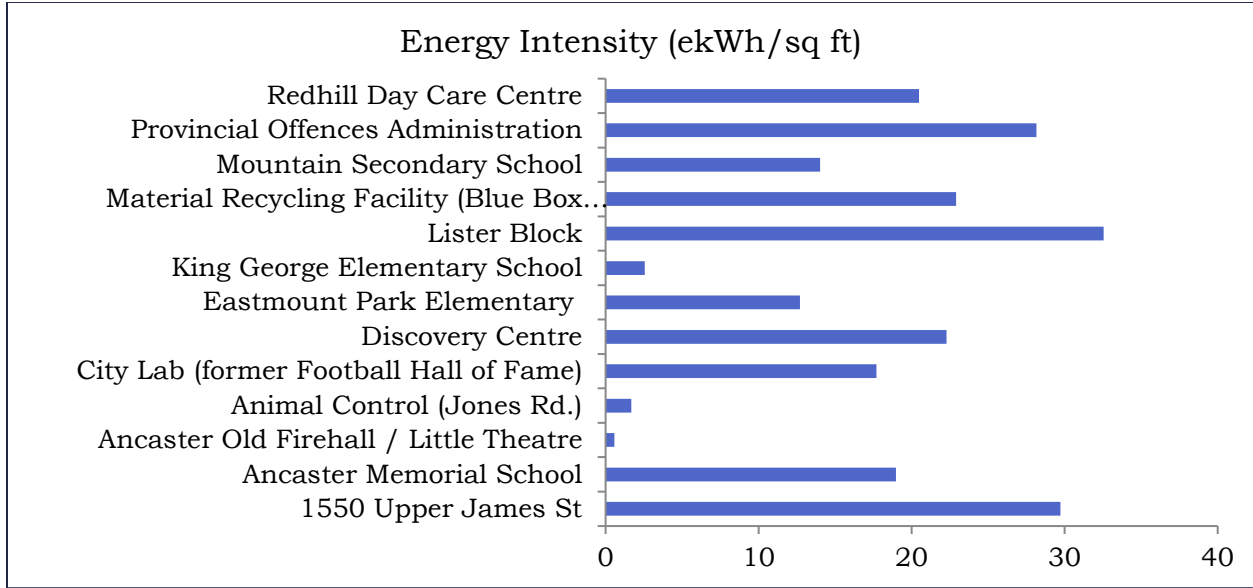


Figure A-9: City and Town Halls 2019 Energy Intensity

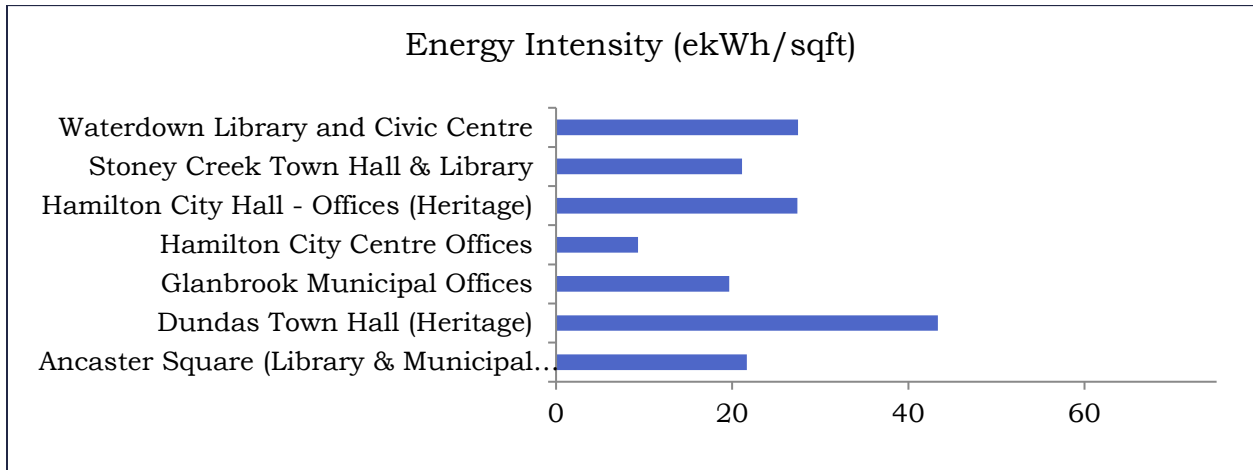


Figure A-10: Arenas 2019 Energy Intensity

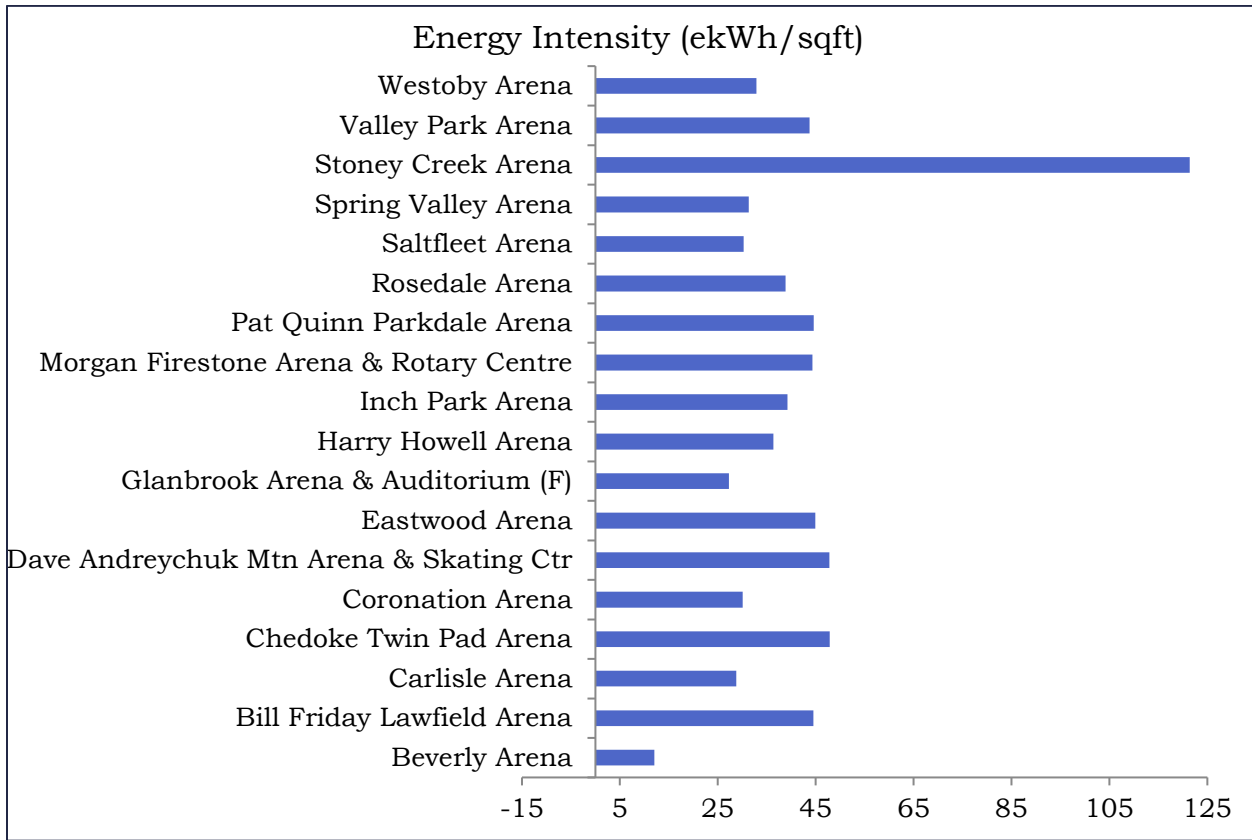


Figure A-11: Lodges 2019 Energy Intensity

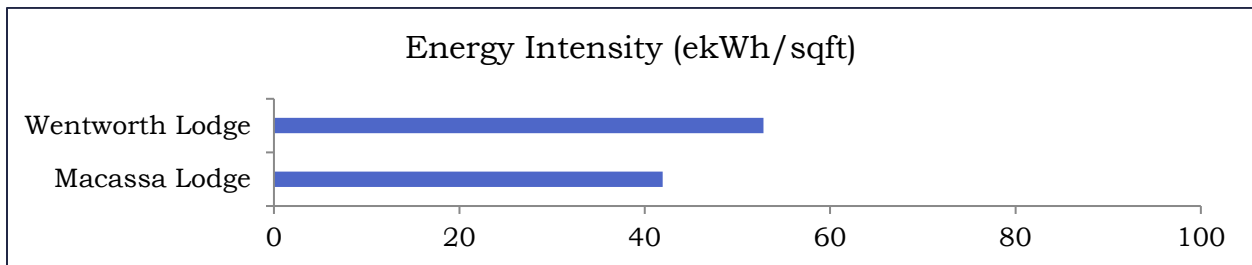


Figure A-12: Yards 2019 Energy Intensity

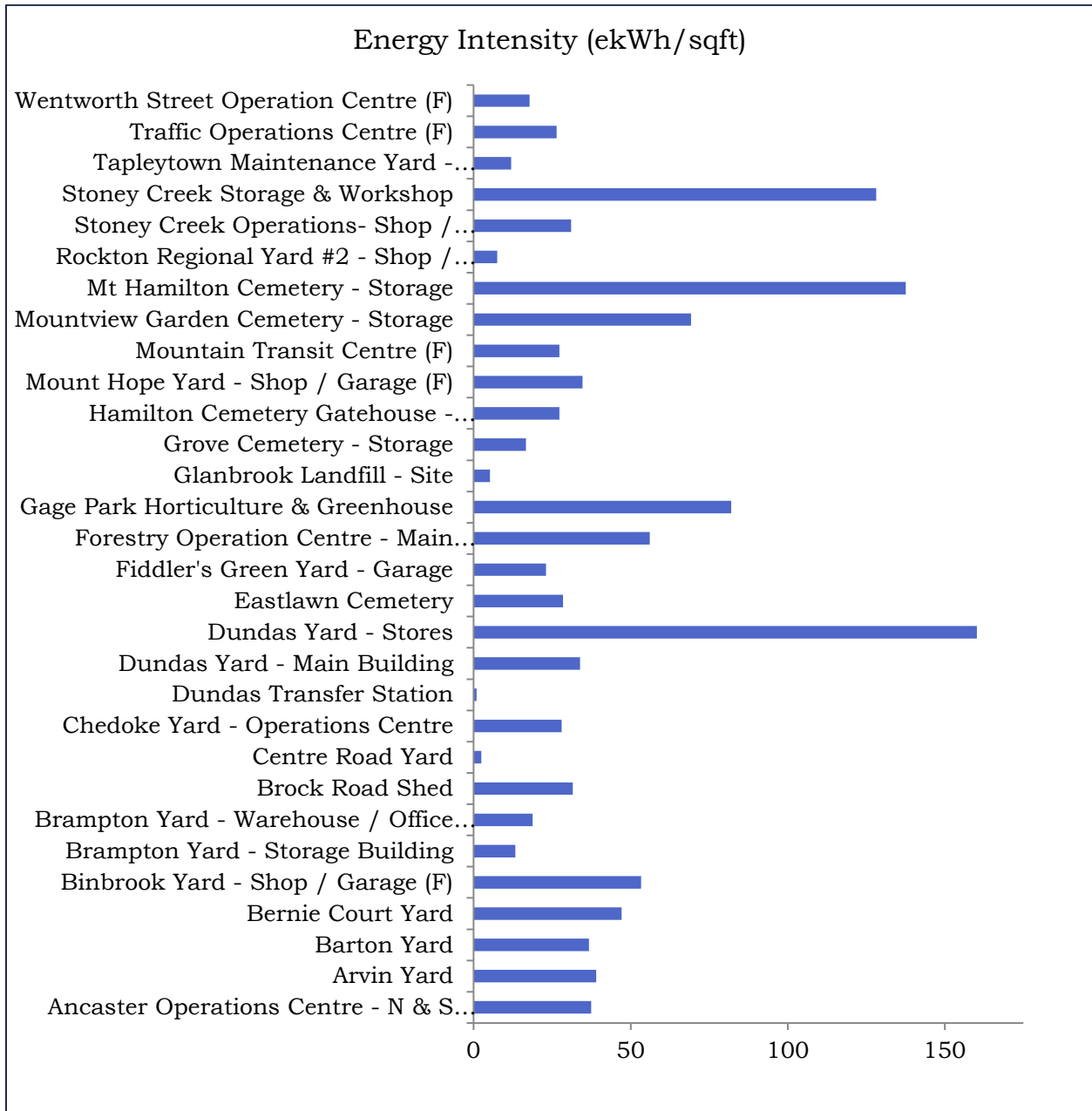


Figure A-13: Community Centres 2019 Energy Intensity

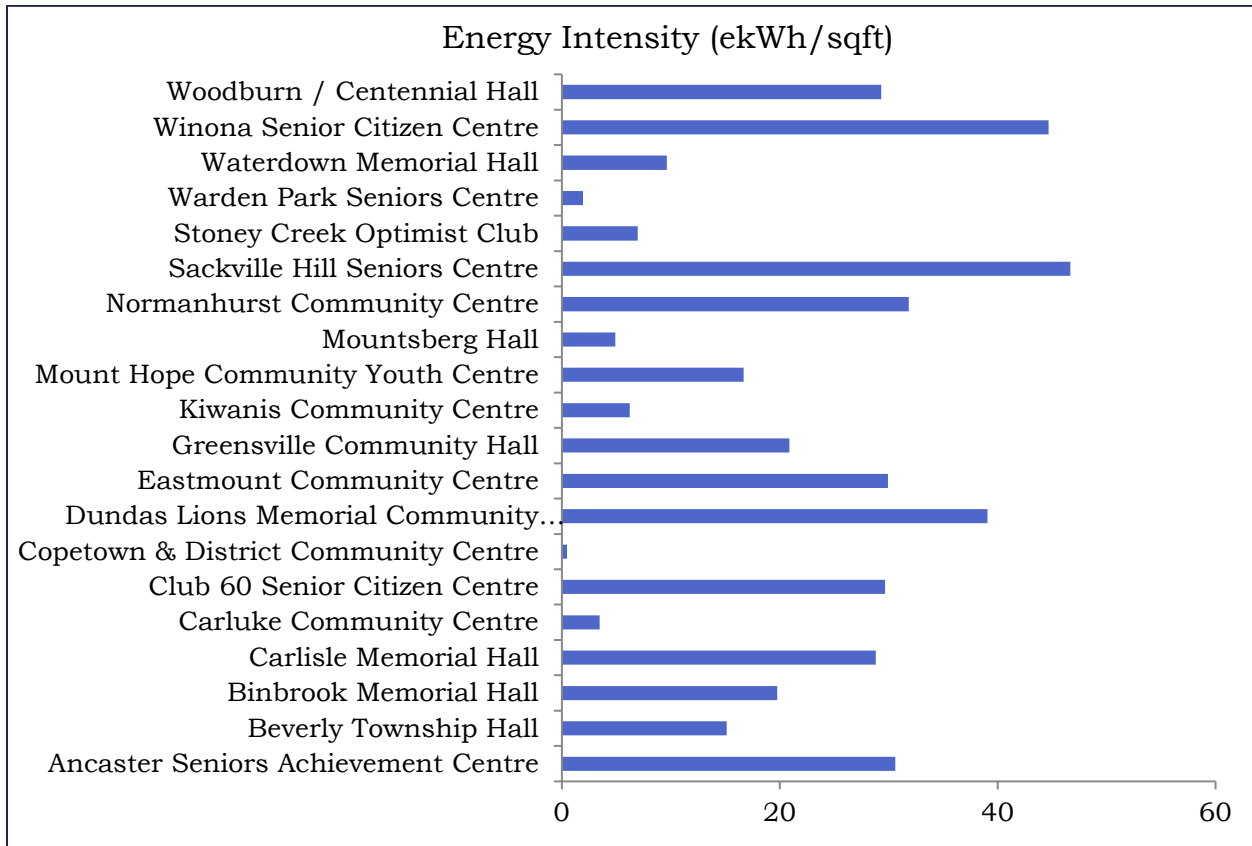


Figure A-14: Culture & Museums 2019 Energy Intensity

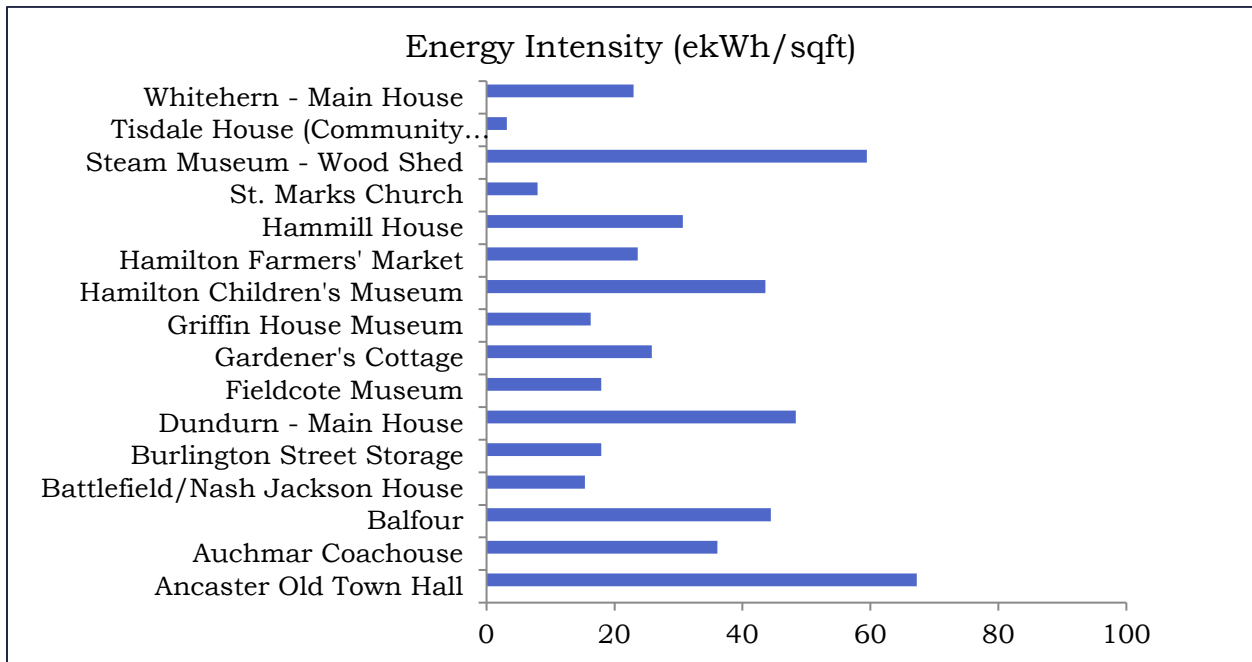
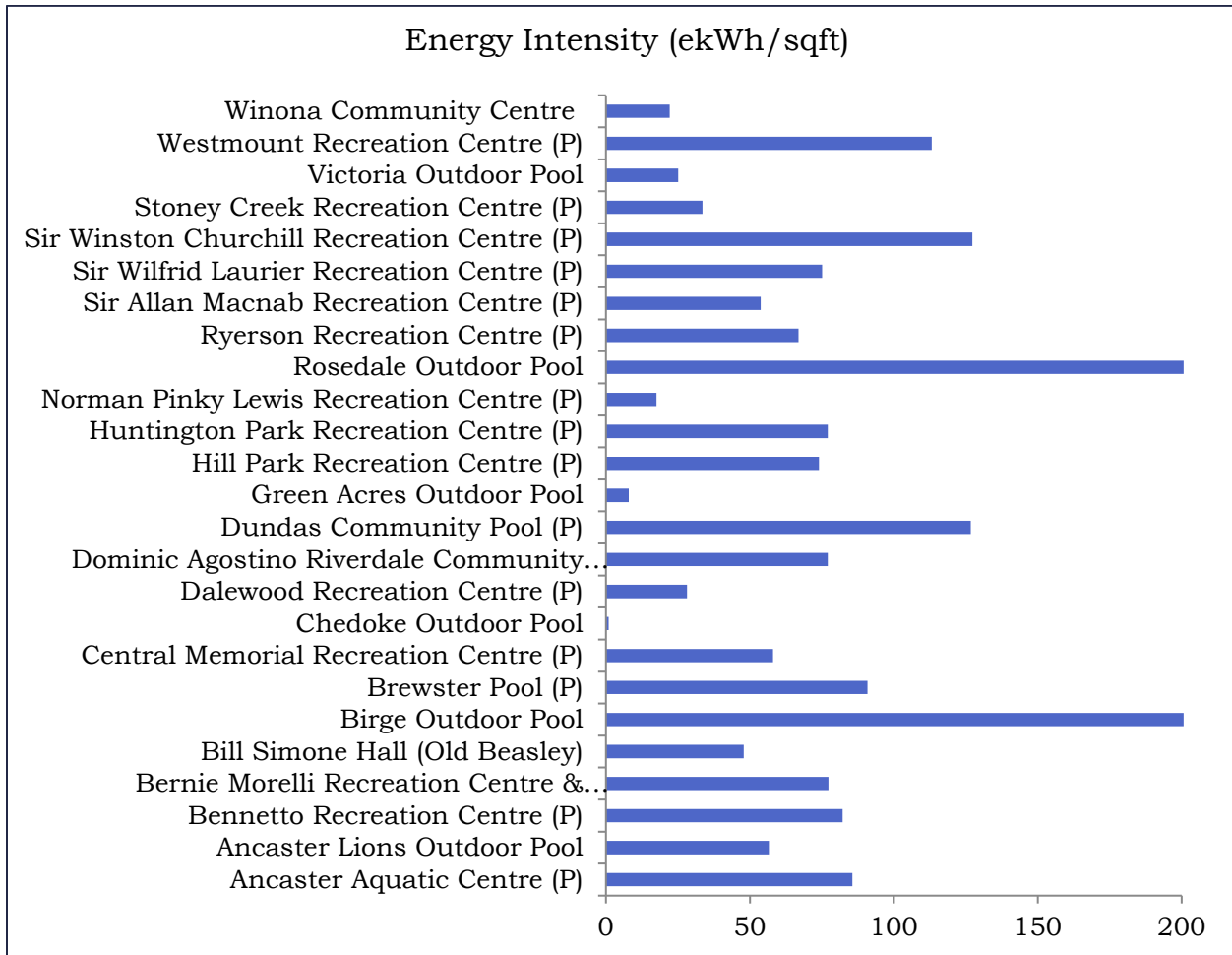


Figure A-15: Recreation Centres and Pools 2019 Energy Intensity



*Birge Outdoor Pool has an energy intensity of 354, Rosedale Outdoor Pool has an energy intensity of 225

Figure A-16: Stadium, Recreation Park Buildings & Golf 2019 Energy Intensity

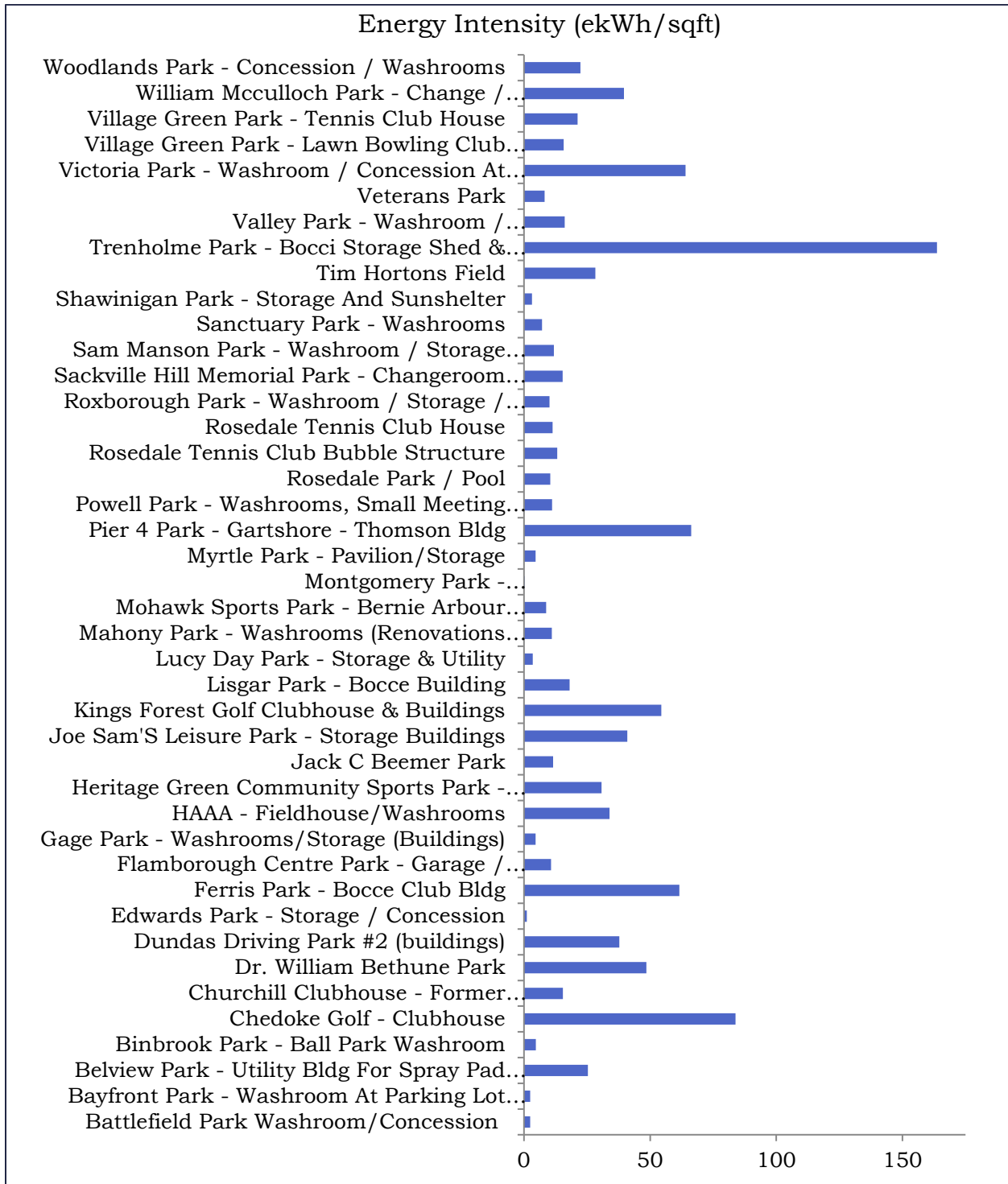


Figure A-17: Libraries 2019 Energy Intensity

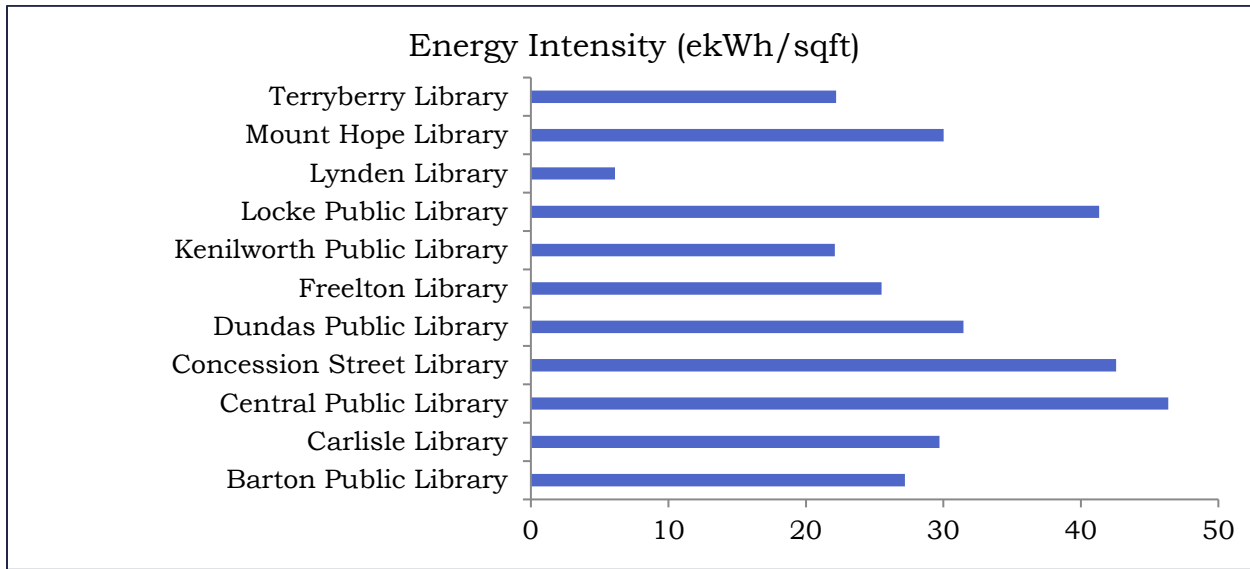


Figure A-18: Entertainment 2019 Energy Intensity

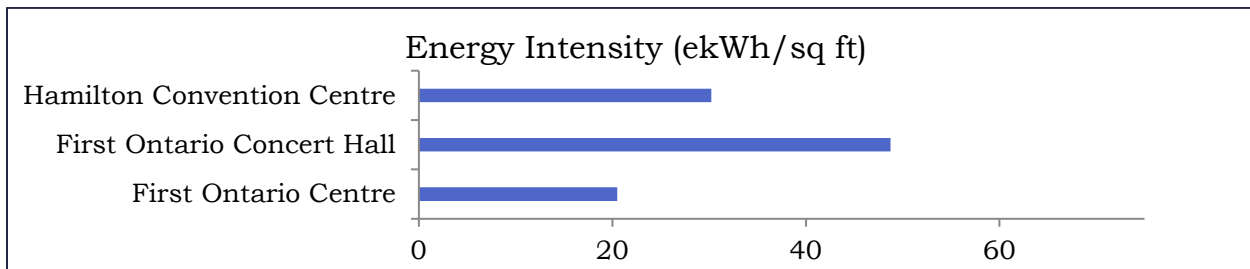


Figure A-19: Police 2019 Energy Intensity

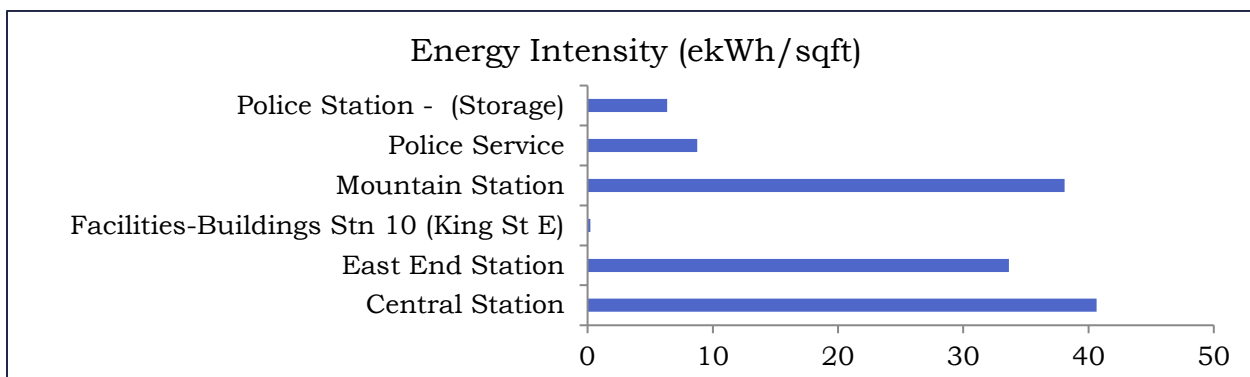
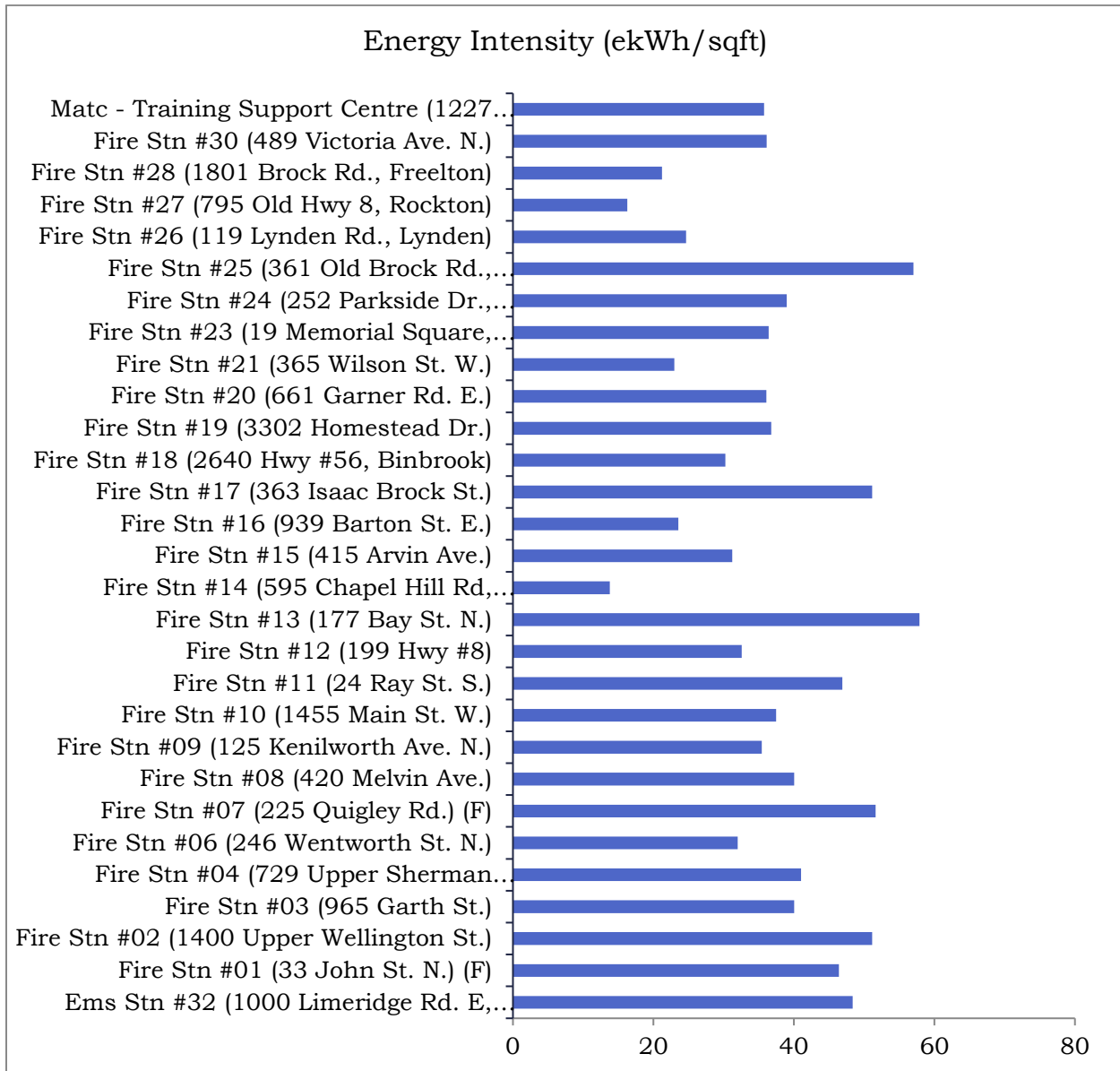


Figure A-20: Fire & EMS 2019 Energy Intensity



Weather Data

Weather and temperatures can impact energy consumption for electricity, natural gas and fuel. Referencing cooling degree days (CDD) and heating degree days (HDD) can help identify one reason why consumption could be higher or lower year over year. CDD is a measure of how much (in degrees) and for how long, the outside air temperature was higher than a specific base temperature. HDD is a measure of how much and for how long the outside temperature was lower than a specific base temperature. The base temperature for this reporting

is 18 degrees Celsius. The City tracks degree day data from Environment Canada.

Figure A-21: Weather Data for Hamilton (Environment Canada – station YHM)

Month	Mean Temp (°C)	HDD	CDD	2019 vs 2018 HDD	2019 vs 2018 CDD
Jan-19	-6.9	745.7	0	-1%	0%
Feb-19	-4.4	627.5	0	10%	0%
Mar-19	-1.3	579.9	0	-1%	0%
Apr-19	5.5	361.5	0	-20%	0%
May-19	11.5	194	0.2	118%	-99%
Jun-19	17.7	37.2	27.9	9%	-35%
Jul-19	22.1	0.6	124.1	100%	0%
Aug-19	20	7.6	66.3	69%	-45%
Sep-19	17	45.8	16.9	-29%	-73%
Oct-19	10	243.2	4	-17%	-47%
Nov-19	0.4	528.6	0	3%	0%
Dec-19	-1.2	594	0	3%	0%
2019 Annual Total		3965.6	239.4	1%	-37%

*HDD = Heating Degree Days/CDD = Cooling Degree Days

Figure A-22: 5 Year Average Compared to 2019 HDD & CDD

Month	HDD		CDD	
	5 YR AVG	2019 vs 5 Yr Average	CDD 5 YR AVG	2019 vs 5 Yr Average
JAN	722	3%	0	0%
FEB	637	-2%	0	0%
MAR	573	1%	0	0%
APR	371	-3%	0	0%
MAY	149	30%	18	-99%
JUN	38	-2%	39	-28%
JUL	2	-75%	106	17%
AUG	10	-26%	85	-22%
SEP	53	-14%	44	-62%
OCT	238	2%	4	-7%
NOV	435	22%	0	0%
DEC	588	1%	0	0%
Average	3816	4%	296	-19%

Figure A-23: Heating Degree Days (HDD)

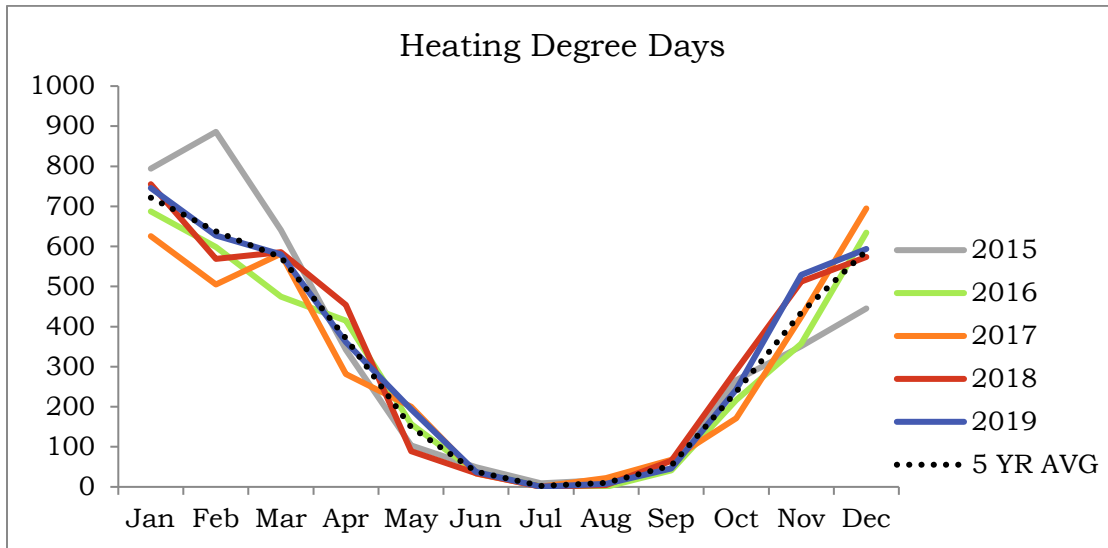
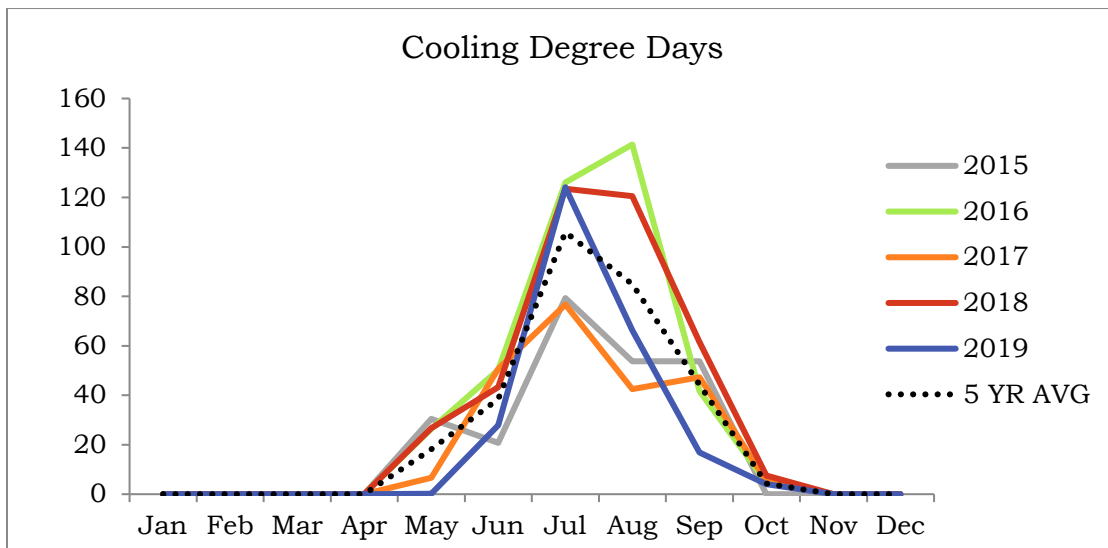


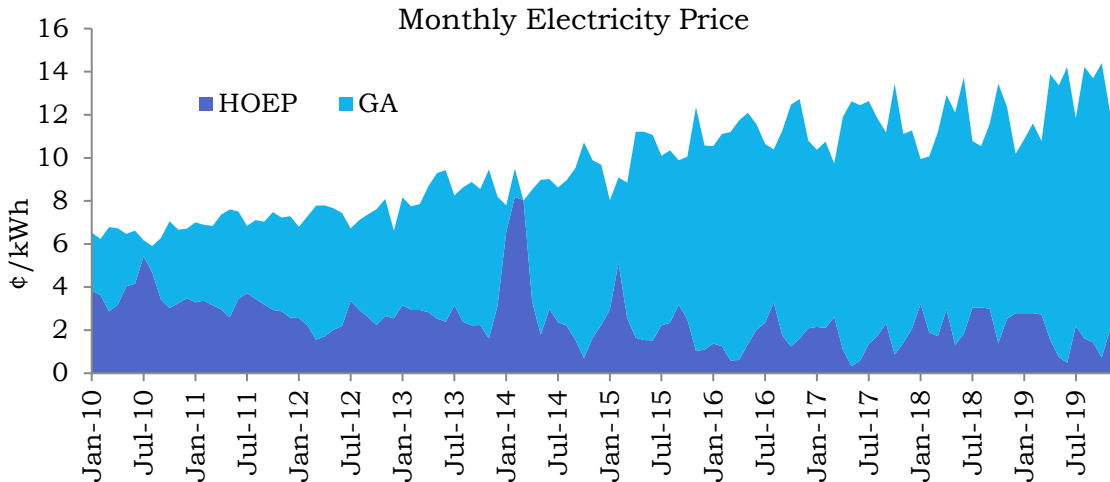
Figure A-24: Cooling Degree Days (CDD)



Global Adjustment

Electricity commodity in Ontario comprises two components; the Hourly Ontario Energy Price (HOEP) and the Global Adjustment (GA).

Figure A-25: Electricity Monthly Commodity Price (2014-2019)



For the Global Adjustment, consumers are divided into two rate classes. Most commercial consumers are Class B. Class B consumers pay the regulated GA rate set monthly. Eligible, high demand consumers can opt for a Class A rate. The Class A rate consumers pay their GA rate based on a percentage contribution to the total provincial monthly GA costs, calculated during a peak setting period. The benefit to a Class A consumer is that they can impact their costs by reducing demand during peak periods. The City tracks these benefits and they are included in this report in the Energy Strategies and Programs under “Utility Rate and Commodity Strategies”. The City has the following Class A sites: 900 Woodward Ave., 850 Greenhill Ave., 78 Kenilworth Ave., FirstOntario Centre, the CUP Operations, and Tim Horton’s Field.

Figure A-26: Cumulative Class A Global Adjustment Results

Year	Standard Global Adjustment Charge	Actual Global Adjustment Charge	Cost Benefit
2011	\$2,703,065	\$1,640,102	\$1,062,963
2012	\$3,852,903	\$2,354,335	\$1,498,568
2013	\$5,720,669	\$3,220,565	\$2,500,104
2014	\$5,574,562	\$3,127,867	\$2,446,695
2015	\$7,931,504	\$4,020,207	\$3,911,297
2016	\$9,132,962	\$4,450,757	\$4,682,206
2017	\$10,218,507	\$4,242,405	\$5,976,103
2018	\$10,417,523	\$4,012,950	\$6,404,572
2019	\$11,613,062	\$4,365,025	\$7,248,037
Total	\$67,164,757	\$31,434,212	\$35,730,546

Figure A-27: 2019 Class A Global Adjustment Results by Month

2019	Standard Global Adjustment Charge	Actual Global Adjustment Charge	Cost Benefit
Jan	\$724,936	\$353,623	\$371,312
Feb	\$749,544	\$335,825	\$413,718
Mar	\$730,958	\$317,146	\$413,812
Apr	\$1,099,653	\$345,064	\$754,589
May	\$1,182,253	\$503,875	\$678,378
Jun	\$1,262,165	\$466,411	\$795,753
Jul	\$893,712	\$348,008	\$545,704
Aug	\$1,104,075	\$401,921	\$702,154
Sep	\$995,470	\$327,825	\$667,644
Oct	\$1,148,410	\$366,179	\$782,232
Nov	\$887,905	\$296,362	\$591,543
Dec	\$833,983	\$302,785	\$531,198
Total	\$11,613,062	\$4,365,025	\$7,248,037

Peak Days

The GA charges for Class A are calculated based on a percentage of demand during the peak setting period. The peak setting period runs from May to April annually, and the top 5 demand hours are used to calculate each Class A site's demand factor, which is used to calculate the GA charges each month. Public Works personnel work collaboratively to manage peak events and reduce demand during these periods. The Office of Energy Initiatives (OEI) use tools to predict peaks and notify key frontline staff. Staff, such as operators in Hamilton Water and Corporate Facilities may shift processes to off peak times and/or minimize usage during a potential peak event.

Figure A-28: Top 10 Ontario Verified Peak Demand Days (May 1, 2019 – April 30, 2020)

Rank	Date	Hour Ending (EST)	Adjusted AQEW (MW)
1	05-Jul-19	17	21,275
2	20-Jul-19	17	21,147
3	29-Jul-19	17	21,068
4	19-Jul-19	12	21,006
5	04-Jul-19	18	20,956
6	21-Aug-19	17	20,848
7	10-Jul-19	17	20,600
8	17-Jul-19	17	20,542
9	13-Aug-19	17	20,536
10	20-Aug-19	17	20,533

*AQEW= Adjusted Allocated Quantity of Energy Withdrawn: Source [IESO/Settlements/Global Adjustment Class A](#)

Fuels

Figure A-29: 2019 Fuel Usage by User Group

Group	Diesel Litres	Unleaded Litres	CNG DLE	Total (DLE)
Energy, Fleet & Facilities	18,973	103,959	-	122,932
Engineering Services	-	41,848	-	41,848
Environmental Services	1,082,573	402,982	-	1,485,555
Hamilton Water	166,228	189,656	-	355,885
Operations	1,369,077	444,978	-	1,814,055
Transportation	87,882	46,377	-	134,259
Other	391,492	1,046,850	-	1,438,342
Transit	5,479,391	87,925	6,388,918	11,956,234
Totals	8,595,617	2,364,574	6,388,918	17,349,109

Notes for Clarification on the above fuel usage data:

- 1) Transit includes Transit Operations, Route Planning and Transit Yard Support.
- 2) Operations includes Waste Management, Landfill, Roads and Support Services.
- 3) "Other" includes Public Health, Recreation, Tourism and Culture, Library, Bi-Law Services, Mayor's Office, City Clerk's Office and Information Services.

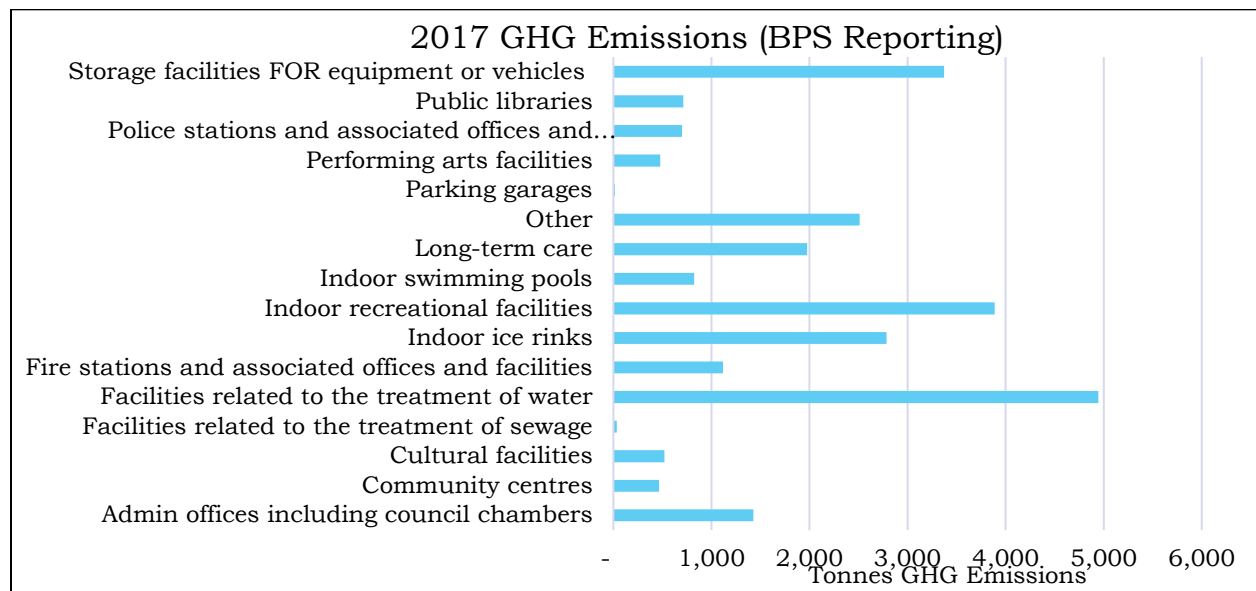
Broader Public Sector Reporting (BPS)

The City submits the annual reporting data for GHG emissions as part of the adherence to Ontario Regulation 507/18. Annual reporting will continue as required.

The latest submission, July 2019 was for the calendar year 2017. According to the reporting formula City-owned corporate facilities (building only) were responsible for emitting 25,779 tonnes of CO₂e. The categories for this reporting requirement are pre-set and do vary from the City's internal reporting and are limited to buildings only. However, they do continue to represent corporately-owned assets only. In addition to reporting on an annual basis, the City is also required to submit a five-year Conservation and Demand Management (CDM) Plan, submitted in July 2019. Both the annual data submission and the CDM Plan are found on the City website:

<https://www.hamilton.ca/office-energy-initiatives>.

Figure A-30: 2017 GHG Emissions Results O.Reg 507/18



Glossary

Common Acronyms used throughout the report

BPS = Broader Public Sector

CAFE = Corporate Average Fuel Economy

CDD = Cooling Degree Days

CDM – Conservation and Demand Management

CEP = Corporate Energy Policy

CNG = Compressed Natural Gas

CO₂ = Carbon Dioxide

CO₂e = Carbon Dioxide equivalent

DLE = Diesel Litre Equivalent

ekWh = equivalent kilowatt hours

GA = Global Adjustment

GHG = Greenhouse Gas

GJ = Gigajoule

HDD = Heating Degree Days

HOEP = Hourly Ontario Electricity Price

HRPI = Hamilton Renewable Power Inc.

IESO = Independent Electricity System Operator

KPI = Key Performance Indicator

kW = Kilowatt

kWh = Kilowatt-hour

LED = Light Emitting Diode

m³ = Cubic Metres

OEB = Ontario Energy Board

tCO₂e = Tonnes Carbon Dioxide equivalent

Definitions: Common concepts used throughout the report

Energy Performance is the collection of performance measurements including consumption, cost and energy intensity as compared against baseline and year over year.

Energy Intensity is the measurement of energy used per square foot of facility space.

Avoided Cost/Cost Avoidance refers to the costs not incurred as a result of some action taken which is outside of status quo.

Utility Rates refers to the rate classes identified by utility providers.

Rate Optimization refers to ensuring that utility accounts are assigned to the appropriate rate class to result in best cost benefit.

Cost Recovery is the value collected by identifying billing errors, billing anomalies or rates corrections that result in a financial adjustment to costs.

Incentives are monies received from a recognized program including from utility providers, the IESO, Federal or Provincial grant programs where incentives are tied to energy conservation measures.

Energy Conservation is the collection of energy efficient measures, equipment or processes that lead to lower consumption.

Commodity Hedging is the process of fixing prices for specific terms for natural gas, fuels or electricity (commodities).

Unit Cost is the total price of variable and fixed costs per unit. In this report it refers to unit costs of electricity, natural gas and fuels.



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations and Maintenance Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Decorative Crosswalks (PW20041) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Mike Field (905) 546-2424 Ext. 4576
SUBMITTED BY:	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department
SIGNATURE:	

RECOMMENDATIONS

That the installation of decorative crosswalks be permitted in the City of Hamilton and be implemented as per the Decorative Crosswalk Guideline, attached to Report PW20041 as Appendix "A".

EXECUTIVE SUMMARY

Crosswalks are an important part of the City of Hamilton transportation network as they assist in facilitating safe roadway crossings by pedestrians. The function, design and appearance of crosswalks is governed by the Highway Traffic Act (HTA), Manual of Uniform Traffic Control Devices for Canada (MUTCDC) and the Ontario Traffic Manual (OTM).

Decorative crosswalks are permitted to be installed, following the guidelines and standards as these documents do not prohibit artwork to be installed between the white transverse lines which frame the extents of the crosswalk. A decorative crosswalk can incorporate a textured and/or patterned surface that is designed to contrast with the adjacent roadway in order to increase the conspicuity of a pedestrian crossing and increase drivers' awareness of potential conflicts.

In 2018, three decorative crosswalks were installed; two in-front of City Hall on Main Street West and Summers Lane and one at McMaster University on Sterling Avenue.

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SUBJECT: Decorative Crosswalks (PW20041) (City Wide) – Page 2 of 4

City Council has not formally approved the use of decorative crosswalks in the City of Hamilton, nor are there any processes or principals to guide their design, installation and maintenance. The Decorative Crosswalk Guideline has been developed to fill this gap and is proposed to be used to govern decorative crosswalks throughout the City.

The guideline is in conformance with the Art in Public Places Policy and when used in conjunction with this document, provides a comprehensive approach to managing decorative crosswalks.

Alternatives for Consideration – N/A

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The cost of installing and maintaining decorative crosswalks would be cost shared by the City and the person or agency requesting decorative crosswalks as per the cost sharing allocation in Table 5.1 of the policy.

Staffing: N/A

Legal: A sponsorship agreement would be required between the City and each person or agency requesting the decorative crosswalk related to installation costs, maintenance and levels of service.

HISTORICAL BACKGROUND

On June 18, 2018, Public Works Committee approved a motion to install rainbow crosswalks on Stirling Street and Forsyth Avenue and Main Street West at Summers Lane.

The decorative crosswalks were installed in late July 2018 crossing Stirling Street (Trans flag crosswalk), Main Street West at Summers Lane (Diversity crosswalk) and on Summers Lane at Main Street West (Trans flag crosswalk).

On October 15, 2018 the City of Hamilton entered into an agreement with TD Canada Trust for a 5-year sponsorship agreement, totalling \$10,000, to offset on-going maintenance costs of the two decorative crosswalks on Main Street West and Summers Lane.

The installation of these crosswalks has provided valuable insight into maintenance and operating issues (discolouration and tire skids) associated with various design patterns and location selection criteria.

SUBJECT: Decorative Crosswalks (PW20041) (City Wide) – Page 3 of 4

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

The following key stakeholders have been consulted with respect to the development and content of this report and the Decorative Crosswalk Guideline:

- Planning & Economic Development, Tourism & Culture;
- Corporate Services.

ANALYSIS AND RATIONALE FOR RECOMMENDATIONS

Crosswalks exist on roadways throughout the City of Hamilton at intersections, between intersections and on all road classification types. They indicate and assist in facilitating safe crossing points for pedestrians and therefore are an important part of the transportation network.

The function, design and appearance of crosswalks is governed by the Highway Traffic Act (HTA), Manual of Uniform Traffic Control Devices for Canada (MUTCDC) and the Ontario Traffic Manual (OTM). At a minimum, a legal crosswalk must be comprised by two white transverse lines that extend the entire length of a roadway. Ladder crosswalks (also known as zebra) include additional markings consisting of longitudinal lines (like the rungs of a ladder) that are perpendicular and installed in-between the two white transverse lines. Ladder crosswalks are only mandated to be installed at pedestrian crossovers (PXO's), otherwise their use is at the discretion of municipalities.

The area of a crosswalk which is framed by the two white transverse lines and the edge of roadway (or curb) is not restricted, except for PXO's. Therefore, decorative elements (artwork) can be legally applied to the road surface.

A 'decorative crosswalk' is a crosswalk that includes elements (colour, design, imagery, texture and/or material) that is considered aesthetic enhancements above and beyond standard crosswalk treatments.

The City does not have a guideline or parameters to govern the approval, installation and maintenance of decorative crosswalks, nor has Council formally approved the use of decorative crosswalks. The Decorative Crosswalk Guideline (attached to Report PW20041 as Appendix "A"), has been developed to support and facilitate the installation, of decorative crosswalks in the City. It aligns with the Art in Public Places Policy and in coordination with this document, provides comprehensive guiding process and principals. The guideline includes information pertaining to process, permitted locations, installation and maintenance, materials, costs and roles and responsibilities.

SUBJECT: Decorative Crosswalks (PW20041) (City Wide) – Page 4 of 4

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20041 – Decorative Crosswalk Guideline



Decorative Crosswalk Guideline



Trans Flag Decorative Crosswalk, Stirling Avenue

Decorative Crosswalk Guideline

1.0 Introduction

Crosswalks are an integral component of the transportation network that distinctly indicates safe roadway crossing locations for pedestrians by means of lines or other markings on the surface of the roadway. Vehicle traffic is controlled at crosswalks with stop signs, pedestrian crossovers (PXO's), and partial or full traffic signals. Crosswalks exist at intersections, between intersections (mid-block) and on all road classification types throughout the City of Hamilton.

The size and colour of crosswalk pavement markings is governed by the Ontario Traffic Manual (OTM). The transverse lines, which are lines that run perpendicular to the roadway and establish the boundaries of the crosswalk, must be white and extend the entire length of the crosswalk. Ladder (also referred to as zebra) markings are suggested for crosswalks where higher visibility is desired. The longitudinal lines (rungs of the ladder) are also normally white; however, the OTM does not specify that they must be white.

The Highway Traffic Act (HTA), specifically Ontario Regulation 402/15: Pedestrian Crossover Signs, requires that PXO's include ladder pavement markings and that the longitudinal lines (rungs) are to the width and spacing as specified. Like OTM, the colour of the rungs are not mandated to be white.

The OTM does state that textured or coloured crosswalks should be "applied to increase the conspicuity of a pedestrian crossings and increase driver's awareness of potential conflicts". It goes on to state that the "materials should be designed to maintain visibility at night".

Decorative crosswalks are typically understood to be crosswalks that include elements (colour, design, imagery, texture and/or material) that are considered aesthetic enhancements above and beyond standard crosswalk treatments. In Hamilton, an example of a decorative crosswalk is the rainbow crosswalk located on Main Street West at Summers Lane in-front of City Hall, which was installed in 2018.

Crosswalks must always include two white transverse lines, and except for PXO's, the pavement marking treatment in between the transverse lines is not restricted. Therefore, decorative elements (artwork) can be legally applied to the road surface if they are 'framed' by the white transverse lines and the edge of the roadway (normally being curbs). However, it is implied that the design of the treatment would not negatively impact the safety of road users, visually or otherwise.

The Decorative Sidewalk Guideline is constructed to support and facilitate the installation of decorative crosswalks in the City of Hamilton. It directly aligns with the City of Hamilton Art in Public Places Policy which recognizes that "art in public places enriches the quality of life of its citizens adding cultural, social and economic value to our shared public spaces".

2.0 Process

The desire to install decorative crosswalks can be driven by external and internal interests. Individuals, communities, organizations or agencies may express interest to install a decorative crosswalk on a City roadway. Additionally, decorative crosswalks may be incorporated into City projects, such as roadway reconstruction or other similar initiatives.

Parties with an expressed interest to install a decorative crosswalk shall consult with the Public Works Department, Transportation Operations & Maintenance Division. An agreement between the applicant and the City may be necessary to formalize installation and maintenance cost terms and responsibilities.

Enabling the installation of decorative crosswalks aligns with the City of Hamilton Art in Public Places Policy. This policy provides a framework "to guide the conception, planning and implementation of successful art in public places projects". It includes five processes, specifically Publicly Commissioned Art, Donated Art, Community Art, Integrated Art and Temporary Art.

The Art in Public Places Policy is comprehensive and directly applicable to decorative crosswalks. Therefore, the Art in Public Places Policy shall be used to manage the application, selection and implementation of decorative crosswalks. Combined, the Art in Public Places Policy and the Decorative Crosswalk Guideline shall govern decorative crosswalks in the City of Hamilton.

3.0 Permitted Locations

Selecting a location for the installation of decorative crosswalks is important to ensure that they are appropriate, sustainable and safe. The primary consideration in approving a decorative crosswalk location is the safety of pedestrians, cyclists and motorists. Where safety may be negatively impacted, a decorative crosswalk will not be permitted to be installed.

Decorative crosswalks should be avoided, without special consideration and permission, across roadways that have high volumes of traffic and/or a high percentage of truck traffic, specifically, major and minor arterial roadways as classified by the Urban Hamilton Official Plan and the Rural Hamilton Official Plan. On arterial roadways,

maintenance is cost prohibitive given the amount of tire wear and marks from large trucks.

Decorative crosswalks can be installed on collector and local classified roadways. This includes collector and local roadways that intersect with, or immediately parallel to, major/minor arterial roadways permitting that the crosswalk is located on the secondary leg(s) of the intersection.

It is important that the roadways are in acceptable condition. The installation location surface must be free of potholes, fatigue cracking, loose debris or other similar degraded conditions which would inhibit the installation of surface treatments or perceivably shorten the operational life. Asphalt roadways are preferred, however concrete roads can be considered. Roadways that are constructed using unit pavers, stamped textures or comprised of mixed materials (such as adjoining asphalt and concrete surfaces) should be avoided. Roadways that are scheduled for reconstruction or re-surfacing within five (5) years or less from the time of decorative crosswalk installation must be avoided so that the treatments are not inadvertently removed earlier than intended or before their operational end-of-life.

4.0 Installation & Maintenance

Proper installation and maintenance of decorative crosswalk treatments protects their overall integrity and longevity. Therefore, they must be installed in a professional by forces that are sufficiently trained and skilled, using appropriate materials and methods, routinely monitored, repaired and maintained.

4.1 Decorative Crosswalk Specifications

- i. Artwork must be contained within the two white standard transverse lines of the crosswalk and the edge of the roadway. Treatment must be configured so that a pedestrian's first step is onto asphalt (the bare road surface), achieved by starting the artwork approximately 1.0 metre away from the curb/edge of road. It must not continue or extend onto median islands, curb gutters, curbs, sidewalks or other roadway features;
- ii. Artwork must not be applied to utility manhole covers, chamber lids, frames or other similar infrastructure;
- iii. Artwork should provide visual contrast and be reflective as per the requirements of the Ontario Traffic Manual;

- iv. Artwork that would be considered ladder (or zebra) markings, must dimensionally conform to the requirements of the HTA and Ontario Traffic Manual;
- v. Artwork shall respect community standards concerning appropriate subjects and imagery for display in public places. Further, commercial interests such as advertising and copyright protected content is not permitted without special consideration and explicit permission;
- vi. Artwork must not be comprised of any elements that road users, particularly pedestrians, would interact with such as hopscotch as an example;
- vii. Artwork must not directly or inadvertently mislead the general use or guidance of the crosswalk, especially users whom are visually impaired; and
- viii. Artwork shall comply with the City of Hamilton Art in Public Places Policy.

4.2 Material & Installation

- i. Durable skid resistant pavement markings, such as thermoplastic or cold plastic, must be used for artwork and as specified by the Public Works Department. The in-service operational life of durable pavement markings is approximately five (5) years, and dependent upon roadway surface conditions and traffic volumes.
- ii. Artwork must be reflective as per the requirements of the Ontario Traffic Manual;
- iii. Decorative crosswalks must be installed by the City of Hamilton, Public Works Department or by contractors as directed by the same;
- iv. Artwork designs shall be reasonable, easily reproduced and installed using the noted marking materials and their associated installation methods. Artwork must be acceptable and appropriate based upon the Art in Public Places policy process and requirements; and
- v. Installation shall be scheduled to occur seasonally in the late spring to early fall or as weather and conditions permit to ensure optimal adherence of materials to roadway surfaces.

4.3 Maintenance & Operations

- i. Decorative crosswalks shall be maintained (repaired, cleaned, etc.) by the City of Hamilton, Public Works Department;
- ii. It is recognized that decorative crosswalks do not have an attributed level of service as defined by Ontario Regulation 239/02: Minimum Maintenance Standards for Municipal Highways. However, decorative crosswalks shall generally be inspected by the City of Hamilton, Public Works Department, once per calendar year, typically in the late spring;
- iii. Maintenance of decorative crosswalks shall be safety focused, but also to maintain the integrity and longevity of the artwork. Maintenance shall be generally conducted on an as-needed basis;
- iv. Decorative crosswalks do not have an infinite life and would need to be removed (and replaced if appropriate) when deemed necessary or as required by any terms and/or agreements of their installation;
- v. Requestors of decorative crosswalks shall be responsible for installation costs and share maintenance costs with the City of Hamilton as described in Section 5.0 of this guideline.

5.0 Attributed Costs

The cost of installing and maintaining decorative crosswalks will have an impact on capital and existing operational budgets. Because of this, the person or agency requesting decorative crosswalks shall share in all or part of the costs. Table 5.1 outlines installation cost sharing.

Table 5.1 – Decorative Crosswalk Cost Sharing

Installation Cost	City Share	Requestor's Share
Existing non-ladder crosswalk	40% (Cost of white durable pavement markings)	60% (Cost difference between standard ladder markings and artwork)
Existing ladder crosswalk (< = 3 years old)	None	100%
Existing ladder crosswalk (> = 3 years old)	40% (Cost of white durable pavement markings)	60% (Cost difference between standard ladder markings and artwork)
All other locations	None	100%

The cost of installing a decorative crosswalk is be dependent upon the intricacy, width of the roadway, coverage of the artwork and location. It is estimated that installation costs would be between \$5,000 and \$15,000 depending on the length of the crossing.

The ongoing maintenance of the decorative crosswalks shall be shared between the City of Hamilton and the requestor based upon the cost difference between standard crosswalks and decorative crosswalks. Costs would also be dependent upon the same primary cost drivers noted as part of installation (above).

Maintenance costs shall be determined at the time of approval and based upon the design of the decorative crosswalks and perceived attributed maintenance cost pressures.

Installation and maintenance costs which are shared with the City of Hamilton by requestors should be formalized by establishment of a written agreement.

Decorative crosswalks that are not requested by external people or agencies, but rather internal to the City of Hamilton, installation costs shall be funded from an appropriate capital budget. Maintenance and operation costs shall be funded from an appropriate operating budget and annual budgets shall be reasonably adjusted as decorative crosswalks are added or removed.

6.0 Roles & Responsibilities

- i. The General Manager of Public Works, or their delegate, shall be responsible for administering and recommending updates to this guideline;
- ii. Decorative crosswalk artwork approval shall be the responsibility of the Public Works Department, Transportation Operations & Maintenance Division and in collaboration with the Planning & Economic Development Department, Tourism & Culture Division.
- iii. The Public Works Department, Transportation Operations and Maintenance Division shall be responsible for coordinating, planning, implementing and maintaining decorative crosswalks in the City of Hamilton; and
- iv. Requestors shall share in the ownership and responsibility of decorative crosswalks as governed by any formal agreements or terms as they apply.



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations and Maintenance Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Community Safety Zones (PW20045) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Mike Field (905) 546-2424 Ext. 4576 David Ferguson (905) 546-2424 Ext. 2433 Ryan Krantz (905) 546-2424 Ext. 5663
SUBMITTED BY:	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department
SIGNATURE:	

RECOMMENDATION

- (a) That the amendment of City of Hamilton By-law 01-215, being a by-law to Regulate Traffic ("City of Hamilton Traffic By-law"), to add the designation for community safety zones, attached to Report PW20045 as Appendix "A", and which has been prepared in a form satisfactory to the City Solicitor be approved;
- (b) That the Community Safety Zone Selection Guideline, attached to Report PW20045 as Appendix "B", be received; and
- (c) That the Mayor submit a letter to the Ministry of Transportation Ontario, on behalf of City Council, seeking legislative and regulatory amendments to allow municipalities to administer Automated Speed Enforcement and Red-Light Camera Enforcement programs through the Administrative Monetary Penalty system.

EXECUTIVE SUMMARY

On January 13, 2020, Council directed staff to initiate a one-year automated speed enforcement (ASE) pilot program to be used in designated school zones and community safety zones utilizing two mobile automated speed enforcement units, to assess the

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SUBJECT: Community Safety Zones (PW20045) (City Wide) - Page 2 of 7

technology and impacts on the City and Provincial Offences Court system through the Automated Speed Enforcement Report (PW20002).

Prior to the implementation of the enforcement camera, ASE signage is displayed at the location for a period of 90 days and it is removed after the enforcement period. The two mobile automated speed enforcement units would be rotated through 12 locations over the course of pilot program. The impacts of the pilot program on community safety and the Provincial Offences Court system will be monitored and a report with these findings will be presented to Public Works Committee in Q3 of 2021.

According to provincial legislation, a location must be identified as either a school zone or a community safety zone in order to deploy and operate ASE equipment. The City of Hamilton Traffic by-law does not include a designation for community safety zones, nor is there a process or guideline in place to select them.

Community safety zones help to change driver behaviour, including reducing speed and distracted driving, and improving safety on certain sections of road where public safety is of special concern. Fines for speeding and careless driving are doubled and fines for other Highway Traffic Act offences are also higher in these zones.

Proposed amendments to the City of Hamilton Traffic By-law which includes the addition of a designation for community safety zones is attached to Report PW20045 as Appendix "A". This amendment is required to permit the deployment and operation of ASE equipment in locations in addition to school zones.

An implementation guideline entitled 'Community Safety Zone Selection Guideline', has been developed to select and rank candidate locations, which is attached to Report PW20045 as Appendix "B".

To assist with implementation of the ASE pilot project, Transportation Operations & Maintenance have evaluated seventy-five (75) candidate locations, using the selection guideline, and identified twelve (12) locations as well as ASE deployment schedules which will be used, as attached to Report PW20045 as Appendix "C". The twelve (12) locations have been included in the amendment of City of Hamilton By-law 01-215 (Appendix "A") as they are required to be formally designated as community safety zones for ASE implementation.

Alternatives for Consideration – See Page 6**FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

Financial: Not applicable; funding for community safety zones and ASE was previously approved on January 13, 2020 via Automated Speed Enforcement Report PW20002.

SUBJECT: Community Safety Zones (PW20045) (City Wide) - Page 3 of 7

Staffing: N/A

Legal: Amendment to Traffic By-law 01-215.

HISTORICAL BACKGROUND

On September 1, 1998, the *Highway Traffic Act*, R.S.O. 1990, c. H.8 (HTA) was amended to permit municipalities to establish community safety zones on public roads under their jurisdiction. The City of Hamilton is one of the few larger municipalities that does not have designated community safety zones.

Under Section 214.1(1) of the HTA, delegated authority was given to the Council of municipalities to designate, by by-law, a part of a highway under its jurisdiction as a community safety zone if, in the Council's opinion, public safety is of special concern on that part of the highway.

On May 30, 2017, the Province of Ontario passed Bill 65, the Safer School Zones Act, which amended the HTA to facilitate the municipal adoption of ASE technology on roads with speed limits under 80 km/h in designated school zones and community safety zones.

In February 2019, Council approved the Hamilton Strategic Road Safety Program and Vision Zero Action Plan 2019-2025 through Report PW19015, which identified the use of ASE technology.

In January 2020, Council authorized the use of ASE for a one-year limited use pilot in designated school zones and community safety zones utilizing two mobile automated speed enforcement units.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The recommended community safety zones align with the community vision established in the following Council approved policies:

Hamilton Transportation Master Plan

Applicable Section	Description
2.3 Strategic Plan Direction	Objective 3 Enhance the liveability of neighbourhoods and rural areas.
Policy Theme: Emerging Technology	Identify opportunities for and run pilot projects to assess the applicability and/or feasibility of implementing new technological opportunities.
Policy Theme: Road Safety	Apply speed reduction techniques through the implementation of CLB streets as well as through other opportunities.

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SUBJECT: Community Safety Zones (PW20045) (City Wide) - Page 4 of 7

Hamilton Council Strategic Plan 2016-2025

Applicable Section	Description
Our Mission	To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

Hamilton Strategic Road Safety Program and Vision Zero Action Plan 2019-2025

Applicable Section	Description
Vision	To have the safest traffic record in Canada
Mission	To improve the quality of life of the citizens of Hamilton through a reduction in property damage and injury resulting from traffic collisions
Primary Emphasis Areas	Aggressive Driving, Intersections, and Vulnerable Users

RELEVANT CONSULTATION

The following key stakeholders have been consulted with respect to the development and content of this report:

- Provincial Automated Speed Enforcement Steering Committee;
- Hamilton Strategic Road Safety Committee;
- Road Safety Committee of Ontario (ROSCO);
- Ontario Ministry of Transportation;
- Ontario Traffic Council;
- Legal Services;
- City Clerks; and
- Corporate Services.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Community safety zones are typically designated on roadways directly abutting or in proximity to schools, day-care centres, retirement residences, or road sections that public safety is of special concern. Within designated community safety zones traffic laws remain the same, however traffic offences are subject to the doubling of fines, and like red light camera offences, demerit points are not affected.

The intent of community safety zones is to provide road users with visual awareness that they should be diligent in their attentiveness to roadway safety when traveling in or through designated areas. The doubling of traffic offence fines assists in reinforcing the importance of safety and to modify driver behaviour.

SUBJECT: Community Safety Zones (PW20045) (City Wide) - Page 5 of 7

In accordance with Subsections 214.1 (4) and (5) of the HTA, community safety zone designations do not take effect until municipal by-laws are in place and the required signage is posted. Community safety zone signs are posted at the limits of the zone with "Begins" and "Ends" tabs defining the legal limits of the zone to meet the requirements of the Ontario Traffic Manual, Book 5. The rules of the road don't change within the zone, only the penalties for violations are increased. City of Hamilton by-law 01-215 being a By-law to Regulate Traffic ("City of Hamilton Traffic By-law"), must be amended to permit the designation of community safety zones. The proposed amendment is attached to Report PW20045 as Appendix "A".

Based on Provincial guidelines for the implementation of ASE, Transportation Operations & Maintenance have developed a guideline for community safety zone selection. The guideline, attached to Report PW20045 as Appendix "B" to this report, is intended to provide a consistent, repeatable, transparent and defined method for designating community safety zones and responding to requests from Council and the public.

Scored ranking criteria takes roadway characteristics into account such as daily traffic volume, vehicle operating speed, pedestrian volumes, collision history, and the presence (or lack of) multi-modal amenities to determine areas that would benefit from being designated as a community safety zone. The ranking of locations that meet the guideline will ensure that roadways with a greater number of vulnerable road users and higher exposures to roadway safety risk factors will receive priority designation.

Roadway safety risk factor exposure in existing designated school zones vary from location to location. School zones can also be designated as community safety zones as well (dual designation) and would then benefit from the doubling of traffic offence fines. The guideline identifies that designated school zones that score a minimum of 25 points also be designated as community safety zones.

ASE is not permitted for use on roadways with reduced speed limits controlled by flashing beacons. Since these roadways are usually higher classified type roadways, Transportation Operations & Maintenance recommends that these locations still be permitted to be designated as community safety zones and that enforcement be undertaken by Hamilton Police Services.

Transportation Operations & Maintenance evaluated seventy-five (75) community safety zone candidate locations in order to select zones which will be included as part of the ASE pilot project. A list of ASE community safety zone locations which is comprised of twelve (12) locations (mapped locations attached to Report PW20045 as Appendix "D") and ASE implementation dates and the ranking list of the seventy-five (75) candidate locations has been attached to this report as Appendix 'C'. Further evaluation of additional candidate locations has been paused because traffic volume counting is suspended during COVID-19 conditions.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: Community Safety Zones (PW20045) (City Wide) - Page 6 of 7

Depending upon the status of schools opening in September of 2020, due to COVID-19, the proposed ASE deployment locations may be revised in a scenario in which schools do not re-open. Should this occur, the next highest ranked candidate location, that does not include a school zone, will be used.

In consultation with the Ontario Traffic Council and Hamilton Legal Services, it is recommended that the City of Hamilton write to the Minister of Transportation to thank her for considering an AMPS regime to ASE and Red-Light Camera Programs in 2022. The pressure on our overburdened POA courts was already a problem pre-Covid-19 and the backlogs over the next year will cause some serious challenges with contested provincial offences fines, which now include ASE. In moving these programs to AMPS, it will permit the municipality to potentially increase the number of operating locations as a result of reduced costs and be able to have a primary focus on roadway safety without increased pressure to a stressed court system.

ALTERNATIVES FOR CONSIDERATION

Council has already approved and directed Transportation Operations & Maintenance to implement Automated Speed Enforcement in designated school zones and community safety zones on January 13, 2020 via Automated Speed Enforcement Report (PW20002).

While Council may choose to identify alternate candidates for community safety zones for use with the ASE pilot program, it is recommended that the guideline be utilized in order to focus on the highest priority locations and to provide a consistent, repeatable, transparent and defined method for designating community safety zones.

The ASE pilot program is limited in the number of locations that can be assessed due to the use of two cameras and the notification requirements. Upon completion of the pilot program, dependent on the results of the ASE initiative, the program may be expanded, and the number of community safety zones within the ASE initiative may be increased.

Additional community safety zones may be designated outside of the ASE initiative that would be enforced subject to the availability of resources from the Hamilton Police Services. Staff can work with Councillors to review potential locations and their suitability for community safety zone implementation and report back at a future date.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN**Community Engagement and Participation**

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

SUBJECT: Community Safety Zones (PW20045) (City Wide) - Page 7 of 7

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20045 – Amending By-law to City of Hamilton By-law 01 215,
being a By-law to Regulate Traffic, to designate
Community Safety Zones

Appendix “B” to Report PW20045 – Community Safety Zone Selection Guideline

Appendix “C” to Report PW20045 – ASE Deployment Schedule and Ranking

Appendix “D” to Report PW20045 – CSZ/ASE Locations

Authority: Item ,
Report
CM:
Ward:

Bill No.

**CITY OF HAMILTON
BY-LAW NO.**

To Amend City of Hamilton By-law 01-215, being a By-law to Regulate Traffic, to designate Community Safety Zones in Hamilton

WHEREAS Council enacted a By-law to Regulate Traffic in the City of Hamilton, By-law 01-215;

AND WHEREAS this amending by-law amends By-law 01-215 to designate Community Safety Zones as hereinafter described and depicted;

NOW THEREFORE the Council of the City of Hamilton enacts as follows:

1. That the amendments in this By-law include any necessary grammatical, numbering and letter changes.
2. That the following definition be added in Part 1, Definitions & Interpretations:

"Community Safety Zone" means a part of a highway which is designated by an authorized sign as a community safety zone and is listed in Schedule 34 of this By-law, being areas where public safety is of special concern, as identified by the City, and where fines imposed upon conviction of a moving violation, are increased.

3. That Part 2 – Traffic Regulations, be amended by adding the following section:

COMMUNITY SAFETY ZONES DESIGNATION

- 7.1 Community Safety Zones are established where an Authorized Sign to that effect has been posted on any Highway set out in Column 1 of Schedule 34 between the limits set out in Column 2, during the time of day set out in Column 3.
4. That the following Schedule 34 be included in and form part of By-law 01-215:

Appendix “A” to Report PW20045
Page 2 of 2

Schedule 34: Designated Community Safety Zones		
Column 1 Highway	Column 2 Between	Column 3 Times of day
Bellagio Avenue	Fletcher Road and Kingsborough Drive	Anytime
Broker Drive	Upper Ottawa Street to Mountain Brow Boulevard	Anytime
Gage Avenue	Lawrence Road to Main Street East	Anytime
Glancaster Road	Rymal Road West and Book Road	Anytime
Greenhill Avenue	Quigley Road and Mount Albion Road	Anytime
Harvest Road	Brock Road and Ofield Road South	Anytime
Lawrence Road	Gage Avenue South and Ottawa Street South	Anytime
Lawrence Road	Cochrane Road and Mount Albion Road	Anytime
Lewis Road	Barton Street East and Highway 8	Anytime
Main Street North	Parkside Drive and Dundas Street East	Anytime
Stone Church Road East	Dartnall Road and Pritchard Road	Anytime
Trinity Church Road	Binbrook Road and 500 m south of Rymal Road	Anytime
2nd Street North	Charles Street and King Street West	Anytime

4. That in all other respects By-law 01-215 is confirmed; and
5. That the provisions of this by-law shall become effective on the date approved by City Council.

PASSED this X day of July, 2020

F. Eisenberger
Mayor

A. Holland
City Clerk



Hamilton

City of Hamilton

Community Safety Zone Selection Guideline

Community Safety Zone Selection Guideline

1.0 Introduction

A Community Safety Zone (CSZ) is a designated stretch of roadway marked with community safety zone signs which are recognized under Provincial legislation and allows the doubling of fines associated with speeding within the CSZ. Further, the Province of Ontario passed Bill 65, the Safer School Zones Act, which amended the Highway Traffic Act to facilitate the municipal adoption of Automated Speed Enforcement (ASE) technology on roads with speed limits under 80 km/h in designated school zones and CSZ's.

It is recognized that CSZ's help to change driver behaviour, including reducing speeding, distracted driving, and improving safety on roads where public safety is of special concern. This approach is in alignment with Vision Zero principals and the City of Hamilton Mission, Vision, values and goals.

This guideline has been developed to assist with the selection of CSZ's and is intended to provide a consistent, repeatable, transparent and defined method for designation and aid in responding to requests from Council and the public.

Scored ranking criteria is used to take roadway characteristics into account such as daily traffic volume, vehicle operating speed, pedestrian volumes, collision history, and the presence (or lack of) multi-modal amenities to determine areas that would benefit from being designated as a CSZ. The ranking of locations that meet the guideline will ensure that roadways with a greater number of vulnerable road users and higher exposures to roadway safety risk factors will receive priority designation.

This document is based on Provincial guidelines for the implementation of ASE and is comparable to criteria that is used by other municipalities in Ontario.

2.0 Selection Criteria

The Community Safety Zone Selection Guideline includes three criteria categories which are a) Risk Exposure, b) Collision Activity and c) Built Environment. Combined, the total score attained from review of each category is used to rank outcomes of reviewed roadways and prioritizes the implementation of CSZ designations.

2.1 Risk Exposure

Candidate locations are generally roadways with measurable poor speed limit compliance. In order to affect the largest population of drivers and benefit the largest number of vulnerable road users, a risk exposure index component is included in the site selection ranking. Risk exposure includes vehicle volume, 85th percentile vehicle speed, length of CSZ/school zone, school population and after school hour outdoor use data elements. While ASE may only be used during school hours, the after-hour use of the candidate location is an important exposure factor and is therefore included. The following ratings and weights, shall be utilized to obtain a scoring rank for the risk exposure criteria:

Table 2.1 – Risk Exposure Criteria

Component	Range	Rating	Weight
Traffic Volume (AADT)	< 1,000 v.p.d	1	3.0
"	1,001 to 3,000 v.p.d	2	
"	3001 to 5,000 v.p.d	3	
"	> 5,000 v.p.d	4	
Travel Speed	85 th percent - posted < 10 km/h	1	4.0
"	85 th percent - posted = 11 to 20 km/h	2	
"	85 th percent - posted = 21 to 30 km/h	3	
"	85 th percent - posted > 31 km/h	4	
Length of Zone	< 100 m	1	1.0
"	101 - 200 m	2	
"	201 - 300 m	3	
"	> 301 m	4	
School Population	<400 students	1	2.0
"	401 - 900 students	2	
"	901 - 1200 students	3	
"	> 1201 students	4	
After Hour Use	no	0	1.0
	yes	1	
2.1 Risk Exposure Total Score:			

2.2 Collision Activity

Collision history of candidate locations is an important consideration, however not all collisions are considered to have been speed related. Pedestrian - motor vehicle collisions and cyclist - motor vehicle collisions are included in the ranking process.

Collision data verification is required to determine which historical collisions occurred within the candidate location and which occurred beyond the zone. Rating only pedestrian – motorist and cyclist – motorist collisions equalizes local, collector and arterial roadways to some degree as arterial roadways tend to have higher numbers of collisions and more collision types than the lesser roadway classifications. The following ratings and weights, shall be used to obtain a scoring rank for the collision activity criteria:

Table 2.2 – Collision Activity Criteria

Component	Range	Rating	Weight
Prior 3 years Pedestrian - Motorist Collisions Only	0	0	4
"	1	2	
"	2	3	
"	3	4	
"	> 3	5	
Prior 3 years Cyclist - Motorist Collisions Only	0	0	4
"	1	2	
"	2	3	
"	3	4	
"	> 3	5	
2.2 Collision Activity Total Score:			

2.3 Built Environment

The absence of sidewalks, the presence of on-street bike lanes, the presence of on-street parking (whether permitted or prohibited), proximity to parks, the curvature of the roadway within and immediately adjacent to the candidate location and the presence of a speed limit transition within one kilometer of the candidate location are all factors which impact the comfort and safety of vulnerable road users. The applied scored criteria ensure that the environment of the candidate zone is reflected in the selection process. The following ratings and weights, shall be utilized to obtain a scoring rank for the built environment criteria:

Table 2.3 – Built Environment Criteria

Component	Range	Rating	Weight
Sidewalks	Both Sides	0	2.0
"	One Side Only	1	
"	None	2	
Bike Lanes	Both Sides	0	2.0
"	One Side Only	1	
"	None	2	
On Street Parking	None	1	1.0
	Present Although Prohibited	2	
	Present and Permitted	3	
Adjacent to Park	No	0	1.0
	Yes	3	
Roadway Curvature	None	0	2.0
	Present	1	
Speed Transition	None	0	2.0
	Present	1	
2.3 Built Environment Total Score:			

3.0 Application

Each of the three criteria categories (Risk Exposure, Collision Activity and Built Environment) shall be examined and total scores for each calculated, all three scores shall be combined to attain the total score for the candidate location.

Table 3.0 – Candidate Location Score

Criteria Category	Score
2.1 Risk Exposure Total Score:	
2.2 Collision Activity Total Score:	
2.3 Built Environment Total Score:	
Candidate Location Total Score:	

3.1 Minimum Score

A candidate location must achieve a minimum of 25 points in order to be considered for the designation of a CSZ.

3.2 Additional Influential Considerations

Other location specific considerations should be examined in addition to the scored criteria to determine if they should influence the priority ranking of the candidate location. These considerations include other vulnerable road users, types of schools, whether children or other vulnerable road users cross the road, percentage of students being driven to school versus walking, police and public input and whether schools have programs to actively encourage walking. Additional influential considerations shall be well documented and when viewed as elevating the priority of the candidate location, a validated explanation documented and provided.

3.3 Physical Feasibility Review

Prior to finalizing a candidate location's score and prioritization listing, a site audit must be conducted to ensure there are no physical impediments that may prevent or restrict the designation of a CSZ, including the full functionality of ASE equipment.

At a minimum, the following criteria should be reviewed at all candidate locations:

- There are no physical obstructions to signage or ASE equipment including on-street parking;
- If the location involves a change in the posted speed limit, the ability to accommodate a sufficient buffer;
- There is adequate boulevard space to accommodate ASE equipment; and
- There are no sharp curves in the road or extreme grading that may affect the operation of ASE equipment.

4.0 Ranking & Prioritization

Transportation Operations & Maintenance Division, Transportation Operations Section will maintain a master database of candidate location rankings, which shall be directly based upon the three criteria categories contained in the Community Safety Zone Selection Guideline. The database will contain the scored results for each candidate location and the total score attained. The ranking shall be sorted by highest scoring first and lowest scoring candidate locations last, additionally, a pass/fail indicator will be clearly established.

Additional influential considerations shall be included, and supplemental descriptions and documentation retained. A priority increase in ranking in the database shall be by approval by the Director after an assessment of information provided. Candidate locations that are given different ranking prioritization beyond the base criteria score must include a clear indicator on the master database.

5.0 Implementation

Implementation, meaning the formal designation of a CSZ via inclusion in the Traffic By-law and posting of signage, shall be incorporated into the Vision Zero Action Plan annual activities or as deemed necessary by the routine review of roadway safety.

The ASE pilot project, and/or future permanent establishment of an ASE program, will be coordinated with the implementation of CSZ's as required to support the pilot/program.

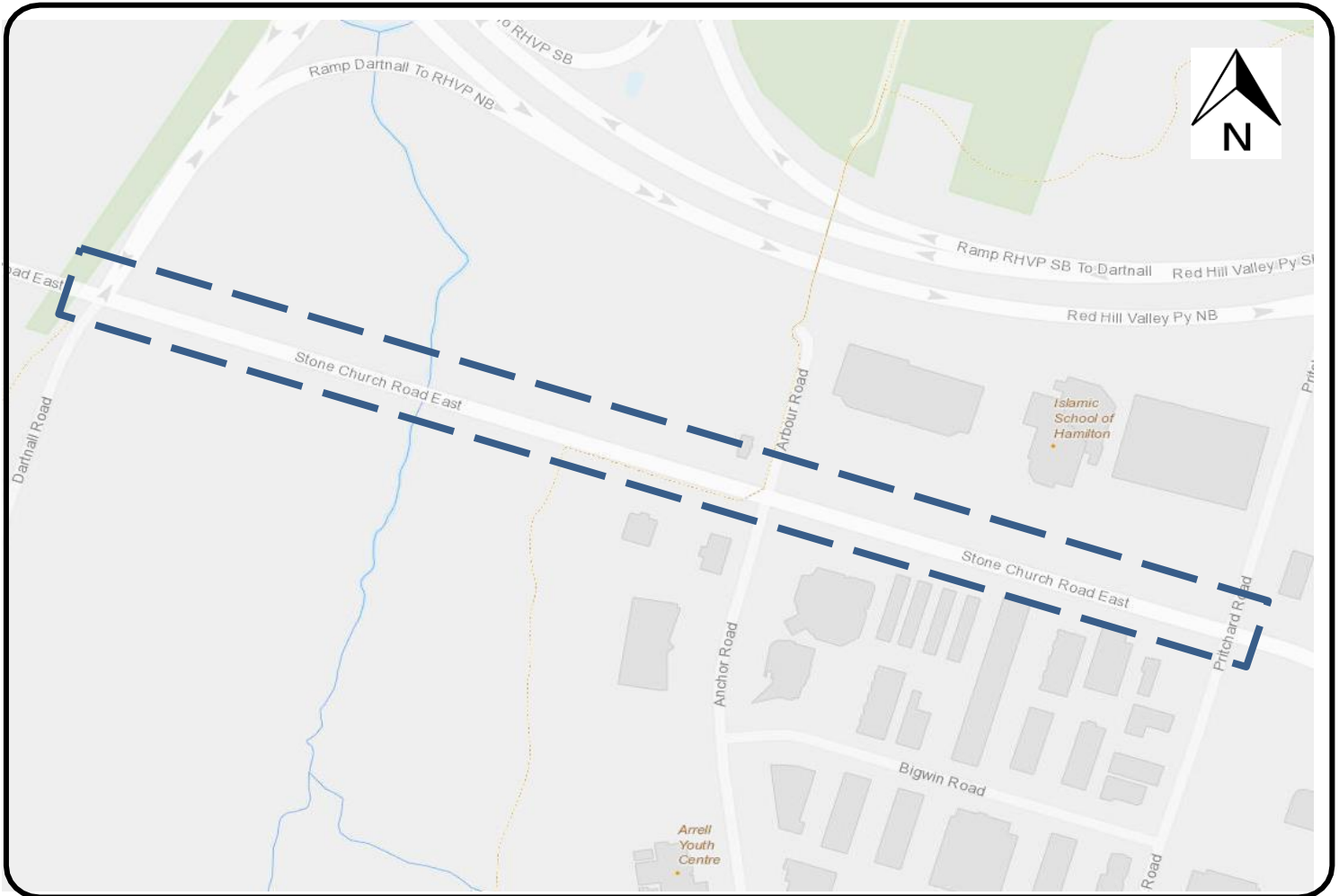
City of Hamilton
Automated Speed Enforcement Pilot Project Deployment Schedule

Location	Zone Type	'Coming Soon' Sign Installation Date	ASE Operation Date
Stone Church Road East – Dartnall Road to Pritchard Road	Community Safety Zone	July 2020	October 2020
Glancaster Road – Rymal Road West to Twenty Road	Community Safety Zone & School Zone	August 2020	November 2020
Bellagio Drive – Fletcher Road to Keystone Crescent	Community Safety Zone & School Zone	September 2020	December 2020
Lawrence Road – Gage Avenue South to Ottawa Street South	Community Safety Zone	October 2020	January 2021
Lawrence Road – Cochrane Road to Mount Albion Road	Community Safety Zone	November 2020	February 2021
Lewis Road – Barton Street East to Highway 8	Community Safety Zone & School Zone	December 2020	March 2021
Trinity Church Road – Guyatt Road to Dickenson Road	Community Safety Zone & School Zone	January 2021	April 2021
Harvest Road – Tews Lane to Forest Avenue	Community Safety Zone & School Zone	February 2021	May 2021
Main Street – Parkside Road to John Street	Community Safety Zone & School Zone	March 2021	June 2021
Broker Drive – Brentwood Drive to Kingslea Drive	Community Safety Zone & School Zone	April 2021	July 2021
2 nd Street – Charles Street to King Street West	Community Safety Zone	May 2021	August 2021
Greenhill Avenue – Quigley Road to Mount Albion Road	Community Safety Zone	June 2021	September 2021

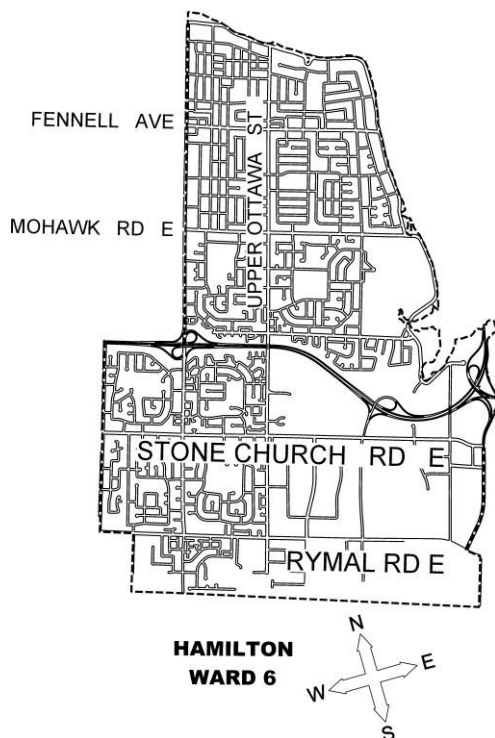
Community Safety Zone Ranking

Ranking	Location	Ward	Overall Score
1	Stone Church Road East – Dartnall Road to Pritchard Road	6	47
2	Glancaster Road - Rymal Road to Twenty Road	11	41
3	Lawrence Road - Gage Avenue South to Ottawa Street	3	40
4	Lawrence Road - Cochrane Road to Mt. Albion Road	4	38
5	Trinity Church Road - Guyatt Road to Dickenson Road	11	37
6	Bellagio Drive - Fletcher Road to Keystone Crescent	9	37
7	2nd Street – Charles Street to King Street West	5	36
8	Sydenham Road -Glendrummond Drive to Escarpment	13	35
9	Lewis Road - Barton Street to Highway #8	10	35
10	Greenhill Avenue - Quigley Road to Mount Albion Road	5	34
11	Wembley Road - West 5 th Street to West 2 nd Street	8	33
12	Harvest Road - Tews Lane to Forest Avenue	13	33
13	Main Street - Parkside Drive to John Street	15	32
14	Mountain Brow - Oakcrest Drive to Margate Avenue	6	31
15	First Road West - Isaac Brock Drive to Highland Road	9	31
16	Charlton Avenue – Dundurn Street to Locke Street	1	31
17	Lawrence Road - Ottawa Street South to Kenilworth Avenue South	4	31
18	Haldibrook Road – Hwy #6 to Miles Road	11	31
19	Broker Drive – Brentwood Drive to Kingslea Drive	6	31
20	Huntingwood Avenue - Davidson Boulevard to Castlewood Boulevard	13	30
21	Limeridge Road - Upper Sherman Avenue to Rockingham Drive	7	30
22	Inverness Avenue - Wavell Avenue to Skyland Drive	8	30
23	Maplewood Avenue - Blake Street to Springer Avenue	3	30
24	Windwood Drive - Bradley Avenue to Great Oak Trail	11	30
25	Sydenham Street – Alma Street to Melville Street	13	29
26	Gray Road – Queenston Road to Roxborough Avenue	10	29
27	San Pedro Drive – Goulding Avenue to Scenic Drive	14	29
28	Anson Avenue – Carson Drive to Moxley Drive	6	29
29	Brigade Drive – Bonaparte Way to Byng Street	7	29
30	Panabaker Road - Garner Road to Braithwaite Avenue	12	29
31	Meadowlands Boulevard - Golf Links Road to Shrewsbury Street	12	28
32	Nisbet Boulevard – Wimberly Avenue to Cole Street	15	28
33	Hunter Street – Bay Street North to MacNab Street	2	28
34	John Street North - Simcoe Street to Ferrie Street	2	28
35	Terrace Drive - South Bend Road East to Mohawk Road	8	28
36	Highbury Drive – Gatestone Drive to Whitdeer Road	9	28
37	Collegiate Avenue - Evergreen Avenue to Gray Road	5	27
38	Bridlewood Drive - Governors Road to Jerome Park Drive	13	27

Ranking	Location	Ward	Overall Score
39	Stinson Street – Victoria Avenue to Erie Avenue	3	26
40	Highland Road West - Second Street to Gatestone Drive	9	26
41	Isaac Brock Drive - Gordon Drummond Avenue to Gatestone Drive	9	26
42	Gemini Drive - Glenayr Street to Glamis Court	14	26
43	Turnbull Road - Kings Gate to Terrace Drive	13	26
44	Dundurn Street - Herkimer Street to Aberdeen Avenue	1	26
45	Davidson Boulevard - Winegarden Trail to MacDougall Drive	13	25
46	Ferguson Avenue - Ferrie Street to Wood Street	2	25
47	Upper Kenilworth Avenue – Landron Avenue to Limeridge Road East	6	25
48	Fruitland Road - Highway #8 to Barton Street East	10	25
49	Towercrest Drive – Colin Crescent to Upper Wellington Street	8	25
50	Cameron Avenue - McKay Road to York Road	13	25
51	Smith Avenue - Barton Street East to Cannon Street	3	25
52	Brucedale Avenue East - E5th Street to E8th Street	8	24
53	West 1st Street - Fennell Avenue to Monarch Road	8	24
54	Acadia Drive - Balharbour Drive to Emperor Avenue	7	24
55	Hummingbird Lane - Skylark Drive to Bobolink Road	7	24
56	Greenford Drive - Cromwell Crescent to Owen Place	5	24
57	Spring Creek Drive – Niska Drive to Forest Ridge Avenue	15	23
58	Lake Avenue – Delawana Drive to Barton Street East	5	23
59	Skinner Road - Burke Street to McKnight Avenue	15	23
60	Wexford Avenue - Central Avenue to Monterey Avenue	4	23
61	Tragina Avenue - Roxborough Avenue to Dunsmure Road	4	23
62	Birch Avenue – Cannon Street East to Barton Street East	3	22
63	Cochrane Road – Montrose Avenue to Dundonald Avenue	4	22
64	Lodor Street - Rousseaux Street to Academy Street	12	21
65	John Frederick Drive - Sexton Crescent to Southcote Road	12	21
66	Limeridge Road – Lawnview Drive to Lockton Crescent	7	21
67	Sanatorium Road – Rice Avenue to Upper Paradise Road	14	20
68	Lime Kiln Road – Mohawk Road to Highvalley Road	12	20
69	Hughson Street – Wood Street West to Picton Street West	2	19
70	Locke Street – Aberdeen Avenue to Herkimer Street	1	19
71	Walter Avenue South – Central Avenue to Queenston Road	4	19
72	West 18th Street – Elmwood Avenue to Bendamere Avenue	8	18
73	Haddon Avenue South – Main Street West to King Street West	1	18
74	Tate Avenue – Morley Street to Rennie Street	4	16
75	Roxborough Avenue – Parkdale Avenue North to Reid Avenue North	4	14



WARD



LOCATION PLAN

PROPOSED AREA:

Stone Church Road East from Darnall Road to Pritchard Road

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

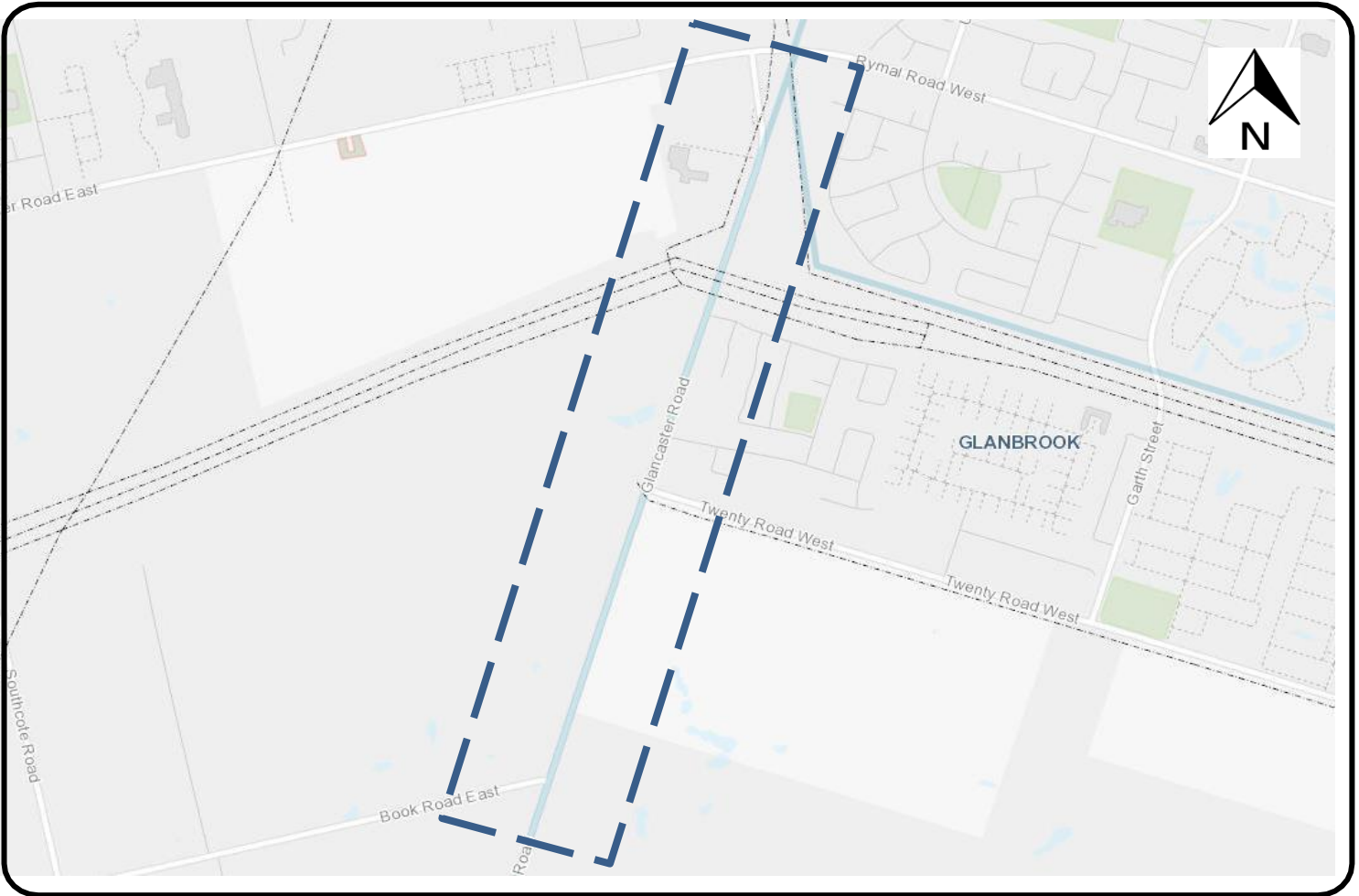
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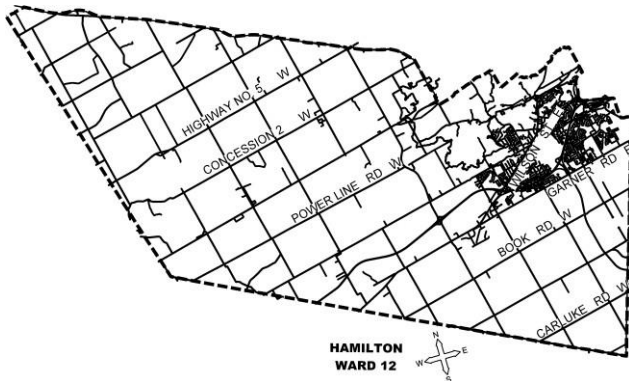
PROPOSED COMMUNITY SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Glancaster Road from Rymal Road West to Book Road East

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

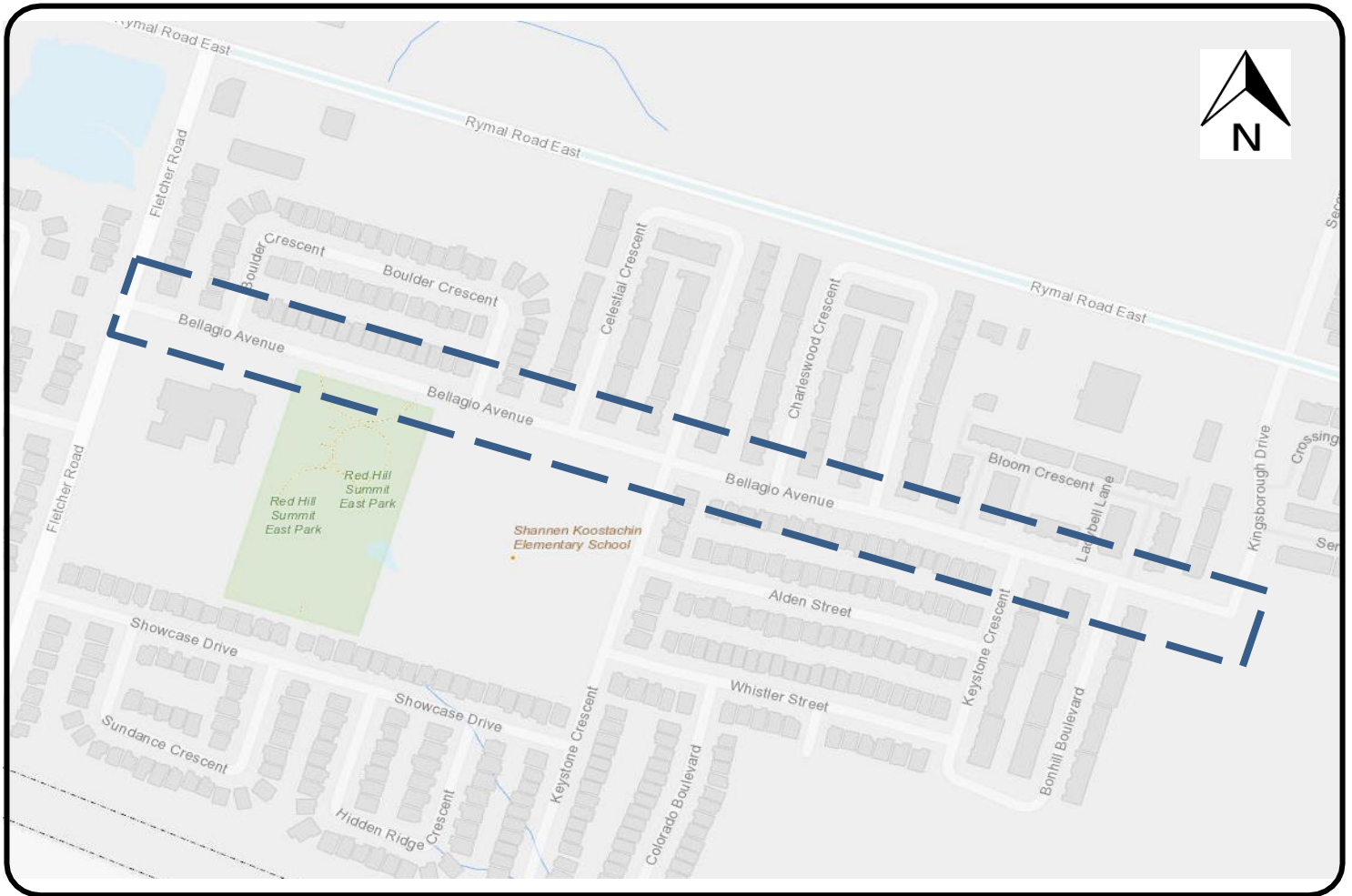
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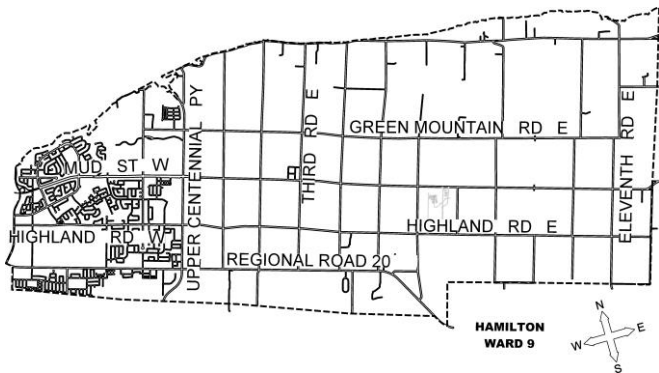
PROPOSED COMMUNITY SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Bellagio Avenue from Fletcher Road to Kingsborough Drive

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

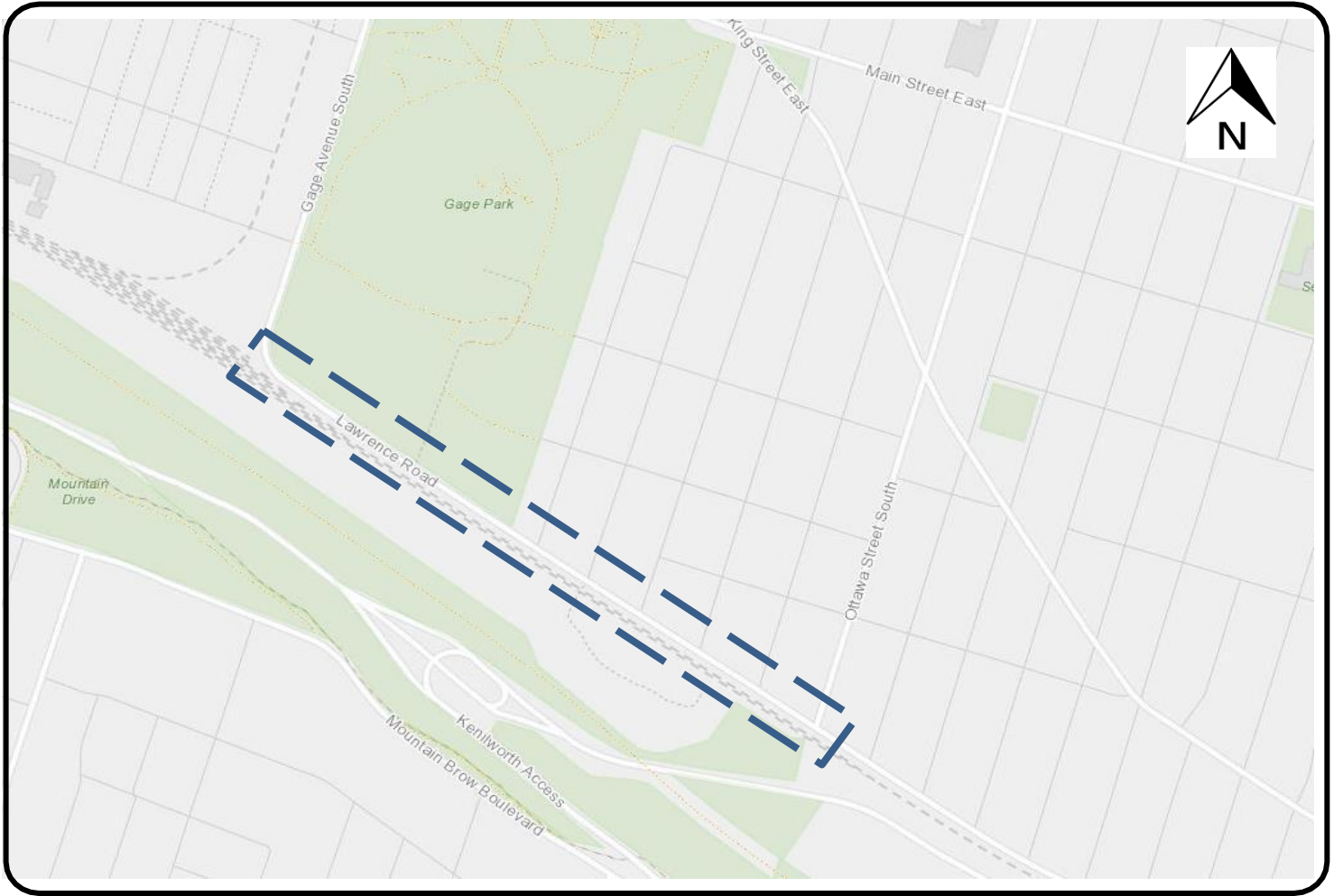
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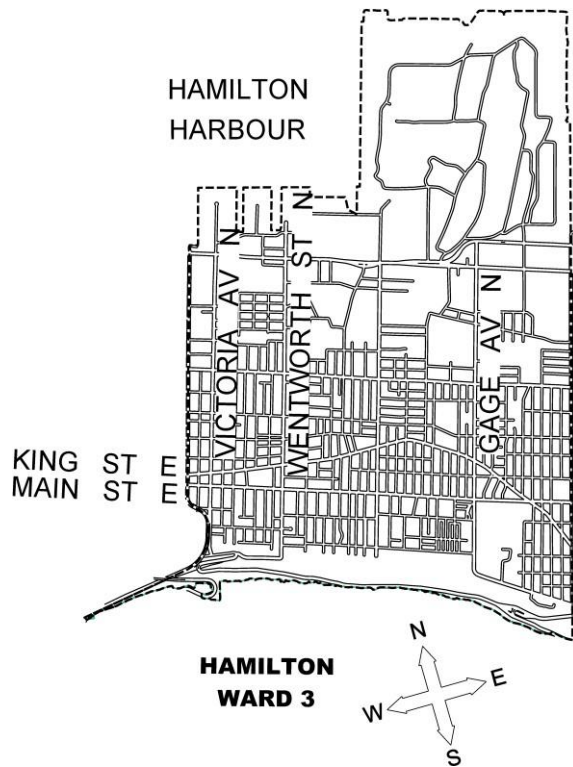
PROPOSED COMMUNITY SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Lawrence Road from Gage Avenue South to
Ottawa Street South

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

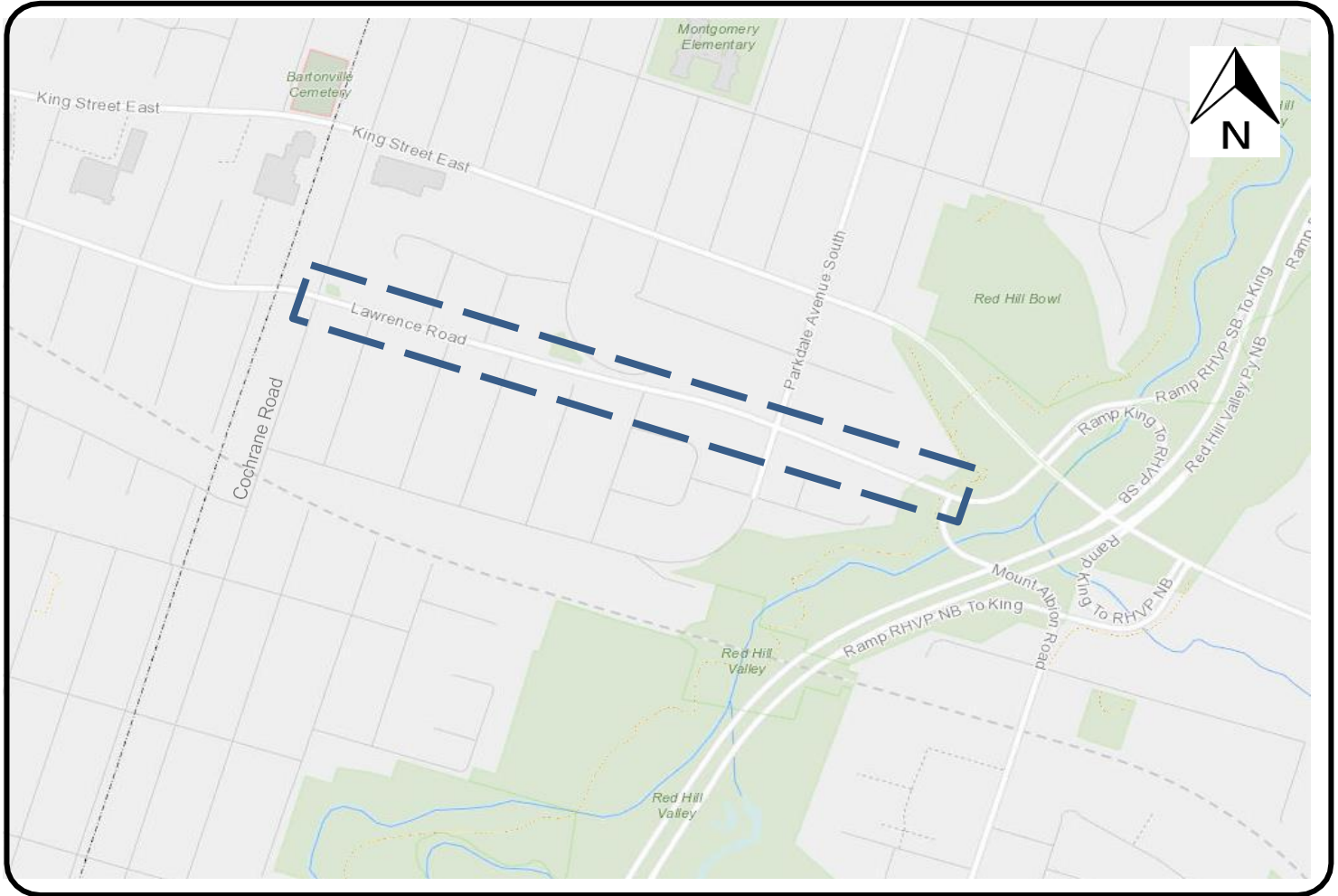
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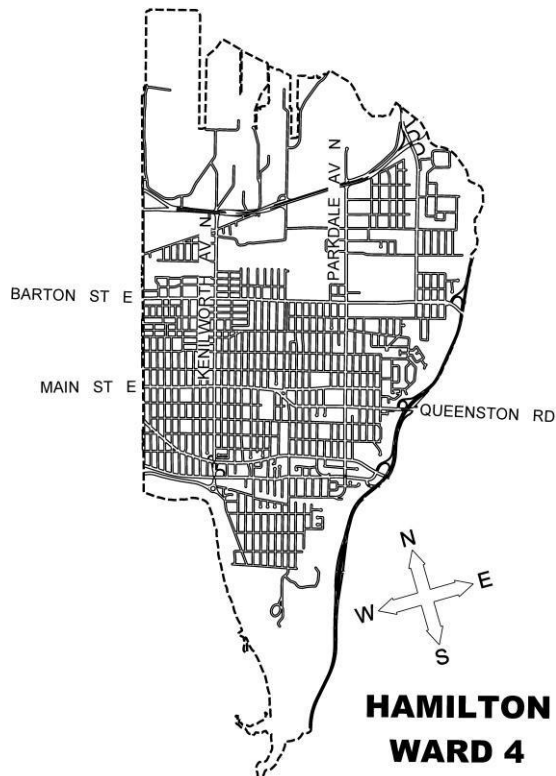
PROPOSED COMMUNITY
SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



**HAMILTON
WARD 4**

LOCATION PLAN

PROPOSED AREA:

Lawrence Road from Cochrane Road to Mount
Albion Road

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

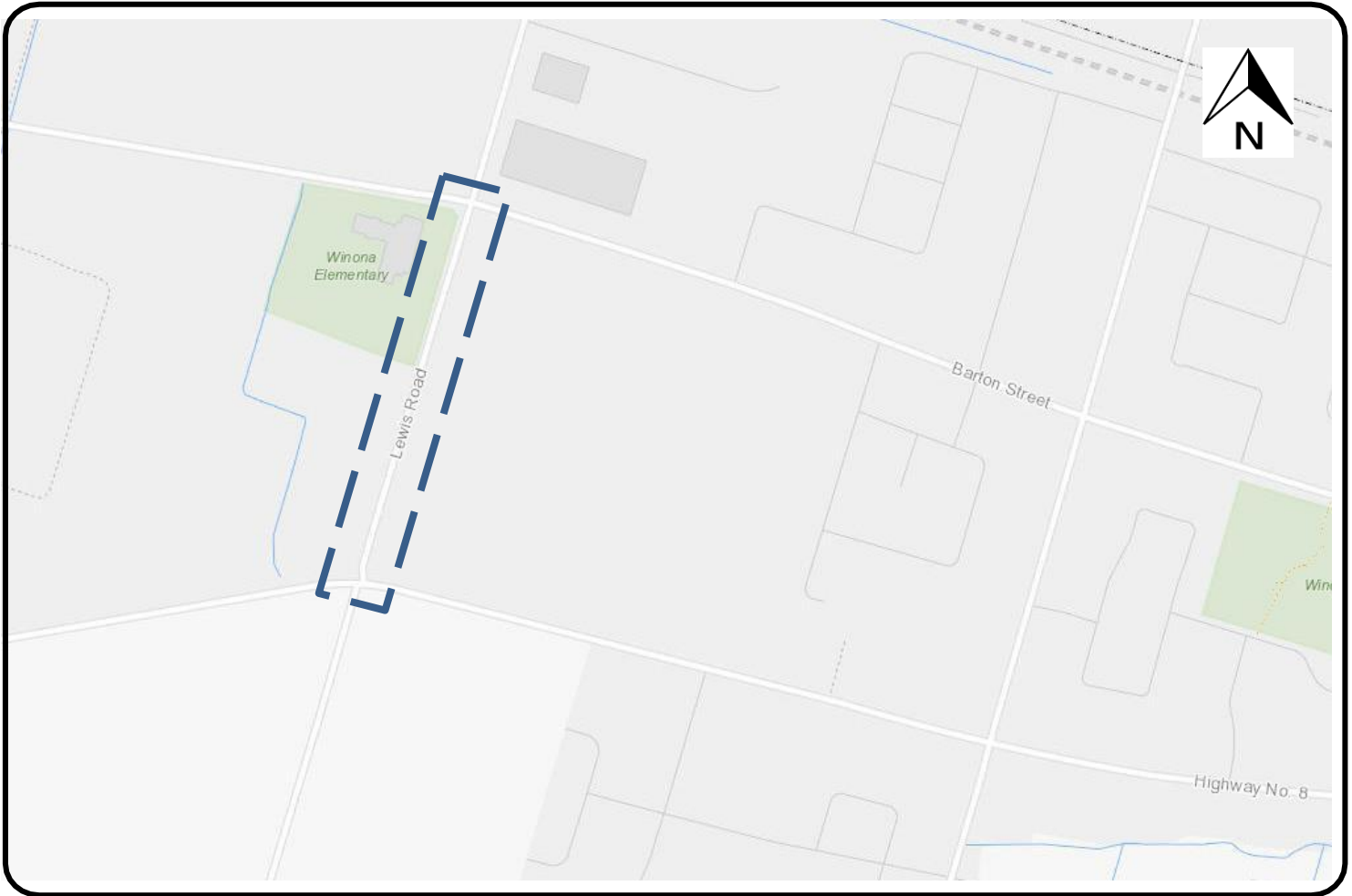
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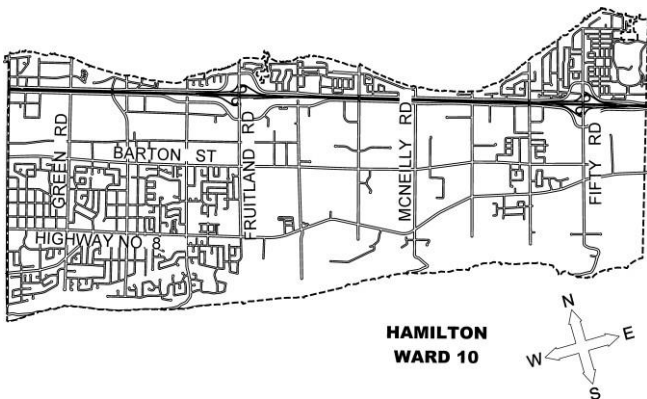
PROPOSED COMMUNITY
SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



**HAMILTON
WARD 10**

LOCATION PLAN

PROPOSED AREA:

Lewis Road from Barton Street to Highway 8

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

LEGEND



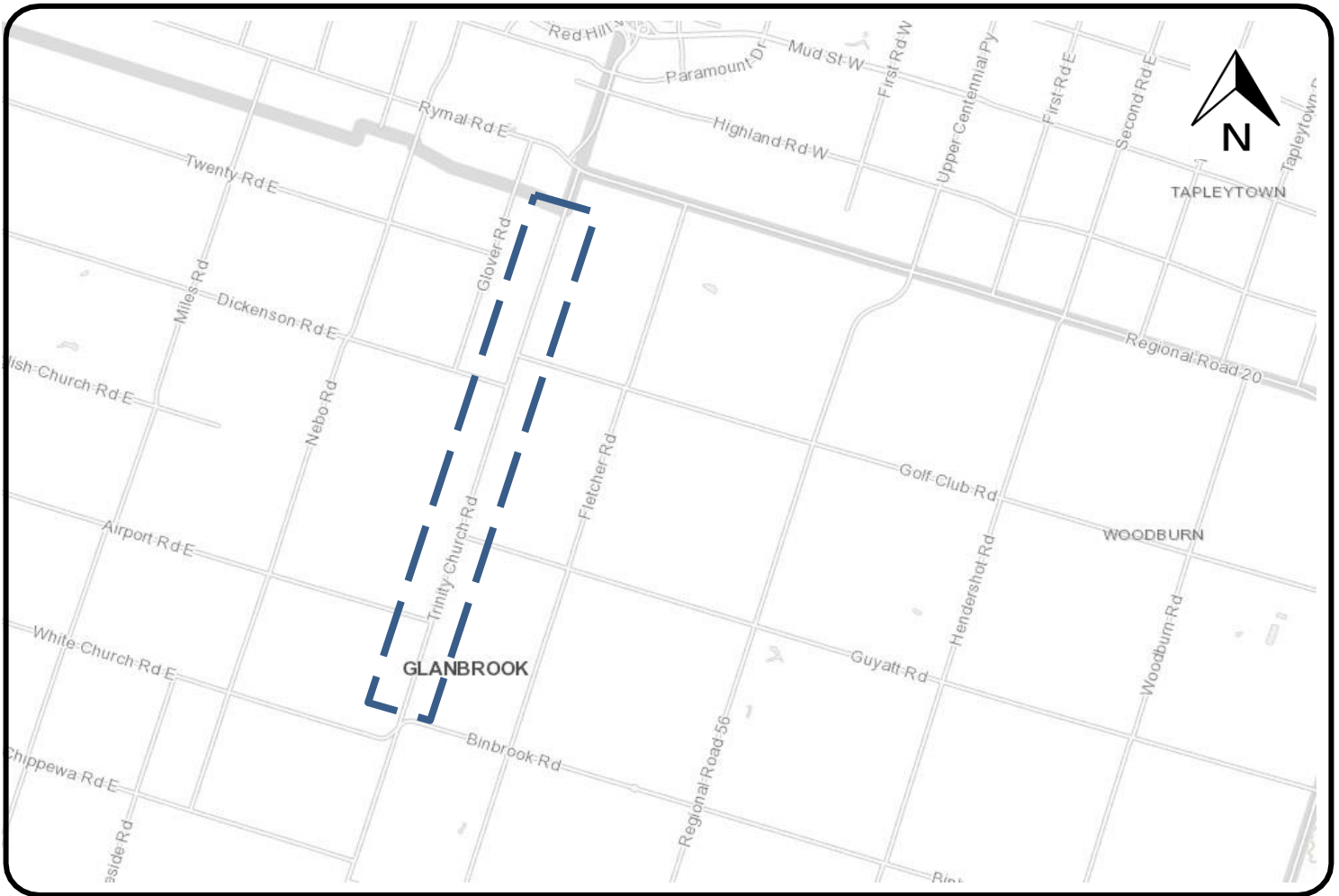
**PROPOSED COMMUNITY
SAFETY ZONE**

SCALE

NOT TO SCALE

DATE

July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Trinity Church Road from Binbrook Road to a Point 500m south of Rymal Road

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

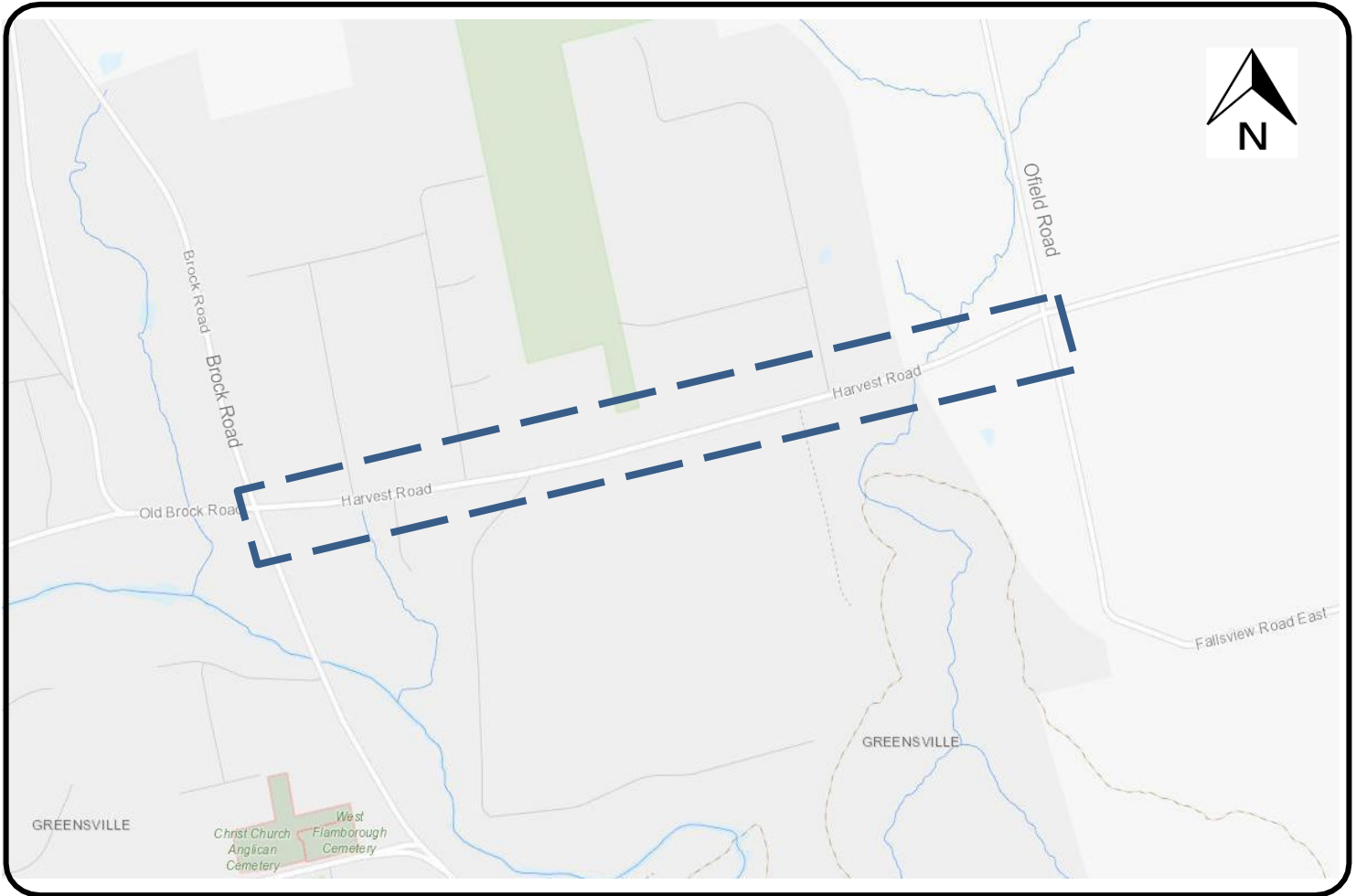
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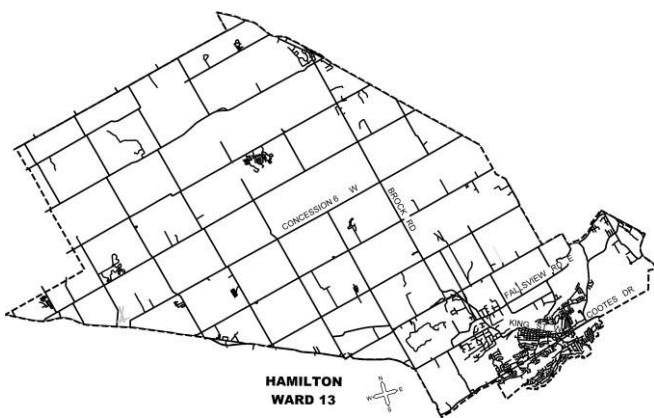
PROPOSED COMMUNITY SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Harvest Road from Brock Road to Ofield Road

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

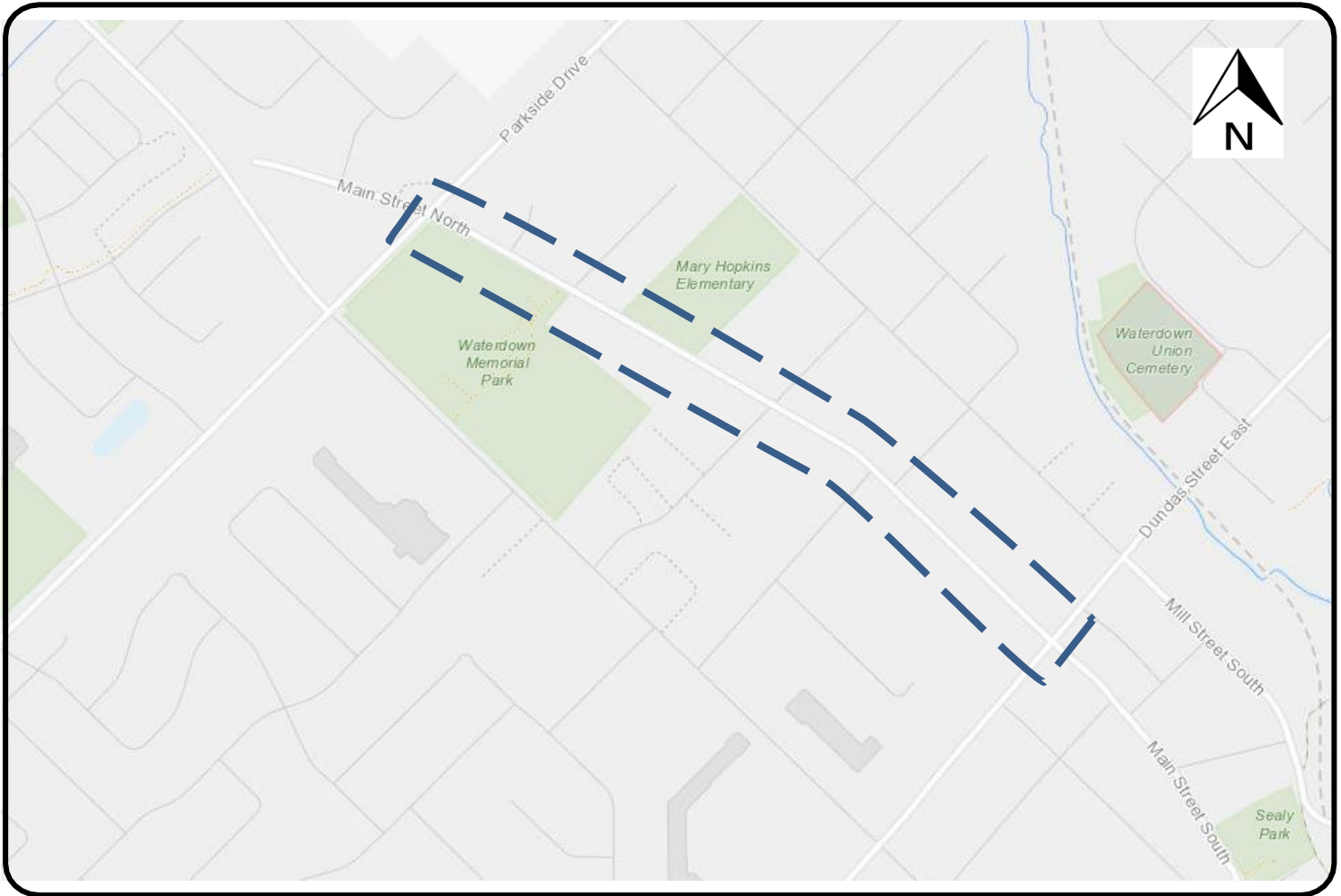
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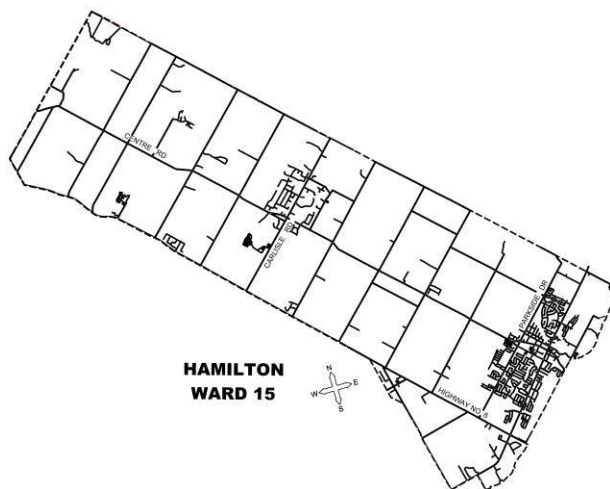
PROPOSED COMMUNITY
SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



**HAMILTON
WARD 15**

LOCATION PLAN

PROPOSED AREA:

Main Street North from Parkside Drive to
Dundas Street East

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

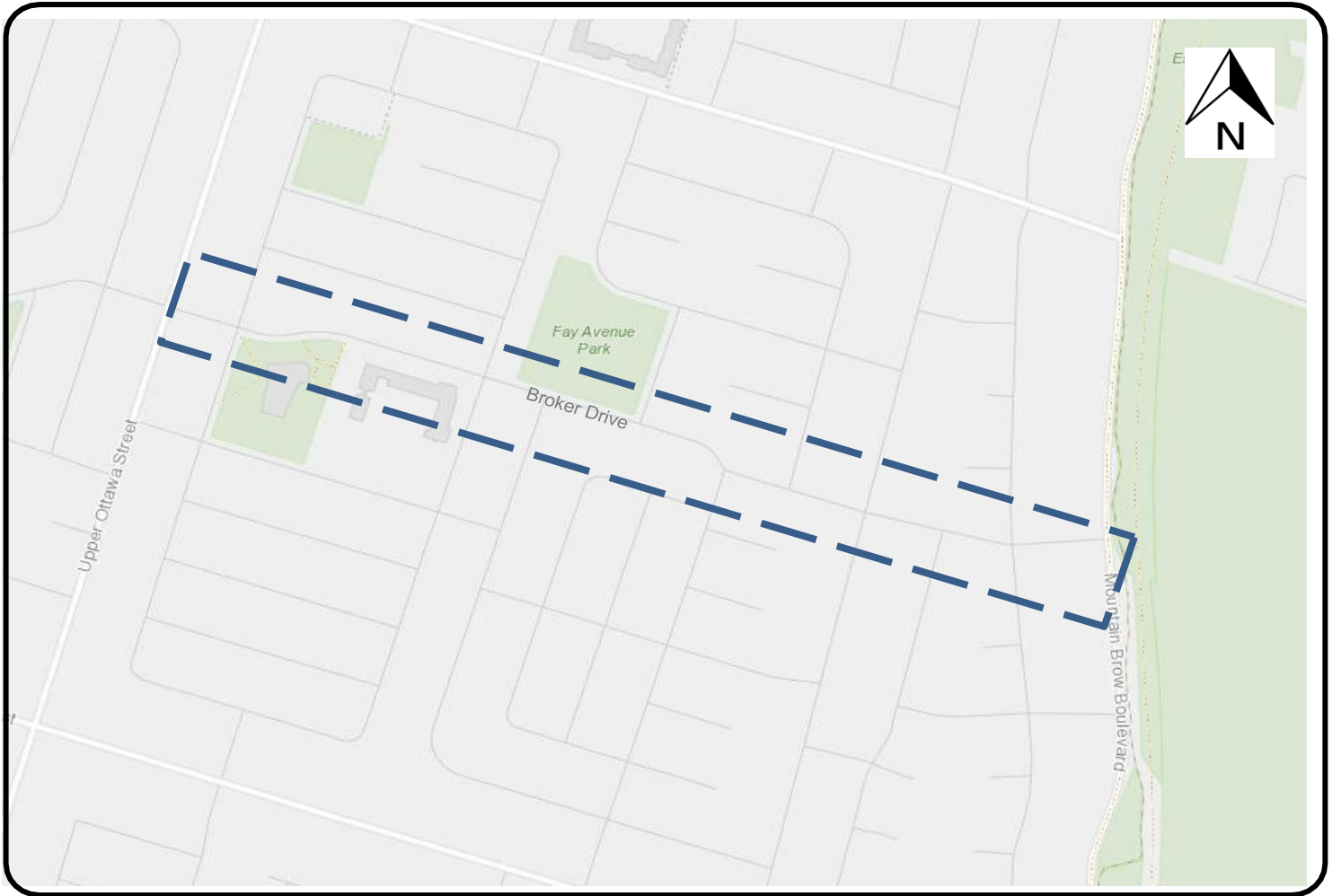
LEGEND



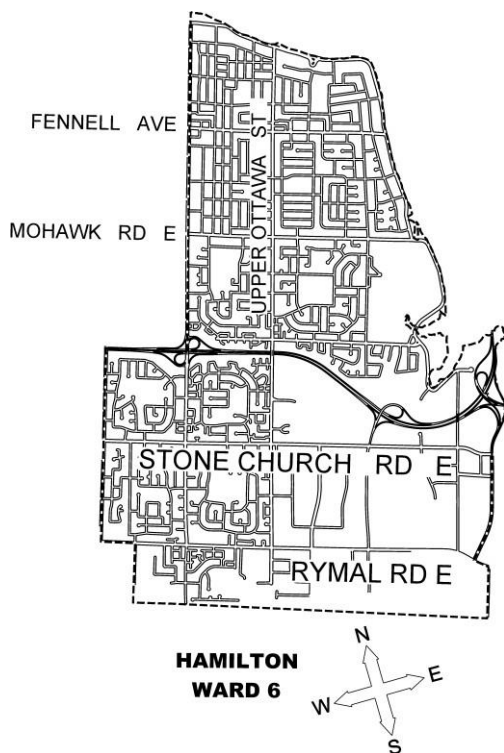
PROPOSED COMMUNITY
SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Broker Drive from Upper Ottawa Street to Mountain Brow Boulevard

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

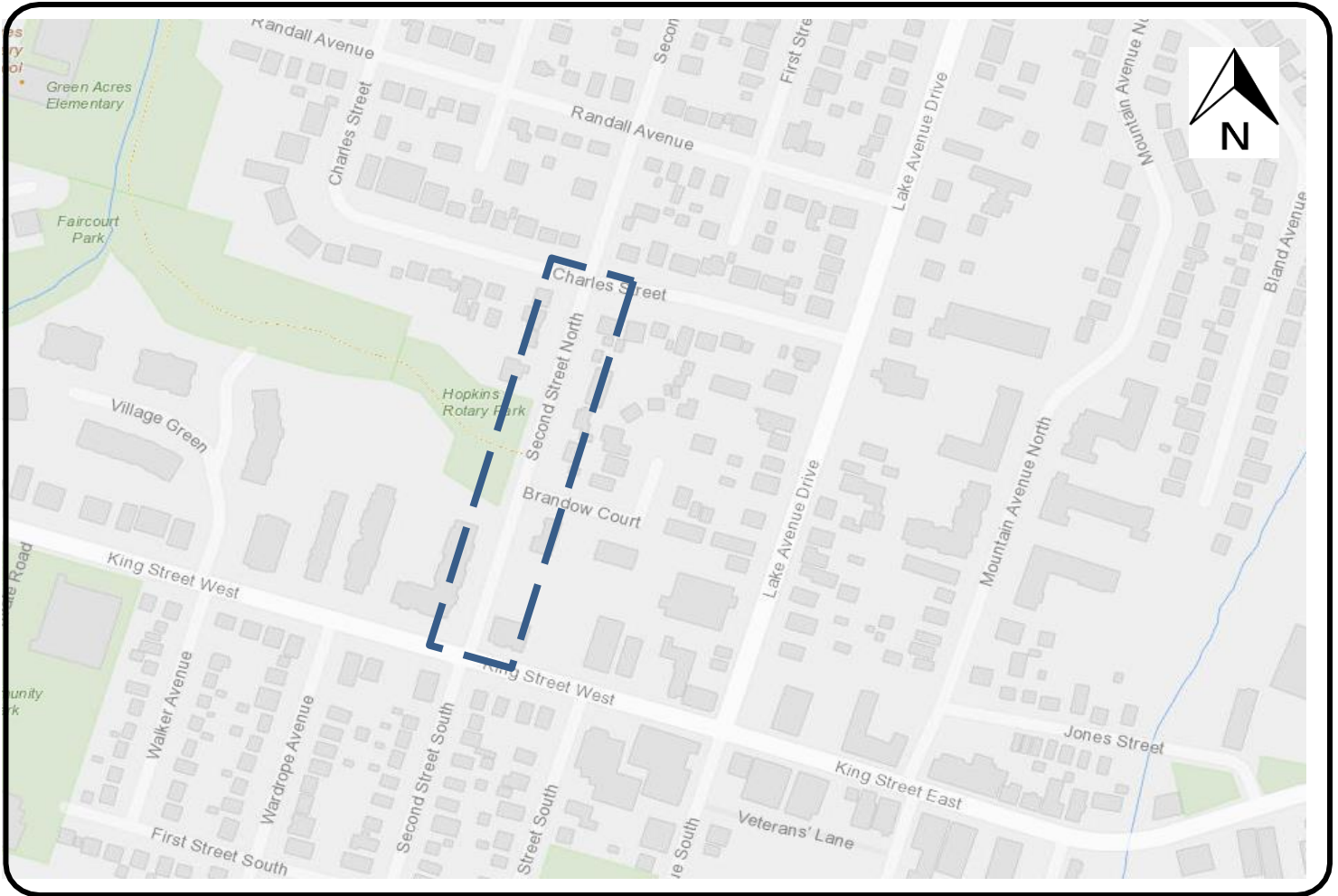
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PROPOSED COMMUNITY SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



**HAMILTON
WARD 5**

LOCATION PLAN

PROPOSED AREA:

Second Street North from Charles Street to
King Street West

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

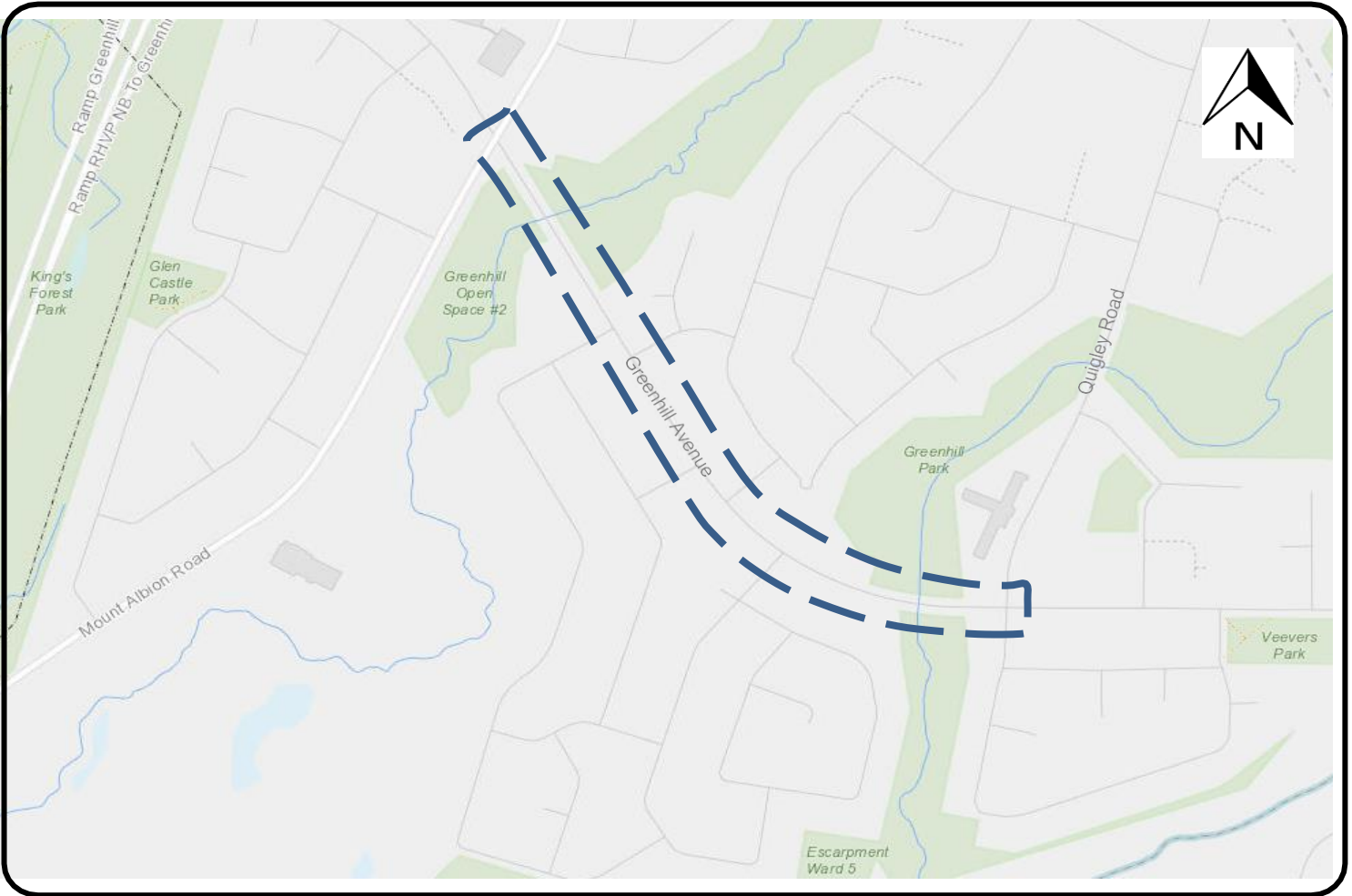
LEGEND



PROPOSED COMMUNITY
SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Greenhill Avenue from Quigley Road to Mount Albion Road

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

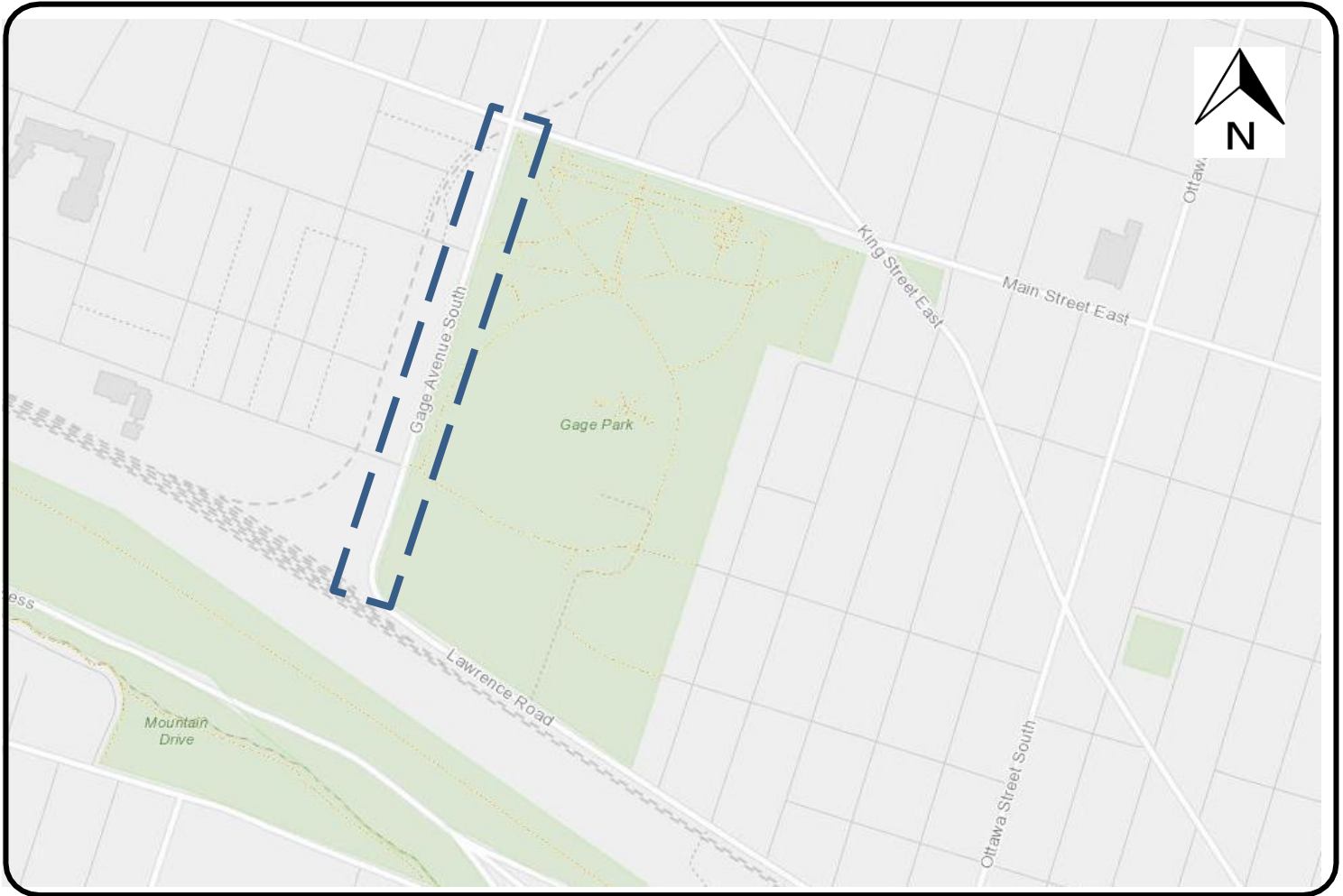
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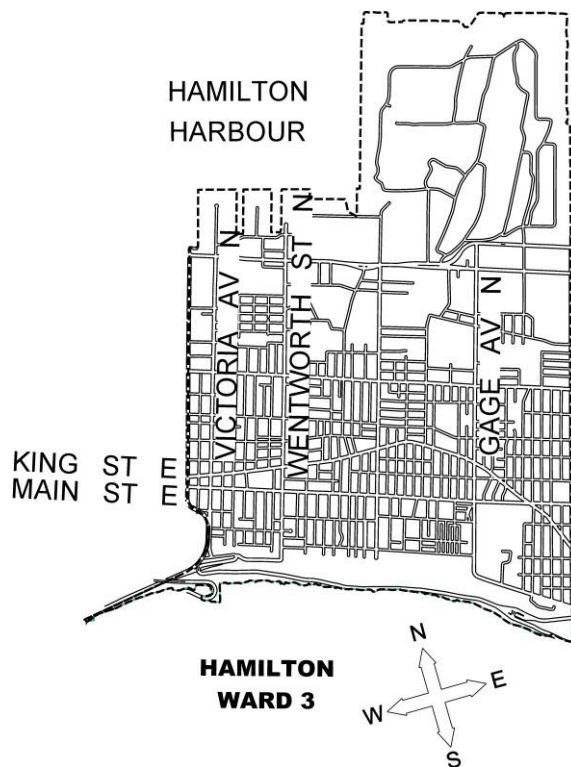
PROPOSED COMMUNITY SAFETY ZONE

SCALE
NOT TO SCALE

DATE
July 8, 2020



WARD



LOCATION PLAN

PROPOSED AREA:

Gage Avenue South from Main Street East to Lawrence Road

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

LEGEND



PROPOSED COMMUNITY SAFETY ZONE

SCALE

NOT TO SCALE

DATE

July 8, 2020



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations and Maintenance Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Traffic Calming Management Policy (PW20044) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Ryan Krantz (905) 546-2424 Ext. 5663 David Ferguson (905) 546-2424 Ext. 2433 Mike Field (905) 546-2424 Ext. 4576
SUBMITTED BY:	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department
SIGNATURE:	

RECOMMENDATION

That the City of Hamilton, Traffic Calming Management Policy, attached to Report PW20044 as Appendix "A", be approved and supersedes any previous Traffic Calming Policies.

EXECUTIVE SUMMARY

The City of Hamilton is responsible for ensuring roadways serve the needs of all users such as vehicles, transit, pedestrians (including those with accessibility needs), cyclists, emergency vehicles and operations.

Traffic calming can be a contentious subject and should be managed in a clear, concise and transparent approach that meets the needs and expectations of the community. This Traffic Calming Management Policy has been developed based on traffic calming experience gained in the City of Hamilton and industry best practices.

The policy provides guidance on process and structure by which the City of Hamilton will respond to neighbourhood traffic issues in the City. Application of the policy defines a formal process from the initial contact through data collection, assessment, consultation, evaluation, planning, design, and implementation of traffic calming attached to Report PW20044 as Appendix "A".

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: Traffic Calming Management Policy (PW20044) (City Wide)
– Page 2 of 6

The policy applies to retrofit locations, existing roadways that have identified operational and safety needs. It does not apply to major capital projects that the City undertakes as the project needs assessment process takes into account Vision Zero principles and the road safety requirements as part of the overall project scoping exercise.

Alternatives for Consideration – See Page 6

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Traffic calming initiatives are funded from a number of existing capital accounts or from Ward Area Rating Reserves.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

In 2007, Council approved Traffic Calming/Traffic Management Policy and Procedure (PW07150) which provided a formal traffic calming program to respond to concerns related to individual streets or locations. Before this policy, staff focused mainly on large-scale neighbourhood traffic calming reviews.

In 2013, a new policy was approved by Council which superseded the 2007 policy. The Traffic Calming Management Policy Update (PW07150a) was created upon direction from Council to provide a document that better aligned with the emerging community expectations for a more balanced transportation network. This policy update was consistent with a complete streets approach and the priorities and objectives of neighbourhood action plans. The policy aligned with the Hamilton Strategic Road Safety Program (HSRSP) and the program's primary emphasis on intersections and vulnerable road users, while incorporating a review of several traffic calming policies from municipalities across Canada

On February 4, 2019, Council approved the Hamilton Strategic Road Safety Program and Vision Zero Action Plan 2019-2025, through Report PW19015, which aims to provide a safe road network for all users and to eliminate incidents that result in injury or fatality. The Action Plan, which is funded by the Red Light Camera reserve, identifies priorities and initiatives that are focused on high-level actions of road safety improvement pertaining to the 5 E's which are engineering, education, enforcement, engagement and evaluation.

On January 13, 2020, Council approved the City of Hamilton Vision Zero Action Plan 2019-2025 Update (PW19015a).

SUBJECT: Traffic Calming Management Policy (PW20044) (City Wide)
– Page 3 of 6

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The recommended Traffic Calming Management Policy aligns with the “Community Vision” established in the following Council approved policies.

Urban Official Plan

Applicable Section	Description
1.0 Planning Act Implementation Tools – Complete Application Requirements and Formal Consultation	g) Neighbourhood Traffic Calming Options Report
4.0 Road Network	<p>4.5 Functional Road Classification (Collector and Local Roads) - Horizontal traffic calming features such as curb extensions, median islands, and roundabouts shall be permitted where appropriate subject to meeting City Traffic warrants...</p> <p>Traffic Management 4.5.9 Traffic calming shall be considered an effective means of reducing the negative impacts of traffic on the quality of life for Hamilton residents in existing and planned neighbourhoods and other built up areas...</p> <p>4.5.11 Traffic management plans for entire neighbourhoods (bounded by an arterial road network) shall be preferred over street-by-street solutions that may shift problems to adjacent roadways...</p>

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SUBJECT: Traffic Calming Management Policy (PW20044) (City Wide)
– Page 4 of 6

Hamilton Transportation Master Plan

Applicable Section	Description
2.3 Key Policy Themes	<p>Building Liveable Communities:</p> <ul style="list-style-type: none"> • Design streets to support a pedestrian and transit-friendly environment. • Consider traffic calming as an effective means of reducing the negative impacts of traffic...
7.2 Road Network	<p>7.2.4 Supporting Measures ... supporting strategies to enhance the capability of the road network while also improving quality of life for residents by implementing measures such as traffic calming and road diets.</p> <p>Minor Arterial Roads 8. Gateway traffic calming features may be implemented where required.</p> <p>Urban Residential Collector 7. Horizontal traffic calming features should be provided where required.</p>

Hamilton Council Strategic Plan 2016-2025

Applicable Section	Description
Our Mission	To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

Hamilton Strategic Road Safety Program and Vision Zero Action Plan 2019-2025

Applicable Section	Description
Vision:	To have the safest traffic record in Canada.
Mission:	To improve the quality of life of the citizens of Hamilton through a reduction in property damage and injury resulting from traffic collisions.
Primary Emphasis Areas:	Aggressive Driving, Intersections, and Vulnerable Users

OUR Vision: To be the best place to raise a child and age successfully.
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SUBJECT: Traffic Calming Management Policy (PW20044) (City Wide)
– Page 5 of 6

RELEVANT CONSULTATION

The following City of Hamilton Departments/Divisions have been consulted in the development of this report:

- City Clerks;
- Corporate Services, Finance & Administration;
- Transportation Planning;
- Hamilton Fire Department;
- Hamilton EMS; and
- Hamilton Transit.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Transportation Operations & Maintenance receives approximately 1,500 requests annually to investigate various concerns related to the operations and safety of roadways. Most requests are a result of concerns related to speeding, traffic volume on local roadways and unsafe conditions for vulnerable road users. These noted concerns from residents and Councillors commonly request the installation of traffic calming measures.

The purpose of the Traffic Calming Management Policy, attached to Report PW20044 as Appendix “A”, is to create a transparent and defined process for responding to requests, with minimum criteria and with a prioritizing or ranking system.

The proposed policy will enable residents, Councillors, and the City to work together to determine solutions to identified problems, screen solutions, gather public support and integrate implementation into annual capital budget cycles.

As outlined in the Traffic Calming Management Policy, upon receipt of a traffic calming request, Transportation Operations & Maintenance will undertake a pre-screening evaluation of the subject location. Each location must meet a set criterion of eight geometric and operation features.

Prior to undertaking a detailed review of a location, Transportation Operations & Maintenance will survey localized residents. There must be a minimum of 50% plus one, support from the surveyed residents to continue to the next steps.

If a location has been identified as supported for review by the residents, Transportation Operations & Maintenance will undertake a variety of studies and complete a point assessment and ranking of the location. Local roadways will need to meet a minimum requirement of 35 points and collector roadways will need to meet a minimum requirement of 52 points.

SUBJECT: Traffic Calming Management Policy (PW20044) (City Wide)
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For roadways that meet the minimum requirements, Transportation Operations & Maintenance will initiate a public consultation and notice process to finalize a preferred traffic calming plan.

ALTERNATIVES FOR CONSIDERATION

Council could choose to support portions of the Traffic Calming Management Policy. This alternative is not recommended since it may not align with other related Council approved policies in the City of Hamilton relating to traffic calming and pedestrian issues.

Council could choose to accept the Traffic Calming Management Policy with additional amendments. This alternative is not recommended because amendments may conflict with other Council approved related policies in the City of Hamilton relating to traffic calming and pedestrian issues. Additional amendments may also provide less clarity to staff, result in additional staff time, and may cause a delay in the resolution of roadway safety issues.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20044 – City of Hamilton Traffic Calming Policy 2020



City of Hamilton

Traffic Calming Policy

ACKNOWLEDGEMENTS

The source of some of the reference material contained in this manual was retrieved from the following Municipalities:

1. Canadian Guide to Traffic Calming (Second Edition) – Published jointly by the Transportation Association of Canada/Canadian Institute of Transportation Engineers
2. Town of Oakville, ON, Canada
3. City of Toronto, ON, Canada
4. City of Oakhill, Tennessee, USA
5. City of Surrey, BC, Canada
6. City of London, ON, Canada
7. Town of Milton, ON, Canada

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1.0 Introduction

1.1 Background

The City of Hamilton is responsible for ensuring roadways serve the needs of all transportation users such as cars, transit, pedestrians (including those with accessibility needs), cyclists, emergency vehicles and snow removal equipment. When the rules of the road are not followed, residents may no longer feel safe walking or riding their bikes on the street. In these cases, traffic calming measures may be needed to restore the street to its intended function in the neighbourhood.

Every year the City receives numerous complaints or concerns from residents regarding speeding, traffic volumes and/or cut through traffic in residential areas. The Transportation Operations and Maintenance Division responds by investigating the extent of the issue and need for neighbourhood traffic calming measures to potentially mitigate these unfavourable conditions.

While some residents perceive they already have the solutions to traffic issues in their neighbourhood, studies across North America have shown that using the wrong tool to address a traffic issue does not solve the problem but may result in creating additional safety issues in the area. This document defines what is traffic calming and clarifies what is not traffic calming. The goal of introducing traffic calming is to create safe and attractive streets, promote walking, cycling and transit use, and improve the quality of life in residential neighbourhoods.

Temporary traffic calming measures are not part of this document. The City no longer installs temporary traffic calming measures such as rubber speed cushions on residential streets. If a location warrants traffic calming, permanent measures will be installed once funding has been allocated.

Traffic calming is a contentious subject and should be dealt with in a clear, concise and transparent process that will meet the needs and expectations of the community. This document outlines how investigations into traffic calming measures should be initiated and implemented based on the experience gained by the City of Hamilton and other North American municipalities over the last decade.

1.2 Vision Zero

Vision Zero promotes a culture shift and questions current attitudes toward road fatalities and injuries. Vision Zero states that no fatalities and serious injuries are acceptable. Achieving this aspirational goal requires shared responsibilities from road operators and users.

Vision Zero takes a Safe Systems approach to prevention. The goal of safe systems is to ensure that these mistakes do not lead to a crash; or, if a crash does occur, it is sufficiently controlled to not cause a death or a life-changing injury.



City Council adopted the following Vision Zero Principles:

- No loss of life is acceptable
- Traffic fatalities and serious injuries are preventable
- We all make mistakes
- We are all physically vulnerable when involved in motor vehicle collisions
- Eliminating fatalities and serious injuries is a shared responsibility between road users and those who design and operate roads



Vision Zero describes the end product of a safe road transport system. The system must rely on a balance between travel speeds and the inherent safety of infrastructure and vehicles.

The Safe Systems approach places the highest priority on Safe Roads, the design of the roadway. Safe roads are designed to reduce the risk of crashes occurring, and the severity of injuries if a crash does occur. Safety features are incorporated into the road design from the outset. Key elements include:

- Segregating Road Users: Separate different road users, developing and enhancing safer routes for vulnerable users.
- Segregating Traffic: Separate traffic that is moving in different directions or at different speeds – for example, by crash barriers separating opposite lanes of traffic.
- Self-explaining Roads: Designed so that the driver is aware of what is expected of them and behaves appropriately. The simplicity and consistency of the road's design reduces driver stress and driver error.
- Traffic reduction: Reduce the volume of motor vehicle traffic, for example, by encouraging greater use of safer modes of travel such as transit. Build protected safe transportation facilities that encourage the use of cycling and pedestrian modes.

Speed limits in safe systems are based on aiding crash avoidance and a human body's limit for physical trauma. If segregation of people and traffic is not possible by time or space, then appropriate speed limits are put in place to protect the most vulnerable of road users.

- Establish appropriate speed limits: These are set according to road features and function and the known physical tolerances of road users. People first streets where speeds allow for many uses/activities and are comfortable for all users.

- Enforce existing limits: Collaboration between municipalities and police services to develop and evaluate speed enforcement. Use of automated speed enforcement in conjunction with police officers and the use of speed detection devices to monitor speeds.
- Educate road users: Authorities can mount speed enforcement and education campaigns. Safe systems create risk-aware drivers through education and publicity; for example, making new drivers aware of the risks they face, and encouraging all road users to travel unimpaired, alert, at safe speeds and without distraction, complying with road rules at all times.

The City has taken a proactive approach to safe speeds through the Neighbourhood Speed Limit Reduction Program, implementing city-wide neighbourhood speed-limit reductions on local and minor collector roadways to 40 km/h and within designated school zones on local and minor collector roadways to 30 km/h within 150 meters of a school boundary.

Reducing the speed limit at schools should improve safety for pedestrians and cyclists, and thus respond to Vision Zero Principles. Safer routes to and from school also encourages a more active lifestyle by addressing some of the safety concerns that parents and caregivers have with respect to students walking/cycling to school. Traffic calming measures in School Zones are not subject to the traffic calming process identified in this document. The City can install traffic calming measures in School Zones without the petition and survey requirements identified in this document.

1.3 Traffic Calming Purpose & Goals

The overall purpose of this document is to provide a comprehensive process that addresses local neighbourhood traffic issues in Hamilton. The program is intended to restore City streets, with an identified problem, to their intended function through applicable traffic calming measures, and hence, preserve and enhance the quality of Hamilton communities.

Traffic calming may be necessary when traffic volumes, vehicle speeds and/or driver behaviour are considered to be inappropriate for the type of adjacent land uses and the pedestrian, cyclist and other activity that occurs along their streets.

The specific goals of this traffic calming practices and procedures document are to develop an integrated set of objectives and procedures that will combine to form a set of overall working guidelines that will:

- Educate residents about traffic calming so they can make more informed decisions and also understand the rationale behind the City's decision-making process
- Provide a procedure that City officials and the general public are confident is an effective and fair tool in evaluating speeding and/or traffic volume problems
- Provide a standard format for dealing in a consistent manner with complaints regarding speeding and traffic safety concerns
- Create efficiencies in responding to resident traffic concerns

- Educate residents on how to create a safe and a pleasant roadway environment for residents, motorists, cyclists and pedestrians
- Encourage public involvement in the traffic calming activities
- Educate residents on pedestrian and cyclist safety

This program will also provide the guideline, procedure and criteria for the initiation, investigation and implementation of traffic calming measures within existing residential neighbourhoods. The practices and procedures will ensure safety concerns related to speeding and excessive volume are handled in a fair, transparent and efficient manner.

1.4 Eligible Streets

Guidelines included in this program will be applied to Minor Collectors and Local Streets within residential neighbourhoods.

The practices and procedures do not apply to arterial roadways nor do they apply to anticipated future problems. This program only applies to identify operational issues within existing residential areas. While similar traffic related issues may exist on arterial roadways, the primary function of an arterial road is to move traffic efficiently to reduce the amount of traffic and speeds on lower classification streets. Therefore, traffic calming measures that may be appropriate for use on non-arterial roadways would not be suitable for use on arterial roadways.

1.5 Advantages and Disadvantages of Traffic Calming

Traffic calming, if used properly, will address identified operational traffic issues. It often also introduces some disadvantages to a residential neighbourhood that will impact area residents after the project is complete. Listed below are some of the advantages and disadvantages created or caused by traffic calming measures:

Advantages

- Reduced vehicle speeds
- Reduced traffic volumes
- Reduced number of cut through vehicles (motorists traversing a residential neighbourhood with no local destination)
- Improved neighborhood safety, especially for pedestrians and cyclists
- Reduced conflicts between roadway users
- Increase compliance with regulatory signs

Disadvantages

- May make it more difficult to get into and out of a neighbourhood every day
- Potential increase in emergency vehicle response time, although all traffic calming plans are reviewed to ensure there is no negative impact on emergency services
- May result in expensive solutions (time and resources)
- May shift or divert traffic onto other neighbouring streets

- Increased maintenance time and costs
- Adds visually unattractive warning signs to a residential area
- May create dissention in neighbourhood with strong 'for and against' traffic calming opinions

1.6 Pedestrians & Traffic Calming

The principal purpose to reducing the speed of traffic in residential areas is to protect all vulnerable road users, such as pedestrians. Copied below is an excerpt from the Ontario Traffic Manual Book 15 - Pedestrian Crossing Treatments:

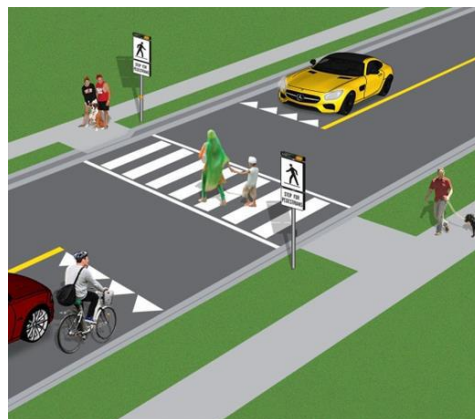
Pedestrians' Rights and Responsibilities

Notwithstanding the distinction between controlled and uncontrolled crossings, the rights and responsibilities for pedestrians are recognized in the Highway Traffic Act:

- 1. In the absence of statutory provisions or bylaw, a pedestrian is not confined to a street crossing or intersection and is entitled to cross at any point, although greater care may then be required of him or her in crossing. However, pedestrians crossing the highway must look to ensure the crossing can be made safely or possibly be held responsible for any ensuing collision.*
- 2. Pedestrians must exercise due care even when they are lawfully within a crossing and have right-of-way. It is not an absolute right and they must still exercise care to avoid a collision with a vehicle.*
- 3. If there is a crosswalk at a signalized intersection, pedestrians have to walk within the crosswalk*

The above excerpt is stating whenever a pedestrian crosses a road they have a duty of care to themselves to cross when it is safe. It is important to remember under the Highway Traffic Act motor vehicles are only required to stop or yield to pedestrians at a controlled crossing such as traffic signals or pedestrian signals. At all uncontrolled crossings pedestrians must wait for a safe gap in traffic sufficient for them to cross before entering the road.

On January 1, 2016, Bill 31, the Transportation Statute Law Amendment Act (Making Ontario's Roads Safer) took effect. The amendment to the HTA allows for new pedestrian crossing devices for low-speed and low-volume roads. The Province introduced four new pedestrian crossover (PXO) types. The new crossing treatment will allow pedestrians to cross with the right-of-way under a greater number of conditions than before and will provide municipalities with additional solutions to increase pedestrian safety.



The new PXOs are a defined set of roadside signs and road pavement markings which form a new passive treatment to provide pedestrians the right-of-way when crossing the roadway where the treatment is installed.

When an area is studied for traffic calming, pedestrian crossing points are primary focus points where slowing traffic is particularly important. The installation of traffic calming measures such as speed cushions, raised crosswalks, raised intersections, or curb extensions do not change the rules of the Highway Traffic Act: however, pedestrians must still cross the road responsibly.

2.0 Types of Traffic Calming

Traffic calming for the purpose of this program is broken into two categories:

- i. Passive: Speed and display boards, on street parking, road line markings and/or signage.
- ii. Physical: i.e. Intrusive treatments that modify the shape and/or form of the roadway forcing drivers to slow down.

2.1 Passive Traffic Calming

Passive traffic calming treatments are simple modifications in comparison to physical treatments. Passive modifications are intended to visually reduce effective lane widths for a motorist and, in most circumstances, re-allocate some of road space to cyclists and on-street parking. These treatments have proven to be capable of reducing 85th percentile operating speeds by up to 5 km/h in Hamilton and other municipalities.

Passive treatments are implemented on a proactive and reactive basis and are typically applied uniformly over the entire road section, unlike physical treatments which are best described as spot treatments. The modifications associated with passive calming treatments are typically well received by the public.

2.2 Physical Traffic Calming

Physical traffic calming can be broken down into three categories: vertical deflections, horizontal deflections and physical obstructions.

Vertical traffic calming measures provide an obstruction that vehicles are able to travel over. The change in pavement height (and sometimes pavement materials) can cause discomfort to the occupants of vehicles that are exceeding the design speed of the traffic calming measure.

Horizontal traffic calming tries to prevent vehicles from traveling in a straight line at excessive speeds by using measures such as raised islands and curb extensions.

Physical obstructions involve a full or partial closure of the road.

Examples of passive and physical traffic calming techniques are listed in Table 1. Appendix A provides a more detailed explanation of the traffic calming devices listed below, including the advantages and disadvantages.

Table 1- Applicability of Traffic Calming Measures

Measure may be Applicable on:			
Traffic Calming Technique	Road Classification		Other Considerations
	Local Road	Minor Collector	Transit Route
Passive and Mitigating Measures			
Education	Yes	Yes	Yes
Community Entrance Sign	Yes	Yes	Yes
Targeted Enforcement	Yes	Yes	Yes
Speed Display	Yes	Yes	Yes
On-street Parking	Yes	Yes	Yes
Road Diet	Yes	Yes	Yes
Physical Vertical Deflection			
Speed Cushion	Yes	Yes	Yes
Raised Intersection	Yes	Yes	Yes
Raised Crosswalk	Yes	Yes	Yes
Speed Table	Yes	Yes	Yes
Physical Horizontal Deflection			
Curb Extension	Yes	Yes	Yes
Curb Radius Reduction	Yes	Yes	No
Neighbourhood Traffic Circle	Yes	Yes	No
Centre Island Median	Yes	Yes	Yes
One-Lane Chicane	Yes	Yes	No
Lateral Shift	Yes	Yes	Yes
Roundabout	Yes	Yes	Yes
Physical Obstruction			
Directional Closure	Yes	Yes	No
Raised Median Through Intersection	Yes	Yes	Yes
Right-In/Right-Out Island	Yes	Yes	No

Intersection Channelization	Yes	Yes	Yes
Diverter	Yes	No	No

2.3 Streets That Qualify for Traffic Calming

Traffic calming will only be considered on local and collector “neighbourhood” streets roads and not on arterial roadways in the city. Through application of this program and by applying good engineering judgment, traffic calming measures, when deemed prudent, will be installed in a manner that will ensure they provide the most effective solutions while continuing to support the intended function of the roadway. For example, to ensure that transit service remains efficient on collector routes, curb radius reduction would not be recommended at locations where transit vehicles must turn right since curb radius reductions significantly impede the turning of larger transit vehicles.

Local Roads

The primary function of Local Roads is to provide access to adjacent properties. Local roads are not intended for use as through routes or as important links to move traffic within an area’s overall road network. An acceptable volume of traffic for a local road is up to 1,500 vehicles a day.

Minor and Major Collectors

Minor and Major Collectors typically carry traffic volume between 5,000 and 15,000 vehicles per day. These streets help circulate traffic within individual neighbourhoods, and link smaller local roadways to the larger road network but are relatively short as compared to arterial roadways which may extend from one side of the city to the other. Primary collector roads carry traffic in larger neighbourhoods, distribute traffic between local road, secondary collector roads, and arterial roads, as well as connect between arterial roadways. Many neighbourhood collector roads may also carry transit.

3.0 Practices and Procedures Guidelines

The following guidelines will be considered when investigating, selecting and implementing traffic calming measures. These guidelines will ensure that the appropriate measures are considered, and the potential negative impacts are minimized. Following these guidelines will maximize the effectiveness of traffic calming while building community acceptance and support for the final recommendations.

Traffic calming measures will:

- Be considered when there is a demonstrated safety, speed or short-cutting traffic concern and acceptable alternative measures have been exhausted

- Include consideration as to whether an area-wide plan versus a street-specific plan is more suitable: an area wide plan should be considered if a street-specific plan would likely result in displacement of traffic onto adjacent streets
- Be predominantly restricted to two lane roadways or less (one lane of through traffic in each direction) and a posted speed limit no greater than 50 km/h
- Not impede non-motorized, active modes of transportation and be designed to ensure pedestrian and cycling traffic is unaffected
- Not unduly impede emergency, maintenance, operations and transit services access unless alternate measures are agreed upon
- Maintain reasonable automobile access to City roads
- Only be installed after Transportation Operations and Maintenance staff has investigated existing traffic conditions and the necessary approvals have been received

The design of traffic calming measures will be in accordance with applicable Ontario Traffic Manual guidelines, Manual of Uniform Traffic Control Devices and Traffic Calming Guidelines published by TAC/CITE.

4.0 Traffic Calming Process

The following process will be used when proceeding with a request for traffic calming. An established and formal process for investigating roads provides consistency and equality in the determination of whether traffic calming is warranted in a given location. The process is identified below and illustrated in the flow chart shown in Figure 1.

Step 1: Request for traffic calming received by staff, notify Councillor

Step 2: Pre-screen requested location

Step 3: Conduct community support survey (majority vote of 50% plus one required to continue process)

Step 4: Detailed investigation and point assessment

Step 5: If location meets minimum point threshold for traffic calming consideration, add location to Traffic Calming Priority List

Step 6: Public consultation

Step 7: Draft Plan

Step 8: Notify residents and Councillor for consideration of alternatives

Step 9: Add to construction schedule for permanent installation

4.1 Process Initiation and Pre-Screening

Residents with traffic related concerns are instructed to submit their written request to investigate traffic calming within their neighbourhood to the City. Staff will then conduct a brief

preliminary assessment to determine if the requested roadway meets the Initial Screening Criteria, shown in Table 2.

Figure 1 – Traffic Calming Process

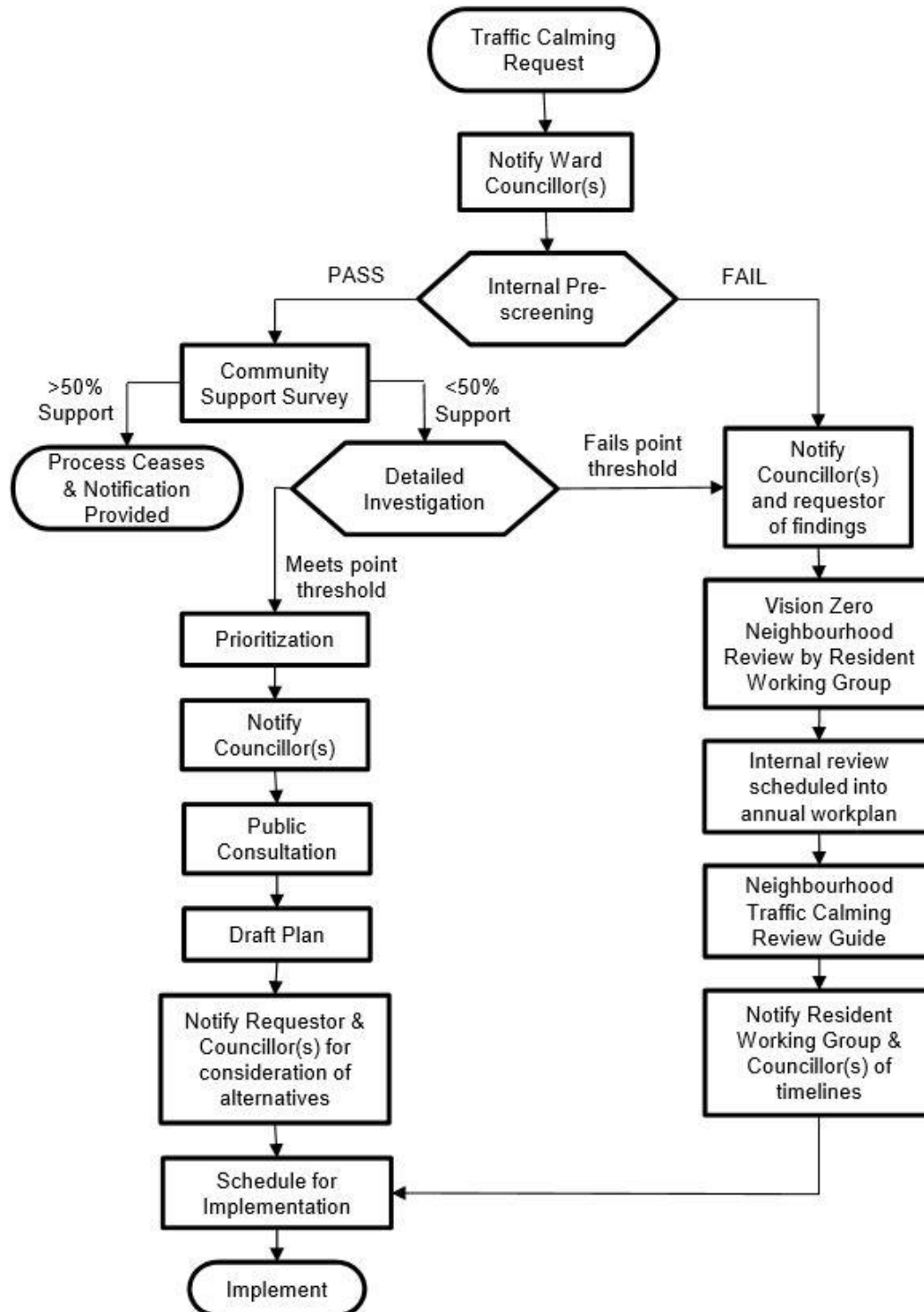


Table 2 – Traffic Calming Pre-Screening Process

Completed during initial contact / review

1. Is the road a local or collector road with no more than two travel lanes?	PASS	FAIL
2. Is the average daily traffic volume estimated to be more than 500 vehicles per day? (>500 = PASS, <500 = FAIL)	PASS	FAIL
3. Is the posted speed limit equal to or lower than 50 km/h?	PASS	FAIL
4. Is the adjacent land uses primarily residential?	PASS	FAIL
5. Does the street provide an obvious bypass to a major intersection?	PASS	FAIL
6. Is the road longer than 300 metres?	PASS	FAIL
7. Have no previous assessments occurred within the past 36 months?	PASS	FAIL
8. The road is not scheduled for a capital project within the next 36 months through which traffic issues can be addressed?	PASS	FAIL

If the road in question fails any of the eight (8) areas listed in the pre-screening it does not qualify for traffic calming, and the process does not continue forward.

It should be noted that School Zones are excluded from the traffic calming process identified in this document. In School Zones where traffic concerns have been legitimized by staff, the formal traffic calming process may be foregone to immediately address safety concerns through the installation of traffic calming measures when appropriate.

4.1.1 Traffic Calming Ineligibility based on Pre-Screening

For locations not meeting the above-noted initial screening criteria, staff will consider passive traffic calming measures to address the neighbourhood traffic concerns. These methods could include tools such as the use of driver feedback boards, targeted police enforcement, sign installation and pavement marking modifications.

Passive measures very rarely require public involvement such as surveys and public meetings. However, they may require monitoring and evaluation to assess their effectiveness. Details regarding passive measures are provided in Appendix 'A'.

4.1.2 Community Support Survey

A survey will be delivered by mail to residents who live on the street being studied and at a minimum, will contain:

- A brief description of traffic calming, including its advantages and disadvantages
- A map detailing the study area
- A survey question asking if residents are in favour or opposed to the implementation of traffic calming measures on their street
- A request for comments and feedback

4.1.3 Measuring Community Support

In order for the process to continue, a majority (minimum of 50% + one) of total surveys delivered must be returned to the City indicating they are in support of traffic calming on their street. This required level of support reinforces that community support is vital for the ultimate success of traffic calming.

If this support rate is not met, the process will cease and a notification of failure to meet the community support levels will be sent to the residents on the mailing list.

4.2 Data Collection

Once a successful petition is received, and it was established that there is support for traffic calming, the collection of data is scheduled based on a priority list. The City shall collect information and data along roadway(s) in the project as deemed necessary by Transportation Operations and Maintenance staff to qualify and quantify the extent of the local traffic problem. The data collection may include any of the following:

- Vehicle volume count to determine 24-hour traffic
- Speed study to determine existing speed data
- Classification count to determine heavy vehicle traffic
- Collision data for the most recent three (3) years
- Study to quantify cut-through traffic, if necessary
- Existing roadway conditions (e.g. pavement condition, signing, marking)
- Pedestrian activity
- Presence of sidewalks on one or both sides of the road
- Presence of special pedestrian generators such as schools, seniors' homes, playgrounds, etc. in the area
- History of traffic operations for the area within last 5 years

A review of the data will be completed using recognized engineering standards. Once collected and summarized, the data will be utilized in the point assessment system to determine a total point value. This assessment will be used to determine the need for traffic calming and assist in setting priority for locations of consideration.

4.2.1 Point Assessment System

The point assessment system is a screening process focused on the various attributes of a roadway to quantify its potential need for traffic calming. By means of assigning weighted points based on the severity of certain road attributes (e.g. 85th percentile speed), this process will bring to the forefront roadways requiring consideration while quantifying the current conditions. A point assessment system is provided in Appendix 'C'.

The point assessment system will also be used to prioritize locations for consideration. Those locations with an extremely high point assessment will be given priority based on the quantitative nature of the point assessment system. Depending on funding availability, locations will be selected based on the point system with those locations with the highest points constructed first. If funding does not permit all locations to be constructed in one year, roadways will be carried forward to the next year when they will then be re-prioritized to include any new locations.

The point assessment establishes minimums to ensure the appropriate application of traffic calming. The minimums consider that traffic calming often creates challenges for road operations such as winter plowing, influences emergency services response times and service level, can be followed with resident dissatisfaction and incurs capital and ongoing operating costs. Additionally, the impact of new traffic calming devices is minimized if the current traffic conditions on a street are not excessive. The minimum number of points required to proceed with the investigation of traffic calming measures differs based on the classification of roadway. In keeping with the objective of restoring roadways to their intended function, local and collector roadways are designed and expected to convey varying levels of traffic volume. This, in turn, has a bearing on the minimum point value required to proceed, as traffic volume is a major consideration. Based on this, the following are minimum point values for each road type:

Local roads minimum: **35 points**

Collector roads minimum: **52 points**

Should a location fail to meet these requirements, residents will be notified in writing and the investigation for traffic calming measures will discontinue. As with locations not meeting the initial pre-screening criteria in Section 4.1, passive traffic calming measures may be considered by staff on streets not meeting the minimum point requirements.

4.2.2 Traffic Calming Design Considerations

The data collected combined with site visits, historical information, future maintenance and construction plans, as well as resident feedback will be taken into consideration to determine potential traffic calming measures.

Appropriate traffic calming measures will be determined based on the list of traffic calming measures. The traffic calming design could include one or more different types of traffic calming techniques. The proposed traffic calming measures will be in accordance with the design Guidelines found in the City of Hamilton Standards Document, The Canadian Guide to

Neighbourhood Traffic Calming, Ontario Traffic Manuals, Manual of Uniform Traffic Control Devices and engineering judgement.

The preferred design will first be presented to emergency, transit and/or roadside operations services. It will then be presented at a public meeting. After any required modifications to the preferred design as a result of public input, a traffic calming survey will be delivered to affected residents.

In some instances, installing traffic calming measures on a local street may have a negative impact on adjacent streets within the neighbourhood. If staff believe that the installation of traffic calming measures will have an adverse effect on traffic volumes and speeds on surrounding streets, staff will send an additional survey to affected residents to gauge support of a review on the impacted streets, rather than solely on one street.

A majority (minimum of 50% + one) of total surveys delivered to the community must be returned to the City indicating they are in support of traffic calming on the streets identified by staff.

If this support rate is not met, the process will continue solely on the street(s) voting in favour of traffic calming. Streets not in favour of traffic calming will not be considered for traffic calming for a period of 36 months.

4.3 Public Information Centre & Public Input Notice

Staff may host a Public Information Centre (PIC) to present the purpose, objectives and implementation process of traffic calming in general. The PIC notice will be circulated to all residents who have direct frontage or flankage of the street in question. Staff will then present and explain the rationale behind the specific preferred traffic calming design. The public meeting will provide residents with an opportunity to become involved in the process, learn more about the proposed traffic calming treatment(s) and to provide their feedback. Each plan will include a procedure to communicate with and engage the neighbourhood, in keeping with the Council Policy on Community Engagement and its principles.

4.4 Finalize Preferred Traffic Calming Plan

Using technical data, community feedback, and in keeping with the goals, objectives and principles set out in this document, staff will finalize the preferred traffic calming design to be put forward as the recommended preferred traffic calming plan. In finalizing the preferred traffic calming plan, general consideration will be given to the various aspects of road design such as utility placement, landscaping, sign requirement and drainage.

If, during the detailed design stage, limitations are identified which challenge the feasibility of the plan, alternatives will need to be considered. This may include alterations or a re-development of the preferred plan. If significant or major changes to the plan are required due to design constraints, agencies and residents on the mailing list will be consulted and notified of any changes. If staff believe that the required modifications to create the detailed design result in a significantly different final design from that which was presented to residents as part of the

survey, staff may recommend additional agency consultation, another survey and/or public meeting.

4.5 Resident Notification

Residents will be notified that traffic calming has been either approved or not approved by the City on the subject roadway. The notice will be sent to the same mailing list used to deliver the traffic calming survey and any other persons having requested notification throughout the process.

4.6 Implementation of Traffic Calming Measures


Upon approval and sufficient funding, traffic calming measures will be implemented. Residents will be notified of implementation timelines through the contact mailing list. Where feasible, staff may decide it is beneficial to phase in the traffic calming plan through the use of temporary or removable traffic calming measures such as pavement markings. This will allow time to examine the impact of the measures and their effectiveness before committing funding to permanent treatments.

4.7 Traffic Calming Point Assessment

TRAFFIC CALMING POINT ASSESSMENT				
Location:			Date Compiled:	
Roadway Type:		<input type="checkbox"/> Local	<input type="checkbox"/> Collector	
Traffic Data				
	Feature	Range	Criteria	Total
1a	Speed	0 to 35	5 points for every 2 km/h that the 85 th percentile speed is greater than 7 km/h above the speed limit	
1b	High Speed	0 to 5	5 points if minimum of 5% of daily traffic exceeds posted speed by 15-20 km/hr	
2	Volume	0 to 20	Local Roadways: 5 points for every 750 ADT Collector Roadways: 5 points for every 2,500 ADT	
3	Short-Cutting Traffic	0 to 15	5 points if there is a presence of 25% or more short-cutting traffic, additional 5 points for every 10% increment above 25%	
4	Collisions	0 to 10	1 point for every collision resulting in an injury/year over a three-year period 2 points for every collision involving a pedestrian or cyclist	
Road Characteristics				
5	Sidewalks	0 to 10	10 points for no sidewalks with evidence of pedestrian activity, 5 points for sidewalks on only one side, 0 points for sidewalks on both sides	
6	Pedestrian Generators	0 to 15	5 points for each pedestrian generator such as a school, playground, community centre, libraries, retail centres, etc. on street segment	
Total				
Note: In Section 1a, points are awarded beginning at 48 km/h on a 40 km/h roadway, and at 58 km/h on a 50 km/h roadway				
Does the location meet the minimum requirements?				
<ul style="list-style-type: none"> • Local roadway = minimum 35 points 			<input type="checkbox"/> YES	<input type="checkbox"/> NO
<ul style="list-style-type: none"> • Collector roadway = minimum 52 points 				



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Energy, Fleet and Facilities Management Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	Security Report on Theft and Vandalism Prevention in City-Owned Spaces (PW20046) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Martin Dambeau (905) 546-2424 Ext. 2855 Delfina Duarte (905) 546-2424 Ext. 6627
SUBMITTED BY:	Rom D'Angelo Director, Energy, Fleet & Facilities Management Public Works Department
SIGNATURE:	

RECOMMENDATION(S)

- (a) That Corporate Security be approved to deploy a Parks Security Patrol program under a 2-year pilot, to begin in the Spring of 2021;
- (b) That the operating costs associated with the Parks Security Patrol 2-year pilot program be referred to the 2021 operating budget deliberations;
- (c) That Corporate Security report back to the Public Works Committee, prior to the completion of the 2-year pilot, presenting the results of the program including the metrics used to measure the value, impacts and improvements as a result of the pilot program;
- (d) That the item respecting "Theft and Vandalism Prevention in City-owned Public Spaces" on the Public Works Committee Outstanding Business List be identified as completed and be removed;
- (e) That item (g) of the Graffiti Management Strategy on the Public Works Committee Outstanding Business List be identified as completed and be removed.

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EXECUTIVE SUMMARY

Through the City's Vision and Mission, city owned open spaces are intended to provide a safe and inclusive space for all residents to enjoy leisure and recreational activities within their local neighbourhoods, free from damage, graffiti and other safety concerns. The City has enacted various By-laws to support the safe and inclusive operation and maintenance of these spaces such as the "The Parks By-Law" (01-219) and the "Yard Maintenance By-law" (10-118). However, some vandalism events have taken place over the last year requiring City resources for repair and restoration.

Through this report, Corporate Security in the Energy, Fleet and Facilities Management (EFFM) Division in Public Works Department intends to:

- Provide a response to the OBL item AAH on the Public Works Committee regarding the feasibility of various options, including Hamilton Police involvement and the installation of security cameras to address the increase in vandalism and theft in City-owned public spaces;
- Provide a response to the OBL item AAZ on the Public Works Committee regarding the pursuit of additional Closed-Circuit Television Cameras (CCTV) be included as part of the overall Graffiti Management Strategy, as the internal subject matter experts related to security surveillance systems;
- Provide high level budget projects related to options that Corporate Security can provide to support the preservation of City-owned assets and open spaces;
- Provide education and reference to municipal sector and industry practices related to park space use, preservation and community engagement;
- Provide education based on the application of CPTED (Crime Prevention Through Environmental Design) concepts in existing environments, and promotion of applications during new builds and renovations. Provide options for consideration regarding various tactics and mitigating measures that can be applied related to the preservation of City-owned assets from deterrence of vandalism based criminal behaviour.

Alternatives for Consideration – N/A

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: There are no financial implications. Attached hereto are Appendix A & B which represents an order of magnitude budget both capital and operating.

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Any financial implications arising from the recommended directions to staff will be reported in future reports.

Staffing: There are no staffing implications. Any staffing implications arising from the recommended directions to staff will be reported in future reports.

Legal: Not applicable.

HISTORICAL BACKGROUND

Council Motions

On November 22, 2017, Council added to report PW17078/PED17198 recommendation (g) "That the pursuit of additional Closed-Circuit Television Cameras (CCTV) be included as part of the Graffiti Management Strategy with a report back, accompanied by a presentation, to the Public Works Committee outlining the costs of expanding the camera program."

On August 16, 2019, Council passed a motion from the Public Works Committee (Item 11.6, Theft and Vandalism Prevention in City-Owned Public Spaces) directing staff to identify and explore the feasibility of various options, including Hamilton Police involvement and the installation of security cameras, to address the increase in vandalism and theft in City-owned public spaces

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Not Applicable.

RELEVANT CONSULTATION

In a 2019 benchmarking report commissioned by the City of Ottawa's Corporate Security of which the City of Hamilton's Corporate Security contributed to, one of the information streams was related to proactive park patrol services.

Consultation on the recommendations in this report also included:

- Director, Energy, Fleet & Facilities Management, Public Works
- Project Managers, Energy, Fleet & Facilities Management, Public Works
- Senior Project Manager, Strategic Initiatives, Public Works
- V2PM Consulting (Security Consultant Reports)
- Various representatives from Planning & Economic Development
- Senior Leadership Team (various presentations and meetings)

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ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

It is important to acknowledge that the City of Hamilton's various divisional stakeholders responsible for the delivery of community programs in park spaces work collaboratively to respond to and restore City-owned assets that are subject to criminal vandalism incidents. In 2018, the City's Graffiti Management Strategy identified some Guiding Principals in managing the impact of vandalism from graffiti in the community, including key focus areas of Eradication, Enforcement, Engagement and Education. Additionally, in coordination with the Hamilton Police Service (HPS), incidents involving "hate bias", "politically motivated" or "gang related" material is reported to Police for an investigation prior to removal.

Applying preventable measures to deter the reoccurrence or likelihood of graffiti and or other means of vandalism is a partnership between the City, HPS and most importantly the local community who are impacted by the criminal behaviour. While there are actual financial costs carried by the municipality with the removal and remediation of property damage from vandalism, there are often additional impacts to residents. Some of these impacts include the deterrence of use by residents, including members of marginalized communities where they are not able to enjoy recreational activities when hate bias vandalism prevents reasonable enjoyment of the space.

Additionally, there are also costs associated with the application of proactive and mitigating measures that are applied by a City. The funding however, in a model where service enhancements, programming and community engagement are applied to deter criminal behaviour in park space is an investment into the preservation of the asset and legitimate use by the community. Additionally, the measures applied can be tracked, analyzed and modified based on their effectiveness to the criminal behaviour over an established period.

Criminal behaviour such as graffiti and property damage through vandalism is often caused by members of the immediate community where it takes place. Some of the contributing aspects of this behaviour is from boredom, anger, revenge, defiance and in some cases alliance with hate bias and political ideologies.

In Hamilton, on both City-owned property, including utility structures, and private property, specific incidents of graffiti and vandalism based criminal behaviour is classified as one of the following:

- "Tags";
- "Hate Bias";

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- “Political Activism”; or
- “Gang involvement”.

While Hamilton communities have experienced very impactful incidents of hate bias, political activism forms of criminal behaviour in the last few years, these events are typically in relation to a specific issue (local / global) and are applied to a target location. Even though the impact of each event is significant and can provide a lifetime impact for some members of the community, there are fewer of these incidents in comparison to tag based damage. Tags are often competitive in nature between those who participate in this behaviour and drive a significant deployment of new tags to “show up” against a competing participant’s recent activity. Because of the sometimes-extensive deployment of tags, the cost associated with the cleanup and remediation is significant to the owners of the property.

Crime Prevention Through Environmental Design (CPTED) was initially developed during the 1960’s, when urban renewal strategies removed the social and community-based aspects of public space use and preservation. The continued development globally of CPTED principals and applications have strengthened the knowledge to property owners and community residents on the importance of defensible space through the application of proactive visible ownership of space; e.g. “This is our community park, please respect and enjoy its use”. In addition to demonstrating ownership of space, application of natural surveillance, access control and territoriality techniques should also be applied in the deployment and maintenance of the successful community program. The City does deploy CPTED principals in the delivery of new and renovated park spaces and structures, but there is a community engagement aspect and ownership maintenance aspect that can be considered as a complement to the services offered to our communities.

In 2019, a benchmarking report commissioned by the City of Ottawa’s Corporate Security regarding comparable municipal Security functions was prepared, to which the City of Hamilton’s Corporate Security contributed. 11 single tier and two-tier municipalities were engaged to share knowledge on various aspects of each business and the services it provides. One of the referenced services that was identified was proactive park patrols. Of the 11 municipalities, 6 municipalities provided proactive park patrols through uniformed security staff, including the City of Toronto, City of Calgary, City of Mississauga, City of Winnipeg, City of Vancouver and the City of Halifax. Of the 6 cities that perform this service, all proactive patrols are conducted in the evening / night, and only the City of Halifax deployed this service during the summer months, while all others maintained this service year-round. Security teams from these municipalities are tasked with proactive patrols of major park spaces and areas of higher risk based on recent criminal activity. These park patrols provide positive engagement by Security staff and residents who are enjoying the space through permitted sports events and leisure activities. These same patrols are also able to

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positively engage with users of the park space that are engaged in prohibited activities and or where existing By-laws may be ineffective to define the usable hours of public park space. In some of these communities, residents can contact the City directly to report suspicious behaviour and to engage a response by Security staff to investigate and provide an ownership presence, and where necessary escalate to Police when criminal behaviour is taking place.

Strong partnerships between municipal security teams and local Police services in these communities are taking place. These partnerships provide cooperation where the primary response role of nuisance behaviour complaints received by Police from residents, are responded to initially by security staff during times of elevated levels of high priority calls that would delay a response by an officer. In having a response by security staff, some cases provide a resolution to the initial complaint call, or in cases where criminal behaviour requires the presence of Police, it can be validated for Police to increase the priority level of a call through site verification.

The use of CCTV technology as a deterrent alone to graffiti and vandalism does not have the statistical significance to support it as a primary solution. The time measurement to analyze historical events of repeated graffiti and vandalism to City-owned property and the effectiveness of responsive installations may at first show a reduction of the number of incidents where cameras have been installed. However, there are several other data points that should also be considered such as persons involved in the behaviour may have moved out of the community or matured in the understanding of being a good resident, or possibly been held accountable through the Courts for their actions. The City specifically has found that CCTV cameras are not a deterrent to vandalism as demonstrated in the image below from Tim Hortons Field in February 2019 where tag vandalism was applied directly in front of a camera. CCTV cameras can be applied to provide factual based information related to the way in which destructive behaviour is applied, and any trends related to the behaviour, however CCTV video rarely provides substantial evidence as to the identity of the person(s) responsible for the criminal behaviour as clothing and other means of masking identities are often applied by those involved.

Corporate Security in coordination with Parks and Facility Management, will create an operational Parks Security Committee (PSC) in Q3 of 2020. The PSC will identify all applicable park properties and categorize each property as a regular site or high priority property (based on recent activities and criminal behaviour in the last 3 years).

Corporate Security will complete site security assessments on high priority parks that have experienced criminal vandalism in the past 3 years to identify and implement mitigating measures that can be applied based on Crime Prevention through Environmental Design (CPTED) and target hardening principles including signage, intrusion alarm monitoring and CCTV cameras. The inclusion of target hardening

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principals such as CCTV and signage will be applied in the site security assessments through the specific application theories noted below. Projected budget impacts will be addressed through current year budgets where possible or referred to the 2021 budget process.

Site Security Assessment Theory Application: CCTV Cameras

CCTV or surveillance cameras will be explored for use at various parks where recent graffiti and vandalism have occurred. There are a number of factors that must be considered in the review and potential application of CCTV cameras, and a site review would need to be completed at each location first by the relevant City stakeholders. Some of these considerations include:

- Privacy Impact Assessments related to the use of CCTV cameras in park spaces must be applied to ensure compliance with;
 - the Privacy Commissioner of Ontario's "Guidelines for the Use of Video Surveillance"
 - The City of Hamilton's By-law 10-122, "By-law to Prohibit and Regulate Fortification and Protective Elements of Land"
- Type of camera (i.e. video images that record constantly versus cameras that record motion and or digital SLR style cameras);
- Placement and positioning to be effective, but not a target for additional vandalism as well;
- Network connectivity to provide health status monitoring and remote viewing and surveillance by City operational and security staff to reduce operational requirements related to vehicle and staff time use when attending a site for an inspection of the CCTV system operational readiness.

There are varying types of surveillance technology solutions that can be considered during site security reviews by Corporate Security, based on the unique needs of a facility and the availability of existing technology and infrastructure. In addition to the type of technology solutions, the cost impacts related to staffing resources required to manage and operate the systems and their overall value to the program should be considered. There are three types of technology applications that would be considered in the use of surveillance in City-owned open spaces that are described below:

Solution 1 – Digital Picture Capture on Motion

(i.e. "FlashCam")

- City-owned equipment, stand alone operation
 - Pro-element(s)
 - Can operate in absence of electrical and City network infrastructure (i.e solar operation available)
 - Equipment is redeployable as required

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- Con-element(s)
 - Reduced control and management / operational ability
 - Highest operational impact to staffing requirements (i.e. have to attend site to collect images / video)
 - Highest cost per camera installation ratio (for ownership) based on function and view limitations
 - False picture collection impact based on motion
 - Seasonal impact to equipment design (i.e. winter temperatures / reduced solar energy generation)

Solution 2 – Continuous Digital Video Capture

(i.e. City standard CCTV camera technology)

- City-owned equipment, network connection
 - Pro-element(s)
 - City maintains remote ability to management and operate cameras
 - Lowest cost per camera installation ratio (for ownership) where existing City network is available
 - Equipment is designed for seasonal year round operation
 - Equipment is redeployable as required
 - Continuous video collection despite motion impacts
 - Con-element(s)
 - Requires electrical and network infrastructure

Solution 3 – Event Triggered Video Capture

(i.e. leased construction site surveillance cameras)

- Leased equipment, network connection
 - Pro-element(s)
 - Can operate in absence of electrical and City network infrastructure (i.e solar operation available)
 - City can operate cameras remotely
 - Vendor provides operational response to incidents
 - Equipment is designed for seasonal year round operation
 - Equipment is redeployable as required
 - Con-element(s)
 - In absence of solar ability, equipment requires electrical and network infrastructure
 - Reduced control and management

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For budget reference only, please refer to Appendix “A” attached to Report PW20046 (Open Space CCTV Solution Options Budget Forecasting). This document provides a high level costing estimate for each type of Solution that would be considered in the individual security site assessment recommendations.

Site Security Assessment Theory Application: Posted Signage:

The City has employed park usage signage to many parks throughout the City. These signs are typically located at entry points to the park space at parking lots, pathways and catwalk areas. The signage (shown as an example below from Montgomery Park) includes clear and specific language that is supportive for the owner, its agents (contracted security staff) and law enforcement to enforce By-laws and applicable criminal code and provincial offences act violations.

Consideration to increase the placement of this signage is suggested, in parallel with a modified version of the Zero Tolerance signage that was created for use in the City Hall forecourt. The increased placement of this specific signage must include at least one posting on the exterior of each structure that is owned by the City, including areas where entry points into the structure are located, areas where it is expected to have light leisure activities occur (i.e. sitting, eating) and/or areas where a permanent canopy is included in the design of the structure. Consideration on the use of the same signage in common areas of the interior of the structure may also be applied, including sports change rooms, washrooms and concession areas.

The Zero Tolerance signs that could be considered should always include the expectation of maintaining a safe and respectful behaviour, in addition to the Hamilton Police Service contact number for emergencies. Where park locations have existing, or are later provided with CCTV technology, the portion regarding video surveillance must be applied as well.

For budget purposes, the cost of additional signage being created and installed would have to be calculated based on actual qualities required that would be assessed through physical inspections and calculations. Internal and external sign printing would be considered based on the costs and delivery times.

Option For Consideration:**Park Security Patrols (2-Year Pilot Project):**

The City may consider the deployment of a year round Park Security Patrols (PSP) through Corporate Security’s current Security Guard Services vendor for a 2-year pilot project. Prior to the completion of the 2-year project, Corporate Security would report back to Council on the work, statistics and measureable results from the program for

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consideration on the program's future. The application of this option could be reflective in service based on seasonal trends as well as times when Parks are maintained by existing City operational teams. The PSP program could harness existing hourly bill rates from our Security Guard Services vendor during the pilot program, including staffing and vehicle costs, without impacting existing City staff and fleet resources for the patrol duties.

For service level options and the budget impact of each, please refer to Appendix "B" attached to Report PW20046 (Parks Patrol Deployment Options and Budget Forecasting).

- Option # 1 (daily 12-hour coverage for the full calendar year) is recommended by Corporate Security.

This program would be based on the foundation of fostering positive engagement with residents and the community through proactive and responsive patrols by uniformed security staff in park spaces. This program would also reinforce ownership and acceptable behaviour in the property outside of hours where regular use is permitted, and when City staffing operations are typically present.

The responsibilities of the PSP team would be to provide proactive inspections and attendance at City Parks. The priority of parks that would receive higher frequencies of inspections would be based on actual events and activities that take place in the parks, as well as sites where there is a history of criminal behaviour in the past 3 years. Each patrol would be documented, including the service time provided, any findings, and escalation to Hamilton Police where criminal activity requires their investigative authority. Statistical data would be compiled for each site, providing the potential for trend analysis on the use and activities of park spaces and structures outside of event permitted times and the City's By-Law.

With the PSP team's patrol frequency abilities, findings of graffiti and vandalism could potentially be reported to the City's stakeholders (Parks, Facilities, Facilities Service Centre, Municipal By-Law Enforcement and Hamilton Police where required) for repair and remediation in advance of a resident's negative experience and complaint.

In harnessing the City's After Hours Call Centre team, resident complaints regarding nuisance or suspicious behaviour in City Parks could be directed to the PSP team as a primary responder to investigate, resolve the issue through presence and or security enforcement, or escalate to the appropriate authority (By-Law Enforcement or Hamilton Police) for additional response based on verified activities. Where calls directly to Hamilton Police for nuisance behaviour in park spaces may be subject to a delay in response based on the severity of calls, they are currently handling, the PSP would be

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SUBJECT: Security Report on Theft and Vandalism Prevention in City-Owned Spaces (PW20046) (City Wide) - Page 11 of 12

measured at their ability to respond and provide an initial investigative presence within 30 minutes of receiving the call.

Corporate Security would meet regularly with Facilities and Parks to identify and modify the site listing roster of regular patrols and identify high priority sites based on active and historical incidents. Statistics and findings from the inspections would be shared with Facilities and Parks to ensure that the primary internal stakeholders are able to make operational adjustments where required.

During a typical proactive 12-hour shift, a PSP team member would be able to typically provide 18 individual regular park inspections that take place approx. 15 minutes in length to complete (4.5 hours). In addition to the 18 regular inspections, 8 high priority park inspections of at least 30 minutes in length would be applied as well (4 hours). The balance of time within the 12-hour shift would be for documenting findings, travel time between each park site, and any additional park sites inspections above the base expectations.

Subject to the approval and implementation of a Parks Security Patrol program, Corporate Security would engage with Hamilton Police Services (HPS) to identify a response protocol between the two that would allow HPS to dispatch the City's Park Patrol Security resource as a primary responder for incidents that HPS would not normally deem sufficiently critical as to require a HPS officer to attend the site. Examples of such incidents may include graffiti and other minor property damage.

ALTERNATIVES FOR CONSIDERATION

Not applicable.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic city.

SUBJECT: Security Report on Theft and Vandalism Prevention in City-Owned Spaces (PW20046) (City Wide) - Page 12 of 12

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW20046 – Open Space CCTV Solution Options & Budget Forecasting

Appendix "B" to Report PW20046 – Parks Patrol Deployment Options & Budget Forecasting

OPEN SPACE CCTV SOLUTION OPTIONS BUDGET FORECASTING

Solution 1

Description: Digital Picture Capture on Motion (solar powered)
Technology Type: Digital SLR camera triggered by motion detection
Ownership Model: City
Estimated Cost Ratio*: **\$9,400 per camera unit** (view) per location

() includes recording of captured images but does not include installation and operational management costs related to attending each physical unit for the collection of images for review.*

Solution 2

Description: Continuous Digital Video Capture (City powered)
Technology Type: Digital video cameras connected to the City CCTV network
Ownership Model: City
Estimated Cost Ratio:** **\$1,600 per camera unit** (view) per location

*(**) ratio is based on a 4-camera solution and includes the recording of captured video images and installation of solution. and operational management costs related to the collection of images for review.*

Solution 3

Description: Event Triggered Video Capture (City / solar powered)
Technology Type: Various digital video cameras build scenarios connected to a private CCTV network
Ownership Model: 3rd Party (leased per month)
Estimated Cost Ratio(s): **\$1,300 per month** for a up to 4 camera units (views) per location with City provided electrical
\$2,085 per month for a up to 4 camera units (views) per location with solar power


PARKS PATROL DEPLOYMENT OPTIONS AND BUDGET FORECASTING

Year	Full Year (365 Days) Coverage		Seasonal (Apr 1st to Nov 30th) Coverage	
	Daily 12-Hour Service (1800 hrs to 0600 hrs)	Daily 24-Hour Service (0001 hrs to 2359 hrs)	Daily 12-Hour Service (1800 hrs to 0600 hrs)	Daily 24-Hour Service (0001 hrs to 2359 hrs)
	Option # 1 *	Option # 2	Option # 3	Option # 4
2021	\$ 96,234.00	\$ 192,468.00	\$ 64,242.00	\$ 128,484.00
2022	\$ 98,472.00	\$ 196,944.00	\$ 65,736.00	\$ 131,472.00
2023	\$ 100,710.00	\$ 201,420.00	\$ 67,230.00	\$ 134,460.00

* Option #1 is recommended by Corporate Security



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
 Transit Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	PRESTO Adoption (PW17033(e)) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Nancy Purser (905) 546-2424 Ext. 1876
SUBMITTED BY:	Debbie Dalle Vedove Director, Transit Public Works Department
SIGNATURE:	

RECOMMENDATION

(a) That the Strategy For Legacy Paper Media Removal, be approved, as follows:

Product	Notice	Action	Marketing
Paper Monthly Passes	Provided August 2020 - 2 month	November 1, 2020 no paper passes	Provide literature with each pass sold advising of removal of paper pass and the benefits of PRESTO. Work with social agencies to implement the best solution for their client.
Paper Tickets and Day passes	Provided August 2020 - 3 months	November 1, 2020 no paper tickets or day passes at vendors	Promote the benefits of PRESTO to ticket users via web and social media, utilize vendor network to provide information. Day pass functionality will not be available on PRESTO.

Chart continues on page 2.

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SUBJECT: PRESTO Adoption (PW17033(e)) (City Wide) – Page 2 of 8

Continued from page 1.

Product	Notice	Action	Marketing
Vendors	Provided August 2020 – 3 months	Remove all HSR paper media product from all vendor locations as of November 1, 2020	This change may be disruptive to the vendors business. Provide a 3 month notice period to allow for the adjustment.
Special Purpose Ticket	Provided August 2020 – 3 months	November 1, 2020 introduce special purpose ticket available at Customer Service Office located at Hunter GO Station for Social Agencies and to customers who are not connected with social agencies, limit of 2 tickets. Tickets will remain until new functionality is available.	Advise agencies of the availability so they can continue to support clients. Work with agencies to determine the future functionality that will best suit their needs and work with PRESTO.
Mobile e-ticketing	Projected release from PRESTO September 2020 – 2 months	November 1, 2020 PRESTO e-ticketing becomes available. Basic functionality is available, improvements will be available through a number of releases.	Campaign for customers to ensure understanding of what this product is and how it works. Mobile ticketing will allow customers to purchase one or two tickets at a time at the Council approved ticket prices without the need for a PRESTO card.

- (b) That the Golden Age fare policy consist of a one-time free PRESTO card and unlimited free transit in Hamilton to residents 80 years and older and the cost of the card be funded through current operating budget;
- (c) That Item respecting PRESTO Operating Agreement, be identified as completed and be removed from the Public Works Committee Outstanding Business List.

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SUBJECT: PRESTO Adoption (PW17033(e)) (City Wide) – Page 3 of 8

EXECUTIVE SUMMARY

The PRESTO fare card system in Hamilton was approved and implemented with the intent of replacing legacy paper tickets and paper monthly pass products.

As part of the operating agreement with Metrolinx approved by Council, the City is required to pay a 9% commission on 80% of its Transit revenues one year after the installation of new equipment, regardless of what media is used to earn the revenue, except for cash which represents the remaining 20% of revenues. As at the writing of this report, the deployment schedule provided by PRESTO targets a full installation as of the end of October 2020.

Customers are adopting PRESTO without extensive marketing, advertising or promotional campaigns, as of February 2020 adoption had reached 58%. To move the remaining customers to PRESTO to achieve the adoption rate prescribed in the agreement by October 2021, a strategy for legacy paper media removal has been developed. The strategy provides notice periods for each stage as well as a focused education and marketing plan that highlights the benefits of using the smart card to allow for smooth transition to PRESTO.

The disruption caused by the world-wide pandemic has shown that customers are looking for as many touchless interactions as possible. In recognition of this, PRESTO has moved the mobile ticketing functionality ahead with an anticipated implementation of September 1, 2020. This will enable customers to purchase fares on their phones and activate them when boarding, no PRESTO card is required. Additionally, PRESTO released an update on June 1st for their App which now allows for customers to instantly load value to their card using near field communication (NFC) on Apple iPhone 7 or higher. This functionality was previously only available for Android phones which only captured half the smartphone market. Now that it is available for all smartphone users this App has created another touchless interaction opportunity for our customers.

At the Public Works Committee meeting on February 21, 2020 staff were directed to report back on the feasibility of providing the criteria and cost of funding of the initial \$6 PRESTO card for Hamilton residents that qualify. Healthy & Safe Communities have provided a proposal where the resident will qualify through the submission of an application form that confirms their income does not exceed 2006 Low Income Cut Off (LICO). This same income level is used for low income applicants of the Affordable Transit Pass program. An approval letter will be issued which the resident will then present at the Hunter GO Station to receive their free card. A database will be maintained to ensure only one card is issued per qualifying resident. The cost details are provided in the Financial Section. In recognition of the contribution that citizens 80 years and older have made to the City, staff are recommending that the Golden Age fare policy consists of a one-time free PRESTO card in addition to unlimited free transit in Hamilton.

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SUBJECT: PRESTO Adoption (PW17033(e)) (City Wide) – Page 4 of 8

Alternatives for Consideration – see page 7

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Once the strategy has been fully implemented there will be a 2021 budget reduction for the purchase of paper media (\$113,000), and the payment of commissions to vendors (\$365,500).

Free PRESTO cards for Golden Age Pass customers totalling \$6,000 will be funded through Transit current operating budget 53050-530400.

The financial impact to run a 1,000 card pilot program to provide an initial \$6 card to residents who qualify is \$22,000. The cost can be broken down between the cost of each card is \$6 and the administrative costs estimated by Special Supports Section of Ontario Works to process the application, determine eligibility, send approval letter, maintain a database of accounts for \$16. Special Supports Section of Ontario Works anticipates that 0.2 FTE would be utilized for this pilot program.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

The fare policies approved by Council are replicated on PRESTO and have been operational since 2011. Since 2013 all Senior fares including Golden Age for Seniors 80+ have been available on PRESTO. Approximately 11,000 customers 80 years or older have purchased a PRESTO card to receive the Golden Age pass. In 2019 approximately 4,200 Golden Age customers used the HSR.

At its January 24, 2018 meeting, Council approved the new PRESTO operating agreement with Metrolinx (PW17033(a)).

The following is a status update of functionality improvements completed:

In early 2018, Metrolinx completed the rollout of PRESTO devices to over 400 Shoppers Drug Mart locations; 30 locations are in Hamilton along with 9 Fortinos locations. This agreement provides the much-needed locations for our customers to purchase and reload their cards.

As of June 2018, PRESTO released functionality to allow the roll out of PRESTO for the U-pass programs at Universities and Colleges. McMaster and Redeemer have been operational since September 2018 and Mohawk since May 2019.

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SUBJECT: PRESTO Adoption (PW17033(e)) (City Wide) – Page 5 of 8

Since the summer of 2018, self-service devices have been available at all GO Transit terminals, including Hamilton GO Centre, McMaster University and West Harbour.

In January 2019 PRESTO launched an App which allows the card holder to perform most of the functions available on the Web and in addition if the customer has a near field communication (NFC) enabled Android phone they can immediately load the funds and transit passes just purchased. On June 1, 2020 PRESTO released an update which now allows for Apple iPhone 7 or higher to also load instantly using NFC.

Limited Use Media (LUM) was introduced on the TTC in April 2019 as an alternative to paying a cash fare and focused at the subway stations.

A second App has been developed for use on our Specialized system, which will allow for sub-contracted taxis to accept PRESTO as payment. TTC tested the solution in September 2019, and it is expected to be available to all Transit Agencies in early 2020.

As of October 28, 2019, customers are no longer required to load a minimum of \$10 when the transaction is in person at Customer Service locations or Shoppers Drug Mart/Fortinos. Customers can load the value that best suits their needs. This will reduce the financial burden for some of our customers, making it even easier to switch to PRESTO.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

N/A

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

The following Transit Agencies in the GTHA have already removed their paper media: Brampton, Mississauga, Oakville, York, Burlington, and GO. The TTC has stopped selling tickets and tokens as of December 1, 2019 in the subways.

The operating agreement with PRESTO requires that each transit agency achieves 80% adoption one year after the new equipment is installed on the buses. As at the time of writing the report current schedule provided by PRESTO is the new devices will be installed by the end of October 2020. This equipment will allow for added functionality and has been future proofed to allow for all foreseeable fare payment options such as Account Based Ticketing, Mobile Payments, Mobile Ticketing and QR code tickets. PRESTO will begin to make this additional functionality available after the equipment is in place and has stabilized. Appendix “A” attached to Report PW17033(e) provides a list of the functionality being developed and a brief description of what they will mean to the customers.

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SUBJECT: PRESTO Adoption (PW17033(e)) (City Wide) – Page 6 of 8

There is a one-time fee of \$6.00 to purchase the PRESTO card. When using PRESTO, customers will always pay the lowest fare. With the removal of the minimum load, customers may load any value on the card depending on their circumstances. The load could be as little as \$0.05, the value of two tickets or the value of a monthly pass.

PRESTO adoption in Hamilton has reached 58% as of February 2020. The following customers do purchase the card and utilize the PRESTO card to access the HSR.

- Seniors – single rides, monthly pass, annual pass
- Seniors 80+ - Golden Age
- All qualified applicants of the Affordable Transit Pass program
- McMaster Full Time Undergraduate and Graduate students - U-pass program
- Redeemer University College Full Time students - U-pass program
- Mohawk College Full Time students - U-Pass program
- Adult ticket and pass customers use PRESTO for 56% and 36% of the rides taken.
- Student ticket and pass customers use PRESTO for 35% and 27% of the rides taken.

Due to the expanded availability of PRESTO load locations across Hamilton, the improved customer experience via the App, removal of the requirement for a minimum load and the scheduled device refresh, it is realistic to move forward with the removal of paper media from circulation.

There are approximately 1,000 new applications for the Golden Age pass each year. In recognition of the contributions made to the City by these customers, free PRESTO cards would become part of the Golden Age fare policy. As customers must apply in person at 36 Hunter Street East to receive their pass, this would be a seamless process.

There are approximately 2,500 Adult paper passes and 700 Student paper passes purchased each month. The strategy removes these from circulation as of November 1, 2020. The education and marketing campaign will begin in August 2020, giving customers three months' notice of this change. The move to PRESTO will provide our customers with the security of purchase if the card is lost; as well as make it easier to purchase their pass as they will be able to set up automatic renewals.

Many of our customers have moved from paper tickets to PRESTO. The strategy will remove legacy paper tickets and day passes from the third-party network as of November 1, 2020. This change may be disruptive to the third-party vendors who sell HSR paper products. The education and marketing campaign to address both the vendors and customers will begin in August 2020 and will provide three months' notice. Tickets will continue to be accepted in the farebox for the remainder of 2020. For social agencies and school boards that utilize paper tickets to support their clients; a special purpose ticket will be created and available at the Customer Service Office at

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SUBJECT: PRESTO Adoption (PW17033(e)) (City Wide) – Page 7 of 8

Hunter GO Station. These tickets will remain available until PRESTO has released new functionality that meets the needs of social agencies.

The strategy has considered the requirements of customers and incorporates learning from the Transit Agencies that have removed paper tickets and passes. Current customers utilizing PRESTO are diverse, with many on a fixed or low income. With the removal of the minimum load, affordability has been addressed as customers can now load an amount that fits their needs at over 40 locations throughout Hamilton. Complaints have not been received through our customer service line in regard to paying for the PRESTO card. Additionally, since tickets will remain for social agencies customers could be referred for support. For those not connected to a social agency, special purpose tickets will be sold at the Hunter GO Station. The maximum an individual can purchase at a time will be two tickets. The experience gained through the 58% of customers using PRESTO and the strategy planned for social agencies, indicates that additional programs for low income are not required at this time. Initially PRESTO has planned to make mobile ticketing available in March 2021. The disruption caused by the world-wide pandemic has shown that customers are looking for as many touchless interactions as possible. In recognition of this, at the time of writing this report PRESTO has moved the mobile ticketing functionality ahead with an anticipated implementation of September 1, 2020. This will enable customers to purchase fares on their phones and activate them when boarding, no PRESTO card is required.

ALTERNATIVES FOR CONSIDERATION

Council could delay the removal of legacy paper media to a future date. This option could impact our ability to achieve the prescribed adoption rate of 80% by October 2021, potentially leading to a payment to PRESTO of approximately \$1million for no services rendered. In addition, transit utilizes an in-house developed software program to manage the paper media inventory, sales to vendors, including commission payment and returns, as well as sales to the public at the Hunter GO Station. It was anticipated that this system would be retired soon after PRESTO was launched in Hamilton. The software program is now 8 years past its retirement date and is not stable. Replacement of the software would be necessary should paper media continue; it is estimated that an investment of approximately \$500,000 would be required. Paper media for tickets and passes would need to be designed and purchased for the extended period to a maximum annual cost of \$113,000 for paper media and \$365,500 for commissions to vendors for 2021.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

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SUBJECT: PRESTO Adoption (PW17033(e)) (City Wide) – Page 8 of 8

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW17033(e) – Glossary of PRESTO New Product Offerings

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Appendix “A” to Report PW17033(e)
Page 1 of 1

Glossary of PRESTO New Product Offerings

New Product	Description
Limited Use Media	Disposable card with a smart chip that allows for a predetermined value such as one or two rides to be loaded
Account Based Ticketing	Information about a customers account is stored in the system back-end not on the card
Mobile Payments	Allow payment from e-wallet, credit card and debit card
Mobile Ticketing	Customer can purchase a ticket on their smartphone and activate at the time of boarding
Bar Code/QR Code	This functionality is used in the travel industry, such as boarding passes
PRESTO App	Allow customers to manage their account, load value or passes and pick up the load with a near field communication(NFC) enabled Android phone.
Paratransit App	Allow customers to tap on a device in all vehicles utilized by DARTS service



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
 Transit Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	University/College Transit Pass Agreements (PW20022(a)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Nancy Purser (905) 546-2424 Ext. 1876
SUBMITTED BY:	Debbie Dalle Vedove Director, Transit Public Works Department
SIGNATURE:	

Discussions of Confidential Appendix “A” to this Report PW20022(a) in Closed Session is subject to the following requirement(s) of the City of Hamilton’s Procedural By-Law and the Ontario Municipal Act, 2001;

- **Advice that is subject to solicitor-client privilege, including communications necessary for that purpose.**

RECOMMENDATION(S)

- (a) That the General Manager, Public Works, or their designate be authorized to negotiate and execute on behalf of the City all necessary agreements and related documents to:
- (i) either temporarily suspend the Transit Pass Agreements (the “UCTP Agreements”) between the City and: (a) McMaster University (re: Undergraduate students); (b) McMaster University (re: Graduate students); (c) Redeemer University College; and (d) Mohawk College; or prorate the UCTP fees in relation to the respective UCTP Agreements, according to the requirements of each individual school at the discretion of the General Manager, Public Works for a period of time to be determined by the General Manager, Public Works, all in a form acceptable to the City Solicitor;

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SUBJECT: University/College Transit Pass Agreements (PW20022(a)) (City Wide)
- Page 2 of 6

- (ii) subsequently revive the UCTP Agreements, at the discretion of the General Manager, Public Works, all in a form acceptable to the City Solicitor;
 - (iii) further suspend/revive the UCTP Agreements or prorate the UCTP fees, as required at the discretion of the General Manager, Public Works, all in a form acceptable to the City Solicitor;
- (b) That Appendix “A” attached to Report PW20022(a) remain confidential, and
- (c) That the General Manager, Public Works, or their designate be authorized to issue appropriate refunds for the UCTP Agreements as they relate to payments made in advance for the 2019/2020 agreements.

EXECUTIVE SUMMARY

As a follow up to Report PW20022 approved by Council June 3, 2020, this Report addresses the 2020 fall school semester (September 2020 – December 2020) as well as contemplates the potential impact of a second wave of Covid19 to impact the viability of the UCTP Agreement in the future.

The City of Hamilton is party to University/College Transit Pass Agreements (UCTP Agreements) with McMaster University, Mohawk College, Redeemer University College and their respective Student Associations/Unions, which covers approximately 42,000 students (pre-Covid19 estimate). The pass allows unlimited access to the HSR. The UCTP Agreements require that all full-time students enrolled in each of the respective schools be charged the UCTP fee (with no opt-out provision). The fee is substantially discounted as all full-time students pay regardless if they use transit and has been developed to ensure that it appropriately covers their share of the system usage. As students live throughout the City, transit service levels have increased across the system to meet the ridership demand.

The UCTP is considered an ancillary fee under the university and college fee structures. In 2019 the Conservative government implemented, the ‘Student Choice Initiative’ (SCI) to make ancillary student fees charged to university and college students optional. The Transit Agencies and the respective universities/colleges lobbied the Ontario Government as to the importance of the UCTP program to Transit Agencies and students throughout Ontario. As a result, the Ontario Government agreed that if a program was already in place prior to January 1, 2019 it would remain mandatory for all students to participate. Should the current UCTP agreements be cancelled any future agreement would be subject to the SCI giving students the ability to opt in/out. The program as it stands today would no longer be viable and the City would lose this stable source of revenue.

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SUBJECT: University/College Transit Pass Agreements (PW20022(a)) (City Wide)
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On March 17, 2020, the Province of Ontario declared a state of emergency pursuant to s. 7.0.1 of the *Emergency Management and Civil Protection Act* as a result of an outbreak of a communicable disease namely Coronavirus Disease 2019. Universities and colleges throughout Ontario were ordered to close as a result.

With universities and colleges campuses closed and the public told to remain at home, the programs normally offered through universities and colleges moved to an on-line format. This has led to a significant reduction of ridership levels generated from these institutions. Additionally, to enforce physical distancing, on March 19, 2020 HSR implemented a requirement that all customers board from the rear doors, thereby foregoing the customers requirement to pay a fare.

At the time of writing this Report, McMaster University Student Union, (which represents McMaster's undergraduate students) has requested: (i) refunds for UCTP payments made in advance for April 2020 – August 2020; and (ii) a fee adjustment for the 2020/2021 school year since all fall 2020 classes have been moved on-line (see Appendix "B" attached to Report PW20022(a)). Mohawk College has requested a further suspension for the fall 2020 semester as well as a reduced fee for the students who are required to attend campus as part of their respective programs (see Appendix "C" attached to Report PW20022(a)).

To give staff the flexibility to respond to a rapidly evolving situation, staff are requesting the authority to:

- (i) either negotiate the suspension of the UCTP Agreements or prorate the UCTP fees, as required at the discretion of the General Manager, Public Works;
- (ii) subsequently revive the UCTP Agreements when appropriate to do so, at the discretion of the General Manager, Public Works; and
- (iii) If future public health circumstances require such action, further suspend/revive the UCTP Agreements or prorate the UCTP fees, all at the discretion of the General Manager, Public Works.

Alternatives for Consideration – N/A

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Most Hamilton post-secondary schools have announced that the majority of courses for fall 2020 semester will be provided in an on-line format. Anticipating that all schools will ask for relief for the fall semester the budget revenue loss for September – December 2020 will be \$3,704,950. Additionally, since the schools collect the fees from students at the beginning

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SUBJECT: University/College Transit Pass Agreements (PW20022(a)) (City Wide)
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of the school year or the beginning of the semester, McMaster Undergraduates are requesting refunds for services interrupted due to stay at home orders and the waiving of HSR fares for April through August 2020 that amounts to \$1,023,852. However, since HSR is targeting July 1 to resume fare collection the amount could reduce to \$795,112. Should it be determined that refunds will be provided for all agreements the total revenue reduction would be \$1,771,490 for April through August 2020 or \$1,372,060 April through July 2020.

It is unknown at this time what the ongoing impacts of Covid-19 will have on the post-secondary learning environment or the overall enrolment levels and ultimately on the revenue that Transit can anticipate from the agreements going into 2021. The ongoing closure of the facilities to the majority of students could lead to further requests for suspension and/or prorated fees for the winter semester or the schools could open but with a decline in enrolment, both scenarios have negative impacts on the 2021 budget.

Staffing: N/A

Legal: Legal Services will be engaged to advise on and codify the changes to the UCTP Agreements, as required.

HISTORICAL BACKGROUND

UCTP Agreements have been in place with McMaster University (since 2000), Redeemer University College (since 2001) and Mohawk College (since 2010). McMaster University and Redeemer University College charge the full UCTP fee in September, while Mohawk College charges the UCTP fee on a per semester basis. McMaster Undergraduate Student agreement and McMaster Graduate Student agreement cover a 12-month period.

The program is designed to provide all full-time students unlimited access to transit while attending one of the institutions. There is no opt-out capability. This allows the students to pay a significantly reduced rate for transit as the entire population contributes to cover the cost for those that do use it. Total revenue received in 2019 amounted to \$8,691,702. The UCTP program is also designed to cover the cost of the service provided during the school season. The UCTP Agreements are renewed every three years with authority from Council (PW07101b). The next renewal is scheduled for September 1, 2020.

The UCTP is considered an ancillary fee under the university and college fee structures. In 2019 the Ontario government implemented, the 'Student Choice Initiative' (SCI) to make ancillary student fees charged to university and college students optional. The Transit Agencies and the respective universities/colleges lobbied the Ontario

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SUBJECT: University/College Transit Pass Agreements (PW20022(a)) (City Wide)
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Government as to the importance of the UCTP program to Transit Agencies and students throughout Ontario. As a result, the Ontario Government agreed that if a program was already in place prior to January 1, 2019 it would remain mandatory for all students to participate. The City's UCTP Agreements were therefore able to continue unaffected by the Student Choice Initiative.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

Legal Services has been consulted and agree with the recommendations.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

The UCTP Agreements provide stable revenue for the City on an annual basis, \$8,691,702 in 2019 based on actual enrolment numbers.

As the schools collect the fees from students at the beginning of the school year or the beginning of the semester, McMaster Undergraduates are requesting refunds for services interrupted due to stay at home orders and the waiving of HSR fares for April through August that amounts to \$1,023,852. However, since HSR is targeting July 1 to resume fare collection the amount could reduce to \$795,112. Should it be determined that refunds will be provided for all agreements the total revenue reduction would be \$1,771,490 for April through August or \$1,372,060 April through July.

While the schools are closed for most students, some will be granted access due to the nature of their program. Under the current policy post-secondary students pay adult fare when they are not paying the fee set out in the UCTP Agreement. Therefore, should these students utilize the service during the fall 2020 semester they will be required to pay the Adult ticket or Adult pass fare. As enrolment information is not available at the time of writing this report, we do not have the ability to determine how much ridership we may see from these students for the fall 2020 semester. Revenue projections provided to date have not included post-secondary students, therefore any fares purchased, and rides taken would improve our overall position.

Should the current UCTP Agreements be cancelled any future agreement would be subject to the SCI giving students the ability to opt in/out which would result in the UCTP program no longer being viable.

Allowing staff to negotiate the suspension of an agreement or a prorated reduction in fees for the UCTP Agreements will ensure the agreements remain in force.

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SUBJECT: University/College Transit Pass Agreements (PW20022(a)) (City Wide)
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ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20022(a) – Confidential Legal Advice

Appendix “B” to Report PW20022(a) – McMaster Student Union – Undergraduate
Request

Appendix “C” to Report PW20022(a) – Mohawk College Request

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May 29, 2020

Nancy Purser
Manager, Transit Support Services
Hamilton Street Railway

Dear Nancy:

Thank you for your continued partnership in providing a Municipal Bus Program to the full-time undergraduates at McMaster University.

The COVID-19 pandemic has caused many challenges and interruptions to the McMaster experience along with service delivery within the City of Hamilton, specifically around mass transit. Many of our students have returned home and left the City of Hamilton when classes ceased on campus, in and around March 10th. Also, as announced May 26, 2020, the academic offerings in September will continue to remain predominately on-line thereby minimizing the need for students to be on campus.

In addition, from our understanding the following changes has been made to the HSR service offerings:

- The HSR is currently offering free transit service;
- The HSR is operating on a reduced schedule.

Therefore, the MSU is requesting that the University/College Transit Pass program, for MSU students be amended as follows:

- A credit be provided to Full-Time Undergraduate for services paid for and interrupted the month of April;
- A credit be provided to Full-Time Undergraduate students for the summer months (May-August) as these were services already paid for and now interrupted
- The fee for the 2020-21 year be amended to reflect service for the University/College Transit Pass program commence when students can return to campus, ideally for the winter semester

Regarding the April and summer disruption we would refer to Section 5 1(b) to assist in calculating the value of the funds owed to Full-Time Undergraduate students. This is a unique time and we are open to further discussions to resolve this matter. To adjust fees for the 2020-21 cohort of students we would need confirmation of these amendments by late June.



Every commercial contract is premised on the concept that the parties will act in good faith while fulfilling their responsibilities under the agreement. Clearly the recent events were not contemplated by either party and therefore the impact of the pandemic specifically was not part of the contract. Section 5 was included to allow for the fact that MSU students would not receive commensurate value for their financial contribution due to bus service reduction or interruption. Although it is not the fault of the HSR our students have not been receiving fair value for their financial contribution and it is submitted that in this instance good faith dictates the above concessions be granted to the MSU.

These requests are not unreasonable and would allow the MSU students to be treated fairly by the HSR in response to these unprecedented events which have negatively affected all parties.

We appreciate your consideration and look forward to continuing our partnership for the benefit of our students, the HSR and the broader Hamilton community.

Sincerely,

Giancarlo Da-Ré
President

John McGowan
General Manager

CC: Debbie Dalle Vedove
Hamilton Street Railway, Director (Transit)

Sean Van Koughnett
McMaster University, Associate Vice President (Students and Learning) & Dean of Students

Justin Gunter
McMaster University, Senior Manager, Business Development



June 11, 2020

Nancy Purser
Manager, Transit Support Services
Hamilton Street Railway

Dear Nancy:

Thank you for sharing the City's recent decision to suspend the summer bus pass for Mohawk College students. We appreciate the strong partnership we have with the HSR that allowed us to come to an agreement for the benefit of our members.

As you are aware, we have now been advised that the Fall semester will be a mixture of online classes, with some minimal in-person classes to complete lab work. Many of our students will live outside the Hamilton area and will not be able to use the transit pass.

We are requesting the following:

- a) That the University/College Transit Pass program, for Mohawk College students, be suspended for the Fall 2020 term.
- b) That those students who may require the use of transit, be allowed to do so (either through monthly passes or individual rides) at the student rate.

It is our hope that we resume normal classes in January and can return to the regular U-Pass program.

With registration for the Fall semester just around the corner, we look forward to timely response to our request. We appreciate your consideration and look forward to continuing our partnership for the benefit of our students.

Yours truly,

A handwritten signature in black ink that reads 'Garrett Blair'.


Garrett Blair
President

A handwritten signature in black ink that reads 'Wendy Rolfe'.

Wendy Rolfe
Interim Executive Director



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	July 8, 2020
SUBJECT/REPORT NO:	City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Paper (PW20048) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Bhajan Sarker (905) 546-2424 Ext. 5109
SUBMITTED BY:	Cari Vanderperk Acting Director, Water and Wastewater Planning and Capital Public Works Department
SIGNATURE:	

RECOMMENDATION(S)

- (a) That each of the policy statements and implementation strategies contained in the City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables shown in Appendix "A" to Report PW20048 be endorsed;
- (b) That the General Manager of Public Works, or their designate, be authorized and directed to adopt these statements as the guiding principles to identify servicing alternatives in the development of the City of Hamilton Water, Wastewater, and Stormwater Master Plans for the Lake Based Systems being developed under Growth Related Integrated Development Strategy 2; and,
- (c) That the General Manager of Public Works, or their designate, be authorized and directed to report to the Public Works Committee upon completion of the Water, Wastewater and Stormwater Master Plans, outlining any changes or additions to the policy statements resulting from public or key stakeholders' consultations.

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**SUBJECT: City of Hamilton Water, Wastewater and Stormwater Master Plans
Policy Paper (PW20048) (City Wide) - Page 2 of 7**

EXECUTIVE SUMMARY

The 2020 Water, Wastewater and Stormwater Master Plans (2020 Master Plans) are being prepared as a component of the City of Hamilton (City's) corporate strategic growth initiative known as the Growth Related Integrated Development Strategy 2 (GRIDS 2). One of the foundational elements of the 2020 Master Plans is the 2020 Master Plans Policy Paper (Policy Paper) which represents the guiding principles for how the City's water, wastewater and stormwater infrastructure will be developed to meet existing and future growth needs. Report PW20048 serves as the Policy Paper and is an important element in the development of several alternative servicing strategies leading to the preferred servicing strategy defined in GRIDS 2.

The Policy Paper:

- Harmonizes and documents water, wastewater and stormwater servicing policies, providing consistent direction to all City staff;
- Incorporates current regulations, legislation, best practices, criteria, and potential servicing implications;
- Encourages servicing strategies that optimize cost of services based on a long term, net present value approach;
- Incorporates current City policies on energy conservation and encourages adaptation of climate resiliency into design; and,
- Supports the City's 2016-2025 Strategic Plan, and the strategic directions of GRIDS 2.

Appendix "A" attached to Report PW20048, titled City of Hamilton Water, Wastewater and Stormwater Master Plan Policy Summary Tables, provides a listing of the policy statements by category: General, Water, Wastewater and Stormwater and includes commentary on the basis, justification and implications for each policy.

By adopting the recommendations of this report the policies contained in the City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables becomes a governing document for the planning and design of all future water, wastewater and stormwater infrastructure. The policies will provide clear direction on when, where and how infrastructure will be established, and the policies will be a point of reference for all stakeholders with an interest in land development in the City of Hamilton.

Alternatives for Consideration – See Page 6

**SUBJECT: City of Hamilton Water, Wastewater and Stormwater Master Plans
Policy Paper (PW20048) (City Wide) - Page 3 of 7**

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Having an approved Policy Paper would streamline the identification of infrastructure for development and growth, resulting in maximizing City's existing infrastructure return on investment and staffing resources.

Approval of the Policy Paper does not create any financial commitments. At the conclusion of the 2020 Master Plans and GRIDS 2 studies, staff will be seeking Council approval of the 2020 Master Plans recommendations and associated financial obligations.

Staffing: There are no staffing implications.

Legal: N/A

HISTORICAL BACKGROUND

The City's 2006 GRIDS is based on a Nodes and Corridor Land Use Strategy, the 2006 Water and Wastewater Master Plans, a social development strategy, an economic development strategy, and a financial analysis of the growth options up to the year 2031. GRIDS 2 is being updated in 2020 to address the additional residential and employment growth forecasted out to 2041.

The 2020 Master Plans are iteratively developed along with GRIDS 2. When complete, they will identify the preferred water, wastewater and stormwater servicing strategy for the next 20 years, ensuring that the City meets its existing servicing commitments, accommodates future growth, and addresses water quality issues in the Hamilton Harbour and the City's surrounding receiving waters. The 2020 Master Plans will update the 2006 City of Hamilton Water and Wastewater Master Plans (2006 Master Plans) for the lake-based systems which addressed the servicing for growth to the year 2031.

The City of Hamilton retained the services of GM BluePlan Engineering and Wood Consultants to assist with the development of the 2020 Master Plans. The master planning process allows the City to take a holistic look at its existing infrastructure in order to identify opportunities to optimize current capacities and to develop the most efficient means of expanding its systems to service future needs.

Guiding principles and policies are required in order to most effectively develop the servicing alternatives for the proposed GRIDS 2 growth scenarios. The policies in the Policy Paper are derived from the policies utilized in the 2006 Master Plans and updated to reflect current regulations, design principles, industry practices and specific

**SUBJECT: City of Hamilton Water, Wastewater and Stormwater Master Plans
Policy Paper (PW20048) (City Wide) - Page 4 of 7**

City initiatives such as energy conservation, flooding relief and climate change adaptation.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The policies and principles outlined in the Policy Paper will form part of the City's day to day planning, design, construction, operations, and maintenance practices for the water, wastewater and stormwater systems.

The policies reflect the most recent regulations, legislation, and best management principles affecting the water, wastewater and stormwater industry, including but not limited to:

- Provincial Policy Statement
- *Greenbelt Protection Act*
- *Source Protection Planning Act*
- *Safe Drinking Water Act*
- *Places to Grow Act*
- Hamilton Harbour Remedial Action Plan
- MECP Procedure F-5-5
- City of Hamilton By-laws and existing Policies and Procedures
- City of Hamilton Climate Change Task Force Report
- City's Corporate Energy Policy

The Policy Paper was developed to be consistent with the City's 2016-2025 Strategic Plan, and the strategic directions of GRIDS 2. It supports "smart growth" principles which promote sustainability and efficiency.

RELEVANT CONSULTATION

A consultation process was undertaken during the development of the Policy Paper including a number of workshops namely:

- 1) City staff from the Hamilton Water Division as well as expertise from consultants in the field of wet weather flow control were gathered to discuss the interpretation of regulatory requirements pertaining to combined sewer overflow control; and,
- 2) City staff from the Public Works Department and the Planning and Economic Development Department gathered to assemble the content of the 2020 Master Plans Policy Paper.

**SUBJECT: City of Hamilton Water, Wastewater and Stormwater Master Plans
Policy Paper (PW20048) (City Wide) - Page 5 of 7**

Comments received at the various workshops and obtained through the circulation of draft Policy Papers have been incorporated into the final Policy Paper.

The City's established key stakeholders including, but not limited to, Bay Area Restoration Council (BARC), Hamilton Conservation Authority (HCA), Environment Hamilton (EH), and Royal Botanical Gardens (RBG) have been apprised of this Policy Paper and of this staff report to Council. These key stakeholders will have future opportunities to meet with the 2020 Master Plans study team to discuss these policies and to recommend changes or additions. If new or revised policies emerge from those engagements, City staff will communicate those changes back to Council.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The 2020 Master Plans and its accompanying Policy Paper describe how the City's water, wastewater and stormwater infrastructure will be managed and developed to ensure existing and future services are delivered efficiently and cost effectively. By consistently applying the principles contained in the Policy Paper the City will ensure that existing infrastructure is operated and maintained to a defined standard and full lifecycle value is derived from these assets. Application of the Policy Paper will also ensure that new infrastructure is constructed to a consistent and high standard and that infrastructure expansion is strategic and is aligned with growth.

The Policy Paper is written to convey the purpose and intent of each policy but are not overly prescriptive to how the policies are to be implemented. The policies have been presented in this way to provide flexibility on their interpretation and application and to ensure the policies can continue to be effective into the future. As new technological innovations emerge, regulatory changes occur, or as servicing priorities shift, implementation of policies must change to remain relevant.

The policy structure employed in the Policy Paper will allow staff to respond to industry and environmental changes whilst continuing to adhere to the policy statement principles.

The policies have been divided into four categories: General, Water, Wastewater and Stormwater. All the policies are presented as a series of summary tables in Appendix "A" attached to Report PW20048; policies that are new in 2020 are identified in bold text within the summary tables.

General:

- Planning and Servicing Policies
- New Development
- Servicing Strategy - Municipal Servicing
- Monitoring
- Environmental Protection
- System Reliability and Security
- Climate Change

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**SUBJECT: City of Hamilton Water, Wastewater and Stormwater Master Plans
Policy Paper (PW20048) (City Wide) - Page 6 of 7**

- Planning Horizon
- Existing Infrastructure
- Reserve Capacity
- Standards and By-Laws
- Efficiencies and Optimization
- Communication
- Level of Service
- Program Costing
- Strategic Plan
- Operations
- Coordination
- Services and Facility Location

Water:

- Raw Water Sources
- Water Supply and Distribution Systems - Water Quality
- Drinking Water Quality Management System
- Distribution Requirements
- Water Supply and Distribution Systems - System Reliability and Security
- Water Conservation, Efficiency and Consumption Trend
- Health and Safety
- Water Demand Projections
- Water Storage
- Operational Flexibility and Energy Management
- Emergency Conditions

Wastewater:

- New Growth Areas - Separated System
- Sewer Use Criteria
- Wastewater Collection and Pumping Systems - Reliability and Security
- Combined Sewer Overflow Hamilton Harbour Loading from Combined Sewer Overflow
- Wastewater Treatment
- Biosolids Management
- Health and Safety
- Wastewater Flow Projections
- Environmental Compliance
- Wet Weather Flow Criteria
- Wet Weather Strategies
- Capacity Allocation

Stormwater:

- Quantity Control
- Quantity and Erosion Control
- Conveyance System
- Climate Change
- Analytical Methods
- Drainage Connections
- Stormwater Management Controls Systems Design

ALTERNATIVES FOR CONSIDERATION

Alternative 1 - Do Not Approve the City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Paper.

**SUBJECT: City of Hamilton Water, Wastewater and Stormwater Master Plans
Policy Paper (PW20048) (City Wide) - Page 7 of 7**

This alternative provides no direction or framework for the development of future servicing related to growth and redevelopment (i.e. infill and intensification), which is the overall focus of the integrated Master Plans. Therefore, it maintains the status quo and could result in the following:

- More time required to develop servicing options without a guiding framework.
- Proposed servicing alternatives not being developed in accordance with current guidelines and regulations.
- Being unable to obtain regulatory review agency approvals in a timely manner.
- Prevents the City from implementing infrastructure enhancements or additions that align with current City initiatives such as climate change adaptation.

This alternative is not recommended.

Alternative 2 - Approve portions of the City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Paper.

This alternative allows for certain portions of the City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables to be adopted now while others will be removed from the policy or reviewed and revised as required before being incorporated. As the bases of the policies are derived from regulations, legislation, or best practices, there are synergies between various policy statements that would make it challenging to segregate specific policies. This option may be undertaken; however, it must be noted that pursuing this option will add additional staff effort, additional costs to the Master Planning process, and delays in implementing GRIDS 2.

This alternative is not recommended.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20048 - City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables

NOTE: BOLD text represents the new and updated policies.

GENERAL				
Policy No.	NEW Policy No.	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
G.01	G.01	Planning and Servicing Policies	<i>"The City of Hamilton shall harmonize planning and servicing policies and processes within the City of Hamilton Planning and Public Works Departments"</i>	<ul style="list-style-type: none"> - The City will comply with the development and servicing requirements of the Greenbelt Protection Act and the Places to Grow Act. - Planning decisions should be made with recognition of the infrastructure requirements.
G.02	G.02	Planning and Servicing Policies	<i>"The City of Hamilton shall harmonize planning and servicing policies and strategies with provincial and regional policies and strategies"</i>	<ul style="list-style-type: none"> - The City should evaluate servicing strategies and requirements of neighbouring municipalities to determine potential impact to the City's servicing strategies - Where applicable, the City should consider harmonizing servicing strategies - Water and wastewater servicing strategies and needs in neighbouring municipalities could impact timing of the City's implementation program
G.03	G.03	New Development	<i>"The City of Hamilton shall not permit partial servicing for new development"</i>	<ul style="list-style-type: none"> - Consider guidelines established by the Ministry of Environment, Climate and Parks (MECP) and Ministry of Municipal Affairs and Housing (MMAH) as well as the Provincial Policy Statement - Municipal water and wastewater services best support sustainability and management of land uses
G.04	G.04	Servicing Strategy - Municipal Servicing	<i>"Provision of municipal water and wastewater servicing shall be considered a priority for growth areas within the City of Hamilton"</i>	<ul style="list-style-type: none"> - Consider economic and technical servicing viability of supporting growth with local rural supply or with extension of lake-based supply. - Phasing of the extension of municipal services shall be evaluated in conjunction with phasing of growth as identified in the Official Plan - Provide servicing to support urban intensification. - Avoid potential issues related to breakdown of private systems. - Servicing with new well-based supply will require evaluation of hydrogeological conditions to ensure long term viability of source.
G.05	G.05	Planning Horizon	<i>"The City of Hamilton shall ensure that the design of water and wastewater infrastructure recognizes the potential for growth beyond the time horizon of the Official Plan"</i>	<ul style="list-style-type: none"> - Recognize that the service life of infrastructure may be 30 years or more. - Consider, where appropriate, potential for growth beyond the time horizon of the Official Plan for the planning and sizing of infrastructure - Evaluate the value of oversizing versus future twinning of services. Consider: <ul style="list-style-type: none"> - Potential ultimate site requirements - Potential for phasing implementation and construction - Potential need for infrastructure oversizing - Overall project life cycle cost
G.06	G.06	Existing Infrastructure	<i>"The City of Hamilton shall maximize the use of existing capacity, prior to the upgrading or expansion of infrastructure"</i>	<ul style="list-style-type: none"> - Planning and design of servicing strategies should utilize capacity of existing infrastructure where available.
G.07	G.07	Reserve Capacity	<i>"The City of Hamilton shall maintain sufficient reserve capacity in its water and wastewater infrastructure and facilities to provide operational flexibility and meet potential changes in servicing conditions"</i>	<ul style="list-style-type: none"> - Recognize the time frame required to implement expansion of the infrastructure and facilities and initiate planning, the EA process, design and construction for expansion with consideration of the in-service date. - Consider timing expansions to withstand impacts from: <ul style="list-style-type: none"> - Extreme conditions (such as power failures); - Equipment shutdowns (planned or unplanned); - Fluctuation in growth rates; - Fluctuating demand criteria; and, - Decreasing system and equipment performance - Day to day operation and maintenance of infrastructure and facilities requires flexibility for operating conditions, fluctuating flows, equipment shutdowns, maintenance, emergency operations and other unforeseen conditions - Inability to maintain adequate operating capacity may trigger future expansions or upgrades of the infrastructure - Additional capacity for infrastructure and facilities will consider full rated capacity and appropriate reserve capacity defined through design criteria
G.08	G.08	Standards and By-Laws	<i>"The City of Hamilton shall adopt city-wide development standards, design standards, and by-laws"</i>	<ul style="list-style-type: none"> - Ensure consistency with Best Practices. - Ensure consistency of processes and equipment within facilities. - Incorporate feedback from Operations and Maintenance.
G.09	G.09	Efficiency and Optimization	<i>"The City of Hamilton shall implement best practices and standards to ensure system efficiency and optimization through infrastructure planning, design, operation, and maintenance"</i>	<ul style="list-style-type: none"> - All aspects of planning, design, operation and maintenance should consider efficiency and optimization. - Where applicable, implementation of energy-efficient components and/or practices and their impact on the full life-cycle costing should be evaluated. - Maintenance management systems should be developed to ensure that equipment is properly maintained and operating efficiently. - Facilities will be planned and designed with consideration to minimize overall lifecycle costs, including capital and operating/maintenance costs - Attention to energy use will provide significant opportunity to optimize lifecycle costs - Alternative infrastructure strategies should be considered to minimize energy (ie: water storage vs pumping)
G.10	G.10	Communication	<i>"The City of Hamilton shall ensure open communications between the public, review agencies, and City Departments."</i>	<ul style="list-style-type: none"> - Master Plan will follow open communication process; points of contact will include, but not limited to: <ul style="list-style-type: none"> - Points of public contact; - Points of contact with regulatory agencies; or - Points of contact with internal staff and other departments. - Communication aligns with existing policies such as the Hamilton Public Engagement Charter - https://www.hamilton.ca/city-initiatives/priority-projects/hamilton-public-engagement
G.11	G.11	Services and Facility Location	<i>"The City of Hamilton shall endeavour to locate all of its services and facilities on public property or on municipally-owned easements"</i>	<ul style="list-style-type: none"> - The City should ensure that any new and existing infrastructure be located within road right-of-ways, or on City-owned property (including designated lots and easements). - Adequate property size should be maintained to facilitate all day-to-day activities and emergency response. - Where feasible, property is to be sized to allow for future expansion and/or end-of-life replacement while maintaining customer service with original asset.
G.12	G.12	Monitoring	<i>"The City of Hamilton shall continue to monitor water and wastewater system conditions and water production/wastewater collection flow information"</i>	<ul style="list-style-type: none"> - Monitor water production, water consumption, pumping station and reservoir data, billing records and data for residential and non-residential land uses. - Monitor wastewater flows to the plant, pumping station data, infiltration, and data for residential and non-residential land uses. - Use the data to gauge changes in trends in water use that might impact capital programs or billings. - Use the data to complete ongoing updates and calibration to hydraulic modelling tools

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables

GENERAL				
Policy No.	NEW Policy No.	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
NEW	G.13	Environmental Protection	<i>"The City of Hamilton shall consider, protect and endeavour to minimize impact to the natural, built and cultural environment and heritage of the community"</i>	<ul style="list-style-type: none"> - Servicing studies shall consider the City's Official Plan's Environmental and Heritage Policies - Services will be planned through the appropriate Environmental Assessment process to ensure full regard for the natural and cultural heritage
NEW	G.14	System Reliability and Security	<i>"City of Hamilton shall endeavor to provide operational flexibility, reliability, redundancy and security in its water and wastewater systems, prioritizing high risk and critical areas."</i>	<ul style="list-style-type: none"> - Recognize that all systems are susceptible to some level of failure or breakdown, or need to be taken out of service for regular maintenance. It is reasonable to provide a level of reliability to ensure an acceptable level of service is maintained - System reliability will be further defined through design criteria
NEW	G.15	Climate Change	<i>"The City of Hamilton shall consider the potential impact of climate change and ensure that it helps guide the planning and sizing of infrastructure, in line with the City's Climate Change Task Force Report."</i>	<ul style="list-style-type: none"> - Water and wastewater infrastructure and facilities will be designed with consideration to the potential impacts of climate change - The City's Drinking Water Quality Management Standard (DWQMS) must consider climate change during the review and risk assessment of infrastructure; - The Ministry of the Environment, Conservation and Parks' "Climate Ready: Adaptation Strategy and Action Plan" will provide direction to the City's climate change initiatives - Hamilton Water recognizes that Council has declared a Climate Emergency, and will consider/acknowledge this in Master Planning process and strategies - Collaboration with the City's Climate Change Task Force will be undertaken
NEW	G.16	Level of Service	<i>"The City of Hamilton shall outline the Level of Service Objectives through the Master Plan and endeavor to meet or exceed the minimum requirements as outlined in the objectives."</i>	<ul style="list-style-type: none"> - The City will review and evaluate strategies developed through the Master Plan based on their ability to meet requirements outlined in the Level of Service Objectives
NEW	G.17	Program Costing	<i>"The City of Hamilton shall utilize a transparent, traceable and consistent costing methodology to establish Master Plan level capital project costs"</i>	<ul style="list-style-type: none"> - Methodology for cost estimates will be documented as part of the Master Plan, which will be a process that can be used for subsequent analyses - City will periodically review the costing methodology and unit costs to ensure cost estimates are appropriate and as accurate as possible - City will consider life cycle cost analysis in Master Plan decision making process
NEW	G.18	Strategic Plan	<i>"The City of Hamilton will recommend Water and Wastewater Servicing Strategies that align with the City's 2016-2025 Strategic Plan"</i>	<ul style="list-style-type: none"> - Provide high quality, cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner
NEW	G.19	Operations	<i>"The City of Hamilton will consider City operating procedures when recommending Master Plan servicing strategies, location and sizing of infrastructure"</i>	<ul style="list-style-type: none"> - Servicing strategies will take into consideration operating protocols in place to reduce operating costs, maintain water quality and service pressure standards. Maintain adequate fire storage columns and maintain system redundancy necessary to facilitate maintenance or emergency operations. - System designs shall consider diurnal and seasonal fluctuations in demand to function efficiently within the the full range of low to high demand
NEW	G.20	Coordination	<i>"The City of Hamilton shall maintain current and update as needed the Water, Wastewater and Storm Water Master Plan to align with and inform the Development Charges Background Study updates"</i>	<ul style="list-style-type: none"> - Endeavour to complete timely updates - Ensure coordination with the Finance Department schedule for updates - Maintain tracking of implementation of DC projects to facilitate DC updates - Ensure DC funds are utilized through the State of Good Repair Program (CPMS)

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables

WATER				
Policy No.	NEW Policy No.	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
W.01	W.01	Raw Water Sources	"The City of Hamilton shall endeavour to protect its raw water sources"	<ul style="list-style-type: none"> - Applies to both lake-based and groundwater-based supplies. - Discharge a high quality effluent from Hamilton's wastewater treatment plants and comply with Hamilton Harbour RAP, Niagara River RAP, Welland River Watershed Strategy and F-5-5 targets, and/or new regulations as applicable. - Interact with the stormwater and water resources policies. - Monitor water quality of the lake and if necessary, evaluate and optimize the water treatment plant intake location. - Continue participation in the International Joint Commission on the Great Lakes and address water quality issues for Lake Ontario. - Continue coordination with the Halton-Hamilton Source Protection Region's (SPR) Source Protection Plan as mandated by the Clean Water Act
W.02	W.02	Water Supply and Distribution System - Water Quality	"The City of Hamilton shall meet or exceed legislated water quality criteria throughout the distribution system"	<ul style="list-style-type: none"> - Water quality should meet or exceed all legislated criteria - Water quality objectives should meet or exceed historical performance. - Maximize the potential capacity and performance of the facilities and equipment to achieve the best water quality on an on-going basis. - Review the economics, reliability and water quality impacts of implementing new technology. - Implement best practices to ensure sustainability of Operations and Maintenance, Maintenance Management, Systems, Training, Manuals, other monitoring/trending data is maintained - Objectives can be achieved through implementing best practices including the following: <ul style="list-style-type: none"> - Looping of watermains; - Regular and unidirectional flushing of the watermains; - Re-chlorination where necessary to maintain residual criteria; - Optimizing operational practices for storage facilities and booster pumping stations; - Examine use of back flow preventers (industrial vs other areas); - Replacement of cast iron watermains; and, - Monitoring of facilities for malfunction and for intrusion.
	W.03	Drinking Water Quality Management System	"The City of Hamilton owns, maintains and operates various drinking water systems and is committed to: Safe, high quality, consistent supply of drinking water; Always improving the Drinking Water Quality Management System; Following and complying with applicable legislation; Effective and open communication with the community concerning matters of drinking water quality"	<ul style="list-style-type: none"> - Objectives can be achieved through implementing best practices including the following: <ul style="list-style-type: none"> - Looping of watermains - Regular and unidirectional flushing of the watermains - Re-chlorination where necessary to maintain residual criteria; - Optimizing operational practices for storage facilities and booster pumping stations; - Examine use of back flow preventers (industrial vs other areas); - Replacement of cast iron watermains; and - Monitoring of facilities for malfunction and for intrusion.
W.03	W.04	Distribution Requirements	"The City of Hamilton shall provide potable water at adequate pressure and flow to its customers"	<ul style="list-style-type: none"> - Provide pressures and flows which meet current design criteria and standards. - MECP Guidelines identify a typical recommended operating range of 275-700 kPa (40-100 psi). - Evaluate impacts of tightening operating pressure range. - Where possible design systems with the lowest reliable pressure to minimize Non-revenue Water Loss
W.04	W.05	Water Supply and Distribution System - Reliability and Security	"The City of Hamilton shall plan, design, construct, operate and maintain the water system to balance level of service and security of supply to the customers"	<ul style="list-style-type: none"> - The City shall continue to implement standards, criteria, and standard operating procedures for the water system - Objectives can be achieved through implementing best practices including the following: <ul style="list-style-type: none"> - Multiple supply points to service areas and pressure districts; - Twinning major feeder mains; - Looping of watermains; - Providing stand-by power; - Providing sufficient valves to ensure that critical watermains can be isolated for maintenance or repair; - Regular maintenance; - Repair and replacement programs; and, - Staff training. - Provide redundant network design and assets that allow prolonged outage for maintenance and rehabilitation of critical assets
W.06	W.06	Fire Flow	"The City of Hamilton will establish acceptable trunk infrastructure levels of service for fire flow and storage through consideration of land use and the Ministry of Environment, Conservation and Parks Design Guidelines"	<ul style="list-style-type: none"> - Provide pressures and flows which meet current design criteria and standards. - Consider establishing separate minimum criteria and standards for both urban and rural servicing - Dialogue with fire department, industry leaders and insurance industry.
W.08	W.07	Emergency Conditions	"The City of Hamilton shall have an adequate combination of reservoir capacity, pumping capacity, and stand-by power to meet the desired level of service under emergency conditions"	<ul style="list-style-type: none"> - Determine the level of service to be provided under emergency conditions including the following criteria: <ul style="list-style-type: none"> - Water demand conditions to be met (i.e. average day vs. max day); - Acceptable pressures and flows; and - Duration to be met. - Adjust operating procedures that recognize seasonal variations in demands that ensure readiness for emergency (e.g. extend reservoir filling beyond off-peak hydro periods as needed to ensure adequate volume in the summer)

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables

WATER				
Policy No.	NEW Policy No.	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
W.09	W.08	Water Conservation, Efficiency and Consumption Trends	<i>"The City of Hamilton shall encourage and promote water conservation with an awareness of the impacts of efficiency and conservation on the water network"</i>	<p>Continue to assess water demand conditions and determine reasonableness of trends (potential lower water use and consumption)</p> <p>Utilize water efficiency studies where available</p> <p>Apply where appropriate demand trends (efficiency) into future design criteria and growth forecasts</p> <p>Consider the potential impact to design criteria, demand projections, servicing strategies and scheduling of future infrastructure</p> <p>Objectives can be achieved through implementing best practices including but not limited the following:</p> <ul style="list-style-type: none"> Restricted lawn watering by-law; Public education; Plumbing code requirements for new construction including low-flow aerators, shower heads and toilets; Use of rain barrels; Encouraging low-maintenance landscaping and native species; and, Implementing an increasing blockwater rate structure.
NEW	W.09	Health & Safety	<i>"The City of Hamilton will promote health, productivity and safety of the community through design, construction and maintenance of the City's potable water infrastructure"</i>	<ul style="list-style-type: none"> - The City will prepare a comprehensive strategy to manage existing and future water servicing needs - Ensure that planning and implementation of the potable water systems are consistent with legislative policies and guidelines - Municipal servicing will be implemented under typical standards (MECP Guidelines, City's criteria and standards)
NEW	W.10	Water Demand Projections	<i>"The City of Hamilton shall utilize a water demand projection methodology that uses City design criteria and recognizes recent water supply data and current consumption trends"</i>	<p>Forward-looking water demand projections in the Master Plan must reasonably estimate future water needs to ensure appropriate recommendations for infrastructure capacity and timing</p> <p>The City will utilize a methodology which accounts for recent historical water demands and usage to estimate a starting point from which to project growth demand</p> <p>The City will utilize current water design criteria for new growth demand</p> <p>All infrastructure to be designed in accordance with the City's Design Standards and Guidelines</p> <p>Where a conflict between projected in-service date for upgrades or new assets derived from A) PPS/GRIDS2 rate of development, versus B) actual rate of development, Hamilton Water will adjust in-service date (delay/accelerate) timing considering actual rate of development. A Capacity Accounting database will inform decisions on in-service timing</p>
NEW	W.11	Water Storage	<i>"The City of Hamilton shall adopt the MECP Guidelines as the minimum acceptable level/volume of water storage"</i>	<ul style="list-style-type: none"> - Provide adequate level/volume of storage which meets current design criteria and standards - Consider level of storage required under floating versus pumped conditions to meet equalization, fire and emergency storage as well as to meet operational flexibility requirements - Consider establishing separate minimum criteria and standards for both urban and rural servicing - Consider division of storage reservoirs into smaller cells to create operational flexibility satisfying water quality issues and LOS requirements at the same time
NEW	W.12	Operational Flexibility and Energy Management	<i>"City of Hamilton shall consider levels of storage beyond MECP Guidelines where appropriate in order to provide operational flexibility, energy management and system security"</i>	<ul style="list-style-type: none"> - Consideration should be given to optimizing lifecycle costs for the water system as storage can minimize pumping energy costs - Water storage can provide opportunities for optimization of pumping strategies - Water storage can provide additional level of service and security under emergency conditions, particularly for any areas across the Region with limited redundancy - The City's operating strategies will consider the City's Corporate Energy Policy and will ensure that there is no conflict between energy savings, service delivery (water quality), and minimum operational storage requirement - Consider division of storage reservoirs into smaller cells to create operational flexibility satisfying water quality issues and LOS requirements at the same time

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Tables

WASTEWATER				
Policy No.	NEW Policy No.	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
WW.01	WW.01	New Growth Areas - Separated System	"Provision of separate sanitary and storm sewer systems shall be considered a priority for all new growth areas"	Infilling within existing combined sewer service areas could proceed without having to provide separated sewers. Significant redevelopment may provide opportunities for sewer separation Separate sanitary and storm sewer to be provided within greenfield growth areas
WW.02	WW.02	Sewer Use Criteria	"City of Hamilton shall maintain a sewer use program that sets the appropriate limits and procedures to control discharge and maintains a suitable effluent and biosolids quality"	The City should adopt a monitoring program to detect sources of high strength or hazardous wastes. Where applicable, the City should stipulate pre-treatment to acceptable standards for discharge into municipal sewers based on the bylaw. Review and maintain a sewer use by-law, which is supported by Council The City shall consider over-strength discharge and surcharge permits to manage plant capacities
WW.03	WW.03	Wastewater Collection and Pumping Systems - Reliability and Security	"The City of Hamilton shall provide adequate reliability and security in wastewater pumping and collection systems"	Forcemain twinning should be examined to provide adequate velocities during different phases of development and also to provide security in operation The City should have adequate security in the pumping systems and will consider installation standby power. Adequate retention capacity should be provided in the sewer system. City shall endeavour to provide sewer capacity to agreed level of service as outlined in design criteria
WW.04	WW.04	Combined Sewer Overflow	"The City of Hamilton shall endeavour to meet or exceed the MECP Procedure F-5- 5 and HH- RAP for CSO control"	Best practices and criteria were developed through Wet Weather Control Policy Workshops and strategies will be further developed/refined through recommendations of the future Pollution Prevention Control Plan (PPCP) and future Flooding and Drainage Master Servicing Study (FDMSS)
WW.05	WW.05	Hamilton Harbour Loading	"The City of Hamilton shall meet the Hamilton Harbour Remedial Action Plan (RAP) initial loading objectives and work towards the refinement and achievement of the final stage loading objectives"	Best practices and criteria were developed through Wet Weather Control Policy Workshops and strategies will be further developed/refined through recommendations of the future Pollution Prevention Control Plan (PPCP) and future Flooding and Drainage Master Servicing Study (FDMSS)
WW.06	WW.06	Wastewater Treatment	"The City of Hamilton shall meet or exceed the requirements of the ECA and the appropriate legislated treatment criteria"	- The City should evaluate how the Hamilton Harbour Remedial Action Plan loading objectives impact the rated capacity of the plant and ascertain the need for technology upgrades
WW.08	WW.07	Biosolids Management	"The City of Hamilton shall ensure that there is a Biosolids Management Strategy that addresses the needs of all residents within the City boundary"	- The City should ensure that there is sufficient biosolids management capacity to address the lake-based system needs, as well as the private system needs for all residents within the development boundary - The City is currently in a long term contract for biosolids management and will ensure that it remains in compliance with the contract
NEW	WW.08	Health & Safety	"City of Hamilton will promote health, productivity and safety of the community through design, construction and maintenance of the City's wastewater infrastructure"	- The City will prepare, maintain and update comprehensive strategies to manage existing and future wastewater servicing needs - Ensure that planning and implementation of the wastewater systems are consistent with legislative policies and guidelines - Municipal servicing will be implemented under typical standards (MECP Guidelines, City's criteria and standards)
NEW	WW.09	Wastewater Flow Projections	"City of Hamilton shall utilize a wastewater flow projection methodology that uses City design criteria and recognizes recent wastewater flow and treatment data and current consumption trends"	- Forward-looking wastewater flow projections in the Master Plan must appropriately identify future wastewater needs to ensure the best estimate for infrastructure capacity and timing - The City will utilize a methodology which accounts for recent historical water demands and usage to estimate a starting point from which to project growth demand - The City will utilize current wastewater design criteria for projecting new growth flow - All infrastructure to be designed in accordance with the City's Design Standards and Guidelines
NEW	WW.10	Environmental Compliance	"City of Hamilton shall meet as a minimum the requirements of the Environmental Compliance Approvals set out by governing bodies and the appropriate legislated treatment and collection criteria."	- Wastewater quality (air and effluent) will meet as a minimum all legislated criteria. - Manage wet weather conditions (inflow / infiltration) through asset management programs to minimize extraneous flows and maximize efficient use of available wastewater infrastructure - Implement industry best practices to ensure effluent quality is maintained - Review the economics, reliability and effluent quality impacts of implementing new technology
NEW	WW.11	Wet Weather Flow Criteria	"City of Hamilton shall utilize current wet weather flow criteria to determine peak wet weather flows and size wastewater infrastructure"	- Existing systems across the City have a range of existing performance and levels of service under wet weather flow conditions. Notwithstanding existing conditions, City of Hamilton shall consider planning for new growth consistently across all systems - The desired level of service under wet weather conditions will be established through the Master Plan design criteria in conjunction with other related studies - Consideration to environmental, social and financial factors as well as the feasibility for implementation should be given when determining the wet weather criteria
NEW	WW.12	Wet Weather Strategies	"City of Hamilton shall review a combination of servicing strategies including infrastructure and non-infrastructure (e.g. VI reduction) solutions to meet wet weather level of service and provide sufficient wastewater capacity."	- The City's Master Plan will develop and evaluate a comprehensive list of alternatives against multiple-bottom-line criteria including lifecycle costs - The most cost-effective and beneficial strategy may include not providing additional infrastructure but creating additional capacity through flow reduction methods such as inflow/infiltration control
NEW	WW.13	Capacity Allocation	"City of Hamilton shall review opportunities to allocate capacity gained through implementation of wet weather strategies and system optimization for growth and non-growth benefit"	- Provision of additional capacity within the wastewater system will need to consider the desired benefit - Additional capacity may be required to meet regulatory requirements or to improve level of service in the system

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Table

STORMWATER				
Policy Ref. No.	Policy Document Reference	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
SW.01	SDP (3.1)	Quantity Control	Level of quantity control (flood and erosion control) for subject lands is governed by Watershed/Subwatershed Study or Master Drainage Plan, where they exist.	<ul style="list-style-type: none"> - Review available studies to confirm whether one is applicable to subject lands - Include Stormwater Master Plan criteria (watershed-based) - Where no such study is available, consult with City staff - City to provide a clear and organized list or inventory of applicable higher-level studies and their applicability to specific areas to provide clear guidance to practitioners
SW.02	CDG (G.5.3.1)	Quantity and Erosion Control	Runoff peak flows under post-development conditions are to be controlled to estimated pre-development levels or less (for the 2 through 100 year return periods at a minimum), unless the proponent can demonstrate through appropriate modelling and analysis that uncontrolled flows will not cause detrimental impacts on downstream properties. City may require peak flow control for the Regional Storm (Hurricane Hazel) in certain cases with higher downstream risks.	<ul style="list-style-type: none"> - Applies for the 2 through 100 year return periods - Default approach to quantity control in the absence of higher level studies - Should also consider erosion control requirements - Typically based on an event based analysis approach - Practitioner to assess changes in flows under existing and proposed conditions for the Regional Storm (Hurricane Hazel) and confirm significance of changes - Reference is made to TRCA Study (2016) on Approaches to Regional Flow Controls
SW.03	CDG (G.5.3.2)	Quantity and Erosion Control	Where no subwatershed plan exists, provide adequate erosion protection in accordance with Provincial Guidelines, unless it can be demonstrated through appropriate modelling and/or analysis that stream stability will not be adversely affected by the proposed development	<ul style="list-style-type: none"> - Undertake assessment of the downstream watercourse receiver to assess erosion susceptibility and critical flow values (event based or continuous simulation based) - In the absence of higher level guidance, provide extended detention of the 25 mm storm event as per the Ministry of the Environment's Stormwater planning and Design Manual (2003) - Ensure 25 mm storm event is retained for 24-48 hours, potentially 12 hours in constrained conditions to minimize downstream impacts - City and Conservation Authority to provide a clear scope of work to undertake an erosion assessment of the downstream watercourse receiver, or available information on previously completed assessments
SW.04	CDG (F.1.1)	Quantity and Erosion Control	Where the outlet is a combined sewer, the Consulting Engineer shall contact City Staff during the preliminary Engineering stage to determine specific constraints, if any, that may limit discharge. The City of Hamilton's typical requirements for combined sewer areas is control of the 100-year post development peak flow to the 2-year pre-development peak flow, or the capacity of the receiving sewer, whichever is less.	<ul style="list-style-type: none"> - Contact City staff to confirm constraints on discharge - Include an assessment of capacity of downstream receiver
SW.05	CDG (G.2.1.1)	Conveyance System	In the absence of senior study guidance, storm sewers shall be designed to a minimum one in five year uncharged standard (85% of pipe capacity), with a minimum pipe diameter of 300 mm. A more stringent design standard may be required at the discretion of the City of Hamilton in areas where a higher design standard has previously been applied, or areas with constrained major system (overland flow) capacity.	<ul style="list-style-type: none"> - Use City specified current IDF and approved methodologies to determine flow - Use storm sewer design sheet and/or hydraulic modelling to confirm pipe capacity

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Table

STORMWATER				
Policy Ref. No.	Policy Document Reference	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
SW.06	CDG (G2.1.1)	Conveyance System	Hydraulic analysis of the proposed and existing storm sewer system shall provide hydraulic grade lines based on the actual and proposed inlet capacity and/or one in 5 year standard and one in 100 year standard.	<ul style="list-style-type: none"> - HGL analysis would be expected to require hydraulic modelling, generally dual drainage modelling - May require consideration of inlet control devices, consult City staff - Inlet capacity analysis shall consider dynamic inlet capacity associated with different type of inlets and locations - Mandatory for any areas with directly connected foundation drains
SW.07	SDP (3.1.3)	Conveyance System	Basement floor elevations shall be constructed above the maximum 100-year hydraulic grade line, with a minimum freeboard of 0.30 m.	<ul style="list-style-type: none"> - HGL analysis would be expected to require hydraulic modelling, generally dual drainage modelling - May require consideration of inlet control devices, consult City staff - In the case of an already surcharged storm sewer, no increase in surcharge should result - Inlet capacity analysis shall consider dynamic inlet capacity associated with different type of inlets and locations - Mandatory for any areas with directly connected foundation drains
SW.08	CDG (G2.1.1)	Conveyance System	100 year HGL in the storm sewer system is to remain below the surface to ensure that there is no interference with the overland system	<ul style="list-style-type: none"> - HGL analysis would be expected to require hydraulic modelling, generally dual drainage modelling - May require consideration of inlet control devices consult City staff - In the case of a constrained system (shallow sewer), need to ensure the protection of private property and public safety - Inlet capacity analysis shall consider dynamic inlet capacity associated with different type of inlets and locations - Mandatory for any areas with directly connected foundation drains
SW.09	SDP (3.1.3)	Conveyance System	The City of Hamilton supports the policies of the local Conservation Authorities which generally require that no new building be subject to flood damages from the Regulatory Flood (greater of the Regional Storm or 100 year flood).	<ul style="list-style-type: none"> - Consult with appropriate Conservation Authority for most current floodplain mapping and guidance - 2-Dimensional hydraulic modelling may be appropriate in some cases, contact City staff
SW.10	SDP (3.1.3) and CDG (G.2.3..1)	Conveyance System	The roadway network in subdivisions, along with primary designated swales must be able to convey the 100 year flood without flooding private property , and without exceeding flooding depths above the roadway crown (0 mm for arterial and emergency routes, 150 mm for all other road classifications)	<ul style="list-style-type: none"> - Likely requires an HGL analysis with hydraulic modelling, specifically dual drainage modelling - More simplified analytical approaches may be possible however need to sufficiently consider inlet capacity as outlined in previous policies on HGL analyses - City may, in its sole discretion, require consideration of debris blockage of inlets in critical locations, including sag points - City may require 2-Dimensional hydraulic modelling in flat or poorly defined areas

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Table

STORMWATER				
Policy Ref. No.	Policy Document Reference	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
SW.11	NA	Climate Change	The City of Hamilton has recently adopted a Climate Change Task Force Report, which includes measures such as advocating to the Ministry of the Environment, Conservation and Parks for updated standards/guidance and pending Low Impact Development Guidelines. Direction is still pending on any potential modifications to the overall design of SWM features to reflect the expected impacts of Climate Change. In the absence of any formal direction or study, consult with City staff to determine the preferred approach to address the influence on stormwater system planning and associated resiliency requirements.	<ul style="list-style-type: none"> - Direction to be provided from future City Study - Interim direction also to be considered, including "stress test" approach/sensitivity analysis, or formal adjustments to approved IDF curves (direct inclusion in design) - Direction required on tools to be used or adjustment to be made - Periodic review of IDF curves in the interim (review in 2015 determined no update required) - Consideration of Regional IDF updates (multiple gauge sources) - City to advocate to Ministry of the Environment, Conservation and Parks for updated standards/guidance - Consideration of pending Low Impact Development Guidelines
SW.12	CDG (G.5.1.1)	Analytical Methods	The City of Hamilton will have to approve the selected temporal distribution (i.e. design storm) used by proponents for stormwater management analysis and design, based on a sensitivity analysis. For the design of any stormwater storage (quantity control) features, the design shall be based on a design storm with a duration of 24 hours, unless a shorter-duration storm event is shown to be the critical event with respect to required storage volume.	<ul style="list-style-type: none"> - Assess the various design storm distributions (AES, SCS, Chicago) for various durations (6, 12, 24 hour) to determine which yields the highest peak flow - Different storms may govern for pre-development and post-development conditions, should consider which yields the greatest SWM requirements
SW.13	CDG (G.2.1.5)	Drainage Connections	All roof leaders shall be discharged to surface, unless there is insufficient available space to infiltrate safely at source, using Low Impact Development (LID) design features if feasible. If connection to storm sewer is the only feasible alternative, LID design features (such as a "clean water collector" or exfiltration pipe systems) must be incorporated to reduce impacts where feasible, and storm sewer designs must include the impacts of direct flow contribution from roof leaders, including for more formative storm events.	<ul style="list-style-type: none"> - Intended to promote at source infiltration and reduced surface runoff - For Low Impact Development (LID) measures, roof water typically considered "clean" and preferred for infiltration (rear-yard soakaways) - Need to consider maintenance requirements and locations for soakaways (as per Table G.1 - "Discouraged in residential land use due to maintenance and impacts on use of rear yards") - Where roof leader connection is more logical, encourage sub-surface LID BMPs (clean water collector or exfiltration pipes), or where not feasible, over-sized storm sewers for sufficient conveyance - Reference to pending Low Impact Development Guidelines
SW.14	CDG (G.2.2)	Drainage Connections	Lowest building opening elevation (i.e. basement window sill) shall always be above the maximum ponding level above the rear yard catchbasin at which point there would be safe overland relief. Where it is demonstrated that it is not feasible to limit ponding to 0.33 m it shall be demonstrated that full capture of runoff from the 100-year event or a safe overland flow route can be achieved. These requirements shall be confirmed through a hydraulic gradeline (HGL) analysis.	<ul style="list-style-type: none"> - Need to ensure a fulsome HGL analysis of storm sewer system and surface grading/storage to assess potential implications - RYCBs should ideally be above roadway CBs; impacts to flooding to be considered as part of a fulsome HGL analysis

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Table

STORMWATER				
Policy Ref. No.	Policy Document Reference	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
SW.15	CDG (G.2.5.3)	SWM Controls Systems Design	Oil/grit separators are most appropriate for commercial/industrial land use and shall not be used as a stand-alone SWMP, but rather as part of a "treatment train" approach to achieve the required quality treatment. The "treatment train" approach (incorporation of two or more quality control measures in series) shall be required for all stormwater quality control measures, not only oil/grit separators.	<ul style="list-style-type: none"> - Ensure at least one other SWM quality control measure is implemented to ensure that treatment quality rate is achieved - Reference to pending Low Impact Development Guidelines
SW.16	CDG (G.2.5.3)	SWM Controls Systems Design	The City of Hamilton is prepared to accept the Canadian Environmental Testing Verification (CA-ETV) Program, that stand-alone oil-grit separator devices can achieve a TSS removal efficiency of between 50 and 60% based on the application of the CA-ETV particle size distribution (PSD). The City will credit the verified TSS removal rate determined from the CA-ETV program, to a maximum of 60% TSS removal. Only OGS units certified through the CA-ETV program are acceptable to the City.	<ul style="list-style-type: none"> - Reference is made to the CA-ETV website (etvcanada.ca)
SW.17	CDG (G.2.5.3)	SWM Controls System Design	The City of Hamilton supports the application of Low Impact Development Best Management Practices (LID BMPs) and Green Infrastructure (GI) subject to the completion of required site analyses to ensure long-term functionality. The City of Hamilton supports the retention and infiltration of the first 5 mm of rainfall (or other target as established by an available higher level study) for Industrial/Commercial/Institutional (ICI) lands, unless it can be clearly demonstrated why this is not technically feasible. The City may support this approach for other land uses on a case by case basis.	<ul style="list-style-type: none"> - Place onus on practitioner to demonstrate why infiltration is not feasible, rather than why it is feasible - Provide quantity control credit for proposed infiltration measures (erosion control and water budget only - not flood control) - City to update Tables G.1 and G.2 in CDG to reflect proposed approach - Reference to pending Low Impact Development Design Guidelines - Requires site plan agreement and bylaw to enforce operations and maintenance requirements for privately owned SWM infrastructure
SW.18	CDG (G.2.5.3)	SWM Controls System Design	The City of Hamilton supports the application of new and innovative technologies and techniques for stormwater management, where sufficient testing and information is available to support their application. Consult with City staff to review the most current information related to currently approved technologies and techniques, and the process for approval of new technologies and techniques.	<ul style="list-style-type: none"> - City to maintain a separate list of approved technologies under different categories (source control measures, water quality control measures, etcetera) - City to generate a separate defined procedure For the review and approval of potential new technologies and approaches

City of Hamilton Water, Wastewater and Stormwater Master Plans Policy Summary Table

STORMWATER				
Policy Ref. No.	Policy Document Reference	Policy Area	Policy Statement	Best Practices, Criteria and Potential Servicing Implications
SW.19	CDG (G.2.5.3)	SWM Controls Systems Design	The City of Hamilton supports the application of sub-surface storage chambers for the provision of site-level quantity control, provided that requirements for long-term functionality operation and maintenance are addressed to the City's satisfaction.	<ul style="list-style-type: none"> - City to maintain a separate list of approved technologies under different categories (source control measures, water quality control measures, etc.) - City to generate a separate defined procedure for the review and approval of potential new technologies and approaches

- SDP** City of Hamilton Storm Drainage Policy (Philips Engineering Ltd, May 2004)
- SMP** City of Hamilton Stormwater Master Plan (Aquafor Beech Limited, May 2007)
- CGID** City of Hamilton Criteria and Guidelines for Stormwater Infrastructure Design (Philips Engineering Ltd, September 2007)
- CDG** City of Hamilton Comprehensive Development Guidelines and Financial Policies Manual (2019)

9.1

CITY OF HAMILTON

MOTION

Public Works Committee: July 8, 2020

MOVED BY COUNCILLOR T. JACKSON.....

SECONDED BY COUNCILLOR

Installation of Speed Cushions on Eleanor Avenue, Hamilton, between Dulgaren Street and Eaglewood Drive (Ward 6)

WHEREAS, residents are requesting the installation of traffic calming measures along Eleanor Avenue, via petition to address roadway safety concerns as a result of speeding and cut-through traffic;

THEREFORE, BE IT RESOLVED:

- (a) That staff be authorized and directed to install up to three speed cushions on Eleanor Avenue, Hamilton, between Dulgaren Street and Eaglewood Drive, in 2020, at a total cost not to exceed \$20,000, to be funded from the Ward 6 Capital Reinvestment Account (3301909600); and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents with such terms and conditions in a form satisfactory to the City Solicitor.

9.2

CITY OF HAMILTON

MOTION

Public Works Committee: July 8, 2020

MOVED BY COUNCILLOR E. PAULS.....

SECONDED BY COUNCILLOR

Installation of Speed Cushions on Acadia Drive, Hamilton, between Upper Sherman Avenue and Upper Wentworth Street, and between Rymal Road East and Stone Church Road East (Ward 7)

WHEREAS, residents are requesting the installation of traffic calming measures along Acadia Drive to address roadway safety concerns as a result of speeding and cut-through traffic;

THEREFORE, BE IT RESOLVED:

- (a) That staff be authorized and directed to install seven speed cushions on Acadia Drive, Hamilton, between Upper Sherman Avenue and Upper Wentworth Street, and between Rymal Road East and Stone Church Road East, in 2020, at a total cost not to exceed \$50,500, to be funded from the Ward 7 Area Rating Capital Reserve Fund (108057); and,
- (b) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents with such terms and conditions in a form satisfactory to the City Solicitor.